

The Geography of Crime and Policing

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Abstract

In this chapter, we discuss spatial aspects of crime and policing in the United States. We start by characterizing the co-evolution of violent crime, poverty, and race across cities over the past four decades. We then relate these changes to policing intensity and police practices across cities. We highlight the potential for increasing heterogeneity in how different groups interact with the police as well as important gaps in our knowledge about what these interactions look like. We conclude with a discussion of avenues for future research on the geography of crime and policing.

Keywords: crime, policing, crime prevention, poverty, race
JEL: K4, H7

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1 Introduction

In this chapter, we explore changes in the geography of crime and policing in the United States over the past four decades. Specifically, we document crime and policing’s evolving relationships with poverty and race between 1980 and 2017. During this period, there were multiple large-scale structural shocks to crime and criminal justice in the U.S. These include shocks affecting potential root causes of crime, such as tax and welfare reform, workforce automation, the rise of free trade, and the crack and opioid epidemics. They also include significant changes in the stance that governments in the U.S. took toward both crime and crime control, including heightened federal involvement in drug control during the Reagan administration and increased federal funding of local police departments during the Clinton administration.

City-level crime rates and policing intensity are the product of a wide range of social, economic, and contextual factors. Our focus on poverty and race is motivated by the theoretical and historical significance of these two demographic factors in crime and policing. From the standard economic perspective of the [Becker \(1968\)](#) model, poverty is a first-order determinant of criminal behavior. However, what it means to be poor in the U.S. now is very different than in the 1970s ([Chaudry et al., 2016](#)). Therefore, we explore whether shifts in city-level poverty and inequality in the U.S. over the past four decades have changed the importance of income in the criminal justice environment, in terms of exposure both to violent crime and to policing.

We also examine how crime and policing have changed in cities with larger Black populations. The percentage of a city’s population that is Black and its poverty rate are positively correlated, and in fact wealth gaps between Black and White households in the U.S. have not shrunk since 1980 ([McIntosh et al., 2020](#)). However, the history of policing, and conceptualization of crime, in the U.S. cannot be separated from the history of Black people in America ([National Academies of Sciences, Engineering, and Medicine, 2018](#)). This fraught history makes the geography of race, crime, and policing critical to document on its own.

We illustrate and connect several broad facts regarding the spatial and temporal patterns of crime and policing in the U.S. First, against the backdrop of substantial declines in violent crime nationwide between 1980 and 2017, there was a flattening of the poverty-crime and race-crime gradients. The largest declines in violent crime occurred in cities with initially higher poverty rates and larger Black populations. As a result, poverty and race are weaker predictors of crime today than they were four decades ago.

Second, we show that the positive correlations between the number of police and poverty rates as well as the size of the Black population at the city level have been more persistent; the number of police per capita was, and remains, higher in higher poverty cities and cities with relatively large Black populations.

Third, arrests for violent and other crimes have fallen more per capita in cities with initially higher poverty rates and larger Black populations, and we observe a flattening of the poverty-arrest and race-arrest gradients over time. The statistical correlations between the arrest rate and poverty as well as race persist even after conditioning on city-level violent crime rates. Put differently, since 1980 the number of arrests made per resident, and per officer, has fallen more sharply in cities with initially higher poverty rates and in cities with initially larger Black populations.

The changing geography of crime and arrests, together with the stability of the geography of policing, suggests that police officers in cities with initially higher poverty and larger Black populations are spending relatively more time engaged in other, non-arrest activities today than 40 years ago. This reduction in time spent on arrest-focused officer activity creates the potential for policing in the U.S. to be increasingly heterogeneous across place. While the reduction in exposure to violence, and the decreased concentration of violence in cities with larger disadvantaged populations, is something to celebrate,¹ the persistent city-level relationship between policing, poverty, and race opens up the possibility for growing spatial

¹Preliminary data for the first half of 2020 point to a substantial percentage increase in homicides relative to prior years. Of course, 2020 was an exceptional year in world history, which we believe suggests caution is currently warranted in interpreting 2020 crime data as informative about any specific social phenomenon or as signaling a broader trend reversal.

inequality in how people interact with the police.

