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# The Sixty-Year Trajectory of Homicide Clearance Rates: Toward a Better Understanding of the Great Decline

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#### **Keywords**

homicide, arrest, clearance rate, investigation, performance measure, solvability

#### **Abstract**

In 1962, the FBI reported a national homicide clearance rate of 93%. That rate dropped 29 points by 1994. This Great Decline has been studied and accepted as a real phenomenon but remains mysterious, as does the period of relative stability that followed. The decline was shared across regions and all city sizes but differed greatly among categories defined by victim race and weapon type. Gun homicides with Black victims accounted for most of the decline. We review the evidence on several possible explanations for the national decline, including those pertaining to case mix, investigation resources, and citizen cooperation. Our preferred explanation includes an upward trend in the standard for arrest, with strong evidence that although clearance-by-arrest rates declined, the likelihood of conviction and prison sentence actually increased. That result has obvious implications for the history of policing practice and for the validity of the usual clearance rate as a police performance measure.

#### INTRODUCTION

Homicide clearance rates declined nationwide from a peak of 93% in 1962 to 64% in 1994. The rate then plateaued (with some variation) until 2019. There is no satisfactory explanation for either the initial decline or why it ended, and this pattern deserves to be on any top 10 list of criminological mysteries. The pre-1995 trend, which we refer to as the Great Decline, is not just of historical interest. A better understanding of the trends and patterns in the national homicide clearance rate provides insight into the evolving challenges facing police investigators and the performance of the police in responding to those challenges. The urgency of this effort is made evident by the sharp drop in homicide clearance rates recorded in 2020, when nearly half of all homicides went unsolved.

The clearance rate serves as a police performance measure (Baughman 2020). A decline suggests a problematic erosion of law enforcement efficacy with respect to the fundamental task of delivering justice to victims and their families as well as a loss of the preventive effects of law enforcement (Ousey & Lee 2010). A particular focus on homicide is warranted by the fact that it is the most serious crime type and of the highest priority for police investigation (Jarvis et al. 2017).

In this review, we begin by addressing two prominent questions: Are the historical trends in the national clearance-rate statistics an accurate reflection of reality? And to what extent are the observed trends due to changing case mix? The answers are, respectively, "probably" and "it's complicated." One complication that arises in analyzing this long history is that the structure of homicide clearance rates has changed dramatically. In particular, we find that two of the reliably measured principal correlates of the clearance rate—race and weapon type—underwent a qualitative shift in the mid-1980s. Before then, homicides involving Black victims had higher clearance rates than those with White victims, and homicides involving guns had higher clearance rates than those with other weapons. Both patterns reversed in the mid-1980s, and the gaps have grown since then. Of the four groups defined by race (Black—White) and weapon type (gun—non-gun), by far the greatest decline in clearance rate was for gun homicides involving Black victims. We document these surprising findings and provide some evidence of the changing mix of circumstances that may account for them.

We also consider but find wanting two other plausible and commonly proffered explanations for the Great Decline: trends in investigative workload and citizen cooperation. A third possibility, for which we offer some evidence, is an upward trend in standards governing investigation methods and probable cause. If true, this trend indicates that the quality of police work and justice may have actually improved, which turns the usual narrative of declining effectiveness on its head. It also serves as a challenge to the validity of the national homicide clearance rate as a normative indicator of police performance.

One reason that we would expect the quality of investigations and arrests to improve is technological advances that aid in investigations. Eyewitness testimony remains as essential today as it was in the 1960s, and detectives still spend much of their time identifying, locating, and interviewing witnesses (Braga & Dusseault 2018, Lum & Nagin 2017, Mancik et al. 2018). But detectives have increasingly employed other tools, such as computerized databases, DNA analysis, video and digital evidence, and other advances in forensics (Keel et al. 2009, Lum et al. 2022, McEwen & Regoeczi 2015, Schroeder & White 2009). Despite these new investigative tools, it is now just 50–50 whether a homicide case will be cleared—far lower than in the day when detectives were limited to less sophisticated methods. But it is possible that better-resourced investigations, coupled with higher standards, have improved the quality of clearing crimes by arrests over time, and we offer some direct evidence in support of that conclusion.

Stepping back, it is important to recognize that in principle there are alternative, more valid indicators of police performance and the likelihood of punishment. Arrest, the primary means of clearing a crime, is only an intermediate step on the way to outcomes that more directly signify success, conviction and punishment. That distinction does not affect observed trends if the fraction of arrests resulting in conviction is constant over time. But the likelihood of conviction and punishment given arrest increased during the period of the Great Decline. During that period, the clearance rate declined markedly but the ratio of prison admissions to homicides actually increased between 1970 and the 1990s. The criminological focus on clearance-by-arrest rates is largely dictated by data availability, but as a historical matter, it appears that clearance-by-arrest rates and clearance-by-conviction rates follow qualitatively different trajectories.

In what follows, Section 2 offers a discussion of the complexities of defining the homicide clearance rate and its usefulness as a performance indicator. Section 3 then documents the long trend in national homicide clearance rates using FBI data and argues that the decline starting in 1963 was real rather than an artifact of trends in data reporting. Furthermore, we document that the decline is pervasive across all city-size groups and regions in the United States. International comparisons on this matter are difficult because of differences in institutions and definitions but not impossible. It appears that current homicide clearance rates in some nations of Western Europe and Asia are as high in recent years as the US rate was in the 1960s (Liem et al. 2019, Roberts 2008).

Section 4 then considers the most accessible explanation for trends in clearance rates, namely that the homicide case mix has evolved in a way that makes the task of identifying and arresting suspects more difficult. There is a considerable literature on solvability that has some fairly consistent findings (and some inconsistent findings) on how the intrinsic difficulty of case closure is associated with the circumstances—the who, where, when, how, and why—of the homicide. In fact, there are some trends in the national composition of homicide, such as the upward trend in the proportion of homicides committed with guns and involving Black victims (two key correlates often reported to be associated with relatively low homicide clearance rates), that would predict a decline in average solvability, at least given current clearance patterns. But it turns out such trends have only limited leverage in explaining the nearly 30-point drop from 1962 through 1994, in part because of the qualitative changes in the weapon-related and race-related clearance rate gaps mentioned above.

In section 5, we consider other explanations for the Great Decline and the subsequent plateau. Among the prominent possibilities are trends in police resources for investigation and in witness cooperation. The evidence on these possibilities is quite limited, but it is relevant to the resource issue that the number of homicides per sworn officer actually declined from 1970 to 2000. Regarding witness cooperation, we use victimization survey data to demonstrate that citizen reporting rates to police did not decline during this time period. Furthermore, race-specific trends in public opinion of the police do not suggest a decline in civilian cooperation, at least due to changes in police–community relations, as the prevalence of favorable views stayed nearly constant until quite recently.

Section 6 presents novel evidence in support of the possibility that the Great Decline is in part a reflection of the increasing standard for making an arrest during that period. In particular, there was a strong upward trend in the likelihood that a homicide arrest would result in a conviction and subsequent imprisonment—an increase large enough to reverse the trend in arrests. We use data on state prison admissions to support this point. That pattern serves as a challenge to the validity of the clearance rate as a performance measure or as a measure of the likelihood of punishment, at least with respect to national trend data.

