



Bureau of Justice Statistics National Crime Victimization Survey

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Criminal Victimization, 1973-95

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In 1994, compared to 1973, the U.S. population was about as vulnerable to violent crime but significantly less vulnerable to property crime. From 1973 through 1994, the rates of violent crime victimization had intervals of stability, increase, and decrease, while the rates of property crime underwent a virtually uninterrupted decrease. The 1994-95 decline in the violent crime rate was the largest single-year decrease ever measured in the total violent category.

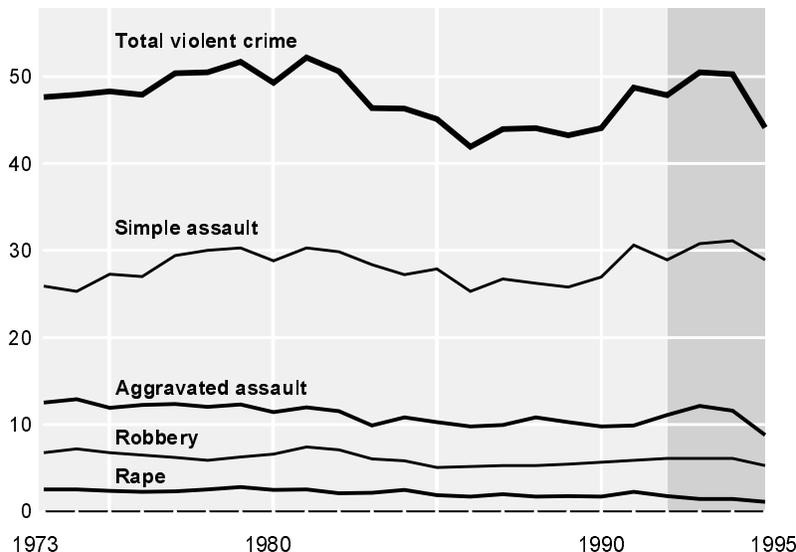
The crime trends presented in this report are largely based on data from the National Crime Victimization Survey (NCVS), an ongoing survey of occupants of U.S. households to ask about their exposure to crime. In 1992 a redesigned interview was put into place to improve survey methods and collect previously unreported information. In this report the data from before 1992 were adjusted to take into account the later improvements.

Sexual assault other than rape, first directly asked about in the survey in 1992, has been excluded from these analyses to make the estimates comparable for the entire period. While this report describes the victimization trends for 1973-95, it does not present

Highlights

Violent crime rates, 1973-95 (with adjustments based on the redesign of the National Crime Victimization Survey)

Victimization rate per 1,000 persons age 12 or older



Collected under the National Crime Survey (NCS) and made comparable to data collected under the redesigned methods of the National Crime Victimization Survey (NCVS)

Collected under the redesigned NCVS

Violent crime includes murder, rape, robbery, and aggravated and simple assault. Murder is not shown separately. Sexual assault is excluded, as explained on page 3.

- A decline in the violent crime rate beginning in 1994 interrupted a rising trend that existed after the mid-1980's.
- In 1995 rape, robbery, and aggravated assault, measured by the National Crime Victimization Survey (NCVS), and murder, measured by the FBI's Uniform Crime Reports (UCR), were at or near a 23-year low.
- The rates of theft and household burglary have steadily declined since

the late 1970's. In 1995 burglary was at about half the rate in 1973.

- The motor vehicle theft rate in 1995 was well below the highest rate of 1991.
- 1973-91 estimates were adjusted to reflect improved survey methodology put in place in 1992. The adjustments preserve the year-to-year changes in relationships for earlier estimates.

numerical estimates of the degree of change because of the approximate nature of the adjustments. Also, since there are a number of equally appropriate models for adjusting the data, BJS is not sanctioning one method to the exclusion of others by publishing point estimates. (See *Adjusting NCS data*, page 5, for a description of the adjustments.)

Long-term trends

Violent crime

As measured by the NCVS, violent crime encompasses rape, sexual assault, robbery, aggravated assault, and simple assault (defined on page 6). Murder is not measured by the survey because of the inability to interview murder victims. The discussion of overall violent crime trends includes data on murder collected by the FBI's Uniform Crime Reporting (UCR) program, which collects data on selected crimes reported to the Nation's 17,000 law enforcement agencies.

