BJS

NCVS Victimization Analysis Tool (NVAT) User's Guide

1. About the NCVS victimization analysis tool

This analysis tool allows you to examine information on crime victimization from 1993 to the most recent year that NCVS data are available. This tool includes violent victimization (rape or sexual assault, robbery, aggravated assault, and simple assault), property victimization (household burglary, theft, and motor vehicle theft), and personal theft (pocket picking, completed purse snatching, and attempted purse snatching). You can analyze victimization counts, rates, and percents by select victim and household characteristics, weapon use, victim-offender relationship, and crimes reported and not reported to police. The NCVS collects information on nonfatal victimizations against persons age 12 or older from a nationally representative sample of U.S. households. It is conducted annually by the U.S. Census Bureau for the Bureau of Justice Statistics (BJS).

2. Definition of victimization

Victimization is the basic unit of analysis used throughout this tool. A victimization refers to a single victim or household that experienced a criminal incident. Criminal incidents or crimes are distinguished from victimizations in that one criminal incident may have multiple victims or victimizations. For violent crimes (rape or sexual assault, robbery, aggravated assault, and simple assault) and personal larceny, the count of victimizations is the number of individuals who experienced a violent crime. For crimes against households (burglary, theft, and motor vehicle theft), each household affected by a crime is counted as a single victimization.

3. How to access the NCVS victimization analysis tool

You can access the victimization analysis tool from the BJS home page at http://www.bjs.gov/.

- Select Data Analysis Tools on the top navigation bar. Disregard the drop-down menu. Click once on the heading Data Analysis Tools **(figure 1)**.

Figure 1: BJS Home Page

- The All Data Analysis Tools page lists all BJS and partner data analysis tools. Scroll down the items to locate the NCVS victimization analysis tool on the page **(figure 2)**.

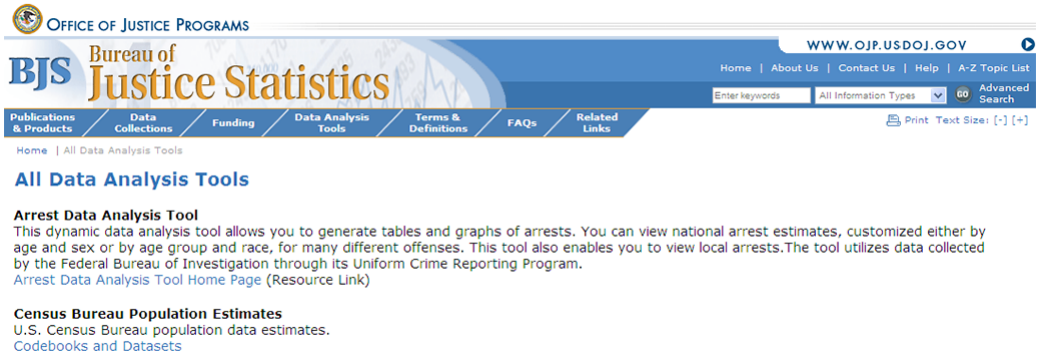


Figure 2: All Data Analysis Tools home page

- Select the NCVS Victimization Analysis Tool Home Page (Resource Link) link found after the short description under NCVS Victimization Analysis Tool. This will lead you to the home page **(figure 3)**.

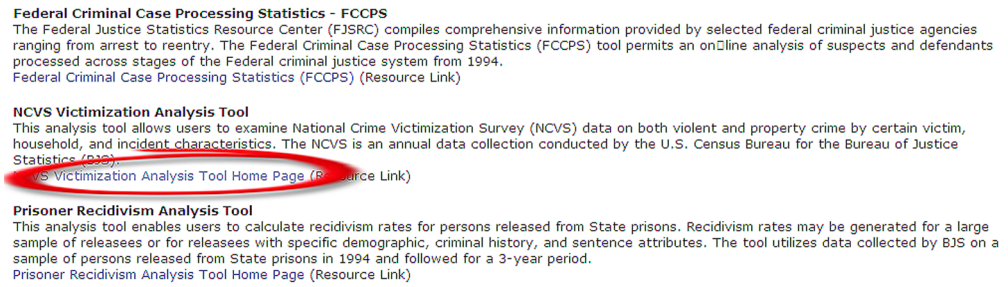


Figure 3: NCVS Victimization Analysis Tool Home Page link on the All Data Analysis Tools page

4. Quick tables

Select Quick Tables from the NCVS tool home page **(figure 4)**. The quick tables are an introduction to the NVCS tool. First check here to see if the information you are looking for is contained in one of the quick tables. These tables include 5-year, 10-year, and long-term trends in violent and property victimization and reporting to the police. You can also find trends of violent victimization by victim-offender relationship. If you want further analysis, select Custom Tables.

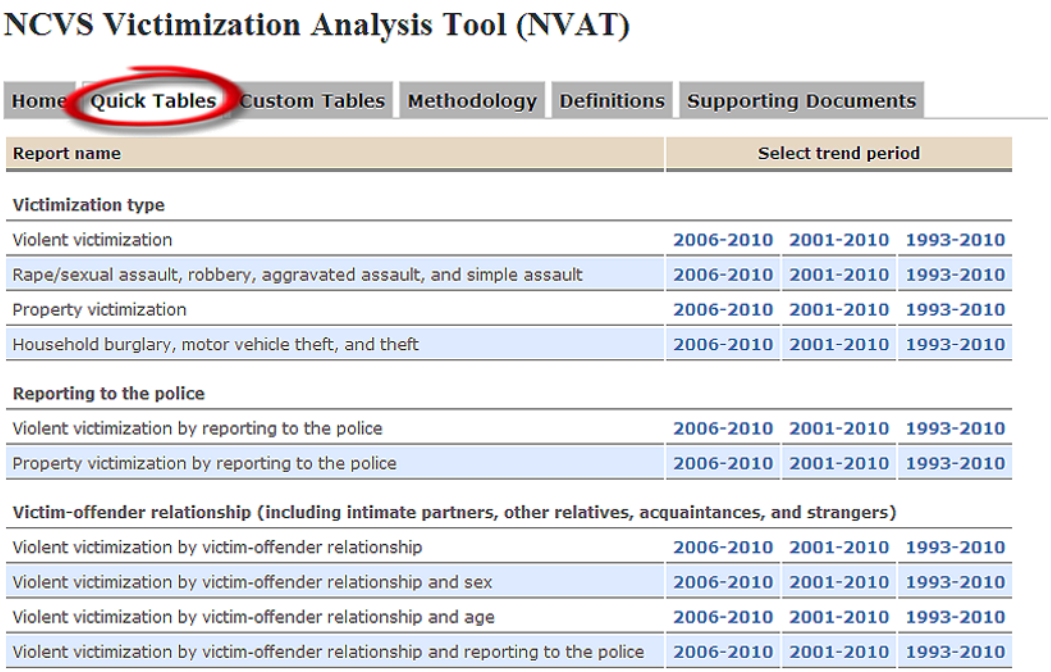


Figure 4: Quick Tables link on the NCVS victimization analysis tool

5. Custom tables of personal victimization

- Select Custom Tables from the NCVS tool home page and select either Personal Victimization or Household Victimization **(figure 5)**. Selecting Personal Victimization allows you to analyze data on all violent crime, rape and sexual assault, robbery, aggravated assault, simple assault, and personal theft victimizations.
- Select Personal Victimization and use the Select Victimization Type button on the right.

