

October 2012, NCJ 239437

## Criminal Victimization, 2011

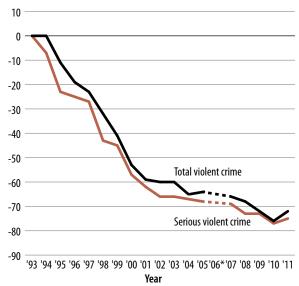
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n 2011, U.S. residents age 12 or older experienced an estimated 5.8 million violent victimizations and 17.1 million property victimizations. Between 2010 and 2011, the overall victimization rate for violent crime increased 17%, from 19.3 to 22.5 victimizations per 1,000 persons age 12 or older. The increase in aggravated and simple assault accounted for all of the increase in total violence. Since 1993, the rate of violent crime has declined by 72% from 79.8 to 22.5 per 1,000 persons age 12 or older (figure 1). Although the 17% change in the violent victimization rate from 2010 to 2011 is relatively large, the actual change in the rate between 2010 and 2011 (3.3 per 1,000) is below the average annual change in rates for the past two decades (4.3 per 1,000) (see Methodology, Historical change to the NCVS violent victimization rate (page 15) for more information). The information in this report is based on data from the Bureau of Justice Statistics' (BJS) National Crime Victimization Survey (NCVS).

Between 2010 and 2011, no statistically significant difference was detected in the rate of serious violence—defined as rape or sexual assault, robbery, and aggravated assault. In 2011, the rate of serious violent victimizations was 7.2 per 1,000 persons age 12 or older. Since 1993, the rate of serious violent crime has declined by 75% from 29.1 to 7.2 per 1,000 persons age 12 or older. In addition, the overall

property crime rate, which includes burglary and theft, increased 11% between 2010 and 2011, from 125.4 to 138.7 victimizations per 1,000 households.

# FIGURE 1 Percent change in rate of violent victimization since 1993 Percent change



\*The 2006 percent change is not shown due to methodological changes in the 2006 NCVS. See *Criminal Victimization*, 2007, NCJ 224390, BJS website, December 2008, for more information.

Source: Bureau of Justice Statistics, National Crime Victimization Survey, 1993–2011.

#### HIGHLIGHTS

- The rate of violent victimization increased 17%, from 19.3 victimizations per 1,000 persons age 12 or older in 2010 to 22.5 in 2011.
- There was no statistically significant change in the rate of serious violent victimization from 2010 to 2011.
- A 22% increase in the number of assaults accounted for all of the increase in violent crime.
- No measurable change was detected in the rate of intimate partner violence from 2010 to 2011.
- Increases in the rates of violent victimizations for whites, Hispanics, younger persons, and males accounted for the majority of the increase in violent crime.
- Residents in urban areas continued to experience the highest rates of total and serious violence.
- The rate of property crime increased 11%, from 125.4 per 1,000 households in 2010 to 138.7 in 2011.
- From 2010 to 2011, household burglary increased 14% from 25.8 to 29.4 per 1,000 households.



The NCVS collects information on nonfatal crimes reported and not reported to the police against persons age 12 or older from a nationally representative sample of U.S. households. It produces national rates and levels of violent and property victimization, as well as information on the characteristics of crimes and victims, and the consequences of victimization. Because the NCVS is based on interviews with victims, it does not measure homicide. Information on homicide presented in this report was obtained from the FBI's Uniform Crime Reporting (UCR) Program.

The NCVS measures the violent crimes of rape or sexual assault, robbery, aggravated assault, and simple assault. Property crimes include household burglary, motor vehicle theft, and theft. The survey also measures personal larceny, which includes pick pocketing and purse snatching. For additional estimates not included in this report, see the NCVS Victimization Analysis Tool (NVAT) on the BJS website.

Victimization is the basic unit of analysis used throughout this report and is defined by the NCVS as a crime that affects an individual person or household. For personal crimes, the number of victimizations is equal to the number of victims present during a criminal incident. The number of victimizations may be greater than the number of incidents because more than one person may be victimized during an incident. Each property crime committed against a household is counted as having a single victim, the affected household.

Victimization rate is a measure of the occurrence of victimizations among a specified population group. For personal crimes, this is based on the number of victimizations per 1,000 persons age 12 or older. For household crimes, the victimization rate is calculated using the number of incidents per 1,000 households.

### Violent victimizations increased from 4.9 million in 2010 to 5.8 million in 2011

Between 2010 and 2011, the number of violent victimizations increased 18%, from 4.9 million to 5.8 million (table 1). Assaults, which accounted for 86% of all violent victimizations in 2011, increased by 22%. There was no statistically significant change in the number of serious violent victimization from

TABLE 1
Number of violent victimizations and percent change, by type of violent crime, 2002, 2010, and 2011

Num	ber of victimiza	ations	Percent change,	Percent change,	Average annual	
2002	2010	2011	2002-2011a	2010-2011a	change, 2002-2010a	
7,424,550	4,935,980	5,805,430	-22%†	18%†	-5%	
349,810	268,570	243,800	-30	-9	-3	
624,390	568,510	556,760	-11	-2	-1	
6,450,350	4,098,900	5,004,860	-22†	22†	-5	
1,332,520	857,750	1,052,080	-21†	23‡	-5	
5,117,840	3,241,150	3,952,780	-23†	22†	-5	
1,308,320	1,129,560	1,353,340	3	20‡	-2	
929,760	773,430	851,340	-8	10	-2	
1,889,880	1,289,830	1,449,300	-23†	12	-4	
2,306,710	1,694,840	1,852,650	-20%†	9%	-3%	
449,990	380,030	368,820	-18	-3	-2	
300,530	268,780	262,830	-13	-2	-1	
1,603,440	1,067,530	1,192,970	-26†	12	-5	
762,220	668,160	689,510	-10	3	-1	
	2002 7,424,550 349,810 624,390 6,450,350 1,332,520 5,117,840 1,308,320 929,760 1,889,880 2,306,710 449,990 300,530 1,603,440	2002         2010           7,424,550         4,935,980           349,810         268,570           624,390         568,510           6,450,350         4,098,900           1,332,520         857,750           5,117,840         3,241,150           1,308,320         1,129,560           929,760         773,430           1,889,880         1,289,830           2,306,710         1,694,840           449,990         380,030           300,530         268,780           1,603,440         1,067,530	7,424,550 4,935,980 5,805,430 349,810 268,570 243,800 624,390 568,510 556,760 6,450,350 4,098,900 5,004,860 1,332,520 857,750 1,052,080 5,117,840 3,241,150 3,952,780 1,308,320 1,129,560 1,353,340 929,760 773,430 851,340 1,889,880 1,289,830 1,449,300 2,306,710 1,694,840 1,852,650 449,990 380,030 368,820 300,530 268,780 262,830 1,603,440 1,067,530 1,192,970	2002         2010         2011         2002-2011a           7,424,550         4,935,980         5,805,430         -22%†           349,810         268,570         243,800         -30           624,390         568,510         556,760         -11           6,450,350         4,098,900         5,004,860         -22†           1,332,520         857,750         1,052,080         -21†           5,117,840         3,241,150         3,952,780         -23†           1,308,320         1,129,560         1,353,340         3           929,760         773,430         851,340         -8           1,889,880         1,289,830         1,449,300         -23†           2,306,710         1,694,840         1,852,650         -20%†           449,990         380,030         368,820         -18           300,530         268,780         262,830         -13           1,603,440         1,067,530         1,192,970         -26†	2002         2010         2011         2002-2011a         2010-2011a           7,424,550         4,935,980         5,805,430         -22%†         18%†           349,810         268,570         243,800         -30         -9           624,390         568,510         556,760         -11         -2           6,450,350         4,098,900         5,004,860         -22†         22†           1,332,520         857,750         1,052,080         -21†         23‡           5,117,840         3,241,150         3,952,780         -23†         22†           1,308,320         1,129,560         1,353,340         3         20‡           929,760         773,430         851,340         -8         10           1,889,880         1,289,830         1,449,300         -23†         12           2,306,710         1,694,840         1,852,650         -20%†         9%           449,990         380,030         368,820         -18         -3           300,530         268,780         262,830         -13         -2           1,603,440         1,067,530         1,192,970         -26†         12	

Note: Detail may not sum to total due to rounding. Total population age 12 or older was 231,589,260 in 2002; 255,961,940 in 2010; and 257,542,240 in 2011.

<sup>†</sup>Significant at 95%.

<sup>#</sup>Significant at 90%.