Our final section concludes by recapping our understanding of the historical causes of the Great Decline. That decline appears to have been real, geographically ubiquitous, but largely limited in

the national data to the subset of homicides in which a Black victim was killed with a gun. A distinct line of inquiry provides strong evidence that the national decline in the likelihood of clearance by arrest was coupled for much of this period with an increase in the likelihood that a homicide would result in someone being sentenced to prison. One logical interpretation of these trends is that arrests (which constitute the bulk of all clearances) were increasingly likely to result in convictions and prison sentences. These findings provide a new perspective on the Great Decline but fall short of solving the mystery.

#### **DEFINITION AND USE**

Why is the homicide clearance rate important? In many US cities, homicides account for the bulk of the social cost of crime (Cook & Ludwig 2022). Valid or not, the homicide clearance rate is often used internally and among the general public as a measure of police performance (Baughman 2020). In particular, it is one indicator of the extent to which the police are successful in delivering justice to crime victims and their families and communities and curtailing the motivation for private retribution. A low clearance rate for such a serious crime as homicide may be viewed by residents of the most violence-impacted communities as a reflection of police indifference to their interests (Altholz 2020, Keel et al. 2009, Leovy 2015, Ousey & Lee 2010). Many residents of these communities perceive that they are simultaneously overpoliced when it comes to minor infractions, yet underpoliced in more serious matters such as failure to apprehend killers (Brunson 2020, Leovy 2015, Rios 2011). As a somewhat distinct matter, a low clearance rate is also conducive to higher rates of violence by undermining the key crime control mechanisms of deterrence and incapacitation (Anderson 1999, Black 1983, Brunson & Wade 2019, Daly 2023, Riedel & Jarvis 1999).

The validity of the clearance rate in these applications is in question. If the focus is on crime prevention and justice, an arrest is just an intermediate step on the way to conviction and punishment. An arrest without a conviction is of little use and is actually harmful to the suspect, who may in fact be innocent. The focus on clearance (primarily by arrest) is dictated by data availability, and conviction data are much harder to come by than arrest data. We proceed with the usual focus on the clearance rate and return later to the question of what it signifies.

Most reports on the long trend in homicide clearance rates use the data and definitions provided by the FBI through the Uniform Crime Reporting (UCR) Program. The FBI allows for two types of clearance, clearance by arrest and clearance by exceptional means, although in practice the reported clearance rates do not differentiate between the two. Below is the definition of Cleared by Arrest from the annual *Crime in the United States* report for 2019 (Fed. Bur. Investig. 2020):

In the UCR Program, a law enforcement agency reports that an offense is cleared by arrest, or solved for crime reporting purposes, when three specific conditions have been met. The three conditions are that at least one person has been:

- Arrested.
- Charged with the commission of the offense.
- Turned over to the court for prosecution (whether following arrest, court summons, or police notice).

In its clearance calculations, the UCR Program counts the number of offenses that are cleared, not the number of persons arrested. The arrest of one person may clear several crimes, and the arrest of many persons may clear only one offense. In addition, some clearances that an agency records in a particular calendar year, such as 2019, may pertain to offenses that occurred in previous years.

"Cleared by exceptional means" denotes instances that were not cleared by arrest but in which the investigating agency believed that it had nonetheless solved the case. Examples of exceptional clearances include, but are not limited to, the death of the offender or the denial of extradition from another jurisdiction. It is important to note that the FBI definitions for cleared by arrest and cleared by exceptional means have remained consistent since their inception, and thus the decline cannot be attributed to a change in definition.

The homicide clearance rate reported by the FBI for any given year is the number of homicide offenses cleared in that year either by arrest or exceptional means, divided by the number of homicide offenses known to police in that year. Because homicide investigations can extend for several months, and sometimes years, there is some temporal mismatch between the cases represented by the numerator and the denominator. As noted above, an arrest in 2019 for a murder that occurred in an earlier year would be included in the numerator of the 2019 clearance rate with no corresponding change to the denominator.<sup>1</sup>

It should also be noted that the FBI's national clearance rate is computed from data provided by reporting agencies. Reporting is voluntary and incomplete, and reporting prevalence has changed drastically since the FBI Uniform Crime Report's inception in 1930. In particular, the number of agencies reporting clearance data increased from approximately 2,000 in 1960 to almost 10,000 in 1980 (Cassell & Fowles 2017, p. 761). By 2019, the number of reporting agencies had grown to 15,008, covering an estimated 87% of the US population (FBI 2020). The missing data affect the national estimate of the homicide clearance rate only to the extent that reporting agencies are systematically different than agencies that do not report.

The FBI's definition of homicide clearance rate raises the question of whether the arrest rate or the clearance rate is a better indicator of police performance. The answer is that it does not matter much in practice (Lundman & Myers 2012). Exceptional clearances constitute only one in nine homicide clearances in recent years (Jarvis et al. 2017, Lundman & Myers 2012, Riedel & Boulahanis 2007). From a deterrence and crime control perspective, the exceptional clearances represent neither a success nor a failure of the investigation.

#### DOCUMENTING THE SIXTY-YEAR TREND

#### The Great Decline Is Real

National clearance rate statistics have been reported by the FBI since 1933 through the UCR Program. **Figure 1** plots the homicide clearance rate since 1960. The rate peaked in 1962 at 93%. A near-linear decline through 1994 took the rate down to 64%. The first two decades of this century saw some variation with little trend, and in 2019 the rate was 61%. A sharp drop to 54% occurred in 2020, when the police and courts curtailed their activities in response to the COVID pandemic, and nationwide vilification of the police following the murder of George Floyd may have made it more difficult to elicit witness cooperation.

The UCR data are far from perfect. Reporting by local agencies is voluntary, incomplete, and not closely audited. Nonetheless, one of the UCR measures, the national annual homicide counts from summary reporting, has been validated by comparison with the homicide counts reported by the Center for Disease Control's National Vital Statistics System (NVSS), where reporting is mandatory. The two series are close in quantitative terms and follow the same pattern over time (Regoeczi & Banks 2014). There is no such external check on the UCR estimate of the homicide clearance rate, and there is reason for concern. It may be biased because of either

<sup>&</sup>lt;sup>1</sup>For incidents in which there were two homicide victims, the FBI counts each death as a separate offense, and a single arrest in this case would clear both offenses.

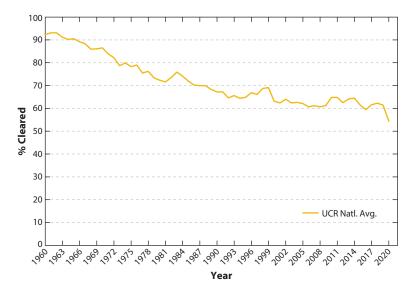


Figure 1

US national homicide clearance rates, 1960–2020. Data for 1960–2019 from the Offenses Known and Cleared by Arrest section of the US Federal Bureau of Investigation Uniform Crime Reporting (UCR) Program (https://www.fbi.gov/how-we-can-help-you/more-fbi-services-and-information/ucr). Data

for 2020 from the Murder Accountability Project (https://www.murderdata.org/p/blog-page.html).

nonresponse error (if reporting agencies differ systematically from nonreporting agencies with

respect to clearance rate) or response error (for example, if local reporting agencies do not follow the UCR instructions on how to define clearance).<sup>2</sup> Another potential problem is in terms of the temporal mismatch between clearance and offense, given how the measure is operationalized by the FBI.

