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Trends in Criminal Activity, Crime Reporting, and Public Perceptions

In the United States, crime rates have been falling sharply since their peak in the 1990s. Researchers have put forward a wide range of explanations to explain this shift. Despite the overall long-term declining trend, people's perceptions of crime have been shifting, according to various polls, in the opposite direction.

Crime is a complex, multidimensional problem. Different factors explain the large observed variability in crime rates across geographic areas and demographic groups. Ultimately, the immediate consequences of crime are highly localized, affecting the overall well-being of communities. Recent highly publicized events involving police violence have heightened concerns about crime and the criminal justice system.

To assess existing law enforcement and crime preventive policies, it is important to first understand what kind of data are available to track crime, how the data are collected, what the data's limitations are, and what the data say.

SOURCES OF CRIME DATA

The two primary sources of crime data in the United States are the Uniform Crime Reporting (UCR) program, administered by the FBI, and the National Crime Victimization Survey (NCVS), conducted by the U.S. Census Bureau for the Bureau of Justice Statistics.

The UCR program compiles crime data from local law enforcement agencies. Even though participation in this program is voluntary, about 18,000 law enforcement agencies, representing 95 percent of U.S. population, are involved in it. Because local law enforcement agencies across the country do not generally follow uniform practices when classifying and

recording different types of crimes, the UCR program standardizes the data collected from the agencies. The program then converts the data into crime indices.

Index crimes — that is, crimes included in the indices — are classified into two broad categories: violent crime and property crime. The former includes murder and nonnegligent manslaughter, forcible rape, robbery, and aggravated assault; the latter includes burglary, larceny-theft, motor vehicle theft, and arson.

The UCR data are widely used by the media, policymakers, and researchers to track crime behavior. The quality of the data has been improving over time; however, the program still has a number of well-known limitations. First, it includes only crimes that are officially reported. In other words, it tracks only crimes that are known to law enforcement officials. Second, it includes only crimes known by state and local law enforcement authorities; it does not consider federal crimes or crimes at certain institutions such as jails or prisons. Third, since participation is voluntary, local agencies may not consistently submit data to the program. The FBI relies on certain processes to impute missing or unreliable data, which may vary across years. The UCR warns users that the data cannot be used to make reliable comparisons across law enforcement agencies.

The NCVS is a nationally representative survey of households conducted annually throughout the year, which asks participants about themselves and whether they were victims of a crime. The survey started in the early 1970s and currently conducts about 240,000 interviews annually. The survey reports information on nonfatal

personal crimes (rape or sexual assault, robbery, aggravated and simple assault, and personal larceny) and household property crimes (burglary/trespassing, motor vehicle theft, and other theft). It also includes information about certain household characteristics, such as household income and size and the race of the head of household. A key feature of this survey is that it also provides information about the number of both reported and unreported crimes. One disadvantage of the survey is that since it is designed to calculate victimization rates at the national level, it does not offer information about victimization rates at lower geographical levels.

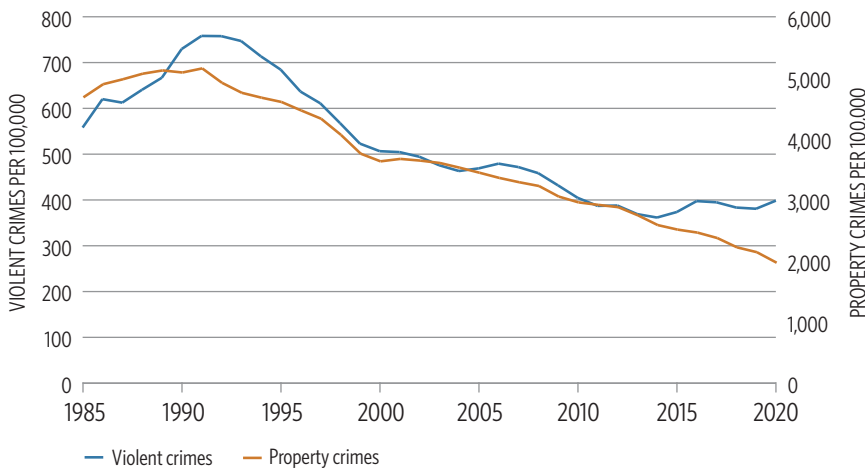
More recently, some local governments and law enforcement agencies have started to release crime data directly to the public. The Police Data Initiative is an example of this effort. At the moment, approximately 130 local enforcement agencies publicly share data as part of this initiative. As with the UCR, caution is needed when comparing information across agencies since local law enforcement agencies may follow different practices in recording and classifying crimes.

