

# CRASH DATA

## INTRODUCTION TO THE FATALITY ANALYSIS REPORTING SYSTEM

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Module 1: Crash Prevention

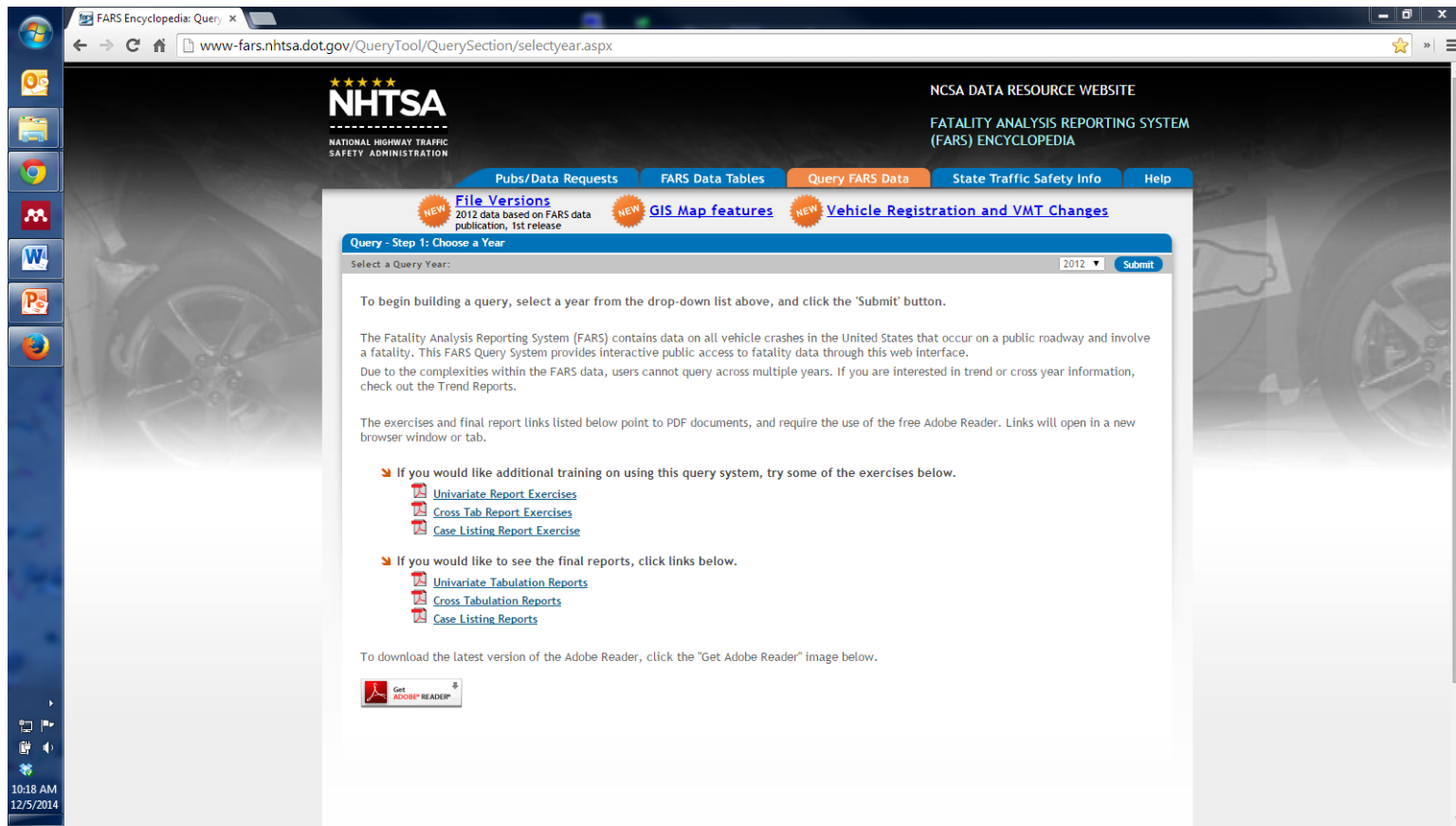
Lesson 3: Road Weather Information Systems

# Discussion

- Do you think more crashes happen when the roads are dry or wet?
- What about when the roads are icy?
- What other types of weather may contribute to crashes?

# Using Crash Statistics

- Fatality Analysis Reporting System (NHTSA)
  - <http://www-fars.nhtsa.dot.gov/QueryTool/QuerySection/selectyear.aspx>



The screenshot shows a web browser window displaying the NHTSA FARS Query Tool. The browser's address bar shows the URL: [www-fars.nhtsa.dot.gov/QueryTool/QuerySection/selectyear.aspx](http://www-fars.nhtsa.dot.gov/QueryTool/QuerySection/selectyear.aspx). The page features the NHTSA logo (National Highway Traffic Safety Administration) and the text "NCSA DATA RESOURCE WEBSITE" and "FATALITY ANALYSIS REPORTING SYSTEM (FARS) ENCYCLOPEDIA". A navigation menu includes "Pubs/Data Requests", "FARS Data Tables", "Query FARS Data", "State Traffic Safety Info", and "Help". Below the menu, there are three "NEW" callouts: "File Versions" (2012 data based on FARS data publication, 1st release), "GIS Map features", and "Vehicle Registration and VMT Changes". The main content area is titled "Query - Step 1: Choose a Year" and contains a "Select a Query Year:" dropdown menu with "2012" selected and a "Submit" button. The page provides instructions on how to use the query system, including a note that users cannot query across multiple years. It also lists links for "Univariate Report Exercises", "Cross Tab Report Exercises", and "Case Listing Report Exercise", as well as "Univariate Tabulation Reports", "Cross Tabulation Reports", and "Case Listing Reports". At the bottom, there is a link to "Get Adobe Reader" with a small Adobe Reader icon.