<sup>&</sup>lt;sup>a</sup>Calculated based on unrounded estimates.

<sup>&</sup>lt;sup>b</sup>Excludes homicide. The NCVS is based on interviews with victims and therefore cannot measure murder.

Includes victimization committed by intimate partners (current of former spouses, boyfriends, or girlfriends) and family members.

<sup>&</sup>lt;sup>d</sup>Includes victimization committed by current or former spouses, boyfriends, or girlfriends.

elncludes rape or sexual assault, robbery, and aggravated assault.

2010 to 2011. Serious violent victimizations in 2011 included an estimated 244,000 rapes or sexual assaults, 557,000 robberies, and 1.1 million aggravated assaults.

As with the number of violent crimes, the rate of violent victimization increased, driven primarily by the increase in assaults. Between 2010 and 2011, the rate of simple assault increased by 21%, from 12.7 to 15.3 victimizations per 1,000 persons (table 2). The rate of aggravated assault went up slightly, from 3.4 to 4.1 victimizations per 1,000 persons. Over the 10-year period between 2002 and 2011, the rate of violent crime declined 30% and the rate of serious violent crime declined 28%.

### Total domestic violent victimizations increased slightly

The change in both the number and rate of violent crime victimization varied by the type of violence. Total domestic violent victimizations, or crime committed by family members and intimates, increased slightly from 1.1 million in 2010 to 1.4 million domestic violent victimizations in 2011. However, no measurable change between 2010 and 2011 was detected for serious domestic violence—domestic violence involving rape, robbery, or aggravated assault. In addition, no measurable change was detected in intimate partner violence or serious intimate partner violence during this period. No measurable change was detected for serious violent crime involving weapons or crimes involving injury to the victim.

TABLE 2
Rate of violent victimization and percent change, by type of violent crime, 2002, 2010, and 2011

	Vi	ctimization rate	es <sup>a</sup>	Percent change,	Percent change,	Average annual change, 2002–2010 <sup>b</sup>	
Type of violent crime	2002	2010	2011	2002–2011 <sup>b</sup>	2010-2011 <sup>b</sup>		
Violent crime <sup>c</sup>	32.1	19.3	22.5	-30%†	17%†	-6%	
Rape/sexual assault	1.5	1.0	0.9	-37†	-10	-4	
Robbery	2.7	2.2	2.2	-20‡	-3	-2	
Assault	27.9	16.0	19.4	-30†	21†	-6	
Aggravated assault	5.8	3.4	4.1	-29†	22‡	-6	
Simple assault	22.1	12.7	15.3	-31†	21†	-6	
Domestic violence <sup>d</sup>	5.6	4.4	5.3	-7	19	-3	
Intimate partner violence <sup>e</sup>	4.0	3.0	3.3	-18‡	9	-3	
Violent crime involving injury	8.2	5.0	5.6	-31†	12	-5	
Serious violent crime <sup>f</sup>	10.0	6.6	7.2	-28%†	9%	-5%	
Serious domestic violence <sup>d</sup>	1.9	1.5	1.4	-26‡	-4	-3	
Serious intimate partner violence <sup>e</sup>	1.3	1.1	1.0	-21	-3	-2	
Serious violent crime involving weapons	6.9	4.2	4.6	-33†	11	-6	
Serious violent crime involving injury	3.3	2.6	2.7	-19	3	-3	

Note: Total population age 12 or older was 231,589,260 in 2002; 255,961,940 in 2010; and 257,542,240 in 2011.

<sup>†</sup>Significant at 95%.

<sup>‡</sup>Significant at 90%.

<sup>&</sup>lt;sup>a</sup>Per 1,000 persons age 12 or older.

<sup>&</sup>lt;sup>b</sup>Calculated based on unrounded estimates.

<sup>&</sup>lt;sup>c</sup>Excludes homicide. The NCVS is based on interviews with victims and therefore cannot measure murder.

<sup>&</sup>lt;sup>d</sup>Includes victimization committed by intimate partners (current of former spouses, boyfriends, or girlfriends) and family members.

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fincludes rape or sexual assault, robbery, and aggravated assault.

### Property crime increased by 11% between 2010 and 2011

The total number of property victimizations increased by 11% between 2010 and 2011, from 15.4 million to 17.1 million victimizations (table 3). During the same period, the number of burglary victimizations increased 14%, from 3.2 million to 3.6 million victimizations. Theft increased by 1.2 million victimizations, from 11.6 victimizations in 2010 to 12.8 million in 2011. The number of motor vehicle thefts remained steady over this period with 628,000 victimizations occurring in 2011.

Similar to the increase in the number of property crimes, the victimization rate for property crime also increased by 11% between 2010 and 2011, from 125.4 to 138.7 victimizations per 1,000 households (table 4). Household burglary increased 14%, from 25.8 to 29.4 victimizations per 1,000 households, and theft increased 10%, from 94.6 to 104.2 per 1,000 households. No measurable change occurred in the rate of motor vehicle theft between 2010 and 2011. Over the 10-year period between 2002 and 2011, total property crime declined 18%; however, there has been no change in the burglary rate.

TABLE 3
Number of property victimizations and percent change, by type of property crime, 2002, 2010, and 2011

	Nu	mber of victimizati	ions	Percent change,	Percent change,	Average annual
Type of property crime	2002	2010	2011	2002-2011*	2010-2011*	change, 2002–2010*
Total	18,554,320	15,411,610	17,066,780	-8%†	11%†	-2%
Household burglary	3,251,810	3,176,180	3,613,190	11%‡	14%†	
Motor vehicle theft	1,018,690	606,990	628,070	-38†	3	-6%
Theft	14,283,820	11,628,440	12,825,510	-10†	10†	-2

Note: Detail may not sum to total due to rounding. Total number of households was 110,323,840 in 2002; 122,885,160 in 2010; and 123,038,570 in 2011.

Source: Bureau of Justice Statistics, National Crime Victimization Survey, 2002, 2010, and 2011.

 TABLE 4

 Rate of property victimization and percent change, by type of property crime, 2002, 2010, and 2011

		/ictimization rates <sup>a</sup>		Percent change,	Percent change,	Average annual	
Type of property crime	2002	2010	2011	2002-2011 <sup>b</sup>	2010-2011 <sup>b</sup>	change, 2002–2010 <sup>b</sup>	
Total	168.2	125.4	138.7	-18%†	11%†	-3%	
Household burglary	29.5	25.8	29.4		14%†	-1%	
Motor vehicle theft	9.2	4.9	5.1	-45%†	3	-7	
Theft	129.5	94.6	104.2	-19†	10†	-3	

Note: Total number of households was 110,323,840 in 2002; 122,885,160 in 2010; and 123,038,570 in 2011.

<sup>†</sup>Significant at 95%.

<sup>‡</sup>Significant at 90%.

<sup>--</sup>Less than 0.5%.

<sup>\*</sup>Calculated based on unrounded estimates.

<sup>†</sup>Significant at 95%.

<sup>--</sup>Less than 0.5%.

<sup>&</sup>lt;sup>a</sup>Per1,000 households.

<sup>&</sup>lt;sup>b</sup>Calculated based on unrounded estimates.

# Increases in the rates of violent victimizations for whites, Hispanics, younger persons, and males accounted for the majority of the increase in violent victimizations

Males had a higher rate of total violent victimization than females in 2011 (table 5). The rate of violent victimizations for males increased from 20.1 victimizations per 1,000 males age 12 or older in 2010 to 25.4 in 2011. No change was detected for females. From 2010 to 2011, the observed increase in the rate of serious violence for males from (6.4 to 7.7 per 1,000) was not statistically significant. No change was detected for females during this period (about 7 serious violent victimizations per 1,000 females age 12 or older).

From 2010 to 2011, white non-Hispanics and Hispanics experienced an increase in violent victimization rates, while the violent victimization rate for black non-Hispanics was

stable. In 2010, the violent victimization rate for black non-Hispanics was 25.9 per 1,000, which was higher than the rates for white non-Hispanics (18.3) and Hispanics (16.8). By 2011, no statistically significant differences were detected in the rate of violent victimization among white non-Hispanics (21.5 violent victimizations per 1,000 persons), black non-Hispanics (26.4 per 1,000), and Hispanics (23.8 per 1,000).

For serious violence, no differences were detected in the victimization rate for white non-Hispanics, black non-Hispanics, and Hispanics from 2010 to 2011. As in 2010, the rate of serious violence for black non-Hispanics (10.8 per 1,000) remained higher than the rates for white non-Hispanics (6.5 per 1,000) and Hispanics (7.2 per 1,000) in 2011.

