



Bureau of Justice Statistics

# Analyzing Data from the National Crime Victimization Survey

**BJS Victimization Statistics Unit**

December 9, 2021

# Introductions



**BJS**

Bureau of Justice Statistics

# Introductions

*\*please use the Webex chat function*

- Name & affiliation
- How familiar are you with the NCVS?
  - Beginner, intermediate, advanced?
- How do you plan to use the NCVS?
- What statistical software program do you use?



## Workshop overview

- NCVS presentation (30 minutes)
  - Background, methodology, survey instruments, accessing data and statistics
- Presentations by Dr. Keith Hullenaar and Dr. Tara Martin (20 minutes)
- Break (10 minutes)
- Data analysis demonstrations and questions (60 minutes)

# Background on the National Crime Victimization Survey (NCVS)



**BJS**

Bureau of Justice Statistics

# What is the National Crime Victimization Survey?

- Currently sponsored and directed by the Bureau of Justice Statistics (BJS)
- Started in 1972 as the National Crime Survey
- Redesigned and renamed National Crime Victimization Survey (NCVS) in 1992
- One of two of the nation's major sources of information on criminal victimization (with the FBI's Uniform Crime Reporting (UCR) program)



**BJS**

Bureau of Justice Statistics

# What is the National Crime Victimization Survey?

Goals –

- Measure the 'dark figure' of unreported crime
- Provide an independent calibration for the UCR program
- Provide an indicator of the crime problem outside of indicators generated by police
- Provide a measure of victim risk
- Serve as an index of change in police reporting in the population



## How are the data collected?

- Administered by U.S. Census Bureau interviewers to nationally representative sample of persons age 12 or older living in U.S. households
- Interviews everyone in a sampled household that is age 12 or older
  - Seven interviews over a course of 3.5 years (every 6 months)
  - First interviews in person, subsequent interviews conducted either in person or by phone
- Self-report survey – persons asked about criminal victimizations experienced during the prior 6 months
- Incident based – collects information about each victimization incident



## What data are collected?

- Violent crime (rape/sexual assault, robbery, aggravated assault, and simple assault)
- Personal larceny (purse snatching and pick-pocketing)
- Property crime (burglary/trespassing, motor vehicle theft, and other types of household theft)
- Characteristics of victims and crimes for the population and for subgroups
- Only source of national data on topics including *intimate partner violence, crimes against persons with disabilities, injury, firearms and crime, cost of crime, and reporting to police*



**BJS**

Bureau of Justice Statistics

## More information on the NCVS

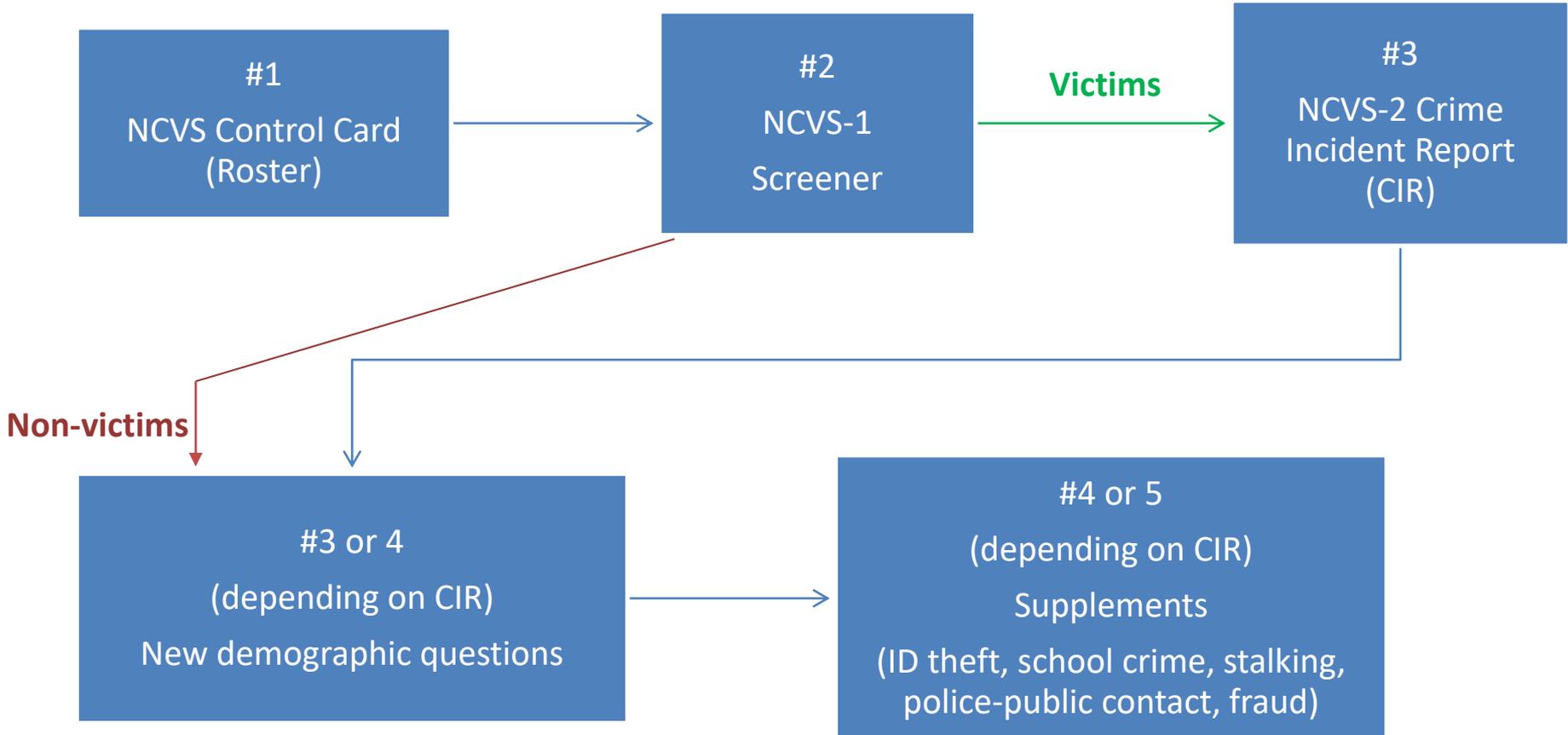
- BJS website – <https://bjs.ojp.gov/programs/ncvs>
- Codebooks archived with public-use data files at National Archive of Criminal Justice Data – <https://www.icpsr.umich.edu/NACJD>
- Workshop materials –
  - NCVS Technical Documentation, 2016
  - NCVS Variance User's Guide
  - *Criminal Victimization, 2020* annual bulletin

# Survey instruments



**BJS**

Bureau of Justice Statistics





**BJS**

Bureau of Justice Statistics

## NCVS-500 Control Card

- Basic record for each sample unit throughout each enumeration period
- Used by U.S. Census Bureau field representatives (FR) to locate/confirm they have contacted the correct sample household
- Household respondent = most knowledgeable adult household member
- Household roster = contains demographic information on every person living in the household
  - Demographic information such as age, race, Hispanic origin, sex, marital status, and educational attainment

*\*There is a copy of the NCVS-500 in your workshop materials*



**BJS**

Bureau of Justice Statistics

## NCVS-1 Basic Screen Questionnaire

- Contains questions designed to determine whether any crimes were committed against the *household as a whole (property crime)* or against an *individual household member (personal crime)* during the **6-month reference period**
  - Household respondent answers questions about property crimes
  - All respondents answer questions about personal crimes
- Questions are written in a “short cue” format
  - The interviewer reads a question “stem” about whether the respondent has experienced a certain type of incident, and then gives examples of the type of incident in “short cues” to prompt respondent memory



