The user should contact NCSA using the email link provided on the homepage. Using the standard template provided on the website in **Area 14: Contact NCSA Link** ensures quick delivery of the email to our team to respond to your inquiry.

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1. Introduction

This User Manual contains all the essential information for the user to be able to use Fatality and Injury Reporting System Tool (FIRST). This manual includes a description of the system functions and capabilities and step-by-step procedures for building your query and generating a SAS report or graph.

1.1 What is FIRST?

Fatality and Injury Reporting System Tool (FIRST) is a data query tool that provides data on traffic fatalities in the United States. The tool also assists with generating trends over multiple years of data as well as using other data systems to provide injury estimates. The new query tool allows users to make topic-specific data queries. The order in which the Topics appear is determined by NCSA. Moreover, the tool enables a unified query system from the SAS data sources which allows users to tabulate query results and save them in different file formats such as excel, PDF, CSV and RTF. The system also allows users to chart and map the data query result.

1.2 System Requirements

FIRST can be accessed from a variety of PC browsers such as IE, Chrome, Firefox, and Edge. The minimum version required for IE and Edge are **11** and **38** respectively. To access the system from chrome, it has to be version **67** or later. For Firefox, the version requirement is **52**. Additionally, the system can be accessed from iPhone, Android, and iPad.

2. How to Use FIRST

2.1 Building Your Query

FIRST Homepage

Figure 1 is a screenshot of the FIRST homepage without the NHTSA header & footer information. The different areas on the page have been numbered and the explanations are provided in the table that follows.

Figure 1 – Screenshot of FIRST Screen Showing Vehicles Topic

The first panel (*Select Fatality and/or Injury* - Area 8*)* under Topics tabs and *Topics* information section (Topic's name – Area 6: *Vehicles* under *Sample Queries* section) will be open by default for each Topic. The other panels or sections can be opened or closed by clicking the arplus/minus sign on panel or section headers.

The table below explains the above screenshot in greater detail and the steps the user needs to take to customize their query. Each section refers back to the arrow number in Figure 1.

Area	Step	Feature	Description
1	N/A	FIRST Query Tool Description	This section has the application name and a brief description of the tool.
2	N/A	Help and Home	These two icons link to the Help file and the CDAN homepage.
3	1	Select a Topic (Topics row)	This row lists all the available Topics based on which users can query the data.
4	N/A	Getting Started and What's New	Provides information about the tool and how you could get started. Any updates will be communicated through this section as well.
5	N/A	Sample Queries	Sample queries can be used to build a query. Selecting any query will populate the selections needed to build that query on the site. The user will need to click the Submit button to execute the sample query.

Area	Step	Feature	Description
6	N/A	Topic Related Publication for {Topic}	This section has a brief description of the topic along with the subject-specific link(s) to Crash Stats site https://crashstats.nhtsa.dot.gov/#/ for relevant publications to the Topic selected.
7	2	Select Fatality and/or Injury	This section allows the user to pick either fatality, injury, property damage or all crashes.
8	3	Select Time Frame	This panel allows the user to set a year range or select specific years for the query.
9	4	Select State or Region	This panel allows the user to make a data query for a specific State, County, City, or NHTSA Region.
10	5	Filter Your Selection	This panel allows the user to select specific Data Element(s) or Data Attribute(s) filters for the query.
11		Select Vehicle Make and Model	This panel appears only for Vehicles, Drivers, and Occupants to filter the data by Make and Model information that is available in FARS.
12	6	Build Your Reports	This panel allows the users to build a Table, Univariate Graph, or Panel Graph of their choice by selecting the Data Elements they desire to put in columns and rows.
13	7	Current Criteria (Submit, Save, Retrieve, Reset)	This section is the last step in the development of the query process, where users can Submit, Save, Retrieve, or Reset their query. This section also keeps track of what has been selected thus far, i.e., the content of the query that will be submitted to SAS.
14	N/A	Contact NCSA	Users can use this link to send an email to NCSA to provide feedback to NCSA or request additional information.
15	N/A	Site Comaptiability	This website works best in Microsoft Edge and Google Chrome web browser message.
16	N/A	Version and Release date	This link opens a page that provide updates and upgrades that have been made to the site since going live publicly.
17	N/A	Download Your Data	Provides links to the FARS, GES, and CRSS data sets to download as needed for your use.

Table 1 – Panels, Sections, and Links Displayed on the FIRST Website

The sections listed in Table 1 are described in more details in the following pages.

Area 1: FIRST Query Tool Description

This area (shown in Figure 2), before the Topics tabs, has a general description of the FIRST query tool website.

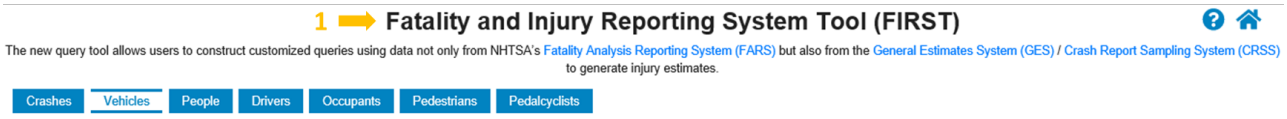


Figure 2 – FIRST Query Tool Description

Area 2: Help and Home

Clicking the help icon (Figure 3) will open this user manual that provides instructions on how to use FIRST. Clicking the Home page icon will return the user to CDAN home page where links to NCSA tools, publications and data are provided.

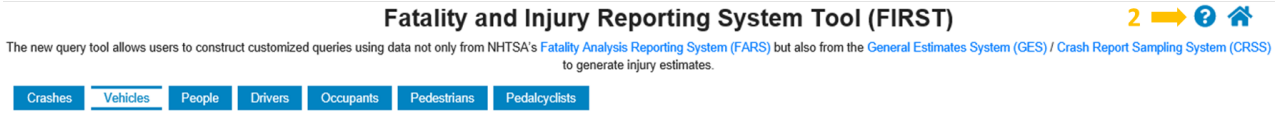


Figure 3 - Help and Home Link Icons

Area 3: Select a Topic

Since the new query tool is Topic-driven, you can make your own queries based on a specific Topic. The first step to building a Topic-specific query is to click one of the Topics in the top row, as shown in the image below (Figure 4), we chose Vehicles topic. (Crashes are selected as a default).

Figure 4 – Select a Topic

After clicking a Topic, the user will be provided with choices such as fatality/injury type, selecting year, geography, and other elements that help narrow down the query or build the query the way the user wants.

Note: A number of default settings have been set up in the application. This allows the user to click "Submit" at any time in Step 7, **Area 13: Current Criteria Section**. To see the list of these values that have been setup as default please see the Current Criteria section once you click a Topic.

The query tool allows you to click "Submit" at any time in Step 8, **Area 13: Current Criteria Section**.

Area 4: Getting Started and What's New Section

In this area, the user will be able to access a reference guide for using the system in addition to any announcements, updates, or changes to this site will be communicated through this page. You can open and close this area by clicking the plus/minus sign.

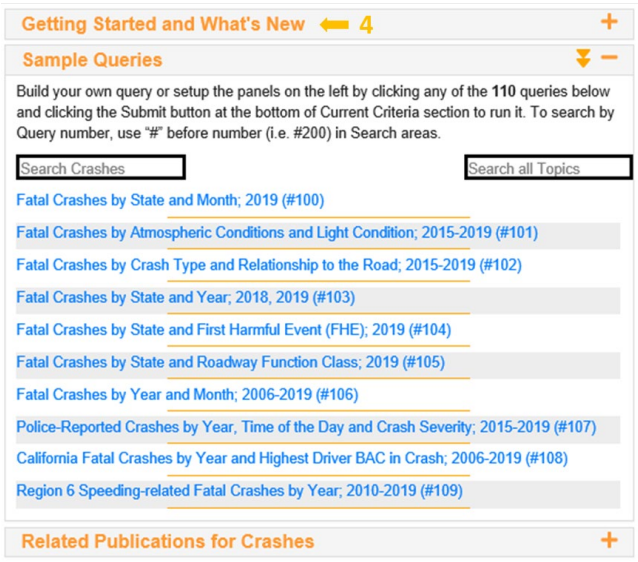


Figure 5 - Getting Started and What's New Section

Note: The content of this section may change occasionally.

Area 5: Sample Queries Section

Under the Sample Queries section, queries are provided as shown in Figure 6.

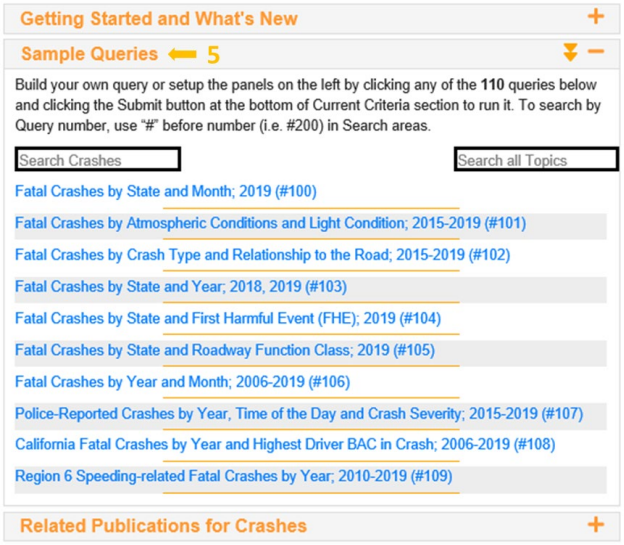


Figure 6 - Sample Queries Section

The queries are designed to assist the user with building a sample query within the FIRST tool. Once the user clicks any query on the list, the query will be built, and the panels will open to display the values that were used to build that query. The user will then need to click the Submit button or can modify the query before submitting to generate the report. Sample queries under this section may change based on user needs.

User can search a sample query using the Query Number or Query Title. There are two search boxes available in Sample Queries section. The one in the left side is for searching the queries within the Topic and the other one in the right side is for searching the queries across all Topics. User can click Show All button on the panel header to view all sample queries at one glance.

Area 6: Topic Related Publication Section

The Topic Description section provides a brief description of a Topic with a list of Topic-specific links. Clicking the link(s) will take the user to the Crash Stats website (https://crashstats.nhtsa.dot.gov/#/) for any recent and other publications related to that Topic (Figure 7).

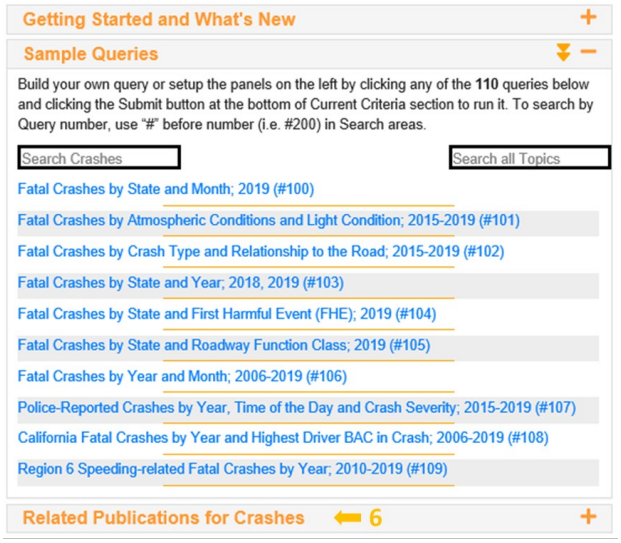


Figure 7 – Topic Related Publications Section

Area 7: Select Fatality and/or Injury Panel

Once the user selects a Topic, the user can then select whether they are counting fatalities, injuries, property damage only (PDO), injury and PDO, or all motor vehicle crashes. Figure 8 show the selections available for Vehicles.

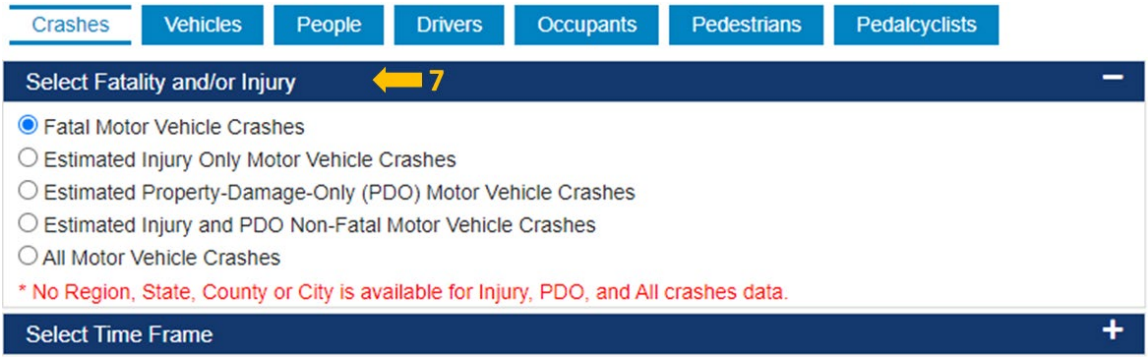


Figure 8 – Select Fatality and/or Injury

Under People, Drivers, Occupants, Pedestrians, and Pedalcyclists tabs there is an additional metric for generating reports based on # of killed in fatal crashes (see Figure 9).

