

## NYPD Plots: Variable Descriptions

Go to the Grinnell College Rstudio site, <http://rstudio.grinnell.edu/>, and select the [NYPD Bar Charts](#) (it may take a few seconds to open). Click the [Variable Description](#) link on the bottom left corner to understand the options within this app.

In the **Y-Axis Variable** dropdown menu, you will see a number of variables available based on the NYPD dataset. These variables and a brief description of each are as follows:

- *Stopped*: This is the total number of stops made by NYPD from 2006 through 2014.
- *Frisked*: This is the total number of individuals that were stopped by NYPD and then frisked from 2006 through 2014. For the purposes of NYPD data, a frisk is defined as occurring when an individual is patted down.
- *Searched*: This is the total number of individuals that were stopped by NYPD and then searched from 2006 through 2014. A search is similar to a frisk, but is more invasive, and can include reaching into pockets on an individual's clothing or looking inside a purse or backpack.
- *Arrested*: This is the total number of people arrested by NYPD during the years 2006 through 2014.
- *Force*: This option allows you to select from among the various types of force that were used to stop or arrest an individual. The types of force and their descriptions include:
  - *Hands*: This occurs when a police officer puts their hands on an individual.
  - *Wall*: This occurs when a police officer places an individual against a wall, car, or other object.
  - *Ground*: This occurs when a police officer puts an individual on the ground either verbally or physically.
  - *HandCuff*: This occurs when a police officer places handcuffs on an individual, either in front of that individual or behind that individual's back.
  - *Firearm*: This occurs when a police officer draws or points a firearm at an individual.
  - *Baton*: This occurs when a police officer uses their baton on an individual.
  - *PepperSpray*: This occurs when a police officer disperses pepper spray on an individual.
  - *Other*: This is any other use of force by a police officer that does not fit into any of the previous categories.

The default setting for the **Y-Axis Variable** is to include all possible uses of force; however, you can restrict the types of force by deleting those not pertinent to the data set you want to review.

The **X-axis Variable** can be used to select further categories of potential interest. These include:

- *Race*: This variable can be used to identify the race of individuals that were stopped by NYPD from 2006 through 2014. The options are Asian, Black, Hispanic, Native, White, and Other.
- *Gender*: This variable can be used to identify the gender of the individuals that were stopped by NYPD from 2006 through 2014. The options are Male, Female, and Unknown.
- *Crime Type*: This variable can be used to identify the type of crime a suspected individual is accused of committing based on arrests by NYPD from 2006 through 2014. The categories of crime type are Assault, Contraband, Felony, Larceny, Misdemeanor, and Other.
- *Year*: You can review a specific year or specific year range to review from the data collected about individuals stopped by NYPD during 2006 through 2014.

Additionally, there are other options in the [Bar Charts App](#) that allow you to change the data displayed or restrict the data based on your query. These include:

- **Y-axis Measurement**: *Counts* is the default setting. This gives the total number of incidences in the dataset; however, if you wanted to look at the percentage of stops included in the data, *Percentage of Stops* gives us the percentage of the **Y-Axis Variable** against the *Number of Stops*. *Percentage of Arrests* gives us the percentage of the **Y-Axis Variable** against the *Number of Arrests*. (Note: All arrests initially started with a stop.)
- **Choose the Years**: This option allows you to restrict the years between 2006 through 2014 to a range of your choice.
- **Facet By**: This dropdown menu allows you to create distinct plots by *Race*, *Gender*, *Crime Type*, and *Year*.
- **Color By**: This dropdown menu allows you to use colors to identify *Race*, *Gender*, *Crime Type*, or *Year*.
- **Filters** (next to the **Axes** tab): This option allows you to restrict the data to a particular *Race*, *Gender*, and *Crime Type*. The default setting for the **Filters** option is to include all of the previous categories, which you can change by selecting and deleting any unnecessary data.