# Using Crash Statistics

- Select Year

The screenshot shows a web browser window displaying the NHTSA FARS Query Tool. The browser's address bar shows the URL: [www-fars.nhtsa.dot.gov/QueryTool/QuerySection/selectyear.aspx](http://www-fars.nhtsa.dot.gov/QueryTool/QuerySection/selectyear.aspx). The page features the NHTSA logo (National Highway Traffic Safety Administration) and the text "NCSA DATA RESOURCE WEBSITE" and "FATALITY ANALYSIS REPORTING SYSTEM (FARS) ENCYCLOPEDIA". A navigation menu includes "Pubs/Data Requests", "FARS Data Tables", "Query FARS Data", "State Traffic Safety Info", and "Help". Below the menu, there are three "NEW" callouts: "File Versions" (2012 data based on FARS data publication, 1st release), "GIS Map features", and "Vehicle Registration and VMT Changes". The main content area is titled "Query - Step 1: Choose a Year" and contains a form with a "Select a Query Year:" label, a dropdown menu set to "2012", and a "Submit" button. A black arrow points upwards from the text below towards the "Submit" button. The text below the form includes instructions on how to use the query system, such as selecting a year and clicking the 'Submit' button, and provides links to exercises and reports. At the bottom, there is a link to download the latest version of the Adobe Reader.

10:18 AM  
12/5/2014

# Using Crash Statistics

- Pick Tables to Query (2010 - present)

The screenshot shows the NHTSA FARS Query Tool interface. The browser address bar displays [www-fars.nhtsa.dot.gov/QueryTool/QuerySection/SelectOptions.aspx](http://www-fars.nhtsa.dot.gov/QueryTool/QuerySection/SelectOptions.aspx). The page header includes the NHTSA logo and the text "NCSA DATA RESOURCE WEBSITE" and "FATALITY ANALYSIS REPORTING SYSTEM (FARS) ENCYCLOPEDIA". The navigation menu includes "Pubs/Data Requests", "FARS Data Tables", "Query FARS Data" (selected), "State Traffic Safety Info", and "Help".

The main content area is titled "Query - Step 2: Choose the Tables to Query (2012)". It contains the following text:

Now select the combination of tables that contains the fields you are interested in. (In the next step, you will select the specific fields.)

Please click on the links to see the variables in the respective tables in a new window.

Option 1 ([Crashes](#) / [Person \(Includes Occupants and Non Occupants\)](#))  
Please select this option to query on variables that belongs to Crash, Person (Includes Occupant and Non Occupant) tables  
Choose Option 1 if you want to include results for ALL PEOPLE (Occupants AND Non-Occupants) and /or CRASH Level information, but NOT VEHICLE or DRIVER Level information  
Examples uses:

- You are looking for Alcohol or Drug test results for drivers and non-motorists involved in fatal crashes.
- You are looking for persons involved in fatal crashes that occurred at night.
- You are looking for the count of children involved in fatal crashes.

Option 2 ([Crash](#) / [Non Occupant](#) / [Pedestrian \\*](#) / [Bicyclist \\*](#)) \* See [Note](#)  
Please select this option to query on variables that belong to Crash and Non Occupant tables  
Choose Option 2 if you want to include PERSON Level information only for Non-Occupants and/or CRASH Level information, but NOT VEHICLE or DRIVER Level information  
Examples uses:

- You are looking for the location of bicyclists and their use of safety equipment when involved in a fatal crash.
- You are looking for common activities engaged in by pedestrians prior to being involved in a fatal crash.
- You are looking for a distribution of persons operating a personal conveyance or riding a bicycle by age group.

Option 3 ([Crash](#) / [Vehicle](#) / [Driver](#) / [Precrash](#) / [Occupant](#))  
Please select this option to query on variables that belongs to Crash, Vehicle, Driver, Precrash and Occupant tables  
Choose Option 3 if you want to include PERSON Level information for only Occupants, and/or DRIVER Level information, PRECRASH Level information, VEHICLE Level information and /or CRASH level information  
Examples uses:

- You are looking for a count of motor vehicle occupants involved in fatal crashes.
- You are looking for large trucks involved in fatal crashes where the truck jackknifed prior to its involvement.
- You are looking for crashes that involved a roadway with a two way continuous left turn lane where one of the vehicles was engaged in a

# Using Crash Statistics

- Pick variables to research

The screenshot shows the NHTSA FARS Query Tool interface. The browser address bar displays [www-fars.nhtsa.dot.gov/QueryTool/QuerySection/SelectFields.aspx](http://www-fars.nhtsa.dot.gov/QueryTool/QuerySection/SelectFields.aspx). The page header includes the NHTSA logo and the text "NCSA DATA RESOURCE WEBSITE" and "FATALITY ANALYSIS REPORTING SYSTEM (FARS) ENCYCLOPEDIA". The navigation menu includes "Pubs/Data Requests", "FARS Data Tables", "Query FARS Data", "State Traffic Safety Info", and "Help".

The main content area is titled "Query - Step 3: Choose Variables to Use (2012)". It contains a "Submit" button and a "Clear Form" button. Below the buttons, there is a paragraph of instructions: "Choose all the data fields you are interested in by clicking in the check box next to the field name. A check mark will appear to indicate that the field is selected. To de-select a field, click on the check mark again. To clear all selections, click on the Clear Form button. Once you have completed your selections, click on the Submit button."