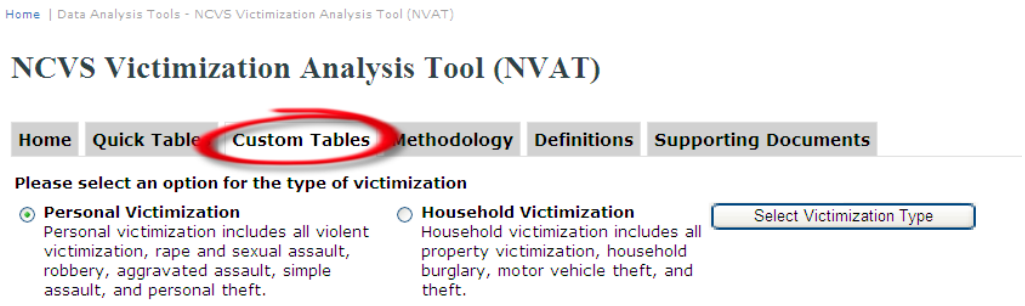


Figure 5: Custom Tables menu page

5.1. Years

- Select the years that you would like to include in your analysis. This online tool includes information from 1993 to the most recent year that NCVS data are available **(figure 6)**.

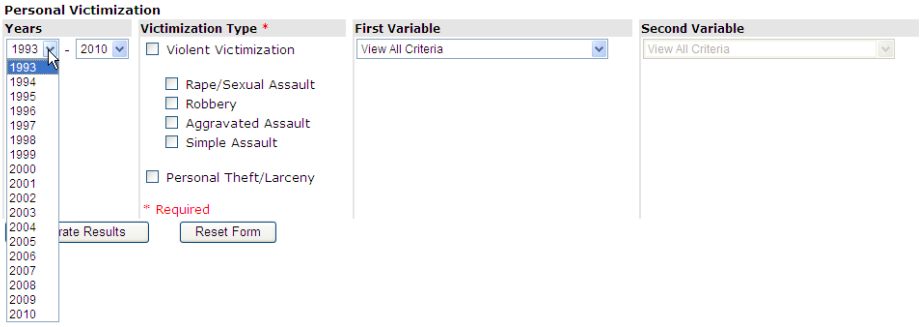


Figure 6: Drop-down menu to select the years that you would like to include in your analysis

5.2. Victimization type

Select the type of victimization that you would like to include in your analysis.

- **Violent Victimization** includes rape and sexual assault, robbery, aggravated assault, and simple assault.
- **Personal Theft/Larceny** includes pocket picking, completed purse snatching, and attempted purse snatching.

5.3. First variable

If you would like more detailed analysis of the national estimates of personal victimization, you can choose to view the data broken down by up to two characteristics. From the Personal Victimization menu, move the cursor over the First Variable heading, and a drop-down menu will allow you to select the first characteristic **(figure 7)**. You can choose to view personal victimization data by sex, age, race, Hispanic origin, race and Hispanic origin, marital status, household income, weapon use, victim-offender relationship, and reporting to the police. Please note that the weapon use variables only apply to personal victimizations where there was contact between the victim and the offender. By definition simple assault and personal theft do not involve a weapon.

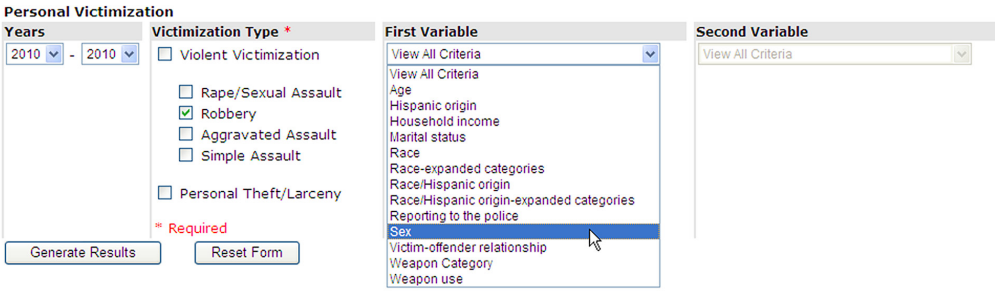


Figure 7: Drop-down menu to select the first variable for your analysis

5.4. Second variable

You can also select a second characteristic to include in your analysis. Move your cursor over the Second Variable heading and select a characteristic from the drop-down menu **(figure 8)**.

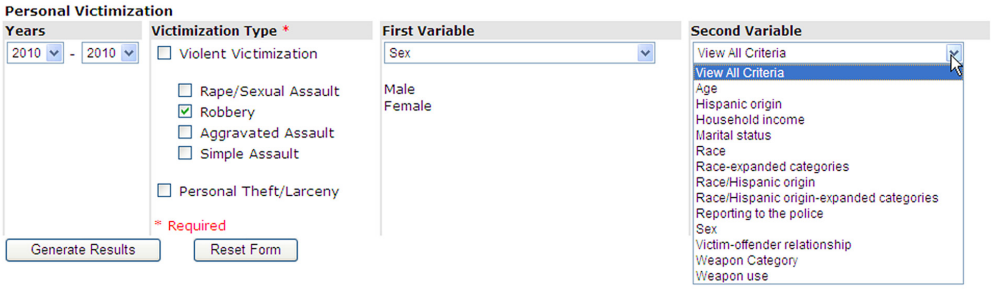


Figure 8: Drop-down menu to select the second variable for your analysis

- Your first and second variables must be different from one another. If you try to select the same variable twice, it will automatically be greyed out in the Second Variable drop-down menu. In older versions of Internet Explorer and some other browsers, you will see a dialog box with a warning message **(figure 9)**.
- To reset the variables, move your cursor over First Variable or Second Variable and select View All Criteria from the drop-down menu.
- You can switch your first and second variables. Reset the variables using View All Criteria and then change your selections.