**TABLE 5**Rate and percent change of violent victimization, by demographic characteristics of victim, 2002, 2010, and 2011

	Violent crime				Serious violent crime <sup>a</sup>					
		Ratesb		Percent	change <sup>c</sup>		Ratesb		Percent	change <sup>c</sup>
Demographic characteristic of victim	2002	2010	2011	2002-2011	2010-2011	2002	2010	2011	2002-2011	2010-2011
Total	32.1	19.3	22.5	-30%†	17%†	10.0	6.6	7.2	-28%†	9%
Sex										
Male	33.5	20.1	25.4	-24%†	27%†	10.4	6.4	7.7	-26%†	20%
Female	30.7	18.5	19.8	-36†	7	9.5	6.8	6.7	-30†	-2
Race/Hispanic origin <sup>d</sup>										
White <sup>e</sup>	32.6	18.3	21.5	-34%†	18%†	8.6	5.8	6.5	-24%†	13%
Black <sup>e</sup>	36.1	25.9	26.4	-27†	2	17.8	10.4	10.8	-39†	4
Hispanic	29.9	16.8	23.8	-20†	42†	12.3	6.7	7.2	-42†	7
American Indian/Alaska Native <sup>e</sup>	62.9	77.6	45.4	-28	-42‡	14.3!	47.3!	12.6!	-12	-73†
Asian/Native Hawaiian/other Pacific Islander <sup>e</sup>	11.7	10.3	11.2	-4	9	3.4!	2.3!	2.5!	-25	12
Two or more races <sup>e</sup>		52.6	64.6		23		17.7	26.2		48
Age										
12–17	62.7	28.1	37.7	-40%†	34%†	17.0	11.7	8.8	-48%†	-25%
18–24	68.5	33.9	49.0	-28†	45†	24.7	17.0	16.3	-34†	-4
25–34	39.9	29.7	26.5	-34†	-11	12.3	7.1	9.5	-22‡	34
35–49	26.7	18.2	21.9	-18†	21‡	7.6	5.6	7.0	-8	24
50–64	14.6	12.7	13.0	-11	3	4.4	3.7	4.3	-4	15
65 or older	3.8	3.0	4.4	17	48	1.8	0.9	1.7	-9	91
Marital status										
Never married	56.3	31.8	35.5	-37%†	11%	16.1	11.9	11.7	-27%†	-2%
Married	16.0	7.8	11.0	-31†	40†	5.7	2.2	3.7	-34†	70†
Widowed	7.1	6.7	3.8	-46‡	-43	4.4	3.0!	0.7!	-85†	-78†
Divorced	44.5	35.2	37.8	-15	7	10.9	11.2	9.2	-15	-18
Separated	76.0	60.2	72.9	-4	21	34.8	18.8	26.4	-24	40

<sup>†</sup>Significant at 95%.

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

<sup>‡</sup>Significant at 90%.

<sup>- -</sup>Less than 0.5.

<sup>&</sup>lt;sup>a</sup>Includes rape or sexual assault, robbery, and aggravated assault.

<sup>&</sup>lt;sup>b</sup>Per 1,000 persons age 12 or older.

Calculated based on unrounded estimates.

 $<sup>^{</sup>m d}$ The collection of racial and ethnic categories changed in 2003 to allow respondents to choose more than one racial category.

eExcludes persons of Hispanic or Latino origin.

Generally, persons age 24 or younger had higher violent victimization rates than older persons. In 2011, persons ages 18 to 24 had the highest rate of violent victimization (49.0 per 1,000), compared to all other age groups. From 2010 to 2011, persons ages 12 to 17 and 18 to 24 experienced an increase in violence. The violent victimization rate for persons ages 18 to 24 increased from 33.9 per 1,000 in 2010 to 49.0 in 2011 and for persons ages 12 to 17 the rate increased from 28.1 to 37.7 violent victimizations per 1,000.

From 2010 to 2011, persons who were married experienced an increase in violent and serious violent victimization. The violent victimization rate for married persons increased from 7.8 per 1,000 in 2010 to 11.0 in 2011, and from 2.2 to 3.7 per 1,000 for serious violence. Married persons generally had the lowest rates of violence compared to persons never married, divorced, or separated, and this was also observed in 2011. Married persons experienced 11.0 victimizations per 1,000 persons, compared to 37.8 for divorced, 35.5 for never married, and 72.9 for separated persons.

### Residents in urban areas continue to experience the highest rates of total and serious violence

From 2010 to 2011, residents in the Midwest and West experienced a slight increase in total violence (table 6). During this period, violent victimization rates for persons residing in the Midwest increased from 22.0 to 26.3 per 1,000 persons, and from 22.4 to 27.1 for residents in the West. No differences were detected for residents in the Northeast or South. In 2011, residents in the Northeast and South experienced lower rates of violence compared to the Midwest and West.

Persons from the suburbs experienced an increase in violent crime from 2010 to 2011. During this period, violent crime against suburban residents increased from 16.8 to 20.2 victimizations per 1,000. The observed increase in violent victimizations for urban and rural residents was not statistically significant. As was the case in 2010, urban residents had higher rates of serious and total violence than suburban and rural residents in 2011.

 TABLE 6

 Rate and percent change of violent victimization, by household location, 2002, 2010, and 2011

		Violent crime					Serious violence crime <sup>a</sup>			
		Ratesb		Percent	change <sup>c</sup>		Ratesb		Percent	: change <sup>c</sup>
Household location	2002	2010	2011	2002-2011	2010-2011	2002	2010	2011	2002–2011	2010-2011
Total	32.1	19.3	22.5	-30%†	17%†	10.0	6.6	7.2	-28%†	9%
Region										
Northeast	28.5	17.2	20.3	-29%†	18%	7.1	6.8	6.4	-9%	-6%
Midwest	38.8	22.0	26.3	-32†	19‡	11.5	7.6	7.8	-32†	3
South	27.4	16.6	18.3	-33†	10	10.8	5.4	6.5	-40†	20
West	35.6	22.4	27.1	-24†	21‡	9.5	7.5	8.4	-12	12
Location of residence										
Urban	41.0	24.2	27.4	-33%†	13%	15.2	9.5	9.7	-36%†	3%
Suburban	28.3	16.8	20.2	-29†	20†	7.8	5.5	5.7	-27†	4
Rural	28.6	17.7	20.1	-30†	14	7.9	4.7	6.7	-15	42

<sup>†</sup>Significant at 95%.

<sup>‡</sup>Significant at 90%.

<sup>&</sup>lt;sup>a</sup>Includes rape or sexual assault, robbery, and aggravated assault.

<sup>&</sup>lt;sup>b</sup>Per 1,000 persons age 12 or older.

<sup>&</sup>lt;sup>c</sup>Calculated based on unrounded estimates.

#### The NCVS and preliminary UCR show different change in crime from 2010 to 2011

The 2011 annual increase in violent and property victimizations in the Bureau of Justice Statistics' (BJS)
National Crime Victimization Survey (NCVS) was inconsistent with many of the declines seen in the preliminary findings from the FBI's Uniform Crime Reporting (UCR)
Program (table 7). Because the NCVS and UCR measure an overlapping, but not identical, set of offenses and use different methodologies, congruity between the estimates is not expected. Throughout the 40-year history of the NCVS, both programs have generally demonstrated similar year-to-year increases or decreases in the levels of overall violent and property crimes. However, this has not been the case for some years and for many specific crime types.

As measured by the FBI's UCR, violent crime includes murder and non-negligent manslaughter, forcible rape, robbery, and aggravated assault. Property crime includes burglary, larceny-theft, arson, and motor vehicle theft. The UCR measures crimes known to the police occurring against both persons and businesses. The FBI obtains data on the crimes from law enforcement agencies, while the NCVS collects data through interviews with victims. (Additional information about the differences between the two programs can be found in *The Nation's Two Crime Measures*, NCJ 122705, BJS website, October 2004.)

Significant methodological and definitional differences exist between the NCVS and UCR. First, the NCVS obtains estimates of crimes both reported and not reported to the police, while the UCR collects data on crimes known to and recorded by the police. Second, the types of crimes included in NCVS and UCR crime rates differ. The UCR includes homicide, arson, and commercial crimes, while the NCVS excludes these crime types. The UCR excludes simple assaults and sexual assaults, which are included in the NCVS.\* Third, the NCVS data are estimates from a nationally representative sample of U.S. households, whereas the UCR data are based on the actual counts of offenses reported by law enforcement jurisdictions. Finally, the NCVS excludes crimes against children under age 12, persons in institutions (e.g., nursing homes and correctional institutions), and may exclude highly mobile populations and the homeless;

however, victimizations against these persons may be included in the UCR. Given these differences, the two measures of crime should be considered to complement each other and provide a more comprehensive picture of crime in the United States.