**BJS**

Bureau of Justice Statistics

## NCVS-1 Basic Screen Questionnaire

- No crime estimates come from the screener questions – the screener is used to trigger recall of incidents
- If no incidents are recorded, the interview proceeds on a person-by-person basis until a questionnaire is completed for each person age 12 or older in the household

*\*For households that refuse to participate or are not available, an NCVS-7 Noninterview Record is completed, which contains select information about the household (e.g., housing unit type, reason for noninterview, public housing status, Indian country status, restricted access to the unit)*

*\*There is a copy of the NCVS-1 in your workshop materials*



Bureau of Justice Statistics

# NCVS-2 Crime Incident Report

- Used to gather detailed information about incidents reported in the NCVS-1
- One Crime Incident Report (CIR) is completed for each crime incident reported in the NCVS-1
- Attribute/incident based – questions focused on details regarding the criminal incident
- Crime estimates come from the CIR – after confirming a crime was committed



Bureau of Justice Statistics

# NCVS-2 Crime Incident Report

- Within the CIR, questions are asked in topical modules:
  - Location and presence (items 10a & 20a)
  - Attack/threat/injury/medical care (items 31 a-35b)
  - Emotional consequences (items 36a-37i)
  - Actions against the offender (items 41 a-46a)
  - Offender information/characteristics (items 58a-86b)
  - Attempted and completed thefts (items 88-107d)
  - Property damage and police (items 108-129)



**BJS**

Bureau of Justice Statistics

# NCVS-2 Crime Incident Report

- Series crimes
  - Victimizations that are similar in nature and occur with such frequency that a victim is unable to recall each individual event or describe each event in detail (e.g., domestic violence)
  - Interviewers can identify and classify these similar victimizations as series victimizations and collect detailed information (on the CIR) on only the most recent incident in the series
  - Can exist for any crime type



# NCVS-2 Crime Incident Report

- Use of narratives for editing and coding
  - Last question on CIR asks interviewer to write a summary of the incident
  - Incident data are compared to incident summaries and pertinent information in case notes
  - Particular attention is paid to questions that classify crime incidents (i.e., location, presence, physical attack, attempted attack, threat, and theft)
- Type of crime
  - Details collected in the CIR allow crimes to be classified with substantial detail

*\*There is a copy of the NCVS-2 in your workshop materials*



**BJS**

Bureau of Justice Statistics

# NCVS crime classification

- **Violent crime**
  - Completed
  - Attempted
  - Rape/sexual assault
    - Rape
      - Completed
      - Attempted
    - Sexual assault
  - Robbery
    - Completed
      - With injury
      - Without injury
    - Attempted
      - With injury
      - Without injury
- Assault
  - Aggravated
    - Completed with injury
    - Attempted/threatened with weapon
  - Simple
    - Completed with injury
    - Attempted/threatened without weapon
- **Purse snatching/pick-pocketing**
  - Completed purse snatching
  - Attempted purse snatching
  - Pick-pocketing



**BJS**

Bureau of Justice Statistics

# NCVS crime classification

- **Property crime**

- Burglary/trespassing

- Completed

- Forcible entry

- Unlawful entry without force

- Attempted forcible entry

- Motor vehicle theft

- Completed

- Attempted

- Other household theft

- Completed

- Less than \$50

- \$50-\$249

- \$250 or more

- Amount not available

- Attempted

# Accessing NCVS data and statistics



Bureau of Justice Statistics

# How to access NCVS data and statistics?

Three ways –

1. BJS statistical reports
2. N-DASH online data tool (<https://ncvs.bjs.ojp.gov/Home>)
3. Data files – public-use files and restricted-use files

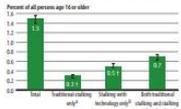
# BJS statistical reports

## Stalking Victimization, 2016

Jennifer L. Truman, Ph.D., and Rachel E. Morgan, Ph.D., BJS Statisticians

In 2016, an estimated 1.5% of all U.S. residents age 18 or older (3.8 million persons) were victims of stalking (figure 1, table 1). Stalking is repeated unwanted contacts or behaviors that either cause the victim to experience fear or substantial emotional distress or that would cause a reasonable person to experience fear or substantial emotional distress. Most persons reported experiencing both stalking with technology and traditional stalking (0.7%). A greater percentage reported experiencing stalking with technology only (0.3%) than traditional stalking only (0.3%).

**FIGURE 1**  
Prevalence of stalking, by type of stalking, 2016



Findings are based on the 2016 Supplemental Victimization Survey (SVS) in the National Crime Victimization Survey (NCVS). From July of 2016 to December of 2016, the SVS asked persons age 18 or older about their experiences with stalking during the 12 months preceding the interview. The report details the demographic characteristics of victims who were stalked during a 12-month period. It also describes the nature of stalking victimizations, including the number of offenders, the victim-offender relationship, and the frequency and duration of the stalking.

### HIGHLIGHTS

- About 1.5% (3.8 million) of persons age 18 or older were victims of stalking in 2016.
- The greater percentage of persons age 16 or older experienced stalking with technology only (0.5%) than traditional stalking only (0.3%).
- Females were stalked more than twice as often (2.2%) as males (1.0%).
- Most victims of stalking (90%) knew their offender in some capacity.
- Victims were three times as likely to be stalked by an intimate partner (2%) as by current intimate partners (0.7%).
- Twenty-four percent of stalking victims said the stalking behavior lasted 2 years or more.
- About 1 in 5 victims said it happened more than many times to count.
- Stalking behaviors were still ongoing at the time of the interview for more than a quarter of all victims.

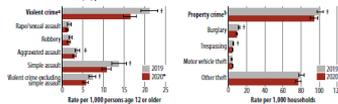


## Criminal Victimization, 2020

Rachel E. Morgan, Ph.D., and Alexandra Thompson, BJS Statisticians

In 2019 to 2020, the total violent victimization rate declined 22%, from 21.0 to 16.4 victimizations per 1,000 persons age 12 or older (figure 1). Violent victimizations include rape or sexual assault, robbery, aggravated assault, and simple assault. Based on data from the National Crime Victimization Survey (NCVS), the decrease in violent victimization was driven primarily by a decline in assault. The rate of simple assault declined from 13.7 per 1,000 in 2019 to 10.7 per 1,000 in 2020, and the rate of aggravated assault declined from 3.7 to 2.9 per 1,000. The decline in aggravated assault drove the decrease in violent crimes, excluding simple assault. From 2019 (2.3 per 1,000) to 2020 (1.6 per 1,000), the rates of rape or sexual assault or robbery did not change between 2019 and 2020.

**FIGURE 1**  
Rate of victimization, by type of crime, 2019–2020



Note: See appendix table 1 for estimates and standard error.  
 \*Comparison year.  
 \*\*Offense with comparison year is significant at the 90% confidence level.  
 \*\*\*Offense with comparison year is significant at the 95% confidence level.  
 †See table 1 for rates for property crime definitions.  
 ‡See table 2 for rates for violent crime definitions.  
 Source: Bureau of Justice Statistics, National Crime Victimization Survey, 2019–2020.

### HIGHLIGHTS

- The violent victimization rate declined from 21.0 per 1,000 persons age 12 or older in 2019 to 16.4 per 1,000 in 2020.
- The number of violent crimes, excluding simple assault, fell from 2.0 million in 2019 to 1.6 million in 2020.
- The number of burglary and trespassing victimizations declined from 2019 (2.2 million) to 2020 (1.7 million).
- About 40% of violent victimizations and 33% of property victimizations were reported to police in 2020.
- A smaller share of intimate partner victimizations were reported to police in 2020 (41%) than in 2019 (50%).
- The rate of violent victimization against persons ages 12 to 17 declined 51% from 2019 to 2020.
- From 2019 to 2020, the rate of violent and property victimization fell in suburban areas but did not change in urban and rural areas.
- The number of firearm victimizations declined from 2019 (481,950) to 2020 (356,460).

