HSIS

HIGHWAY SAFETY INFORMATION SYSTEM

AUGUST 2024

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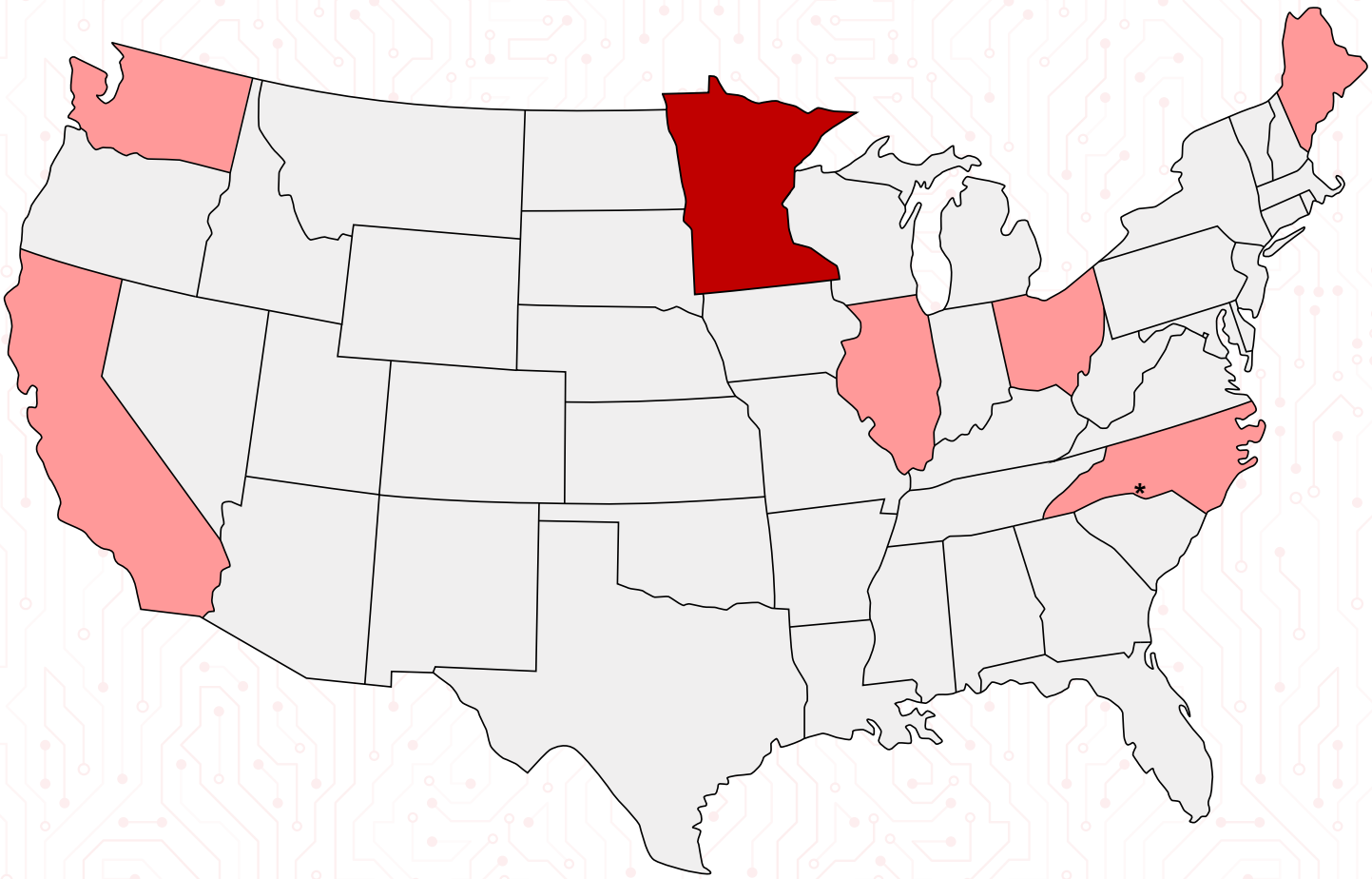
GUIDEBOOK FOR THE

Minnesota Data Files



U.S. Department of Transportation
Federal Highway Administration

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Foreword

The Highway Safety Information System (HSIS) is a roadway-based system that provides quality data on a large number of crash, roadway, and traffic variables. The system comprises data collected by States for managing the highway system and studying highway safety. HSIS is composed of seven States and one urban center: California, Illinois, Ohio, Maine, Minnesota, North Carolina, Washington, and Charlotte, NC. HSIS includes some agencies' highway intersection, interchange, lighting, and curve/grade data. Additional supplementary information includes vulnerable road user infrastructure data, such as sidewalks, greenways, and transit stops.

This guidebook is part of a series of data guidebooks for each HSIS agency that explain the variables and attributes provided by each agency. Each guidebook describes the agency's data system and presents an alphabetized listing of all available variables. All data are derived from police-reported crash records, maintained highway records, and other supplementary inventories.

These guidebooks are available to help researchers, analysts, programmers, and safety professionals use HSIS data to further transportation safety for all road users. Visit the HSIS web page (https://highways.dot.gov/research/safety/hsis) to request data and learn about other HSIS products.[1]

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The Highway Safety Information System (HSIS) is composed of seven States and one urban center. The HSIS Program provides linked crash, roadway, and traffic volume data. This guidebook supports the use of Minnesota HSIS data from 2018 and beyond. Data and documentation recorded before 2018 (1985–2017) are available on request from the virtual HSIS Laboratory.</td></tr>
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Introduction to the Minnesota HSIS Guidebook

Introduction to the Minnesota HSIS Guidebook

The Highway Safety Information System (HSIS), established in 1987, is a foundational highway research data system.[1]* The State of Minnesota has participated in the HSIS program since the beginning, providing quality data to HSIS for use by researchers through a request system. In 2021, HSIS began a modernization effort with the goal of expanding the technological and analytic capabilities of the data system. This modernization provides an increased emphasis on spatial analysis and cloud-based data management.

What Has Changed

This guidebook supports the use of Minnesota HSIS data from 2016 and beyond. Data and documentation prior to 2016 (1985–2015) are available upon request to the virtual HSIS Laboratory.[2] Before 2016, the Minnesota datasets included variables for the following files:

1. Roadway Inventory.
2. Accident Characteristics.
3. Vehicles Involved in Crashes.
4. Vehicle Occupants Involved in Crashes.
5. Intersection Inventory.

The revised Minnesota database incorporated into HSIS contains 14 different files, as shown in table 1.

*Note: Any reference to HSIS by itself refers to the software.

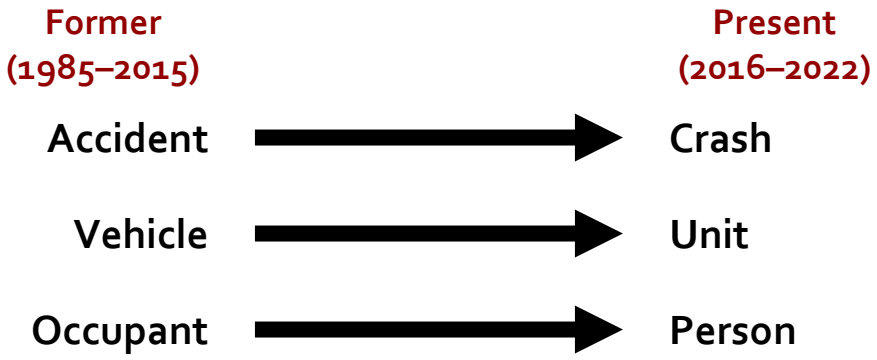
Table 1. Current Minnesota database file names.

File Name	Descriptor
Roadway	Roadway inventory (including traffic information)
Intersection	Intersection inventory
Horizontal Curve	Horizontal curve inventory
Intersection Approach	Intersection approach inventory
Traffic Signal	Traffic signal inventory
Interchange	Interchange inventory
Lighting Unit	Lighting unit inventory
Lighting System	Lighting system inventory
Roadside Barrier	Roadside barrier inventory
Roadside Barrier Terminals	Roadside barrier terminals
Sign Support	Sign support inventory
Crash	Crash characteristics
Unit	Units involved in crashes
Person	Persons involved in the crash

The appendix summarizes revisions the HSIS Laboratory made to the variables. In addition to the expanded list of files, several key differences exist between the Minnesota HSIS data prior to 2016, as described in the following subsections.

Changes in File Names

Previously, HSIS data included Accident, Vehicle, and Occupant files to describe crashes, the vehicles involved in those crashes, and the occupants of those vehicles. Due to changes in reported data, HSIS now uses the nomenclature, of Crash, Unit, and Person files to represent these characteristics. Figure 1 illustrates the connection between the previous file naming convention (1985–2015) and the current file naming convention (2016–2022).



Source: Federal Highway Administration (FHWA).

Figure 1. Graph. Changes to Minnesota HSIS data file naming convention.

Changes in Variable Names

Previous versions of HSIS guidebooks referred to *SAS Name* as the shorthand for the more descriptive names in the HSIS documentation.[3] With the modernization effort and increased emphasis on flexibility, this name is now referred to as the *Variable Name*. Furthermore, the descriptive names of variables may be different in this guidebook compared to previous versions. This version may reflect changes in the data or definition of the variable to match updates to Minnesota's data documentation. Please consult the virtual HSIS Laboratory for information on changes to the data over time.

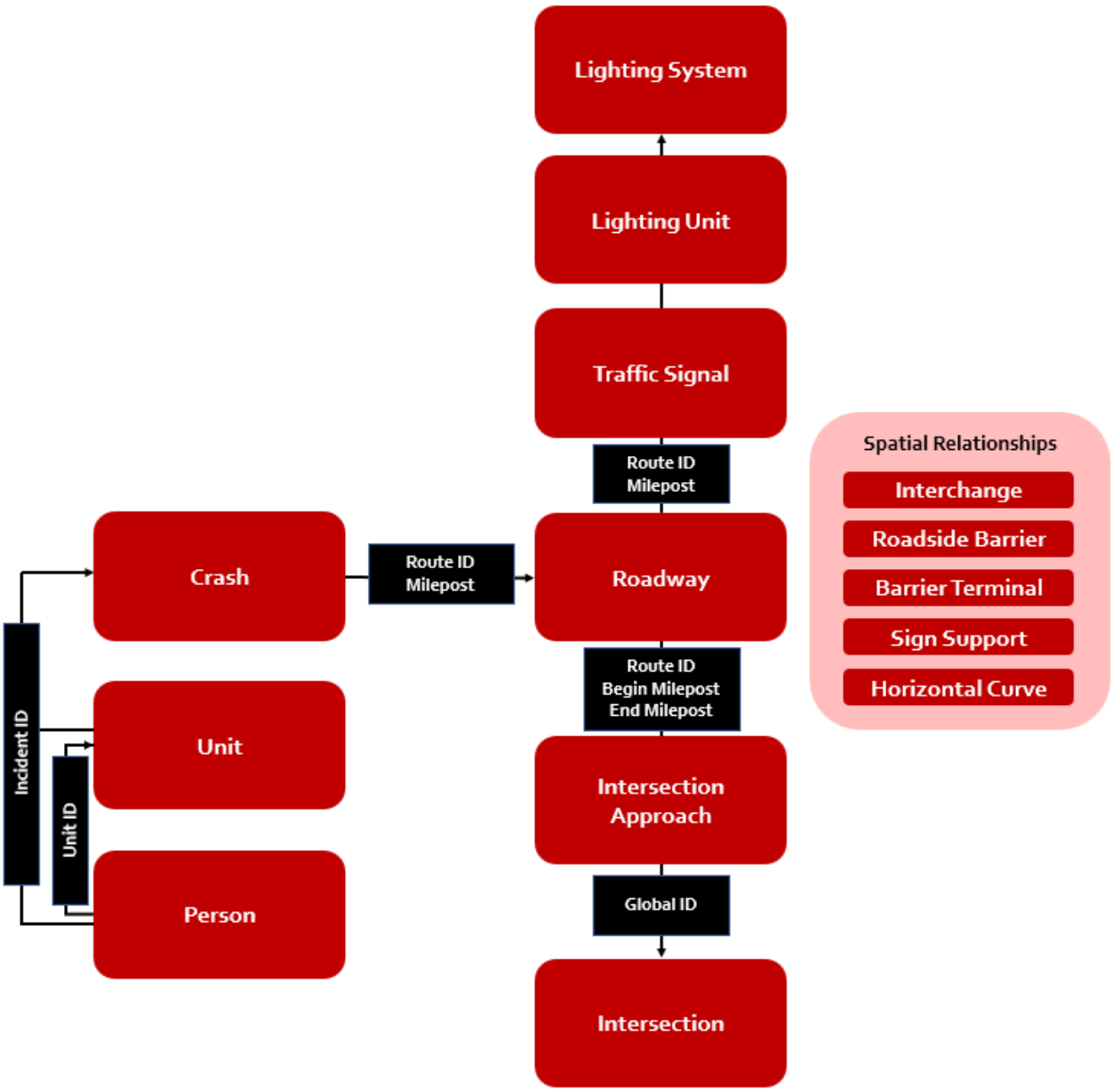
Changes in Available Variables

This guidebook reflects the latest high-quality data available to HSIS and the research community. Variables that were available in previous years and documented in past guidebooks may no longer be available or may be otherwise discontinued. This guidebook represents data that are available to requestors for 2016–2020. Please consult past guidebooks or the virtual HSIS Laboratory for information regarding previously available data.

The first available year for all noncrash datasets after the HSIS modernization (e.g., Roadway, Intersections, Lighting Units) is 2020. The 2020 data reflect a change in the transfer of Minnesota data to the virtual HSIS Laboratory and the absence of archived data before 2020.

Changes in Variable Linkages

HSIS data are stored in a geographic information systems (GIS)-compatible format. Researchers can request data from HSIS in various additional formats, such as SAS®, Microsoft® Excel® and Access®, dBase®, ASCII, etc., to meet their analytical and resource capabilities.[3] Figure 2 provides an overview of the structure and relationships linking the 14 files. The following sections provide a brief summary of each file.



Source: FHWA.
ID = identification.

Figure 2. Chart. Minnesota HSIS data files and linking variables.

Roadway File (2020-2022)

This file contains information about the physical layout of Minnesota's roads and the traffic characteristics (where available) associated with all public roads in the State. The Roadway file includes variables that describe the surface width, lane width and type, shoulder width and type, median information, and other variables. This file also contains information on traffic volumes represented as annual average daily traffic (AADT).

Minnesota also digitally represents data in a directional format, although many data elements are combined to bidirectional values. Table 2 provides an overview of road and traffic variables by format.

Table 2. Variable format in Minnesota's Roadway file.

Variable Name	Variable Description	Format
ACCESS_CONTROL	Access control	Bidirectional
ADDITIONAL_LANE_LEFT	Additional lane left	Single direction
ADDITIONAL_LANE_RIGHT	Additional lane right	Single direction
CURB_SIDE	Curb side	Single direction
FACILITY_TYPE	Divided and one-way code	Single direction
FUNCTIONAL_CLASS	Functional class	Bidirectional
MEDIAN_STRUCTURE_TYPE	Median structure type	Single direction*
MEDIAN_WIDTH	Median width	Single direction*
MEDIAN_TYPE	Median type	Single direction*
PARKING_LEFT	Parking on left of road	Single direction
PARKING_RIGHT	Parking on right of road	Single direction
PAVED_SHOULDER_LEFT	Left shoulder type—paved	Single direction
PAVED_SHOULDER_LEFT_WIDTH	Left shoulder width—paved	Single direction
PAVED_SHOULDER_RIGHT	Right shoulder type—paved	Single direction
PAVED_SHOULDER_RIGHT_WIDTH	Right shoulder width—paved	Single direction
BASIC_PAVEMENT_TYPE	Surface type	Single direction
TRAVEL_WIDTH	Travel width	Single direction
UNPAVED_SHOULDER_LEFT	Left shoulder type—unpaved	Single direction
UNPAVED_SHOULDER_LEFT_WIDTH	Left shoulder width—unpaved	Single direction
UNPAVED_SHOULDER_RIGHT	Right shoulder type—unpaved	Single direction
UNPAVED_SHOULDER_RIGHT_WIDTH	Right shoulder width—unpaved	Single direction
AADT	Annual average daily traffic	Bidirectional
AADT_DAILY_FACTOR_GROUP	Annual average daily traffic daily factor group	Bidirectional
AADT_DATA_TYPE	Annual average daily traffic data type	Bidirectional
COMMERCIAL_AADT	Commercial annual average daily traffic	Bidirectional

Variable Name	Variable Description	Format
CITY_NAME	City name	Bidirectional
CTU_CLASS	City/township class	Bidirectional
COUNTY_NAME	County	Bidirectional
MAINTENANCE_DISTRICT_NAME	Maintenance district name	Bidirectional
RODWYCLS	Roadway class	Bidirectional
TOTAL_LANES	Number of lanes	Bidirectional

*Only available in the inventory direction.

