

# NCVS Victimization Analysis Tool (NVAT) User's Guide

1.	About the NCVS Victimization Analysis Tool (NVAT)	2
2.	Definition of victimization	2
3.	How to access NVAT for victimization data	2
4.	Quick tables	3
5.	Custom tables of personal victimization	4
•	5.1. Years 5.2. Victimization type 5.3. First variable 5.4. Second variable 5.5. Generate results 5.6. How to interpret the NVAT results  Custom tables of household victimization	5
ο.	6.1. Years 6.2. Victimization type 6.3. First variable 6.4. Second variable 6.5. Generate results 6.6. How to interpret the NVAT results	11 11 12
7.	Supporting documents	
8.	For questions about the tool	. 17
9.	How to cite data from this tool	. 18

# 1. About the NCVS Victimization Analysis Tool (NVAT)

This analysis tool enables you to examine information on criminal 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 (burglary/trespassing, motor-vehicle theft, and other theft), and personal theft/larceny (attempted and completed purse-snatching and pick-pocketing). You can analyze victimization counts, rates, and percentages by select victim and household characteristics, presence of a weapon, 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.

## 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 theft/larceny, each person affected by a crime is counted as a single victimization. For crimes against households (burglary/trespassing, motor-vehicle theft, and other theft), each household affected by a crime is counted as a single victimization.

## 3. How to access NVAT for victimization data

You can access the victimization analysis tool from the BJS homepage at www.bjs.gov.

Select Data Analysis Tools on the top navigation bar, or select the NCVS Victimization Analysis Tool from the drop-down menu (figure 1).

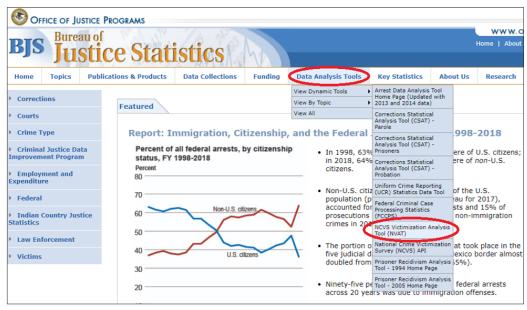


Figure 1. BJS homepage

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 homepage

Select the NCVS Victimization Analysis Tool homepage (Resource Link) link, located after the short description under NCVS Victimization Analysis Tool (figure 3).

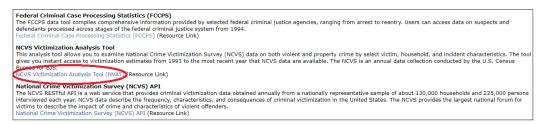


Figure 3. NCVS Victimization Analysis Tool homepage (Resource link) on the All Data Analysis Tools page

# 4. Quick tables

The quick tables are an introduction to NVAT. First check <u>here</u> 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 in violent victimization by victim-offender relationship.

Select Quick Tables from the NVAT homepage (figure 4).

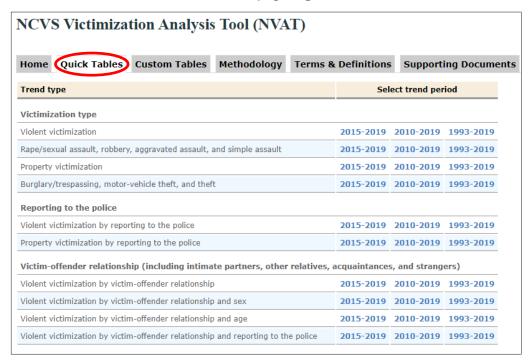


Figure 4. Quick Tables menu

- To download a quick table, select the hyperlink for the table that you would like to download.
- For further analysis of victimization data, select Custom Tables.

# 5. Custom tables of personal victimization

Custom tables of Personal Victimization enable you to analyze data on all violent crime (i.e., rape or sexual assault, robbery, aggravated assault, and simple assault) and personal theft/larceny victimizations.

- Select Custom Tables from the NVAT homepage (figure 5).
- Select Personal Victimization, and click the Select Victimization Type button, located on the right.

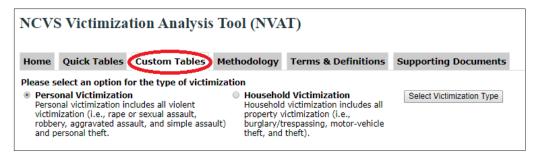


Figure 5. Custom Tables menu

## **5.1.** Years

 Select years. This online tool includes information from 1993 to the most recent year that NCVS data are available (figure 6).