DEVELOPMENTS IN CRIME TRENDS

In general, crime data show a relatively sharp decline from 1990 through roughly 1999 in both violent crime and property crime, followed by a more gradual decline over the next two decades. (See chart.)

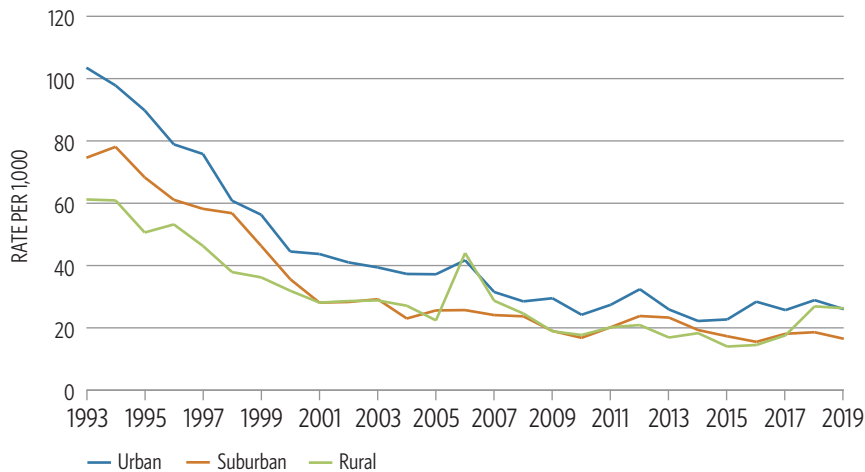
Most recently, the UCR data show that the property crime rate declined from 2,131 per 100,000 people in 2019 to 1,958 in 2020. The violent crime rate, however, increased from 381 to 399 per 100,000 people. The most

U.S. Violent Crime Rate and Property Crime Rate



NOTE: Rates are per 100,000 people. Scale for violent crime rate is on left axis; scale for property crime rate is on right axis.
SOURCE: Federal Bureau of Investigation Uniform Crime Reporting Program

Violent Victimization Rate by Location of Residence



NOTE: Rate is per 1,000 persons aged 12 or over.
SOURCE: Bureau of Justice Statistics National Crime Victimization Survey

common form of property crime was larceny-theft, followed by burglary and motor vehicle theft. Among violent crimes, aggravated assault was the most common offense, followed by robbery, rape, and murder/nonnegligent manslaughter.

It is not uncommon for the data to show unexpected year-to-year fluctuations, especially as more specific categories of crime are examined. Even after considering these types of changes, one category of violent

crime that has experienced an unusual increase from 2019 to 2020 is the murder rate. The FBI reports that the murder rate rose about 30 percent during this period, the largest annual increase on record since the 1960s, when the agency started recording this kind of crime data.