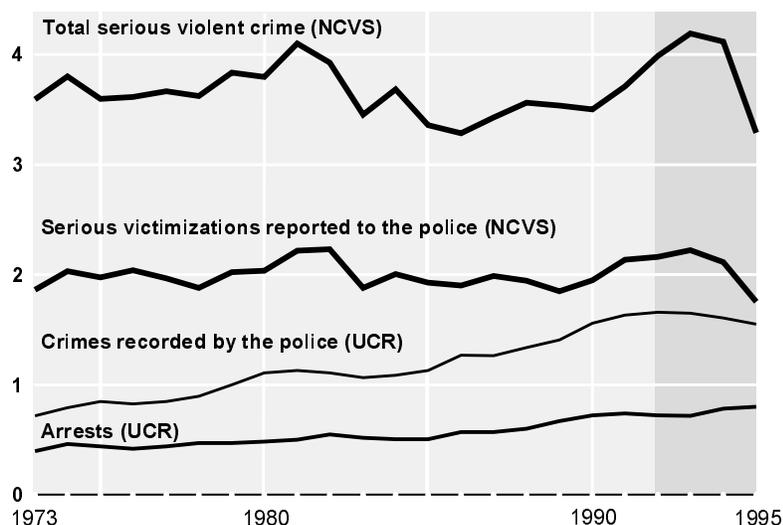
The violent crime rate in 1995, 44.5 violent victimizations per 1,000 persons age 12 or older, was at about the same level during the mid to late 1980's, when the violent victimization rates were at their lowest (figure 1). During the intervening years, however, four different short-term trends can be identified:

- (1) A period of stability existed between 1973 and 1977.
- (2) The violent crime rate increased to a peak in 1981 interrupted only by a 1-year decline in 1980.
- (3) For the next 5 years until 1986, the rate decreased.
- (4) From 1986 to 1993 the rate of violent crime increased to nearly a peak level. This generally increasing trend was interrupted by the 1994-95 decrease, which was the largest ever measured by the survey.

Comparisons of NCVS and UCR violent crime trends are possible when

Four measures of serious violent crime

Offenses in millions



Note: Serious violent crimes include murder, rape, robbery, and aggravated assault. The light gray area indicates that because of changes made to the victimization survey, data prior to 1992 are adjusted to make them comparable to data collected under the redesigned methodology.

Total serious violent crime (NCVS): The number of murders recorded by police plus the number of rapes, robberies, and aggravated assaults from the victimization survey, whether or not they were reported to the police

Serious victimizations reported to the police (NCVS): The number of murders recorded by police plus the number of rapes, robberies, and aggravated assaults that victims said were reported to the police, as measured by the victimization survey

Crimes recorded by the police (UCR): The number of murders, forcible rapes, robberies, and aggravated assaults in the Uniform Crime Reports of the FBI, excluding those that involved victims under age 12

Arrests (UCR): The number of persons arrested for murder, forcible rape, robbery, or aggravated assault as reported by law enforcement agencies to the FBI

Sources: BJS, National Crime Survey and National Crime Victimization Survey, and FBI, Uniform Crime Reports

Figure 2

differing elements of the two programs are resolved. For this analysis simple assault, a crime not measured by the UCR, was removed from the NCVS estimates, and murder, as measured by the UCR, was added to the NCVS data. UCR robberies were adjusted to exclude commercial robberies, not measured by the NCVS. There are other sources of noncomparability between the series, but their effect on aggregate trends is not great.¹

¹Biderman, Albert D and James Lynch, *Understanding Crime Incidence Statistics: Why the UCR Diverges from the NCS?* New York: Springer Verlag, 1991.

Total serious violent crime represents the measure of rape, robbery and aggravated assault measured by the NCVS and murder measured by the UCR. In 1995 the number of such crimes was about the level of the previous low in 1986 (figure 2).

The number of crimes reported to the police, as measured by the NCVS, fluctuated less than the overall measure. Crimes recorded by the police, measured by the UCR, increased steadily throughout the period, as did arrests for violent crime.

While victimizations reported to police decreased 5% from 1973 to 1995, crimes recorded by police rose 116%.