Route ID (identification) is the key linking variable between the base roadway inventory and the associated datasets (e.g., Crash, Traffic Signal, Intersection Approach). This variable is an 18-digit numerical code that documents the road ownership jurisdiction, the Geographic Names Information System (GNIS) ID for the jurisdiction (this value will be all zeros for trunk highways), the designated route number, route suffix (or a dash if no suffix is present), and direction of travel relative to increasing mileposts (e.g., if traveling in the direction of decreasing mileposts, this variable will be "D").(4) Figure 3 illustrates the *Route ID* format for Wabasha Street in St. Paul.

	Ownership		Jurisdiction										Route Number				Suffix/Dash	Direction
Route ID	0	5	0	0	0	2	3	9	6	5	1	1	0	2	3	5	-	|
Position	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

Source: FHWA.

Figure 3. Chart. Example of Minnesota's *Route ID* naming convention.

Intersection File (2020)

Minnesota represents intersections of two or more roads at grade as polygons in GIS. These polygons do not include locations where crossing centerlines represent grade-separated intersections or ramp merge locations onto freeways. These polygons spatially represent the line segments that comprise the approaches to the intersection.

Horizontal Curve File (2020)

Horizontal curvature is available for locations along Minnesota's State highway network, including characteristics such as radius and length. Curvature is linkable to the Roadway file and other datasets through spatial context.

Intersection Approach File (2020)

Intersection approaches (or intersection legs) provide the route and milepost location of each leg that approaches the intersection. Approaches can be linked to intersections through the *Global ID* field.

Traffic Signal File (2020)

This file provides a spatial inventory of Minnesota Department of Transportation (MnDOT)-owned traffic signals and flashing beacons on Minnesota roads. This inventory does not include locally owned and operated signals. Signal locations have a primary route and milepost.

Interchange File (2020)

This file is a statewide polygon GIS data layer where each polygon represents information on a freeway interchange. For this dataset, interchanges were defined as a grade-separated junction of two or more roads where at least one road is fully access controlled and movements between roads are accomplished through straight and loop ramps. The polygon for each interchange encompasses the broad area of the roadway where traffic interactions are reasonably related to the interchange, including all ramps, ramp intersections with cross streets, merging and diverging areas, acceleration and deceleration lanes, and portions of the mainline freeway that are within the general boundaries of the interchange. Each interchange is classified into a general design category, such as diamond or cloverleaf. The interchange inventory includes all interchanges in Minnesota, regardless of road ownership.

Lighting Unit File (2020)

This file represents individual light poles on State-owned routes. This file is linkable to the Roadway file through a route and milepost, as well as linkable to a larger lighting system via the *Light System Name*.

Lighting System File (2020)

This file represents coordinated groups of individual light poles. This file is linkable to the Roadway file through a route and milepost and linkable to individual light poles via the *Light System Name*.

Roadside Barrier File (2020)

This file is a linear representation of roadside and median traffic barriers. Information in this file includes barrier type, material, height, post type, and length. These features are linkable to other data files by spatial location.

Roadside Barrier Terminal File (2020)

This file represents the location of terminal features for roadside and median barriers. These features are linkable to their applicable barrier location by spatial location.

Sign Support File (2020)

This file provides the spatial location of sign supports along State-maintained roads. Although sign content information is generalized, the Sign Support file indicates signpost material, number of posts, direction of travel, and other relevant support data. These data are spatially linkable to other files.

Crash File (2016–2022)

Crash data are contained in three separate files. The Crash file contains basic information on the crash. Related information on the vehicles and people involved in each crash are contained in the corresponding Unit and Person files. Specifically, the Crash file contains information

relating to crash-level characteristics and conditions at the time of the crash. All crashes are spatially locatable, and most crashes have an applicable route and milepost for tabular linkages.

Crash data are collected statewide by all police departments in Minnesota on a standard form as prescribed by State law. The prescribed crash-reporting threshold is currently personal injury, death, or $1,000 in property damage.

Unit File (2016–2022)

This file provides information on the vehicles or units involved in crashes on Minnesota roads. The Unit file includes motor vehicle drivers, bicyclists, pedestrians, and other users who represent a party involved in a crash. The Unit file can be linked to the Person file through the combination of the *Incident ID* and *Unit ID* variables.

Person File (2016–2022)

This file includes information on all persons involved in a crash, whether injured or not. The Person file includes standard variables related to seating positions in a vehicle, sex, race, and injury. The *Injury* variable in Minnesota uses the KABCO classification system (K = fatal; A = incapacitating injury; B = nonincapacitating injury; C = possible injury; and O = no injury), which provides police estimates of injury level.

Using the Files Together

Using the Files Together

Figure 1 highlights the linkages between each of the 14 Minnesota files. Researchers can use these files together to understand the circumstances, location, vehicles, and individuals involved in a crash. HSIS data can be linked and aggregated using either spatial or tabular relationships. HSIS data follow four different formats; each variable in this guidebook notes the specific format of that variable:

- **Numeric:** Numeric values absent of alphabetical or special characters. These values can include decimals or whole numbers.
- **Coded:** Alphanumerical values that represent fixed-value entries; this guidebook is a data dictionary for coded values.
- **Text:** Free-form, plain text values that are not represented by coded abbreviations or other shorthand values (e.g., 5/16 or 3/8 steel bolts).
- **Date:** Values representing date and time. Specific formatting is noted in the relevant variable description.

When using the files together, users should note that some variables have the same name in two different files. For some of these variables, this naming process is by design so that the files can be linked together. Examples of this process include *Incident ID* and *Unit Number*. *Incident ID* is used to link the Crash, Unit, and Person files. *Unit Number* is used to link the Unit and Person files. For other variables, duplicated variable names across files are because the same information has been collected twice. For example, *County* is recorded by the reporting officer in the Crash file and is a variable in the Roadway file. In these cases, the HSIS Laboratory has compared and synchronized these variables to provide consistent information.

Requesting HSIS Data

Researchers can refer to this guidebook to determine variables of interest for their research question. This section provides a fictious example research question to demonstrate how the variables can be requested and how the variables can be linked across the files.

In this sample, a research graduate student is interested in exploring signalized intersection crashes involving women in Minnesota. Specifically, in part 1 of the study, the student is interested in injury severity at different types of intersections and under different conditions.

The student anticipates in part 2 of the study spatially combining the HSIS data with county-level socioeconomic data to explore highway safety for women across the State.

The HSIS Laboratory will work with the student to structure a data request that includes variables that will provide insight into the student's questions, variables to link the relevant files together, and flexibility to add external data in part 2 of the study. The following is the structure of the student's request:

Roadway Variables

- *Route ID* (linkable to the *Route ID* variable in the Crash file).
- *From Milepost.*
- *End Milepost.*
- *Roadway Class.*
- *Functional Class.*
- *AADT.*
- *Median Type.*
- *Median Width.*
- *Number of Lanes—Total.*
- *County.*

Traffic Signal Variables

Signal Status.

Intersection Variables

- *Global ID.*
- *Intersection Name.*
- *Intersection Type.*
- *Traffic Control.*

Crash Variables

- *Route ID* (linkable to the *Route ID* variable in the Roadway file).
- *Milepost* (linkable to the Roadway file in GIS).
- *Incident ID* (linkable to the *Incident ID* variable in the Unit file).
- *Crash Date.*
- *Crash Severity.*

- *First Harmful Event.*
- *Light Condition.*
- *Intersection Related Indicator.*
- *Number of Vehicles Involved.*

Unit Variables

- *Incident ID* (linkable to the *Incident ID* variable in the Crash file).
- *Unit ID* (linkable to the *Unit ID* variable in the Person file).
- *Posted Speed Limit.*
- *Unit Type.*

Person Variables

- *Incident ID* (linkable to the *Incident ID* variable in the Crash file).
- *Unit ID* (linkable to the *Unit ID* variable in the Unit file).
- *Person ID.*
- *Person Age.*
- *Person Injury.*
- *Person Gender.*

The analyst does not request any information from the remaining files. Following are a few things to note about the analyst's request:

- Some variables in the student's request record similar information. For example, the Unit file includes variables for *Traffic Control Condition* and *Traffic Control Device* that may seem redundant with the Traffic Signal file that defined the request as only crashes at signalized intersections. However, these data represent different sources, such as the officer reporting the crash at the scene in the case of the Unit and Crash files, and internal MnDOT records in the case of the Traffic Signal file. The student could request all variables to confirm that the signal was operating as a signal at the time of the crash. For example, the signal may have been under human control or in flashing operation during a power outage or similar event; the Unit file contains this information in the *Traffic Control Condition* variable.

- The student should note, when merging files, that the Crash, Unit, Person, and Roadway files contain different numbers of observations or rows. The Crash file contains one observation per crash (e.g., a unique case number on each row), while the Unit file contains an observation for each vehicle involved. If more than one vehicle is involved in a crash, more than one row will be associated with the same *Incident ID*. Additionally, the Roadway file contains an observation or row for each road segment. Some segments may have multiple crashes associated with them, while others may not have any.

Available Data

Table 3 provides a summary of all variables currently available in HSIS for the 14 files. Attributes and fields have evolved since Minnesota data were introduced into the HSIS data system, and users should carefully consider these changes during the data collection research process.

Table 3. Summary of Minnesota HSIS variables by data file.

Variable Name	Variable Description	Data File
AADT	Annual average daily traffic	Roadway
AADT_DAILY_FACTOR_GROUP	Annual average daily traffic daily factor group	Roadway
AADT_DATA_TYPE	Annual average daily traffic data type	Roadway
ACCESS_CONTROL	Access control	Roadway
ADDITIONAL_LANE_LEFT	Additional lane left	Roadway
ADDITIONAL_LANE_RIGHT	Additional lane right	Roadway
BEGMP	Begin milepost	Roadway
CITY_NAME	City name	Roadway
CTU_CLASS	City/township class	Roadway
COMMERCIAL_AADT	Commercial annual average daily traffic	Roadway
COUNTY_NAME	County	Roadway
CURB_SIDE	Curb side	Roadway
ENDMP	End milepost	Roadway
FACILITY_TYPE	Divided and one-way code	Roadway
FUNCTIONAL_CLASS	Functional class	Roadway
PAVED_SHOULDER_LEFT	Left shoulder type—paved	Roadway
UNPAVED_SHOULDER_LEFT	Left shoulder type—unpaved	Roadway
PAVED_SHOULDER_LEFT_WIDTH	Left shoulder width—paved	Roadway
UNPAVED_SHOULDER_LEFT_ WIDTH	Left shoulder width—unpaved	Roadway
MAINTENANCE_DISTRICT_NAME	Maintenance district name	Roadway
MEDIAN_STRUCTURE_TYPE	Median structure type	Roadway
MEDIAN_TYPE	Median type	Roadway
MEDIAN_WIDTH	Median width	Roadway
TOTAL_LANES	Number of lanes	Roadway
PARKING_LEFT	Parking on left of road	Roadway
PARKING_RIGHT	Parking on right of road	Roadway
PAVED_SHOULDER_RIGHT	Right shoulder type—paved	Roadway
UNPAVED_SHOULDER_RIGHT	Right shoulder type—unpaved	Roadway

Variable Name	Variable Description	Data File
PAVED_SHOULDER_RIGHT_WIDTH	Right shoulder width—paved	Roadway
UNPAVED_SHOULDER_RIGHT_WIDTH	Right shoulder width—unpaved	Roadway
RODWYCLS	Roadway class	Roadway
ROUTE_ID	Route ID	Roadway
BASIC_PAVEMENT_TYPE	Surface type	Roadway
TRAVEL_WIDTH	Travel width	Roadway
ADT_ENTERING_VOLUME	Average daily traffic entering volume	Intersection
CTU_NAME	City/township name	Intersection
COUNTY_NAME	County name	Intersection
GENERAL_INTERSECTION_TYPE	General intersection type	Intersection
INTERSECTION_NAME	Intersection name	Intersection
LIGHTING_EXISTS	Lighting exists	Intersection
LIGHTING_TYPE	Lighting type	Intersection
ROUTE_ID	Route ID	Intersection
TRAFFIC_CONTROL_EXISTS	Traffic control exists	Intersection
TRAFFIC_CONTROL_TYPE	Traffic control type	Intersection
INTERSECTION_DESIGN_SPECIFIC	Specific intersection design	Intersection
ADT_ENTERING_VOLUME_YR	Year of average daily traffic entering volume	Intersection
DIRECTION	Average bearing	Horizontal Curve
ARCLENGTH	Curve arc length	Horizontal Curve
DELTA	Curve delta	Horizontal Curve
CURVE_ID	Curve ID	Horizontal Curve
DISTANCE	Curve length	Horizontal Curve
CURVE_NUMBER	Curve number	Horizontal Curve
RADIUS	Curve radius	Horizontal Curve
TANGENT	Curve tangent	Horizontal Curve
DISTRICT_NUMBER	District number	Horizontal Curve
TIS_ID	Road number	Horizontal Curve
BEGMP	Begin milepost	Intersection Approach
INTERSECTION_GLOBALID	Global ID	Intersection Approach
ROUTE_ID	Route ID	Intersection Approach
ENDMP	End milepost	Intersection Approach
DATE_INSERVICE	Date in service	Traffic Signal
MILEPOST	Milepost	Traffic Signal
ROUTE_ID	Route ID	Traffic Signal
SGL_THRU_LOCATION	Signal location	Traffic Signal
SIGNAL_SYSTEM_CLASS_CODE_NAME	Signal system class	Traffic Signal
SIGNAL_SYSTEM_ID	Signal system ID	Traffic Signal

Variable Name	Variable Description	Data File
SIGNAL_SYSTEM_NAME	Signal system name	Traffic Signal
SIGNAL_SYSTEM_STATUS_NAME	Signal system status	Traffic Signal
CTU_NAME	City/township name	Interchange
COUNTY_NAME	County name	Interchange
INTERCHANGE_DESIGN_ GENERAL	Interchange design general	Interchange
INTERCHANGE_DESIGN_SPECIFIC	Interchange design specific	Interchange
INTERCHANGE_NAME	Interchange name	Interchange
LIGHTING_TYPE	Lighting type	Interchange
ROUTE_ID	Route ID	Interchange
LIGHTING_EXISTS	Roadway lighting	Interchange
TRAFFIC_CONTROL_EXISTS	Traffic control exists	Interchange
TRAFFIC_CONTROL_TYPE	Traffic control type	Interchange
DATE_INSTALLED	Date installed	Lighting Unit
SGL_ELEC_ASM_FOUNDATION_ NAME	Foundation type	Lighting Unit
LIGHT_SYSTEM_ID	Light system ID	Lighting Unit
LIGHT_SYSTEM_NAME	Light system name	Lighting Unit
LIGHT_UNIT_ID	Light unit ID	Lighting Unit
LIGHT_UNIT_NAME	Light unit name	Lighting Unit
LIGHT_UNIT_STATUS_NAME	Light unit status	Lighting Unit
LIGHT_UNIT_CLASS_CODE_NAME	Light unit type	Lighting Unit
MILEPOST	Milepost	Lighting Unit
SGL_ELECT_ASM_LUMHEIGHT_ NAME	Mounting height	Lighting Unit
OWNER_NAME	Owner name	Lighting Unit
SGL_POLE_NUMBER	Pole number	Lighting Unit
ROUTE_ID	Route ID	Lighting Unit
OWNER_NAME	Administrative unit	Lighting System
INSTALL_DATE	Install date	Lighting System
LIGHT_SYSTEM_ID	Light system ID	Lighting System
LIGHT_SYSTEM_NAME	Light system name	Lighting System
LIGHT_SYSTEM_STATUS_NAME	Light system status	Lighting System
LIGHT_SYSTEM_CLASS_CODE_ NAME	Light system type	Lighting System
MILEPOST	Milepost	Lighting System
ROUTE_ID	Route ID	Lighting System
TB_BARRIER_HEIGHT	Barrier height	Roadside Barrier
LENGTH	Barrier length	Roadside Barrier
TB_POST_TYPE_NAME	Barrier post type	Roadside Barrier
TB_CURB_HEIGHT_NAME	Curb height	Roadside Barrier
INSTALL_DATE	Installation date	Roadside Barrier