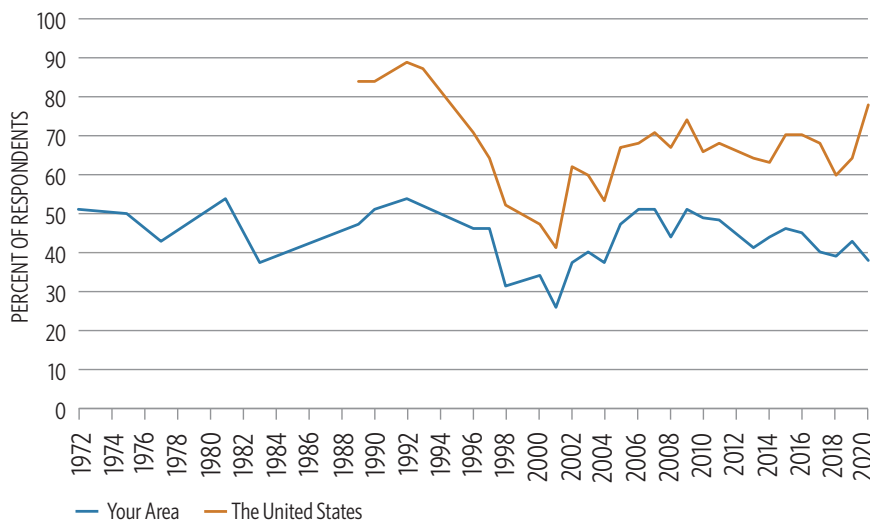
The data indicate that property crimes occur about five times more frequently than violent crimes. But the frequency with which crimes occur doesn't tell the whole story.

Even though property crimes are more frequent, violent crimes have a larger impact on society and are more costly. In a 2009 article in the *Journal of Quantitative Criminology*, Mark Cohen of Vanderbilt University and Alex Piquero of the University of Texas at Dallas performed a careful and comprehensive estimation of the costs associated with different types of crimes. These estimates include the present value of the victim's costs, costs associated with the functioning of the criminal justice system (police, courts, prisons), and the offender's productivity loss due to incarceration or other form of incapacitation. Based on their calculations, a 2017 National Bureau of Economic Research working paper by David Autor, Christopher Palmer, and Parag Pathak of the Massachusetts Institute of Technology concluded that the (weighted) average direct cost per violent crime is about \$68,000, compared to \$4,000 per property crime — or, equivalently, violent crimes are on average 17 times more costly than property crimes.

The NCVS corroborates that victimization rates (both violent and property) have sharply declined since the beginning of the 1990s, in line with the UCR data. But victimization rates differ among demographics and geographic areas. In general, violent and property victimization rates are higher for Blacks compared to Whites and other races (which includes Asians, Native Hawaiians, other Pacific Islanders, American Indians, Alaska Natives, and persons of two or more races). Also, they are higher in urban areas compared to suburban and rural areas. (See chart.)

Perceptions of national crime reflected in opinion surveys, however, do not closely align with the FBI data. The latest annual crime survey, conducted by Gallup during the period Sept. 30 to Oct. 15, 2020, shows that an increasing number of people perceive that crime has increased in the United States since the beginning of the 2000s. One interesting observation is that

Gallup: "Is there more crime in _____ than there was a year ago?"



NOTE: Values are percent of respondents answering "more."
SOURCE: Gallup

while respondents are more likely to perceive that crime has increased at the national level, they are also less likely to perceive an increase in crime in their local areas. (See chart.)

Within the Fifth District, the UCR data show that crime rates have followed the general declining trend. But there are wide discrepancies across states within the district. (See charts on next page.) Property and violent crime rates in the District of Columbia are the highest not only within the Fifth District, but also nationwide. Crime rates in South Carolina are generally above the national average. The violent crime rate in Maryland is about the same as the one observed in South Carolina, and the property crime rate has been following the national trend closely since 2005. In Virginia and West Virginia, the crime rates are lower than the national average. Violent crime rates in North Carolina track the national trend almost perfectly.

But state averages often obscure crime in specific areas within the state, especially within cities. Data for the city of Baltimore, for example, obtained from the Open Baltimore initiative, show that while the property crime rate has declined since 2011 (from 48.6

per 1,000 residents to 29.3), the violent crime rate has actually increased (from 15.1 per 1,000 residents to 24.8).

GEOGRAPHIC CONCENTRATION OF CRIME

Index crimes are not concentrated in any particular state or city. This is consistent with theory. As stated by Brendan O'Flaherty and Rajiv Sethi of Columbia University in a 2015 article in the *Handbook of Regional and Urban Economics*, crime is a nontradable activity, so, in principle, it is not expected to be concentrated in a specific geographic area. The idea is that more tradable activities tend to cluster spatially because they benefit from agglomeration economies; by locating near other firms in cities or industrial clusters, participants can share knowledge and have access to a larger pool of inputs. Nontradable activities, on the other hand, can only be performed locally, so they are generally more uniformly distributed across locations.