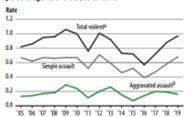


## Hate Crime Victimization, 2005–2019

Grace Kena and Alexandra Thompson, BJS Statisticians

In 2019, the overall rate of hate crime victimizations involving nonfatal violence was 1.0 hate crimes per 1,000 persons age 12 or older, according to the National Crime Victimization Survey (NCVS) (figure 1). During the 15-year period of 2005 to 2019, the rate of fatal violent hate crime victimizations fluctuated, ranging from about 0.6 to 1.1 per 1,000. The 2016 rate of violent hate crime victimizations (0.6 per 1,000) was lower than the rates in most years during the period. Between 2016 and 2019, this rate increased, reaching 1.0 per 1,000 in 2019. Despite the increase between 2016 and 2019, the 2019 rate was not significantly different from the 2005 rate (0.8 per 1,000).

**FIGURE 1**  
Rates of violent hate crime victimizations per 1,000 persons age 12 or older, 2005–2019



Rate of hate crimes involving simple assault (0.7 per 1,000) and aggravated assault (0.2 per 1,000) in 2019 were not statistically different from the respective rates in 2005. Patterns for these crime types over the 15-year period were similar to those for total violent hate crime victimizations.

In its report, statistical significance is reported at both the 90% and 95% confidence levels for estimates based on the NCVS. See figure 1 and tables for testing on specific findings.

†Statistical violent victimizations in the NCVS includes rape or sexual assault, robbery, aggravated assault, and simple assault.

### HIGHLIGHTS

- In 2019, there were 1.0 violent hate crime victimizations per 1,000 persons age 12 or older.
- Hate crime victimizations accounted for 1.6% of all nonfatal violent victimizations in 2019, up from 0.9% in 2005.
- During 2015–19, nearly two-thirds (62%) of hate crime victimizations were simple assaults.
- A bias against the victim's race, ethnicity, or national origin was the most common motivation for nonfatal violent hate crimes during 2015–19.
- During 2010–19, persons ages 12 to 17 accounted for a higher share of hate crime victims (17%) than their share of the U.S. population (9%).
- Most nonfatal violent hate crimes motivated by gender bias involved female victims during 2015–19.
- During 2015–19, more than half (56%) of nonfatal violent hate crime incidents were committed by a stranger.
- A greater percentage of violent hate crimes (23%) than violent nonhate crimes (13%) involved multiple offenders during 2015–19.

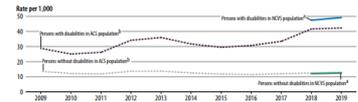


## Crime Against Persons with Disabilities, 2009–2019 – Statistical Tables

Erika Harrell, Ph.D., BJS Statistician

In 2019, the rate of violent victimization against persons with disabilities was nearly four times the rate for persons without disabilities (49.2 compared to 12.4 per 1,000) (figure 1). Since July 2016, the National Crime Victimization Survey (NCVS) has asked all respondents their disability status, allowing rates by disability status to be generated solely from NCVS data. See Methodology. Prior to this, American Community Survey (ACS) population data were used to calculate the rate of violent victimization against persons with disabilities, which was at least twice the rate for persons without disabilities every year from 2009 to 2019.

**FIGURE 1**  
Rate of violent victimization, by disability status, 2009–2019 (2-year rolling average)



Note: Based on the noninstitutionalized U.S. resident population age 12 or older. The definition of noninstitutionalized population differs by source. See Methodology. Estimates are based on a 2-year rolling average. For each year, rates for the population without disability estimates and standard errors.

†The ACS data were used to calculate the rate of violent victimization against persons with disabilities in the standard population. See appendix table 1 for details on data source and methodology.

‡Rates were calculated with population data from the National Crime Victimization Survey (NCVS).

§Rates were calculated with population data from the American Community Survey (ACS).

Source: Bureau of Justice Statistics, National Crime Victimization Survey, 2008–2019, and U.S. Census Bureau, American Community Survey, 2008–2018.

### Highlights

- From 2017 to 2019, persons with disabilities were victims of 26% of all nonfatal violent crime, while accounting for about 12% of the population.
- The rate of violent victimization against persons with disabilities (49.2 per 1,000 age 12 or older) was almost four times the rate for persons without disabilities (12.3 per 1,000).
- One in three robbery victims (33%) had at least one disability.
- Persons with cognitive disabilities had the highest rate of violent victimization (83.3 per 1,000) among the disability types measured.
- Nineteen percent of rapes or sexual assaults against persons with disabilities were reported to police, compared to 30% of those against persons without disabilities.

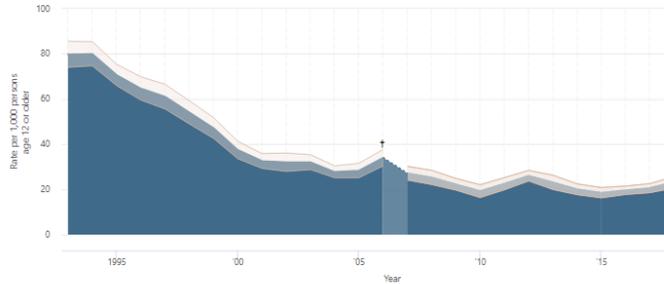


Bureau of Justice Statistics – Statistical Tables

# N-DASH Online Data Tool

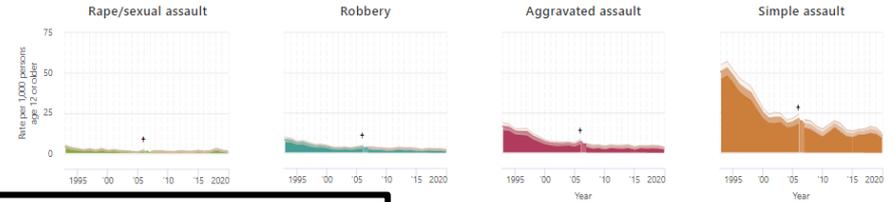
## VIOLENT VICTIMIZATION

Rate of Violent Victimizations, 1993-2020



\*95% C.I.: 95% confidence interval.  
 †S.E.: Standard error.  
 ‡ Estimates for 2006 should not be compared to other years.  
 § In October 2019, BJS released a revised set of 2018 NCVS data.  
 Source: Bureau of Justice Statistics, National Crime Victimization Survey, 2020.

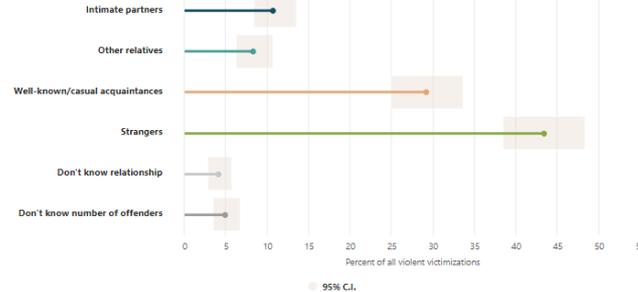
Rate of Rape/Sexual Assault, Robbery, Aggravated Assault, and Simple Assault Victimizations, 1993-2020



● 95% C.I.  
 †S.E.: Standard error.  
 ‡ Estimates for 2006 should not be compared to other years.  
 § In October 2019, BJS released a revised set of 2018 NCVS data.  
 Source: Bureau of Justice Statistics, National Crime Victimization Survey, 2020.  
<https://dev-ncvs.bjs.ojp.gov/quick-graphics>  
 View this visualization via the multi-year-trends/characteristic view by selecting 'Person' under 'Display Settings: CRIME CATEGORY', and the 'Year' under 'Display Settings: CHARACTERISTIC'.  
[Show Table](#) [Download Table](#) [Download PNG/image](#)