This raises important questions about what police-civilian interactions look like and how they vary across different groups. Non-arrest activity by police officers is not currently measured in a systematic way that would allow for an evaluation of which police actions are the most effective at increasing social welfare. Some of these activities may actively reduce crime at minimal social cost, but others may impose substantial costs on society with only minimal benefits. One dataset that sheds some light on police operations in the U.S. is the Law Enforcement Management and Administrative Survey (LEMAS). Using the 2016 LEMAS, we do not observe any clear cross-sectional relationship between race, poverty, and the share of officers explicitly dedicated to community policing or community relations roles. We do observe a weak positive cross-sectional relationship between the fraction of a city’s population that is Black or a city’s poverty rate and a proxy for civilian demand for police presence. However, the same data suggest that this weak positive relationship is almost entirely explained by spatial differences in violent crime, rather than differences in preferences for police engagement that are correlated with race or poverty. While the LEMAS provides little visibility into why police presence is requested or what police-civilian interactions look like on the ground, these results further suggest that police may be engaged in a wider range of activities in cities with higher poverty rates and larger Black populations.

The observation that the breadth of what police do in a community has broadened after the Great Crime Decline of the 1990s is not new (e.g., [Koper et al. \(2020\)](#), [Lum \(2021\)](#), [Brooks \(2021\)](#)). Others have also documented the robust and persistent relationship between a city’s police force size and the size of the local Black population (e.g., [Carmichael and Kent \(2014\)](#)). However, to the best of our knowledge, the link between the growth in the scope for “non-traditional” policing and cities’ poverty levels and racial compositions has not been explicitly documented.

We conclude with a discussion of how future research could help improve our understanding of the scope of officer activities and contribute to current policy discussions about the role

of police. Identifying “what works” in policing is not technically complicated, but relies on measuring what police are actually doing. Researchers engaged in qualitative research and systematic field observation of the everyday operations of police departments and activities of officers are providing insights that could help to guide the development of data necessary for larger-scale quantitative analyses (Willis and Mastrofski, 2016; Lum et al., 2020; Brooks, 2021). Building on some departments’ efforts in systematically generating and publicly disseminating records of officer tasks would also facilitate more compelling and generalizable cross-jurisdiction analyses. Finally, further exploration of the dynamics of policing, poverty, and race across neighborhoods within cities could shed light on if and how the patterns we identify at the city level play out at more micro-geographic levels.

2 Poverty, Race, and Crime across U.S. Cities, 1980-2017

In our first set of analyses, we examine how the violent crime-poverty gradient as well as the violent crime-race gradient at the city level have changed over time. We study the evolution of these gradients over the 37-year period between 1980 and 2017. The year 2017 is the most recent for which all necessary data for our analyses are available; the general pattern of results holds if we use 2010 or 2016 as end dates.² We include all cities in the U.S. with at least 100,000 residents in 1980. Crime data for our city-level analyses are derived from the Uniform Crime Reports (UCR). We construct violent crime rates for each year at the city level using total known numbers of homicides, assaults, robberies, and rapes (violent index crimes) and dividing by total population from the Decennial Census (for 1980) or the American Community Survey (for 2017). In subsequent analyses, we additionally leverage

²Notably, this analysis was undertaken prior to the COVID-19 pandemic. As of mid-2021, there is uncertainty about whether pre-pandemic trends in crime will persist. In particular, it is currently unclear whether increases in homicide rates in 2020 are a temporary shock related to the pandemic and protests in response to the murder of George Floyd, or if instead they represent the start of a more substantial shift in crime and policing. It is also unclear whether crimes besides homicides have increased.