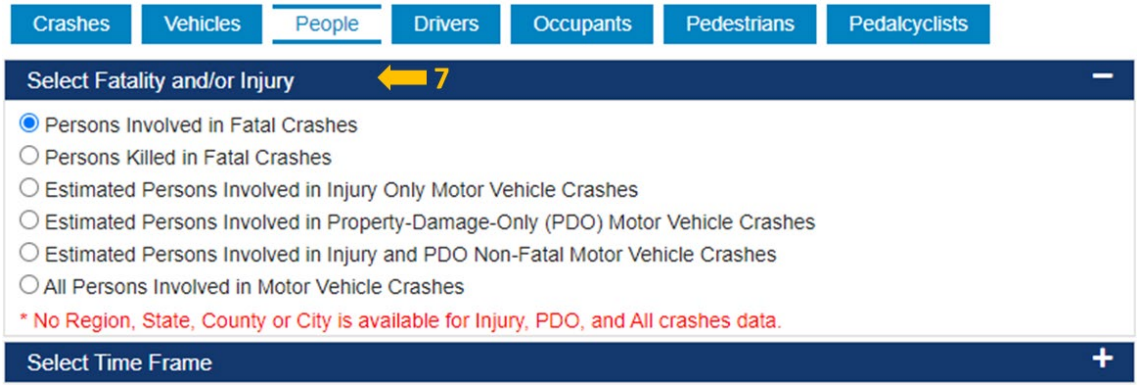


Figure 9 - Select Fatality and/or Injury for Topics with Killed Counts

Area 8: Select Time Frame Panel

The timeframe tab allows the user to determine the year range for the query. Users can simply drag the pins along the bar to select the year range of their choice. Timeframe tab under Select Time Frame is set to the latest five years of available data. Currently, only 15 years of data is available by default.

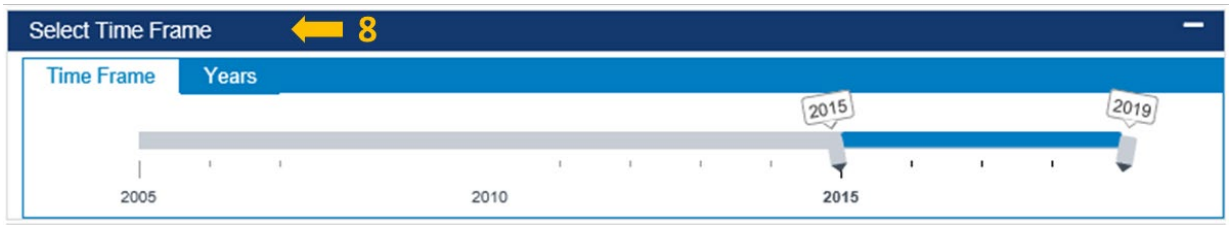


Figure 10 – Select Time Frame – Time Frame Tab

Users can also click “Years” tab, where they can select a single year or multiple years by pressing the Ctrl key and clicking to select more than one year. Using the “Years” tab (Figure 11) might be useful in building a comparative query such as comparing the data from 2012 and 2014.

Figure 11 – Select Time Frame – Years Tab

Area 9: Select State or Region Panel

This panel as shown in Figure 12 allows user to select State or NHTSA Region for which the user is interested to run a query for. Users cannot select both State and Region simultaneously. Selecting State will open a dropdown for States. Selecting a State from the dropdown will open the dropdowns for County and City.

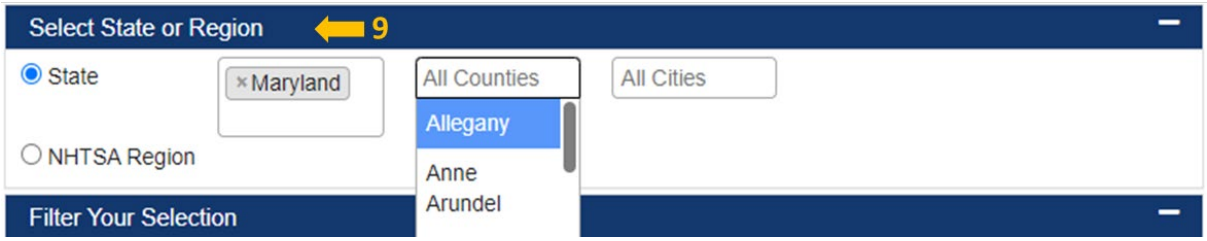


Figure 12 – Select State or Region – State & County

Note: Selecting either County or the City will disable the other one.

Clicking on City drop down list as shown in Figure 13 will display cities within that State. Selecting multiple States will not display County drop down.

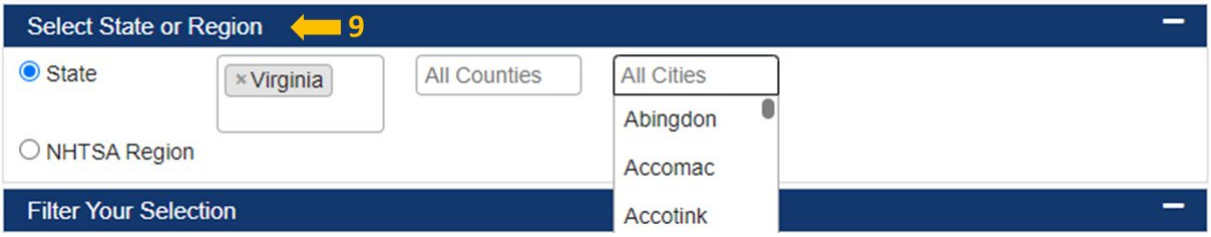


Figure 13 – Select State or Region – City

Users can also select a Region which will open a dropdown for selecting a specific Region. Selecting a Region will close the State dropdowns. The Region dropdown will open by clicking the NHTSA Region again.

Figure 14 – Select State or Region – Region

States within a specific region will be displayed in front of the region(s) selected. The user can select one or more items from all drop downs and remove them from the list by clicking the "x".

Notes:

The State/Region panel will show for a query that involves only fatalities (e.g. *Fatal Crashes*); this panel will not be displayed for queries involving injuries, property damage or both fatality and injury.

If no State is specified, the tool will provide data on all states excluding Puerto Rico.

Area 10: Filter Your Selection Panel

This panel contains different filters for building a more specific query. These filters are based on the count the user is interested in. For instance, if the user is counting only crashes, then only the Crash level data elements will be showing in this panel. If the user is interested in the count of vehicles, then both the Vehicle and the Crash level data elements will be displaying in two different tables in the panel. The purpose of these filters is to basically narrow down your query. In the screenshot below (Figure 15),

Police Pursuit Involved Crash has been checked, which means the user is interested in the count of those crashes that had a police pursuit. Based on what user wants to count, default values have already been set up for different attributes/data elements. The selected values will be highlighted in blue.

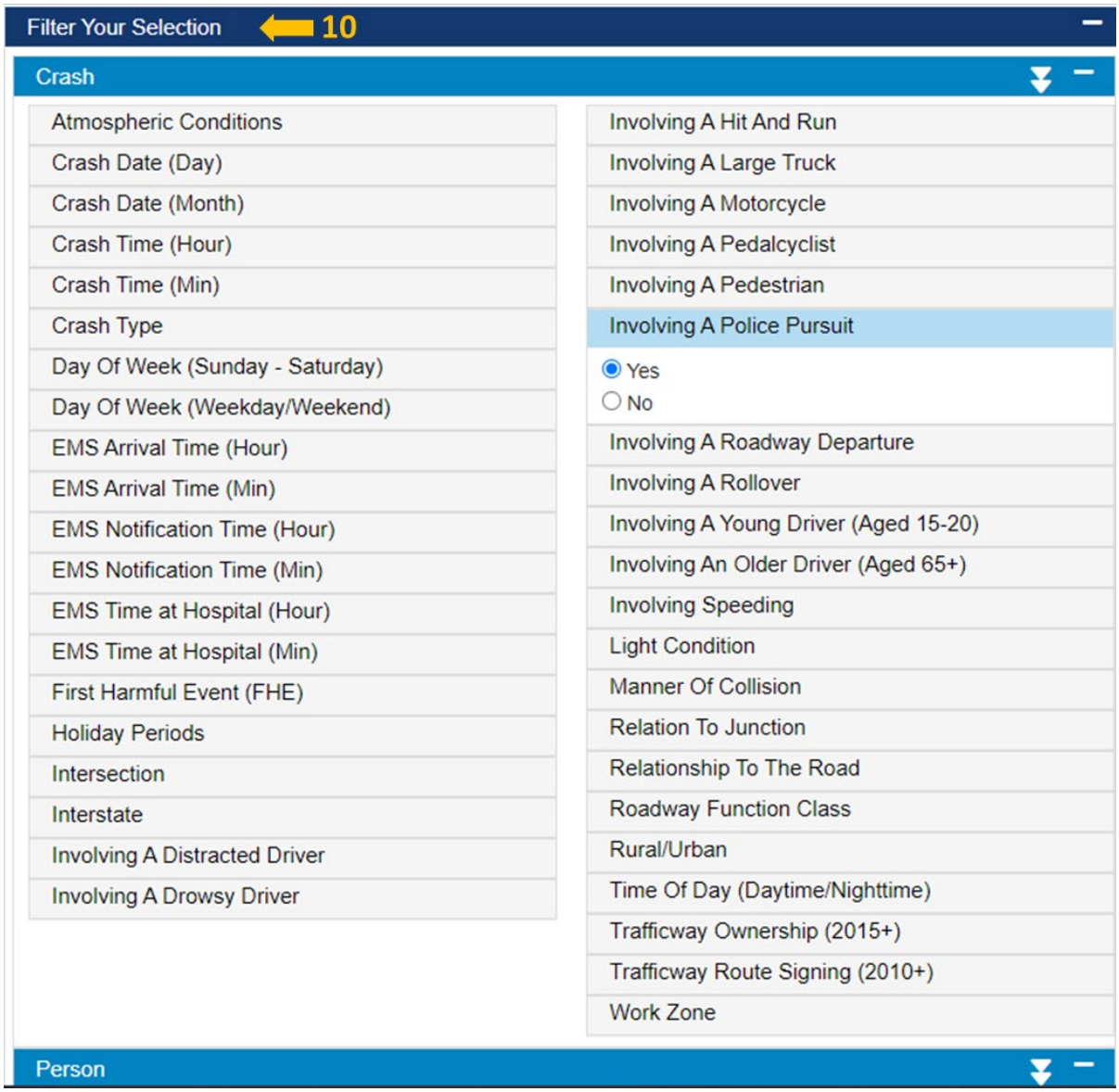


Figure 15 – Filter Your Selection – Opening/Closing Tables with Data Elements

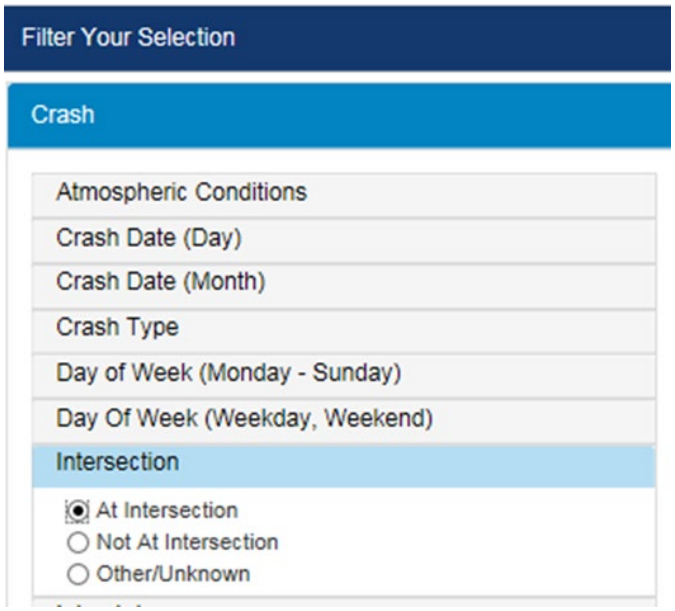
Moreover, the plus/minus sign at the end of the dark blue bar is for opening/closing the Filter Your Selection panel. Clicking the minus sign the end of the light blue bar will close the filters in a specific table such as Crash, Vehicle, and Person. Clicking the double arrow head once the table is expanded will expand/collapse all the filters in a table.

Data Attribute Filter Displays

There are 7 different types of data attribute filter displays. The types for the majority of the filters are presented as either radio button or checkbox selections. There is a fundamental difference between

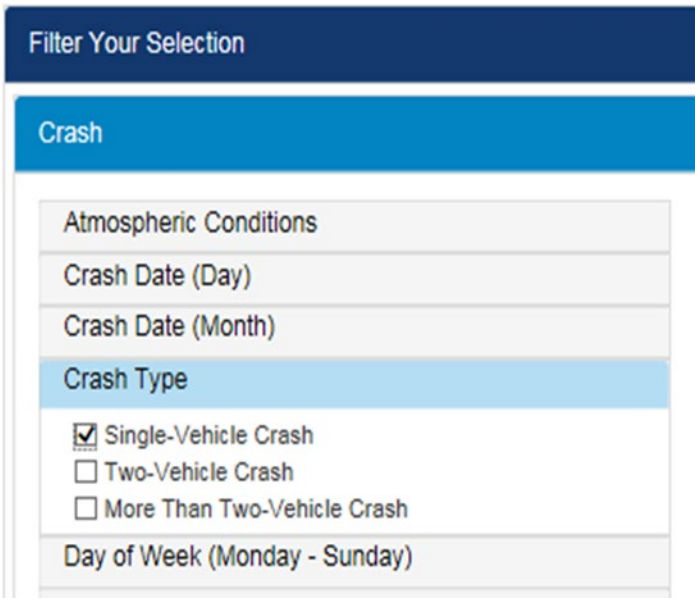
them. in a checkbox, user can select more than one option. Radio buttons, however, provide mutually exclusive selection values.