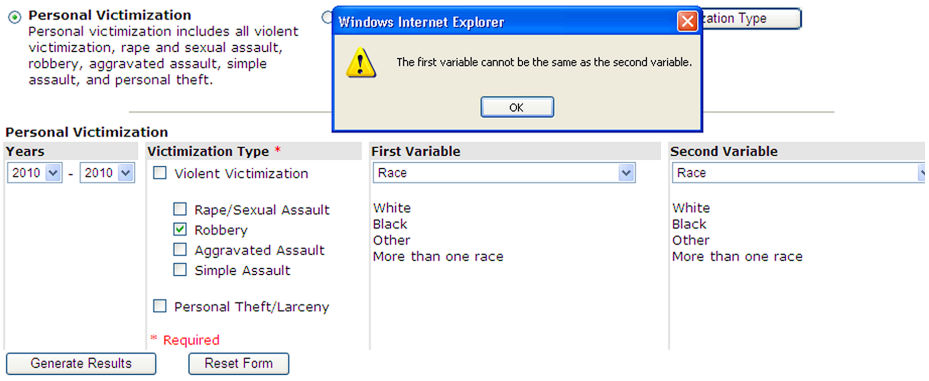


Figure 9: Warning message explaining that your first and second variables cannot be the same

5.5. Generate results

Use the Generate Results button at the bottom of the selection form **(figure 10).** You may need to wait for a few seconds as the results are generated.

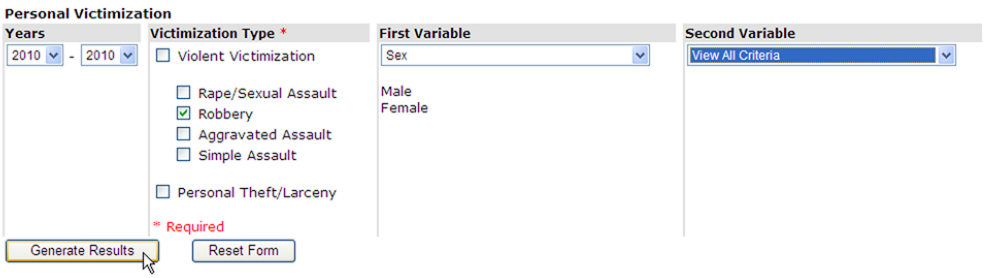


Figure 10: Generate Results button on the selection form

5.6. How to interpret the NCVS report

You will see a pop-up window with the results of your analysis. You may need to scroll down or across the results page to see the entire table, including the footnotes.

Use the Excel ( ) icon to download the data displayed in the results window. You may need to wait for a few seconds for the download dialog box to appear.

To export the data into a program other than Excel, select the Excel icon and choose Save instead of Open. Save the file on your computer. The file is in comma delimited text format and can be opened using any text-reading program. Please note that all of the headings across the columns might not be available.

Use the Print ( ) icon to print the estimates displayed in the results window. If you cannot fit the data onto one page, try printing on larger paper with the orientation set for landscape rather than portrait. Another option is to limit the number of years and perform multiple runs.

This is a sample custom table of robbery victimizations in 2010, by the sex of the victim **(figure 11)**.

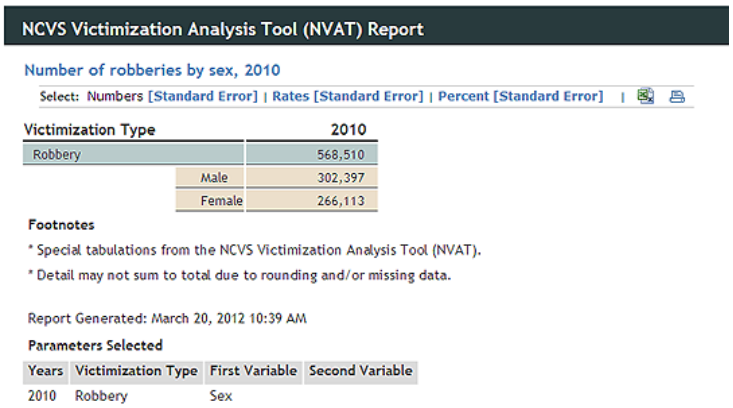


Figure 11: Sample NVAT report of the number of robberies by sex, 2010

The NVAT report shows you the number of victimizations by default, but you can select the Rates and Percent options as well.

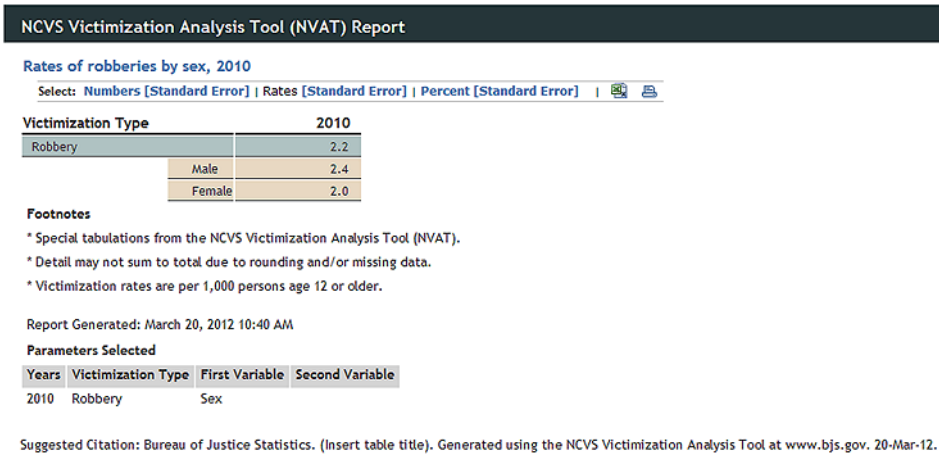
Number of personal victimizations

This is an estimation of the number of victimizations that U.S. residents age 12 and older experienced in the selected year. In this example, the first row shows the total number of robbery victimizations in 2010, the second row shows the number for males, and the third row shows the number for females.