A note below the instructions states: "\* Denotes a commonly selected field." Below this note, there are three columns of variables for selection, each with a checkbox. The variables are grouped into "Crashes" and "Person" sections. An arrow points to the "Atmospheric Condition (1)\*" checkbox, which is checked.

| Crashes   |  |  |
|---|--|--|
| <input type="checkbox"/> Arrival Hour EMS               | <input type="checkbox"/> Arrival Minute EMS  | <input type="checkbox"/> Arrival Time EMS                              |
| <input type="checkbox"/> Atmospheric Condition (2)*     | <input type="checkbox"/> City  | <input type="checkbox"/> County*                                       |
| <input type="checkbox"/> Crash Day                      | <input type="checkbox"/> Crash Hour  | <input type="checkbox"/> Crash Minute                                  |
| <input type="checkbox"/> Crash Related Factor (1)       | <input type="checkbox"/> Crash Related Factor (2)                                    | <input type="checkbox"/> Crash Related Factor (3)                      |
| <input type="checkbox"/> Crash Year                     | <input type="checkbox"/> Day Of Week*  | <input type="checkbox"/> Drowsy Driver                                 |
| <input type="checkbox"/> EMS Minute At Hospital         | <input type="checkbox"/> EMS Time At Hospital  | <input type="checkbox"/> First Harmful Event*                          |
| <input type="checkbox"/> Large Truck Related            | <input type="checkbox"/> Latitude (Decimal)  | <input type="checkbox"/> Latitude (Degrees)                            |
| <input type="checkbox"/> Latitude (Seconds)             | <input type="checkbox"/> Light Condition   | <input type="checkbox"/> Longitude (Decimal)                           |
| <input type="checkbox"/> Longitude (Minutes)            | <input type="checkbox"/> Longitude (Seconds)   | <input type="checkbox"/> Manner of Collision                           |
| <input type="checkbox"/> National Highway System        | <input type="checkbox"/> Notification Hour EMS                                       | <input type="checkbox"/> Notification Minute EMS                       |
| <input type="checkbox"/> Number of Fatalities In Crash* | <input type="checkbox"/> Number of Forms Submitted for Persons Not in Motor Vehicles | <input type="checkbox"/> Number of Person Forms Submitted              |
| <input type="checkbox"/> Rail Grade Crossing Identifier | <input type="checkbox"/> Relation To Junction: Junction                              | <input type="checkbox"/> Relation To Junction: Within Interchange Area |
| <input type="checkbox"/> Roadway Function Class*        | <input type="checkbox"/> Route Signing   | <input type="checkbox"/> School Bus Related                            |
| <input type="checkbox"/> Speeding                       | <input type="checkbox"/> Traffic Identifier (1)                                      | <input type="checkbox"/> Traffic Identifier (2)                        |
| <input type="checkbox"/> Work Zone                      |  |  |

| Person                                       |  |
|--|--|
| <input type="checkbox"/> Age*                | <input type="checkbox"/> Alcohol Test Results* |
| <input type="checkbox"/> Alcohol Test Status | <input type="checkbox"/> Alcohol Test Type     |

# Using Crash Statistics

- Narrow down your field (hold down ctrl to select multiple crash characteristics)

The screenshot shows the NHTSA FARS Query Tool interface. The browser address bar displays [www-fars.nhtsa.dot.gov/QueryTool/QuerySection/SelectCriteria.aspx](http://www-fars.nhtsa.dot.gov/QueryTool/QuerySection/SelectCriteria.aspx). The page header includes the NHTSA logo and the text "NCSA DATA RESOURCE WEBSITE" and "FATALITY ANALYSIS REPORTING SYSTEM (FARS) ENCYCLOPEDIA". The navigation bar contains buttons for "Pubs/Data Requests", "FARS Data Tables", "Query FARS Data" (selected), "State Traffic Safety Info", and "Help". Below the navigation bar, there are three "NEW" callouts: "File Versions" (2012 data based on FARS data publication, 1st release), "GIS Map features", and "Vehicle Registration and VMT Changes". The main content area is titled "Query - Step 4: Choose Condition Criteria (2012)" and contains a sub-header "Crash". Below this, there are two dropdown menus: "State" and "Atmospheric Condition (1)". The "State" dropdown menu is open, showing a list of states: All, (1)Alabama, (2)Alaska, (4)Arizona, (5)Arkansas, (6)California, (8)Colorado, and (9)Connecticut. The "Atmospheric Condition (1)" dropdown menu is also open, showing a list of conditions: All, (-1)Blank, (0)No Additional Atmospheric Conditions, (1)Clear, (2)Rain, (3)Sleet, Hail (Freezing Rain or Drizzle), (4)Snow, and (5)Fog, Smog, Smoke. Two black arrows point to the right side of these dropdown menus. At the bottom of the page, there are buttons for "Univariate Tabulation", "Cross Tab", "Case Listing", and "Clear Form".

