

Methodology

The National Crime Victimization Survey (NCVS) is an annual data collection conducted by the U.S. Census Bureau for the Bureau of Justice Statistics (BJS). The NCVS collects information on nonfatal victimizations, reported and not reported to the police, against persons age 12 or older from a nationally representative sample of U.S. households.

Violent crimes measured by the NCVS include rape or sexual assault, robbery, aggravated assault, and simple assault. Property crimes include household burglary, motor vehicle theft, and theft. Victimization that occurred outside of the U.S. are excluded from this report.

The survey results presented in this report are based on data gathered from residents living throughout the United States, including persons living in group quarters, such as dormitories, rooming houses, and religious group dwellings. Armed Forces personnel living in military barracks and institutionalized persons, such as correctional facility inmates, were not included in the scope of this survey.

Each housing unit selected for the National Crime Victimization Survey (NCVS) remains in the sample for 3 years, with each of seven interviews taking place at 6-month intervals. An NCVS field representative's first contact with a household selected for the survey is in person. The field representative may conduct subsequent interviews by telephone. To elicit more accurate reporting of incidents, the NCVS uses a self-respondent method that requires a direct interview with each person 12 years or older in the household—except under certain specific conditions. Proxy interviews accounted for about 4% of all NCVS interviews in 2010.

Annual collection year estimates of the levels and rates of victimization are derived by accumulating estimates quarterly. The weights of all crimes reported during the interviews in that year are summed, regardless of when the crime occurred. The base for the collection year rate for personal crimes is the sum of all person weights. The base for the property crime rates is the sum of all household weights. For more detail, see the *Methodology in Criminal Victimization in the United States, Statistical Tables*, BJS Web, May 2011.

In 2010, 40,974 households and 73,283 individuals age 12 and older were interviewed for the NCVS. Each household was interviewed twice during the year. The response rate was 92.3% of households and 87.5% of eligible individuals.

Methodological changes to the NCVS in 2006

As discussed in the previous editions in this bulletin series, *Criminal Victimization, 2006* and *Criminal Victimization, 2007*, methodological changes implemented in 2006 impacted the estimates for that year to an extent that the estimates were not considered comparable to those of previous years. Evaluation of 2007 and later data from the NCVS conducted by BJS and the Census Bureau have found a high degree of confidence that estimates for these years are consistent with and comparable to those for 2005 and previous years.

Standard error computations

Any time national estimates are derived from a sample rather than the entire population, 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 a time series of population estimates is changing. Although one estimate may be larger than another, estimates based on responses from a sample of the population each have some degree of sampling error. The sampling error of an estimate depends on several factors, including the amount of variation in the responses, the size and representativeness of the sample, and the size of the subgroup for which the estimate is computed.

One measure of the sampling error associated with an estimate is the standard error. The standard error can vary from one estimate to the next. In general, an estimate with a smaller standard error provides a more reliable approximation of the true value than an estimate with a higher standard error. Estimates with relatively large standard errors are associated with less precision and reliability and should be interpreted with caution.

The relative standard error (RSE) is a measure of an estimate's reliability. The RSE is the ratio of the standard error to the estimate. In this report, the RSE was calculated for all estimates, and in cases where the RSE was greater than 50% or when the estimate was based on 10 or fewer sample cases, the estimate was noted with a "!" symbol. ("! Interpret with caution; estimate based on 10 or fewer sample cases, or coefficient of variation is greater than 50%.")

A statistical test is used to determine whether differences in means or percentages are statistically significant once sampling error is taken into account. Comparisons made in the text were tested for statistical significance at the $p < .05$ level to ensure that the differences were larger than might be expected due to sampling variation. Significance testing calculations were conducted at BJS using statistical programs developed specifically for the NCVS by the U.S. Census Bureau. These programs take into consideration many aspects of the complex NCVS sample design when calculating estimates. Standard errors for average annual estimates were calculated based on the ratio of the sums of victimizations and respondents across years.

Many of the variables examined in this report may be related to one another and to other variables not included in the analyses. Complex relationships among variables were not fully explored in this report and warrant more extensive analysis. Readers are cautioned not to draw causal inferences based on the results presented.

Statistical differences defined

BJS tested the comparisons between the percentages and rates for *Criminal Victimization, 2010* to determine if observed differences were statistically significant. Differences described as higher, lower, or different passed a test at the .05 level of statistical significance (95%-confidence level). Differences

described as somewhat, slightly, or marginally different, or some indication of difference, passed a test at the .10 level of statistical significance (90%-confidence level). Caution is required when comparing estimates not explicitly discussed in this bulletin.