The personal victimization estimates shown in the analysis tool are weighted in order to produce population estimates. (Because the NCVS relies on a sample rather than a census of the entire U.S. resident population, each victimization reported to the survey is multiplied by a weight. This weighting process allows the NCVS to estimate, based on the survey results, the actual number of victimizations that occurred in the nation during the year. You can find a full explanation of how NCVS estimates are weighted in the Supporting Documents of this tool, under Available Datafile and Codebooks.)

Rates of victimization

You can also select the Rates icon to view robbery victimizations per 1,000 persons age 12 or older **(figure 12)**.



NCVS Victimization Analysis Tool (NVAT) Report

Rates of robberies by sex, 2010

Select: Numbers [Standard Error] | Rates [Standard Error] | Percent [Standard Error] |

Victimization Type		2010
Robbery		2.2
	Male	2.4
	Female	2.0

Footnotes

* Special tabulations from the NCVS Victimization Analysis Tool (NVAT).
* Detail may not sum to total due to rounding and/or missing data.
* Victimization rates are per 1,000 persons age 12 or older.

Report Generated: March 20, 2012 10:40 AM

Parameters Selected

Years	Victimization Type	First Variable	Second Variable
2010	Robbery	Sex	

Suggested Citation: Bureau of Justice Statistics. (Insert table title). Generated using the NCVS Victimization Analysis Tool at www.bjs.gov. 20-Mar-12.

Figure 12: Sample NVAT report of rates of robberies by sex, 2010

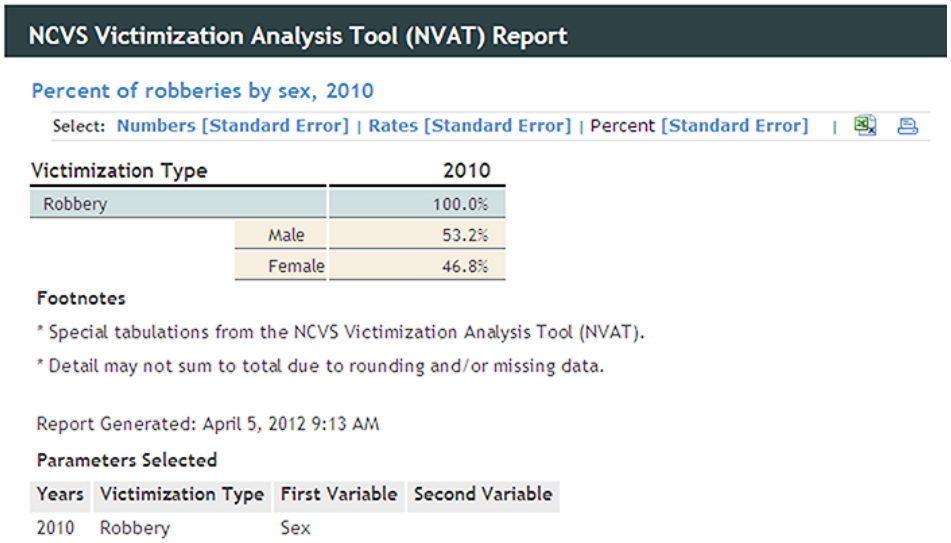
The rates are calculated by dividing the number of victimizations by the number of persons age 12 and older. The overall rate of robbery victimization (2.2) is calculated by taking the number of robberies in 2010 (568,510), dividing by the number of persons age 12 and older in 2010 (255,961,936), and multiplying by 1,000. This gives you the rate of robbery victimizations per 1,000 persons age 12 or older. You can find the number of people age 12 and older in the Supporting Documents tab of this data tool, under Population counts [Person]. To obtain the rate of robbery victimization for males and females, you would divide by the number of male and female U.S. residents age 12 and older.

Larger populations are expected to have proportionately more crime than smaller populations do. The rate gives you a standard way to measure crime levels across population groups of different sizes. The rates can also help you see changes within the same group over time, since group populations will increase and decrease. For example, the number of females ages 12 or older increased from 116,987,646 in 2000 to 130,974,430 in 2010.

Percentages of victimization

This example shows you the percentages of robbery victimizations in 2010 that involved male or female victims **(figure 13)**. When you look at a table of percentages, you will always see 100% alongside the type of victimization you selected (in this case, robbery). In 2010, 53.2% of robbery victims were male and 46.8% were female (totaling to 100%).

If you do not select a first or second variable, all percentages in the table will equal 100%.



NCVS Victimization Analysis Tool (NVAT) Report

Percent of robberies by sex, 2010

Select: Numbers [Standard Error] | Rates [Standard Error] | Percent [Standard Error] |

Victimization Type	2010
Robbery	100.0%
Male	53.2%
Female	46.8%

Footnotes

* Special tabulations from the NCVS Victimization Analysis Tool (NVAT).

* Detail may not sum to total due to rounding and/or missing data.

Report Generated: April 5, 2012 9:13 AM

Parameters Selected

Years	Victimization Type	First Variable	Second Variable
2010	Robbery	Sex	

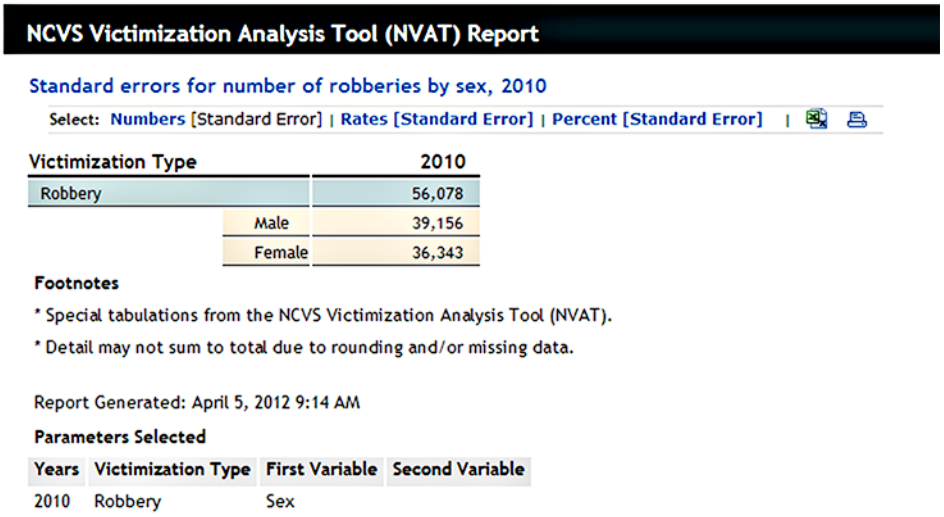
Figure 13: Sample NVAT report of the percent of robberies by sex, 2010

Standard errors of victimization

Whenever estimates are derived from a sample, as is the case with the NCVS, it is important to be cautious when drawing conclusions about the size of one population estimate in comparison to another or about whether population estimates are changing over time. For estimates based on a sample rather than a census of the entire population, there is always some measure of margin of error. The standard error is one measure of sampling error associated with the numbers, rates, and percents of crime victimization you find in this tool. In general, an estimate with a smaller standard error gives you a more reliable approximation of the true value than an estimate with a higher standard error.