According to preliminary results released by the FBI, the number of violent crimes known to the police as measured by the UCR declined by about 4% between 2010 and 2011, and the number of property crimes declined by about 0.8%. Between 2010 and 2011, the number of violent crimes in the NCVS increased by about 18%, and the number of property crimes increased by 11%. Both the UCR and the NCVS reported increases in the numbers of burglaries. The UCR reported declines in the numbers of all other crimes measured. Looking just at NCVS victimizations that were reported to police, the change in the number of overall violent and property crimes from 2010 to 2011 was not statistically significant. However, the increase in the number of aggravated assaults reported to the police was statistically significant.

TABLE 7
Percent changes in the number of crimes reported in the UCR and the NCVS, 2010–2011

		NCV2		
Type of crime	UCR	Total	Reported to the police	
Violent crime <sup>a</sup>	-4.0%	17.6%†	12.8%	
Serious violent crime <sup>b</sup>	~%	9.3%	16.9%	
Murder	-1.9	~	~	
Forcible rape <sup>c</sup>	-4.0	-9.2	-49.9†	
Robbery	-4.0	-2.1	12.9	
Aggravated	-4.0	22.7 ‡	36.5 †	
Property crime	-0.8%	10.7%†	4.2%	
Burglary	0.3	13.8 †	0.3	
Motor vehicle theft	-3.3	3.5	3.1	

NCVC

Source: Bureau of Justice Statistics, National Crime Victimization Survey, 2010–2011; and FBI, *Preliminary Annual Uniform Crime Report*, January-December 2011, http://www.fbi.gov/about-us/cjis/ucr/crime-in-the-u.s/2011/preliminary-annual-ucr-jan-dec-2011.

<sup>\*</sup>Simple assaults include attacks or attempted attacks without a weapon resulting in either no injury or minor injury. Sexual assaults include attacks or attempted attacks generally involving unwanted sexual contact between the victim and offender that may or may not involve force.

<sup>†</sup>Significant at 95%.

<sup>‡</sup>Significant at 90%.

<sup>~</sup>Not applicable.

<sup>&</sup>lt;sup>a</sup>UCR estimates include murder, forcible rape, robbery, and aggravated assault. NCVS estimates exclude murder and include simple assault.

<sup>&</sup>lt;sup>b</sup>NCVS includes rape or sexual assault, robbery, and aggravated assault.

<sup>&</sup>lt;sup>c</sup>NCVS includes rape and other sexual assault, and measures victimization against both sexes.

### In 2011, about 50% of violent victimizations were reported to the police

Police could be notified about a victimization by the victim, a third party (including witnesses, other victims, household members, or other officials, such as school officials or workplace managers), or police already at the scene of the incident. Police notification may occur during or immediately following a criminal incident or at a later date.

From 2010 to 2011, there was no statistically significant change in the percent of violent victimizations reported to the police (table 8). In 2011, about 49% of violent victimizations were reported to the police. The percentage of serious violent victimizations reported to the police remained stable from 2010 to 2011. However, the percentage of serious violent victimizations involving a weapon and reported to the police

increased from 55% in 2010 to 67% in 2011. In 2011, a greater percentage of robbery (66%) and aggravated assault (67%) victimizations were reported to the police, compared to simple assault (43%) and rape or sexual assault (27%) victimizations.

From 2010 to 2011, the percentage of property victimizations reported to the police declined from 39% to 37%. The percentage of reported burglaries declined from 58% to 52% during the same period, accounting for the majority of the decline in the overall number of property victimizations that were reported to the police. No measurable change was detected in the percentage of motor vehicle thefts and thefts that were reported to police from 2010 to 2011. In 2011, a larger percentage of motor vehicle thefts (83%) than burglaries (52%) and other thefts (30%) were reported to the police, as was the case in previous years.

TABLE 8
Percent and percent change of victimizations reported to the police, by type of crime, 2002, 2010, and 2011

		Percent reported	Percent	Percent change		
Type of crime	2002	2010	2011	2002-2011a	2010-2011 <sup>a</sup>	
Violent crime	51%	51%	49%	-3%	-4%	
Rape/sexual assault	55	49	27	-51†	-45†	
Robbery	68	58	66	-2	15	
Assault	49	50	48	-1	-4	
Aggravated assault	66	60	67	1	11	
Simple assault	44	48	43	-3	-10	
Domestic violence <sup>b</sup>	59	67	60		-10	
Intimate partner violence <sup>c</sup>	58	66	60	4	-10	
Violent crime involving injury	62	65	61	-2	-7	
Serious violent crime <sup>d</sup>	65%	57%	61%	-5%	7%	
Serious domestic violence <sup>b</sup>	77	64	58	-24†	-9	
Serious intimate partner violence <sup>c</sup>	73	54	59	-19‡	11	
Serious violent crime involving weapons	69	55	67	-3	21†	
Serious violent crime involving injury	71	63	66	-8	3	
Property crime	39%	39%	37%	-5%	-6%†	
Burglary	57	58	52	-10†	-12†	
Motor vehicle theft	84	83	83	-1		
Theft	32	32	30	-4	-4	

<sup>†</sup>Significant at 95%.

<sup>‡</sup>Significant at 90%.

<sup>--</sup>Less than 0.5%.

<sup>&</sup>lt;sup>a</sup>Calculated based on unrounded estimates.

<sup>&</sup>lt;sup>b</sup>Includes victimization committed by intimate partners (current or former spouses, boyfriends, or girlfriends) and family members.

clncludes victimization committed by current or former spouses, boyfriends, or girlfriends.

dIncludes rape or sexual assault, robbery, and aggravated assault.

#### The rate of violent victimizations not reported to the police increased slightly from 9.3 to 10.8 per 1,000 persons

The NCVS allows for an examination of crimes reported to the police and those that go unreported. Victims may not report the victimization to the police for a variety of reasons, including fear of retaliation or being afraid of the offender, believing that the police would not or could not do anything about it, and believing the crime to be a personal issue or trivial.

From 2010 to 2011, the violent victimization rate among incidents not reported to the police increased slightly from 9.3 to 10.8 per 1,000 persons ages 12 or older, while no differences were detected in the rate of violent victimizations that were reported to the police (table 9). For serious violence, no differences were detected for either reported or unreported rates of victimization.

The rate of aggravated assaults reported to the police increased 36%, from 2.0 to 2.7 per 1,000 persons age 12 or older, but no change was detected for aggravated assaults not reported to the police. The opposite pattern was found for simple assault. From 2010 to 2011, the rate of simple assault not reported to the police increased 26%, from 6.5 to 8.2 per 1,000, but no change was detected in the rate of simple assaults reported to the police.

From 2010 to 2011, no change was detected in the rate of total property crime victimization reported to the police. However, the property crime rate for those not reported to the police increased 14% during the same period, from 75.3 to 86.1 victimizations per 1,000 households. Among burglary victimizations, there was no measurable change in the rate reported to the police. Among burglary victimizations not reported to police, the rate of victimization increased 28%, from 10.6 to 13.6 per 1,000. The same general pattern was also found for both reported and unreported rates of theft.