Average annual rate of change

The average annual rate of change (r) was calculated as—

$$r = \left(\ln \left(\frac{P_t}{P_{t-n}} \right) \right) \times 100$$

where

P_t = number or rate in the current year

P_{t-n} = number or rate in the n^{th} prior year

n = number of years

APPENDIX TABLE 1

Standard errors for total violent and serious violent victimizations, 2001–2010

	Number of victimizations	
	Total violent crime	Serious violent crime
2001	240,855	120,554
2002	201,296	100,387
2003	195,815	103,237
2004	193,479	100,343
2005	214,841	115,761
2006	211,551	122,090
2007	207,360	103,629
2008	201,595	103,032
2009	190,805	99,110
2010	182,040	96,813

Change in the rape or sexual assault rate for 2009 to 2010

While the change in the rape or sexual assault rate from 2009 to 2010 is significantly different at the 90%-confidence level, care should be taken in interpreting this change because the estimates of rape/sexual assault are based on a small number of cases reported to the survey. Therefore, small absolute changes and fluctuations in the rates of victimization can result in large year-to-year percentage change estimates. For 2010, the estimate of rape or sexual assault is based on 57 unweighted cases compared to 36 unweighted cases in 2009. The measurement of rape or sexual assault represents one of the most serious challenges in the field of victimization research. Rape and sexual assault remain sensitive subjects that are difficult to ask about in the survey context. As part of the ongoing redesign of the NCVS, BJS is exploring methods for improving the reporting of these crimes.

APPENDIX TABLE 2

Standard errors for number of criminal victimizations and percent change, by type of crime, 2001, 2009, and 2010

Type of crime	Number of victimizations		
	2001	2009	2010
All crime	627,396	396,003	337,911
Violent crime	240,855	190,805	182,040
Serious violent crime	120,554	99,110	96,813
Rape/sexual assault	31,043	24,079	29,399
Robbery	55,071	54,264	50,745
Assault	214,357	172,398	161,150
Aggravated	84,199	69,862	64,914
Simple	175,337	147,615	136,648
Personal theft	26,339	24,834	24,672
Property crime	509,891	344,331	297,463
Household burglary	141,052	130,649	116,640
Motor vehicle theft	62,929	53,639	46,928
Theft	421,894	291,973	255,506

APPENDIX TABLE 3

Standard errors for total violent and serious violent victimizations, 1993–2010

	Rate per 1,000 persons age 12 or older	
	Total violent victimization	Serious violent victimization
1993	1.5	0.9
1994	1.2	0.7
1995	1.1	0.6
1996	1.1	0.6
1997	1.1	0.6
1998	1.3	0.6
1999	1.1	0.6
2000	1.0	0.5
2001	1.0	0.5
2002	0.9	0.4
2003	0.8	0.4
2004	0.8	0.4
2005	0.9	0.5
2006	0.9	0.5
2007	0.8	0.4
2008	0.8	0.4
2009	0.8	0.4
2010	0.7	0.4

APPENDIX TABLE 4

Standard errors for rates of criminal victimization and percent change, by type of crime, 2001, 2009, and 2010

Type of crime	Victimization rates		
	2001	2009	2010
Violent crime	1.0	0.8	0.7
Serious violent crime	0.5	0.4	0.4
Rape/sexual assault	0.1	0.1	0.1
Robbery	0.2	0.2	0.2
Assault	0.9	0.7	0.6
Aggravated	0.4	0.3	0.3
Simple	0.7	0.6	0.5
Personal theft	0.1	0.1	0.1
Property crime	3.6	2.8	2.4
Household burglary	1.2	1.1	0.9
Motor vehicle theft	0.6	0.4	0.4
Theft	3.1	2.4	2.1

APPENDIX TABLE 5

Standard errors for violent victimization with series victimizations included and excluded, 1993–2010

	Rate per 1,000 persons age 12 or older	
	Series excluded	Series included
1993	1.5	2.0
1994	1.2	1.6
1995	1.1	1.5
1996	1.1	1.4
1997	1.1	1.4
1998	1.3	1.6
1999	1.1	1.4
2000	1.1	1.3
2001	1.0	1.1
2002	0.9	1.1
2003	0.8	1.0
2004	0.8	0.9
2005	0.9	1.1
2006	0.9	1.0
2007	0.8	1.0
2008	0.8	1.0
2009	0.8	0.9
2010	0.7	0.8

APPENDIX TABLE 6

Standard errors for property victimizations, 1993–2010

	Rate per 1,000 households
	Property victimization
1993	4.6
1994	3.6
1995	3.5
1996	3.4
1997	3.9
1998	3.5
1999	3.4
2000	3.7
2001	3.6
2002	3.2
2003	3.1
2004	3.0
2005	3.4
2006	3.1
2007	2.9
2008	3.2
2009	2.8
2010	2.4