Radio Button

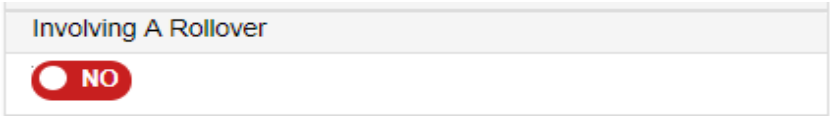


Intersection is a filter, and user can only select one of the selection values. However, if user clicks **Crash Type,** the selection values are going to be presented differently. as seen in the image below, more than one selection value has been selected.

Check Box



Toggle Button



Currently, there are no filters whose selection values are not **Radio Buttons** or **Check Boxes.** in the example above, a user can toggle the selection value as either "Yes" or "No".

Note: "Involving a Rollover" is used as an example but the data element is represented as a Radio Button in the tool.

Textbox-I

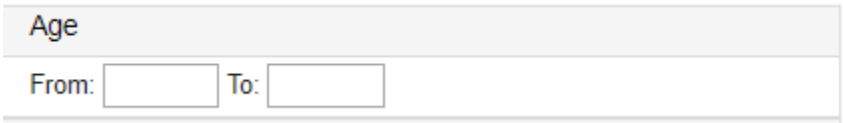
There are two types of textboxes. The first one is Alpha Numeric, meaning it can accept both numbers and letters. Clicking this kind of filter will open a textbox as shown in the image. User will be able to type in numbers or letters.

Textbox-II

in this type of filter, user can only type a valid 5-digit US zip code. Invalid entry will return an error message. This is a numeric only textbox.

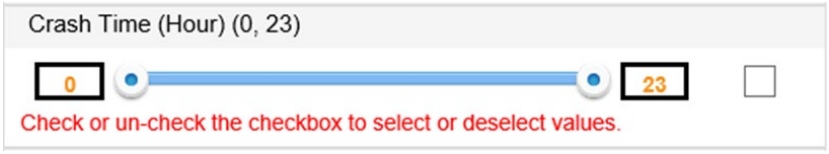
Range

User will be prompted to enter information in the "**From**" and "**To**" fields and error messages will be returned for invalid entries. Currently, there are no filters with Range selection.



Slider

Clicking this kind of filter will open a slider as shown in the image. User can see the Minimum and Maximum Range values for that Data Element next to the Data Element Name. As a default, begin bar will be set to minimum range value and end bar will be set to maximum range value in the slider.



There are two ways to select a desired range:

Method 1: User will be able to drag begin and end bars and then select checkbox next to the slider to select desired range.

Method 2: User will be able to type in numbers in the begin textbox and end textbox and then select checkbox next to the slider to select desired range. If the user enters any values outside the minimum and maximum range, entries will not be accepted.

By unselecting the checkbox, the slider will set to default and will unselect the selection.

As shown in Figure 16, clicking a data element name will open up and close the data attributes for filtering your data. Clicking or selecting a data element attribute value once will select the data attribute and clicking it a second time after selected will unselect the attribute selected.

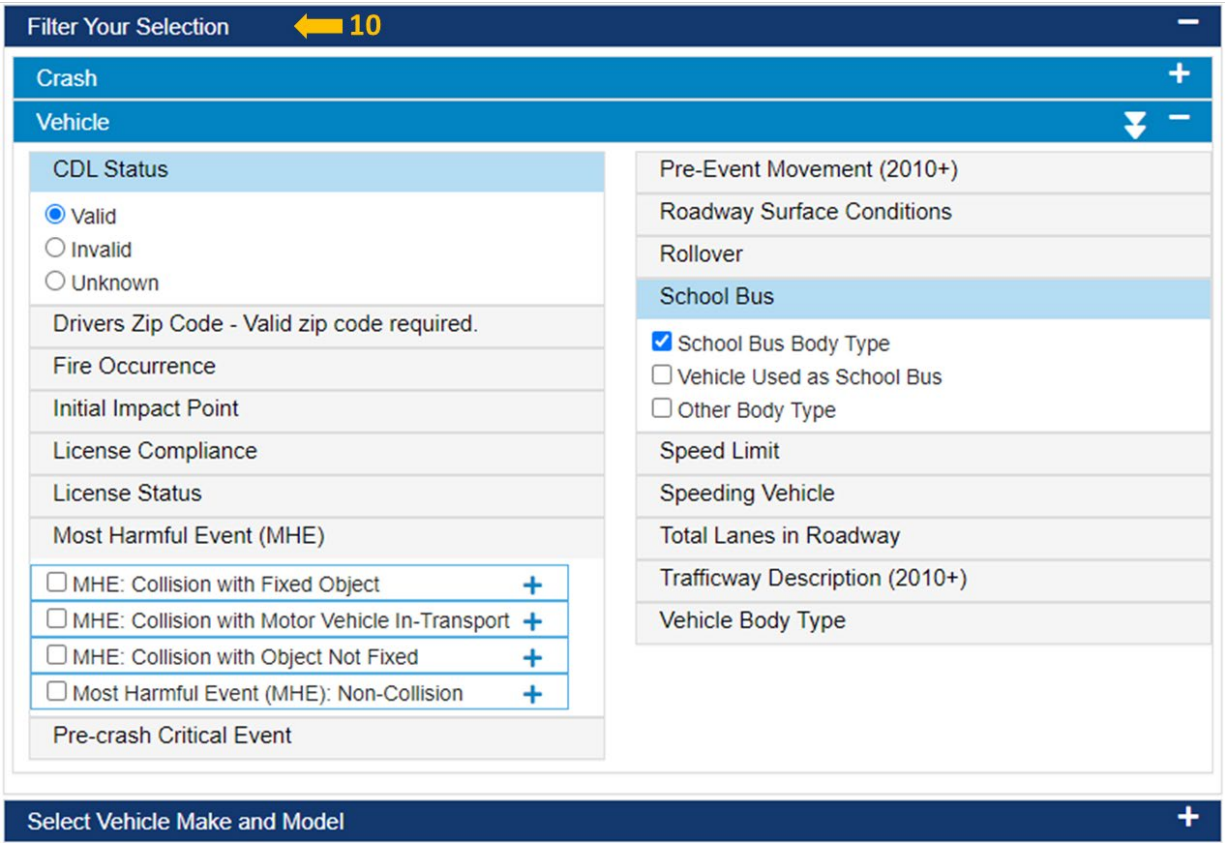


Figure 16 – Filter Your Selection – Selecting Data Elements and Data Attributes

Once a data attribute is selected, the data element filter heading will turn blue.

Data Attribute Grouping

Data Attributes have been grouped together under a category. Clicking the category selects all attributes under the group. Clicking the plus sign will expand the Data Attribute and allow user to select one or more data attributes. Once a Data Attribute is expanded, it can be collaped by clicking the minus sign in front of the Data Attributes as shown in

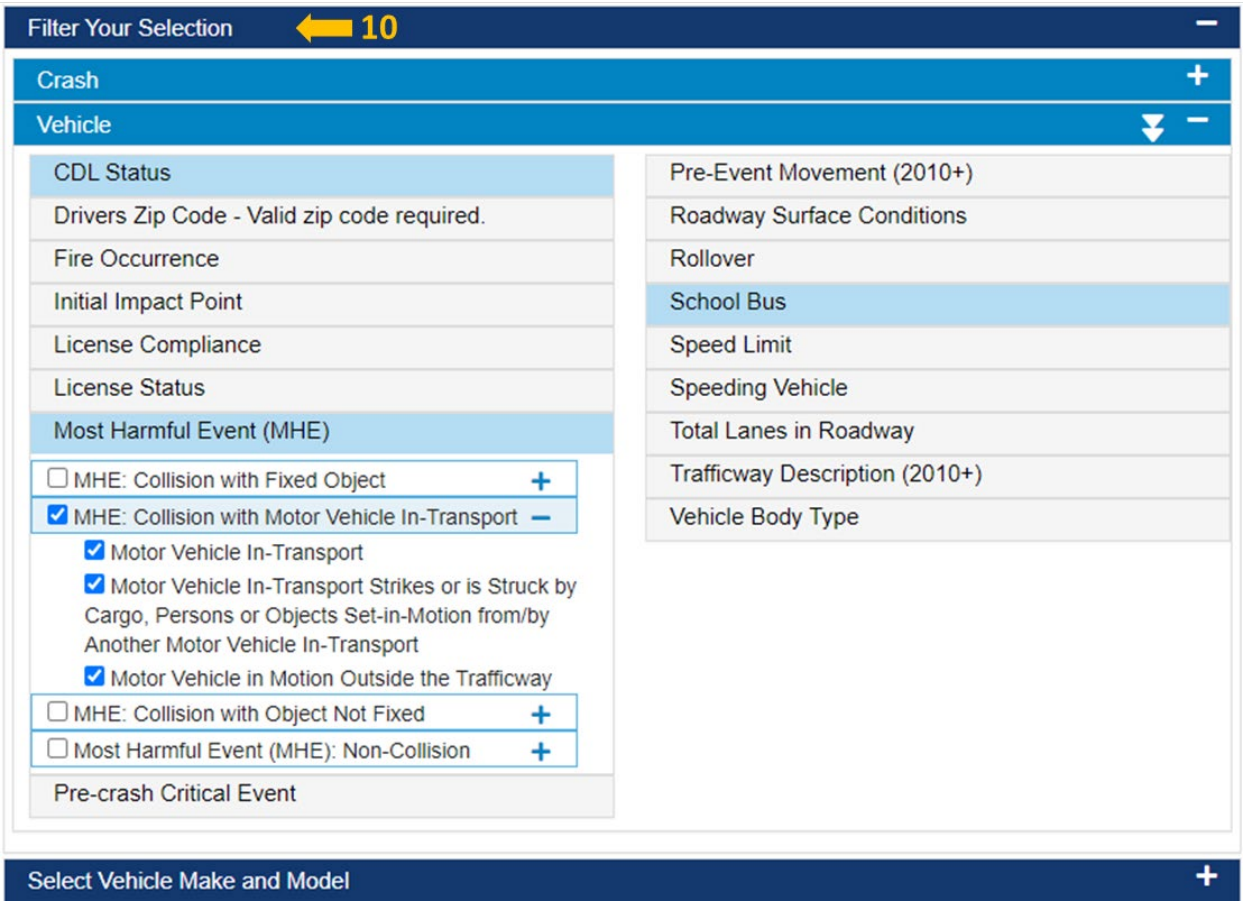


Figure 17 – Filter Your Selection: Expanding/Collapsing a Data Attribute Group

Area 11: Select Vehicle Make and Model Panel

In this panel (Figure 18) that is currently available for only FARS data for Fatal and Killed metrics under Vehicles, Drivers, and Occupant topics, the user can select Vehicle Model Year, Vehicle Make, Vehicle Model, and Vehicle Body Class to filter their reports.

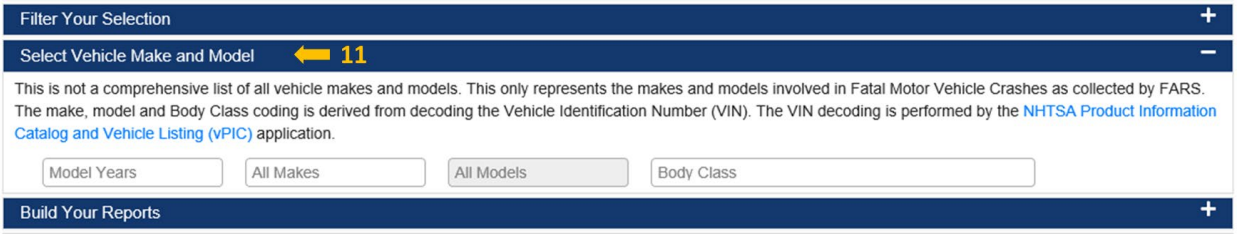


Figure 18 - Select Vehicle Make, Model, and Body Class

Notes:

The vehicle information includes what is available in the FARS data sets.

Selecting Model Year will not display all models available for that year. It displays the data that is available in FARS only.

2.2 Building Your Reports

Different reporting capabilities are available under Build Your reports panel.

Area 12: Build Your Reports Panel

In addition to building Tables, you can build Univariate Graph and Panel Graph (Figure 19).