O'Flaherty and Sethi calculated indexes of crime concentration, and the indexes show that intrametropolitan concentration of crime tends to be larger than intermetropolitan concentration. In other words, the

concentration of crime is relatively high within cities, but crime is not concentrated in any specific city.

The concentration of crime at certain sites in a city, typically known as "hot spots," is markedly high for crimes such as robbery and motor vehicle theft. These locations tend to be specific places such as intersections, street sections, or addresses, rather than whole neighborhoods.

In an article in *Criminology* in 2015, David Weisburd of George Mason University coined the term "law of crime concentration" to refer to the importance of this phenomenon in explaining the spatial patterns of criminal activities. This type of crime behavior is also relevant when designing law enforcement policies, since targeting police resources to these areas would likely have a large impact on crime reduction.

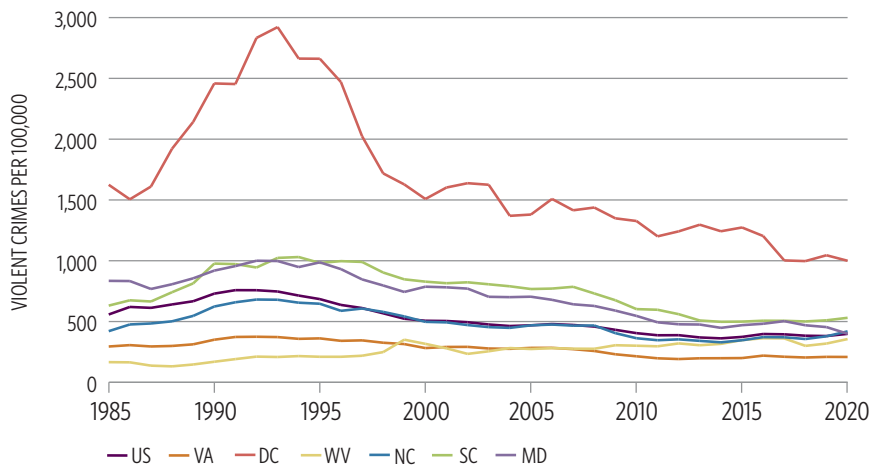
CRIME REPORTING IN 2020

NCVS data indicate that most crimes are not reported to the police. (See chart on p. 34.) In 2019, for example, only 40.9 percent of violent crimes and 32.5 percent of household property crimes were reported to authorities. Motor vehicle theft is the crime most frequently reported (an estimated 80 percent of these crimes are reported) and theft/larceny is the least (about 27 percent), both property crimes. For violent crimes, the lowest reporting percentage is for rapes/sexual assault (34 percent) and the highest is for robbery (47 percent). (Homicide generally has a high reporting rate, but it isn't one of the crimes included in the NCVS.)

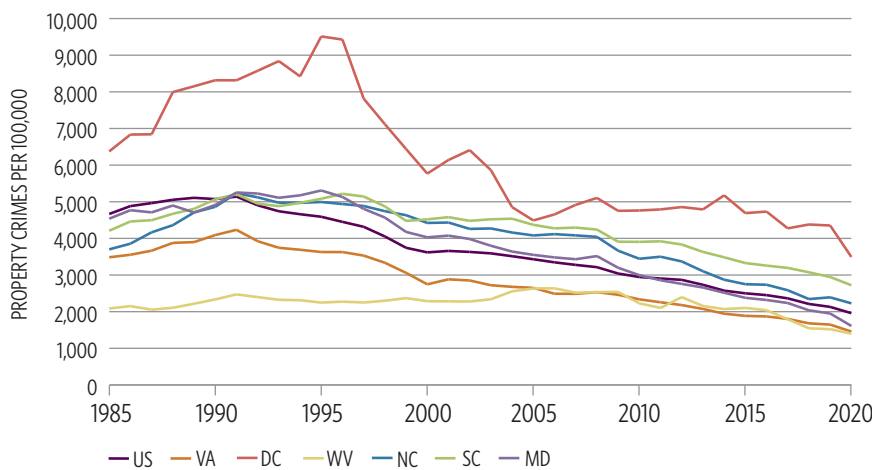
Among the main reasons why a crime was not reported, according to respondents, were fear of reprisal or "getting the offender in trouble," a feeling that police "would not or could not do anything to help," or a belief that the crime is "a personal issue or too trivial to report."