Variable Name	Variable Description	Data File
TRAF_BARRIER_CLASS_CODE_NAME	Linear barrier class	Roadside Barrier
TRAF_BARRIER_ID	Linear barrier ID	Roadside Barrier
TRAF_BARRIER_NAME	Linear barrier name	Roadside Barrier
TRAF_BARRIER_STATUS_NAME	Linear barrier status	Roadside Barrier
TB_LBSUBCAT_TYPE_NAME	Linear barrier subtype	Roadside Barrier
TB_LBCAT_TYPE_NAME	Linear barrier type	Roadside Barrier
TB_CABLE_NUM	Number of cables	Roadside Barrier
OWNER_NAME	Owner name	Roadside Barrier
ASSET_STATUS_NAME	Asset status	Roadside Barrier Terminal
TB_TERMINI_CLASS_CODE_NAME	Barrier terminal class	Roadside Barrier Terminal
TB_BARRIER_HEIGHT	Barrier terminal height	Roadside Barrier Terminal
TB_TERMINI_ID	Barrier terminal ID	Roadside Barrier Terminal
LENGTH	Barrier terminal length	Roadside Barrier Terminal
TB_TERIMINI_NAME	Barrier terminal name	Roadside Barrier Terminal
TB_CURB_HEIGHT_NAME	Curb height	Roadside Barrier Terminal
INSTALLATIONDATE	Installation date	Roadside Barrier Terminal
BRACE_NUMBER_NAME	Brace number	Sign Support
GROUND_MOUNT_TYPE_NAME	Ground mount type	Sign Support
GROUND_SUPPORT_TYPE_NAME	Group support type	Sign Support
DATE_INSTALLED	Install date	Sign Support
POST_NUMBER_NAME	Post number	Sign Support
ROUTE_TYPE_NAME	Route type	Sign Support
STRUCTURE_OWNER_NAME	Structure owner	Sign Support
SUPPORT_CLASS_CODE_NAME	Support class	Sign Support
SUPPORT_ID	Support ID	Sign Support
SUPPORT_NAME	Support name	Sign Support
SUPPORTS_POSITION_NAME	Support position	Sign Support
SUPPORTS_STATUS_NAME	Support status	Sign Support
TRAVEL_DIRECTION_NAME	Travel direction	Sign Support
CITY_NAME	City	Crash
COUNTY_NAME	County	Crash
BRIDGE_IND	Crash occurred on bridge	Crash
CRASH_SEVERITY_CODE	Crash severity	Crash
CRASH_TYPE_CODE	Crash type	Crash

Variable Name	Variable Description	Data File
DATE_TIME_OF_INCIDENT	Date and time crash occurred	Crash
INCIDENT_ID	Incident ID	Crash
LIGHT_CONDITION_CODE	Light conditions	Crash
MILEPOST	Milepost	Crash
MINIMUM_DAMAGE_IND	Minimum damage threshold	Crash
NUMBER_OF_VEHICLES_ INVOLVED	Number of vehicles	Crash
INTERSECTION_RELATED_IND	Relationship to intersection	Crash
ROUTE_ID	Route ID	Crash
BUS_INVOLVED_CODE	School bus involved crash	Crash
NUMBER_OF_FATALITIES	Total number of fatalities	Crash
TOWNSHIP_GNIS_FEATURE_ID	Township number	Crash
WEATHER_CODE	Weather conditions 1	Crash
WEATHER_SECONDARY_CODE	Weather conditions 2	Crash
WORKERS_PRESENT_CODE	Worker present	Crash
WORK_ZONE_LOCATION_CODE	Work zone location	Crash
WORKZONE_IND	Work zone marked	Crash
YEAR	Year	Crash
VEHICLE_COLOR	Color of vehicle	Unit
FIRE_CODE	Fire in vehicle	Unit
INCIDENT_ID	Incident ID	Unit
MOST_HARMFUL_EVENT_CODE	Most harmful event	Unit
CARGO_BODY_TYPE_CODE	Motor carrier body type	Unit
PRIMARY_CONTRIBUTOR_CODE	Contributing factor 1	Unit
SECONDARY_CONTRIBUTOR_ CODE	Contributing factor 2	Unit
POSTED_SPEED	Posted speed limit	Unit
ROADWAY_GRADE_CODE	Roadway grade code	Unit
LICENSE_PLATE_STATE_CODE	State of vehicle registration	Unit
TRAFFIC_CONTROL_CONDITION _CODE	Traffic control condition	Unit
TRAFFICWAY_DESIGN_CODE	Trafficway design	Unit
VEHILCE_MODEL	Type of vehicle	Unit
UNIT_ID	Unit ID	Unit
UNIT_TYPE_CODE	Unit type	Unit
HAZMAT_CLASS_CODE	Vehicle carrying hazardous material	Unit
DIRECTION_OF_MOVEMNT_CODE	Vehicle direction	Unit
VEHICLE_MAKE	Vehicle make	Unit
TOWED_IND	Vehicle towed	Unit
YEAR	Year	Unit
AGE	Age	Person
AIRBAG_CODE	Airbag deployed	Person
ALCOHOL_TEST_RESULT_CODE	Blood alcohol test result	Person

Variable Name	Variable Description	Data File
ALCOHOL_TEST_TYPE_CODE	Blood alcohol test type	Person
DL_CLASS	Driver license class	Person
DL_RESTRICTION1_CODE	Driver—license restriction 1	Person
DL_RESTRICTION2_CODE	Driver—license restriction 2	Person
DL_RESTRICTION3_CODE	Driver—license restriction 3	Person
DL_STATE_CODE	Driver license State	Person
DRUG_TEST_STATUS_CODE	Drug test performed	Person
EJECTION_CODE	Ejection from vehicle	Person
INCIDENT_ID	Incident ID	Person
INJURY_SEVERITY_CODE	Injury severity	Person
PERSON_ID	Person ID	Person
PHYSICAL_CONDITION_CODE	Physical condition 1	Person
PHYSICAL_CONDITION2_CODE	Physical condition 2	Person
POSITION_CODE	Position in vehicle	Person
SAFETY_EQUIPMENT_USE_CODE	Safety equipment used	Person
GENDER_CODE	Sex	Person
TRANSPORT_TYPE_CODE	Transported to hospital method	Person
UNIT_ID	Unit ID	Person
YEAR	Year	Person

Roadway File

Roadway File

Annual Average Daily Traffic

Variable Name: AADT

Definition: Counted or estimated AADT for the road segment.

Field Type: Numeric.

Annual Average Daily Traffic Daily Factor Group

Variable Name: AADT_DAILY_FACTOR_GROUP

Definition: Broad category or factor group that applies to the traffic counts and AADT on the segment (e.g., Sim WkDay/WkEnd).

Field Type: Text.

Annual Average Daily Traffic Data Type

Variable Name: AADT_DATA_TYPE

Definition: The type of sample or method used to collect data.

Field Type: Coded:

- A = actual.
- M = created.

Access Control

Variable Name: ACCESS_CONTROL

Definition: Indicates some degree of control of through movements to a road. (e.g., full access control).

Field Type: Text.

Additional Lane Left

Variable Name: ADDITIONAL_LANE_LEFT

Definition: Type of additional lane on the left side of the road based on the direction of travel (e.g., acceleration).

Field Type: Text.

Additional Lane Right

Variable Name: ADDITIONAL_LANE_RIGHT

Definition: Type of additional lane on the right side of the road based on the direction of travel (e.g., escape).

Field Type: Text.

Begin Milepost*

Variable Name: BEGMP

Definition: The beginning milepost. This value is the primary means to link other files to the Roadway file.

Field Type: Numeric.

City Name

Variable Name: CITY_NAME

Definition: City where the segment is located (e.g., Saint Paul).

Field Type: Text.

City/Township Class

Variable Name: CTU_CLASS

Definition: The type of city or township in which the segment is located (e.g., TOWNSHIP).

Field Type: Text.

Commercial Annual Average Daily Traffic

Variable Name: COMMERCIAL_AADT

Definition: Counted or estimated AADT for commercial traffic on the segment.

Field Type: Numeric.

County

Variable Name: COUNTY_NAME

Definition: County where the segment is located (e.g., Hennepin).

Field Type: Text.

Curb Side

Variable Name: CURB_SIDE

Definition: Indicates the side of the road segment where a curb is present.

Field Type: Coded:

- B = both.
- L = left.
- R = right.

Divided and One-Way Code

Variable Name: FACILITY_TYPE

Definition: The type of traffic operation of the road segment (e.g., two-way roadway).

Field Type: Text.

End Milepost*

Variable Name: ENDMP

Definition: The ending milepost. This value is the primary means to link other files to the Roadway file.

Field Type: Numeric.

Functional Class

Variable Name: FUNCTIONAL_CLASS

Definition: Federal functional classification of the roadway segment (e.g., major collector).

Field Type: Text.

Left Shoulder Type—Paved

Variable Name: PAVED_SHOULDER_LEFT

Definition: The field indicates if a paved shoulder is present on the left side of the segment and the surface type of the shoulder (e.g., surfaced shoulder exists—bituminous concrete (AC)).

Field Type: Text.

*Variable created or edited by HSIS Laboratory.

Left Shoulder Type—Unpaved

Variable Name: UNPAVED_SHOULDER_LEFT

Definition: The field indicates if an unpaved shoulder is present on the left side of the segment and the surface type of the shoulder (e.g., stabilized shoulder exists).

Field Type: Text.

Left Shoulder Width—Paved

Variable Name: PAVED_SHOULDER_LEFT_WIDTH

Definition: The width of the paved left shoulder in feet (if present).

Field Type: Numeric.

Left Shoulder Width—Unpaved

Variable Name: UNPAVED_SHOULDER_LEFT_WIDTH

Definition: The width of the unpaved left shoulder in feet (if present).

Field Type: Numeric.

Maintenance District Name

Variable Name: MAINTENANCE_DISTRICT_NAME

Definition: District responsible for maintenance of the road segment (e.g., D1-DULUTH).

Field Type: Text.

Median Structure Type

Variable Name: MEDIAN_STRUCTURE_TYPE

Definition: The detailed type of median structure on the road segment, if it has one (e.g., cable high tension).

Field Type: Text.

Median Type

Variable Name: MEDIAN_TYPE

Definition: The generic type of median on the roadway segment, if it has one (e.g., positive barrier—semi-rigid).

Field Type: Text.

Median Width

Variable Name: MEDIAN_WIDTH

Definition: The width of the median in feet.

Field Type: Numeric.

Number of Lanes

Variable Name: TOTAL_LANES

Definition: Total number of through travel lanes on the segment. See table 2 for variable interpretation.

Field Type: Numeric.

Parking on Left of Road

Variable Name: PARKING_LEFT

Definition: Type of parking present on a segment (e.g., parallel).

Field Type: Text.

Parking on Right of Road

Variable Name: PARKING_RIGHT

Definition: Type of parking present on a segment (e.g., parallel).

Field Type: Text.

Right Shoulder Type—Paved

Variable Name: PAVED_SHOULDER_RIGHT

Definition: The field indicates if a paved shoulder is present on the right side of the segment and the surface type of the shoulder (e.g., surfaced shoulder exists—bituminous concrete (AC)).

Field Type: Text.

Right Shoulder Type—Unpaved

Variable Name: UNPAVED_SHOULDER_RIGHT

Definition: The field indicates if an unpaved shoulder is present on the right side of the segment and the surface type of the shoulder (e.g., stabilized shoulder exists).

Field Type: Text.

Right Shoulder Width—Paved

Variable Name: PAVED_SHOULDER_RIGHT_WIDTH

Definition: The width of the applicable right shoulder in feet (if present).

Field Type: Numeric.

Right Shoulder Width—Unpaved

Variable Name: UNPAVED_SHOULDER_RIGHT_WIDTH

Definition: The width of the applicable right shoulder in feet (if present).

Field Type: Numeric.

Roadway Class*

Variable Name: RODWYCLS

Definition: The HSIS Laboratory developed the *Roadway Class* variable to classify roadway data. This variable is a combination of the *Number of Lanes*, *Median Type*, and *Functional Class* variables and rural/urban identification information.

Field Type: Text.

Values:

- Urban freeways.
- Urban two-lane roads.
- Urban multilane divided non-freeways.
- Urban multilane undivided non-freeways.
- Rural freeways.
- Rural two-lane roads.
- Rural multilane divided non-freeways.
- Rural multilane undivided non-freeways.
- Other.

*Variable created by HSIS Laboratory.

Route ID

Variable Name: ROUTE_ID

Definition: *Route ID* of the roadway segment. This variable is used to link the other files to the Roadway file.

Field Type: Text.

Surface Type

Variable Name: BASIC_PAVEMENT_TYPE

Definition: Pavement type of the drivable portion of the road segment (e.g., bituminous).

Field Type: Text.

Travel Width

Variable Name: TRAVEL_WIDTH

Definition: Width of the travel area on the segment in feet. See table 2 for variable interpretation.

Field Type: Numeric.

Intersection File

Intersection File

Average Daily Traffic Entering Volume

Variable Name: ADT_ENTERING_VOLUME

Definition: Combined daily traffic volume entering the intersection.

Field Type: Numeric.

City/Township Name

Variable Name: CTU_NAME

Definition: Name of the city or township in which the intersection is located (e.g., Saint Paul).

Field Type: Text.

County Name

Variable Name: COUNTY_NAME

Definition: County in which the intersection is located (e.g., Hennepin).

Field Type: Text.

General Intersection Type

Variable Name: GENERAL_INTERSECTION_TYPE

Definition: Type of intersection geometry (e.g., four way).

Field Type: Text.

Intersection Name

Variable Name: INTERSECTION_NAME

Definition: Name of intersection that is a combination of the coded name of the roads and the generic name of the roads involved (e.g., M 88 (114th St N) and M 100 (Ironwood Ave N)).

Field Type: Text.

Lighting Exist

Variable Name: LIGHTING_EXISTS

Definition: Indicator that lighting is present at the intersection (e.g., yes).

Field Type: Text.

Lighting Type

Variable Name: LIGHTING_TYPE

Definition: The type of lighting present at the intersection, if any is present (e.g., continuous).

Field Type: Text.

Route ID

Variable Name: ROUTE_ID

Definition: *Route ID* of primary route entering the intersection polygon (e.g., 10000239496300 88-I).

Field Type: Text.

Traffic Control Exists

Variable Name: TRAFFIC_CONTROL_EXISTS

Definition: Indicator that traffic control is present at the intersection (e.g., no).

Field Type: Text.

Traffic Control Type

Variable Name: TRAFFIC_CONTROL_TYPE

Definition: Type of traffic control at the intersection, if any traffic control is present (e.g., signal).

Field Type: Text.

Specific Intersection Design

Variable Name: INTERSECTION_DESIGN_SPECIFIC

Definition: Intersection design subtype of the general intersection design (e.g., four-way right angle).

Field Type: Text.

Year of Average Daily Traffic Entering Volume

Variable Name: ADT_ENTERING_VOLUME_YR

Definition: The year that the daily traffic entering the intersection was counted or estimated.

Field Type: Numeric.

Horizontal Curve File

Horizontal Curve File

Average Bearing

Variable Name: DIRECTION

Definition: The average bearing of the curve segment in degrees (e.g., 50.0348).

Field Type: Numeric.

Curve Arc Length

Variable Name: ARCLENGTH

Definition: The length of the curve from one point of curvature to the other in meters (e.g., 343.324).

Field Type: Numeric.

Curve Delta

Variable Name: DELTA

Definition: The angular change along a curve in degrees (e.g., 69.3407).

Field Type: Numeric.

Curve ID

Variable Name: CURVE_ID

Definition: Unique ID for the curve that is made up of the district, road number, and curve number (e.g., 1.023.010).

Field Type: Text.

Curve Length

Variable Name: DISTANCE

Definition: The straight-line length of the curve (i.e., as the crow flies) in meters (e.g., 322.753).

Field Type: Numeric.

Curve Number

Variable Name: CURVE_NUMBER

Definition: The number of the curve in sequential order that restarts with each road number (e.g., 1).

Field Type: Numeric.

Curve Radius

Variable Name: RADIUS

Definition: The distance from the center point of a curve to the arc of a curve in meters (e.g., 283.687).

Field Type: Numeric.

Curve Tangent

Variable Name: TANGENT

Definition: Tangent length of the curve in meters (e.g., 196.217).

Field Type: Numeric.

District Number

Variable Name: DISTRICT_NUMBER

Definition: District number in which the curve is located (e.g., 1).

Field Type: Numeric.

Road Number

Variable Name: TIS_ID

Definition: Unique identifier of the road where the curve is located (e.g., 0300000023).

Field Type: Numeric.

Intersection Approach File

Intersection Approach File

Begin Milepost

Variable Name: BEGMP

Definition: The beginning milepost of the intersection approach. This variable, used in conjunction with the *Route ID*, can help link the intersection leg to the Roadway and Crash files.

Field Type: Numeric.

Global ID

Variable Name: INTERSECTION_GLOBALID

Definition: Unique identifier associated with the intersection as a whole (e.g., 000EDADC-7640-4927-962B-297CA7DEE8FC).

Field Type: Text.

Route ID

Variable Name: ROUTE_ID

Definition: The *Route ID* of the intersection approach. This variable, used in conjunction with the milepost fields, can help link the intersection leg to the Roadway and Crash files. Two approaches are assigned to a route (representing both directions of travel (e.g., 080000594500245-I).

Field Type: Text.

End Milepost

Variable Name: ENDMP

Definition: The ending milepost of the intersection approach. This variable, used in conjunction with the *Route ID*, can help link the intersection leg to the Roadway and Crash files.

Field Type: Numeric.

Traffic Signal File

Traffic Signal File

Date In Service

Variable Name: DATE_INSERVICE

Definition: Date the device was installed and started service (MM/DD/YYYY).

Field Type: Date.

Milepost

Variable Name: MILEPOST

Definition: Milepost where the traffic signal is located. This variable can be used in combination with the *Route ID* variable to link to the Roadway file.

Field Type: Numeric.

Route ID

Variable Name: ROUTE_ID

Definition: The *Route ID* of the road where the traffic signal is located. This variable can be used in combination with the *End Milepost* variable to link to the Roadway file. (e.g., 020000000000061-I).