# Using Crash Statistics

- Select “Univariate Tabulation”

The screenshot shows a web browser window displaying the NHTSA FARS Query Tool. The browser address bar shows the URL: [www-fars.nhtsa.dot.gov/QueryTool/QuerySection/SelectCriteria.aspx](http://www-fars.nhtsa.dot.gov/QueryTool/QuerySection/SelectCriteria.aspx). The page header includes the NHTSA logo and the text "NCSA DATA RESOURCE WEBSITE" and "FATALITY ANALYSIS REPORTING SYSTEM (FARS) ENCYCLOPEDIA". The main navigation bar contains buttons for "Pubs/Data Requests", "FARS Data Tables", "Query FARS Data", "State Traffic Safety Info", and "Help". Below this, there are three "NEW" callouts for "File Versions", "GIS Map features", and "Vehicle Registration and VMT Changes". The main content area is titled "Query - Step 4: Choose Condition Criteria (2012)" and features a sub-navigation bar with buttons for "Univariate Tabulation", "Cross Tab", "Case Listing", and "Clear Form". A text block explains the selection process: "By selecting specific field elements for your query, you are essentially describing the data you are interested in finding. Your query will search for cases that fit the parameters you have selected. You can choose multiple values for a selected field by holding down the 'Control' key on a PC or 'Shift' on a Macintosh and then clicking on the different variables you wish to select. Choosing two or more variables is the equivalent of an AND statement; that is, records must meet your selection criteria for both variables to be included in your report. Click Univariate Tabulation, Cross Tab, or Case Listing to compute the query." Below this text are two scrollable lists. The first list is titled "Crash" and includes "State" with options: All, (1)Alabama, (2)Alaska, (4)Arizona, (5)Arkansas, (6)California, (8)Colorado, and (9)Connecticut. The second list is titled "Atmospheric Condition (1)" and includes options: All, (-1)Blank, (0)No Additional Atmospheric Conditions, (1)Clear, (2)Rain, (3)Sleet, Hail (Freezing Rain or Drizzle), (4)Snow, and (5)Fog, Smog, Smoke. At the bottom of the lists are buttons for "Univariate Tabulation", "Cross Tab", "Case Listing", and "Clear Form". A black arrow points from the bottom of the page up to the "Univariate Tabulation" button.



# Using Crash Statistics

- Build your table
  - Select a Variable - “Atmospheric Conditions (1)”
  - Number of Crashes

The screenshot shows the NHTSA FARS Query Tool interface. The page title is "Query - Step 5: Choose Report Format Options". The interface includes a navigation menu with options like "Pubs/Data Requests", "FARS Data Tables", "Query FARS Data", "State Traffic Safety Info", and "Help". A summary table shows the following data:

| Total Count(s) |        |
|----------------|--------|
| Crashes:       | 30,800 |
| Vehicles:      | 45,606 |
| Persons:       | 75,882 |

Below the table, there are several dropdown menus and options:

- Select a Variable: Atmospheric Condition (1)
- Select Data to Count: Number of Crashes
- Select Grouping Option: None
- Show ZERO Values: Yes (selected) / No
- Report Title: [Empty text box]

At the bottom, there are "Submit" and "Clear Form" buttons. The search criteria are set to "Year 2012". Two black arrows point to the "Atmospheric Condition (1)" and "Number of Crashes" dropdown menus.

# Using Crash Statistics

- View Results

The screenshot shows a web browser window displaying the NHTSA FARS Data Requests website. The page title is "FARS Data Requests" and the URL is "www-fars.nhtsa.dot.gov/QueryTool/QuerySection/Report.aspx". The NHTSA logo is visible in the top left, and the text "NCSA DATA RESOURCE WEBSITE" and "FATALITY ANALYSIS REPORTING SYSTEM (FARS) ENCYCLOPEDIA" is in the top right. A navigation bar includes "Pubs/Data Requests", "FARS Data Tables", "Query FARS Data", "State Traffic Safety Info", and "Help". Below the navigation bar, there are three "NEW" callouts: "File Versions" (2012 data based on FARS data publication, 1st release), "GIS Map features", and "Vehicle Registration and VMT Changes". The main content area is titled "Report:" and shows search criteria: "STATE: All", "YEAR: 2012", and "COUNT: Number of Crashes". There are buttons for "EXPORT (XLS)", "CHART", and "View Cases". A note states: "NOTE: Map display takes time if pins are more than 250". A table displays the results for "Atmospheric Condition (1)".

| Atmospheric Condition (1)              | Total  |
|--|--------|
| Blank                                  | 1      |
| Clear                                  | 23296  |
| Rain                                   | 1959   |
| Sleet, Hail (Freezing Rain or Drizzle) | 69     |
| Snow                                   | 324    |
| Fog, Smog, Smoke                       | 361    |
| Severe Crosswinds                      | 53     |
| Blowing Sand, Soil, Dirt               | 14     |
| Other                                  | 36     |
| Cloudy                                 | 4414   |
| Blowing Snow                           | 18     |
| Not Reported                           | 70     |
| Unknown                                | 185    |
| TOTAL                                  | 30,800 |