The first question, then, is whether we should believe the UCR data. Did the nation actually experience the Great Decline and the subsequent plateau? Or is that historical pattern somehow an artifact associated with underlying trends in the accuracy and completeness of clearance data in the UCR? It is reassuring that criminologists who have analyzed these data have generally accepted the Great Decline as factual (Avdija et al. 2022, Korosec 2012, Mancik & Parker 2019, Ousey & Lee 2010, Riedel 2008, Riedel & Jarvis 1999, Wellford et al. 1999, 2019).

Concrete evidence in support of the reality of the decline comes from a recent analysis of a single city, Chicago (Cook & Lopez 2023), ironically a city that is known for its inconsistency in reporting to the UCR. That study utilized the Chicago Homicide Data Set, a well-known and meticulously compiled data set by Richard and Rebecca Block, which includes detailed homicide and arrest records for the period 1965–1995 (Block et al. 2005). In Chicago, the homicide arrest rate declined from 91% in 1965 to 57% in 1994, a decline even larger than suggested by the national clearance-rate data.

<sup>&</sup>lt;sup>2</sup>Donohue (1998) contacted ten large police departments and inquired about their practice in recording a crime as cleared. The typical response was that a homicide was marked as cleared if there was an arrest, regardless of whether it was accepted for prosecution.

<sup>&</sup>lt;sup>3</sup>Others have utilized these data to analyze patterns in Chicago clearance rates. See, for example, Jiao (2007), Litwin & Xu (2007), and Xu (2008).

Table 1 Change in homicide clearance rate by geographic division, percentage points<sup>a</sup>

Geographic division	1962–1994	1962–2019	1962-2020	
Middle Atlantic	-26.1%	-24.7%	-55.6%	
East North Central	-50.4%	-40.5%	-52.8%	
East South Central	-24.8%	-36.4%	-48.3%	
Mountain	-28.0%	-29.2%	-28.4%	
New England	-26.3%	-39.4%	-41.9%	
Pacific	-34.2%	-28.4%	-35.3%	
South Atlantic	-25.7%	-36.6%	-37.9%	
West North Central	-16.5%	-36.1%	-36.9%	
West South Central	-26.7%	-36.7%	-43.8%	
National	-30.8%	-34.1%	-41.6%	

<sup>&</sup>lt;sup>a</sup>See Supplemental Table 1 for a list of states in each geographic region and division.

#### Comparison of Trends Across Regions and Size of Place

The national clearance rate is of course a weighted average of clearance rates from the thousands of reporting jurisdictions in each year. It turns out that the Great Decline was not limited to certain regions or jurisdictions but was ubiquitous. Developing this conclusion requires statistics on homicide clearance rates by region and by subsets of cities. In addition to the national statistics, the FBI's Uniform Crime Reports include a breakdown of the homicide clearance rate for each geographic region and division and by population group. All 15 subsets follow the Great Decline and plateau thereafter. **Tables 1** and **2** summarize the results by tabulating the decline for each of three intervals: 1962–1994, 1962–2019, and 1962–2020.

For the nine geographic divisions, the range of declines for the period 1962–2020 is 35%–56% (**Table 1**). For the six city population groups used by the FBI, the range of declines is 35%–49% (**Table 2**). Note that the range was much tighter through 2019 (35%–38%), but the drop from 2019 to 2020 was concentrated among the largest cities, creating some divergence with smaller cities and rural areas. In any event, the bottom line is that every region and city-size group experienced large declines in line with the national average. The high inter-regional and interjurisdiction correlations over this half-century suggest that the national patterns have been geographically pervasive, although of course there are exceptions (Lee & Cho 2021, Scott et al. 2019, Worrall 2019).

### **International Comparisons**

Although homicide rates have followed similar historical trajectories across the nations of North America and Western Europe (Baumer & Wolff 2014, Farrell et al. 2011, Knepper 2012,

Table 2 Change in homicide clearance rate by population group, percentage points

Population group	1962-1994	1962–2019	1962-2020
Group I (250k+)	-37.0%	-37.9%	-49.0%
Group II (100k–250k)	-28.6%	-35.1%	-40.9%
Group III (50k–100k)	-29.4%	-34.9%	-38.1%
Group IV (25k–50k)	-21.6%	-36.7%	-37.0%
Group V (10k–25k)	-22.8%	-33.6%	-35.4%
Group VI (under 10k)	-19.7%	-33.4%	-37.2%
Total, all cities	-32.7%	-36.4%	-43.8%

Data from Uniform Crime Reports, 1960-2020.

Supplemental Material >

Tseloni et al. 2010), that finding has been less well established for homicide clearance rates. However, it appears that multiple nations did not experience a large decline, as homicide clearance rates are currently very high.

International comparisons are inherently difficult due to differences in definitions and criminal proceedings. A careful analysis of four nations in Western Europe utilized harmonized data for the 5-year interval 2009–2014; it defined clearance as arrest or exceptional clearance. This study reported clearance rates of 98% for Finland, 95% for Switzerland, 83% for Sweden, and 77% for the Netherlands (Liem et al. 2019). Needless to say, all these rates are substantially higher than those in the United States for that period, which hovered around 65%, with a low of 62.5% in 2012. The remarkable success of the police in Finland and Switzerland is reminiscent of what US cities were reporting in the 1960s. Liem and colleagues document similarly high rates for South Korea, Japan, New Zealand, and Australia (96%, 95%, 91%, and 87%, respectively).

A more detailed analysis of the Western European countries found substantial variation by circumstance for two of them. Liem et al. (2019, p. 92) note that "homicides committed in a criminal milieu (46% in the Netherlands and 48% in Sweden) and homicides in the context of a robbery (75% in the Netherlands and 73% in Sweden) had overall much lower clearance rates compared with other types of homicide, such as domestic homicides, nightlife homicides, or sexual homicides," which is consistent with findings in the United States.

Canada has persistently higher homicide clearance rates than the United States (Regoeczi et al. 2000, Silverman & Kennedy 1987). Trussler (2010, p. 369) summarizes the literature to the effect that the "most important and consistent case level predictor is the relationship between the offender and the victim." She suggests that the clearance rate is lower in the United States because it has a much higher percentage of stranger homicides. In any event, Canada did experience a decline in the homicide clearance rate, from 95% in the 1960s to 84% in the 1990s through 2006. The main downward shift occurred in the 1990s (Trussler 2010).

# THE EVOLVING CASE MIX AS ONE EXPLANATION FOR THE DECLINE

#### **Solvability**

Criminologists have offered a variety of speculations for the Great Decline (Ousey & Lee 2010, Riedel & Jarvis 1999, Wellford et al. 1999). The most prominent speculation is that the Great Decline was due, at least in part, to a change in what is known as solvability, referring to the intrinsic difficulty of solving a case. We know that homicides differ widely in this respect, from cases in which the perpetrator is present on the scene and confesses to the police to the kind of challenging cases with which mystery writers entertain us (Puckett & Lundman 2003, Wellford et al. 1999). Case solvability differs by the circumstances and other characteristics of the homicide (Alderden & Lavery 2007). For example, the evidence suggests that domestic killings have a higher likelihood of being solved, and are solved more quickly, compared to felony murders or murders resulting from conflicts between gangs. The relative ease of solving domestic cases, combined with the long downward trend in the fraction of homicides that are domestic, provides partial support for the belief that homicides have become less solvable on average.