Field Type: Text.

Signal Location

Variable Name: SGL_THRU_LOCATION

Definition: Location of the signal shown by the names of the applicable crossroads (e.g., 8TH AV SE/SW).

Field Type: Text.

Signal System Class

Variable Name: SIGNAL_SYSTEM_CLASS_CODE_NAME

Definition: The type of traffic signal system (e.g., intersection with battery backup).

Field Type: Text.

Signal System ID

Variable Name: SIGNAL_SYSTEM_ID

Definition: Unique ID for the signal system (e.g., 1734921).

Field Type: Numeric.

Signal System Name

Variable Name: SIGNAL_SYSTEM_NAME

Definition: A unique name of the signal consisting of the road(s) involved with the signal and the unique signal ID (e.g., SigSys-MN1-32 N JCT 8TH & MAIN-1734921).

Field Type: Text.

Signal System Status

Variable Name: SIGNAL_SYSTEM_STATUS_NAME

Definition: Status of the signal system (e.g., active).

Field Type: Text.

Interchange File

Interchange File

City/Township Name

Variable Name: CTU_NAME

Definition: Name of the city or township in which the interchange is located (e.g., Minneapolis).

Field Type: Text.

County Name

Variable Name: COUNTY_NAME

Definition: County in which the interchange is located (e.g., Hennepin).

Field Type: Text.

Interchange Design General

Variable Name: INTERCHANGE_DESIGN_GENERAL

Definition: General design and configuration of the interchange (e.g., diamond).

Field Type: Text.

Interchange Design Specific

Variable Name: INTERCHANGE_DESIGN_SPECIFIC

Definition: The specific subtype design and detail of the interchange (e.g., diamond with frontage roads).

Field Type: Text.

Interchange Name

Variable Name: INTERCHANGE_NAME

Definition: Name assigned to the interchange that is a combination of the two or more roads that intersect (e.g., ISTH 35W / 31ST ST).

Field Type: Text.

Lighting Type

Variable Name: LIGHTING_TYPE

Definition: Type of lighting present at the interchange (e.g., roadway, underpass).

Field Type: Text.

Route ID

Variable Name: ROUTE_ID

Definition: *Route ID* of the primary road at the interchange (e.g., 030000000000371-I).

Field Type: Text.

Roadway Lighting

Variable Name: LIGHTING_EXISTS

Definition: Indicator that lighting is present at the interchange (e.g., yes).

Field Type: Text.

Traffic Control Exists

Variable Name: TRAFFIC_CONTROL_EXISTS

Definition: Indicator that traffic control is present at the interchange (e.g., yes).

Field Type: Text.

Traffic Control Type

Variable Name: TRAFFIC_CONTROL_TYPE

Definition: Text field detailing the type of traffic control that is present at the interchange (e.g., BEGIN SL 30 1/3 MI 36X66, CHEVRON RIGHT 18X24, EXIT ADVISORY 50 48X60, Intersection, RAMP 30 M.P.H.*).

Field Type: Text.

Lighting Unit File

Lighting Unit File

Date Installed

Variable Name: DATE_INSTALLED

Definition: Date light unit was installed (MM/DD/YYYY).

Field Type: Date.

Foundation Type

Variable Name: SGL_ELEC_ASM_FOUNDATION_NAME

Definition: The foundation type that supports the light unit (e.g., cast in place).

Field Type: Text.

Light System ID

Variable Name: LIGHT_SYSTEM_ID

Definition: Unique ID for the applicable light system (e.g., 1756537).

Field Type: Numeric.

Light System Name

Variable Name: LIGHT_SYSTEM_NAME

Definition: Unique name of the applicable light system. The name includes the unique ID and road name on which the system is located (e.g., LightSys-I494-7-S03L-1756537).

Field Type: Text.

Light Unit ID

Variable Name: LIGHT_UNIT_ID

Definition: The unique ID for a light unit (e.g., 2409595).

Field Type: Numeric.

Light Unit Name

Variable Name: LIGHT_UNIT_NAME

Definition: Unique name for the light unit, which includes the unique ID and the road name on which the unit is located (e.g., LightUnit-I35-3RD AVE E-B94P-7-1763913).

Field Type: Text.

Light Unit Status

Variable Name: LIGHT_UNIT_STATUS_NAME

Definition: Status of the light unit (e.g., active).

Field Type: Text.

Light Unit Type

Variable Name: LIGHT_UNIT_CLASS_CODE_NAME

Definition: The type of area that the light unit is lighting (e.g., roadway).

Field Type: Text.

Milepost

Variable Name: MILEPOST

Definition: Milepost of the road where the light unit is located.

Field Type: Numeric.

Mounting Height

Variable Name: SGL_ELECT_ASM_LUMHEIGHT_NAME

Definition: Luminaire height off the ground in feet.

Field Type: Numeric.

Owner Name

Variable Name: OWNER_NAME

Definition: The district that is responsible for the light unit (e.g., 9100—District 1).

Field Type: Text.

Pole Number

Variable Name: SGL_POLE_NUMBER

Definition: The unique pole unit number in the light system.

Field Type: Numeric.

Route ID

Variable Name: ROUTE_ID

Definition: The *Route ID* of the road where the unit is located. This variable can be used to link the unit to the Roadway file (e.g., 030000000000007-I).

Field Type: Text.

Lighting System File

Lighting System File

Administrative Unit

Variable Name: OWNER_NAME

Definition: The district that is responsible for the light system (e.g., District 6).

Field Type: Text.

Install Date

Variable Name: INSTALL_DATE

Definition: Date of light system installation (MM/DD/YYYY).

Field Type: Date.

Light System ID

Variable Name: LIGHT_SYSTEM_ID

Definition: Unique ID for the light system (e.g., 1756537).

Field Type: Numeric.

Light System Name

Variable Name: LIGHT_SYSTEM_NAME

Definition: Unique name of the light system that includes the unique ID and the applicable road name (e.g., LightSys-I494-7-S03L-1756537).

Field Type: Text.

Light System Status

Variable Name: LIGHT_SYSTEM_STATUS_NAME

Definition: Status of light system (e.g., active).

Field Type: Text.

Light System Type

Variable Name: LIGHT_SYSTEM_CLASS_CODE_NAME

Definition: The type of area that the system is lighting (e.g., intersection).

Field Type: Text.

Milepost

Variable Name: MILEPOST

Definition: Milepost of the route on which the light system is located.

Field Type: Numeric.

Route ID

Variable Name: ROUTE_ID

Definition: The *Route ID* of the road on which the system is located. This variable can be used to link the system to the Roadway file (e.g., 030000000000007-I).

Field Type: Text.

Roadside Barrier File

Roadside Barrier File

Barrier Height

Variable Name: TB_BARRIER_HEIGHT

Definition: Barrier height in inches.

Field Type: Numeric.

Barrier Length

Variable Name: LENGTH

Definition: Length of the barrier in feet.

Field Type: Numeric.

Barrier Post Type

Variable Name: TB_POST_TYPE_NAME

Definition: The type of material of the post that supports the barrier (e.g., steel).

Field Type: Text.

Curb Height

Variable Name: TB_CURB_HEIGHT_NAME

Definition: Indicator that a curb is present and, if so, that the curb is greater than 3 inches (e.g., greater than 3″).

Field Type: Text.

Installation Date

Variable Name: INSTALL_DATE

Definition: Date the barrier was installed (YYYY:MM:DD).

Field Type: Date

Linear Barrier Class

Variable Name: TRAF_BARRIER_CLASS_CODE_NAME

Definition: The class of the linear barrier (e.g., plate beam).

Field Type: Text.

Linear Barrier ID

Variable Name: TRAF_BARRIER_ID

Definition: Unique ID for the linear barrier (e.g., 2432515).

Field Type: Numeric.

Linear Barrier Name

Variable Name: TRAF_BARRIER_NAME

Definition: Unique name for the linear barrier that includes the applicable road (e.g., TBL-I35W-029-55B).

Field Type: Text.

Linear Barrier Status

Variable Name: TRAF_BARRIER_STATUS_NAME

Definition: Status of the linear barrier (e.g., inplace).

Field Type: Text.

Linear Barrier Subtype

Variable Name: TB_LBSUBCAT_TYPE_NAME

Definition: The subtype of the linear barrier (e.g., Type 31 Long Span).

Field Type: Text.

Linear Barrier Type

Variable Name: TB_LBCAT_TYPE_NAME

Definition: The type of linear barrier (e.g., W-beam).

Field Type: Text.

Number of Cables

Variable Name: TB_CABLE_NUM

Definition: Number of cables that the barrier has if it is a cable barrier, otherwise null.

Field Type: Numeric.

Owner Name

Variable Name: OWNER_NAME

Definition: The administrative unit that owns the barrier (e.g., 9452 - D-4 Fergus Falls Sub Area).

Field Type: Text.

Roadside Barrier Terminal File

Roadside Barrier Terminal File

Asset Status

Variable Name: ASSET_STATUS_NAME

Definition: Status of the barrier terminal (e.g., removed).

Field Type: Text.

Barrier Terminal Class

Variable Name: TB_TERMINI_CLASS_CODE_NAME

Definition: Class of the barrier terminal (e.g., cable anchor).

Field Type: Text.

Barrier Terminal Height

Variable Name: TB_BARRIER_HEIGHT

Definition: Barrier terminal height in inches.

Field Type: Numeric.

Barrier Terminal ID

Variable Name: TB_TERMINI_ID

Definition: Unique ID for the barrier terminal (e.g., 2454733).

Field Type: Numeric.

Barrier Terminal Length

Variable Name: LENGTH

Definition: Length of the barrier terminal in feet.

Field Type: Numeric.

Barrier Terminal Name

Variable Name: TB_TERMINI_NAME

Definition: Unique name for the barrier terminal that includes the applicable road (e.g., TBT-I694-037-34).

Field Type: Text.

Curb Height

Variable Name: TB_CURB_HEIGHT_NAME

Definition: Indicator that a curb is present and, if so, that the curb is greater than 3 inches (e.g., greater than 3").

Field Type: Text.

Installation Date

Variable Name: INSTALLATIONDATE

Definition: Date the barrier terminal was installed (YYYY:MM:DD).

Field Type: Date.

Sign Support File

Sign Support File

Brace Number

Variable Name: BRACE_NUMBER_NAME

Definition: Number of braces on the sign support.

Field Type: Numeric.

Ground Mount Type

Variable Name: GROUND_MOUNT_TYPE_NAME

Definition: The type of ground mount for the sign support (e.g., 5/16 or 3/8 steel bolts).

Field Type: Text.

Ground Support Type

Variable Name: GROUND_SUPPORT_TYPE_NAME

Definition: The type of support pole associated with the sign support (e.g., U channel).

Field Type: Text.

Install Date

Variable Name: DATE_INSTALLED

Definition: The install date of the sign support (MM/DD/YYYY).

Field Type: Date.

Post Number

Variable Name: POST_NUMBER_NAME

Definition: Number of posts incorporated in the sign support.

Field Type: Numeric.

Route Type

Variable Name: ROUTE_TYPE_NAME

Definition: The type of route associated with the sign support (e.g., ramp).

Field Type: Text.

Structure Owner

Variable Name: STRUCTURE_OWNER_NAME

Definition: The agency responsible for the sign support (e.g., MNDOT).

Field Type: Text.

Support Class

Variable Name: SUPPORT_CLASS_CODE_NAME

Definition: The general location of the support (e.g., overhead).

Field Type: Text.

Support ID

Variable Name: SUPPORT_ID

Definition: Unique ID for the sign support (e.g., 2667953).

Field Type: Numeric.

Support Name

Variable Name: SUPPORT_NAME

Definition: Generic name of the support made up of the Support ID and the type of sign or content (e.g., 2667953 CYLINDER DELINEATOR YELLOW).

Field Type: Text.

Support Position

Variable Name: SUPPORTS_POSITION_NAME

Definition: Where, relative to the road, the sign support is placed (e.g., right).

Field Type: Text.

Support Status

Variable Name: SUPPORTS_STATUS_NAME

Definition: The status of the sign support, whether it is in place at the time of the data creation (e.g., inplace).

Field Type: Text.

Travel Direction

Variable Name: TRAVEL_DIRECTION_NAME

Definition: The applicable travel direction the sign faces (e.g., north).

Field Type: Text.

Crash File

Crash File

City

Variable Name: CITY_NAME

Definition: City where the crash occurred (e.g., Saint Paul).

Field Type: Text.

County

Variable Name: COUNTY_NAME

Definition: County where the crash occurred (e.g., Ramsey).

Field Type: Text.

Crash Occurred on Bridge

Variable Name: BRIDGE_IND

Definition: Indicator that a crash occurred on a bridge.

Field Type: Coded:

- 1 = yes.
- 2 = no.
- 99 = unknown.

Crash Severity

Variable Name: CRASH_SEVERITY_CODE

Definition: The most severe injury resulting from the crash.

Field Type: Coded:

- 1 = killed.
- 2 = suspected serious injury (A).
- 3 = suspected minor injury (B).

- 4 = possible injury (C).
- 5 = no apparent injury.

Crash Type

Variable Name: CRASH_TYPE_CODE

Definition: The first harmful event of the crash.

Field Type: Coded:

- 8 = pedestrian.
- 9 = pedalcyclist (bicyclist).
- 10 = motor vehicle in transport.
- 11 = parked motor vehicle.
- 12 = struck by falling, shifting cargo or anything set in motion by motor vehicle.
- 13 = train—light rail transit (LRT).
- 14 = train—passenger.
- 15 = train—cargo.
- 16 = deer.
- 17 = other animal—alive at time of crash.
- 18 = other animal—dead before crash.
- 20 = separation of units.
- 21 = ran off roadway right.
- 22 = ran off roadway left.
- 23 = crossed median.
- 24 = crossed centerline.
- 25 = other—non-fixed object.
- 28 = utility pole/light support.
- 30 = traffic signal or signal structure.
- 31 = railroad/LRT crossing device.
- 32 = roadway sign or sign structure.
- 33 = downhill runaway.
- 34 = fell/jumped from motor vehicle.
- 35 = other post, pole, or support.
- 36 = construction or maintenance equipment.
- 37 = reentering roadway.
- 38 = thrown or falling object.
- 39 = cargo/equipment loss or shift.
- 41 = bridge pier or support.
- 42 = bridge overhead structure.

- 43 = bridge rail.
- 46 = culvert.
- 47 = curb.
- 48 = ditch.
- 49 = embankment.
- 50 = snowbank.
- 51 = other—non-motorist.
- 55 = cable median barrier.
- 56 = concrete traffic barrier.
- 57 = other traffic barrier.
- 60 = impact attenuator/crash cushion.
- 61 = guardrail (face).
- 62 = guardrail (end).
- 67 = mailboxes/posts.
- 68 = hydrant.
- 69 = standing tree/shrubbery.
- 70 = fence (non-median barrier).
- 71 = parking meter.
- 75 = other—fixed object.
- 83 = overturn/rollover.
- 84 = immersion (full or partial).
- 85 = fire/explosion.
- 86 = jackknife.
- 89 = other non-collision.
- 99 = unknown.

Date and Time Crash Occurred

Variable Name: DATE_TIME_OF_INCIDENT

Definition: Date and time when the crash occurred (e.g., 5/20/2020 4:10:00 PM).

Field Type: Date.

Incident ID

Variable Name: INCIDENT_ID

Definition: Unique identifier for the crash. This variable is linkable to the Unit and Person files.

Field Type: Numeric.

Light Conditions

Variable Name: LIGHT_CONDITION_CODE

Definition: The type and level of light present at the time of the crash.

Field Type: Coded:

- 1 = daylight.
- 2 = dawn.
- 3 = dusk.
- 4 = dark—street lights on.
- 5 = dark—street lights off.
- 6 = dark—no street lights.
- 7 = dark—unknown lighting.
- 90 = other.
- 99 = unknown.

Milepost

Variable Name: MILEPOST

Definition: Milepost of the crash that is used to link the crash to the roadway via the Linear Referencing System (LRS).

Field Type: Numeric.

Minimum Damage Threshold

Variable Name: MINIMUM_DAMAGE_IND

Definition: Indicator that the minimum damage (i.e., dollar amount) threshold for a reportable crash was met.

Field Type: Coded:

- 1 = yes.
- 2 = no.
- 99 = unknown.

Number of Vehicles

Variable Name: NUMBER_OF_VEHICLES_INVOLVED

Definition: Number of vehicles involved in the crash.

Field Type: Numeric.

Relationship to Intersection

Variable Name: INTERSECTION_RELATED_IND

Definition: Indicator that a crash is related to an intersection.

Field Type: Coded:

- 1 = yes.
- 2 = no.
- 99 = unknown.

Route ID

Variable Name: ROUTE_ID

Definition: The combined route system and route number where the crash occurred. This variable is used to link crashes to the Roadway file through tables (e.g., 0500023945680207-I).

Field Type: Text.

School Bus Involved Crash

Variable Name: BUS_INVOLVED_CODE

Definition: Indicator that a school bus was involved in the crash.

Field Type: Coded:

- 1 = yes, involved directly.
- 2 = yes, involved indirectly.
- 3 = no.