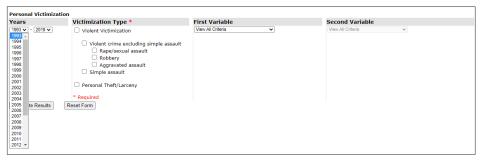


Figure 6. Drop-down menu to select years

## 5.2. Victimization type

Select the type of victimization:

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

#### 5.3. First variable

For a 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 enable 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, household income, injury, location of incident, location of residence, marital status, medical treatment for injuries, population size, region, victim services, weapon category, presence of weapon, victim-offender relationship, and reporting to the police. Please note that weapon category and presence of weapon variables only apply to personal victimizations where there was contact between the victim and the offender. By definition, simple assault and personal theft/larceny do not involve a weapon.

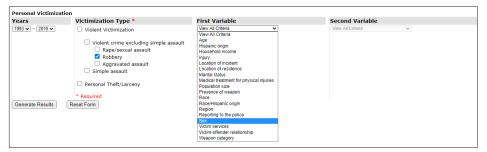


Figure 7. Drop-down menu to select the first variable

#### 5.4. Second variable

To select a second characteristic for your analysis, move your cursor over the Second Variable heading, and select a characteristic from the drop-down menu (figure 8).

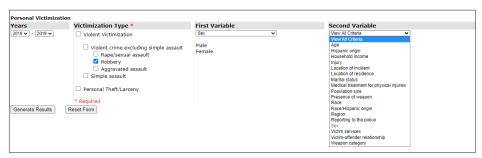


Figure 8. Drop-down menu to select the second variable

The 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 (figure 9).

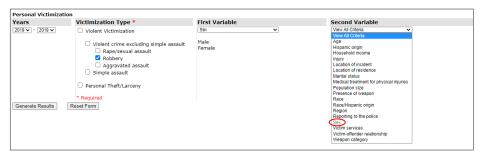


Figure 9. Greyed out second variable when both variables are the same

- 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.

#### 5.5. Generate results

Select the Generate Results button, located 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 NVAT results

A pop-up window will display the results of your analysis. The NVAT results show the number of victimizations by default, but you can also select the Rates and Percent options. You may need to scroll down or across the results page to see the entire table, including the footnotes. Below is a sample custom table of robbery victimizations in 2019, by the sex of the victim (figure 11).

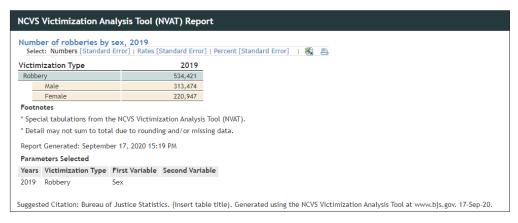


Figure 11. NVAT results of the number of robberies, by sex, 2019

- Select 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 (.csv) 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.
- Select the Print (♣) icon to print the estimates displayed in the results window. If the data don't fit onto one page, try printing on larger paper with the orientation set for landscape rather than portrait or limit the number of years and perform multiple runs.

## **Number of personal victimizations**

This is an estimation of the number of victimizations that U.S. residents age 12 or older experienced in the selected year. In the above example, the first row shows the total number of robbery victimizations in 2019 (534,421), the second row shows the number for males (313,474), and the third row shows the number for females (220,947).

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 enables 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 tab of this tool, located under Available Datasets and Codebooks.)

#### Rates of victimization

Select the Rates icon to view robbery victimizations per 1,000 persons age 12 or older, by sex of the victim, in 2019 (figure 12).

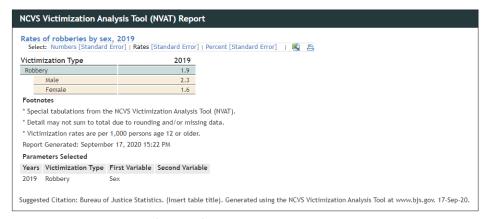


Figure 12. NVAT results of rates of robberies, by sex, 2019

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 (1.9) is calculated by taking the number of robberies in 2019 (534,421), dividing by the number of persons age 12 and older in 2019 (276,872,468), 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, located under Population counts [Person]. To obtain the rate of robbery victimization for males, you would divide the number of robberies against males by the number of male U.S. residents age 12 and older. Similarly, to generate the rate of robbery victimization for females, you would divide the number of robberies against females by the number of female U.S. residents age 12 or older.

Larger populations are expected to have proportionately more crime than smaller populations. 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 because group populations will increase and decrease. For example, the number of females age 12 or older increased from 130,974,430 in 2010 to 142,178,808 in 2019.

## **Percentages of victimization**

This example displays the percentages of robbery victimizations in 2019 that involved male or female victims (**figure 13**). When you look at a table of percentages, you will always see 100% alongside selected the type of victimization (in this case, robbery). In 2019, 59% of robbery victims were male and 41% were female (totaling to 100%).