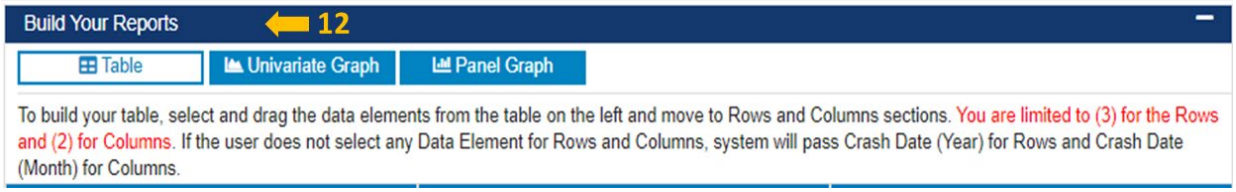


Figure 19 – Build Your Reports Selections

2.2.1 Build a Table Report

In the "Build Your Reports" panel, the user can build a table of their choice in terms of what they want in Rows and Columns. Users are limited to selecting two (2) data elements filters for the Column of the Table and up to three (3) data element filters for the Rows of the Table. Users can simply drag a filter from the left and drop it either in the Rows section or Columns section. The data element filtered will disappear from the left menu once it is dragged to either Rows or Columns. Similarly, User can remove a data element filter from Rows or Columns section by dragging it back to Data Elements section or by clicking Cancel (X) symbol next to the filter.

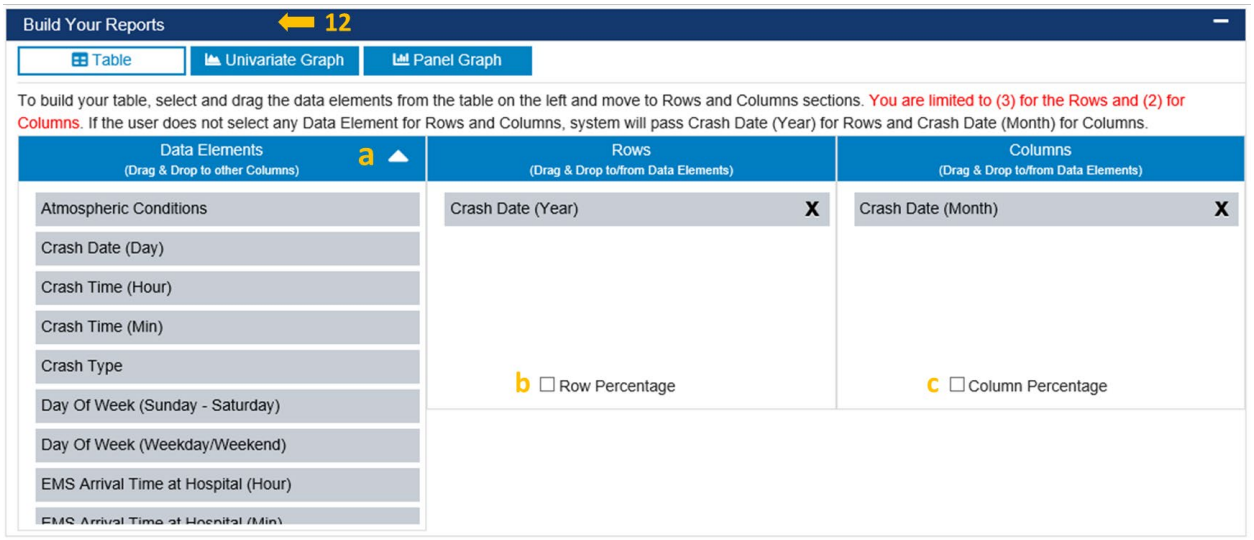


Figure 20 – Build Your Reports Panel

Areas marked as "a", "b" and "c" are used as follows:

a. This arrow is used to sort the data elements on the left-hand side alphabetically.
b. Row Percentage: If the user is interested in knowing about the percentages for the figures in Rows, the user can simply check mark the "Row Percentage" before hitting "Submit".
c. Column Percentage: If the user is interested in knowing about the percentages for the figures in columns, the user can simply check mark the "Column Percentage" before hitting "Submit".

If the user clicks "Submit" without any element in Rows or Columns, the system will display an alert message prompting the user to drag at least one element to Rows and one to Columns.

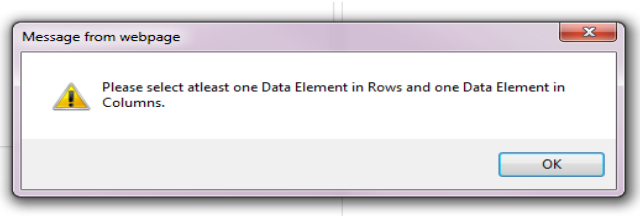


Figure 21 – Alert Message for No Elements in Rows and Columns

Person BAC and Highest BAC Usage Limitation in Build Your Reports panel:

For Drivers, Pedestrians, and Pedacyclist where alcohol level is tested and avaiable, Highest BAC and Person BAC cannot be used together to build tables. If the user selects eithe data element under Filter Your Table then the other one will be hidden in the Data Element box to select from. However, if the user does filter on any of these values and attempts to filter on both of these data elements in either Rows or Columns then the following message (shown in Figure 22) is displayed under Rows and Columns of the Build Your Reports section.

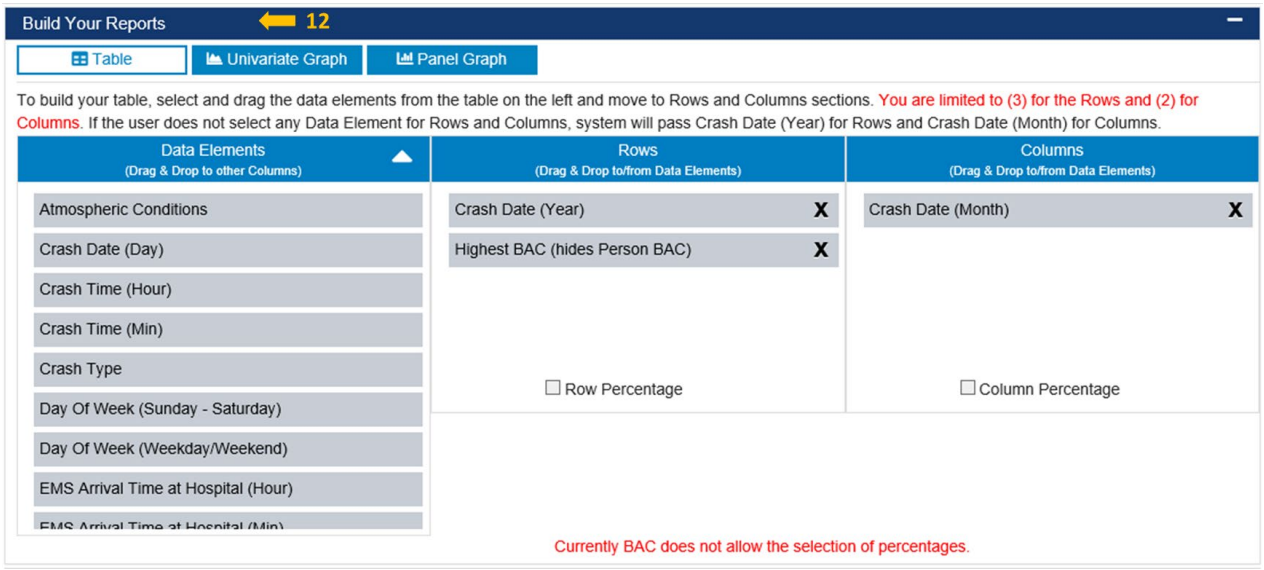


Figure 22 – Message for Using both Highest BAC and Person BAC to Build Your Reports

By dragging either Person BAC or Highest BAC from the Rows or Columns back to Data Element box. The message disappears, and the user can build their table using only one or the other.

Note: Row Percentage and Column Percentage are deactivated and cannot be selected for Person BAC and Highest BAC.

Area 13: Current Criteria Section

The Current Criteria section is used to Submit, Save, Retrieve and Reset the query that you created to build a report or build a graph.

Submit Button

The last step in the query process is the Current Criteria section. This section keeps track of the user's query selections made in Steps 2 through Steps 8. For instance, Figure 23 shows that the user has selected **Pedalcyclists** (Topic)**, Estimated Pedalcyclists Involved in Property-Damage-Only (PDO) Motor**

Vehicle Crashes (Property Damage)**, 2014-2018** (Timeframe), **Rows** (Crash Date-Year), **Columns** (Crash Date-Month), and **Person Type (Pedalcyclist)**.

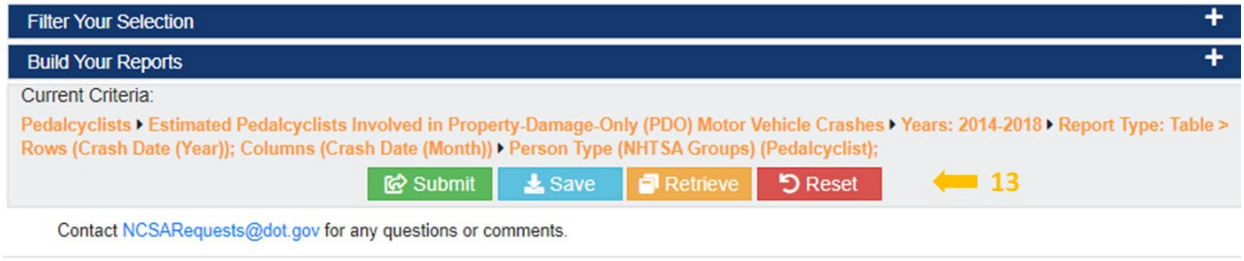


Figure 23 – Current Criteria & Submit Query

Clicking Submit will take all the selections made by the user and generate a SAS report accordingly.

Note: When you start the application, the following defaults have been setup in the tool for Pedalcyclists:

- Topics: **Pedalcyclists**
- Select Fatality and/or Injury: **Pedalcyclists Killed in Fatal Crashes**
- Time Frame: the latest five years such as **2014-2018**
- State: None, USA
- Regions: None, all regions
- Data Elements: **Person Type (Pedalcyclist)**
- Build Your Reports: **Crash Date (Year)** set for Rows and Crash Date **(Month)** set for Columns

Save Button

The user will be able to save their criteria on their PC for future retrieval. Clicking the Save button will prompt the user with the dialog box shown in Figure 24. Clicking No or click the X on the pop-up will cancel the Save request.

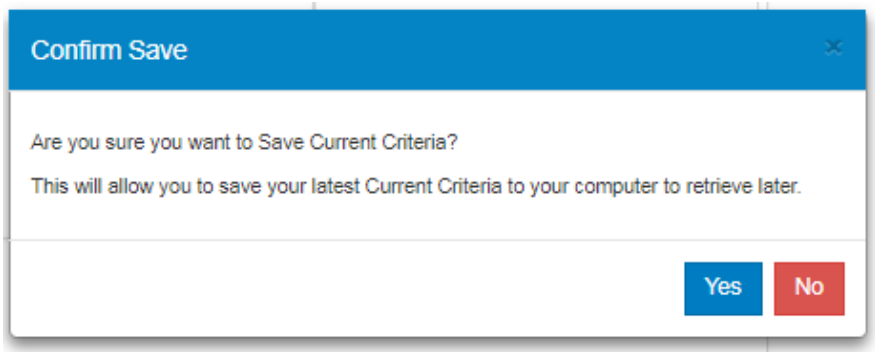


Figure 24 – Confirm Save Criteria Dialog Popup

By clicking Yes, the user acknowledges and gives permission for the current criteria file to be saved in their PC as a JSON formatted text file. The file is saved to the Download directory by default as FIRSTCriteria.txt. The user can select any other names but must ensure the file extension is not changed from .txt for future retrieval.

Retrieve Button

Clicking the Retrieve button will allow user to retrieve a previously saved Current Criteria and will display the dialog popup shown in Figure 25.

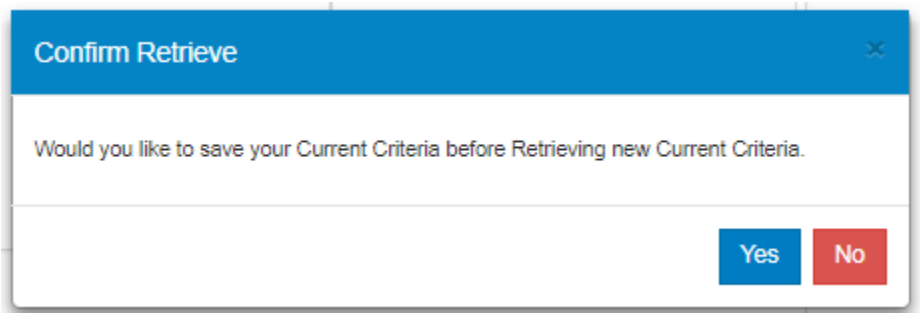


Figure 25 – Confirm Retrieve Saved Criteria Popup

By clicking Yes, the user will be able to save their current criteria before loading criteria that was previously saved before.

By clicking No or the X on the pop-up, the user will be able to select the previously saved criteria file from their PC. The system will open their local file system and the user can navigate to the directory that they saved their criteria before. Selecting a JSON file with a .txt extension will import the criteria and reset the values accordingly to restore the user selections.

If the user selects any other file type except for .txt file that the system does not recognize the message in Figure 26 is displayed.