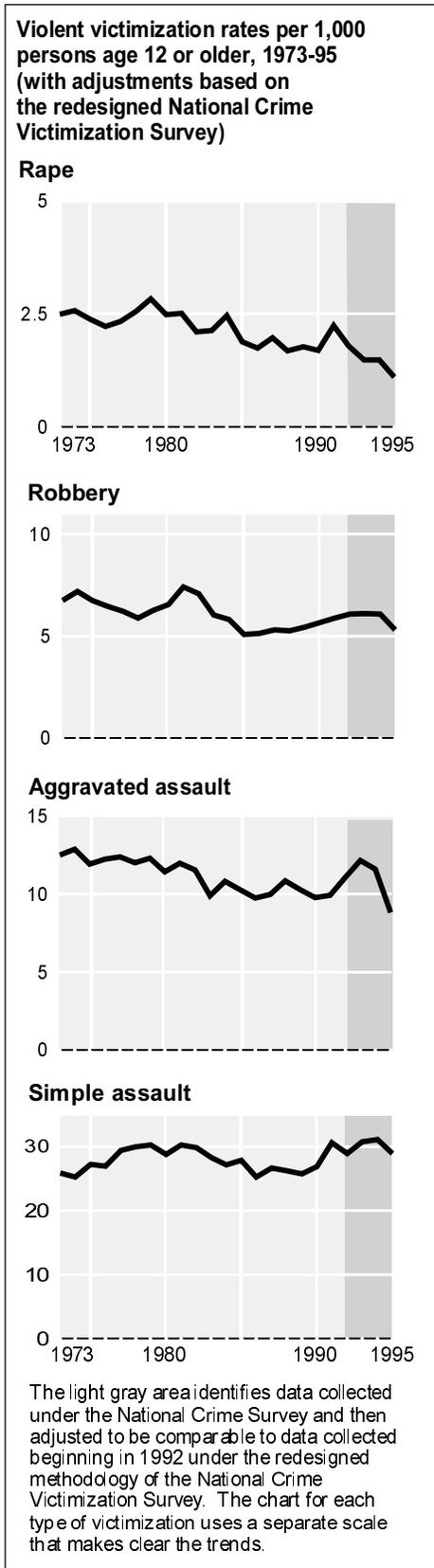


Figure 3

The narrowing of the gap between what victims say they reported and what police actually recorded may largely be the result of improvements in police record systems and in reporting of crime data to the FBI by local and State law enforcement agencies.

Robbery

Robbery trends for the past two decades largely paralleled the trends in overall violent crime (figure 3). Four distinct intervals can be discerned in robbery trends. Robbery rates fell between 1974 and 1978, rose until 1981, fell again between 1981 and 1985, and began to rise slowly until 1994. It is too early to determine whether the 1994-95 decrease in the robbery rate marks the beginning of a longer term decline or a temporary interruption in the recently increasing rate of robbery.

Aggravated assault

The long-term trend exhibited by aggravated assault differed greatly from those of other violent crimes during 1973-95. From 1974 the rate of aggravated assault declined with some interruptions until the mid-1980's. After a few years of minimal change, the rate increased from 1990 to 1993. As a result of the sharp decline in 1995, aggravated assault reached its lowest rate during the 23-year history of NCVS.

Simple assault

Simple assault, the most common but least serious violent crime measured by the NCVS, increased from 1974 to 1977, remained stable until 1979, then declined until 1989, and rose again until 1991, returning to the peak levels of the late 1970's. The decrease in 1995 was the first significant change in the rate of simple assault since 1991.

Murder and nonnegligent manslaughter rates, 1973-95

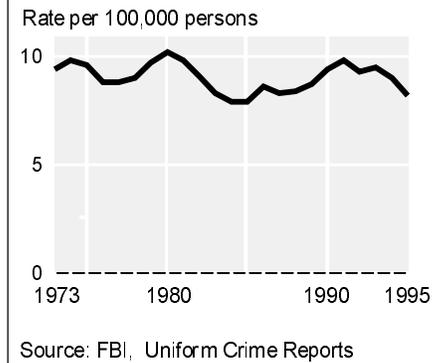


Figure 4

Murder

Like overall violent crime measured by the NCVS between 1973 and 1995, the trends in the murder rate, measured by the FBI's UCR, exhibited periods of increase and decrease. In 1995 the rate (8.2 per 100,000 persons) was well below the peak rate for the period (10.2) experienced in 1981 (figure 4).