Total Number of Fatalities

Variable Name: NUMBER_OF_FATALITIES

Definition: Total number of persons killed in the crash.

Field Type: Numeric.

Township Number

Variable Name: TOWNSHIP_GNIS_FEATURE_ID

Definition: Number of the township where the crash occurred.

Field Type: Coded:

Additional Information: Access the codes through the U.S. Geological Survey: https://www.usgs.gov/u.s.-board-on-geographic-names/download-gnis-data.[4]

Weather Conditions 1

Variable Name: WEATHER_CODE

Definition: Weather conditions at the time the crash occurred.

Field Type: Coded:

- 01 = clear.
- 02 = cloudy.
- 03 = rain.
- 04 = snow.
- 05 = sleet, hail (freezing rain or drizzle).
- 06 = fog/smog/smoke.
- 07 = blowing sand/soil/dust/snow.
- 08 = severe crosswinds.
- 90 = other.
- 99 = unknown.

Weather Conditions 2

Variable Name: WEATHER_SECONDARY_CODE

Definition: Weather conditions at the time the crash occurred.

Field Type: Coded:

- 01 = clear.
- 02 = cloudy.
- 03 = rain.
- 04 = snow.
- 05 = sleet, hail (freezing rain or drizzle).
- 06 = fog/smog/smoke.
- 07 = blowing sand/soil/dust/snow.
- 08 = severe crosswinds.
- 90 = other.
- 99 = unknown.

Worker Present

Variable Name: WORKERS_PRESENT_CODE

Definition: Indicator that work zone workers were present at the time of the crash.

Field Type: Coded:

- 1 = yes.
- 2 = no.
- 99 = unknown.

Work Zone Location

Variable Name: WORK_ZONE_LOCATION_CODE

Definition: Location of the crash in a work zone.

Field Type: Coded:

- 1 = before the first warning sign.
- 2 = advance warning area.
- 3 = transition area.

- 4 = activity area.
- 5 = termination area.
- 6 = after the end of work zone sign.
- 90 = other.

Work Zone Marked

Variable Name: WORKZONE_IND

Definition: Indicator that a crash occurred in a work zone.

Field Type: Coded:

- 1 = yes.
- 2 = no.
- 99 = unknown.

Year

Variable Name: YEAR

Definition: Year the crash occurred.

Field Type: Text.

Unit File

Unit File

Color of Vehicle

Variable Name: VEHICLE_COLOR

Definition: The color of the vehicle involved in the crash.

Field Type: Coded:

- ALU = aluminum (non-NCIC).
- AME = amethyst (purple).
- BGE = beige.
- BLK = black.
- BLU = blue.
- BRN = brown (non-NCIC).
- BRO = brown.
- BRZ = bronze.
- BUR = burgundy (non-NCIC).
- CAM = camouflage.
- COM = chrome.
- CPR = copper.
- CRM = cream.
- DBL = blue, dark.
- DGR = green, dark.
- GLD = gold.
- GRN = green.
- GRY = gray.
- LAV = lavender (purple).
- LBL = blue, light.
- LGR = green, light.
- LVD = lavender (non-NCIC).
- MAR = maroon.
- MUL = multicolored.
- MVE = mauve (purple).
- ONG = orange.
- PLE = purple.
- PNK = pink.
- RED = red.
- RST = rust.
- SIL = silver.

- STS = stainless steel (non-NCIC).
- TAN = tan.
- TEA = teal (green).
- TPE = taupe (brown).
- TRQ = turquoise (blue).
- UNK = unknown.
- WHI = white.
- YEL = yellow.

Note: NCIC is the National Crime Information Center.(5)

Fire In Vehicle

Variable Name: FIRE_CODE

Definition: Indicator that the vehicle was involved in a fire.

Field Type: Coded:

- 1 = yes.
- 2 = no.
- 99 = unknown.

Incident ID

Variable Name: INCIDENT_ID

Definition: Unique ID of the crash.

Field Type: Numeric.

Most Harmful Event

Variable Name: MOST_HARMFUL_EVENT_CODE

Definition: Most harmful event in the crash.

Field Type: Coded:

- 8 = pedestrian.
- 9 = pedalcyclist (bicyclist).
- 10 = motor vehicle in transport

- 11 = parked motor vehicle.
- 12 = struck by falling, shifting cargo or anything set in motion by motor vehicle.
- 13 = train—LRT.
- 14 = train—passenger.
- 15 = train—cargo.
- 16 = deer.
- 17 = other animal—alive at time of crash.
- 18 = other animal—dead before crash
- 20 = separation of units.
- 21 = ran off roadway right.
- 22 = ran off roadway left.
- 23 = cross median.
- 24 = cross centerline.
- 25 = other—non fixed object.
- 28 = utility pole/light support.
- 30 = traffic signal or signal structure.
- 31 = RR (railroad)/ LRT crossing device.
- 32 = roadway sign or sign structure.
- 33 = downhill runaway.
- 34 = fell/jumped from motor vehicle.
- 35 = other post, pole or support.
- 36 = construction or maintenance equipment.
- 37 = reentering roadway.
- 38 = thrown or falling object.
- 39 = cargo/equipment loss or shift.
- 41 = bridge pier or support.
- 42 = bridge overhead structure.
- 43 = bridge rail.
- 46 = culvert.
- 47 = curb.
- 48 = ditch.
- 49 = embankment.
- 50 = snowbank.
- 51 = other—non-motorist.
- 55 = cable median barrier.
- 56 = concrete traffic barrier.
- 57 = other traffic barrier.
- 60 = impact attenuator/crash cushion.
- 61 = guardrail (face).
- 62 = guardrail (end).
- 67 = mailboxes/posts.

- 68 = hydrant.
- 69 = standing tree/shrubbery.
- 70 = fence (non-median barrier).
- 71 = parking meter.
- 75 = other—fixed object.
- 83 = overturn/rollover.
- 84 = immersion (full or partial).
- 85 = fire/explosion.
- 86 = jackknife.
- 89 = other non-collision.
- 99 = unknown.

Motor Carrier Body Type

Variable Name: CARGO_BODY_TYPE_CODE

Definition: Body type of the motor carrier involved in the crash.

Field Type: Coded:

- 6 = van/enclosed box.
- 8 = dump.
- 9 = concrete mixer.
- 10 = auto transporter.
- 11 = garbage/refuse.
- 12 = hopper (grain/chips/gravel).
- 13 = pole trailer.
- 14 = log.
- 15 = bus (9–15 seats including driver).
- 16 = intermodal container chassis.
- 17 = vehicle towing another vehicle.
- 18 = no cargo body—(bobtail, light motor vehicle with hazardous materials (HM) placard, etc.).
- 19 = flatbed.
- 20 = cargo tank.
- 21 = bus (more than 15 seats including driver).
- 90 = other.
- 99 = unknown.

Contributing Factor 1

Variable Name: PRIMARY_CONTRIBUTOR_CODE

Definition: Contributing factor/action at time of crash.

Field Type: Coded:

- 10 = no clear contributing action.
- 11 = defective brakes.
- 12 = defective tire or tire failure.
- 13 = defective lights (head, signal, tail).
- 14 = defective windows/windshield glass.
- 15 = oversize/overweight trucks.
- 16 = vision obscured.
- 17 = defective exhaust system.
- 18 = defective body, doors.
- 19 = defective power train.
- 20 = defective suspension.
- 21 = defective wheels.
- 22 = defective mirrors.
- 23 = defective wipers.
- 24 = defective steering.
- 25 = truck coupling/trailer hitch/safety chains.
- 90 = other.
- 99 = unknown.

Contributing Factor 2

Variable Name: SECONDARY_CONTRIBUTOR_CODE

Definition: Contributing factor/action at time of crash.

Field Type: Coded:

- 10 = no clear contributing action.
- 11 = defective brakes.
- 12 = defective tire or tire failure.
- 13 = defective lights (head, signal, tail).
- 14 = defective windows/windshield glass.
- 15 = oversize/overweight trucks.
- 16 = vision obscured.

- 17 = defective exhaust system.
- 18 = defective body, doors.
- 19 = defective power train.
- 20 = defective suspension.
- 21 = defective wheels.
- 22 = defective mirrors.
- 23 = defective wipers.
- 24 = defective steering.
- 25 = truck coupling/trailer hitch/safety chains.
- 90 = other.
- 99 = unknown.

Posted Speed Limit

Variable Name: POSTED_SPEED

Definition: The roadway's posted speed limit in miles per hour that applies to the unit at the time of the crash.

Field Type: Numeric.

Roadway Grade Code

Variable Name: ROADWAY_GRADE_CODE

Definition: The grade category of the roadway that the unit was on at the time of the crash.

Field Type: Coded:

- 21 = level.
- 22 = hillcrest.
- 23 = uphill.
- 24 = downhill.
- 25 = sag (bottom).

State of Vehicle Registration

Variable Name: LICENSE_PLATE_STATE_CODE

Definition: Two-letter abbreviation of the State in which the vehicle is registered (e.g., MN).

Field Type: Text.

Traffic Control Condition

Variable Name: TRAFFIC_CONTROL_CONDITION_CODE

Definition: The condition of the traffic control device, if there was one, involved in the crash.

Field Type: Coded:

- 1 = operational.
- 2 = not operational.
- 3 = enhanced—flashing, blinking, or illuminated.
- 5 = traffic control missing.

Trafficway Design

Variable Name: TRAFFICWAY_DESIGN_CODE

Definition: Design of the road indicates one- or two-way traffic and whether the road is divided.

Field Type: Coded:

- 11 = one-way trafficway.
- 12 = two-way, not divided.
- 13 = two way, not divided, with continuous left-turn lane.
- 14 = two way, divided, unprotected median.
- 15 = two way, divided, median barrier.
- 90 = other.
- 99 = unknown.

Type of Vehicle

Variable Name: VEHICLE_MODEL

Definition: Model of the vehicle involved in the crash (e.g., Silverado).

Field Type: Text.

Unit ID

Variable Name: UNIT_ID

Definition: Unique number of the unit in the crash. This number is used to link the Person file to the unit-level data.

Field Type: Numeric.

Unit Type

Variable Name: UNIT_TYPE_CODE

Definition: Type of unit.

Field Type: Coded:

- 1 = hit-and-run vehicle or unknown driver.
- 2 = motor vehicle in transport.
- 3 = parked/stalled motor vehicle.
- 4 = working vehicle/equipment.
- 5 = pedestrian.
- 6 = bicycle.
- 7 = other cycle (unicycle, tricycle, etc.).
- 8 = other personal conveyance (wheelchair, horse, buggy, skates, skateboard, Segway®, etc.).

Vehicle Carrying Hazardous Material

Variable Name: HAZMAT_CLASS_CODE

Definition: What type of hazardous material the vehicle was carrying when the crash occurred, if it was carrying any.

Field Type: Coded:

- 1 = explosives.
- 2 = gases—compressed, dissolved or refrigerated.
- 3 = flammable liquid.
- 4 = flammable solids—combustible, water reactive.
- 5 = oxidizing substances—organic peroxides.
- 6 = poisonous (toxic) and infectious substances.
- 7 = radioactive material.
- 8 = corrosives.
- 9 = miscellaneous dangerous goods.
- 98 = unknown.

Vehicle Direction

Variable Name: DIRECTION_OF_MOVEMNT_CODE

Definition: Direction the vehicle was traveling when the crash occurred.

Field Type: Coded:

- 1 = northbound.
- 2 = southbound.
- 3 = eastbound.
- 4 = westbound.
- 10 = not on roadway.
- 99 = unknown.

Vehicle Make

Variable Name: VEHICLE_MAKE

Definition: Make of the vehicle involved in the crash (e.g., CHEV).

Field Type: Text.

Additional Information: This variable is a four-character code indicating the vehicle make. If a code in the data is unclear as to what the make is, please contact the HSIS Laboratory.

Vehicle Towed

Variable Name: TOWED_IND

Definition: Whether the vehicle involved in the crash was towed from the scene.

Field Type: Coded:

- 2 = not towed.
- 3 = towed due to disabling damage.
- 4 = towed but not due to disabling damage.

Year

Variable Name: YEAR

Definition: Year of the crash.

Field Type: Numeric.

Person File

Person File

Age

Variable Name: AGE

Definition: Age of the person involved in the crash.

Field Type: Numeric.

Airbag Deployed

Variable Name: AIRBAG_CODE

Definition: Type of airbag deployed in the crash (if applicable).

Field Type: Coded:

- 5 = deployed—front.
- 6 = deployed—side.
- 7 = deployed—curtain.
- 8 = deployed—other (knee, air belt, etc.).
- 9 = deployed combination.
- 10 = not deployed.
- 98 = not applicable.
- 99 = unknown.

Blood Alcohol Test Result

Variable Name: ALCOHOL_TEST_RESULT_CODE

Definition: Blood alcohol (BAC) test results for the person.

Field Type: Coded:

- 0 = 0.
- 1 = positive for alcohol at the 0.01% BAC.
- 2 = positive for alcohol at the 0.02% BAC.
- 3 = positive for alcohol at the 0.03% BAC.
- 4 = positive for alcohol at the 0.04% BAC.
- 5 = positive for alcohol at the 0.05% BAC.

- 6 = positive for alcohol at the 0.06% BAC.
- 7 = positive for alcohol at the 0.07% BAC.
- 8 = positive for alcohol at the 0.08% BAC.
- 9 = positive for alcohol at the 0.09% BAC.
- 10 = positive for alcohol at the 0.10% BAC.
- 11 = positive for alcohol at the 0.11% BAC.
- 12 = positive for alcohol at the 0.12% BAC.
- 13 = positive for alcohol at the 0.13% BAC.
- 14 = positive for alcohol at the 0.14% BAC.
- 15 = positive for alcohol at the 0.15% BAC.
- 16 = positive for alcohol at the 0.16% BAC.
- 17 = positive for alcohol at the 0.17% BAC.
- 18 = positive for alcohol at the 0.18% BAC.
- 19 = positive for alcohol at the 0.19% BAC.
- 20 = positive for alcohol at the 0.20% BAC.
- 21 = positive for alcohol at the 0.21% BAC.
- 22 = positive for alcohol at the 0.22% BAC.
- 23 = positive for alcohol at the 0.23% BAC.
- 24 = positive for alcohol at the 0.24% BAC.
- 25 = positive for alcohol at the 0.25% BAC.
- 26 = positive for alcohol at the 0.26% BAC.
- 27 = positive for alcohol at the 0.27% BAC.
- 28 = positive for alcohol at the 0.28% BAC.
- 29 = positive for alcohol at the 0.29% BAC.
- 30 = positive for alcohol at the 0.30% BAC.
- 31 = positive for alcohol at the 0.31% BAC.
- 32 = positive for alcohol at the 0.32% BAC.
- 33 = positive for alcohol at the 0.33% BAC.
- 34 = positive for alcohol at the 0.34% BAC.
- 35 = positive for alcohol at the 0.35% BAC.
- 36 = positive for alcohol at the 0.36% BAC.
- 37 = positive for alcohol at the 0.37% BAC.
- 38 = positive for alcohol at the 0.38% BAC.
- 39 = positive for alcohol at the 0.39% BAC.
- 40 = positive for alcohol at the 0.40% BAC.
- 41 = positive for alcohol at the 0.41% BAC.
- 42 = positive for alcohol at the 0.42% BAC.
- 43 = positive for alcohol at the 0.43% BAC.
- 44 = positive for alcohol at the 0.44% BAC.
- 45 = positive for alcohol at the 0.45% BAC.
- 46 = positive for alcohol at the 0.46% BAC.

- 47 = positive for alcohol at the 0.47% BAC.
- 48 = positive for alcohol at the 0.48% BAC.
- 49 = positive for alcohol at the 0.49% BAC.
- 50 = positive for alcohol at the 0.50% BAC.
- 51 = positive for alcohol at the 0.51% BAC.
- 52 = positive for alcohol at the 0.52% BAC.
- 53 = positive for alcohol at the 0.53% BAC.
- 54 = positive for alcohol at the 0.54% BAC.
- 55 = positive for alcohol at the 0.55% BAC.
- 56 = positive for alcohol at the 0.56% BAC.
- 57 = positive for alcohol at the 0.57% BAC.
- 58 = positive for alcohol at the 0.58% BAC.
- 59 = positive for alcohol at the 0.59% BAC.
- 60 = positive for alcohol at the 0.60% BAC.
- 61 = positive for alcohol at the 0.61% BAC.
- 62 = positive for alcohol at the 0.62% BAC.
- 63 = positive for alcohol at the 0.63% BAC.
- 64 = positive for alcohol at the 0.64% BAC.
- 65 = positive for alcohol at the 0.65% BAC.
- 66 = positive for alcohol at the 0.66% BAC.
- 67 = positive for alcohol at the 0.67% BAC.
- 68 = positive for alcohol at the 0.68% BAC.
- 69 = positive for alcohol at the 0.69% BAC.
- 70 = positive for alcohol at the 0.70% BAC.
- 72 = pending.
- 98 = not applicable.
- 99 = unknown.

Blood Alcohol Test Type

Variable Name: ALCOHOL_TEST_TYPE_CODE

Definition: Type of alcohol test administered to the person.