Before digging more deeply into the case-mix speculation, it is useful to notice the implications. If true, then it suggests that police investigators have not been less capable in recent years than they were in the 1960s but rather that their job has become harder. In general, valid comparisons with respect to performance require a standardization of the case mix. The same rule applies to a comparison of different agencies at a single point in time, given that their jurisdictions may differ considerably in the average solvability of cases.

The clearance rate is not only used as a performance measure. It is also of interest as a measure of the likelihood that crime will result in legal consequences. A decline in the clearance rate suggests the possibility that would-be killers have less reason to fear punishment at the hands of the state. In the economics model of deterrence, the clearance rate (or arrest rate) is often used as an indicator of the probability of arrest (Chamlin 1991, Cook 1980, Nagin 2013, Tittle & Rowe 1974). But in that application, the clearance rate can be a misleading proxy for what we really want to know. The clearance rate is not the probability that a homicide will be solved but rather the average of widely differing probabilities that depend on the specific circumstances of the killing. In that respect, the clearance rate is affected by the case mix between readily solvable homicides and difficult-to-solve homicides (Cook 1979, Nagin et al. 2015).

In what follows, we briefly review the evidence on the correlates of homicide solvability and then consider the extent to which trends in case mix with respect to those correlates can help explain the Great Decline and thereafter.

#### **Evidence with Respect to Solvability**

The extensive empirical literature on the correlates of homicide clearance rates informs our understanding of solvability, although solution and solvability are not quite the same. The probability that a homicide is cleared depends partially on the circumstances of the homicide and is determined by the intrinsic solvability (which is to say, the external factors beyond the direct control of the police) and the effort and resources devoted to the investigation. A typical analysis in this literature regresses the outcome (cleared or not, or, more recently, time to clearance) on the observed circumstances of the case (who, how, when, where, why) (Avdija et al. 2022, Hawk 2015, Prince et al. 2021, Puckett & Lundman 2003, Regoeczi et al. 2008, Roberts 2007). The resulting estimates of the correlates of clearance may be interpreted as the correlates of solvability, but in practice the estimates may be biased if the investigation intensity is also influenced by these circumstances. For example, a robust conclusion from this literature is that child murders are more likely to be solved than adult murders. That may be because child murders tend to be more solvable (possibly because witnesses are more likely to cooperate with the investigation), but it may also result from a tendency for police to give such cases relatively high priority and hence devote more resources to the investigation.

Indeed, multiple criminologists have discussed the possibility that investigation priorities are an important determinant of whether cases are in fact solved (Corsianos 2003, Davies 2007, Hawk & Dabney 2014). Of particular interest is whether the victim's social status affects the intensity of the investigation, as suggested by Black's theory of law (Black 1976). In this view, the devaluation of lower-status victims results in a lower clearance rate for those cases (Vaughn 2020). But the evidence is mixed, for example, with respect to explaining the low clearance rates for murders in poor Black neighborhoods (Borg & Parker 2001, Jarvis et al. 2017, Trussler 2010).<sup>4</sup>

Although the possible confounding of circumstances with intensity of investigation may be viewed as a problem of interpretation, there is also a more fundamental econometric problem in the correlates literature: The coding of covariates by police departments may be selective in a way that biases the estimated impact. The coding with respect to context and motive may well be influenced by the success of the investigation and hence have an element of reverse causation.

<sup>&</sup>lt;sup>4</sup>The influence of race on criminal justice priorities is not limited to arrest. A recent analysis of gun-crime cases (not limited to homicides) in St. Louis found that the likelihood that a case would be accepted for prosecution was lower if the victim was Black (Vaughn et al. 2022).

For example, a homicide involving a female victim stabbed in her home may be coded as domestic if the police have evidence from previous domestic violence calls but coded as unknown if the investigation does not turn up such evidence. But the same evidence that influences the classification (domestic versus unknown) may also influence the likelihood of a solution. Indeed, one study found that the likelihood of clearance is relatively low for cases classified as unknown circumstance (Cook & Lopez 2023), even though as a logical matter the unknowns are a mix of the specified circumstances. This selective-coding problem can be avoided by limiting the correlate analysis to variables that are reliably observed in almost every case—the demographic characteristics of the victim, the location of the murder, the type of weapon used—but much of the literature does not follow that advice.

With these caveats in mind, here are three recent summaries of that literature:

...across research settings and time periods, scholars tend to find that homicides involving firearms are less likely to be cleared, whereas homicides committed with weapons that bring the victim and offender into close contact with each other (such as fists, knives, or blunt instruments) have an increased likelihood of the case being cleared. Additionally, felony and drug-related homicides have been found to have lower clearance rates, and homicides occurring indoors are more likely to be cleared. (Jarvis et al. 2017, p. 8)

...with important temporal and environmental caveats, researchers mostly found that the probability of clearing homicide cases tends to be higher for female and very young victims, as well as in cases in which a firearm is not used. Furthermore, cases are more likely to be cleared when circumstances and motives are expressive and domestic related rather than gang or drug related; when victims and offenders know each other; when the homicide occurs indoors; when the homicide occurs with concomitant crime circumstances; or when the circumstances of the homicide are known. (Wellford et al. 2019, p. 581)

Research has generally found that the most important and consistent case-level predictor is the relationship between the offender and the victim. As the social distance between victim and perpetrator increases, the chances of clearing the case become weaker. However, the problem with direct examinations of stranger homicides and uncleared cases is that the very nature of an uncleared case is an unknown offender. (Trussler 2010, p. 369)

As suggested by Trussler in this quote, several of these conclusions are problematic due to the selective-coding problem mentioned above, especially characterizations of motive and victim-offender relationship (VOR).

Findings with respect to the reliably measured correlates often differ across time and place (Alderden & Lavery 2007, Litwin & Xu 2007, Mancik & Parker 2019). Even for a single city—Chicago, for example—there is a good deal of variation from decade to decade in the correlates of homicide arrest rates (Cook & Lopez 2023, Xu 2008); a half-century ago, cases involving Black victims were more likely to be solved than cases involving White victims; that pattern has reversed in recent years (Cook & Lopez 2023). One summary noted divergent results in the literature regarding victim gender, race, and age (specifically elderly victims) and gun involvement (Regoeczi et al. 2020). The authors demonstrate the importance of interactions—that cases involving female victims are more likely to be solved than those involving male victims in some circumstances and less likely in others.

There is a consensus that the case mix matters and that a valid comparison of clearance rates over time or across jurisdictions should make some adjustment for solvability. If the adjustment is based on reliably observed characteristics, the selective-coding problem can be avoided. The greater challenge is that the correlates of solvability appear to evolve over time, perhaps because the more fundamental (but unobserved) causes of solvability have an evolving relationship with the observed characteristics

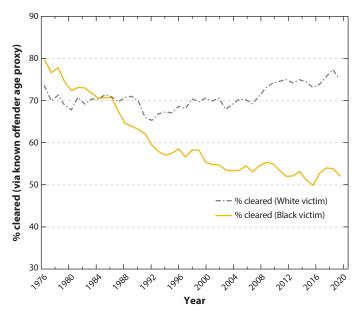


Figure 2
Homicide proxy clearance rates by victim race, 1976–2020. Based on clearance proxy of known offender age. See Supplemental Figure 1 for the clearance proxy compared to the UCR-reported national average. Data

#### The Effects of the Evolving Composition of Homicide

from Fox (2022).