Search Criteria:  
Year 2012

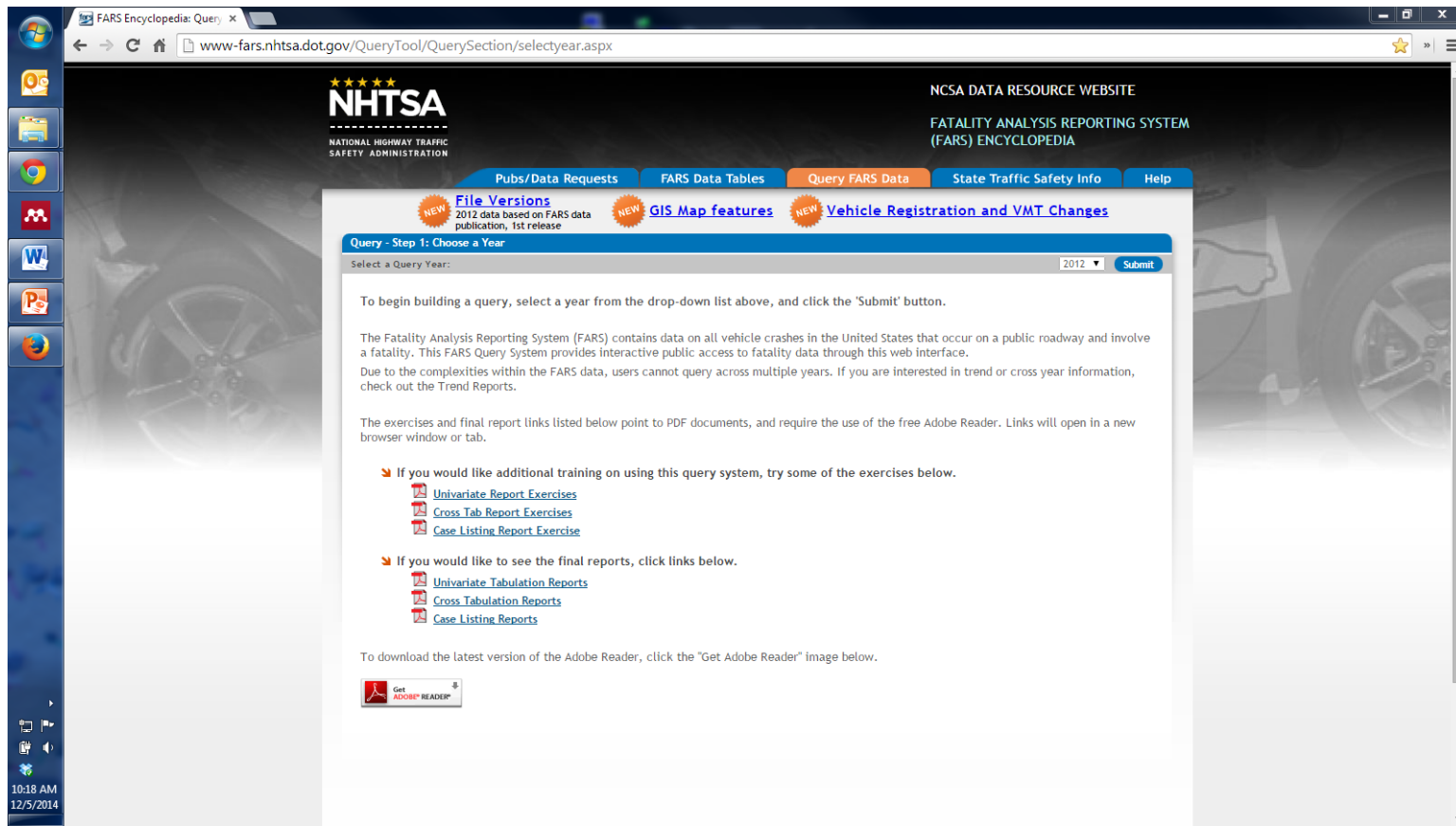
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# Discussion

- Why do a majority of the crashes happen during clear weather conditions?
- Some weather conditions (like snow or freezing rain) are considered dangerous driving conditions. Why are there so few crashes that happen in snow or freezing rain?

# Using Crash Statistics – Advanced

- Fatality Analysis Reporting System (NHTSA)
  - <http://www-fars.nhtsa.dot.gov/QueryTool/QuerySection/selectyear.aspx>



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# Using Crash Statistics – Advanced

- Select Year

The screenshot shows the NHTSA FARS Query Tool interface. The page title is "FARS Encyclopedia: Query" and the URL is "www-fars.nhtsa.dot.gov/QueryTool/QuerySection/selectyear.aspx". The NHTSA logo is visible in the top left, and the NCSA Data Resource Website logo is in the top right. The main navigation menu includes "Pubs/Data Requests", "FARS Data Tables", "Query FARS Data", "State Traffic Safety Info", and "Help". The "Query FARS Data" menu item is highlighted.

The main content area is titled "Query - Step 1: Choose a Year". It features a "Select a Query Year:" label, a dropdown menu set to "2012", and a "Submit" button. A black arrow points to the "Submit" button. Below the form, there is instructional text and a list of exercises and reports.

To begin building a query, select a year from the drop-down list above, and click the 'Submit' button.

The Fatality Analysis Reporting System (FARS) contains data on all vehicle crashes in the United States that occur on a public roadway and involve a fatality. This FARS Query System provides interactive public access to fatality data through this web interface. Due to the complexities within the FARS data, users cannot query across multiple years. If you are interested in trend or cross year information, check out the Trend Reports.

The exercises and final report links listed below point to PDF documents, and require the use of the free Adobe Reader. Links will open in a new browser window or tab.

- If you would like additional training on using this query system, try some of the exercises below.
  - [Univariate Report Exercises](#)
  - [Cross Tab Report Exercises](#)
  - [Case Listing Report Exercise](#)
- If you would like to see the final reports, click links below.
  - [Univariate Tabulation Reports](#)
  - [Cross Tabulation Reports](#)
  - [Case Listing Reports](#)

To download the latest version of the Adobe Reader, click the "Get Adobe Reader" image below.

[Get Adobe Reader](#)

# Using Crash Statistics – Advanced

- Pick Tables to Query (2010 - present)

The screenshot shows the NHTSA FARS Query Tool interface. The browser address bar displays [www-fars.nhtsa.dot.gov/QueryTool/QuerySection/SelectOptions.aspx](http://www-fars.nhtsa.dot.gov/QueryTool/QuerySection/SelectOptions.aspx). The page header includes the NHTSA logo and the text "NHTSA NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION" and "NCSA DATA RESOURCE WEBSITE FATALITY ANALYSIS REPORTING SYSTEM (FARS) ENCYCLOPEDIA". Navigation tabs include "Pubs/Data Requests", "FARS Data Tables", "Query FARS Data", "State Traffic Safety Info", and "Help". A "Submit" button is visible in the top right of the query section.