Field Type: Coded:

- 1 = blood.
- 3 = preliminary breath test (PBT) (breath).
- 4 = urine.

- 5 = breath data master (DMT®).
- 98 = not applicable.
- 99 = unknown.

Driver License Class

Variable Name: DL_CLASS

Definition: Class of driver license of the driver involved in the crash.

Field Type: Coded:

- 1 = A commercial—any vehicle or combination.
- 2 = B commercial—any basic single-unit motor vehicle.
- 3 = C commercial—any Class D vehicle transporting hazardous materials and for school bus.
- 4 = D the normal (not commercial) driver's license.
- 5 = I ID card only.
- 6 = T lifetime ID card only (65 years and older).
- 7 = M moped license only.
- 8 = IP instruction permit.
- 10 = X (not licensed).
- 12 = A commercial permit.
- 13 = B commercial permit.
- 14 = D commercial permit.
- 15 = LL limited driver's license.
- 16 = LP limited learner's permit.
- 17 = MP motorcycle instruction permit.
- 18 = MB motorized bicycle permit.

Driver—License Restriction 1

Variable Name: DL_RESTRICTION1_CODE

Definition: Presence of a driver's license restriction(s).

Field Type: Coded:

- 01 = none.
- 02 = corrective lenses.
- 03 = mechanical devices.
- 04 = prosthetic aid.

- 05 = automatic transmission.
- 06 = outside mirror.
- 07 = limit to daylight hours.
- 08 = limit to employment only.
- 09 = limited—other.
- 10 = learner's permit.
- 11 = commercial drivers license—intrastate.
- 12 = vehicles without air brakes.
- 13 = except Class A bus.
- 14 = except Class A and Class B bus.
- 15 = except tractor trailer.
- 16 = farm waiver.
- 18 = no passenger in CMV bus.
- 19 = Federal Motor Carrier Safety Administration medical waiver.
- 20 = bus <24 capacity.
- 21 = no cargo in CMV tank vehicle.
- 22 = air over hydraulic brake system.
- 23 = automatic transmission CMV.
- 24 = any use of alcohol/drugs invalidates license.
- 25 = hand-operated brakes.
- 26 = complete hand controls.
- 27 = hand-operated light beam control.
- 28 = elevated driver seat.
- 29 = no freeway driving.
- 30 = ignition interlock required.
- 31 = also valid for three-wheel motorcycle.
- 32 = bioptic lenses.
- 33 = left-foot accelerator.
- 34 = limited mile radius from home.
- 35 = miles per hour limited to maximum speed.
- 36 = outside rearview mirrors.
- 37 = pedal extender.
- 38 = power steering.
- 39 = prism lenses.
- 40 = no rush hour driving.
- 41 = MC with rear wheel stabilizers only.
- 42 = seasonal farm work.
- 43 = steering wheel knob.
- 44 = turn signal extender.

- 90 = other.
- 98 = not applicable.
- 99 = unknown.

Note: CMV = commercial motor vehicle; MC = motorcycle.

Driver—License Restriction 2

Variable Name: DL_RESTRICTION2_CODE

Definition: Presence of a driver's license restriction(s).

Field Type: Coded:

- 01 = none.
- 02 = corrective lenses.
- 03 = mechanical devices.
- 04 = prosthetic aid.
- 05 = automatic transmission.
- 06 = outside mirror.
- 07 = limit to daylight hours.
- 08 = limit to employment only.
- 09 = limited—other.
- 10 = learner's permit.
- 11 = CDL—intrastate.
- 12 = vehicles without air brakes.
- 13 = except Class A bus.
- 14 = except Class A and Class B bus.
- 15 = except tractor trailer.
- 16 = farm waiver.
- 18 = no passenger in CMV bus.
- 19 = Federal Motor Carrier Safety Administration medical waiver.
- 20 = bus < 24 capacity.
- 21 = no cargo in CMV tank vehicle.
- 22 = air over hydraulic brake system.
- 23 = automatic transmission CMV.
- 24 = any use of alcohol/drugs invalidates license.
- 25 = hand-operated brakes.
- 26 = complete hand controls.
- 27 = hand-operated light beam control.
- 28 = elevated driver seat.
- 29 = no freeway driving.

- 30 = ignition interlock required.
- 31 = also valid for three-wheel motorcycle.
- 32 = bioptic lenses.
- 33 = left foot accelerator.
- 34 = limited mile radius from home.
- 35 = mph limited to maximum speed.
- 36 = outside rearview mirrors.
- 37 = pedal extender.
- 38 = power steering.
- 39 = prism lenses.
- 40 = no rush hour driving.
- 41 = MC with rear wheel stabilizers only.
- 42 = seasonal farm work.
- 43 = steering wheel knob.
- 44 = turn signal extender.
- 90 = other.
- 98 = not applicable.
- 99 = unknown.

Driver—License Restriction 3

Variable Name: DL_RESTRICTION3_CODE

Definition: Presence of a driver's license restriction(s).

Field Type: Coded:

- 01 = none.
- 02 = corrective lenses.
- 03 = mechanical devices.
- 04 = prosthetic aid.
- 05 = automatic transmission.
- 06 = outside mirror.
- 07 = limit to daylight hours.
- 08 = limit to employment only.
- 09 = limited—other.
- 10 = learner's permit.
- 11 = CDL—intrastate.
- 12 = vehicles without air brakes.
- 13 = except Class A bus.
- 14 = except Class A and Class B bus.

- 15 = except tractor trailer.
- 16 = farm waiver.
- 18 = no passenger in CMV bus.
- 19 = Federal Motor Carrier Safety Administration medical waiver.
- 20 = bus < 24 capacity.
- 21 = no cargo in CMV tank vehicle.
- 22 = air over hydraulic brake system.
- 23 = automatic transmission CMV.
- 24 = any use of alcohol/drugs invalidates license.
- 25 = hand-operated brakes.
- 26 = complete hand controls.
- 27 = hand-operated light beam control.
- 28 = elevated driver seat.
- 29 = no freeway driving.
- 30 = ignition interlock required.
- 31 = also valid for three-wheel motorcycle.
- 32 = bioptic lenses.
- 33 = left foot accelerator.
- 34 = limited mile radius from home.
- 35 = mph limited to maximum speed.
- 36 = outside rearview mirrors.
- 37 = pedal extender.
- 38 = power steering.
- 39 = prism lenses.
- 40 = no rush hour driving.
- 41 = MC with rear wheel stabilizers only.
- 42 = seasonal farm work.
- 43 = steering wheel knob.
- 44 = turn signal extender.
- 90 = other.
- 98 = not applicable.
- 99 = unknown.

Driver License State

Variable Name: DL_STATE_CODE

Definition: State abbreviation associated with the applicable driver's license (e.g., MN).

Field Type: Coded:

- AB = Alberta.
- AG = Aguascalientes.
- AK = Alaska.
- AL = Alabama.
- AR = Arkansas.
- AZ = Arizona.
- BC = British Columbia.
- BN = Baja California.
- BS = Baja California Sur.
- CA = California.
- CH = Chihuahua.
- CL = Colima.
- CM = Campeche.
- CO = Colorado.
- CP = Chiapas.
- CT = Connecticut.
- CU = Coahuila.
- DC = District of Col.
- DE = Delaware.
- DF = Federal district.
- DU = Durango.
- FL = Florida.
- GA = Georgia.
- GR = Guerrero.
- GT = Guanajuato.
- HD = Hidalgo.
- HI = Hawaii.
- IA = Iowa.
- ID = Idaho.
- IL = Illinois.
- IN = Indiana.
- JA = Jalisco.
- KS = Kansas.
- KY = Kentucky.
- LA = Louisiana.
- MA = Massachusetts.
- MB = Manitoba.
- MC = Michoacán.
- MD = Maryland.
- ME = Maine.
- MI = Michigan.

- MN = Minnesota.
- MO = Missouri.
- MR = Morelos.
- MS = Mississippi.
- MT = Montana.
- MX = México City.
- NA = Nayarit.
- NC = North Carolina.
- ND = North Dakota.
- NE = Nebraska.
- NF = Newfoundland.
- NH = New Hampshire.
- NJ = New Jersey.
- NK = New Brunswick.
- NL = Nuevo León.
- NM = New Mexico.
- NS = Nova Scotia.
- NT = Northwest Terr.
- NU = Nunavut.
- NV = Nevada.
- NY = New York.
- OA = Oaxaca.
- OH = Ohio.
- OK = Oklahoma.
- ON = Ontario.
- OR = Oregon.
- PA = Pennsylvania.
- PE = Prince Edw Island.
- PU = Puebla.
- QC = Quebec.
- QE = Querétaro.
- QR = Quintana Roo.
- RI = Rhode Island.
- SC = South Carolina.
- SD = South Dakota.
- SI = Sinaloa.
- SK = Saskatchewan.
- SL = San Luis Potosí.
- SO = Sonora.
- TB = Tabasco.
- TL = Tlaxcala.

- TM = Tamaulipas.
- TN = Tennessee.
- TX = Texas.
- UT = Utah.
- VA = Virginia.
- VE = Veracruz.
- VT = Vermont.
- WA = Washington.
- WI = Wisconsin.
- WV = West Virginia.
- WY = Wyoming.
- YT = Yukon.
- YU = Yucatán.
- YY = Outside U.S./Canada.
- ZA = Zacatecas.

Drug Test Performed

Variable Name: DRUG_TEST_STATUS_CODE

Definition: Drug test performed on driver (if applicable).

Field Type: Coded:

- 1 = yes, test given.
- 2 = no, test not given.
- 3 = test refused.
- 99 = unknown.

Ejection from Vehicle

Variable Name: EJECTION_CODE

Definition: Indicates that occupant was ejected when the crash occurred.

Field Type: Coded:

- 1 = trapped, extricated by mechanical means.
- 2 = trapped, freed by nonmechanical means.
- 3 = partially ejected.
- 4 = totally ejected.

- 5 = not ejected or trapped.
- 98 = not applicable.
- 99 = unknown.

Incident ID

Variable Name: INCIDENT_ID

Definition: Unique identifier for the crash. This variable is linkable to the Unit and Crash files.

Field Type: Numeric.

Injury Severity

Variable Name: INJURY_SEVERITY_CODE

Definition: Severity of injuries sustained in the crash by person.

Field Type: Coded:

- 1 = killed.
- 2 = suspected serious injury (A).
- 3 = suspected minor injury (B).
- 4 = possible injury (C).
- 5 = no apparent injury.
- 99 = unknown.

Person ID

Variable Name: PERSON_ID

Definition: Unique number of the person involved in the crash.

Field Type: Numeric.

Physical Condition 1

Variable Name: PHYSICAL_CONDITION_CODE

Definition: Physical condition of the driver involved in the crash.

Field Type: Coded:

- 5 = apparently normal (including no drugs/alcohol).
- 6 = physical disability (short term or long term).
- 7 = medical issue (ill, sick, or fainted).
- 8 = emotional (depression, angry, disturbed, etc.).
- 9 = asleep or fatigued.
- 10 = has been drinking alcohol.
- 11 = has been taking illicit drugs.
- 12 = has been taking medications.
- 90 = other.
- 99 = unknown.

Physical Condition 2

Variable Name: PHYSICAL_CONDITION2_CODE

Definition: Physical condition of the driver involved in the crash.

Field Type: Coded:

- 5 = apparently normal (including no drugs/alcohol).
- 6 = physical disability (short term or long term).
- 7 = medical issue (ill, sick, or fainted).
- 8 = emotional (depression, angry, disturbed, etc.).
- 9 = asleep or fatigued.
- 10 = has been drinking alcohol.
- 11 = has been taking illicit drugs.
- 12 = has been taking medications.
- 90 = other.
- 99 = unknown.

Position in Vehicle

Variable Name: POSITION_CODE

Definition: Occupant position in vehicle when the crash occurred.

Field Type: Coded:

- 1 = driver (includes motorcycle driver).
- 2 = front center.

- 3 = front right (includes MC sidecar).
- 4 = second seat left (includes MC passenger).
- 5 = second seat center.
- 6 = second seat right.
- 7 = third seat left.
- 8 = third seat center.
- 9 = third seat right.
- 10 = outside of vehicle.
- 11 = fourth row left.
- 12 = fourth row middle.
- 13 = fourth row right.
- 14 = fifth or other row (bus, 15-passenger van, etc.).
- 15 = sleeper section of cab (truck).
- 16 = trailing unit.
- 17 = other enclosed cargo area.
- 18 = other unenclosed cargo area (pickup truck bed, etc.).
- 19 = riding on motor vehicle exterior (nontrailing unit).
- 99 = unknown.

Safety Equipment Used

Variable Name: SAFETY_EQUIPMENT_USE_CODE

Definition: Type of safety equipment used by person at the time of crash.

Field Type: Coded:

- 5 = none used, motor vehicle occupant.
- 6 = lap and shoulder belt used.
- 7 = lap belt only used.
- 8 = shoulder belt only used.
- 9 = restraint used—type unknown.
- 10 = child restraint system not used.
- 11 = child restraint system seat used improperly.
- 12 = child restraint system—rear facing.
- 13 = child restraint system—forward facing.
- 14 = booster seat properly.
- 15 = child restraint type unknown.
- 16 = helmet used, unknown if DOT-compliant.
- 17 = no helmet.
- 18 = none.

- 19 = no protective pads.
- 20 = protective pads used (elbows, knees, shins, etc.).
- 21 = dark clothing.
- 22 = light clothing.
- 23 = reflective clothing (jacket, backpack, etc.).
- 24 = lighting.
- 25 = helmet used, DOT compliant.
- 26 = helmet used, other than DOT-compliant.
- 27 = unknown if helmet worn.
- 28 = no helmet.
- 29 = DOT compliant three-quarter.
- 30 = DOT compliant half.
- 31 = DOT compliant full face.
- 32 = DOT noncompliant three-quarter.
- 33 = DOT noncompliant half.
- 34 = DOT noncompliant full face.
- 35 = full protective gear (motorcycle-specific jacket, pants, boots, and gloves).
- 36 = reflective or brightly colored clothing (jacket, helmet, gear, etc.).
- 37 = body airbags.
- 90 = other.
- 98 = not applicable.
- 99 = unknown.

Note: DOT-compliant means that the helmet meets Federal Motor Vehicle Safety Standard Number 218.[6]

Sex

Variable Name: GENDER_CODE

Definition: Sex of the person involved in the crash.

Field Type: Coded:

- M = male.
- F = female.
- 99 = unknown.

Transported to Hospital Method

Variable Name: TRANSPORT_TYPE_CODE

Definition: How occupant was transported to the hospital.

Field Type: Coded:

- 1 = not transported.
- 2 =EMS (emergency medical service) ground.
- 3 = EMS air.
- 90 = other.
- 99 = unknown.

Unit ID

Variable Name: UNIT_ID

Definition: Unique unit ID number linkable to the Unit and Crash files.

Field Type: Numeric.

Year

Variable Name: YEAR

Definition: Applicable year of the crash.

Field Type: Numeric.

Appendix: History of Revisions

Appendix: History of Revisions

Table 4 shows HSIS variables and the years in which changes were made. The changes are described for the relevant variables.

Table 4. History of HSIS revisions.