Two prominent national trends in homicide case mix are with respect to type of weapon and victim race (Fagan & Geller 2018, Ousey & Lee 2008, Taylor et al. 2009). Using NVSS data, we find that the prevalence of Black victims increased from 43% in 1981 to 55% in 2020, and the prevalence of gun use in homicide increased from 65% to 79% during that period.<sup>5</sup> (**Supplemental Figures 4 and 5** depict the trends in these indicators using UCR data.) Both victim race and type of weapon have been linked to clearance rates in some analyses (Prince et al. 2021).

To get a better sense of the long trend in clearance rates by race and weapon type, we utilized the FBI's Supplementary Homicide Reports (SHR) data, part of the Uniform Crime Reports since 1976. Unfortunately, the SHR data do not record clearance status of homicides, but they do include a good proxy, namely the percentage of homicide cases for which there is a suspect with a known age (Avdija et al. 2022). This proxy clearance tracks closely with the UCR clearance rate, as shown in **Supplemental Table 1**. The gap is three percentage points in 1976 and typically less in subsequent years. The correlation between the actual clearance rate and the proxy clearance rate is 0.91.

The results from using this clearance proxy, shown in **Figure 2** and **Figure 3**, are surprising. From 1976 to 2007, the proxy shows little movement for White victims (at about 70%) and trends upward thereafter. For Black victims, the proxy starts higher in 1976 and has a long secular decline, crossing the White line in the mid-1980s and ultimately opening up a 20-point gap by 2019 (**Figure 2**). There is a very similar story for weapon type (**Figure 3**), where gun homicides start

Supplemental Material >

<sup>&</sup>lt;sup>5</sup>Computed using the Centers for Disease Control and Prevention Fatal Injury Reports: National, Regional, and State, 1981–2020 (https://wisqars.cdc.gov/fatal-reports).

<sup>&</sup>lt;sup>6</sup>This pattern was first reported by the Murder Accountability Project (Hargrove 2019).

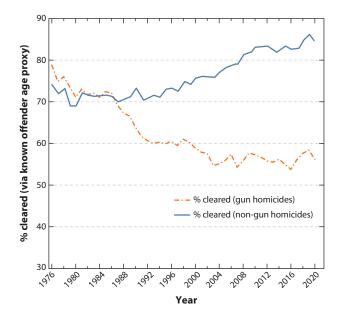


Figure 3

Homicide proxy clearance rates by weapon type, 1976–2020. Based on clearance proxy of known offender age. See **Supplemental Figure 1** for the clearance proxy compared to the UCR-reported national average. Data from Fox (2022).

high and trend downward, crossing the non-gun homicide line in the mid-1980s and continuing down, whereas non-gun homicides have a strong upward trend starting in the mid-1990s.

In each case, the category with growing prevalence (Black victims, gun) is also the group that experienced declining clearance rates during the period of the Great Decline. It comes as a surprise that the complementary groups (White victims, non-gun) did not share in the Great Decline, at least after 1976 (the period observable in the SHR data). Interestingly, when we refine the analysis to consider four groups of homicides defined by both race and weapon type, we find that the only one of the four that declined substantially was gun homicides with Black victims. It fell from 80% in 1976 to nearly 50% by 2000 (see **Table 3** and **Supplemental Figures 2** and 3).

Although these results are based on a proxy, it is reassuring that the same qualitative patterns are observed in the Blocks' data for Chicago (Cook & Lopez 2023). In particular, the Black arrest rate in Chicago exceeded the White arrest rate by 12.5 percentage points in 1965–69. The Black arrest rate had a strong secular decline, whereas there was relatively little change in the White

Table 3 Percentage point change in proxy clearance rate for race/weapon subgroups

Subgroup	1977–1994	1997–2020	1977–2020	
Black/gun	-29.1%	-9.4%	-37.4	
Black/non-gun	-9.4%	+14.5%	+5.5%	
White/gun	-7.2%	+4.2%	-4.1%	
White/non-gun	+6.3%	+16.8%	+26.8%	
Total <sup>a</sup>	-14.3%	-0.5%	-14.1%	

Original computations from Supplementary Homicide Reports data.

Supplemental Material >

<sup>&</sup>lt;sup>a</sup>The total includes other races. The proxy clearance rate is defined as the percentage of homicide offenses in which there is suspect with known age.

rate from 1975 to 2015. The lines crossed circa 1990, and by the end of the period, in 2016–20, the Black arrest rate lagged the White rate by 21 percentage points. The story is similar with respect to weapon type, although the non-gun arrest rate was always higher in Chicago. But the percentage-point gap increased from 2.5 (1965–1969) to 42.0 (2016–2020).

The Chicago data allow further explorations in case mix. In one analysis, Cook & Lopez (2023) partitioned homicides into 12 groups by weapon type (gun or other), location (residence, other indoor, or outdoor), and sex of victim. These groups exhibited large differences in arrest rates in recent years, and the composition of cases changed dramatically from 1965 to 1995, with especially strong upward trends in gun use and outdoor location. But very little of the Great Decline in Chicago was due to the changing case mix as defined by this partition.

What is the bottom line on case mix? There is no question that given the current structure of clearance rates across correlates such as weapon type, race, and location, the national clearance rate would be considerably higher with the 1960s' case mix. But most of the observable action, especially during the Great Decline period, was due to the rapid drop of clearance rates within particular subcategories of homicides—especially gun homicides with Black victims—and that accounts for most of the drop. A reasonable speculation is that the mix of circumstances was changing in ways that cannot be consistently documented, such as an increasing prevalence of gang violence or killings by strangers.

Unfortunately, the SHR data do not provide much guidance in tracking trends in circumstances or VORs. For the period when SHR data are available, the VOR category of "stranger" trends slightly downward from 14% (1976) to 9% (2020), but that does not seem meaningful given that the predominant trend is the increasing prevalence of "unknown" VORs. The unknown cases increased from 24% (1976) to 55% (2020) and although some of these "unknown" VORs may be strangers, we have no way of determining that prevalence. Incidentally, it is not clear whether this increase is due to less successful investigations or more conservative coding, although we believe the latter is at least part of the story.<sup>7</sup>

The SHR also falls short in providing insight into our finding that the Great Decline was concentrated in a single category, namely homicides with Black victims killed with guns. As we observed, the strong decline in clearance rates for this group has no parallel for gun homicides with White victims. In looking behind these trends, the SHR data are dominated by the large increase in unknown circumstances for both Black and White victims. Unknowns increase from 7% in 1976 to 51% in 2020 for Black victim gun homicides and from 8% to 35% for White victim gun homicides. For both groups, the "unknowns" replace "arguments," which show a comparable decline (from 60% to 18% for Black/gun, and from 46.5% to 25% for White/gun). The trends in other categories do not provide a plausible explanation for observed clearance-rate patterns.