The main content area is titled "Query - Step 2: Choose the Tables to Query (2012)". It contains the following text:

Now select the combination of tables that contains the fields you are interested in. (In the next step, you will select the specific fields.)

Please click on the links to see the variables in the respective tables in a new window.

Option 1 ([Crashes](#) / [Person \(Includes Occupants and Non Occupants\)](#))  
Please select this option to query on variables that belongs to Crash, Person (Includes Occupant and Non Occupant) tables  
Choose Option 1 if you want to include results for ALL PEOPLE (Occupants AND Non-Occupants) and /or CRASH Level information, but NOT VEHICLE or DRIVER Level information  
Examples uses:

- You are looking for Alcohol or Drug test results for drivers and non-motorists involved in fatal crashes.
- You are looking for persons involved in fatal crashes that occurred at night.
- You are looking for the count of children involved in fatal crashes.

Option 2 ([Crash](#) / [Non Occupant](#) / [Pedestrian \\*](#) / [Bicyclist \\*](#)) \* See [Note](#)  
Please select this option to query on variables that belong to Crash and Non Occupant tables  
Choose Option 2 if you want to include PERSON Level information only for Non-Occupants and/or CRASH Level information, but NOT VEHICLE or DRIVER Level information  
Examples uses:

- You are looking for the location of bicyclists and their use of safety equipment when involved in a fatal crash.
- You are looking for common activities engaged in by pedestrians prior to being involved in a fatal crash.
- You are looking for a distribution of persons operating a personal conveyance or riding a bicycle by age group.

Option 3 ([Crash](#) / [Vehicle](#) / [Driver](#) / [Precrash](#) / [Occupant](#))  
Please select this option to query on variables that belongs to Crash, Vehicle, Driver, Precrash and Occupant tables  
Choose Option 3 if you want to include PERSON Level information for only Occupants, and/or DRIVER Level information, PRECRASH Level information, VEHICLE Level information and /or CRASH level information  
Examples uses:

- You are looking for a count of motor vehicle occupants involved in fatal crashes.
- You are looking for large trucks involved in fatal crashes where the truck jackknifed prior to its involvement.
- You are looking for crashes that involved a roadway with a two way continuous left turn lane where one of the vehicles was engaged in a

An arrow points to the "Option 1" section.

# Using Crash Statistics – Advanced

- Pick variables to research

The screenshot shows the NHTSA FARS Query Tool interface. The browser address bar displays [www-fars.nhtsa.dot.gov/QueryTool/QuerySection/SelectFields.aspx](http://www-fars.nhtsa.dot.gov/QueryTool/QuerySection/SelectFields.aspx). The page header includes the NHTSA logo and the text "NCSA DATA RESOURCE WEBSITE" and "FATALITY ANALYSIS REPORTING SYSTEM (FARS) ENCYCLOPEDIA". The navigation bar contains "Pubs/Data Requests", "FARS Data Tables", "Query FARS Data" (selected), "State Traffic Safety Info", and "Help".

The main content area is titled "Query - Step 3: Choose Variables to Use (2012)". It contains a "Submit" button and a "Clear Form" button. Below the buttons is a paragraph of instructions: "Choose all the data fields you are interested in by clicking in the check box next to the field name. A check mark will appear to indicate that the field is selected. To de-select a field, click on the check mark again. To clear all selections, click on the Clear Form button. Once you have completed your selections, click on the Submit button."

A note states: "\* Denotes a commonly selected field." Below this is a table of variables for selection, organized into sections: "Crashes" and "Person".

| Crashes  |  | Person   |  |
|--|--|--|--|
| <input type="checkbox"/> Arrival Hour EMS                          | <input type="checkbox"/> Arrival Minute EMS  | <input type="checkbox"/> Arrival Time EMS                              | <input checked="" type="checkbox"/> Atmospheric Condition (1)* |
| <input checked="" type="checkbox"/> Atmospheric Condition (2)*     | <input type="checkbox"/> City  | <input checked="" type="checkbox"/> County*                            | <input type="checkbox"/> Crash Date (mmdyyyy)                  |
| <input type="checkbox"/> Crash Day                                 | <input type="checkbox"/> Crash Hour  | <input type="checkbox"/> Crash Minute                                  | <input checked="" type="checkbox"/> Crash Month*               |
| <input type="checkbox"/> Crash Related Factor (1)                  | <input type="checkbox"/> Crash Related Factor (2)                                    | <input type="checkbox"/> Crash Related Factor (3)                      | <input type="checkbox"/> Crash Time                            |
| <input type="checkbox"/> Crash Year                                | <input type="checkbox"/> Day Of Week*  | <input type="checkbox"/> Drowsy Driver                                 | <input type="checkbox"/> EMS Hour At Hospital                  |
| <input type="checkbox"/> EMS Minute At Hospital                    | <input type="checkbox"/> EMS Time At Hospital  | <input type="checkbox"/> First Harmful Event*                          | <input type="checkbox"/> Holiday Related*                      |
| <input type="checkbox"/> Large Truck Related                       | <input type="checkbox"/> Latitude (Decimal)  | <input type="checkbox"/> Latitude (Degrees)                            | <input type="checkbox"/> Latitude (Minutes)                    |
| <input type="checkbox"/> Latitude (Seconds)                        | <input type="checkbox"/> Light Condition   | <input type="checkbox"/> Longitude (Decimal)                           | <input type="checkbox"/> Longitude (Degrees)                   |
| <input type="checkbox"/> Longitude (Minutes)                       | <input type="checkbox"/> Longitude (Seconds)   | <input type="checkbox"/> Manner of Collision                           | <input type="checkbox"/> Milepoint                             |
| <input type="checkbox"/> National Highway System                   | <input type="checkbox"/> Notification Hour EMS                                       | <input type="checkbox"/> Notification Minute EMS                       | <input type="checkbox"/> Notification Time EMS                 |
| <input checked="" type="checkbox"/> Number of Fatalities In Crash* | <input type="checkbox"/> Number of Forms Submitted for Persons Not in Motor Vehicles | <input type="checkbox"/> Number of Person Forms Submitted              | <input type="checkbox"/> Number of Vehicle Forms Submitted*    |
| <input type="checkbox"/> Rail Grade Crossing Identifier            | <input type="checkbox"/> Relation To Junction: Junction                              | <input type="checkbox"/> Relation To Junction: Within Interchange Area | <input type="checkbox"/> Relation To Trafficway                |
| <input type="checkbox"/> Roadway Function Class*                   | <input type="checkbox"/> Route Signing   | <input type="checkbox"/> School Bus Related                            | <input type="checkbox"/> Special Jurisdiction                  |
| <input type="checkbox"/> Speeding                                  | <input type="checkbox"/> Traffic Identifier (1)                                      | <input type="checkbox"/> Traffic Identifier (2)                        | <input type="checkbox"/> Type of Intersection                  |
| <input type="checkbox"/> Work Zone                                 |  |  |  |