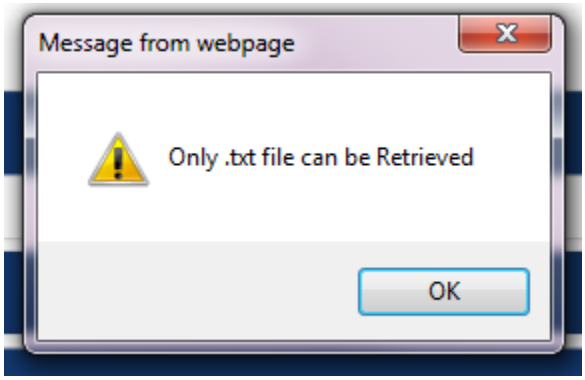


Figure 26 – Retrieve Current Criteria Incorrect File Type Selected Message

However, if the user selects a file with .txt extension that is not a JSON file or the content of the file has been changed or corrupted, the Figure 27 will be displayed.

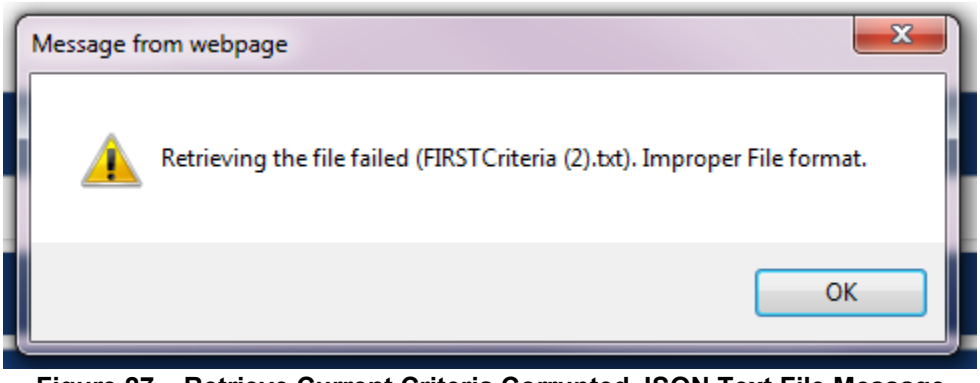


Figure 27 – Retrieve Current Criteria Corrupted JSON Text File Message

Reset Button

Clicking the Reset button under Current Criteria will cancel any selections made by the user and change the status of the query to the default setting for Crashes topic.

2.2.1.1 Mapping the Data in a Table Report

The site provides map data once a Table report is constructed. Once the user is able to refine their selection criteria and after clicking the Submit button under Current Criteria section, the table data report is displayed in the new tab will have a hyperlink (see Figure 28).

National Highway Traffic Safety Administration (NHTSA) Motor Vehicle Crash Data Querying and Reporting
Motor Vehicle Crashes
Years: *2014-2018*

Fatal Motor Vehicle Crashes[1]
Note: Click on the link within a table cell to map crash locations

Crash Date (Year)	Crash Date (Month)												
	January	February	March	April	May	June	July	August	September	October	November	December	Total
2014	2,168	1,893	2,245	2,308	2,596	2,583	2,696	2,800	2,618	2,831	2,714	2,604	30,056
2015	2,371	1,983	2,401	2,439	2,869	2,790	3,021	3,049	2,904	3,070	2,780	2,861	32,538
2016	2,354	2,426	2,694	2,713	3,005	3,025	3,025	3,134	3,154	3,287	3,041	2,890	34,748
2017	2,625	2,312	2,689	2,770	2,915	3,032	3,237	2,990	3,108	3,107	2,903	2,872	34,560
2018	2,626	2,315	2,610	2,559	2,965	3,019	3,045	2,986	3,022	3,081	2,743	2,683	33,654
Total	12,144	10,929	12,639	12,789	14,350	14,449	15,024	14,959	14,806	15,376	14,181	13,910	165,556

Download Tabular Report: pdf, rtf (MS Word) csv (Excel)

Data Sources:
[1]Fatality Analysis Reporting System (FARS): 2004-2017 Final File and 2018 Annual Report File (ARF) (See Details Here)
Report Generated: Tuesday, December 31, 2019 (2:18:58 PM)

RELEASEDATE IN (VERSION 2.0, RELEASED DECEMBER 23, 2019)

Figure 28 – Hyperlinked Data on a Table Report to a Map

Clicking on any of the hyperlinked numeric data shown in Figure 28 will map the data (see Figure 29 – Queried Data Map Page (Crashes only) as an example.

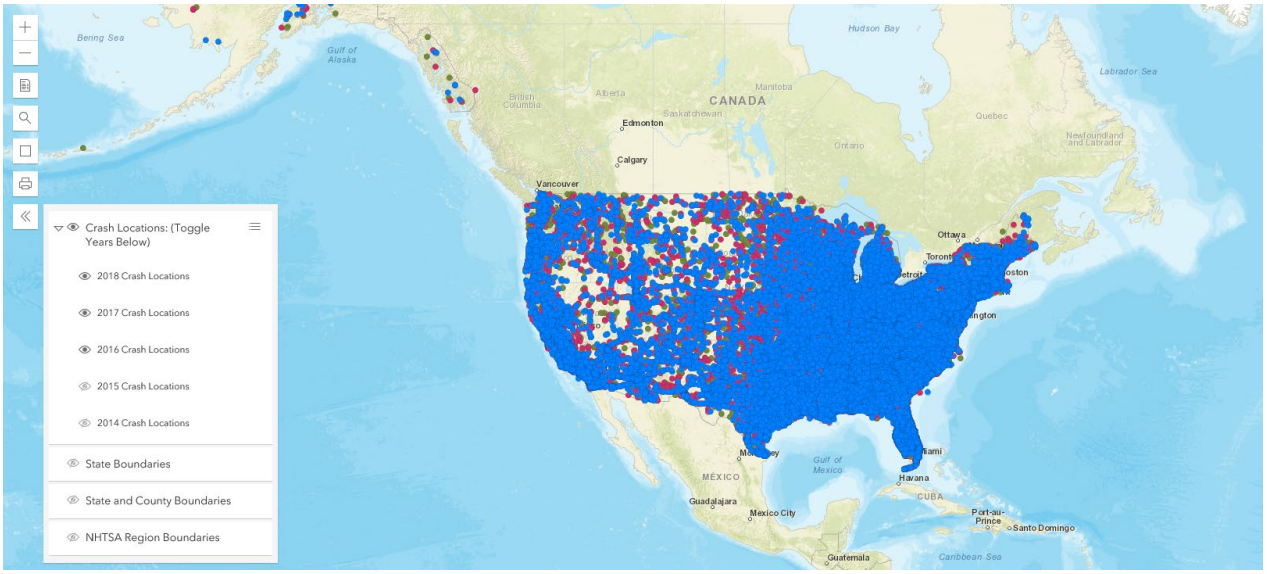
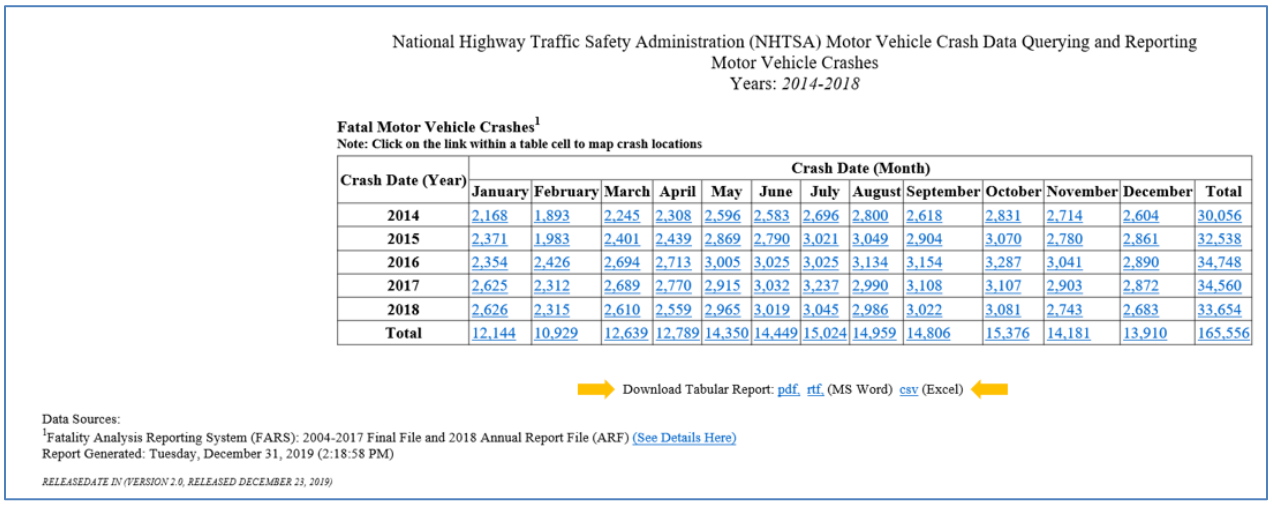


Figure 29 – Queried Data Map Page (Crashes only)

Follow the instructions on the left-hand side of this screen to manipulate the map. For example, zoom in and out, view title text, find an address or a place, choose different map view (default vs satellite), export (print) the map, enable state boundaries, enable state and county boundaries, enable NHTSA Region boundaries, and select desired years to map.

2.2.1.2 Exporting Data in a Table Report

Once a SAS table report is generated by clicking the Submit button, a new browser windows opens up with the requested SAS crash report. At the bottom of the report, as shown in Figure 30, the user will be able to export the queried data.



National Highway Traffic Safety Administration (NHTSA) Motor Vehicle Crash Data Querying and Reporting
Motor Vehicle Crashes
Years: *2014-2018*

Fatal Motor Vehicle Crashes[1]
Note: Click on the link within a table cell to map crash locations

Crash Date (Year)	Crash Date (Month)												
	January	February	March	April	May	June	July	August	September	October	November	December	Total
2014	2,168	1,893	2,245	2,308	2,596	2,583	2,696	2,800	2,618	2,831	2,714	2,604	30,056
2015	2,371	1,983	2,401	2,439	2,869	2,790	3,021	3,049	2,904	3,070	2,780	2,861	32,538
2016	2,354	2,426	2,694	2,713	3,005	3,025	3,025	3,134	3,154	3,287	3,041	2,890	34,748
2017	2,625	2,312	2,689	2,770	2,915	3,032	3,237	2,990	3,108	3,107	2,903	2,872	34,560
2018	2,626	2,315	2,610	2,559	2,965	3,019	3,045	2,986	3,022	3,081	2,743	2,683	33,654
Total	12,144	10,929	12,639	12,789	14,350	14,449	15,024	14,959	14,806	15,376	14,181	13,910	165,556

Download Tabular Report: pdf, rtf (MS Word) csv (Excel)

Data Sources:
[1]Fatality Analysis Reporting System (FARS): 2004-2017 Final File and 2018 Annual Report File (ARF) (See Details Here)
Report Generated: Tuesday, December 31, 2019 (2:18:58 PM)

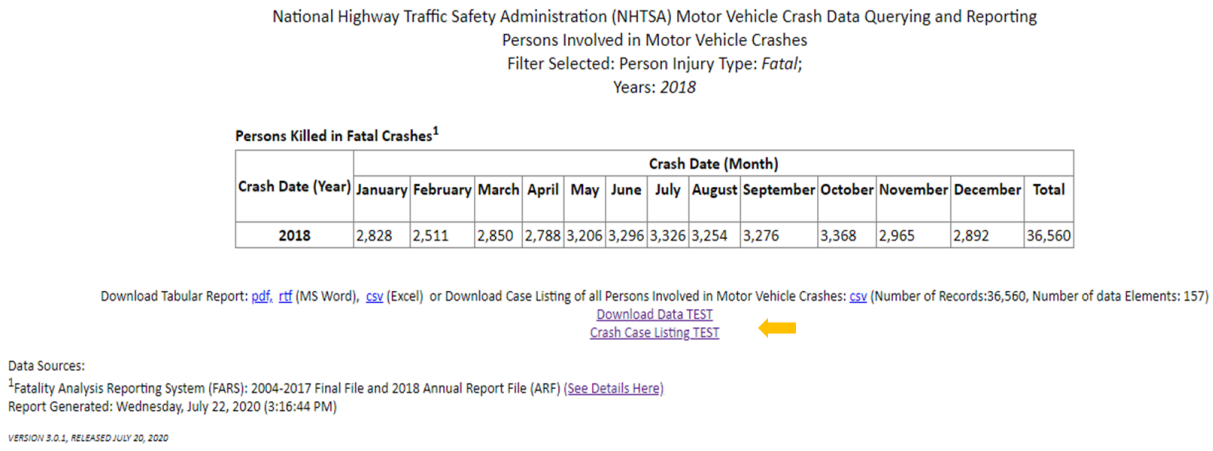
RELEASEDATE IN (VERSION 2.0, RELEASED DECEMBER 23, 2019)

Figure 30 – Exporting Data to PDF, RTF, or Excel (CSV)

Users can save the data in different file formats such as PDF, RTF, or Excel (CSV).

2.2.1.3 Download Case Listing of Crash Records

Once a SAS table report is generated for one year FARS data by clicking the Submit button, a new browser windows opens up with the requested SAS crash report. At the bottom of the report, as shown in Figure 31, the user will be able to download the one year FARS queried data.