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

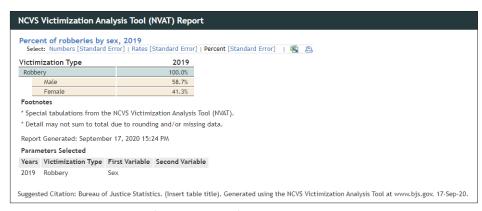


Figure 13. NVAT results of the percent of robberies, by sex, 2019

## 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 percentages 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 larger 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 errors for the number of robberies in 2019 by sex. The table shows that the standard error for the number of robberies for males in 2019 is 50,916, and the estimated number of male robbery victimizations in 2019 is 313,474. The 95% confidence interval is equal to the estimate of 313,474 plus or minus about twice (1.96) the standard error, or plus or minus 99,795. So, you can be 95% confident that the number of male robbery victimizations in 2019 is between 213,679 and 413,269.

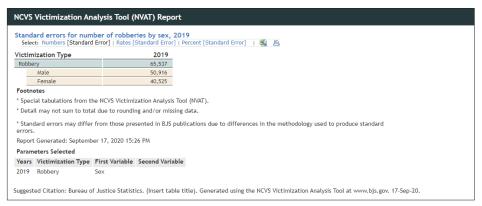


Figure 14. NVAT results of the standard errors for the number of robberies, by sex, 2019

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 213,679 to 413,269 and females range from 141,518 to 300,376. 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 generated with this tool, please use caution and do not draw inferences.

## 6. Custom tables of household victimization

Custom tables of Household Victimization enable you to analyze data on all property victimization (i.e., burglary/trespassing, motor-vehicle theft, and other theft).

- Select Custom Tables from the NVAT homepage (figure 15).
- Select Household Victimization, and click the Select Victimization Type button, located on the right.

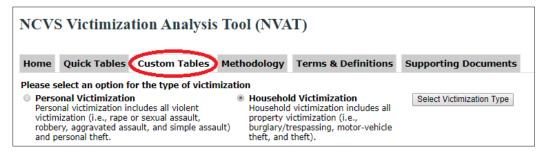


Figure 15. Custom Tables menu

## 6.1. Years

 Select years. This online tool includes information from 1993 to the most recent year that NCVS data are available (figure 16).

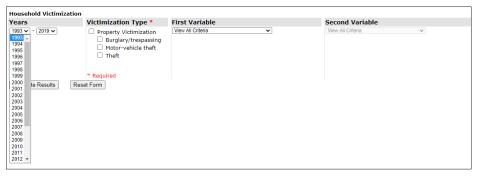


Figure 16. Drop-down menu to select years

## 6.2. Victimization type

 Select the type of victimization. Property victimization includes burglary/trespassing, motor-vehicle theft, and other theft.

### 6.3. First variable

For a 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 enable you to select the first characteristic (figure 17).
- You can select to view household victimization by the head of household's age, sex, race, Hispanic origin, race or Hispanic origin, household income, household size, location of incident, location of residence, population size, region, reporting to police, or victim services.

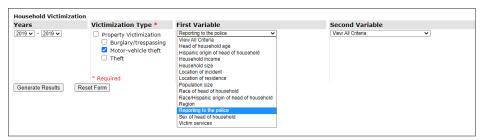


Figure 17. Drop-down menu to select the first variable

#### 6.4. Second variable

To select a second characteristic, 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

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 (figure 19).

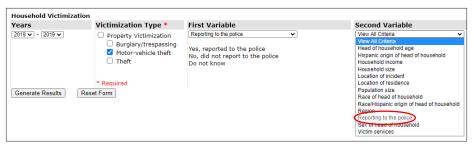


Figure 19. Greyed out second variable when both variables are the same

- 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.

#### 6.5. Generate results

Select 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 button on the selection form

## 6.6. How to interpret the NVAT results

A pop-up window will display the results of your analysis. The NVAT results show the number of victimizations by default, but you can also select the Rates and Percent option. You may need to scroll down or across the results page to see the entire table, including the footnotes. Below is a sample custom table of motor-vehicle thefts in 2019, by reporting to the police (figure 21).

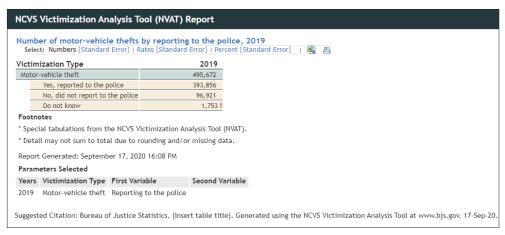


Figure 21. NVAT results of the number of motor-vehicle thefts, by reporting to the police, 2019

- Select 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 (.csv) format and can be opened using any text-reading program. Please note that all of the headings across the columns might not be available.
- Select the Print (♣) icon to print the estimates displayed in the results window. If the data don't fit onto one page, try printing on larger paper with the orientation set for landscape rather than portrait or limit the number of years and perform multiple runs.