At the bottom of the "Crashes" section, there are links: "Click Here to check all Crashes fields" and "Click Here to uncheck all Crashes fields".

At the bottom of the "Person" section, there are links: "Click Here to check all Persons fields" and "Click Here to uncheck all Persons fields".

Two variables are checked: "Atmospheric Condition (1)\*" and "Crash Month\*". Arrows point to these checked boxes.

# Using Crash Statistics – Advanced

- Narrow down your field

The screenshot shows the NHTSA FARS Query Tool interface. The browser address bar displays [www-fars.nhtsa.dot.gov/QueryTool/QuerySection/SelectCriteria.aspx](http://www-fars.nhtsa.dot.gov/QueryTool/QuerySection/SelectCriteria.aspx). The page header includes the NHTSA logo and the text "NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION" and "NCSA DATA RESOURCE WEBSITE FATALITY ANALYSIS REPORTING SYSTEM (FARS) ENCYCLOPEDIA". The navigation bar contains "Pubs/Data Requests", "FARS Data Tables", "Query FARS Data" (selected), "State Traffic Safety Info", and "Help". Below the navigation bar are three "NEW" banners: "File Versions" (2012 data based on FARS data publication, 1st release), "GIS Map features", and "Vehicle Registration and VMT Changes". The main content area is titled "Query - Step 4: Choose Condition Criteria (2012)" and includes sub-tabs for "Univariate Tabulation", "Cross Tab", "Case Listing", and "Clear Form". A text block explains: "By selecting specific field elements for your query, you are essentially describing the data you are interested in finding. Your query will search for cases that fit the parameters you have selected. You can choose multiple values for a selected field by holding down the 'Control' key on a PC or 'Shift' on a Macintosh and then clicking on the different variables you wish to select. Choosing two or more variables is the equivalent of an AND statement; that is, records must meet your selection criteria for both variables to be included in your report. Click Univariate Tabulation, Cross Tab, or Case Listing to compute the query." Below this text are three selection lists, each with a vertical scrollbar and a right-pointing arrow. The "State" list includes: (48)Texas, (49)Utah, (50)Vermont, (51)Virginia, (53)Washington, (54)West Virginia, (55)Wisconsin, (56)Wyoming. The "Atmospheric Condition (1)" list includes: All, (-1)Blank, (0)No Additional Atmospheric Conditions, (1)Clear, (2)Rain, (3)Sleet, Hail (Freezing Rain or Drizzle), (4)Snow, (5)Fog, Smog, Smoke. The "Crash Month" list includes: All, (-1)Blank, (1)January, (2)February, (3)March, (4)April, (5)May, (6)June. At the bottom of the selection area are four buttons: "Univariate Tabulation", "Cross Tab", "Case Listing", and "Clear Form". The Windows taskbar on the left shows the time as 10:51 AM on 12/5/2014.



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- Select “Cross Tab”

The screenshot shows the NHTSA FARS Query Tool interface. The browser address bar displays [www-fars.nhtsa.dot.gov/QueryTool/QuerySection/SelectCriteria.aspx](http://www-fars.nhtsa.dot.gov/QueryTool/QuerySection/SelectCriteria.aspx). The page header includes the NHTSA logo and the text "NCSA DATA RESOURCE WEBSITE" and "FATALITY ANALYSIS REPORTING SYSTEM (FARS) ENCYCLOPEDIA". Navigation tabs include "Pubs/Data Requests", "FARS Data Tables", "Query FARS Data", "State Traffic Safety Info", and "Help".

The main content area is titled "Query - Step 4: Choose Condition Criteria (2012)". It features a sub-navigation bar with "Univariate Tabulation", "Cross Tab", "Case Listing", and "Clear Form". A text block explains the query process: "By selecting specific field elements for your query, you are essentially describing the data you are interested in finding. Your query will search for cases that fit the parameters you have selected. You can choose multiple values for a selected field by holding down the 'Control' key on a PC or 'Shift' on a Macintosh and then clicking on the different variables you wish to select. Choosing two or more variables is the equivalent of an AND statement; that is, records must meet your selection criteria for both variables to be included in your report. Click Univariate Tabulation, Cross Tab, or Case Listing to compute the query."