## VICTIM-OFFENDER RELATIONSHIP

Percent of Violent Victimizations by Victim-Offender Relationship, 2020



\*95% C.I.: 95% confidence interval.  
 †S.E.: Standard error.  
 Source: Bureau of Justice Statistics, National Crime Victimization Survey, 2020. <https://dev-ncvs.bjs.ojp.gov/quick-graphics>

# NCVS public-use data files

Archived at the National Archive of Criminal Justice Data (NACJD) at the Inter-university Consortium for Political and Social Research (ICPSR)

**nacjd** LOG IN / CREATE ACCOUNT

Discover Data Share Data **About** Resources Help

## About

**OUR TEAM**

**FACULTY**

**AFFILIATES**

**ANNOUNCEMENTS**

**SPONSORS**

**CONTACT**

### About NACJD

Established in 1978, the National Archive of Criminal Justice Data (NACJD) archives and disseminates data on crime and justice for secondary analysis. The archive contains data from over 2,700 curated studies or statistical data series. NACJD is home to several large-scale and well known datasets, including the National Crime Victimization Survey (NCVS), the FBI's Uniform Crime Reports (UCR), the FBI's National Incident-Based Reporting System (NIBRS), and the Project on Human Development in Chicago Neighborhoods (PHDCN).

**NACJD Footprint in 2019:**

		
76,289 Users	2,950 Studies	516,966 Downloads

<https://www.icpsr.umich.edu/NACJD/>

# NCVS public-use data files

## Search Results

Showing 1 - 50 of 52 results. [Show all](#)

[search tips](#) ▾

**Studies (52)**

Data-related Publications (422)

Variables (2)

Series (53)

NACJD Website (29)

Summaries:  Hidden

Sort by:

Study Relevance ▾



**Study Title/Investigator**

**Released/Updated**

- |  |            |
|--|------------|
| 1. <a href="#">National Crime Victimization Survey, [United States], 2019 (ICPSR 37645)</a><br>United States. Bureau of Justice Statistics | 2020-09-21 |
| 2. <a href="#">National Crime Victimization Survey, [United States], 2011 (ICPSR 34061)</a><br>United States. Bureau of Justice Statistics | 2021-01-25 |
| 3. <a href="#">National Crime Victimization Survey, [United States], 2012 (ICPSR 34650)</a><br>United States. Bureau of Justice Statistics | 2021-01-26 |
| 4. <a href="#">National Crime Victimization Survey, [United States], 2013 (ICPSR 35164)</a><br>United States. Bureau of Justice Statistics | 2021-01-25 |

# NCVS restricted-use data files

Available through the U.S. Census Bureau's Federal Statistical Research Data Centers (FSRDC)

The screenshot shows the U.S. Census Bureau website. At the top is the United States Census Bureau logo and a search bar. Below is a navigation menu with options: BROWSE BY TOPIC, EXPLORE DATA, LIBRARY, SURVEYS/ PROGRAMS, INFORMATION FOR..., FIND A CODE, and ABOUT US. The breadcrumb trail reads: // Census.gov > About the Bureau > Federal Statistical Research Data Centers. The main heading is "Federal Statistical Research Data Centers". A sidebar on the left lists: About this Section, Available Data, Projects, Federal Partners, Research Data Centers, Events, Updates, and Contact Information. The main content area features a notice: "Some FSRDC locations are temporarily closed. Please select 'Read More' below for additional information." with a "Read More" link. To the right is a map of the United States with blue dots indicating FSRDC locations. Below the map are three image-based links: "Federal Partners" (with a colorful human icon), "RDC Locations" (with a skyscraper image), and "Projects" (with a newspaper clipping image). At the bottom left is a "Back to About the Bureau" link and the FSRDC logo.

# NCVS restricted-use data files

National Crime Victimization Survey (NCVS)	Annually	Individual	2005-2017	Bureau of Justice Statistics (BJS)
National Crime Victimization Survey (NCVS) Identity Theft Supplement	Every Two Years	Individual	2012, 2014, 2016, 2018	Bureau of Justice Statistics (BJS)
National Crime Victimization Survey (NCVS) School Crime Supplement	Every Two Years	Individual	2009, 2011, 2013, 2015, 2017	Bureau of Justice Statistics (BJS), and National Center for Education Statistics (NCES)
National Crime Victimization Survey (NCVS) Police Public Contact Survey	Every Three Years	Individual	2011, 2015, 2018	Bureau of Justice Statistics (BJS)
National Crime Victimization Survey (NCVS) Supplemental Fraud Survey	Variable	Individual	2017	Bureau of Justice Statistics (BJS)



# NCVS supplements

- In addition to the core NCVS survey, short topical surveys or supplements are administered at the end of the NCVS interview to eligible respondents.
- Typically in the field for 6 months: January-June or July-December
- Supplements allow BJS to capture the changing landscape of crime.
- Between 2017 and 2019, BJS administered 5 different supplements on a rotating basis:
  - Identity Theft Supplement (ITS)
  - Police-Public Contact Survey (PPCS)
  - School Crime Supplement (SCS)
  - Supplemental Fraud Survey (SFS)
  - Supplemental Victimization Survey (SVS) – stalking



**BJS**

Bureau of Justice Statistics

# NCVS supplements

- Public-use files
  - Can be found at the National Archive of Criminal Justice Data (NACJD)
  - Flat file, have core NCVS variables attached
  - See codebooks for generalized variance functions (GVF)
  - Or can use direct estimation for standard errors e.g., with Complex Sample option in SPSS
- Restricted-use files available through Census FSRDC

# Presentations from NCVS data users

Dr. Keith Hullenaar – Fellow, Harborview Injury Prevention and Research Center, University of Washington

Dr. Tara Martin – Assistant Professor in the School of Criminal Justice and Criminology, University of Arkansas at Little Rock

# National Crime Victimization Survey: Examining Victim Help-seeking and Health

---

Keith Hullenaar

Harborview Injury Prevention and Research Center

University of Washington



# My Background

---

- > **NCVS experience ~ 8 years**
  - I took this workshop 4 years ago!
  
- > **PhD in Criminology, Pennsylvania State University**
  
- > **Using NCVS to study violence issues**
  - 1) Victim help-seeking
  - 2) Health consequences
  - 3) Adolescent violence
    - > Patterns and trends
    - > Policing

## Project #1:

# Police Reporting and Healthcare Use after Violent Injury

---

Keith L. Hullenaar, Vivian H. Lyons, Jonathan P. Shepherd, Ali Rowhani-Rahbar, Monica S. Vavilala,  
Frederick P. Rivara

Submitted to *Preventive Medicine* (Nov 2021)

### > Dark figure of violent injury

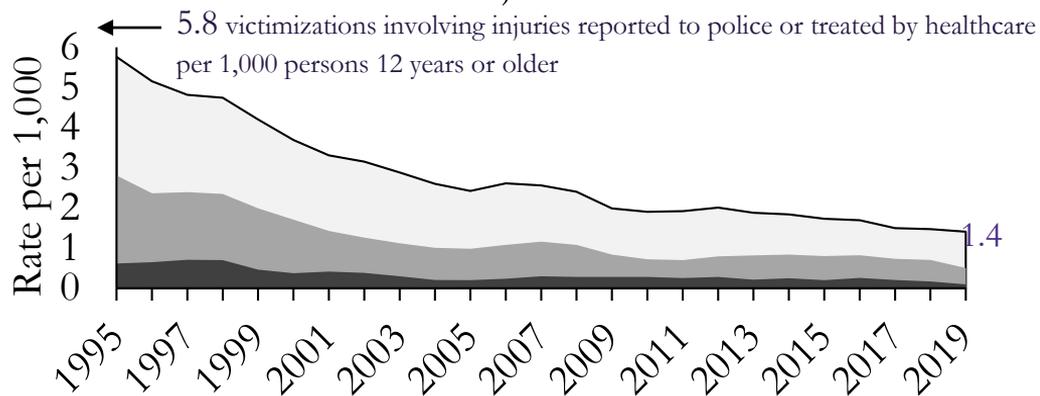
- Unreported to police (Xie and Baumer, 2019)
- Untreated by healthcare providers (Hullenaar and Frisco 2020)