National Highway Traffic Safety Administration (NHTSA) Motor Vehicle Crash Data Querying and Reporting
Persons Involved in Motor Vehicle Crashes
Filter Selected: Person Injury Type: *Fatal*;
Years: *2018*

Persons Killed in Fatal Crashes[1]

Crash Date (Year)	Crash Date (Month)												
	January	February	March	April	May	June	July	August	September	October	November	December	Total
2018	2,828	2,511	2,850	2,788	3,206	3,296	3,326	3,254	3,276	3,368	2,965	2,892	36,560

Download Tabular Report: pdf, rtf (MS Word), csv (Excel) or Download Case Listing of all Persons Involved in Motor Vehicle Crashes: csv (Number of Records:36,560, Number of data Elements: 157)
Download Data TEST
Crash Case Listing TEST

Data Sources:
[1]Fatality Analysis Reporting System (FARS): 2004-2017 Final File and 2018 Annual Report File (ARF) (See Details Here)
Report Generated: Wednesday, July 22, 2020 (3:16:44 PM)

VERSION 3.0.1, RELEASED JULY 20, 2020

Figure 31 – Download Case Listing of Crash Records

2.2.2 Build a Univariate Graph

Clicking the Univariate Graph button under the Build Your Reports panel, will display Figure 32. You can drag any value from the Data Elements section to Univariate Graph value column to construct a Univariate Graph. Similarly, User can remove a data element filter from Univariate Graph value column by dragging it back to Data Elements section or by clicking Cancel (X) symbol next to the filter.

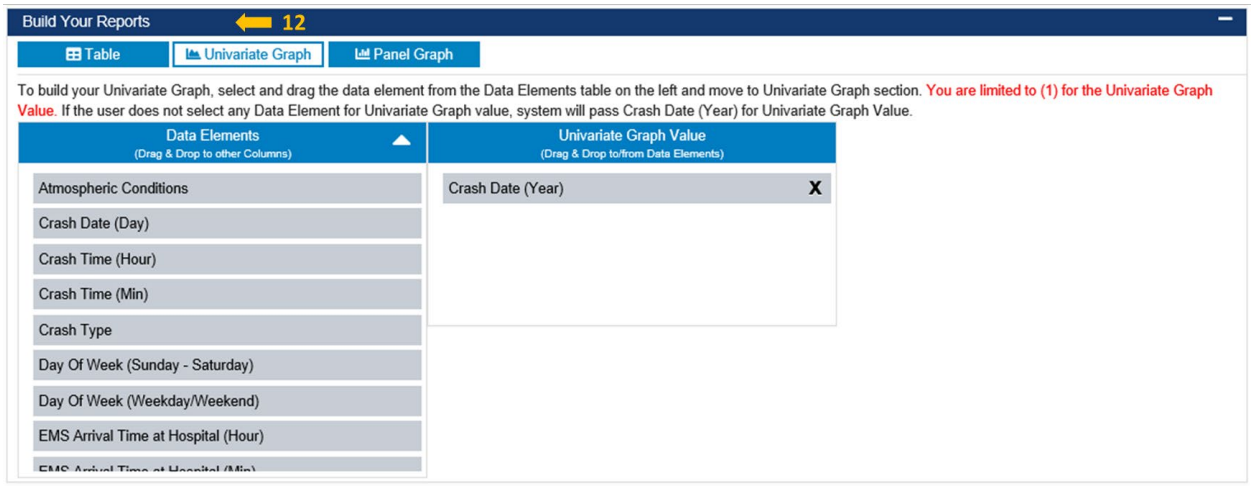


Figure 32 – Univariate Graph Under Build Your Reports Panel

The user will be able to use the other panels to filter their selections for the Univariate Graph similar to building a Table report as described above.

By clicking the Submit button under the Current Criteria section, the Univariate Graph shown in Figure 33 is displayed in a new tab.

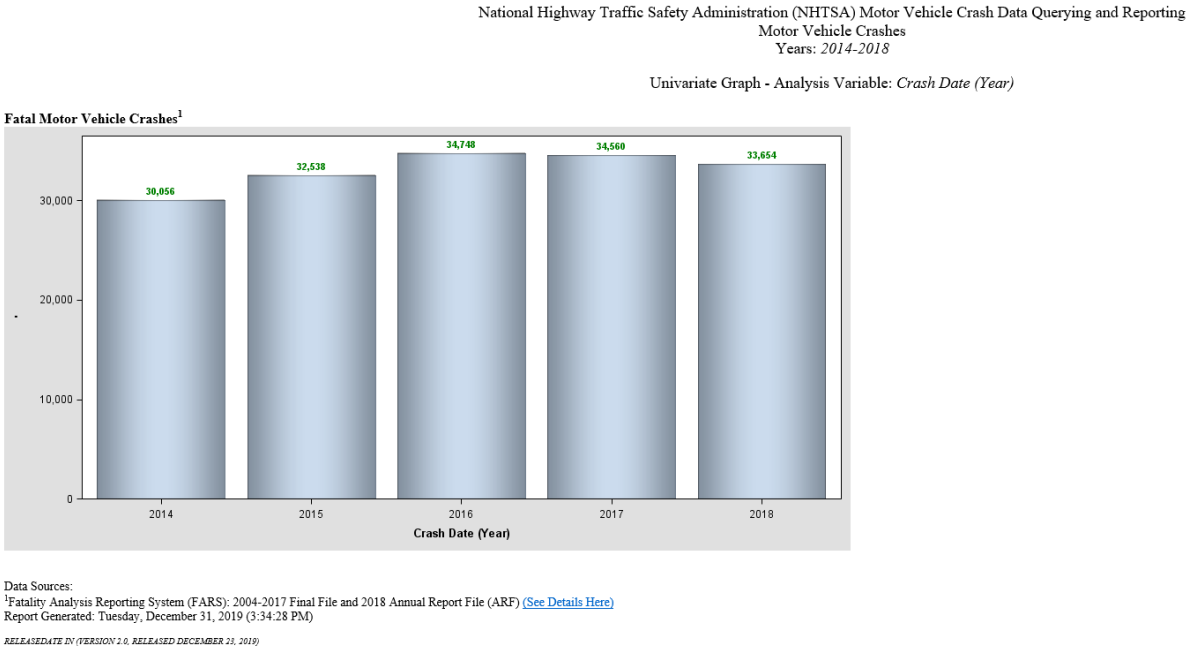


Figure 33 – Univariate Graph Report Example

2.2.3 Build a Panel Graph

Selecting the Panel Graph button will display the content in Figure 34.

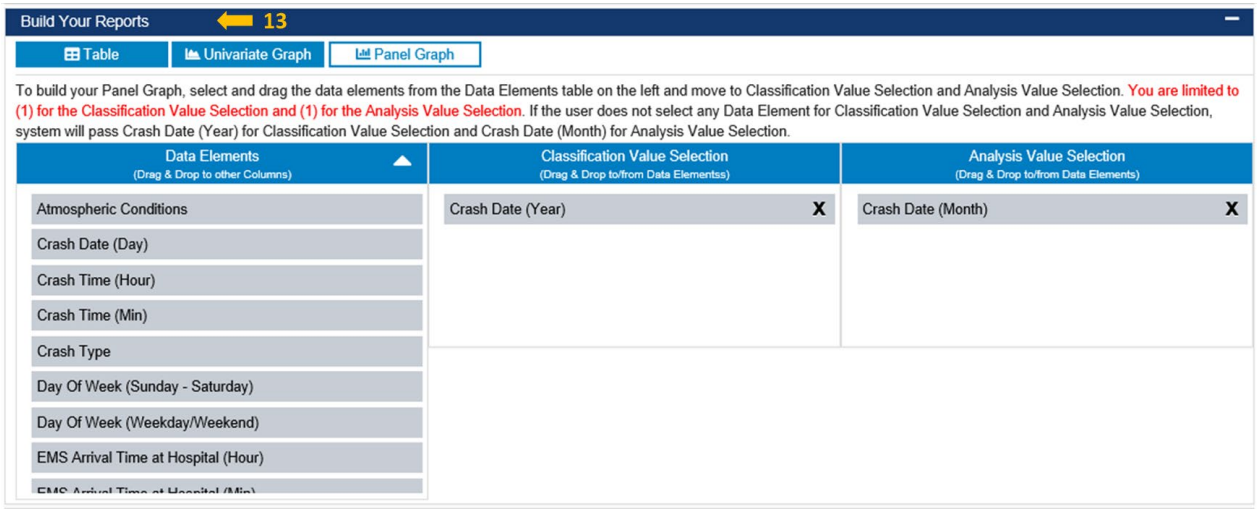


Figure 34 – Building Panel Graph Under Build Your Reports Panel

You can drag any values from the Data Elements section to Classification Value Selection and Analysis Value Selection columns to construct a Panel Graph. Similarly, User can remove a data element filter from Classification Value Selection or Analysis Value Selection columns by dragging it back to Data Elements section or by clicking Cancel (X) symbol next to the filter. Then you can click the Submit button under the Current Criteria section to create the Graph in a new tab. Figure 35 shows an example of a Panel Graph.

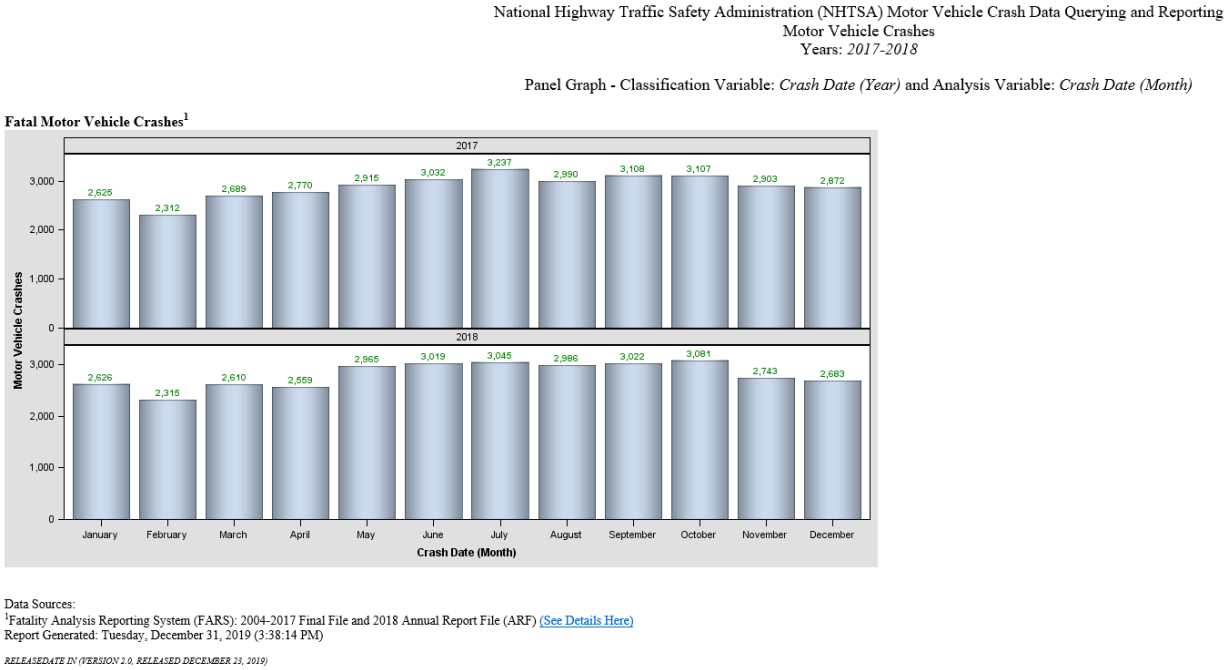


Figure 35 – Panel Graph Report Example

The user will be able to use the other panels to filter their selections for the Panel Graph similar to building a Table report as described under the Build Your Report for creating a Table report.

2.3 Contact Us, Website Compatibility Message, Version, and Download Your Data Links

The user should contact NCSA using the email link provided on the homepage using the standard template provided on the website ensures quick delivery of the email to NCSA team to respond to your inquiry.

Area 14: Contact NCSA Link

At the bottom of the website before the NHTSA footer (shown in Figure 36), there is an email (NCSARequests@dot.gov) for the user to provide feedback and request any additional information that they may need.

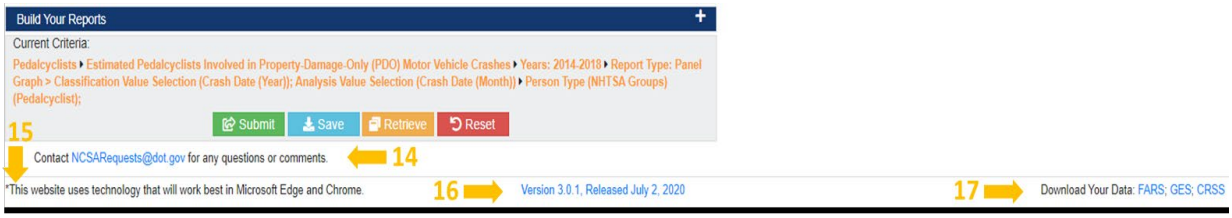


Figure 36 – Contact Us, Website Compatibility Message, Version, and Download Your Data Links

By clicking the NCSARequests@dot.gov email link the following email message (Figure 37) is displayed. The user can send their request or comments to the email address per the instructions provided in the email.