Most of the reported crimes are not solved. According to UCR data for 2019, about 45 percent of officially

Fifth District Violent Crime Rates



Fifth District Property Crime Rates



NOTE: Rates are per 100,000 people.

SOURCE: Federal Bureau of Investigation Uniform Crime Reporting Program

reported violent crimes are cleared by arrest (or by exceptional means, which include the death of the offender and other exceptional circumstances that prevented the prosecution of the offender). For property crimes, 17 percent of the offenses are cleared.

The year 2020 was atypical in many ways. COVID-19 and several high-profile events involving police violence, such as the murder of George Floyd in Minneapolis, had an effect on how people interacted. These events also affected the overall level of crime, the types of crimes, and the incentives to report crime. While the property crime

rate declined from 2019, the violent crime rate actually went up. But these statistics leave open the possibility that some people may have decided in 2020 not to engage with police by reporting a crime or to report certain types of crimes and not others.

Using publicly available data for the city of Baltimore, we examined the extent to which residents changed their reporting behavior in 2020 compared to 2019. Changes in reporting are captured by the difference in the number of 911 calls between the two years. The results show that from March to August, the number of 911

calls was lower in 2020 compared to 2019, suggesting that a large number of incidents were not reported in 2020.

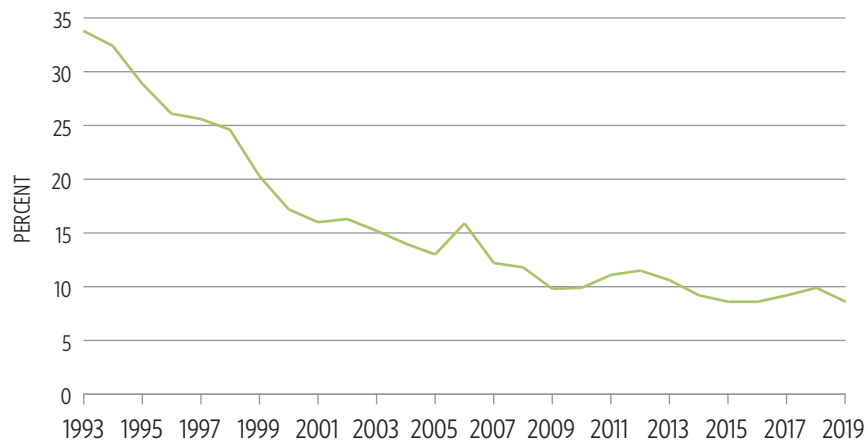
This change in behavior observed throughout 2020 can be attributed to a variety of reasons. Taking a closer look at the city of Baltimore, it appears that the decline in 911 calls that started at the end of March coincides with the implementation of the stay-at-home orders in Maryland. These orders stayed in place from March 30 until May 15. During this period, the number of 911 calls in 2020 was far less than in the same periods in 2019 or 2021: 7,571 fewer 911 calls were made in 2020 relative to the same period in 2019; 5,249 fewer calls were made in 2020 relative to the same period in 2021.

This pattern was observed in other cities as well. Lockdown policies implemented by states and local governments during 2020 were intended to lower the spread of COVID-19. They decreased the overall level of mobility and, as a result, the intensity of economic and social interactions taking place across communities. All this had an effect not only on the number of criminal activities, but also on the types and targets of crimes and the likelihood of reporting certain crimes.