### > NCVS informs limitations in violent injury surveillance

- Police reporting
- Healthcare use

### > What are the differences between police reports and healthcare records?

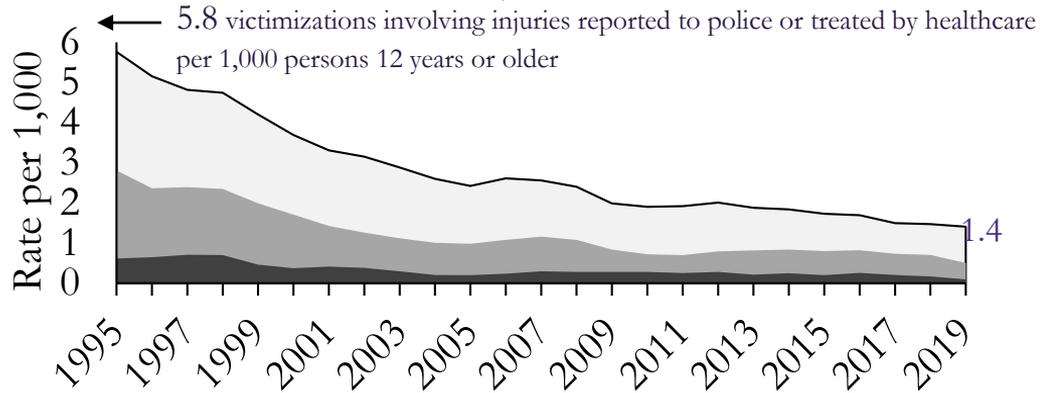
# All injuries



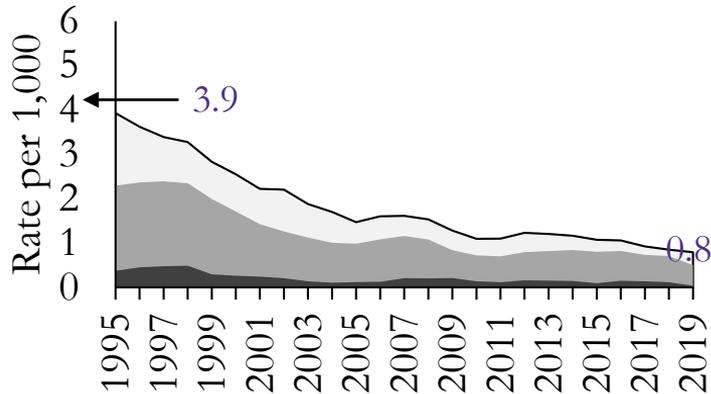
## Type of service

- Police report and healthcare
- Only police report
- Only healthcare

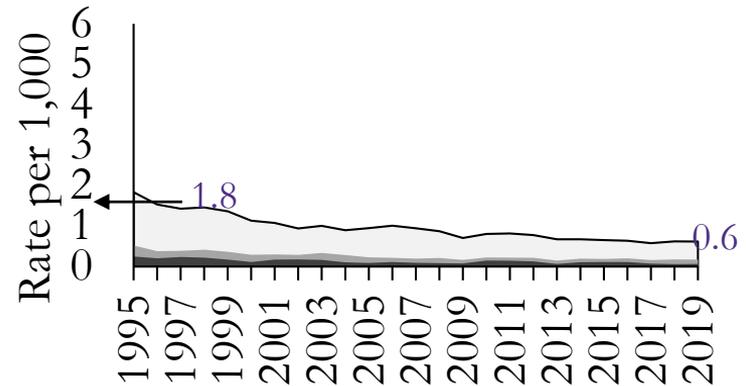
## All injuries



## Minor injuries



## Serious injuries



# Police Reporting and Healthcare Use: Limitations and Future Research

---

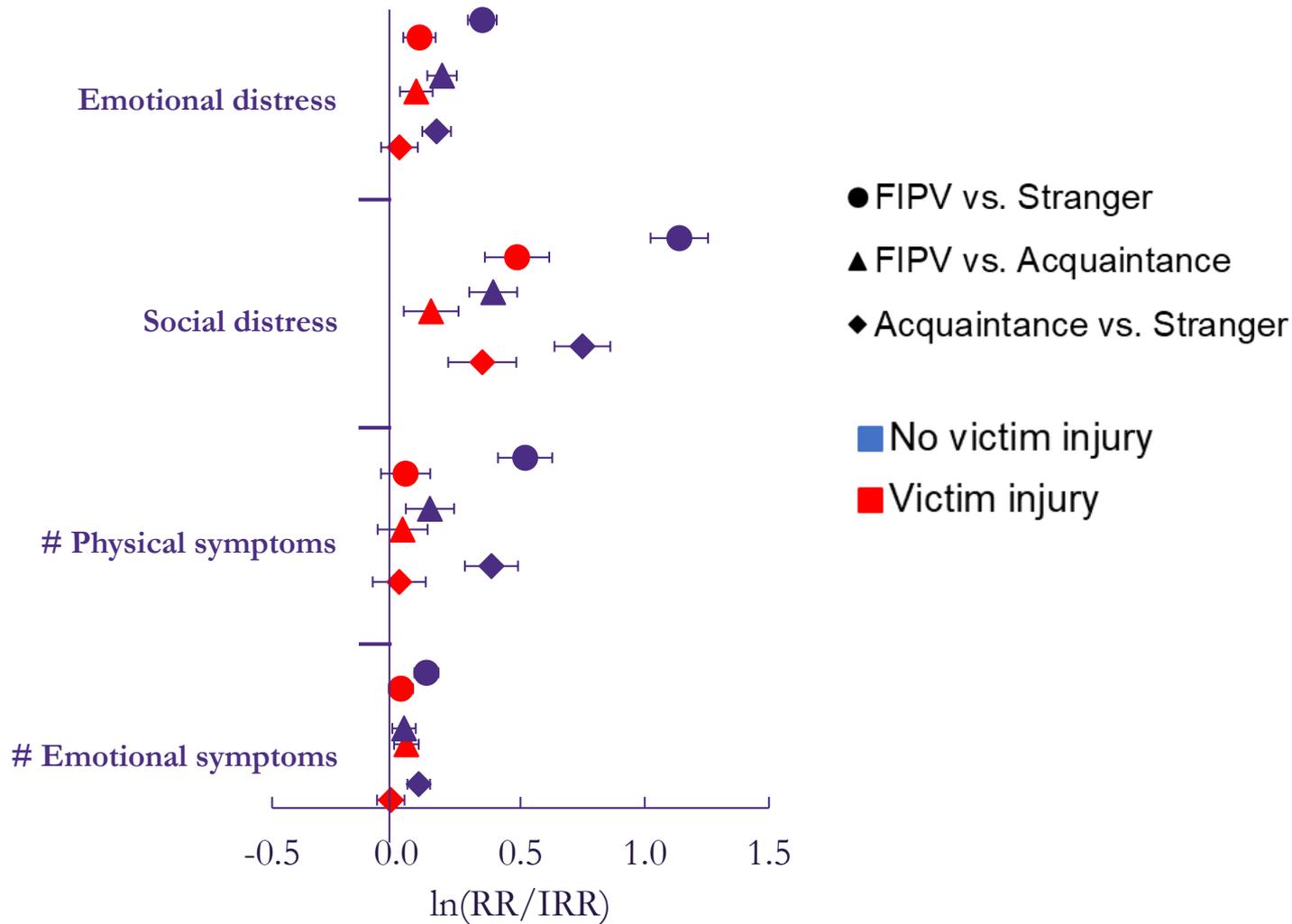
- > **Classification of “minor” and “serious” injury**
  - More theoretical than empirical
  - NCVS capture type rather than severity of injury
- > **Healthcare use measures do not specify emergency medical services (ambulance)**
- > **NCVS excludes populations at relatively high risk of violent injury**
  - People experiencing homelessness
- > **Future research should leverage healthcare use outcomes**
  - Healthcare use across different people injured by violence
  - Care for longer term problems (e.g., therapy for physical and emotional symptoms)