File	Variable Name	Variable	Description of Change	Year of Change
Accident/ Crash	ACC_DATE	Date accident occurred	Variable name changed to DATE_TIME_OF_INCIDENT	2016
Accident/ Crash	ACCDIGM	Diagram of accident code	Variable discontinued	2015
Accident/ Crash	ACCTYPE	Type of accident	Variable name changed to CRASH_TYPE_CODE	2016
Accident/ Crash	ACCYR	Year accident occurred	Variable discontinued	2016
Accident/ Crash	AGENCY	Agency	Variable created Variable discontinued	2003 2016
Accident/ Crash	AMBL_NBR	Ambulance number	Variable discontinued	2000
Accident/ Crash	CASENO	Accident number	Variable name changed to INCIDENT_ID	2016
Accident/ Crash	CITY	City	Variable created Variable name changed to CITY_NAME	2000 2016
Accident/ Crash	COUNTY	County	Variable name changed to COUNTY_NAME	2016
Accident/ Crash	DISTRICT	District	Variable discontinued	2016
Accident/ Crash	DIV_CODE	Road design	Variable discontinued	2016
Accident/ Crash	HAZMAT	Hazardous material carried	Variable discontinued	1990
Accident/ Crash	HIT_RUN	Hit and run	Variable created Variable discontinued	1990 2016
Accident/ Crash	HOUR	Hour accident occurred	Variable discontinued	2016
Accident/ Crash	INTERCH	Interchange element code	Variable discontinued	2016
Accident/ Crash	LIGHT	Light conditions	Variable name changed to LIGHT_CONDITION_CODE	2016
Accident/ Crash	LOC_BIKE	Location of pedestrian/bike accident	Variable discontinued	1991
Accident/ Crash	LOC_HARM	Location of first harmful event	Variable discontinued	2016
Accident/ Crash	LOC_NARR	Location description	Variable discontinued	2016

File	Variable Name	Variable	Description of Change	Year of Change
Accident/ Crash	LOC_TYPE	Relation to intersection	Variable name changed to INTERSECTION_RELATED_ IND Change in coding	2016 2016
Accident/ Crash	LOC_WRK_ ZONE	Location of accident in work zone	Variable created Variable name changed to WORK_ZONE_LOCATION_ CODE Change in coding	2003 2016 2016
Accident/ Crash	LOCN_REL	Location reliability	Variable created Variable discontinued	1990 2016
Accident/ Crash	MIN_DOLLAR	Minimum dollar threshold	Variable created Variable name changed to MINIMUM_DAMAGE_IND Change in coding	2003 2016 2016
Accident/ Crash	NUMVEHS	Number of vehicles involved	Variable name changed to NUMBER_OF_VEHICLES_ INVOLVED	2016
Accident/ Crash	OBJECT1	Fixed object struck	Variable discontinued	2000
Accident/ Crash	OFF_TYPE	Type of investigating officer	Variable discontinued	2016
Accident/ Crash	ON_BRDG	Accident occurred on bridge	Variable name changed to BRIDGE_IND	2016
Accident/ Crash	PHOTOS	Photos	Variable created Variable name changed to PHOTOS_TAKEN_CODE Change in coding	2003 2016 2016
Accident/ Crash	POP_FROM_ CITY	Population of city	Variable created Variable discontinued	2003 2016
Accident/ Crash	POP_FROM_ COUNTY	Population of county	Variable created Variable discontinued	2003 2016
Accident/ Crash	POP_GRP	Rural/urban population codes	Variable discontinued	2016
Accident/ Crash	PUBDMG	Public property damage	Variable discontinued	2015
Accident/ Crash	RD_CHAR1	Road characteristics	Variable discontinued	2015
Accident/ Crash	RDSURF	Road surface conditions	Variable discontinued	2015
Accident/ Crash	RDWORK	Roadwork being performed	Variable discontinued	2003
Accident/ Crash	RODWYCLS	Roadway classification	Variable discontinued	2016
Accident/ Crash	RTE_NBR	Route number	Variable discontinued	2016
Accident/ Crash	RTE_SYS	Route system	Variable discontinued	2016

File	Variable Name	Variable	Description of Change	Year of Change
Accident/ Crash	RTSYSNBR	Combined route system/route number	Variable name changed to ROUTE_ID	2016
Accident/ Crash	SCHLBUS	School bus involved accident	Variable name changed to BUS_INVOLVED_CODE Change in coding	2016 2016
Accident/ Crash	SEVERITY	Accident severity	Variable name changed to CRASH_SEVERITY_CODE Change in coding	2016 2016
Accident/ Crash	SPEED	Posted speed limit	Variable name changed to POSTED_SPEED	2016
Accident/ Crash	TOT_INJ	Number of persons injured	Variable discontinued	2016
Accident/ Crash	TOT_KILL	Total number of persons killed	Variable name changed to NUMBER_OF_FATALITIES	2016
Accident/ Crash	TRF_CNTL	Traffic control devices	Variable discontinued	2015
Accident/ Crash	TRFCNTLW	Traffic control working	Variable discontinued	2015
Accident/ Crash	TRVL_DIR	Travel direction	Variable discontinued	2015
Accident/ Crash	TWNSHIP	Township number	Variable name changed to TOWNSHIP_GNIS_FEATURE_ID	2016
Accident/ Crash	VEH_MOV1	Vehicle movement	Variable discontinued	1990
Accident/ Crash	WAST_MAT	Waste material carried	Variable discontinued	1991
Accident/ Crash	WEATHER	Weather conditions	Variable discontinued	2003
Accident/ Crash	WEATHER1	Weather conditions	Variable name changed to WEATHER_CODE	2016
Accident/ Crash	WEATHER2	Weather conditions	Variable name changed to WEATHER_SECONDARY_CODE	2016
Accident/ Crash	WEEKDAY	Day of week accident occurred	Variable discontinued	2016
Accident/ Crash	WORK_ZONE	Work zone marked	Variable created Variable name changed to WORKZONE_IND Change in coding	2003 2016 2016
Accident/ Crash	WRKS_PRESNT	Worker present	Variable created Variable name changed to WORKERS_PRESENT_CODE Change in coding	2003 2016 2016
Intersection	AADT1	Year 1 annual average daily traffic	Variable discontinued	—
Intersection	AADT111	Segment 1, leg 1, year 1 annual average daily traffic	Variable discontinued	2001

File	Variable Name	Variable	Description of Change	Year of Change
Intersection	AADT112	Segment 1, leg 1, year 2 annual average daily traffic	Variable discontinued	2001
Intersection	AADT113	Segment 1, leg 1, year 3 annual average daily traffic	Variable discontinued	2001
Intersection	AADT114	Segment 1, leg 1, year 3 annual average daily traffic	Variable discontinued	2001
Intersection	AADT115	Segment 1, leg 1, year 3 annual average daily traffic	Variable discontinued	2001
Intersection	AADT2	Year 2 annual average daily traffic	Variable added Variable discontinued	2001 2016
Intersection	AADT3	Year 3 annual average daily traffic	Variable added Variable discontinued	2001 2016
Intersection	AADT4	Year 4 annual average daily traffic	Variable added Variable discontinued	2001 2016
Intersection	AADT5	Year 5 annual average daily traffic	Variable added Variable discontinued	2001 2016
Intersection	ADTYR1	Annual average daily traffic year 1	Variable added Variable name changed to adt_entering_volume_year	2001 2016
Intersection	ADTYR112	Segment 1, leg 1, year 2	Variable discontinued	2001
Intersection	ADTYR113	Segment 1, leg 1, year 3	Variable discontinued	2001
Intersection	ADTYR114	Segment 1, leg 1, year 4	Variable discontinued	2001
Intersection	ADTYR115	Segment 1, leg 1, year 5	Variable discontinued	2001
Intersection	ADTYR2	Annual average daily traffic year 2	Variable added Variable discontinued	2001 2016
Intersection	ADTYR3	Annual average daily traffic year 3	Variable added Variable discontinued	2001 2016
Intersection	ADTYR4	Annual average daily traffic year 4	Variable added Variable discontinued	2001 2016
Intersection	ADTYR5	Annual average daily traffic year 5	Variable added Variable discontinued	2001 2016
Intersection	AP_BP_TL	Approach bypass/turn lanes	Variable added Variable discontinued	2001 2016
Intersection	AP_CNTL	Approach traffic control	Variable added Variable discontinued	2001 2016
Intersection	AP_COMNT	Approach comments	Variable added Variable discontinued	2001 2016
Intersection	AP_SPD	Approach speed limit	Variable added Variable discontinued	2001 2016
Intersection	AP_SPD111	Segment 1, leg 1, approach speed limit	Variable discontinued	2001
Intersection	AP_TLOFF	Number of approaching thru lanes during off-peak period	Variable added Variable discontinued	2001 2016
Intersection	AP_TLPEK	Number of approaching thru lanes during peak period	Variable added Variable discontinued	2001 2016

File	Variable Name	Variable	Description of Change	Year of Change
Intersection	APCNTL11	Segment 1, leg 1, approach traffic control	Variable discontinued	2001
Intersection	BEGMP	Calculated beginning milepost	Variable added Variable discontinued	2001 2016
Intersection	CNTL_CAT	Central office category	Variable discontinued	2016
Intersection	DESC	Intersection description	Variable added Variable discontinued	2001 2016
Intersection	DIR	Approach direction	Variable added Variable discontinued	2001 2016
Intersection	DIRECT11	Segment 1, leg number 1 direction	Variable discontinued	2001
Intersection	DIST_CAT	Category assigned by district	Variable discontinued	2016
Intersection	EFEC_DTE	Date of accident geocoding	Variable discontinued	2016
Intersection	ELEM_NBR	Interchange element code	Variable discontinued	2015
Intersection	ENDMP	Calculated ending milepost	Variable added Variable discontinued	2001 2016
Intersection	GEN_ENIV	General environment	Variable discontinued	
Intersection	INT_DESC	Verbal description of an approach or an intersection/interchange	Variable added Variable discontinued	2001 2016
Intersection	INT_ID	Intersection ID	Variable added Variable discontinued	2001 2016
Intersection	INT_SYNB	Combined rte_sys/rte_nbr	Variable name changed to primary_route_id	2016
Intersection	INT_TYPE	Intersection type	Variable discontinued	2001
Intersection	LEG_NBR	Leg/approach number	Variable added Variable discontinued	2001 2016
Intersection	LEGNBR11	Segment 1, leg number 1	Variable discontinued	2001
Intersection	LOLIMT	Lower limit	Variable added Variable discontinued	2001 2016
Intersection	LOLIMT1	Segment 1 lower limit	Variable discontinued	2001
Intersection	LV_TLOFF	Number of leaving approach thru lanes during off-peak period	Variable added Variable discontinued	2001 2016
Intersection	LV_TLPEK	Number of leaving approach thru lanes during peak period	Variable added Variable discontinued	2001 2016
Intersection	MILEPOST	Modified reference point location	Variable discontinued	2001
Intersection	MPOFFSET	Intersection milepost	Variable added Variable discontinued	2001 2016
Intersection	MPOFSET2	Leg milepost	Variable added Variable discontinued	2001 2016

File	Variable Name	Variable	Description of Change	Year of Change
Intersection	NBR_LEG1	Number of legs on segment 1	Variable discontinued	2001
Intersection	NBR_LEGS	Number of legs into intersection	Variable added Variable discontinued	2001 2016
Intersection	NBR_RTES	Number of routes into intersection	Variable added Variable discontinued	2001 2016
Intersection	RAIL_NBR	Railroad crossing number	Variable discontinued	2015
Intersection	RDESC	Approach road description	Variable added Variable discontinued	2001 2016
Intersection	RDESC1	Road description	Variable discontinued	2001
Intersection	RDWY_LGH	Roadway lighting	Variable name changed to lighting_exists	2016
Intersection	RECORD_ID	Unique identifier for each record	Variable added Variable discontinued	2001 2016
Intersection	REF_PNT	Reference point	Variable discontinued	2015
Intersection	REFPNT1	Reference point—route 1	Variable discontinued	2001
Intersection	RTE_NBR	Route number	Variable name changed to primary_route_id	2016
Intersection	RTE_NBR2	Leg route number	Variable discontinued	2016
Intersection	RTE_SYS	Route system	Variable discontinued	2016
Intersection	RTENBR1	Route number—route 1	Variable discontinued	2001
Intersection	RTESYS1	Route system—route 1	Variable discontinued	2001
Intersection	RTESYS2	—	Variable discontinued	2016
Intersection	SFTY_CLS	Safety improvement classification	Variable discontinued	2016
Intersection	SFTY_IMD	Safety improvement district	Variable discontinued	2016
Intersection	SFTY_IMY	Safety improvement year	Variable discontinued	2016
Intersection	SFTY_PRJ	Safety improvement project number	Variable discontinued	2016
Intersection	SIGN_CON	Traffic signals construction	Variable discontinued	2016
Intersection	SIGN_PED	Traffic signals pedestrian signals	Variable name changed to Pedestrian	2015
Intersection	SIGN_PLA	Signal head placement	Variable discontinued	2016
Intersection	SIGN_PRO	Traffic signal progression	Variable discontinued	2016
Intersection	SIGN_TIM	Traffic signal timing	Variable discontinued	2016
Intersection	SPEC_ENV	Specific environment	Variable discontinued	2016
Intersection	TRAF_DEV	Traffic control devices	Variable discontinued	2015
Intersection	TRAF_PHS	Traffic signal number of phases	Variable discontinued	2015
Intersection	TRAF_PRE	Traffic signals preemption	Variable discontinued	2016

File	Variable Name	Variable	Description of Change	Year of Change
Intersection	TRAF_TMF	Flashing signal time off	Variable discontinued	2016
Intersection	TRAF_TMO	Flashing signal time on	Variable discontinued	2016
Intersection	TRAFCNTL	Traffic control devices	Variable name changed to traffic_control_exists	2016
Intersection	TRF_CNTL	Traffic control devices revised	Variable added Variable discontinued	2001 2016
Intersection	TYPEDESC	Intersection description revised	Variable discontinued	2016
Intersection	UPLIMT1	Segment 1 upper limit	Variable discontinued	2001
Occupant/ Person	AIRBAG	Airbag deployed	Variable added Variable name changed to AIRBAG_CODE Change in coding Variable unavailable	2000 2016 2016 2021 2022
Occupant/ Person	ALCOHOL_ RESULT	Blood alcohol test result	Variable added Variable name changed to ALCOHOL_TEST_RESULT_ CODE Change in coding	2003 2016 2016
Occupant/ Person	ALCOHOL_ TEST	Blood alcohol test performance	Variable added Variable name changed to ALCOHOL_TEST_TYPE_ CODE Change in coding Variable unavailable	2003 2016 2016 2021 2022
Occupant/ Person	BIRTH_DT	Birthday	Variable discontinued	2016
Occupant/ Person	CASENO	Accident number	Variable name changed to INCIDENT_ID	2016
Occupant/ Person	CORN_RPT	Coroner report record	Variable added Variable discontinued	1991 2016
Occupant/ Person	DL_CLASS	Driver license class	Change in coding Variable unavailable	2016 2021 2022
Occupant/ Person	DL_STATE	Driver license State	Variable name changed to DL_STATE_CODE Variable unavailable	2016 2021 2022
Occupant/ Person	DL_WITHD	Driver license withdrawal	Variable added Variable discontinued	1990 1998
Occupant/ Person	DRIV_REC	Driver recommendation	Variable added Variable discontinued	1990 2016

File	Variable Name	Variable	Description of Change	Year of Change
Occupant/ Person	DRUG_TEST	Drug test performed	Variable added Variable name changed to DRUG_TEST_STATUS_CODE Change in coding Variable unavailable	2003 2016 2016 2021 2022
Occupant/ Person	EJECT	Ejection from vehicle	Variable name changed to EJECTION_CODE Change in coding Variable unavailable	2016 2016 2021 2022
Occupant/ Person	EQUIP_TYPE	Type of safety equipment	Variable name changed to SAFETY_EQUIPMENT_USE_ CODE Change in coding Variable unavailable	2016 2016 2021 2022
Occupant/ Person	FAT_NUM	Fatality number	Variable discontinued	2015
Occupant/ Person	FATLDATE	Fatality date	Variable added Variable discontinued	1998 2016
Occupant/ Person	HOSP	Injured taken to hospital	Variable discontinued	2016
Occupant/ Person	HOSPTRAN	Transported to hospital method	Variable name changed to TRANSPORT_TYPE_CODE Change in coding Variable unavailable	2016 2016 2021 2022
Occupant/ Person	INJ	Injury severity	Variable name changed to INJURY_SEVERITY_CODE Change in coding Variable unavailable	2016 2016 2021 2022
Occupant/ Person	LIS_RSTR	Driver license restrictions	Variable name changed to DL_RESTRICTION1_CODE Change in coding Variable unavailable	2016 2016 2021 2022
Occupant/ Person	LIS_RSTR	Driver license restrictions	Variable name changed to DL_RESTRICTION2_CODE Change in coding Variable unavailable	2016 2016 2021 2022
Occupant/ Person	LIS_RSTR	Driver license restrictions	Variable name changed to DL_RESTRICTION3_CODE Change in coding Variable unavailable	2016 2016 2021 2022

File	Variable Name	Variable	Description of Change	Year of Change
Occupant/ Person	PHYSCOND	Physical condition	Variable name changed to PHYSICAL_CONDITION_ CODE Change in coding	2016 2016
Occupant/ Person	PHYSCOND	Physical condition	Variable name changed to PHYSICAL_CONDITION2_ CODE Change in coding Variable unavailable	2016 2016 2021 2022
Occupant/ Person	RES_CNTY	Residence county	Variable discontinued	2016
Occupant/ Person	REST1	Safety equipment used	Variable name changed to SAFETY_EQUIPMENT_USE_ CODE Change in coding Variable unavailable	2016 2016 2021 2022
Occupant/ Person	SEATPOS	Position in vehicle	Variable name changed to "POSITION_CODE Change in coding Variable unavailable	2016 2016 2021 2022
Occupant/ Person	SEX	Sex of injured/killed occupant	Variable name changed to GENDER_CODE Change in coding	2016 2016
Occupant/ Person	VALID_LICENSE	Valid driver license	Variable name changed to DL_STATUS_CODE Variable unavailable	2016 2021 2022
Occupant/ Person	VEHNO	Vehicle number	Variable name changed to UNIT_ID	2016
Occupant/ Person	VIOLATIONS	Driver cited for violations	Variable discontinued	2015
Occupant/ Person	WORK_REL	Work-related accident	Variable added Variable discontinued	1990 2003
Roadway	AADT	Calculated average annual average daily traffic	Variable name changed to CURRENT_VOLUME	2016
Roadway	AADT_DATA_ TYPE	Annual average daily traffic data type	Variable added Variable unavailable	2020 2022
Roadway	ACCESS	Control of access	Variable name changed to ACCESS_CONTROL Code change from categorical (number) to text	2016 2016
Roadway	ADLN_RD1	Additional lanes—road 1	Variable name changed to ADDITIONAL_LANE_LEFT Code change from categorical (number) to text	2016 2016