ENGAGEMENT WITH POLICE IN 2020

A recent article in the *American Journal of Health Economics* by Lindsey Bullinger, Jillian Carr, and Analisa Packham focused precisely on this issue. The authors examined cell phone block-level activity data, 911 calls, and crime data for Chicago during the pandemic. They found that even though the announcement of the stay-at-home orders led to a decrease in total calls for police service, the share of domestic violence-related calls increased. The article also showed that domestic-related crimes officially reported to the police and arrests actually declined. Specifically, reports fell by 6.8 percent and arrests for domestic violence crimes fell by 26.4 percent relative to 2019. The authors concluded

Rates of Violent Victimization Reported to Police



SOURCE: Bureau of Justice Statistics National Crime Victimization Survey

that during March and April 2020, about 1,000 cases of domestic violence crimes in Chicago were not reported to the police.

In many locations, 911 calls in 2020 remained low even after the expiration of the stay-at-home orders. Specifically, in the city of Baltimore, from May 25 to July 27, some 54,821 fewer 911 calls were made in 2020 compared to the same period in 2019 (45,750 fewer calls in 2020 relative to 2021). The drop in requests for a police response has been attributed to a change in citizens' reporting behavior after the high-profile murder of George Floyd on May 25, 2020. In the city of Baltimore, for example, public demonstrations over the death of George Floyd were particularly visible during this period. Such incidents may have affected the desire of citizens to cooperate and engage with the police.

Recent work by Desmond Ang of the Harvard Kennedy School, Panka Bencsik of the University of Chicago, Jesse Bruhn of Brown University, and Ellora Deroncourt of Princeton University carefully examined changes in the ratio of police-related 911 calls to the number of gunshots (detected through a technology known as ShotSpotter that uses microphones scattered around different geographic areas) in eight cities: Baltimore, Cincinnati, the District of Columbia, Milwaukee,

Minneapolis, New York City, Richmond (California), and San Diego. They found that this ratio declined immediately after Floyd's murder. They also found that this change in behavior is observed in both predominantly non-White and predominantly White neighborhoods nationwide. They argued that this provides evidence of a causal effect of police violence on the incentives of citizens to engage and cooperate with the police.

STATE AND LOCAL SPENDING ON PREVENTION

The direct involvement of state and local governments in crime preventive activities is reflected in the amount of resources they devote to police protection and corrections. In 2018, state and local governments spent \$121 billion on police protection, roughly 3.7 percent of direct general expenditures, or \$369 per capita, and \$82 billion on corrections, 2.6 percent of expenditures, or \$255 per capita. Compared to other spending categories, the share spent by state and local governments on police and corrections is a little bit higher than the share devoted to highways.

During the period 1977-2018, real spending on police protection per capita increased on average by 1.5 percent annually, about the same rate as the increase in state and local direct

general expenditures, and annual per capita spending on corrections increased by about 2.7 percent. As a result, police spending as a share of total spending remained fairly constant during the period, at about 3.7 percent of direct general expenditures; spending on corrections increased from 1.6 percent in 1977 to 2.6 percent in 2018 (it reached a peak of 3.3 percent in 1999 and 2000).

Most spending on police is done by local governments (about 86 percent). While state expenditures on police are mostly targeted to highway patrols, local government spending supports sheriffs' offices and police departments.

In the Fifth District, the District of Columbia spent \$908 on police protection per capita and \$366 on corrections per capita in 2018, leading all the other jurisdictions in both categories. South Carolina spent the least per capita in both categories. The amount spent on police protection as a percentage of direct general expenditures in Maryland, the District of Columbia, and North Carolina exceeds the U.S. average, and the share spent on corrections is higher than the U.S. average in Virginia and Maryland. More research is needed, however, in order to determine the effectiveness of spending on crime.

CONCLUSION

A regular review and assessment of existing law enforcement practices is critical to ensure their continued effectiveness. The commitment to engage in such a process would also contribute to establishing a stronger connection between citizens and law enforcement. Such evaluation requires a careful examination of the data. It is important not only to understand what the data say, but also to be aware of their limitations. Any effort by local agencies and policymakers to improve the quality of the data and also make it broadly available to the public would enhance transparency and heighten confidence in the law enforcement institutions. **EF**