Thus, although the available data on national trends provide some clues, the question of whether trends in case mix can explain the Great Decline remains unanswered. Lower clearance rates have been coupled with less information about VORs and circumstances. Reliable trends can only be established based on national data for victim demographics and weapon type.

#### OTHER EXPLANATIONS FOR THE DECLINE

In addition to evolving case mix, a variety of speculations has been offered for the Great Decline and subsequent trends (Asher 2021). Here, we consider two possibilities: an increase in investigator

<sup>&</sup>lt;sup>7</sup>One hint is that the proxy clearance rate for unknown-circumstance cases increased from 18% to 33.5% during this period, suggesting that the police did know the age of the perpetrator, even if they were not willing to specify his or her relationship to the victim. We find similar results when substituting all known offender demographics (age, race, and sex).

workload (Roberts 2015, Roberts & Roberts 2016) and a decline in police–community relations resulting in greater difficulty for the police in securing cooperation from witnesses (Desmond et al. 2016, 2020; Roberts & Roberts 2022). A third speculation, evolving norms governing investigations and arrests, is left to a subsequent section because it is foundational to the normative interpretation of the clearance rate.

#### Resources

Homicide investigations often extend for weeks or even months and may engage several detectives, officers from other units, and the services of laboratories for processing digital, biological, and ballistics evidence (Cook et al. 2019, Lundman & Myers 2012). It seems reasonable to suppose that the likelihood of a successful investigation depends on key inputs such as investigators' available time and access to relevant technology (Borg & Parker 2001, Liska et al. 1985, Ousey & Lee 2010, Wellford & Cronin 2000). If the number of homicides increases without a corresponding increase in investigative capacity, a reduction in the clearance rate is a natural result. When the Chicago Police Department sought advice on how to improve its homicide clearance rate, the consulting report's first recommendation was that it increase the number of detectives (Police Executive Res. Forum 2019).

Still, the early criminological literature on criminal investigations tended to be skeptical of the importance of investigative effort. Eck (1992) noted the widespread belief that whether a crime was solved depended only on the circumstances of the crime, not on investigative effort (Ericson 1982, Reiss 1971, Reiss & Bordua 1967). The most prominent source of this belief was a landmark study conducted by the RAND Corporation in the 1970s. The authors of the study concluded that investigators contributed little to solving a case (Chaiken et al. 1977, Greenwood 1979). But recent research has helped build an evidence base for the importance of investigative effort (Braga et al. 2019, Roberts & Roberts 2016, Wellford et al. 2019).

A recent study offers strong support for the proposition that resources matter (Cook et al. 2019). This study exploited the natural experiment of whether a shooting victim lived or died. Although that outcome is largely a matter of chance (Braga & Cook 2018), it is associated with a large difference in the likelihood of arrest. Cook et al. (2017) interviewed 21 investigators in Durham, NC, and asked for their view of why the arrest rate was so much higher if the victim died: A majority of the respondents answered that it was because homicide investigators have lighter caseloads. A subsequent study (Cook et al. 2019) utilized data from 5 years of investigations in Boston to demonstrate that the Boston Police Department gathered more evidence of every sort in fatal shootings than nonfatal shootings, and homicide investigations were more sustained. Those extra resources could plausibly account for the much higher arrest rate in fatal cases, although that conclusion must be hedged because the treatment in this experiment is not limited to the difference in resources devoted to fatal versus nonfatal shootings. Whether the victim lives or dies may also affect the community response to the crime and, in particular, witness cooperation.

A large nonexperimental study of clearance rates also provides credible evidence that caseload affects homicide clearance rates. Mancik & Parker (2019) compiled annual panel data from 154 cities with populations above 100,000 for the period 1976–2015. Their measure of investigative workload was the ratio of homicides to sworn officers. They controlled for indicators of

<sup>&</sup>lt;sup>8</sup>It should be noted that there is robust evidence that the size of the police force has a direct negative effect on serious-crime rates (Chalfin & McCrary 2018). But it is less well established that the causal mechanism includes an increase in clearance rates. Bjerk (2022) reports that changes in the overall police budget do not affect homicide clearance rates in his study of 50 large cities.

case mix, as well as for several socioeconomic characteristics of the city population, and included fixed effects for city and year. They find a strong and highly significant negative effect of the caseload on the clearance rate for both the entire 40-year period and two subperiods (1976–1996 and 1997–2015).

The measure of workload used in that study, homicides per officer, has limitations, although it may be the best that is consistently available. Here are several concerns:

- It may be both overinclusive and underinclusive. It is overinclusive because the number of detectives (or homicide detectives) may be the scarce resource rather than the overall number of officers. It is underinclusive in ignoring other resources that are routinely utilized in homicide investigations, such as crime-lab services.
- It does not reflect the qualifications, training, and experience of police personnel (Goodison 2021).
- It takes no account of the department's other responsibilities. Crime investigation, let alone homicide investigation, utilizes only a small fraction of officers' time (Asher & Horwitz 2020), and other demands differ widely across cities.

Thus, it is hard to suggest an alternative measure that is clearly better. For that reason, we utilize a variant of the Mancik–Parker measure. In what follows, we also include another workload measure of sorts, the population divided by the number of officers, an indication of the overall demand for police services.

The two workload measures both declined from the end of the 1960s to 2000 (**Figure 4**), thanks to a strong upward trend in the number of officers during that period. The average number of residents per officer declined from 600 in 1970 to 400 in 2000 and remained close to that level thereafter. The number of homicides per 100 officers decreased from 6.0 to 2.4 during that

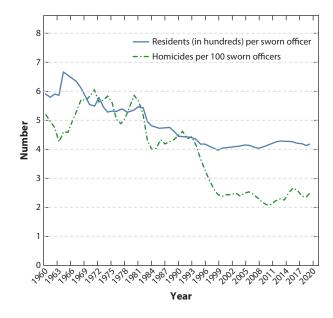


Figure 4

Indicators of police workload, 1960–2020. Data from the Law Enforcement Personnel section of the US Federal Bureau of Investigation Uniform Crime Reporting (UCR) Program (https://www.fbi.gov/how-we-can-help-you/more-fbi-services-and-information/ucr).

same period. The pattern is similar if we replace the officer count with total police employment (including civilians).

We conclude that although police workload matters, the observed trend in the homicide caseload does not help account for the Great Decline; indeed, it would predict the opposite. A more refined measure might tell a different story.

#### Witness Cooperation

Investigations, like so much of police work, are a coproduction process with key inputs provided by the community (Cook 2011). Witnesses and other civilian sources provide information and possibly court testimony. Despite the growing importance of video and other digital evidence, social media, and other modern-day forensic inputs, human witnesses are almost always needed to make a credible case in a homicide investigation (Cook et al. 2019, Regoeczi & Jarvis 2013, Wellford & Cronin 2000). This human input is usually voluntary, uncompensated, and provided at some risk or personal cost (Davis 1983, White et al. 2021). Perhaps it is not surprising that a lack of cooperation by potential witnesses is a common reason why a homicide case is not cleared.