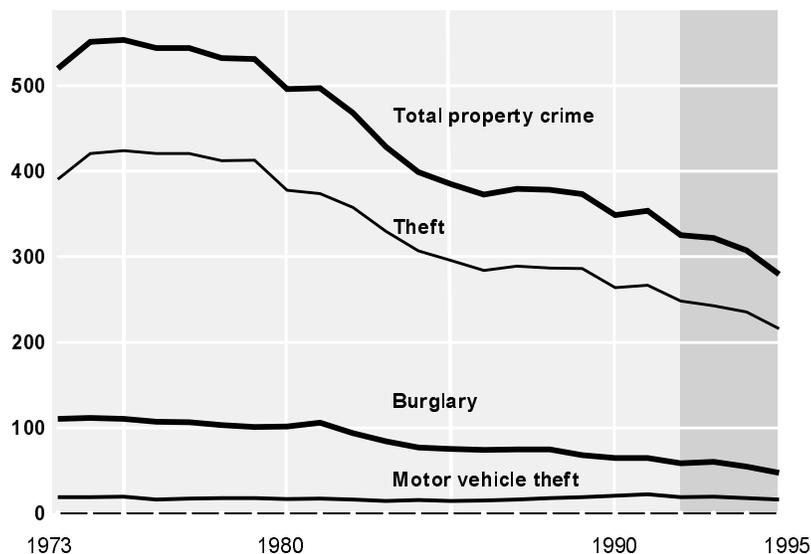
Rape

Rates of rape for 1995 were significantly lower than the adjusted rates for 1973 (figure 3). This finding, however, should be regarded with extreme caution. Before the redesign in 1992 the survey did not ask respondents whether they had been victims of sexual assault other than rape or attempted rape. Some victims of these crimes may have reported such victimizations in response to questions about rape or other forms of violence.

It is not possible to determine to what extent crimes now categorized as sexual assaults were included in the data as rape or attempted rape in earlier years. To the extent that this occurred, estimates of rape prior to the redesign would not be comparable to those since the redesign. Anomalies in the distribution of male and female victims in the 1992 NCS rape estimates also raise questions about the adjustments of rape estimates. (See footnote 5 on page 7.)

Property crime rates, 1973-95 (with adjustments based on the redesign of the National Crime Victimization Survey)

Victimization rate per 1,000 households



The light gray area identifies data collected under the National Crime Survey of BJS and then adjusted to be comparable to data collected beginning in 1992 under the redesigned methodology of the National Crime Victimization Survey of BJS.

Figure 5

Property crime

In the NCVS, household burglary, theft, and motor vehicle theft are considered property crimes. Because the entire household is considered to be the victim of these crimes, property crime rates are calculated based on households rather than persons.

Prior to the survey redesign, thefts were categorized as personal crimes if they occurred away from the victim's home and as household crimes if they occurred at or near home. This distinction often proved to be hard to understand.

All thefts have been categorized as household crimes in the redesigned survey. For this report theft data for 1973-91 have been recalculated to make them comparable with the revised definition.

Except for an increase between 1973 and 1974, the property crime rate in the United States steadily declined (figure 5).

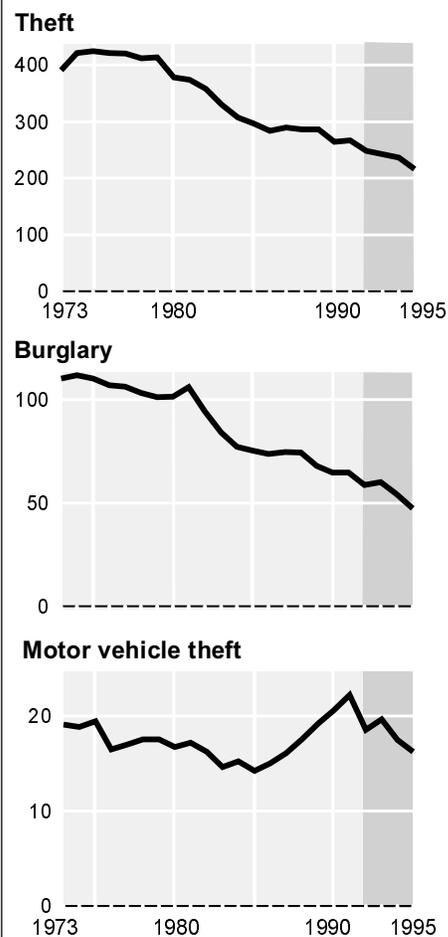
Theft

After a short period of stability between 1974 and 1977, the rate of theft went down steadily through the remainder of the period (figure 6). In 1995 the household theft rate was about 43% lower than the adjusted rate in 1973.