APPENDIX TABLE 7

Standard errors for total violent and serious violent victimizations involving injury, 2001–2010

	Total violent victimization	Serious violent victimization
2001	1.4%	2.2%
2002	1.4	2.4
2003	1.4	2.4
2004	1.5	2.5
2005	1.6	2.6
2006	1.5	2.4
2007	1.5	2.5
2008	1.5	2.7
2009	1.7	2.9
2010	1.7	2.9

APPENDIX TABLE 8**Standard errors for violent victimizations involving a weapon, by type of crime and type of weapon, 2010**

Presence of offender's weapon	Violent crime		Rape/sexual assault		Robbery		Simple and aggravated assault	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total	183,177	~%	29,766	~%	51,475	~%	162,511	~%
No weapon	145,788	1.9%	26,108	5.9%	30,528	4.6%	133,607	2.0%
Weapon	72,650	1.6%	9,226	4.5%	31,893	4.7%	59,796	1.6%
Firearm	41,792	1.0	6,777	3.4	25,194	4.2	29,431	0.9
Knife	30,114	0.8	3,974	2.1	13,896	2.7	25,071	0.8
Other	36,383	0.9	~	~	6,059	1.2	35,568	1.0
Unknown	15,052	0.4	4,365	2.3	6,964	1.4	12,048	0.4
Don't know	40,571	1.0%	7,690	3.9%	17,248	3.2%	33,708	1.0%

~Not applicable.

APPENDIX TABLE 9**Standard errors for total violent and serious violent victimizations involving a weapon, 2001–2010**

	Total violent victimization	Serious violent victimization
2001	1.3%	2.1%
2002	1.3	2.3
2003	1.4	2.3
2004	1.3	2.4
2005	1.5	2.6
2006	1.4	2.4
2007	1.4	2.7
2008	1.4	2.9
2009	1.6	2.9
2010	1.6	2.9

APPENDIX TABLE 10**Standard errors for total violent and serious violent victimizations involving a firearm, 2001–2010**

	Total violent victimization	Serious violent victimization
2001	0.8%	1.9%
2002	0.8	2.1
2003	0.8	2.0
2004	0.7	2.0
2005	1.0	2.4
2006	0.9	2.1
2007	0.8	2.2
2008	0.9	2.3
2009	1.0	2.5
2010	1.0	2.5

APPENDIX TABLE 11**Standard errors for violent victimizations perpetrated by strangers and nonstrangers, 2001–2010**

	Nonstranger	Stranger
2001	1.6%	1.5%
2002	1.6	1.6
2003	1.6	1.6
2004	1.7	1.6
2005	1.8	1.8
2006	1.7	1.6
2007	1.8	1.7
2008	1.8	1.7
2009	2.0	1.9
2010	2.0	1.9

APPENDIX TABLE 12

Standard errors for violent victimizations, by type of crime and victim-offender relationship, 2010

Relationship to victim	Total violent crime		Rape/sexual assault		Robbery		Aggravated assault		Simple assault	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Male victims										
Nonstranger	68,900	2.5%	6,519	19.8%	14,441	4.2%	31,513	5.0%	53,304	3.1%
Intimate	20,966	1.0	~	~	9,119	2.9	10,602	2.4	14,188	1.1
Other relative	22,117	1.1	~	~	2,542	0.8	12,834	2.8	16,784	1.3
Friend/acquaintance	56,869	2.3	6,519	19.8	10,304	3.2	24,824	4.6	45,578	2.9
Stranger	76,814	2.6%	2,027	12.9%	32,233	5.3%	26,594	4.8%	56,521	3.1%
Unknown	34,269	1.6%	2,656	16.3%	11,541	3.5%	15,333	3.3%	25,773	1.9%
Female victims										
Nonstranger	88,683	2.6%	23,464	6.7%	17,858	7.3%	27,415	5.8%	70,897	3.0%
Intimate	46,678	2.1	10,547	5.5	11,945	5.9	17,266	4.8	36,691	2.5
Other relative	27,353	1.4	6,860	3.8	8,304	4.4	7,294	2.3	22,653	1.7
Friend/acquaintance	59,473	2.4	18,621	7.5	8,888	4.7	17,969	4.9	48,305	3.0
Stranger	56,538	2.4%	12,874	6.4%	20,052	7.4%	22,425	5.5%	39,909	2.7%
Unknown	21,937	1.1%	3,421	2.0%	4,735	2.6%	10,172	3.1%	17,473	1.4%

~Not applicable.