The only national statistics that document the trend in civilian inputs to criminal investigation are from the National Crime Victimization Survey, beginning in 1973. Respondents who report that they have been victimized are asked whether they reported the crime to the police. A tabulation of the annual estimated reporting rates for the period 1973–1991 found very little variation during this period of the Great Decline (see Rand et al. 1997). For aggravated assault, the range of annual estimates is 51% (1977) to 60% (1987); for all crimes of violence combined, the range is 44% (1978) to 50% (1986). The overall trend is slightly upward, but not statistically significant. In any event, this pattern does not support the hypothesis of a downward trend in citizen cooperation.

There is no direct measure of witness cooperation in homicide investigations that could be used to identify national trends (Kirk & Matsuda 2011). Still, it is useful to consider one conceptual distinction: actual cooperation by key witnesses and what might be called the general propensity of witnesses to cooperate. The point is that whether witnesses actually cooperate may depend on how much effort, skill, and other resources investigators devote to recruiting them. A homicide that occurs in a community that is distrustful of the police and embraces the "no snitching" norm poses a greater challenge for investigators than a homicide where those who have knowledge of the case are more favorably disposed to the police. But with sufficient time and effort, it may be possible to recruit recalcitrant witnesses (Leovy 2015).

In the absence of a direct measure, any effort to document a trend in the propensity to cooperate is necessarily speculative. We suggest that public attitudes toward the police may shape cooperation. Given the concentration of homicides among Black victims and in majority-Black neighborhoods, Black attitudes are of particular interest. A Harris Poll in 1970 found that 67% of White respondents and 43% of Black respondents expressed a favorable view of local police (Hindelang 1974). The Cato Institute conducted a similar public opinion survey in 2016 and found very similar results (Ekins 2016).

Further evidence on this matter comes from the Gallup Poll, which since 1993 has regularly asked questions about public confidence in the police. The persistent White–Black gap has widened in recent years, as shown in **Table 4**. In 2020, the year of nationwide demonstrations against the police, Black support fell to a new low.

The drop in the Black assessment of the police in 2020, and the sharp drop in the homicide clearance rate in that year, may well have a direct causal connection. Needless to say, it is not a controlled experiment, as the effective capacity of the police to investigate homicides fell as a result of the Covid lockdowns on police activities.

Table 4 Public opinion about the police: percent favorable, by race

Respondent race	1993–1999	2000–2009	2010–2013	2014–2019	2020
White	60%	63%	60%	60%	56%
Black	34%	37%	36%	30%	19%

Data from Jones (2021).

# TRENDS IN THE QUALITY OF INVESTIGATION AND ARREST STANDARDS

There is reason to believe that police investigations have become more lawful over time and that the evidentiary standards for arrest and prosecution have increased. Procedures may have been impacted in part by the Supreme Court decisions of the 1960s. In particular, *Mapp v. Ohio* (1961) decreed that state prosecutors could not use evidence obtained through an illegal search, and *Miranda v. Arizona* (1966) barred the use of a suspect's confession unless the suspect had been informed of his or her right to remain silent during a police interrogation. The most prominent advocates for the view that *Miranda* impaired crime investigations (Cassell & Fowles 1998, Cassell & Fowles 2017) find a near-term effect on clearance rates for other crimes but not homicide. That finding does not rule out an underlying trend of greater investigative restraint during the Great Decline (Zalman & Smith 2007).

A second, related possibility is that prosecutorial standards have been elevated over this era. In this view, the minimum strength of evidence required to warrant prosecution increased, perhaps as a result of increased skepticism by potential jurors. One version of this narrative is the CSI Effect, in which television depictions of crime investigation have raised expectations for the availability of decisive forensic evidence such as DNA (Hayes & Levett 2013, Lieberman et al. 2008, Rhineberger-Dunn et al. 2016). A large survey of jurors in Wayne County, Michigan, documented these high expectations; the author suggested it was reasonable for the public to expect investigation techniques to keep up with available science (Shelton 2010). Note that prosecutorial standards affect the clearance rate either directly (if prosecutors refuse to prosecute some arrestees) or indirectly (if the police perception of prosecutorial standards influences arrest decisions).

The standard for prosecution may also have been influenced by the quality of indigent defense available to homicide defendants. The Court established the right to counsel for state proceedings in *Gideon v. Wainwright* (1963) and subsequently asserted that such counsel must be effective (*Strickland v. Washington* 1984). It appears that funding for indigent defense services may have grown rapidly during the Great Decline—one study found it more than doubled in real terms between 1982 and 1997 for the 21 states that financed indigent defense (DeFrances 2001). Facing a higher quality of defense, prosecutors may require stronger evidence before agreeing to prosecute, with direct implications for the clearance rate

In sum, the Great Decline may have been the result, at least in part, of evolving norms for police investigations and a higher threshold for the evidence required for a successful prosecution. In the absence of direct documentation on these matters, they remain speculative. But we are able to offer one indicator suggesting that the quality of homicide clearances improved during the era of the Great Decline. That indicator is the ratio of prison admissions to murders and non-negligent

<sup>&</sup>lt;sup>9</sup>Butler (2013) points out that although *Gideon* improved the availability of defense to indigent defendants, changes in sentencing laws and prosecutorial practice led to a vast increase in the prison population starting in the mid-1970s. But much of that increase was for drug offenses and other lesser offenses and does not contradict the basic point we are making.

Table 5 Prison admissions for murder and non-negligent homicide as percent of homicides

	1970	1991	2000	2010	
FBI clearance rate	86.5	67.2	63.1	64.8	
Prison admissions					
Admit/Hom (all)	35.8	45.7	67.1	60.4	
Admit/Hom (19 states)	34.8	49.3	63.3	61.2	
Sample					
Response % Hom (all)	56.7	90.5	90.8	96.6	
Response % Hom (19 states only) <sup>a</sup>	52.1	52.5	49.9	49.4	
Response % Pop (all)	59.4	86.5	89.6	95.3	
Response % Pop (19 states only) <sup>a</sup>	49.8	49.3	49.1	48.7	

Data for 1970 prison admissions from US Department of Justice, Bureau of Prisons, *National Prisoner Statistics: State Prisoners, Admissions and Releases 1970*, Table A4 (court commitments for sentences of one year or longer for 33 states that provided data). Data for other years from Bureau of Justice Statistics, Corrections Statistical Analysis Tool – Prisoners (using Detailed Categorization of Most Serious Sentenced Offense: Murder and Non-Negligent Manslaughter; https://csat.bjs.ojp.gov/advanced-query). The Corrections Statistical Analysis Tool draws on data from the National Corrections Reporting Program. Homicide data are from the CDC's National Vital Statistics System (NVSS).

<sup>a</sup>Computed from data provided by states that participated all 4 years: CA, CO, GA, HI, IL, KY, MD, MN, MS, MO, NV, NY, OH, OK, SC, TN, UT, WA, WV.

Abbreviations: Admit/Hom, number of prison admissions for murder and non-negligent homicide in responding states, divided by number of homicides in the preceding year in those states; Response % Hom, total homicides in responding states divided by total homicides overall in the preceding year; Response % Pop, total population in responding states divided by total US population in the same year.

homicides. It turns out that that ratio was higher in the 1990s than in 1970—the reverse of the trend in the clearance rate.