Below the text is a table with three rows of condition criteria:

| Crash                     |   |
|---------------------------|---|
| State                     | (48)Texas<br>(49)Utah<br>(50)Vermont<br>(51)Virginia<br>(53)Washington<br>(54)West Virginia<br>(55)Wisconsin<br>(56)Wyoming                                       |
| Atmospheric Condition (1) | All<br>(-1)Blank<br>(0)No Additional Atmospheric Conditions<br>(1)Clear<br>(2)Rain<br>(3)Sleet, Hail (Freezing Rain or Drizzle)<br>(4)Snow<br>(5)Fog, Smog, Smoke |
| Crash Month               | All<br>(-1)Blank<br>(1)January<br>(2)February<br>(3)March<br>(4)April<br>(5)May<br>(6)June  |

At the bottom of the table, a black arrow points down to the "Cross Tab" button in the sub-navigation bar. Other buttons include "Univariate Tabulation", "Case Listing", and "Clear Form".

The Windows taskbar on the left shows the system clock as 10:51 AM on 12/5/2014.

# Using Crash Statistics – Advanced

- Build your table
  - Column - “Crash Month”
  - Row - “Atmospheric Conditions (1)”

www-fars.nhtsa.dot.gov/QueryTool/QuerySection/SelectReportFormat.aspx

NHTSA  
NATIONAL HIGHWAY TRAFFIC  
SAFETY ADMINISTRATION

NCSA DATA RESOURCE WEBSITE  
FATALITY ANALYSIS REPORTING SYSTEM  
(FARS) ENCYCLOPEDIA

Pubs/Data Requests FARS Data Tables Query FARS Data State Traffic Safety Info Help

NEW File Versions 2012 data based on FARS data publication, 1st release  
NEW GIS Map features  
NEW Vehicle Registration and VMT Changes

Query - Step 5: Choose Report Format Options

Submit Clear Form

Cross Tabulation creates a report that lets you view the number of occurrences for each possible combination of values between two variables. These reports are similar to Univariate reports except there is a further breakdown of counts by a second variable.

| Total Count(s) |       |
|----------------|-------|
| Crashes:       | 409   |
| Vehicles:      | 600   |
| Persons:       | 1,004 |

Column: Crash Month  
Group By: None

Row: Atmospheric Condition (1)  
Group By: None

Select Data to Count: Number of Crashes

Show ZERO Values:  Yes  No

Report Title:

Search Criteria:  
Year: 2012  
State: 53

Submit Clear Form

# Using Crash Statistics – Advanced

- View Results

The screenshot shows a web browser window displaying the NHTSA FARS Data Requests report. The page title is "FARS Data Requests" and the URL is "www-fars.nhtsa.dot.gov/QueryTool/QuerySection/Report.aspx". The NHTSA logo is visible in the top left, and the text "NCSA DATA RESOURCE WEBSITE" and "FATALITY ANALYSIS REPORTING SYSTEM (FARS) ENCYCLOPEDIA" is in the top right. The page has a navigation bar with links for "Pubs/Data Requests", "FARS Data Tables", "Query FARS Data", "State Traffic Safety Info", and "Help". Below the navigation bar, there are three "NEW" callouts: "File Versions" (2012 data based on FARS data publication, 1st release), "GIS Map features", and "Vehicle Registration and VMT Changes".

The main content area is titled "Report:" and shows the following information:

- STATE: WA
- YEAR: 2012
- COUNT: Number of Crashes
- OUTPUT OPTIONS: EXPORT (TXT) View Cases

The data is presented in a table with the following structure:

| Atmospheric Condition (1)              | Crash Month |          |       |       |     |      |      |        |           |         |          |          | Total |
|--|-------------|----------|-------|-------|-----|------|------|--------|-----------|---------|----------|----------|-------|
|  | January     | February | March | April | May | June | July | August | September | October | November | December |       |
| Clear                                  | 8           | 12       | 13    | 21    | 36  | 18   | 32   | 54     | 31        | 26      | 13       | 8        | 272   |
| Rain                                   | 5           | 10       | 10    | 2     | 1   | 4    | 1    | 0      | 1         | 4       | 5        | 11       | 54    |
| Sleet, Hail (Freezing Rain or Drizzle) | 1           | 0        | 0     | 0     | 0   | 0    | 0    | 0      | 0         | 0       | 0        | 1        | 2     |
| Snow                                   | 1           | 0        | 1     | 0     | 0   | 0    | 0    | 0      | 0         | 1       | 0        | 6        | 9     |
| Fog, Smog, Smoke                       | 0           | 1        | 0     | 0     | 0   | 0    | 0    | 1      | 1         | 0       | 1        | 0        | 4     |
| Severe Crosswinds                      | 0           | 0        | 0     | 0     | 0   | 1    | 0    | 0      | 0         | 0       | 0        | 0        | 1     |
| Other                                  | 0           | 0        | 2     | 0     | 0   | 0    | 0    | 0      | 0         | 0       | 1        | 0        | 3     |
| Cloudy                                 | 8           | 8        | 4     | 6     | 4   | 2    | 2    | 2      | 4         | 7       | 5        | 9        | 61    |
| Unknown                                | 0           | 0        | 0     | 0     | 0   | 0    | 0    | 0      | 0         | 1       | 1        | 1        | 3     |
| TOTAL                                  | 23          | 31       | 30    | 29    | 41  | 25   | 35   | 57     | 37        | 39      | 26       | 36       | 409   |

Search Criteria:  
Year: 2012  
State: WA

# Discussion

- Which month had the most fatal crashes during snowy weather?
  - Is this what we would expect?
  - How does snow contribute to crash risk?
- Why is it important to consider the month when making assumptions about crash risks?