The estimate and its associated standard error may be used to construct a confidence interval around an estimate. The confidence interval describes the reliability of the estimate. A 95% confidence interval is equal to the survey estimate, plus or minus about twice (1.96) the standard error.

For example, **figure 14** is a table of the standard error for the number of robberies in 2010 by sex. The table shows that the standard error for the number of robberies for males in 2010 is 39,156, and the estimated number of male robbery victimizations in 2010 is 302,397. The 95% confidence interval is equal to the estimate of 302,397 plus or minus about twice (1.96) the standard error, or plus or minus 76,745. So, you can be 95% confident that the number of male robbery victimizations in 2010 is between 225,652 and 379,142.



NCVS Victimization Analysis Tool (NVAT) Report

Standard errors for number of robberies by sex, 2010

Select: Numbers [Standard Error] | Rates [Standard Error] | Percent [Standard Error] |

Victimization Type		2010
Robbery		56,078
	Male	39,156
	Female	36,343

Footnotes

* Special tabulations from the NCVS Victimization Analysis Tool (NVAT).

* Detail may not sum to total due to rounding and/or missing data.

Report Generated: April 5, 2012 9:14 AM

Parameters Selected

Years	Victimization Type	First Variable	Second Variable
2010	Robbery	Sex	

Figure 14: NVAT report of the standard error for the number of robberies by sex, 2010

In the example shown here, it may appear that the male and female robbery victimization numbers are different. The margin of error shows that males range from 225,652 to 379,142 and females range from 194,881 to 337,345. The overlap of these ranges suggests that these counts may not be statistically different from one another. However, it is important to note that BJS did not test whether differences in numbers, rates, or percentages in this analysis tool are statistically significant. When you compare estimates that you generated with this tool, please use caution and do not draw inferences.

6. Custom tables of household victimization

- Select Custom Tables from the NCVS tool home page and select either Personal Victimization or Household Victimization **(figure 15)**. The Household Victimization option allows you to analyze data on all property victimization, household burglary, motor vehicle theft, and theft victimizations.
- Select Household Victimization and use the Select Victimization Type button on the right.

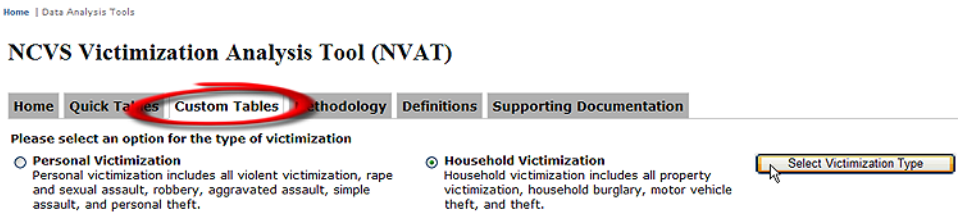


Figure 15: Custom tables menu page

6.1. Years

Select the years that you would like to include in your analysis. This online tool includes information from 1993 to the most recent year that NCVS data are available **(figure 16)**.

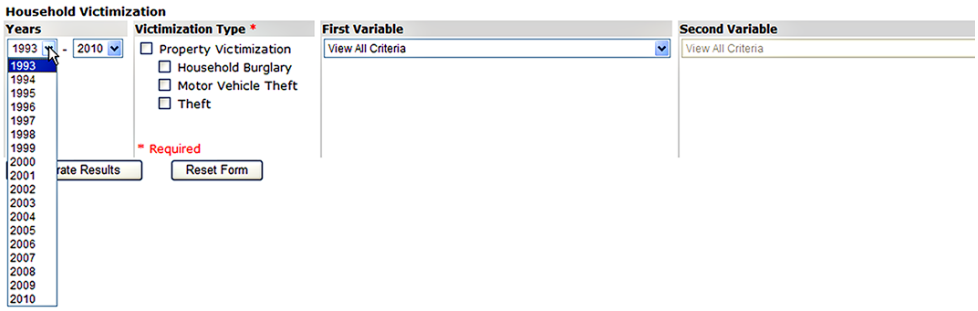


Figure 16: Drop-down menu to select the years that you would like to include in your analysis.

6.2. Victimization type

Select the type of victimization that you would like to include in your analysis. Property victimization includes household burglary, motor vehicle theft, and theft.

6.3. First variable

If you would like more detailed analysis of the national estimates of household victimization, you can choose to view the data broken down by up to two characteristics. From the Household Victimization menu, move the cursor over the First Variable heading, and a drop-down menu will allow you to select the first characteristic **(figure 17)**. You can select to view household victimization by head of household age, sex, race, Hispanic origin, race and Hispanic origin, household income, household size, and urbanicity.

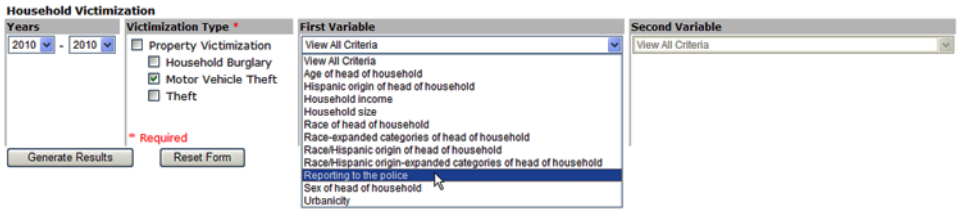


Figure 17: Drop-down menu to select the first variable for your analysis

6.4. Second variable

You can also select a second characteristic to include in your analysis. Move your cursor over the Second Variable heading and select a characteristic from the drop-down menu **(figure 18)**.