The upward trend in prison admissions for homicide has been documented previously (Raphael & Stoll 2013), most prominently in the report of the National Academies Committee on the Causes and Consequences of High Rates of Incarceration (Travis et al. 2014). In that report, a chart showing state prison admissions per 100 adult arrests depicts an increase from 40% in 1980 and 50% in the mid-1990s to 92% in 2010 (Travis et al. 2014, p. 51). The implication, not discussed in the report, is that the likelihood of conviction increased by about the same amount, as over 90% of convictions for murder and non-negligent manslaughter carry a prison sentence. <sup>10</sup> In what follows, we extend these findings and relate them to the homicide count.

**Table 5** provides a comparison of the FBI national homicide clearance rate with two estimates of the ratio of prison admissions to homicides. The prison admissions data are available from the Bureau of Prisons for 1970 and from the Bureau of Justice Statistics beginning in 1991 but not for all states. **Table 5** reports these ratios using all available data and for just the 19 states that reported in all 4 of the years included in the table. The latter group included about half of all homicides and half of the US population. The main result is that between 1970 and 2000, the FBI homicide clearance rate declined by 23.4 percentage points (86.5% to 63.1%), whereas the ratio of prison admissions for murder and non-negligent manslaughter actually increased by about 30 percentage points. (The two estimates of the increase for this ratio are 31.3 using all reporting states and 28.5 using just the 19 states.)

The admission:homicide ratio is a more direct measure of success in murder investigations than the arrest rate or clearance rate, given that arrest is just an intermediate step to the ultimate goal of

<sup>&</sup>lt;sup>10</sup>Prison sentences per 100 convictions (from the National Judicial Reporting Program): 1986, 93; 1988, 91; 1990, 91; 1992, 93; 1994, 95; 1996, 92; 1998, 94; 2000, 93.

delivering justice. It appears from the trajectory of the ratio, in contradiction to the clearance rate, that investigations were much more likely to be successful in 2000 than in 1970. Although this result is strong, we acknowledge that the ratio of prison admissions to homicides is not an ideal measure of the likelihood that a perpetrator will be imprisoned. In particular, some cases result in more than one conviction. Furthermore, some cases may result in a conviction without a prison term—particularly when the defendant is a juvenile—although as noted, over 90% of convictions for murder and non-negligent manslaughter result in a prison term. An obvious shortcoming is that the available data on prison admissions are based on a sample of states (those that happened to report to the data-collection agency) and that sample is not necessarily representative. In that regard, however, we are reassured by the fact that the Great Decline was geographically ubiquitous, as demonstrated above. Finally, there may be errors or inconsistencies with these data. 11

We present the results of this somewhat novel analysis in the hope of encouraging more research using prison admissions data to construct indicators of investigation success. If our results are correct, there is a strong suggestion here that if investigative success is equated with conviction rather than clearance, the Great Decline is not so much a story of police effectiveness as of the evolving standards for arrest. The results thus pose a serious challenge to the validity of the homicide clearance rate as a police performance measure, at least for historical purposes. It appears that although the likelihood of arrest declined, the quality of the arrests increased and the net effect was to reverse the observed trend.

#### **CONCLUSIONS**

The focus of this review is on the historical trend of the national homicide clearance rate in the United States. Although there is an extensive criminology literature that is relevant to understanding the Great Decline (1963–1994) and subsequent patterns, the literature that directly seeks to explain this history is sparse. For that reason, we have not limited our analysis to the existing literature but rather introduced new evidence on several topics: the evolving structure of clearance rates, the trends in investigative resources and attitudes toward the police, and the trend in what might be called the quality of arrests. It is our hope that these novel analyses stimulate further research utilizing new data sources.

Our conclusions based on the existing literature and other evidence can be briefly summarized. First, the Great Decline—a nearly 30 percentage point drop in the homicide clearance rate between the 1960s and the 1990s—is not an artifact of inconsistent reporting or other problems with the UCR data but rather is most likely true. Although it is hard to believe that there was a period in many of our lifetimes when the homicide clearance rate was over 90%, that appears to have been the case, as it is backed up by evidence, such as the Blocks' data for Chicago and the current rates in some other wealthy nations. That conclusion motivates a substantive inquiry into the causes of the Great Decline and subsequent plateau.

The decline in clearance rates was not limited by region or urbanicity but rather was ubiquitous and fairly uniform. Surprisingly, the trends are very far from uniform across some widely studied categories of homicides, including weapon type and victim race. From the 1970s, the decline was largely limited to gun homicides of Black victims. That finding helps focus the search for an

<sup>&</sup>lt;sup>11</sup>The documentation for the 1970 data indicates that new court commitments to prison are counted if they are for a minimum of one year. For subsequent years, the minimum differs among states, although the modal rule is a one-year minimum. For 1970, new court commitments are included if the controlling offense is murder or manslaughter, including negligent manslaughter. In subsequent years, negligent manslaughter commitments are omitted. If anything, that would suggest that the true increase in the imprisonment ratio was still larger than indicated in the table.

explanation for the Great Decline. Presumably, the nature of that homicide category in particular was evolving in the direction of lower average solvability. Further research is required to understand the specifics.

We consider two speculations about the Great Decline that both concern inputs into homicide investigations: the average workload of police officers and the propensity of civilian witnesses to cooperate with homicide investigations. In fact, police departments expanded rapidly enough in the last decades of the twentieth century to more than match the population increase and the increase in the volume of homicides. Unfortunately, there are no consistent data available on the priority given to investigations within police departments and, in particular, the number of homicide detectives. With respect to civilian inputs, there are no direct measures. We observe that public opinion toward the police did not change much during that period, so it is plausible that cooperation did not change either, controlling for circumstances.

It is important to recall that although the clearance rate is viewed as a police performance measure, arrest (which accounts for the great majority of clearances) is only a step on the path to the ultimate goal of conviction and just punishment for the perpetrator. When possible it is illuminating to monitor rates of conviction as well as arrest. Although conviction data are scarce, there are some historical data available on a closely related outcome, national rates of prison admission for murder or nonnegligent manslaughter—crimes for which over 90% of convictions result in a prison sentence. Those data have limitations, but our analysis strongly suggests that the historical pattern of the ratio of prison admissions to homicides trended upward during much of the period of the Great Decline. If true, the implication is that the decline in arrests concealed an increase in what might be considered "good" arrests—those that resulted in a successful prosecution and sanction.

Taking that finding at face value obviously leads to a much more positive view of this history. With a better outcome measure, we conclude that police investigations of homicide cases were increasingly successful between 1970 and 2000—just as we might expect given increased resources and improved technology. (That result stands in contrast, or so we believe, with the clearance rate's sharp drop in 2020.) There is a new question, then, about why the standard for making an arrest appears to have increased over time.

Of course, the most pressing question in many jurisdictions is how to improve success rates, however defined, in homicide investigations. Our historical inquiry does provide some broad lessons regarding the importance of using the right outcome measure and of anticipating that the effects of policy reforms are hard to identify when outcomes are sensitive to a variety of exogenous shocks. There is much left to be learned regarding what works and what is worthwhile when it comes to improving the effectiveness of investigations.

#### **DISCLOSURE STATEMENT**

The authors are not aware of any affiliations, memberships, funding, or financial holdings that might be perceived as affecting the objectivity of this review.

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