TABLE 9
Rate and percent change of victimizations reported and not reported to the police, by type of crime, 2002, 2010, and 2011

Reported to poli				orted to police	ice Not reported to police					
		Ratesa		Percent change,	Percent change,		Ratesa		Percent change.	Percent change,
Type of crime	2002	2010	2011	2002–2011 <sup>b</sup>	2010-2011 <sup>b</sup>	2002	2010	2011	2002-2011 <sup>b</sup>	2010-2011 <sup>b</sup>
Violent crime	16.3	9.9	11.1	-32%†	12%	15.3	9.3	10.8	-29%†	17%‡
Rape/sexual assault	8.0	0.5	0.3	-70†	-50†	0.7	0.5	0.7	2	28
Robbery	1.8	1.3	1.4	-21	12	0.9	0.9	0.7	-18	-22
Assault	13.6	8.1	9.4	-31†	16‡	13.7	7.8	9.4	-31†	20†
Aggravated assault	3.8	2.0	2.7	-28†	36†	1.8	1.3	1.2	-34†	-8
Simple assault	9.8	6.1	6.6	-32†	10	11.9	6.5	8.2	-31†	26†
Domestic violence <sup>c</sup>	3.3	2.9	3.1	-7	7	2.3	1.5	2.1	-8	41†
Intimate partner violence <sup>d</sup>	2.3	2.0	2.0	-15	-1	1.7	1.0	1.3	-21	28
Violent crime involving injury	5.1	3.3	3.4	-32†	4	3.0	1.7	1.9	-37†	13
Serious violent crime <sup>e</sup>	6.4	3.8	4.4	-32%†	16%	3.4	2.8	2.6	-23%†	-6%
Serious domestic violence <sup>c</sup>	1.5	1.0	8.0	-44†	-12	0.5	0.5	0.6	30	13
Serious intimate partner violence <sup>d</sup>	1.0	0.6	0.6	-36†	8	0.3	0.5	0.4	21	-15
Serious violent crime involving weapons	4.8	2.3	3.1	-35†	34†	2.0	1.8	1.4	-32†	-25‡
Serious violent crime involving injury	2.4	1.7	1.8	-25†	6	0.9	0.9	0.8	-19	-18‡
Property crime	65.5	49.2	51.2	-22%†	4%	100.8	75.3	86.1	-15%†	14%†
Burglary	16.9	15.1	15.1	-10		12.4	10.6	13.6	10	28†
Motor vehicle theft	7.7	4.1	4.2	-45†	3	1.5	8.0	0.9	-42†	8
Theft	40.9	29.9	31.8	-22†	6	86.9	63.9	71.7	-18†	12†

<sup>†</sup>Significant at 95%.

<sup>‡</sup>Significant at 90%.

<sup>--</sup>Less than 0.5%.

<sup>&</sup>lt;sup>a</sup>Per 1,000 persons age 12 or older for violent crime or per 1,000 households for property crime.

<sup>&</sup>lt;sup>b</sup>Calculated based on unrounded estimates.

clincludes victimization committed by intimate partners (current or former spouses, boyfriends, or girlfriends) and family members.

dIncludes victimization committed by current or former spouses, boyfriends, or girlfriends.

eIncludes rape or sexual assault, robbery, and aggravated assault.

#### The National Crime Victimization Survey: Restoration and Redesign

In 1972, the Bureau of Justice Statistics (BJS) instituted the National Crime Victimization Survey (NCVS), formerly known as the National Crime Survey (NCS), to produce national estimates of the levels and characteristics of criminal victimization in the United States, including crime not reported to police departments. Along with the FBI's Uniform Crime Reporting Program, the NCVS constitutes a key component of our nation's system to measure the extent and nature of crime in the United States.

While the survey's core methodology has been validated over the past three decades, the viability of the survey and its ability to meet the original goals had been threatened by declining budgets. In response to these concerns, BJS sponsored an expert panel study carried out by The National Research Council of the National Academies to review the survey's methodology and provide guidelines for options to redesign the NCVS. The panel's recommendations are contained in *Surveying Victims: Options for Conducting the National Crime Victimization Survey* (National Research Council, 2008).

BJS initiated a two-prong approach to redesign and restore the NCVS with the ultimate goals to improve the survey's methodology, contain costs, assure sustainability, increase value to national and local stakeholders, and to better meet the challenges of measuring the extent, characteristics, and consequences of criminal victimization. The redesign efforts began with a series of research projects to examine alternative modes to data collection as a way to reduce costs and improve measurement. A description of these ongoing projects can be found on the NCVS redesign web page on the BJS website.

To restore the quality of the NCVS data, BJS and the U.S. Census Bureau (Census) implemented two large-scale interventions. First, sample cases cut in the mid-2000s were reinstated beginning in October 2010 and fully implemented by June 2011. This amounted to about a 24% increase over the previous sample size, which will improve the stability and precision between national and subgroup estimates of victimization. Second, beginning in August 2011, refresher training of all field representatives (FR) was conducted using

an experimental split sample cluster design. This was the first comprehensive refresher training that had been conducted since the 1990s. In order to maintain consistent year-to-year comparisons, Census and BJS implemented the experiment in a manner that isolated the effects of training without contaminating the annual 2011 estimates. BJS monitored and continues to evaluate the impact of each intervention on the criminal victimization estimate and other estimates of data quality, including response rates and measures of interview quality.

#### Sample reinstatement

The sample reinstatement project was designed to restore sample cases that were cut in the mid-2000s due to budget constraints as a means of improving the precision of the national victimization estimates. Prior to 2010, estimates of victimization by key crime types and demographic groups became less precise, as crime was at its lowest levels historically and the sample size was reduced. The sample size was returned to levels last seen in the late 1990s to increase the precision of the estimates for crime. Beginning in October 2010, the Census began restoring the sample to existing areas using existing FRs. The sample size increased approximately 24%, from about 8,500 households per month to 10,500. The restatement was fully implemented by June 2011.

Given the increased sample size, an initial concern was that more FRs would need to be hired to handle the increased workload. Previous assessments have shown that new FRs tend to produce more criminal incidents. Therefore, adding a large number of new FRs could lead to a substantial increase in crime. To reduce this source of bias in the data, Census and BJS determined that current FRs could handle the increased workload and that only a minimum number of new interviewers would be hired. This decision led to the concern that increasing the workload for existing FRs may cause them to hurry through their cases, which may result in a reduction in crime incidents reported. Currently, Census and BJS are monitoring the impact on estimate precision, FR workload, and other performance measures in the field, such as response rates, interview quality, and the rate of crime incidents collected.

Continued on next page

#### Refresher training

The Census Bureau currently has about 750 FRs across the United States administering the NCVS. Interviewers typically receive refresher training at regular intervals to ensure that both experienced and new interviewers understand how to administer the survey. Due to budget cuts the routine training was suspended in the 1990s. An FR refresher training program was developed in the summer of 2011 and implemented in August 2011. The refresher training aimed to reacquaint FRs with the purpose and content of the screener questions (NCVS-1) used to identify whether a respondent suffered a victimization. It also intended to clarify the information on the incident follow-up form (NCVS-2), which collects details about the characteristics of each incident. Since crime is a relatively infrequent event, many FRs conduct a large number of interviews without uncovering a criminal event. Therefore, FRs must maintain familiarity with the questionnaire in order to conduct a proper interview when a respondent reports a crime. In addition, it is important that FRs across every regional office conduct the interview in a standardized manner to ensure a high-quality survey.

Along with FR refresher training, Census implemented a series of field supervisory performance and data quality measures. Until this, high response rates had been the primary measure of FR performance. Under the revised performance structure, FRs are monitored on response rates (household and person), screener time stamps (the time it takes to administer the screener questions on the NCVS-1 instrument), early and overnight interview starts (interviews conducted very late in the evening or very early in the morning), contact history with household (number of attempts to contact the household), and completeness of screener and incident instruments (level of item missingness). Any noncompliance with these measures led to supervisor notification and follow-up with the FR. The follow-up activity may include simple points of clarification

(e.g., the respondent works nights and is only available in the early morning for an interview), additional FR training, or FR removal from the survey.

To measure impacts on key variables and performance, a phased-in experimental design was used to implement the refresher training project. Teams of FRs were randomly assigned to two cohorts, with cohort 1 receiving the intervention first—refresher training and field performance monitoring— and cohort 2 serving as the control group. Cohort 1 received training starting in August 2011 and field performance measures and monitoring began in October 2011. Cohort 2 did not receive any refresher training or any additional field monitoring. Starting in January 2012, cohort 2 received refresher training with the additional performance measures and field monitoring. By February 2012, the majority of all FRs administering the NCVS collection had received refresher training by March 2012 and were under the new field monitoring and performance system.

For both cohorts, along with the new performance measures, key variables of interest were the number and type of crime incidents collected per cases worked. Crime counts per cohort were monitored three months before the August refresher training to serve as a pre-test baseline measure. These counts were monitored throughout the experimental design. Overall, the experimental design allowed Census and BJS to randomly assign FR teams to cohorts, account for any pre-existing differences in crime incident counts per sample case load, compare cohort 1 and 2 from August 2011 through January 2012, and then continue to monitor any differences between cohorts throughout 2012 after both were trained and under the new performance management system. The cohort 1 cases used in the experimental design for the training were not used to generate estimates for 2011. Census and BJS continue to monitor the cohorts in 2012. A comprehensive evaluation of the 2011 experiment will be available on the BJS website.