Burglary

After a period of slow decline that was interrupted by an increase between 1980-81, the burglary rate fell each year through the rest of the period. The 1995 household burglary rate was about half that of the adjusted rate of 1973.

Property victimization rates per 1,000 households, 1973-95 (with adjustments based on the redesigned National Crime Victimization Survey)



The light gray area identifies data collected under the National Crime Survey and then adjusted to be comparable to data collected beginning in 1992 under the redesigned methodology of the National Crime Victimization Survey. The chart for each type of victimization uses a separate scale that makes clear the trends.

Figure 6

Motor vehicle theft

Despite some short periods of increase, the motor vehicle rate declined significantly from 1973 through 1985. From 1985 through 1991, the motor vehicle theft rate increased sharply, peaking in 1991. Between 1992 and 1994 the motor vehicle rate remained unchanged but at a lower level than in 1991; it decreased in 1995.

Effect of NCVS redesign on victimization estimates

The redesign of the victimization survey was a decade-long effort to improve its ability to measure victimization, particularly difficult-to-measure crimes like rape and sexual assault.² Because of improvements in survey procedures introduced in the redesign, estimates of victimization measured by the survey since 1992 are substantially higher than pre-redesign victimization estimates (figure 7).

In the discussion that follows, the survey prior to the redesign is referred to as the National Crime Survey (NCS), and that after the redesign is referred to as the National Crime Victimization Survey (NCVS).

For a variety of reasons, the changes to the survey affected victimization estimates of different crimes and segments of the population differently. For example, NCVS estimates of rape and assault are substantially higher than NCS estimates. Simple assaults overall and those involving no injury were more affected by the redesign than were aggravated assaults overall and those involving injury. Differences in simple assault account for most of the differences between the NCS and NCVS estimates of violent crime.

While there was virtually no difference between NCVS and NCS estimates of aggravated assault with injury, the NCVS estimates of simple assault without injury were almost twice those of the NCS. NCVS estimates of theft are somewhat higher than NCS theft estimates (unadjusted, but using the NCVS definition, see *Appendix*), and those of robbery, burglary, and motor vehicle theft are about the same under both the NCVS and NCS.

²See *Criminal Victimization in the United States, 1993*, BJS report (NCJ-151657), for a detailed description of the NCVS redesign.

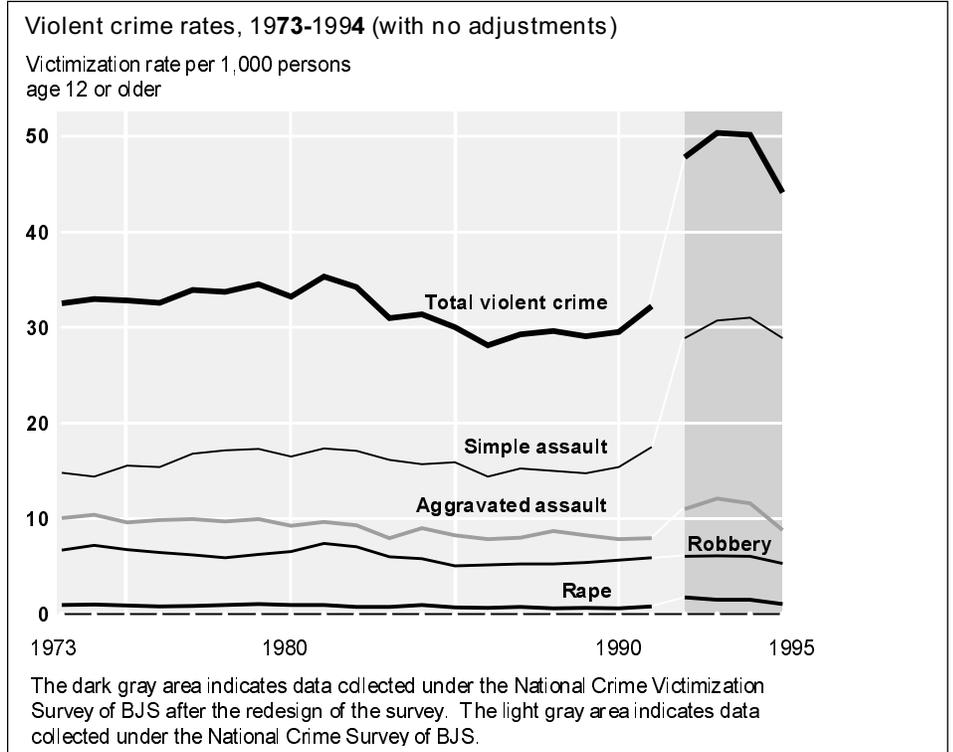


Figure 7

A brief overview and source guide to the redesign of the National Crime Victimization Survey