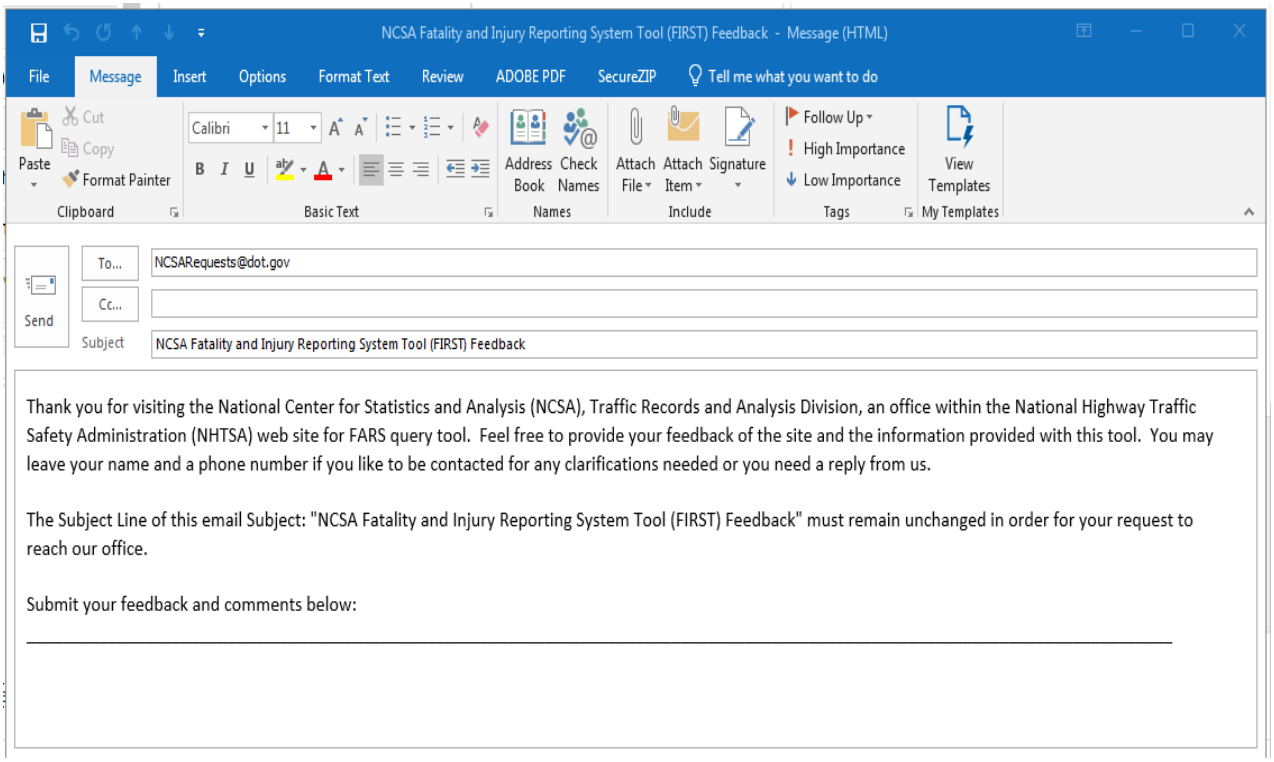


Figure 37 – Email to Send Feedback and Comments to NCSA

Arear 15: Website Compatibility Message

This area includes a message for site compatibility and best viewed in Microsoft Edge and Google Chrome.

Arear 16: Version and Release Date

Software version number and Release date link in this area (Figure 36) will open up a new page. On this page, all enhancement and fixes to the site since the website has been deployed publicly are listed.

Area 17: Download Your Data Links

In this area, see Figure 36, the user can download FARS, GES, and CRSS data for any year they desire by clicking the data source they need.

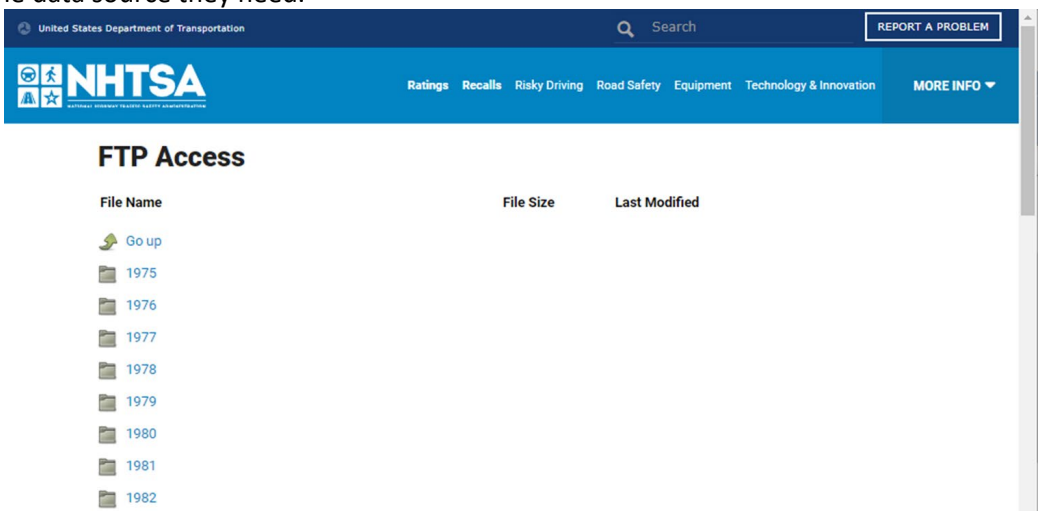


Figure 38 – NCSA FTP Directory for FARS Data

Once the user gets to the download site, they can download any file from the NCSA FTP site (shown in Figure 38) by clicking the year the data is needed for.

3. FIRST Error Messages

The user may encounter the following error messages when using the FIRST query tool:

3.1 SAS System Process Error Message

The following error message (Figure 39) appears when an error occurs with the SAS system.

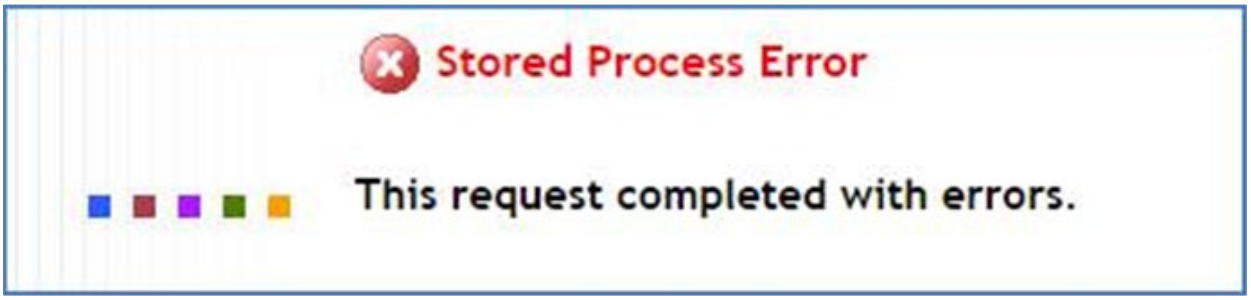


Figure 39 – SAS System Error Message Page

However, if there any issues with the query string that was built for generating the SAS report, the following message in Figure 40is displayed.

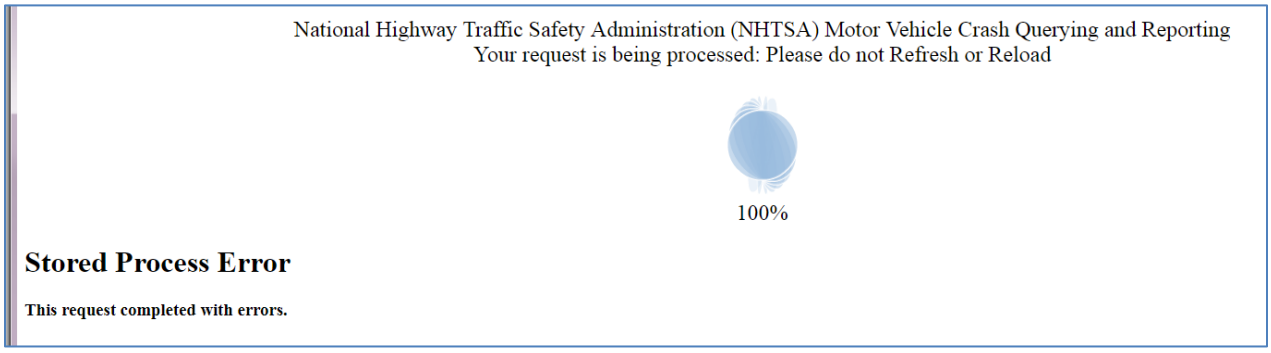


Figure 40 – Error Caused by SAS Query String Construct Failure (Current Criteria)

Please report these errors by sending an email to NCSARequests@dot.gov.

3.2 SAS System Down for Maintenance

When regularly scheduled maintenance in addition to query updates are performed on the SAS server, the page shown in Figure 41 is displayed.

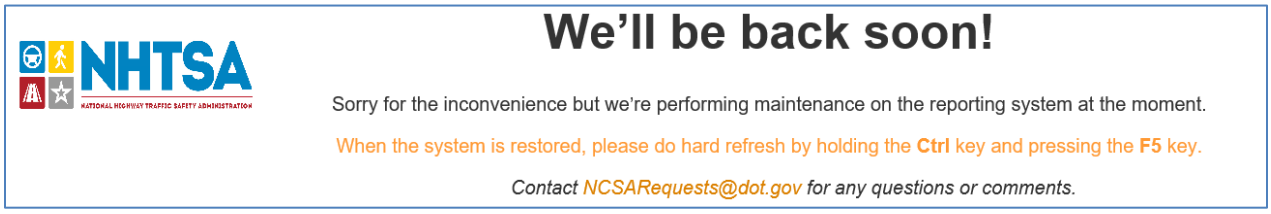


Figure 41 – SAS Reporting System is Down for Maintenance

These maintenances should last from half hour to an hour for updates. Major system (hardware or software) upgrade may take longer to complete. The user can revisit the site when the site maintenance is completed.

3.3 FIRST Query Tool Website Down for Maintenance

The following page in Figure 42 will be displayed to deploy enhancement or resolve issues with existing functionality of the site. Major system (hardware or software) upgrade may take longer to complete. The user can revisit the site when the site maintenance is completed.

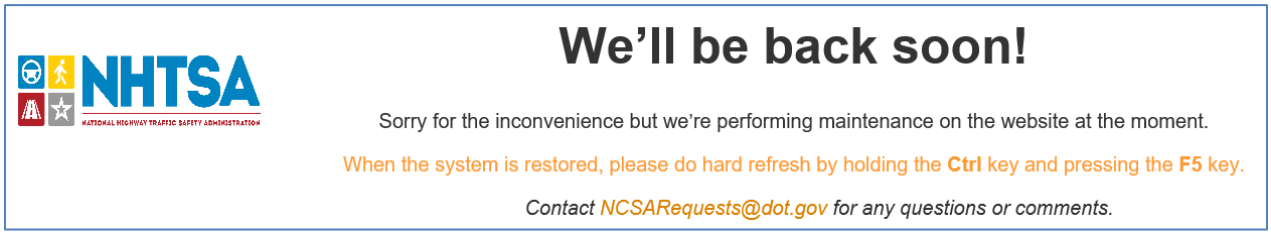


Figure 42 – FIRST Query Tool Website is Down for Maintenance Page

These maintenances should last from half hour to an hour for updates. Major upgrade may take longer to complete. The user can revisit the site when the site maintenance is completed.

3.4 FIRST Query Tool Application Error Message

For any reason the query tool encounters an issue while retrieving the home page or clicking on a functionality, the following page in Figure 43 or Figure 44 is displayed.

Figure 43 – FIRST Query Tool Application Error Message Page

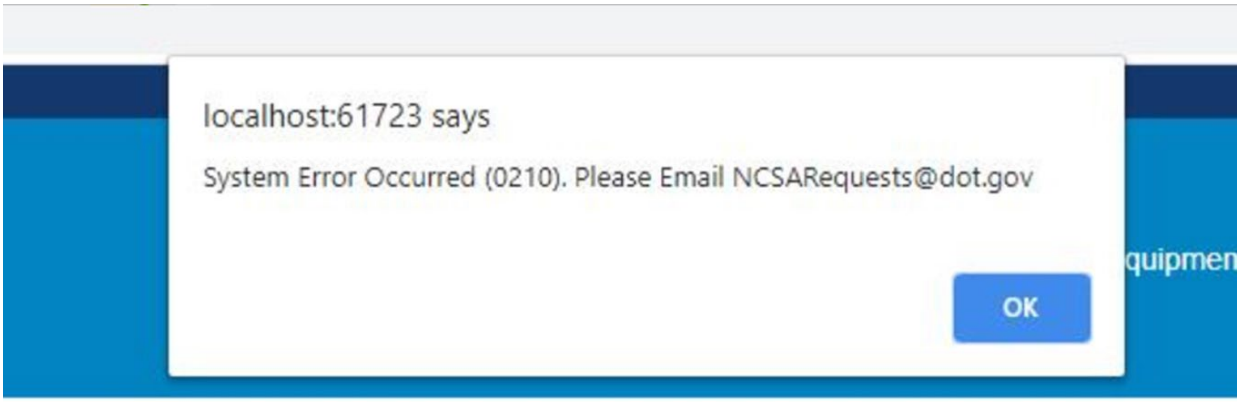


Figure 44 – FIRST Query Tool Application Error Alert

Please report these errors by sending an email to NCSARequests@dot.gov.