#### Methodology

#### Survey coverage

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 is a self-report survey in which interviewed persons are asked about the number and characteristics of victimizations experienced during the prior 6 months. The NCVS collects information on nonfatal personal crimes (rape or sexual assault, robbery, aggravated assault, simple assault, and personal larceny) and household property crimes (burglary, motor vehicle theft, and other theft) both reported and not reported to police. In addition to providing annual level and change estimates on criminal victimization, the NCVS is the primary source of information on the nature of criminal victimization incidents. Survey respondents provide information about themselves (such as age, sex, race and ethnicity, marital status, education level, and income) and if they experienced a victimization. For crime victims, data are collected about each victimization incident, including information about the offender (such as age, race and ethnicity, sex, and victimoffender relationship), characteristics of the crime (including time and place of occurrence, use of weapons, nature of injury, and economic consequences), whether the crime was reported to police, reasons why the crime was or was not reported, and experiences with the criminal justice system.

The NCVS is administered to persons age 12 or older from a nationally representative sample of households in the United States. In 2011, about 143,120 persons age 12 or older from 79,800 households across the country were interviewed during the year. Once selected, households remain in the sample for 3 years, and eligible persons in these households are interviewed every 6 months for a total of seven interviews. New households rotate into the sample on an ongoing basis to replace outgoing households that have been in sample for the 3-year period. The sample includes persons living in group quarters (such as dormitories, rooming houses, and religious group dwellings) and excludes persons living in military barracks and institutional settings (such as correctional or hospital facilities) and the homeless. (For more detail, see the Survey Methodology for Criminal Victimization in the United States, 2008, NCJ 231173, BJS website, May 2011.)

#### Nonresponse and weighting adjustments

The 79,800 households that participated in the NCVS in 2011 represents a 90% household response rate. The person level response rate—the percentage of persons age 12 or older in participating households who completed an NCVS interview—was 88% in 2011.

Estimates in this report use data primarily from the 2002 to 2011 NCVS data files weighted to produce annual estimates for persons age 12 or older living in U.S. households. Because the NCVS relies on a sample rather than a census of the entire U.S. population, weights are designed to inflate sample point

estimates to known population totals and to compensate for survey nonresponse and other aspects of the sample design.

The NCVS data files include both household and person weights. The household weight is commonly used to calculate estimates of property crimes, such as motor vehicle theft or burglary, which are identified with the household. Person weights provide an estimate of the population represented by each person in the sample. Person weights are most frequently used to compute estimates of crime victimizations of persons in the total population. Both household and person weights, after proper adjustment, are also used to form the denominator in calculations of crime rates.

The victimization weights used in this analysis account for the number of persons present during an incident and for repeat victims of series incidents. The weight counts series incidents as the actual number of incidents reported by the victim, up to a maximum of ten incidents. Series victimizations are victimizations that are similar in type but occur with such frequency that a victim is unable to recall each individual event or to describe each event in detail. Survey procedures allow NCVS interviewers to identify and classify these similar victimizations as series victimizations and collect detailed information on only the most recent incident in the series. In 2011, about 2% of all victimizations were series incidents. Weighting series incidents as the number of incidents up to a maximum of ten produces more reliable estimates of crime levels, while the cap at 10 minimizes the effect of extreme outliers on the rates. Additional information on the series enumeration is detailed in Methods for Counting High Frequency Repeat Victimizations in the National Crime Victimization Survey, NCJ 237308, BJS website, April 2012.

For this report, prior to applying the weights to the data, all victimizations that occurred outside of the U.S. were excluded. In 2011, less than 1% of the unweighted victimizations occurred outside of the U.S. and was excluded from the analyses.

#### **Series victimization**

As part of ongoing research efforts associated with the redesign of the NCVS, BJS investigated ways to include high-frequency repeat victimizations, or series victimizations, in estimates of criminal victimization. Including series victimizations would obtain a more accurate estimate of victimization. The research findings are detailed in the report Methods for Counting High-Frequency Repeat Victimizations in the National Crime Victimization Survey, NCJ 237308, BJS website, April 2012.

The NCVS's primary purpose is to accurately estimate the number and type of criminal victimizations that occur each year in the United States. To enumerate and classify victimizations, the NCVS employs an interview procedure that asks respondents to recall specific types of criminal events that occurred over the previous 6 months. Repeatedly victimized persons have experiences that present considerable challenges for the accurate counting and description of criminal events. These experiences involve multiple crimes that are often

indistinguishable to victims, making it difficult for them to separate the details of each event. Such experiences may include intimate partner violence or bullying by schoolmates.

To handle these repeated victimizations, the NCVS employs a series victimization protocol. Currently, the NCVS records a series victimization when the respondent reported experiencing six or more similar crimes during the 6-month reference period and was unable to recall or describe each event in detail. If all of these conditions are met, the NCVS interviewer records the victim's report of the number of times this type of victimization occurred and collects detailed information for only the most recent victimization.

Although information about series victimizations is collected in the NCVS, BJS typically excluded series victimizations from annual estimates of crime in prior *Criminal Victimization* bulletins. Given findings from the research, BJS now includes series victimizations using the victim's estimates of the number of times the victimizations occurred over the past 6 months, capping the number of victimizations within each series at a maximum of 10. This strategy for counting series victimizations balances the desire to estimate national rates and account for the experiences of persons with repeat victimizations while noting that some estimation errors exist in the number of times these victimizations occurred. This bulletin is the first to include series victimizations throughout the entire report, and all victimization estimates in this report reflect this new counting strategy.

Including series victimizations in national rates results in rather large increases in the level of violent victimization; however, trends in violence are generally similar regardless of whether series victimizations are included. Both show a similar pattern over the 19-year period from 1993 to 2011 (figure 2). When violent victimization rates excluded series incidents, the decline from 1993 to 2011 was 66%; when series incidents were included in the rates, the decline was 72%. Similarly, both rates declined by about 30% from 2002 to 2011. The violent victimization rate increased by 15% between 2010 and 2011 with series victimizations excluded and increased by 17% with series victimizations included.

The two violent crime victimization rates converged because a decrease in the number of series incidents occurred in the U.S. In 1993, series incidents (when counted as one victimization) accounted for almost 7% of all violent crime victimizations, and by 2011 series incidents accounted for about 3% of all violent victimizations. When using the new counting rule, series accounted for almost 37% of all violent victimization in 1993 and 24% in 2011.

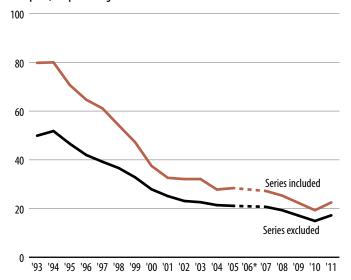
#### Standard error computations

When national estimates are derived from a sample, as is the case with the NCVS, caution must be taken when comparing one estimate to another or when comparing estimates over time. Although one estimate may be larger than another, estimates based on a sample have some degree of sampling error. The sampling error of an estimate depends on several

#### FIGURE 2

### Violent victimization with series included and excluded, 1993–2011

Rate per 1,000 persons age 12 or older



\*The 2006 rate is not shown due to methodological changes in the 2006 NCVS. See *Criminal Victimization, 2007*, NCJ 224390, BJS website, December 2008, for more information.

Source: Bureau of Justice Statistics, National Crime Victimization Survey, 1993–2011.

factors, including the amount of variation in the responses, the size of the sample, and the size of the subgroup for which the estimate is computed. When the sampling error around the estimates is taken into consideration, the estimates that appear different may, in fact, not be statistically different.

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, for a given metric, an estimate with a small standard error provides a more reliable approximation of the true value than an estimate with a large standard error. Estimates with relatively large standard errors are associated with less precision and reliability and should be interpreted with caution.

In order to generate standard errors around numbers and estimates from the NCVS, the Census Bureau produced generalized variance function (GVF) parameters for BJS. The GVFs take into account aspects of the NCVS complex sample design and represent the curve fitted to a selection of individual standard errors based on the Jackknife Repeated Replication technique. The GVF parameters were used to generate standard errors for each point estimate (such as counts, percentages, and rates) in the report. For average annual estimates, standard errors were based on the ratio of the sums of victimizations and respondents across years.

In this report, BJS conducted tests to determine whether differences in estimated numbers and percentages were statistically significant once sampling error was taken into account. Using statistical programs developed specifically for the NCVS, all comparisons in the text were tested for significance. The primary test procedure used was Student's t-statistic, which tests the difference between two sample estimates. To ensure that the observed differences between estimates were larger than might be expected due to sampling variation, BJS set the significance level at 95%.