Begun in 1972, the NCVS underwent an extensive redesign in 1992. In the mid-1970's the National Academy of Sciences had reviewed the NCVS and found that while the survey was an effective instrument for measuring crime, aspects of the survey methodology and scope could be improved. (See *Surveying Crime*, National Academy of Sciences, 1976.)

In response, BJS sponsored a research consortium of several institutions, involving experts in criminology, survey design, and statistics, to investigate the issues raised in the review and to make recommendations to improve the accuracy and utility of the NCVS. The redesign consortium completed its work in 1985. (See *New Directions for the National Crime Survey*, BJS Technical Report, NCJ-115571, March 1989.)

In 1986 BJS began introducing questions and procedures judged not to affect rates. Most of these changes

were made to the incident report that has questions for the victim to describe the characteristics and circumstances of the crime incident. In 1991 BJS formed a special committee associated with the American Statistical Association's Committee on Law and Justice Statistics to improve the questions on rape, sexual assault, and domestic violence.

The more comprehensive changes were tested and phased in on a more gradual basis. A new crime screening questionnaire was implemented in January 1992 through June 1993 in half the survey sample areas. This overlap phase-in method allowed BJS to produce estimates of annual change in crime rates and to assess the effect of the new questionnaire and procedures on crime measures. Since July 1993 the redesigned methods have been used in all sample areas.

A more detailed description of the NCVS redesign can be found in *Appendix II of Criminal Victimization in the United States, 1993*, BJS report, NCJ-151657, May 1996.

Similarly, for some crimes, the victimization estimates of some population subgroups were more affected by the redesign than were estimates for other population subgroups. For example, the relative effect of the redesign on aggravated assault estimates against whites was greater than that for estimates of this crime against blacks.³

Because changes in methodology have resulted in increased estimates of victimization, to examine victimization trends across the whole 23-year period, 1973-95, incorporating both pre-redesign and post-redesign estimates, it is necessary to adjust the earlier data to account for the effects of the redesign. It is possible to make such adjustments because the redesign was implemented by conducting parallel surveys for 18 months, beginning in January 1992.

Data were collected in half the sample, using the old methods and in the other half, using the new methods. Since July 1993 the entire survey has been conducted using the redesigned methodology.

Adjusting NCS data

Computing an adjustment to the NCS series required choices from among statistical methods. Each choice involved making particular assumptions about the statistical model. For this report the pre-1992 data were adjusted by multiplying the NCS rate for each major crime class measured by the survey by a ratio of the NCVS to NCS rates.

³More information about these differential effects of the redesign can be found in *Effects of the Redesign on Victimization Estimates*, BJS Technical Report, April 1997 (NCJ-164381).

Table 1. NCS and NCVS victimization rates, 1992

	Rate per 1,000 persons or households		
	Post-redesign NCVS	Pre-redesign NCS	NCVS/NCS ratio
Personal crimes			
Violent crime	47.8	32.1	1.49
Rape	1.8	.7	2.57
Robbery	6.1	5.9	1.03
Aggravated assault	11.1	9.0	1.23
Simple assault	28.9	16.5	1.75
Personal theft	1.8	2.4	.75
Property crime			
Household burglary	58.6	48.9	1.20
Household theft	248.2	195.5	1.27
Motor vehicle theft	18.5	20.1	.92

This adjustment took the form of —

$$NCS_{ay} = NCS_y(NCVS_{92}/NCS_{92})$$

where: NCS_{ay} = the adjusted victimization rate for a given crime type in year y (1973-91)

NCS_y = the NCS rate for a given crime type in year y

$NCVS_{92}$ = the victimization rate from the redesigned survey for a given crime type in the half-sample in 1992

NCS_{92} = the victimization rate from the old survey for a given crime type in the half-sample in 1992

The above adjustment was applied only to those crimes for which the NCS and NCVS estimates exhibited significant differences. NCVS rates for 1992 were significantly higher than 1992 NCS rates for five of the seven major types of crime measured: rape, aggravated assault, simple assault, theft, and household burglary. NCVS and NCS rates for the other two crime types, robbery and motor vehicle theft were not significantly different in 1992. Therefore, no adjustment was made in the historical trends for robbery and motor vehicle theft.