# Health Consequences of Knowing the Attacker

---

Keith L. Hullenaar, Ali Rowhani-Rahbar, Frederick P. Rivara, Monica S. Vavilala, and Eric P. Baumer  
Accepted at *American Journal of Preventive Medicine* (Nov 21)

- > **Criminal justice and healthcare policy focus on family and intimate violence**
  - Arrest and sentencing outcomes
  - Healthcare screening and interventions
  
- > **Research on consequences of violence focus on family and intimate violence**
  
- > **Knowing the attacker → Greater harm?**
  - Injured vs. uninjured victims of violence



# Health Consequences of Victimization: Limitations and Future Research

---

- > **Does not include validated physical or mental health scales**
  - E.g., DSM-V diagnostic tool, SF-12/36, PCL (PTSD)
  - Acceptable for some journals, but not all
- > **Injury measures somewhat broad**
  - Presence rather than severity
- > **Future research examine correlates of long-term physical and emotional symptoms**

## Conclusion

---

- > **NCVS is the leading survey on violent victimization**
  - Few datasets compete with its breadth and detail on victimization
- > **NCVS redesigns provided rare insight into violence and health**
- > **Researchers must be mindful of its limitations and design**
  - Which you will learn today!

# HIPRC

---

## ABOUT US

- > **The Harborview Injury Prevention & Research Center (HIPRC) is a worldwide leader in injury cause and prevention research. Founded in 1985, we are affiliated with the University of Washington and Harborview Medical Center in Seattle.**

**We are committed to public engagement and strive to partner with impacted communities in achieving injury prevention and health equity across the lifespan.**

**HIPRC Research priorities include: Global Injury, Injury Care, Safe & Active Transport, Traumatic Brain Injury (TBI), Violence Prevention, and Firearm Injury & Policy.**

# USING THE NCVS TO STUDY DOMESTIC VIOLENCE

---

Tara Martin, Ph.D.

University of Arkansas at Little Rock



# My Research Areas

- **Domestic and intimate partner violence (DV/IPV)**
- **Help-seeking behaviors**
- **Methodological approaches to studying victimization**

# Strengths of the NCVS for DV Research

- **Unreported crime**
- **Victim–offender relationship information**
- **Incident, victim, and household characteristics**
- **Help-seeking measures, including reasons for reporting/not reporting**
- **Longitudinal and panel data**

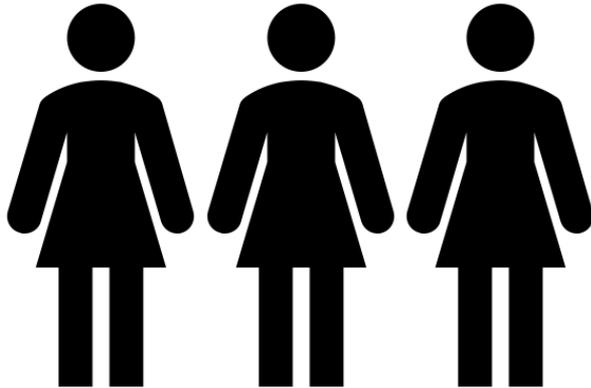
# Limitations of the NCVS for DV Research

- **Excludes high-risk populations and younger children**
- **Does not include all types of DV/IPV**
- **Limitations to the help-seeking measures**
- **Repeat victimization can only be measured for 3 years**
- **Subsetting the sample often requires pooling the data**
- **Possible threshold for “criminal” victimization**

# Manipulating the NCVS

**3 Incidents**

**3 Victimizations**

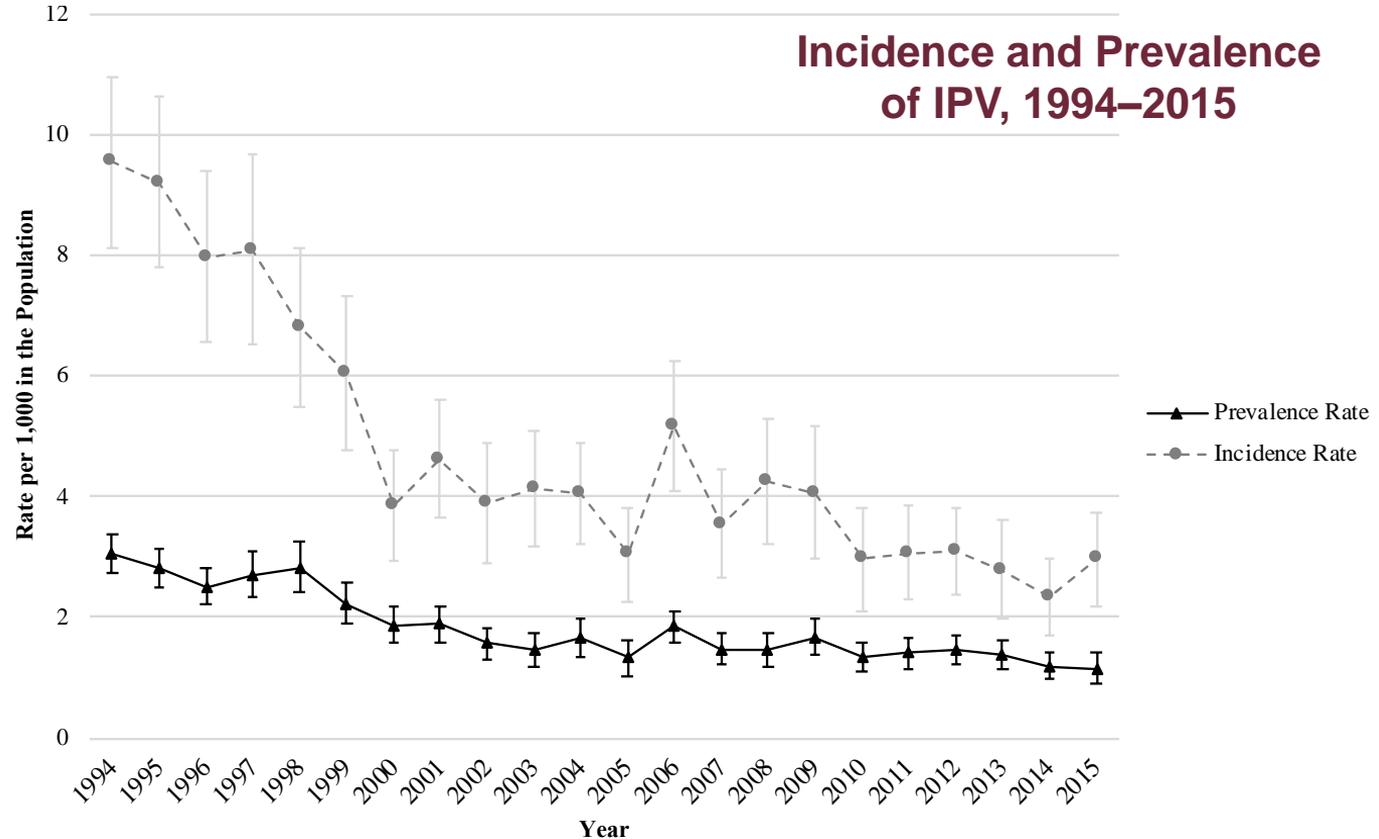


**1 Victim**



# Manipulating the NCVS

*From Trends in the Prevalence of Arrest for Intimate Partner Violence Using the National Crime Victimization Survey*