#### Number of household victimizations

This is an estimation of the number of victimizations that U.S. households experienced in the selected year. In the above example, the first row shows the number of motor-vehicle thefts in 2019 (495,672), the second row shows the number that were reported to the police (393,856), the third row shows the number that were not reported to the police (96,921), and the fourth row shows the number for which it was unknown if the police were notified (1,753).

#### **Rates of victimization**

Select the Rates icon to view the number of motor-vehicle thefts per 1,000 households in 2019 (figure 22).

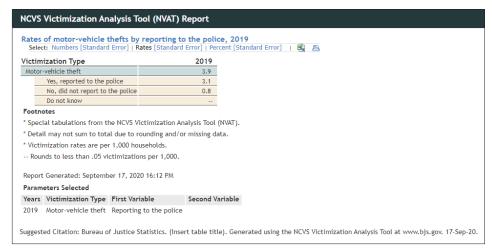


Figure 22. NVAT results of the rates of motor-vehicle thefts, by reporting to the police, 2019

The rates are calculated by dividing the number of victimizations by the number of households. The overall rate of motor-vehicle theft (3.9) is calculated by taking the number of motor-vehicle thefts in 2019 (495,672), dividing by the number of households in 2019 (126,433,889), and multiplying by 1,000. This gives you the rate of motor-vehicle thefts per 1,000 households in 2019. You can find the number of households in the Supporting Documents tab of this data tool, located under Population counts [Household]. To obtain the rate of motor-vehicle theft reported to the police, you would divide the number of thefts reported to the police by the total number of households in the United States. 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. However, for this example, you may see another option to use the number of motor vehicles in the United States 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 United States.

Larger populations are expected to have proportionately more crime than smaller populations. 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 122,885,157 in 2010 to 126,433,889 in 2019.

## **Percentages of victimization**

This example displays the percentage of robberies by presence of weapon in 2019 (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, robbery). In 2019, the offender had a weapon in 40.7% of robberies, 53.7% of robberies involved no weapon, and for 5.6% of robberies it was unknown if the offender had a weapon (totaling to 100%).

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

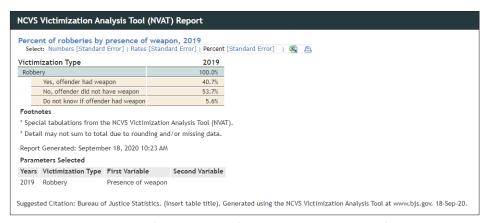


Figure 23. NVAT results of the percent of robberies, by presence of weapon, 2019

#### 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 percentages 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 larger 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 errors for the rates of motor-vehicle thefts in 2019 by reporting to the police. The table shows that the standard error for the rate of motor-vehicle thefts in 2019 is 0.34. The rate of motor-vehicle thefts is 3.9 per 1,000 households. The 95% confidence interval is equal to the rate of 3.9 plus or minus about twice (1.96) the standard error, or plus or minus 0.67. So, you can be 95% confident that the rate of motor-vehicle theft is between 3.2 and 4.6.

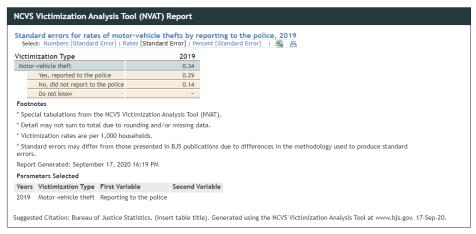


Figure 24. NVAT results of the standard errors for the rates of motor-vehicle thefts, by reporting to the police, 2019

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 2.5 to 3.7, 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 generated with this tool, please use caution and do not draw inferences.

# 7. Supporting documents

Select the Supporting Documents tab for links to an overview of the NCVS program, NCVS questionnaires, recent publications, available datasets and codebooks, population counts, participation rates, terms and definitions, and this user's guide (figure 25).

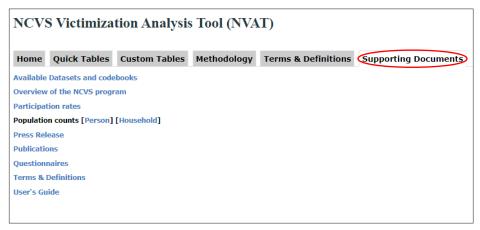


Figure 25. Supporting Documents tab in NVAT

- Under questionnaires, you can download PDFs of the standard NCVS questionnaires in English and Spanish.
- Publications links to reports with detailed analyses of statistical findings on criminal victimizations each year.
- Available NCVS datasets 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.
- Person and household population counts provide the denominators used to calculate rates of criminal victimization in the United States.
- The participation rates link presents 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 BJS's NVAT, the recommended citation is—

Bureau of Justice Statistics. (Insert table title). Generated using the NCVS Victimization Analysis Tool (NVAT) 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

Date used: [Insert date here]