For analyzing trends, as in the discussion above, this adjustment is equivalent to combining the trend for the pre-1992 period with the trend for the

period starting in 1992. By multiplying all rates by the same constant, the percent change from one year to the next for the pre-1992 period is preserved (table 1). The adjustment affects only the overall level of the crime rates for the pre-1992 period.

BJS was guided in its choice of methods by an advisory panel assembled by the Committee on Law and Justice Statistics of the American Statistical Association. The described method was one of several that could have been adopted. Other methods may have produced different results.

The described method for adjusting the victimization rates is based on a number of assumptions about the impact of the redesigned survey methodology. The *first assumption* is that any differences in the effect of the redesign across subgroups do not substantially affect the overall trends in crime.

This assumption derives from previous research that adjusted victimization rates after accounting for differential effects for particular subgroups, like those for race and sex.⁴ For certain types of crimes, the effect of the redesign did differ across selected demographic groups and survey attributes.

⁴James Lynch and David Cantor, *Models for adjusting the NCS trends to account for design difference between the NCS and the NCVS*, memorandum to the NCVS Sub-committee of the American Statistical Association Committee on Law and Justice Statistics, May 15, 1996.

The effect of the redesign on violent crime rates was greater for whites than for blacks and for persons in higher income households than for lower income households. However, the redesign did not significantly affect violent crime rates for such characteristics as victim sex, education, urbanization of residence, or survey attributes, such as whether the household had a telephone or had been interviewed previously.

Lynch and Cantor calculated separate adjustment ratios for each crime type for each population subgroup that was affected differently by the redesign. For example, because the redesign increased aggravated assault rates more for whites than for blacks, they calculated separate aggravated assault adjustment factors for whites and blacks.

When these adjustments were applied to data from 1987 to 1991, the overall adjusted crime rates were not significantly different from the trends computed using the simpler adjustment method that did not account for demographic or survey characteristics. For this reason, the pre-1992 data presented were adjusted using the simpler method which adjusted by crime type only. BJS applied the more complex adjustment to selected crimes for the entire period of 1973 to 1991 and found that, as with the analysis by Lynch and Cantor, the trends produced using the two methods are very similar, as in the trends of aggravated assault rates (figure 8).

There are several possible limitations to these analyses.

First Small sample sizes in 1992 restricted statistical analysis to relatively large subgroups and/or types of crimes.

Second It may be that Lynch and Cantor did not examine the particular variables or particular breakdowns of variables (such as specific age groups) that would lead to finding alternative adjustments that deviate from the simple adjustments described above.

Effects of three adjustment methods on aggravated assault trends

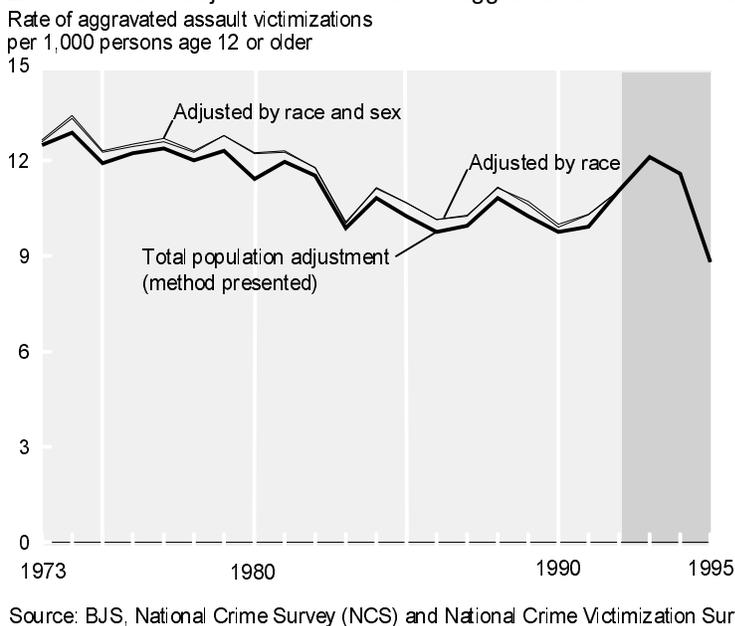


Figure 8

Third It may be that applying adjustments back to 1973, rather than just to 1987 as Lynch and Cantor did, might produce different results between the simple and more complex adjustment methods, although the analysis presented in the graph suggests that this would not be the case, at least for aggravated assault.⁵

A *second important assumption* for the adjustment is that the effects of the redesign observed in 1992 accurately represent the long-term effects of the survey redesign. The introduction of a new procedure, as in 1992, may elicit a reaction from interviewers and/or respondents different from later reactions, when they have experienced additional exposure to the procedures.