# Manipulating the NCVS

YEARQ	IDHH	IDPER
1996.1	1900001108900534999999122	190000110890053499999912201
1996.3	1900001108900534999999122	190000110890053499999912201
1997.1	1900001108900534999999122	190000110890053499999912201
1997.3	1900001108900534999999122	190000110890053499999912201
1998.1	1900001108900534999999122	190000110890053499999912201
1998.3	1900001108900534999999122	190000110890053499999912201
1996.2	1900016340953312999999142	190001634095331299999914202
1996.4	1900016340953312999999142	190001634095331299999914202
1997.2	1900016340953312999999142	190001634095331299999914202
1997.4	1900016340953312999999142	190001634095331299999914202
1998.2	1900016340953312999999142	190001634095331299999914202
1998.4	1900016340953312999999142	190001634095331299999914202

Restructuring from long to wide format for repeat victimization



IDPER	V3008	n_int	YEARQ.1	YEARQ.2	YEARQ.3	YEARQ.4	YEARQ.5	YEARQ.6
190000110890053499999912201	22	6	1996.1	1996.3	1997.1	1997.3	1998.1	1998.3
190001634095331299999914202	42	6	1996.2	1996.4	1997.2	1997.4	1998.2	1998.4

# Practical Tips for Using the NCVS

- **Understand the measures and skip patterns**
- **Check your subsample sizes**
- **Know where to find help**
  - Technical Documentation
  - Variance estimation guides
  - Prior BJS report methodology sections

# Thank you!

Tara Martin  
University of Arkansas at Little Rock  
temartin@ualr.edu



Break (~10 mins)

# Data analysis demonstrations



**BJS**

Bureau of Justice Statistics

# Conducting basic analyses using the NCVS

- Resources for calculating victimization (and incident) rates, numbers, and percentages
  - [NCVS Resource Guide](#) and [Codebooks](#) (NACJD)
  - [NCVS Technical Documentation](#) (also in workshop materials)
  - Variance estimation
    - User's guides
      - [Generalized variance function \(GVF\) parameters](#)
      - [Direct variance estimation](#)
    - Significance testing files (included in 'NCVS workshop replication example.xlsx')
  - NACJD [Learning Guide](#) for the NCVS
  - NCVS library recodes

**BJS**

Bureau of Justice Statistics

# Replicating the *Criminal Victimization, 2020* bulletin

## We will be replicating the highlighted estimates today

**TABLE 1****Number and rate of violent victimizations, by type of crime, 2016–2020**

Type of violent crime	2016		2017		2018		2019		2020*	
	Number	Rate per 1,000 <sup>a</sup>	Number	Rate per 1,000 <sup>a</sup>						
<b>Violent crime<sup>b</sup></b>	5,353,820 †	19.7 †	5,612,670 †	20.6 †	6,385,520 †	23.2 †	5,813,410 †	21.0 †	<b>4,558,150</b>	<b>16.4</b>
Rape/sexual assault <sup>c</sup>	298,410	1.1	393,980	1.4	734,630 †	2.7 †	459,310	1.7	319,950	1.2
Robbery	458,810	1.7	613,840 †	2.3 †	573,100	2.1	534,420	1.9	437,260	1.6
Assault	4,596,600 †	16.9 †	4,604,850 †	16.9 †	5,077,790 †	18.4 †	4,819,680 †	17.4 †	3,800,950	13.7
Aggravated assault	1,040,580 †	3.8 †	993,170 ‡	3.6 ‡	1,058,040 †	3.8 †	1,019,490 ‡	3.7 ‡	812,180	2.9
Simple assault	3,556,020 †	13.1 †	3,611,680 †	13.3 †	4,019,750 †	14.6 †	3,800,190 †	13.7 †	2,988,770	10.7

**TABLE 2****Number and rate of property victimizations, by type of crime, 2016–2020**

Type of property crime	2016		2017		2018		2019		2020*	
	Number	Rate per 1,000 <sup>a</sup>	Number	Rate per 1,000 <sup>a</sup>	Number	Rate per 1,000 <sup>a</sup>	Number	Rate per 1,000 <sup>a</sup>	Number	Rate per 1,000 <sup>a</sup>
<b>Total<sup>b</sup></b>	15,815,310	118.6 †	13,340,220 †	108.4 †	13,502,840 †	108.2 †	12,818,000 †	101.4 †	<b>12,085,170</b>	<b>94.5</b>
<b>Burglary/trespassing<sup>c</sup></b>	3,160,450	23.7 †	2,538,170 †	20.6 †	2,639,620 †	21.1 †	2,178,400 †	17.2 †	1,741,250	13.6
Burglary <sup>d</sup>	2,205,180	16.5 †	1,688,890 †	13.7 †	1,867,620 †	15.0 †	1,484,730 †	11.7 †	1,210,640	9.5
Trespassing <sup>e</sup>	955,270	7.2 †	849,280 †	6.9 †	772,000 †	6.2 †	693,670 †	5.5 †	530,610	4.1
Motor vehicle theft	618,330	4.6	516,810	4.2	534,010	4.3	495,670	3.9	545,810	4.3
Other theft <sup>f</sup>	12,036,530	90.3 †	10,285,240	83.6 †	10,329,210 ‡	82.7 †	10,143,930	80.2	9,798,110	76.6



# Replicating the estimates in CV20 – overview

In SPSS –

1. Use **incident** data file to generate number of violent and property crimes
2. Use **person** data file to generate number of persons age 12 or older in the U.S.
3. Use the **household** data file to generate the total number of households in the U.S.

In Excel –

1. Calculate **rates**, dividing the number of crimes by the population counts and multiplying by 1,000
2. Calculate **standard errors** using GVs



# Key recodes

- Type of crime (TOC)

*Also included in the workshop files –*

- Victim-offender relationship
- Injury
- Weapon use

*Missing data*

- Out of universe – respondent was skipped out of question
- Residue – treated as 'missing/unknown'



**BJS**

Bureau of Justice Statistics

# Replicating the estimates in tables 1 & 2

In SPSS (see 'NCVS replication syntax.sps')

1. Access incident data file (38136-0003-Data)
  - a. Include recodes of interest (type of crime)
  - b. Exclude non-U.S. crimes (v4022 ne 1)
2. Generate number of victimizations
  - a. Total number of victimizations – both violent and property
  - b. Apply victimization weight to get weighted number of victimizations (SERIES\_WEIGHT)
3. Generate person and household populations
  - a. Access person (38136-0002-Data) and household data files (38136-0001-Data)
  - b. Apply person (WGTPERCY) or household (WGTHHCY) weight to get population estimates



# Replicating the estimates in tables 1 & 2

In Excel (see 'NCVS workshop replication example.xlsx') –

1. Calculate victimization rates
  - a. Access SPSS output
  - b. Link output to a worksheet tab
  - c. Divide violent victimization numbers over person populations and multiply by 1,000; divide property victimization numbers over household populations and multiply by 1,000
  - d. Also, consider unweighted cell sizes to determine reliability of each estimate



**BJS**

Bureau of Justice Statistics

# Calculating the standard errors for tables 1 & 2

In Excel (see 'NCVS workshop replication example.xlsx') –

1. One GVF worksheet for numbers, another rates and percentages
2. Include appropriate GVF parameters for analysis
  - a. See 'GVF parameters.xlsx'
3. Enter or link estimates (number, rate, percent)
  - a. In significance testing worksheet for rates and percentages –
    - indicate whether you are estimating rates or percentages
    - enter or link base for rate or percent
4. Standard errors are calculated in the worksheet (also, confidence intervals (CI) and coefficients of variation (CV))



Bureau of Justice Statistics

## Updates from BJS

- Subscribe to [JUSTSTATS](#)
  - Stay up-to-date with data releases, statistical report releases, and data tool updates
- Follow BJS on Twitter and Facebook
- Additional BJS webinars in December 2021 -- <https://bjs.ojp.gov/events>
  - Updates from BJS on the NCVS
  - Measuring Hate Crimes in the U.S.