Data users can use the estimates and the standard errors of the estimates provided in this report to generate a confidence interval around the estimate as a measure of the margin of error. The following example illustrates how standard errors can be used to generate confidence intervals:

According to the NCVS, in 2011, the victimization rate for violent crime was 22.5 per 1,000 persons (see table 2). Using the GVFs, BJS determined that the estimate has a standard error of 0.9 (see appendix table 2). A confidence interval around the estimate was generated by multiplying the standard errors by  $\pm 1.96$  (the t-score of a normal, two-tailed distribution that excludes 2.5% at either end of the distribution). Therefore, the confidence interval around the 22.5 estimate from 2011 is  $22.5 \pm 0.9 \times 1.96$  or (20.8 to 24.3). In others words, if different samples using the same procedures were taken from the U.S. population in 2011, 95% of the time the rate of violent crime victimizations would fall between 20.8 and 24.3 per 1,000.

In this report, a coefficient of variation (CV), representing the ratio of the standard error to the estimate, was also calculated for all estimates. CVs provide a measure of reliability and a means to compare the precision of estimates across measures with differing levels or metrics. In cases where the CV was greater than 50%, or the unweighted sample had 10 or fewer cases, the estimate was noted with a "!" symbol (interpret data with caution. Estimate based on 10 or fewer sample cases, or the coefficient of variation exceeds 50%).

#### Methodological changes to the NCVS in 2006

Methodological changes implemented in 2006 may have affected the crime estimates for that year to such an extent that they are not comparable to estimates from other years. Evaluation of 2007 and later data from the NCVS conducted by BJS and the Census Bureau found a high degree of confidence that estimates for 2007, 2008, 2009, and 2010 are consistent with and comparable to estimates for 2005 and previous years. The reports, *Criminal Victimization*, 2006, NCJ 219413, December 2007; *Criminal Victimization*, 2007, NCJ 224390, December 2008; *Criminal Victimization*, 2008, NCJ 227777, September 2009; *Criminal Victimization*, 2009, NCJ 231327, October 2010; and *Criminal Victimization*, 2010, NCJ 235508, September 2011, are available on the BJS website.

#### Average annual rate of change

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

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

 $P_t$  = number or rate in the current year

 $P_{t-n}$  = number or rate in the nth prior year n = number of years

#### Historical changes to the NCVS violent victimization rate

Since 1993, the rate of violent and serious violent victimization has declined by over 70%

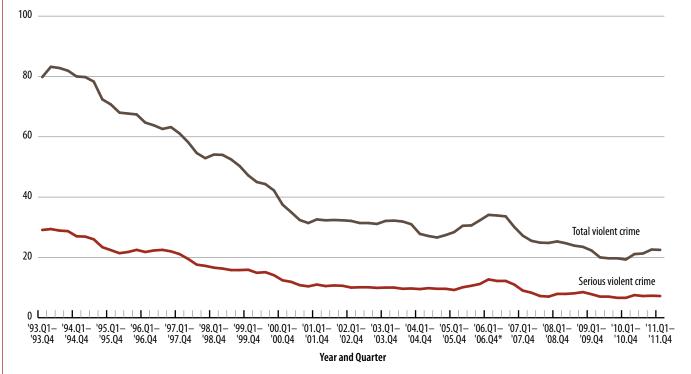
Violent victimization rates by quarter and year show that victimization tends to fluctuate within and across years (figure 3). Each point on the figure represents the average victimization rate from the previous 4 quarters. From quarters 1 to 4 in 1993 to quarters 1 to 4 in 2011, the rate of violent victimization declined from 79.8 to 22.5 per 1,000 persons. During this same time period, the rate of serious violent victimization declined from 29.1 to 7.2 per 1,000. Since 1993, the rate of violent and serious violent victimization has declined by over 70%.

The 2010 to 2011 change in the annual violent victimization rate of 3.3 per 1,000 is smaller than the average change over the past 19 years

From 2010 to 2011, the percentage change in the violent victimization rate from 19.3 to 22.5 per 1,000 persons represents a 17% increase. Historically, the increase of 17% is relatively large, but the interpretation should consider how percentage change is calculated. The size of the percentage change from one year to the next is determined by the size of the raw rate difference from year 1 to year 2 and the size of the rate in year 1. The size of the percentage change will be larger when the change occurs on a smaller rate. The 2010 to 2011 change in the annual violent victimization rate of 3.3 crimes per 1,000 (19.3 to 22.5) is smaller than the average change over the past 19 years.

### FIGURE 3 Total violent and serious violent victimizations, by rolling quarters, 1993–2011

Rate per 1,000 persons age 12 or older



\*Due to methodological changes in the 2006 NCVS, use caution when comparing 2006 criminal victimization estimates to other years. See *Criminal Victimization*, 2007, NCJ 224390, BJS website, December 2008, for more information.

Source: Bureau of Justice Statistics, National Crime Victimization Survey, 1993–2011.

Continued on next page

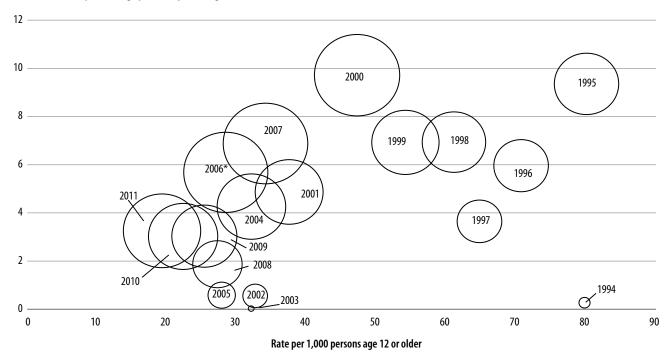
The vertical axis on the left side of the chart shows the absolute raw rate difference from one year to the next (figure 4). It is simply the difference in the violent crime rate from one year to the next. The two largest annual changes in violent crime came in 1995 and 2000 (the upper portion of the chart). The violent victimization rate declined by 9.7 violent victimizations per 1,000 persons from 47.2 per 1,000 in 1999 to 37.5 in 2000. Similarly, from 1994 to 1995, the violent victimization rate declined by 9.4 violent victimizations from a rate of 80.0 to 70.7 per 1,000 persons. The smallest change (the lower portion of the chart) came in 1994, 2002, 2003, and 2005 where the annual change in the rate was less than 1 violent victimization per 1,000 persons.

For example, the rate changed from 79.8 in 1993 to 80.0 in 1994 for an increase of 0.3 violent victimizations per 1,000 persons. By comparison, the current increase from 2010 to 2011 was 3.3 violent victimizations per 1,000 persons. This average raw rate change is smaller than the average rate change of 4.3 crimes per 1,000 across the entire period from 1993 to 2011. The annual range of change from 1993 to 2011, either an increase or decrease, was between 0 and 9.7 violent victimizations per 1,000 persons.

The horizontal axis represents the violent victimization rate for a given year ranging from a low (left side of the chart) of 19.3 per 1,000 persons in 2010 (represented by the 2011 circle) to a high (right side of the chart) of 80.0 per 1,000 in 1994 and 1995. As the chart shows, when there is a large rate change on a small base (upper left portion of the chart), the percentage change as noted by the size of the circle tends to be relatively large. With the same large rate change on a larger base (upper right side of the chart), the percent change or circle size is not as large. For example, from 1996 to 1997 (represented by the 1997 circle), violent crime declined by 3.7 violent victimizations (from 64.7 to 61.1 per 1,000 persons), a comparable change to the 2010 to 2011 increase of 3.3 violent victimizations (from 19.3 to 22.5 per 1,000 persons). However, the percentage change (denoted by the size of the circle) was 6% from 1996 to 1997 compared to the 17% from 2010 to 2011. This difference was due to the historically smaller rate of 19.3 per 1,000 in 2010 compared to the relatively large rate of 64.7 per 1,000 in 1996.

FIGURE 4
Change in violent victimization rates, 1993–2011

Absolute raw rate point change per 1,000 persons age 12 or older



Note: Circle size indicates size of the absolute percent change.

\*Due to methodological changes in the 2006 NCVS, use caution when comparing 2006 criminal victimization estimates to other years. See *Criminal Victimization*, 2007, NCJ 224390, BJS website, December 2008, for more information.

Source: Bureau of Justice Statistics, National Crime Victimization Survey, 1993–2011.