Analysis by the Census Bureau found very little evidence of a change in the impact of the new design over the 18 months when both the new and old

⁵For rape the overlap sample did not provide a clean estimate of differences across subgroups. The NCS estimate for rape produced rates that were approximately equal for males and females. This pattern is quite different from that found in the old design in previous years, and in the new design in 1992 and subsequent years, when (as one would expect) females had substantially higher rates of rape than males. This anomalous finding raised some question about the utility of the overlap sample for adjusting NCS rape rates.

methods were being used. However, this analysis was based on data collected over a relatively short time.

A *third important assumption* is that the effects observed in 1992 are similar to what would have occurred if the redesign had been implemented before 1992. The NCS in 1992 was different from the survey in 1973. For example, more interviewing was done by personal visit in 1973. For this reason, the effects of a redesign at each intervening year might have been different. This assumption is impossible to test, however, because the procedures used for the redesign were never implemented prior to 1992.

This report discusses only adjustments to crime rates at the total population level. As stated above, Lynch and Cantor found that the effect of the redesign did differ among some demographic groups and survey attributes. Analysts wishing to develop adjustments for population subgroups or survey attributes should review the reports cited in the bibliography.

Because the adjustments to make to NCS data comparable to NCVS estimates are not exact and are based on the assumptions described above, no tables have been included

in this report. Electronic worksheets used to produce graphs and containing the numerical values not published here are made available by BJS at its Internet site:

<http://www.ojp.usdoj.gov/bjs/>

NCS and NCVS data files, including data from the 1992 split NCS/NCVS sample, are available through the National Archive of Criminal Justice Data, 1-800-999-0960. The archive is also on the Internet and may be reached through the BJS site.

Appendix

Definitions of crimes

Rape: Carnal knowledge through the use of force or threat of force, including attempts. Attempted rape and rape may consist of verbal threats of rape. Rape includes victimization of both males and females.

Robbery: Completed or attempted theft, directly from a person, of property or cash by force or threat of force, with or without a weapon.

Assault: An unlawful physical attack, whether aggravated or simple, on a person. It includes attempted assaults with or without a weapon, but excludes rape, attempted rape and attacks involving theft or attempted theft (classified as robbery). Assaults are classified by severity into two subcategories:

1. Simple assault: An attack without a weapon resulting either in minor injury (that is, bruises, black eyes, cuts, scratches, or swelling), or in undetermined injury requiring less than 2 days of hospitalization. It also includes attempted assault without a weapon and verbal threats of assault.

2. Aggravated assault: An attack or attempted attack with a weapon regardless of whether an injury occurred as well as an attack without a weapon when serious injury results. Serious injury includes broken bones, loss of teeth, internal injuries, loss of consciousness, and any injury requiring 2 or more days of hospitalization.

Sexual assault: A wide range of victimizations, separate from rape or attempted rape. These crimes include attacks or attempted attacks generally involving (unwanted) sexual contact between victim and offender. Sexual assaults may or may not involve force and include such things as grabbing or fondling. Sexual assault also includes verbal threats.

Murder and nonnegligent manslaughter: Measured by the FBI's Uniform Crime Reporting System, murder is the willful (nonnegligent) killing of one human being by another. Excludes deaths caused by negligence, suicide or accident, as well as justifiable homicides.

Burglary: Unlawful or forcible entry or attempted entry of a residence, garage, shed, or other structure on the premises, usually but not always involving theft.

Theft: Completed or attempted theft of property or cash without personal contact. In the NCS, prior to the survey design, thefts were categorized as personal thefts if they occurred away from the residence, and as household thefts if they occurred at or in the residence. Since the redesign the NCVS classifies all thefts together. For this report, all analyses of NCS theft data were done using the NCVS definition.

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