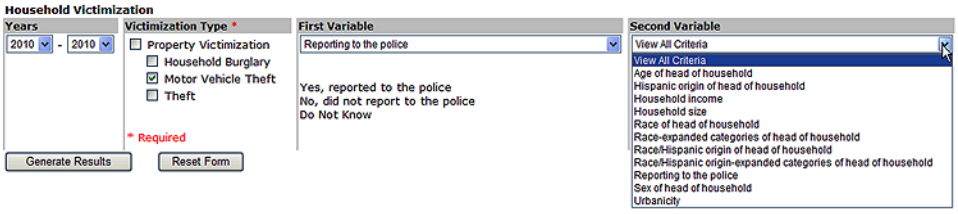


Figure 18: Drop-down menu to select the second variable for your analysis

- Your first and second variables must be different from one another. If you try to select the same variable twice, it will automatically be greyed out in the Second Variable drop-down menu. In older versions of Internet Explorer and some other browsers, you will see a dialog box with a warning message **(figure 19)**.
- To reset the variables, move your cursor over First Variable or Second Variable and select View All Criteria from the drop-down menu.
- You can switch your first and second variables. Reset the variables using View All Criteria and then change your selections.

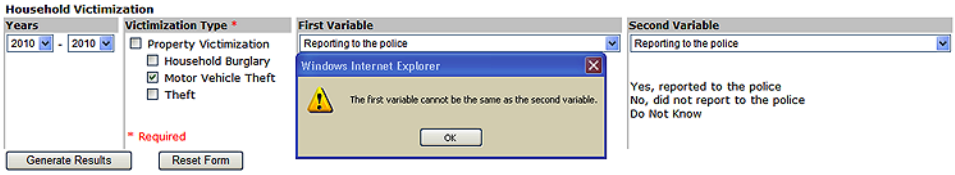


Figure 19: Warning message explaining that your first and second variables cannot be the same

6.5. Generate results

Use the Generate Results icon at the bottom of the selection form **(figure 20)**. You may need to wait for a few seconds as the results are generated.

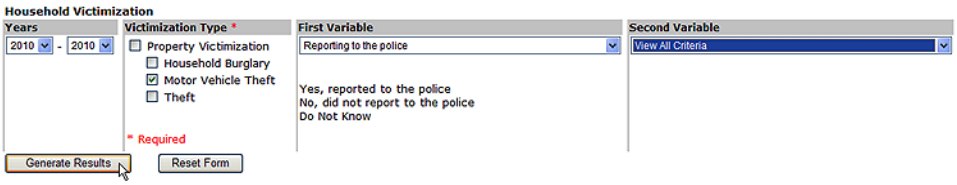


Figure 20: Generate Results icon on the selection form

6.6. How to interpret the NCVS report

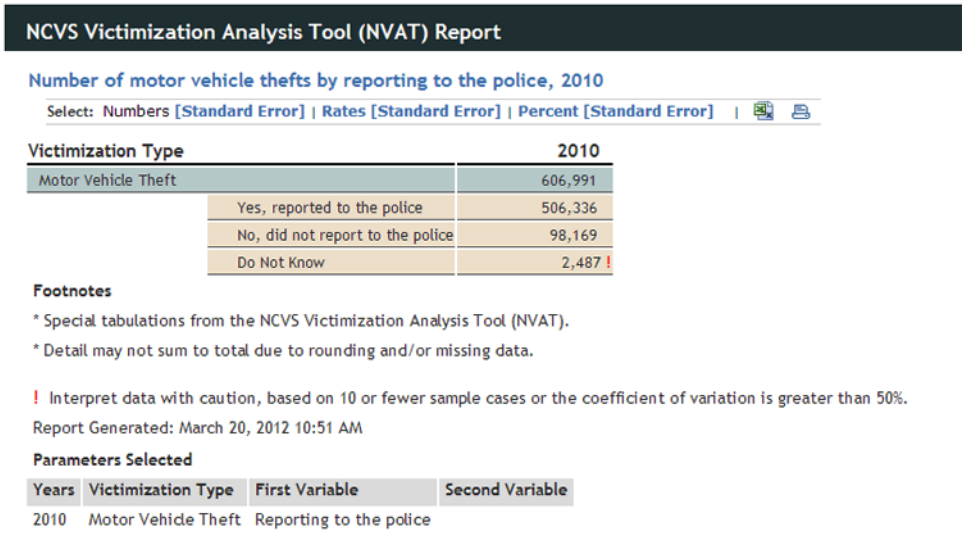
You will see a pop-up window with the results of your analysis. You may need to scroll down or across the results page to see the entire table, including the footnotes.

Use the Excel ( ) icon to download the data displayed in the results window. You may need to wait for a few seconds for the download dialog box to appear.

To export the data into a program other than Excel, select the Excel icon and choose Save instead of Open. Save the file on your computer. The file is in comma delimited text format and can be opened using any text-reading program. Please note that all of the headings across the columns might not be available.

Use the Print ( ) icon to print the estimates displayed in the results window. If you cannot fit the data onto one page, try printing on larger paper with the orientation set for landscape rather than portrait. Another option is to limit the number of years and perform multiple runs.

This is a sample custom table of motor vehicle theft victimizations in 2010, by reporting to the police **(figure 21)**.



NCVS Victimization Analysis Tool (NVAT) Report

Number of motor vehicle thefts by reporting to the police, 2010

Select: Numbers [Standard Error] | Rates [Standard Error] | Percent [Standard Error] |

Victimization Type	2010
Motor Vehicle Theft	606,991
Yes, reported to the police	506,336
No, did not report to the police	98,169
Do Not Know	2,487 !

Footnotes

* Special tabulations from the NCVS Victimization Analysis Tool (NVAT).

* Detail may not sum to total due to rounding and/or missing data.

! Interpret data with caution, based on 10 or fewer sample cases or the coefficient of variation is greater than 50%.

Report Generated: March 20, 2012 10:51 AM

Parameters Selected

Years	Victimization Type	First Variable	Second Variable
2010	Motor Vehicle Theft	Reporting to the police	

Figure 21: Sample NVAT report of the number of motor vehicle thefts by reporting to the police, 2010

The NVAT report shows you the number of victimizations by default, but you can select the Rates and Percent as well.

■ Number of household victimizations

This is an estimation of the number of victimizations that U.S. households experienced in the selected year. In this example, the first row shows the number of motor vehicle thefts in 2010, the second row shows the number that were reported to the police, the third row shows the number that were not reported to the police, and the fourth row shows the number for which it was unknown if the police were notified.

Rates of victimization

You can also select the Rates icon to view the number of motor vehicle thefts per 1,000 households **(figure 22)**.