3.5 Website Hangs or Becomes Unresponsive

In case, the website becomes unresponsive and appears to be hung, click on the Reset button under Current Criteria section or refresh the browser page.

4. Acronyms

This table contains commonly used DOT and FARS acronyms used on this website.

ACRONYM	DESCRIPTION
BAC	Blood Alcohol Concentration
BTS	Bureau of Transportation Statistics
CDL	Commercial Driver's License
CDS	Crashworthiness Data System
CODES	Crash Outcome Data Evaluation System
CRSS	Crash Reporting Sampling System
DOT	Department of Transportation
EMS	Emergency Medical Service
FARS	Fatality Analysis Reporting System
FHWA	Federal Highway Administration
FIRST	Fatality and Injury Reporting System Tool
GES	General Estimates System
GVWR	Gross Vehicle Weight Rating
ITS	Intelligent Transportation System
LTVs	Light Trucks and Vans
MUTCD	Manual of Uniform Traffic Control Devices

ACRONYM	DESCRIPTION
N/A	Not Applicable
NASS	National Automotive Sampling System
NCSA	National Center for Statistics and Analysis
NHTSA	National Highway Traffic Safety Administration
PAR	Police Accident Report
PCR	Police Crash Report
PCs	Passenger Cars
PSAs	Public Service Announcements
PSUs	Primary Sampling Units
VIN	Vehicle Identification Number

Table 2 – Acronyms Used on this Website

5. Terms

This table below contains commonly used terms and their descriptions.

Term	Description
Alcohol Involvement	NHTSA Defines A Fatal Crash as Alcohol-related or Alcohol-involved If Either A Driver or A Nonmotorist (usually A Pedestrian) Had A Measurable or Estimated Blood Alcohol Concentration (BAC) of 0.01 Grams Per Deciliter (g/dl) or Above. NHTSA Defines A Nonfatal Crash as Alcohol-related or Alcohol-involved If Police Indicate on The Police Accident Report That There Is Evidence of Alcohol Present. the Code Does Not Necessarily Mean That A Driver or Nonoccupant Was Tested for Alcohol.
Alcohol-Impaired Driving Crashes	Crashes That Involve At Least One Driver or Motorcycle Rider (operator) with A Blood Alcohol Concentration (BAC) of .08 Grams Per Deciliter (g/dL) or Higher. Thus, Any Fatality Occurring in A Crash Involving A Driver or Motorcycle Rider with A BAC of .08 or Higher Is Considered to Be an Alcohol-impaired-driving Fatality.
Alcohol-Impaired Driving Fatalities	All Fatalities in Crashes Involving A Driver or Motorcycle Rider (operator) with A Blood Alcohol Concentration (BAC) of .08 Grams Per Deciliter (g/dL) or Higher.
Angled Collision	Collisions Which Are Not Head-on, Rear-end, Rear-to-rear, or Sideswipe.
Blood Alcohol Concentration	the BAC Is Measured as A Percentage by Weight of Alcohol in the Blood (grams/deciliter). A Positive BAC Level (0.01 G/dl And Higher) Indicates That Alcohol Was Consumed by the Person Tested. A BAC Level of 0.10 G/dl or More Indicates That the Person Was Intoxicated.
Body Type	Detailed Type of Motor Vehicle Within A Vehicle Type.
Bus	Large Motor Vehicles Used to Carry More Than Ten Passengers, Including School Buses, Inter-city Buses, And Transit Buses.
Collectors	in Rural Areas, Routes Serving Intra-county, Rather Than Statewide Travel. in Urban Areas, Streets Providing Direct Access to Neighborhoods as Well as Direct Access to Arterials.
Combination Truck	A Truck Tractor Not Pulling A Trailer; A Tractor Pulling At Least One Full or Semi-trailer; or A Single-unit Truck Pulling At Least One Trailer.

Term	Description
Construction/Maintenance Zone	an Area, Usually Marked by Signs, Barricades, or Other Devices Indicating That Highway Construction or Highway Maintenance Activities Are Ongoing.
Crash	an Event That Produces Injury And/or Property Damage, Involves A Motor Vehicle in Transport, And Occurs on A Trafficway or While the Vehicle Is Still in Motion After Running off the Trafficway.
Crash Type	Single-vehicle or Multiple-vehicle Crash.
Day	From 6 A.m. to 5:59 P.m.
Driver	An Occupant of a Vehicle Who Is in Physical Control of a Motor Vehicle in Transport, or for an Out-of-control Vehicle, an Occupant Who Was in Control Until Control Was Lost.
Ejection	Refers to Occupants Being Totally or Partially Thrown from the Vehicle as A Result of an Impact or Rollover.
Fatal Crash	A Police-reported Crash Involving A Motor Vehicle in Transport on A Trafficway in Which At Least One Person Dies Within 30 Days of the Crash.
First Harmful Event	the First Event During A Crash That Caused Injury or Property Damage.
Fixed Object	Stationary Structures or Substantial Vegetation Attached to the Terrain.
Gross Vehicle Weight Rating (GVWR)	the Maximum Rated Capacity of a Vehicle, Including the Weight of the Base Vehicle, All Added Equipment, Driver and Passengers, and All Cargo Loaded into or on the Vehicle. Actual Weight May Be Less Than or Greater Than GVWR.
Head-on Collision	Refers to a Collision Where the Front End of One Vehicle Collides with the Front End of Another Vehicle While the Two Vehicles Are Traveling in Opposite Directions.
Initial Impact Point	the First Impact Point That Produced Personal Injury or Property Damage, Regardless of First or Most Harmful Event.
Injury Crash	A Police-reported Crash That Involves a Motor Vehicle in Transport on a Trafficway in Which No One Died But At least One Person Was Reported to Have: (1) an Incapacitating Injury; (2) a Visible but Not Incapacitating Injury; (3) a Possible, Not Visible Injury; or (4) an Injury of Unknown Severity.
Injury Severity	the Police-reported Injury Severity of the Person (i.e., Occupant, Pedestrian, or Pedalcyclist).
Interstates	Limited Access Divided Facilities of at Least Four Lanes Designated by the Federal Highway Administration as Part of the Interstate System.
Jackknife	Jackknife Can Occur at Any Time During the Crash Sequence. in This Report, Jackknifing Is Restricted to Truck Tractors Pulling a Trailing Unit in Which the Trailing Unit and the Pulling Vehicle Rotate with Respect to Each Other.
Junction	Area Formed by the Connection of Two Roadways, Including Intersections, Interchange Areas, and Entrance/exit Ramps.
Land Use	the Crash Location (urban or Rural).
Large Trucks	Trucks Over 10,000 Pounds Gross Vehicle Weight Rating, Including Single Unit Trucks and Truck Tractors.
Light Trucks	Trucks of 10,000 Pounds Gross Vehicle Weight Rating or Less, Including Pickups, Vans, Truck-based Station Wagons, and Utility Vehicles.
Local Streets and Roads	Streets Whose Primary Purpose Is Feeding Higher Order Systems, Providing Direct Access with Little or No Through Traffic.

Term	Description
Manner of Collision	A Classification for Crashes in Which the First Harmful Event Was a Collision Between Two Motor Vehicles in Transport.
Minor Arterials	Streets and Highways Linking Cities and Larger Towns in Rural Areas in Distributing Trips to Small Geographic Areas in Urban Areas (not Penetrating Identifiable Neighborhoods).
Most Harmful Event	the Event During a Crash for a Particular Vehicle That Is Judged to Have Produced the Greatest Personal Injury or Property Damage.
Motor Vehicle in Transport	A Motor Vehicle in Motion on the Trafficway or Any Other Motor Vehicle on the Roadway, Including Stalled, Disabled, or Abandoned Vehicles.
Motorcycle	A Two- or Three-wheeled Motor Vehicle Designed to Transport One or Two People, Including Motor scooters, Minibikes, and Mopeds.
Motorcycle Rider	Operator of a Motorcycle.
Motorcyclists	Any Combined Reference to the “motorcycle Rider” as Well as the “passenger”. ”Passenger” is Any Person Who Is Not in Control of the Motorcycle
N/A	Not Applicable.
Night	From 6 P.m. to 5:59 A.m.
Noncollision	A Class of Crash in Which the First Harmful Event Does Not Involve a Collision with a Fixed Object, Nonfixed Object, or a Motor Vehicle. This Includes Overturn, Fire/explosion, Falls from a Vehicle, and Injuries in a Vehicle.
Nonmotorist	Any Person Who Is Not an Occupant of a Motor Vehicle in Transport and Includes the Following: 1. Pedestrians 2. Pedalcyclists 3. Occupants of Parked Motor Vehicles 4. Others Such as Joggers, Skateboard Riders, People Riding on Animals, and Persons Riding in Animal-drawn Conveyances.
Nonmotorist Location	the Location of Nonmotorists at Time of Impact. Intersection Locations Are Coded Only If Nonmotorists Were Struck in the Area Formed by a Junction of Two or More Trafficways. Non-intersection Location May Include Nonmotorists Struck on a Junction of a Driveway/alley Access and a Named Trafficway. Nonmotorists Who Are Occupants of Motor Vehicles Not in Transport Are Coded with Respect to the Location of the Vehicle.
Objects Not Fixed	Objects That Are Movable or Moving but Are Not Motor Vehicles. Includes Pedestrians, Pedalcyclists, Animals, or Trains (e.g., Spilled Cargo in Roadway).
Occupant	Any Person Who Is in or Upon a Motor Vehicle in Transport. Includes the Driver, Passengers, and Persons Riding on the Exterior of a Motor Vehicle.
Other Freeways and Expressways	All Urban Principal Arterial with Limited Control of Access Not on the Interstate System.
Other Principal Arterials	Major Streets or Highways, Many with Multi-lane or Freeway Design, Serving High-volume Traffic Corridor Movements That Connect Major Generators of Travel.
Other Vehicle	Consists of the Following Types of Vehicles: 1. Large Limousine (more Than Four Side Doors or Stretched Chassis) 2. Three-wheel Automobile or Automobile Derivative 3. Van-based Motorhome 4. Light-truck-based Motorhome (chassis Mounted) 5. Large-truck-based Motorhome 6. ATV (all Terrain Vehicle, Including Dune/swamp Buggy) and ATC (all Terrain Cycle) 7. Snowmobile 8. Farm Equipment Other Than Trucks 9.

Term	Description
	Construction Equipment Other Than Trucks (includes Graders) 10. Other Type Vehicle (includes Go-cart, Fork Lift, City Streetsweeper).
Passenger	Any Occupant of a Motor Vehicle Who Is Not a Driver.
Passenger Car	Motor Vehicles Used Primarily for Carrying Passengers, Including Convertibles, Sedans, and Station Wagons.
Pedalcyclist	A Person on a Vehicle That Is Powered Solely by Pedals.
Pedestrian	Any Person Not in or Upon a Motor Vehicle or Other Vehicle.
Property-Damage-Only Crash	A Police-reported Crash Involving a Motor Vehicle in Transport on a Trafficway in Which No One Involved in the Crash Suffered Any Injuries.
Rear-end Collision	A Collision in Which One Vehicle Collides with the Rear of Another Vehicle.
Restraint Use	the Occupant's Use of Available Vehicle Restraints Including Lap Belt, Shoulder Belt, or Automatic Belt.
Roadway	That Part of a Trafficway Designed, Improved, and ordinarily Used for Motor Vehicle Travel.
Roadway Function Class	the Classification Describing the Character of Service the Street or Highway Is Intended to Provide.
Rollover	Rollover Is Defined as Any Vehicle Rotation of 90 Degrees or More About Any True Longitudinal or Lateral Axis. Includes Rollovers Occurring as a First Harmful Event or Subsequent Event.
School Bus-Related Crash	Any Crash in Which a Vehicle, Regardless of Body Design, Used as a School Bus Is Directly or Indirectly Involved, such as a Crash Involving School Children Alighting from a Vehicle.
Seating Position	the Location of the Occupants in the Vehicle. More Than One Can Be Assigned the Same Seat Position; However, This Is Allowed Only When a Person Is Sitting on Someone's Lap.
Sideswipe	A Collision in Which the Sides of Both Vehicles Sustain Minimal Engagements.
Single-Unit Truck	A Medium or Heavy Truck in Which the Engine, Cab, Drive Train, and Cargo Area Are All on One Chassis.
Trafficway	Any Road, Street, or Highway Open to the Public as a Matter of Right or Custom for Moving Persons or Property from One Place to Another.
Unknown	Data Either Not Available or Not Known.
Vehicle Type	A Series of Motor Vehicle Body Types That Have Been Grouped Together Because of Their Design Similarities. the Principal Vehicle Types Used in This Report Are Passenger Car, Light Truck, Large Truck, Motorcycle, Bus, and Other Vehicle.
Weekday	From 6 AM Monday to 5:59 PM Friday.
Weekend	From 6 PM Friday to 5:59 AM Monday.

Table 3 – Terms Used on this Website