#### **APPENDIX TABLE 1**

### Standard errors for table 1: Number of violent victimizations, by type of violent crime, 2002, 2010, and 2011

	Number of victimization				
Type of violent crime	2002	2010	2011		
Violent crime	247,489	214,261	232,076		
Rape/sexual assault	38,253	36,057	34,800		
Robbery	53,764	56,078	55,908		
Assault	226,598	190,435	211,601		
Aggravated assault	84,915	71,865	81,430		
Simple assault	195,965	164,138	182,739		
Domestic violence	85,402	86,238	101,189		
Intimate partner violence	69,504	68,480	76,209		
Violent crime involving injury	106,799	93,546	105,560		
Serious violent crime	119,078	109,276	114,609		
Serious domestic violence	45,187	44,780	46,272		
Serious intimate partner violence	35,732	36,554	37,989		
Serious violent crime involving weapons	96,625	83,309	93,633		
Serious violent crime involving injury	61,712	62,690	67,097		

#### **APPENDIX TABLE 2**

Standard errors for table 2: Rate of violent victimization, by type of violent crime, 2002, 2010, and 2011

Victimization rates per 1,000 persons age 12 or older Type of violent crime 2002 2010 2011 Violent crime 0.8 0.9 1.1 Rape/sexual assault 0.2 0.1 0.1 Robbery 0.2 0.2 0.2 Assault 1.0 0.7 8.0 Aggravated assault 0.3 0.4 0.3 Simple assault 0.8 0.6 0.7 Domestic violence 0.3 0.4 0.4 Intimate partner violence 0.3 0.3 0.3 Violent crime involving injury 0.5 0.4 Serious violent crime 0.4 0.5 0.4 Serious domestic violence 0.2 0.2 0.2 Serious intimate partner violence 0.2 0.1 0.1 Serious violent crime involving weapons 0.4 0.3 0.4 Serious violent crime involving injury 0.3 0.2 0.3

#### **APPENDIX TABLE 3**

Standard errors for table 3: Number of property victimizations, by type of property crime, 2002, 2010, and 2011

Number of victimizations						
2002	2010	2011				
361,425	304,448	388,678				
128,177	122,469	149,935				
62,552	46,928	49,670				
312,862	260,452	329,200				
	2002 361,425 128,177 62,552	2002         2010           361,425         304,448           128,177         122,469           62,552         46,928				

#### **APPENDIX TABLE 4**

Standard errors for table 4: Rate of property victimization, by type of property crime, 2002, 2010, and 2011

	Victimization rates per 1,000 households					
Type of property crime	2002	2010	2011			
Total	3.3	2.5	3.2			
Household burglary	1.2	1.0	1.2			
Motor vehicle theft	0.6	0.4	0.4			
Theft	2.8	2.1	2.7			

APPENDIX TABLE 5
Standard errors for table 5: Rate of violent victimization, by demographic characteristics of victim, 2002, 2010, and 2011

	Violent crime			Serious violent crime		
Demographic characteristic of victim	2002	2010	2011	2002	2010	2011
Total	1.1	0.8	0.9	0.5	0.4	0.4
Sex						
Male	1.4	1.1	1.3	0.7	0.6	0.7
Female	1.3	1.1	1.1	0.7	0.6	0.6
Race/Hispanic origin						
White	1.2	1.0	1.1	0.5	0.5	0.5
Black	2.5	2.2	2.3	1.7	1.3	1.4
Hispanic	2.3	1.6	2.0	1.4	0.9	1.0
American Indian/Alaska Native	14.4	14.7	12.3	6.8	11.4	6.4
Asian/Native Hawaiian/other Pacific Islander	2.2	1.9	2.1	1.1	0.8	0.9
Two or more races	~	9.2	10.2	~	5.2	6.3
Age						
12–17	3.6	2.5	3.1	1.7	1.5	1.4
18–24	3.7	2.6	3.4	2.0	1.7	1.8
25–34	2.4	2.1	2.1	1.2	0.9	1.1
35–49	1.5	1.4	1.6	0.7	0.7	0.8
50-64	1.3	1.1	1.2	0.6	0.6	0.6
65 or older	0.7	0.6	0.8	0.4	0.3	0.4
Marital status						
Never married	2.3	1.7	1.9	1.1	0.9	1.0
Married	0.9	0.6	0.8	0.5	0.3	0.4
Widowed	1.4	1.4	1.1	1.1	0.9	0.4
Divorced	3.2	2.9	3.1	1.5	1.5	1.4
Separated	8.0	7.4	8.6	5.3	3.9	5.0
~Not applicable.						

APPENDIX TABLE 6
Standard errors for table 6: Rate of violent victimization, by household location, 2002, 2010, and 2011

	Violent crime			Serious violence crime			
Household location	2002	2010	2011	2002	2010	2011	
Total	1.1	0.8	0.9	0.5	0.4	0.4	
Region							
Northeast	1.9	1.5	1.7	0.8	0.9	0.9	
Midwest	2.1	1.6	1.8	1.0	8.0	0.9	
South	1.4	1.1	1.2	0.8	0.6	0.7	
West	2.0	1.6	1.8	0.9	8.0	0.9	
Location of residence							
Urban	2.0	1.5	1.6	1.1	8.0	0.9	
Suburban	1.3	1.0	1.1	0.6	0.5	0.5	
Rural	1.9	1.6	1.8	0.9	0.7	1.0	

# **APPENDIX TABLE 7**Standard errors for table 8: Percent of victimizations reported to the police, by type of crime, 2002, 2010, and 2011

	Per	ed	
Type of crime	2002	2010	2011
Violent crime	1.4%	1.8%	1.8%
Rape/sexual assault	5.0	6.1	5.9
Robbery	3.7	4.3	4.4
Assault	1.5	1.9	1.9
Aggravated assault	2.7	3.6	3.4
Simple assault	1.6	2.1	2.0
Domestic violence	2.8	3.1	3.1
Intimate partner violence	3.2	3.7	3.8
Violent crime involving injury	2.4	3.0	3.0
Serious violent crime	2.2%	2.7%	2.7%
Serious domestic violence	3.8	5.0	5.5
Serious intimate partner violence	4.8	6.1	6.4
Serious violent crime involving weapons	2.4	3.3	3.2
Serious violent crime involving injury	3.2	4.0	4.1
Property crime	0.9%	0.9%	0.9%
Burglary	1.7	1.8	1.8
Motor vehicle theft	2.1	2.9	2.9

0.9

1.0

# APPENDIX TABLE 9 Standard errors for figure 2: Violent victimization with series included and excluded, 1993–2011

	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	1.0	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	0.9
2009	0.8	0.9
2010	0.7	0.8
2011	0.8	0.9

#### **APPENDIX TABLE 8**

Theft

Standard errors for table 9: Rate of victimizations reported and not reported to the police, by type of crime, 2002, 2010, and 2011

1.0

	Reported to police			Not reported to police		
Type of crime	2002	2010	2011	2002	2010	2011
Violent crime	0.7	0.6	0.6	0.7	0.5	0.6
Rape/sexual assault	0.1	0.1	0.1	0.1	0.1	0.1
Robbery	0.2	0.2	0.2	0.1	0.1	0.1
Assault	0.6	0.5	0.6	0.6	0.5	0.6
Aggravated assault	0.3	0.2	0.3	0.2	0.2	0.2
Simple assault	0.5	0.4	0.5	0.6	0.4	0.5
Domestic violence	0.3	0.3	0.3	0.2	0.2	0.2
Intimate partner violence	0.2	0.2	0.2	0.2	0.1	0.2
Violent crime involving injury	0.3	0.3	0.3	0.3	0.2	0.2
Serious violent crime	0.4	0.3	0.4	0.3	0.3	0.3
Serious domestic violence	0.2	0.1	0.1	0.1	0.1	0.1
Serious intimate partner violence	0.1	0.1	0.1	0.1	0.1	0.1
Serious violent crime involving weapons	0.3	0.2	0.3	0.2	0.2	0.2
Serious violent crime involving injury	0.2	0.2	0.2	0.1	0.1	0.1
Property crime	1.9	1.5	1.7	2.5	1.9	2.3
Burglary	0.9	0.8	0.8	0.7	0.6	0.8
Motor vehicle theft	0.5	0.4	0.4	0.2	0.2	0.2
Theft	1.5	1.1	1.3	2.3	1.8	2.1



The Bureau of Justice Statistics is the statistical agency of the U.S. Department of Justice. James P. Lynch is the director.

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