NCVS Victimization Analysis Tool (NVAT) Report

Rates of motor vehicle thefts by reporting to the police, 2010

Select: Numbers [Standard Error] | Rates [Standard Error] | Percent [Standard Error] |

Victimization Type		2010
Motor Vehicle Theft		4.9
	Yes, reported to the police	4.1
	No, did not report to the police	0.8
	Do Not Know	--

Footnotes

* Special tabulations from the NCVS Victimization Analysis Tool (NVAT).

* Detail may not sum to total due to rounding and/or missing data.

* Victimization rates are per 1,000 households.

-- Rounds to less than .05 victimizations per 1,000.

Report Generated: March 20, 2012 10:53 AM

Parameters Selected

Years	Victimization Type	First Variable	Second Variable
2010	Motor Vehicle Theft	Reporting to the police	

Figure 22: Sample NVAT report of the rates of motor vehicle thefts by reporting to the police, 2010

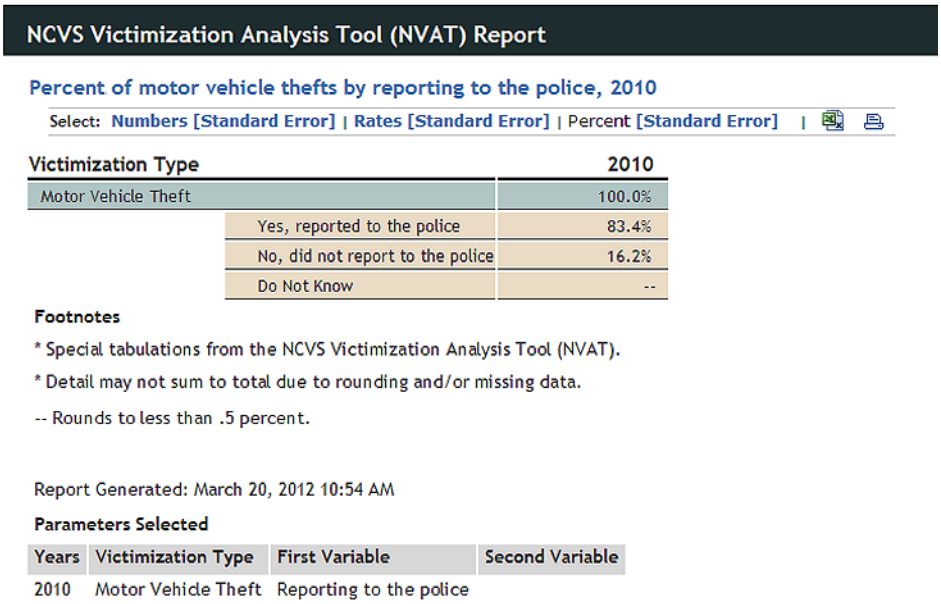
The rates are calculated by dividing the number of victimizations by the number of households. The overall rate of motor vehicle theft (4.9) is calculated by taking the number of motor vehicle thefts in 2010 (606,991), dividing by the number of households in 2010 (122,885,157), and multiplying by 1,000. This gives you the rate of motor vehicle thefts per 1,000 households. You can find the number of households in the Supporting Documents tab of this data tool, under Population counts [Household]. To obtain the rate of motor vehicle theft by reporting to the police, you would divide the number of thefts reported or not reported to the police by the total number of households in the U.S. You could also break this down further to get more specific information about the number of male- or female-headed households that reported motor vehicle theft to the police in 2010. However, for this example in particular, you may see another option to use the number of motor vehicles in the U.S. as the denominator. The NCVS does not have this information, but you could choose to combine NCVS numbers with data from other collections to create a rate of motor vehicle theft using the number of motor vehicles in the U.S.

Larger populations are expected to have proportionately more crime than smaller populations do. The rate gives you a standard way to measure crime levels across population groups of different sizes. The rates can also help you see changes within the same group over time since group populations will increase and decrease. For example, the number of households increased from 108,352,957 in 2000 to 122,885,160 in 2010.

Percentages of victimization

This example shows you the percentage of motor vehicle thefts that were reported to the police **(figure 23)**. When you look at a table of percentages, you will always see 100% alongside the type of victimization you selected (in this case, motor vehicle theft). In 2010, 83.4% of motor vehicle thefts were reported to the police, 16.2% were not reported to the police, and for less than 0.5% of motor vehicle thefts it was unknown if the thefts were reported to the police (totaling to 100%).

If you do not select a first or second variable, all percentages in the table will equal 100.



NCVS Victimization Analysis Tool (NVAT) Report

Percent of motor vehicle thefts by reporting to the police, 2010

Select: Numbers [Standard Error] | Rates [Standard Error] | Percent [Standard Error] |

Victimization Type	2010
Motor Vehicle Theft	100.0%
Yes, reported to the police	83.4%
No, did not report to the police	16.2%
Do Not Know	--

Footnotes

* Special tabulations from the NCVS Victimization Analysis Tool (NVAT).

* Detail may not sum to total due to rounding and/or missing data.

-- Rounds to less than .5 percent.

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Parameters Selected

Years	Victimization Type	First Variable	Second Variable
2010	Motor Vehicle Theft	Reporting to the police	

Figure 23: Sample NVAT report of the percent of motor vehicle thefts by reporting to the police, 2010