# BJS Victimization Statistics Unit

Heather Brotsos ([Heather.Brotsos@usdoj.gov](mailto:Heather.Brotsos@usdoj.gov))

Erika Harrell ([Erika.Harrell@usdoj.gov](mailto:Erika.Harrell@usdoj.gov))

Grace Kena ([Grace.Kena@usdoj.gov](mailto:Grace.Kena@usdoj.gov))

Rachel Morgan ([Rachel.Morgan@usdoj.gov](mailto:Rachel.Morgan@usdoj.gov))

Susannah Tapp ([Susannah.Tapp@usdoj.gov](mailto:Susannah.Tapp@usdoj.gov))

Alexandra Thompson ([Alexandra.Thompson@usdoj.gov](mailto:Alexandra.Thompson@usdoj.gov))

Jenna Truman ([Jennifer.Truman@usdoj.gov](mailto:Jennifer.Truman@usdoj.gov))



810 Seventh Street, NW, Washington, DC 20531 | Phone: +1 (202) 307-0765 | <https://bjs.ojp.gov>



Q & A

Additional reference slides



**BJS**

Bureau of Justice Statistics

# NCVS public-use file (PUF) structure

- 2000-level variables contain information about the household and respondent
- 3000-level variables cover information about each person
- 4000-level variables include information about each incident
- Annual files include collection year data from January 1 – December 31
  - Based on date of interview, not date of incident
- Most sampled persons/households should be included twice in the person/household level file
  - Interview 1 – January-June; Interview 2 – July-December
  - 1/7 phases in during July-December; 1/7 phases out + replacement households



**BJS**

Bureau of Justice Statistics

# NCVS weights

## Household file

- **V2116** (Household weight) – adjusts each 6-month period to total U.S. households
- **WGTHHCY** (Adjusted household weight) – divides v2116 by 2 for annual count of U.S. households

## Person file

- **V3080** (Person weight) – adjusts each 6-month period to U.S. population
- **WGTPERCY** (Adjusted person weight) – divides v3080 by 2 for annual U.S. population



# NCVS weights

## Incident file

- **WGTVICCY** (Adjusted victimization weight) – provides total count of victimizations (no adjustment for series crimes)
- **SERIES\_WEIGHT** – accounts for high-frequency repeat victimizations or series victimizations (available for all years on concatenated file 1992-2020; available on annual files 2015+)
- **SERIES\_IWEIGHT** – accounts for high-frequency repeat incidents or series incidents (available 2016+, formerly called v4527 incident weight with no series crime adjustment)



# NCVS weights

In 2020 –

- Household weight (WGTHHCY) ranged from 61 to 10,090
- Person weight (WGTPERCY) ranged from 72 to 17,608
- Victimization weight (SERIES\_WEIGHT) ranged from 151 to 77,560

\*In other words, a weighted count of about ~77,000 victimizations could be based on  $n = 1$  or  $n = 100$ s, depending on characteristics of victim

Always important to check unweighted counts

BJS flagging rule for 10 or fewer sample cases = may contribute to large standard errors and/or coefficient of variation (CV) > 50%



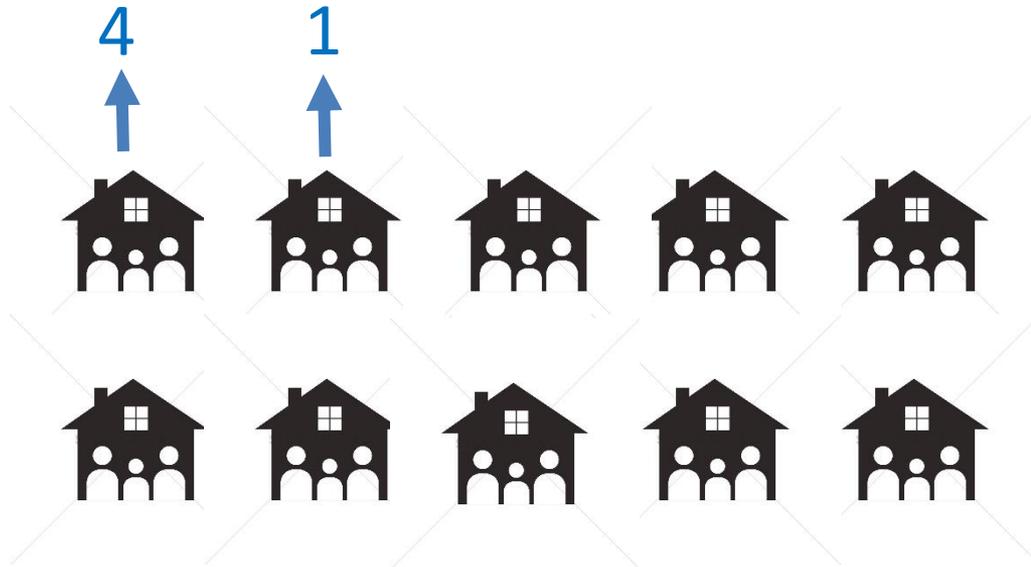
BJS

Bureau of Justice Statistics

# Unit of analysis

Household estimates: based on counting **households** affected by the crime

- For property victimizations in bulletin, based on the SERIES\_WEIGHT
- 5 property crimes among these 10 households

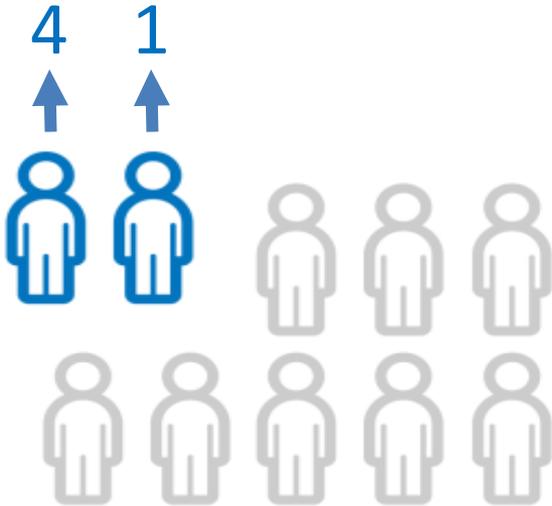




# Unit of analysis

Victimization estimates: based on counting **victimizations**

- Uses the SERIES\_WEIGHT
- 5 victimizations among these 10 people



Prevalence estimates: based on counting **victims**

- Uses the WGTPERCY
- 2 victims among these 10 people





# Unit of analysis

- It is possible to move between person-level and household-level analyses when examining prevalence.
- Consider a household of 3 people where there is a reported burglary and a reported simple assault.
- Examples from recent bulletins —
  - prevalence of property crimes per household (*1 household victimized by burglary*)
  - prevalence of property crimes per person, assigning burglary and motor vehicle theft to everyone in the household (*3 burglary victims that live in this household*)
  - prevalence of violent crime per person (*1 victim of simple assault*).

## Reported a burglary & simple assault