File	Variable Name	Variable	Description of Change	Year of Change
Roadway	ADLN_RD2	Additional lanes—road 2	Variable name changed to ADDITIONAL_LANE_LEFT Code change from categorical (number) to text	2016 2016
Roadway	BAS_TKR1	Base thickness—road 1	Variable discontinued	2016
Roadway	BEGMP	Calculated begin milepost	Variable discontinued	2016
Roadway	BRK_CD	Break code	Variable discontinued	2016
Roadway	CITY_NBR	City number	Variable added Variable name changed to CITY_NAME Code change from categorical (number) to text	2001 2016 2016
Roadway	COMM_ADT	Calculated average commercial annual average daily traffic	Variable name changed to COMMERCIAL_AADT Variable unavailable	2016 2022
Roadway	COUNTY	County	Variable name changed to COUNTY_NAME Code change from categorical (number) to text	2016 2016
Roadway	CURB1	Curbs—road 1	Variable name changed to CURB_SIDE Change in coding	2016 2016
Roadway	CURB2	Curbs—road 2	Variable discontinued	2016
Roadway	DESC	Roadway description	Variable added Variable discontinued	2001 2016
Roadway	DIR_CDE	Direction code	Variable added Variable discontinued	2001 2016
Roadway	DISTRICT	District	Variable name changed to DISTRICT_NAME Code change from categorical (number) to text	2016 2016
Roadway	ENDMP	Calculated ending milepost	Variable discontinued	2016
Roadway	FED_AID	Federal aid system	Variable discontinued	2016
Roadway	FED_SYSD	Federal aid system—designated	Variable discontinued	2016
Roadway	FED_SYSR	Federal aid system—regular	Variable discontinued	2016
Roadway	FEDADRTE	Federal aid route	Variable added Variable discontinued	2003 2016
Roadway	FUNC_CLS	Functional class	Variable name changed to FUNCTIONAL_CLASS Code change from categorical (number) to text	2016 2016

File	Variable Name	Variable	Description of Change	Year of Change
Roadway	H_COUNT	Number of count stations per section	Variable discontinued	2016
Roadway	INTE_CAT	Intersection category	Variable discontinued	2015
Roadway	INV_DTE	Inventory date	Variable discontinued	2016
Roadway	LANEWID	Lane width	Variable name changed to TRAVEL_WIDTH	2016
Roadway	LEGRTNUM	Legislative route number	Variable added Variable discontinued	2003 2016
Roadway	LSHL_TY2	Left shoulder type—road 2	Variable discontinued	2016
Roadway	LSHL_TYP	Left shoulder type—road 1	Variable name changed to PAVED_SHOULDER_LEFT Change in coding	2016 2016
Roadway	LSHL_TYP	Left shoulder type—road 1	Variable name changed to UNPAVED_SHOULDER_LEFT Change in coding	2016 2016
Roadway	LSHL_WD2	Left shoulder width—road 2	Variable discontinued	2016
Roadway	LSHLDWID	Left shoulder width—road 1	Variable name changed to PAVED_SHOULDER_LEFT_ WIDTH Change in coding	2016 2016
Roadway	LSHLDWID	Left shoulder width—road 1	Variable name changed to UNPAVED_SHOULDER_LEFT _WIDTH Change in coding	2016 2016
Roadway	MANTAREA	Maintenance area of the roadway	Variable added Variable name changed to MAINTENANCE_DISTRICT_ NAME	2001 2016
Roadway	MED_TYPE	Median type	Variable name changed to MEDIAN_TYPE Code change from categorical (number) to text	2016 2016
Roadway	MEDWID	Median width (in feet)	Variable name changed to MEDIAN_WIDTH Code change from categorical (number) to numeric	2016 2016
Roadway	MVMT	Million vehicle miles traveled	Variable discontinued	2016
Roadway	NBRVOL	Total number of traffic volume counts	Variable discontinued	1999
Roadway	NBRVOLB	Number of blank traffic volume counts	Variable discontinued	1999

File	Variable Name	Variable	Description of Change	Year of Change
Roadway	NBRVOLF	Number of full traffic volume counts	Variable discontinued	1999
Roadway	NO_LANE1	Number of through lanes toward increasing milepoints	Variable discontinued	2016
Roadway	NO_LANE2	Number of through lanes toward decreasing milepoints	Variable discontinued	2016
Roadway	NO_LANES	Total number of lanes	Variable name changed to TOTAL_LANES	2020
Roadway	ONEWAY	Divided and one-way code	Variable name changed to FACILITY_TYPE Code change from categorical (number) to numeric	2016 2016
Roadway	PARKING1	Parking on road 1	Variable name changed to PARKING_LEFT and PARKING_RIGHT Code change from categorical (number) to numeric	2016 2016
Roadway	PARKING2	Parking on road 2	Variable name changed to PARKING_LEFT and PARKING_RIGHT Code change from categorical (number) to numeric	2016 2016
Roadway	REF_PST	Reference post	Variable discontinued	2016
Roadway	REMARK	Remarks—type of record	Variable discontinued	2016
Roadway	RODWYCLS	Roadway classification	Variable discontinued	2016
Roadway	ROW	Right of way width	Variable discontinued	2016
Roadway	RSHL_TY2	Right shoulder type—road 2	Variable discontinued	2016
Roadway	RSHL_TYP	Right shoulder type—road 1	Variable name changed to PAVED_SHOULDER_RIGHT Change in coding	2016 2016
Roadway	RSHL_TYP	Right shoulder type—road 1	Variable name changed to UNPAVED_SHOULDER_RIGHT Change in coding	2016 2016
Roadway	RSHL_WD2	Right shoulder width—road 2	Variable discontinued	2016
Roadway	RSHLDWID	Right shoulder width—road 1	Variable name changed to PAVED_SHOULDER_RIGHT_WIDTH Change in coding	2016 2016

File	Variable Name	Variable	Description of Change	Year of Change
Roadway	RSHLDWID	Right shoulder width—road 1	Variable name changed to UNPAVED_SHOULDER_ RIGHT_WIDTH Change in coding	2016 2016
Roadway	RTE_NBR	Route number	Variable name changed to ROUTE_ID	2016
Roadway	RTE_SYS	Route system	Variable discontinued	2016
Roadway	RTSYSNBR	Combined route system/route number	Variable discontinued	2016
Roadway	SEG_LNG	Calculated section length	Variable discontinued	2016
Roadway	SIDE_WLK	Sidewalks	Variable discontinued	2016
Roadway	STM_SEW	Storm sewers	Variable discontinued	2016
Roadway	SUF_TYP1	Surface specification number—road 1	Variable discontinued	2016
Roadway	SUF_TYP2	Surface specification number—road 2	Variable discontinued	2016
Roadway	SUR_TKR1	Surface thickness—road 1	Variable discontinued	2016
Roadway	SUR_TKR2	Surface thickness—road 2	Variable discontinued	2016
Roadway	SURF_TY2	Surface type—road 2	Variable discontinued	2016
Roadway	SURF_TYP	Surface type—road 1	Variable name changed to BASIC_PAVEMENT_TYPE Code change from categorical (number) to numeric	2016 2016
Roadway	SURF_WD2	Surface width—road 2 (in feet)	Variable discontinued	2016
Roadway	SURF_WID	Surface width—road 1 (in feet)	Variable discontinued	2016
Roadway	TURN_LN	Turning lanes toward increasing mileposts	Variable discontinued	2016
Roadway	TURN_LN2	Turning lanes toward decreasing mileposts	Variable discontinued	2016
Roadway	UPDATE_	Date of update	Variable discontinued	2016
Roadway	URB_MNC	Urban/municipal code	Variable name changed to CTU_CLASS Code change from categorical (number) to numeric Variable unavailable	2016 2016 2022

File	Variable Name	Variable	Description of Change	Year of Change
Roadway	VOLGRP	Traffic volume group	Variable name changed to DAILY_FACTOR_GROUP	2016
Roadway	VOLTYP	Traffic volume type	Variable name changed to DATA_TYPE Change in coding	2016 2016
Vehicle/ Unit	CASENO	Accident number	Variable name changed to INCIDENT_ID Change in coding	2016 2016
Vehicle/ Unit	COLOR1	Color of vehicle	Variable name changed to VEHICLE_COLOR Variable unavailable	2016 2021 2022
Vehicle/ Unit	CONTRIB1	First contributing factor	Variable name changed to PRIMARY_CONTRIBUTOR_CODE Change in coding	2016 2016
Vehicle/ Unit	CONTRIB2	Second contributing factor	Variable name changed to SECONDARY_CONTRIBUTOR_CODE Change in coding	2016 2016
Vehicle/ Unit	DAMSEV	Vehicle damage severity	Variable discontinued	2016
Vehicle/ Unit	DRV_AGE	Age of driver	Variable discontinued	2016
Vehicle/ Unit	DRV_INJ	Driver injury	Variable discontinued	2016
Vehicle/ Unit	DRV_SEX	Sex of driver	Variable discontinued	2016
Vehicle/ Unit	EVENT1	Sequence of event—1	Variable discontinued	2016
Vehicle/ Unit	EVENT2	Sequence of event—2	Variable discontinued	2016
Vehicle/ Unit	EVENT3	Sequence of event—3	Variable discontinued	2016
Vehicle/ Unit	EVENT4	Sequence of event—4	Variable discontinued	2016
Vehicle/ Unit	FIRE	Fire in vehicle	Variable name changed to FIRE_CODE Change in coding Variable unavailable	2016 2016 2021 2022
Vehicle/ Unit	HAZMTL	Vehicle carrying hazardous material	Variable name changed to HAZMAT_CLASS_CODE Change in coding Variable unavailable	2016 2016 2021 2022
Vehicle/ Unit	INTRANSPORT	Was vehicle in transit	Variable added Variable discontinued	2003 2016

File	Variable Name	Variable	Description of Change	Year of Change
Vehicle/ Unit	LICTYPE	Valid driver license	Variable discontinued	1990
Vehicle/ Unit	MAKE	Make of vehicle	Variable added Variable name changed to VEHICLE_MAKE Variable unavailable	1990 2016 2021 2022
Vehicle/ Unit	MCAXLDN	Motor carrier axles down	Variable added Variable discontinued	1991 2003
Vehicle/ Unit	MCAXLUUP	Motor carrier axles up	Variable added Variable discontinued	1991 2003
Vehicle/ Unit	MCBDTYP	Motor carrier body type	Variable added Variable name changed to CARGO_BODY_TYPE_CODE Variable unavailable	1991 2016 2021 2022
Vehicle/ Unit	MCGVWRCD	Motor gross vehicle weight code	Variable added Variable discontinued	1991 2003
Vehicle/ Unit	MCHZPLAC	Motor hazard material placard card	Variable added Variable discontinued	1991 2003
Vehicle/ Unit	MCSOURCE	Source of identification	Variable added Variable discontinued	1995 2003
Vehicle/ Unit	MCTRHTCH	Motor trailer hitch code	Variable added Variable discontinued	1995 2003
Vehicle/ Unit	MISCACT1	Action prior to accident	Variable discontinued	2016
Vehicle/ Unit	MODEL	Motor model	Variable added Variable discontinued	1997 2003
Vehicle/ Unit	MOST_EVENT	Most harmful event	Variable added Variable name changed to MOST_HARMFUL_EVENT_ CODE Change in coding	2003 2016 2016
Vehicle/ Unit	MVCLASS	Motor vehicle class	Variable added Variable discontinued	1997 2003
Vehicle/ Unit	MVTYPE	Motor vehicle type	Variable added Variable discontinued	1997 2003
Vehicle/ Unit	NUMOCCS	Number of occupants	Variable added Variable discontinued	1991 2016
Vehicle/ Unit	PHYSCOND	Physical condition of the driver	Variable discontinued	2016
Vehicle/ Unit	SERIES	Series of vehicles	Variable discontinued	2016
Vehicle/ Unit	TOWAWAY	Vehicle towed	Variable name changed to TOWED_IND Change in coding Variable unavailable	2016 2016 2021 2022

File	Variable Name	Variable	Description of Change	Year of Change
Vehicle/ Unit	TOWING	Towing flag	Variable added Variable discontinued	1991 2016
Vehicle/ Unit	TRAFFICWAY_ DESIGN_CODE	Trafficway design	Variable added	2016
Vehicle/ Unit	V_DAMAGE	Vehicle damage area	Variable discontinued	2016
Vehicle/ Unit	VEH_DIR	Direction vehicle was traveling	Variable added Variable name changed to DIRECTION_OF_MOVEMENT _CODE Change in coding	1990 2016 2016
Vehicle/ Unit	VEH_USE	Special vehicle use	Variable added Variable discontinued	2003 2005
Vehicle/ Unit	VEHNO	Relative vehicle number	Variable name changed to UNIT_ID	2016
Vehicle/ Unit	VEHSTATE	State of vehicle registration	Variable added Variable name changed to LICENSE_PLATE_STATE_ CODE Variable unavailable	1997 2016 2021 2022
Vehicle/ Unit	VEHTYPE	Type of vehicle	Variable name changed to VEHICLE_MODEL	2016
Vehicle/ Unit	VEHYR	Model year of vehicle	Variable discontinued	2016
Vehicle/ Unit	WAIVED	Commercial vehicle inspection waived	Variable added Variable discontinued	2003 2005
Vehicle/ Unit	WASTE_MT	Vehicle carrying waste material	Variable discontinued	1990

—No data.

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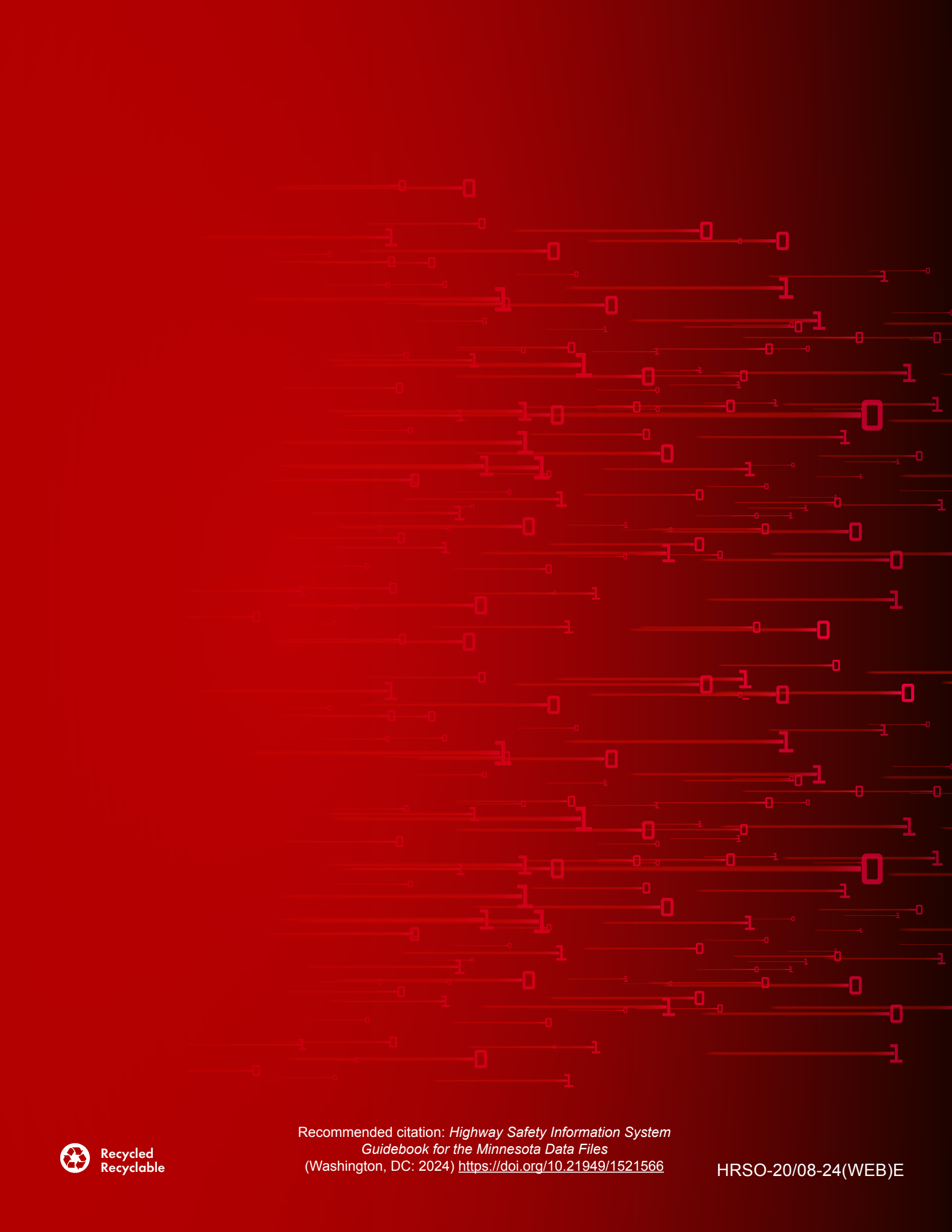

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