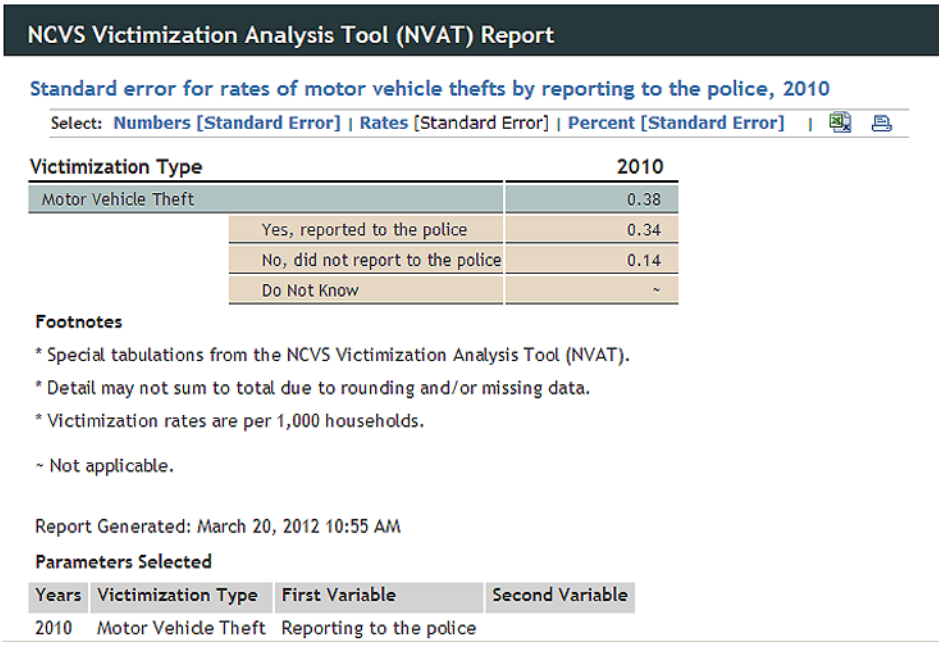
Standard errors of victimization

Whenever estimates are derived from a sample, as is the case with the NCVS, it is important to be cautious when drawing conclusions about the size of one population estimate in comparison to another or about whether population estimates are changing over time. For estimates based on a sample rather than a census of the entire population, there is always some measure of margin of error. The standard error is one measure of sampling error associated with the numbers, rates, and percents of crime victimization

you see in this tool. In general, an estimate with a smaller standard error gives you a more reliable approximation of the true value than an estimate with a higher standard error.

The estimate and its associated standard error may be used to construct a confidence interval around an estimate. The confidence interval describes the reliability of the estimate. A 95% confidence interval is equal to the survey estimate, plus or minus about twice (1.96) the standard error.

For example, **figure 24** is a table of the standard error for the rates of motor vehicle thefts in 2010 by reporting to the police. The table shows that the standard error for the rate of motor vehicle thefts in 2010 is 0.38, and the rate of motor vehicle thefts is 4.9 per 1,000 households. The 95% confidence interval is equal to the rate of 4.9 plus or minus about twice (1.96) the standard error, or plus or minus 0.74. So, you can be 95% confident that the rate of motor vehicle theft is between 4.2 and 5.6.



NCVS Victimization Analysis Tool (NVAT) Report

Standard error for rates of motor vehicle thefts by reporting to the police, 2010

Select: Numbers [Standard Error] | Rates [Standard Error] | Percent [Standard Error] |

Victimization Type		2010
Motor Vehicle Theft		0.38
	Yes, reported to the police	0.34
	No, did not report to the police	0.14
	Do Not Know	~

Footnotes

* Special tabulations from the NCVS Victimization Analysis Tool (NVAT).

* Detail may not sum to total due to rounding and/or missing data.

* Victimization rates are per 1,000 households.

~ Not applicable.

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Parameters Selected

Years	Victimization Type	First Variable	Second Variable
2010	Motor Vehicle Theft	Reporting to the police	

Figure 24: NVAT report of the standard error for the rates of motor vehicle thefts by reporting to the police, 2010

In the example shown here, it may appear that the rates of motor vehicle theft by reporting to the police are different. The margins of error show that the rate of motor vehicle theft reported to the police ranged from 3.4 to 4.7 and the rate of motor vehicle theft not reported to the police ranged from 0.5 to 1.1. The lack of overlap of these ranges suggests that these rates may be statistically different from each other. However, it is important to note that BJS did not test whether differences in numbers, rates, or percentages in this analysis tool are statistically significant. When you compare estimates that you generated with this tool, please use caution and do not draw inferences.

7. Supporting documents

Here you will find documents related to the NCVS. The Supporting Documents tab provides links to an overview of the NCVS, NCVS questionnaires, recent publications, available data file and codebooks, population counts, participation rates, definitions, and this User's Guide **(figure 25)**.

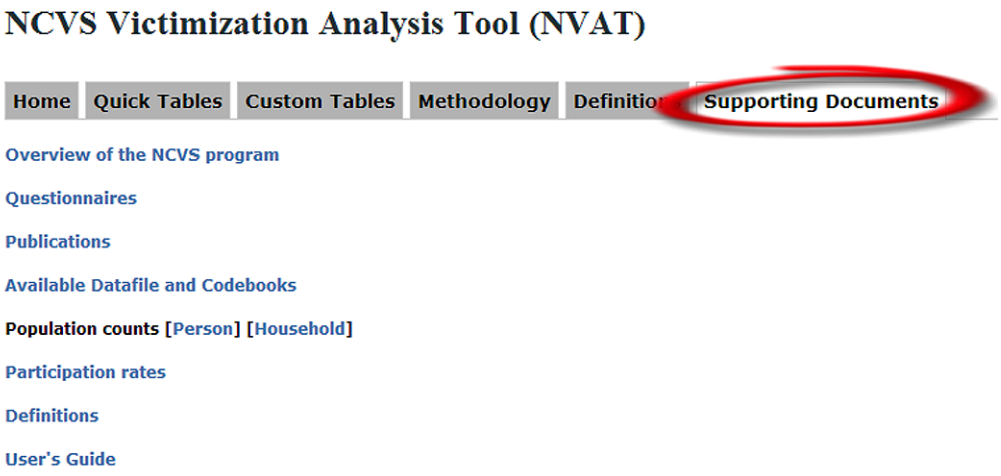

Figure 25: Supporting Documents tab on the NCVS tool

- The questionnaires link brings you to where you can download PDFs of the standard NCVS questionnaires in English and Spanish.
- The publications give you detailed analyses of statistical findings on criminal victimizations in each year.
- The NCVS available data file and codebooks can be found at the National Archive of Criminal Justice Data. These codebooks provide a full, detailed description of the survey and all variable names.
- The person and household population counts allow you to see the denominators used to calculate rates of criminal victimization in the United States.
- The participation rates link gives you the U.S. household and person participation rates in the NCVS from 1993 to the most recent year that data are available.

8. For questions about the tool

Please direct any comments or questions about the NCVS victimization analysis tool to:

askbjs@usdoj.gov
(202) 307-0765
Please include "NVAT" in the subject line of the e-mail

Bureau of Justice Statistics
U.S. Department of Justice
810 7th Street, NW
Washington, DC 20531

9. How to cite data from this tool

- When you publish tables of data from the BJS NCVS Victimization Analysis Tool, the recommended citation is:

  Bureau of Justice Statistics. **(Insert table title).** Generated using the NCVS Victimization Analysis Tool at www.bjs.gov. **(Insert date)**.

- Please use the following information when citing the NCVS victimization analysis tool:

  Bureau of Justice Statistics
  Tool title: NCVS Victimization Analysis Tool (NVAT)
  Data source: BJS, National Crime Victimization Survey