APPENDIX TABLE 13

Standard errors for intimate partner violence, by sex of victim, 2009 and 2010

Sex of victim	2009		2010	
	Number	Rate	Number	Rate
Male	24,717	0.2	20,966	0.2
Female	57,632	0.4	46,678	0.4

APPENDIX TABLE 14

Standard errors for violent and property victimizations reported to police, 2010

Type of crime	Percent reported
Violent crime	2.0%
Serious violent crime	3.0
Rape/sexual assault	7.2
Robbery	4.7
Aggravated assault	3.9
Simple assault	2.4
Property crime	0.9%
Burglary	1.9
Motor vehicle theft	2.9
Theft	1.0

APPENDIX TABLE 15

Standard errors for violent and property victimizations reported to the police, 2001–2010

	Percent reported to the police		
	Violent victimization	Serious violent victimization	Property victimization
2001	1.6%	2.3%	0.9%
2002	1.6	2.5	0.9
2003	1.6	2.5	0.9
2004	1.7	2.6	0.9
2005	1.8	2.8	1.0
2006	1.7	2.5	0.9
2007	1.8	2.7	0.9
2008	1.8	2.9	1.0
2009	2.0	3.0	1.0
2010	2.0	3.0	0.9

APPENDIX TABLE 16**Standard errors for victimizations reported to the police, by sex of victim, race, and Hispanic origin of victim, 2010**

Demographic characteristic of victim	Violent victimization	Property victimization
Total	2.0	0.9
Male	2.6	1.2
White	3.1	1.5
Black	6.1	3.1
Hispanic	5.5	2.8
Other	8.5	4.7
American Indian or Alaskan Native	10.7	9.4
Asian or Pacific Islander	13.2	5.2
Two or more races	13.0	7.7
Female	2.7	1.2
White	3.3	1.5
Black	5.3	2.6
Hispanic	6.5	2.8
Other	11.0	6.0
American Indian or Alaskan Native	22.8	10.9
Asian or Pacific Islander	10.2	6.9
Two or more races	7.9	6.8

APPENDIX TABLE 17**Standard errors for violent victimizations, by type of crime, by sex, race, Hispanic origin, and age of victim, 2010**

Demographic characteristic of victim	Violent victimizations per 1,000 persons age 12 or older					
	Total	Rape/sexual assault	Robbery	Total assault	Aggravated assault	Simple assault
Sex						
Male	1.0	0.1	0.3	0.9	0.4	0.7
Female	0.9	0.2	0.2	0.8	0.3	0.7
Race/Hispanic origin						
White	0.8	0.1	0.2	0.7	0.3	0.6
Black	2.0	0.4	0.7	1.7	0.8	1.4
Hispanic	1.5	0.3	0.6	1.3	0.5	1.2
American Indian or Alaskan Native	10.8	~	3.3	10.2	7.2	7.0
Asian or Pacific Islander	1.5	0.4	0.6	1.2	0.4	1.1
Two or more races	9.2	1.3	3.4	8.4	3.5	7.4
Age						
12–14	3.3	0.9	0.5	3.1	1.4	2.6
15–17	3.0	0.7	0.9	2.6	1.1	2.3
18–20	3.6	0.5	1.4	3.2	1.5	2.7
21–24	2.9	0.6	1.0	2.5	1.4	2.0
25–34	1.6	0.4	0.5	1.4	0.6	1.2
35–49	1.1	0.2	0.3	1.0	0.4	0.9
50–64	1.0	~	0.3	1.0	0.4	0.8
65 or older	0.5	0.1	0.2	0.4	0.1	0.4

~Not applicable.

APPENDIX TABLE 18**Standard error for property crime victimizations, by type of crime, by household income and size, 2010**

Household characteristic	Victimizations per 1,000 households			
	Total	Burglary	Motor vehicle theft	Theft
Household income				
Less than \$7,500	11.2	5.9	1.7	9.6
\$7,500-\$14,999	9.2	4.9	1.7	7.8
\$15,000-\$24,999	7.3	3.4	1.7	6.2
\$25,000-\$34,999	7.0	3.1	1.6	6.0
\$35,000-\$49,999	5.9	2.4	1.2	5.2
\$50,000-\$74,999	5.6	2.2	1.2	5.0
\$75,000 or more	4.7	1.7	0.9	4.3
Unknown	3.4	1.5	0.5	3.0
Number of persons in household				
1	3.5	1.7	0.6	2.8
2 or 3	3.1	1.3	0.5	2.7
4 or 5	5.6	2.1	1.1	5.1
6 or more	13.3	5.6	2.9	12.1

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This report in portable document format and in ASCII and its related statistical data and tables are available on the BJS website at: <http://www.bjs.gov/index.cfm?ty=pbdetail&iid=2224>.