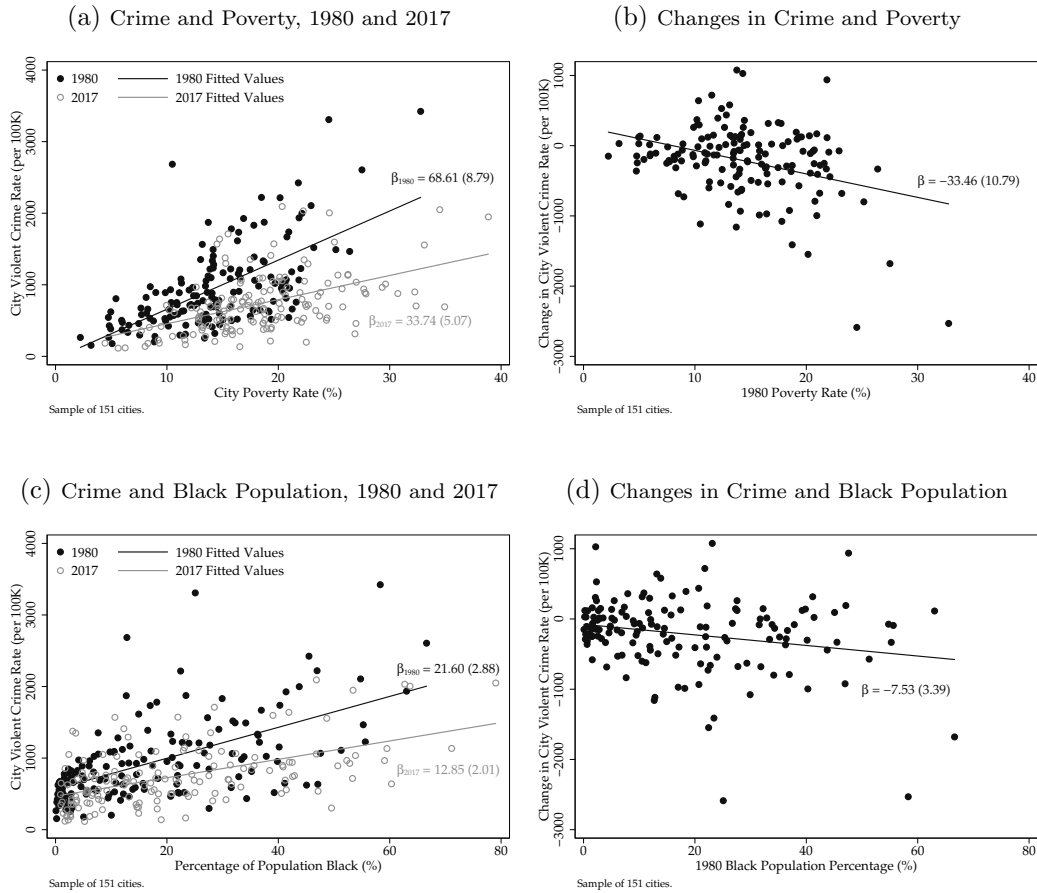
city-level data from the UCR on arrests (including both misdemeanor and felony arrests) as well as police force size (number of officers). We exclude cities that were missing information on crimes, arrests, or number of officers in 1980 or 2017.

We begin by illustrating variation in poverty and violent crime over the entire 37-year time frame. The plots we show here and throughout this chapter are not weighted; the broad patterns are similar if we weight by city population. They are also qualitatively similar if, instead of using all violent index crimes, we use only homicides.

We first plot in Panel (a) of Figure 1 the relationship between violent crime rates (measured per 100,000 people) and poverty rates across the 151 cities in our sample in 1980 and in 2017. This figure makes clear both the broad decline in violent crime rates across cities as well as the general weakening of the relationship between city-level violent crime rates and poverty levels.

In Panel (b) of Figure 1, we explore the extent of each city's violent crime decline as a function of its initial (1980) poverty rate. Initially poorer cities witnessed relatively large declines in violent crime; for every 1 percentage point higher poverty rate in 1980, the number of violent crimes per 100,000 people declined by 33 between 1980 and 2017. This finding complements that of [Friedson and Sharkey \(2015\)](#), who document a similar spatiotemporal pattern of crime declines across neighborhoods within cities.

Figure 1: Violent Crime Rates, Poverty, and Race across U.S. Cities



Notes: Data derived from the Uniform Crime Reports, Decennial Census, and American Community Survey. Includes cities with populations of at least 100,000 in 1980 as well as complete data on crime, arrests, and police force size in 1980 and 2017. Coefficients (β s) are from unweighted univariate regressions of the variable on the y-axis against the variable on the x-axis. Standard errors (in parentheses) are heteroskedasticity robust.

We conduct a similar analysis focusing on the racial composition of cities instead of poverty. In Panel (c) of Figure 1, we see that as violent crime rates dropped overall, the relationship between violent crime rates and the fraction of a city’s population that is Black weakened. However, the relationship between violent crime rates and share Black in 1980 was not as pronounced as that between violent crime rates and poverty rates. In Panel (d) of Figure 1, we additionally see that the largest drops in crime occurred in cities with larger initial Black populations; every one percentage point higher share of the population that was Black in 1980 was associated with an additional 8 per 100,000 resident decline in violent crime between 1980 and 2017.

These findings corroborate prior work that highlights important cross-sectional relationships between poverty and crime as well as race and crime (e.g., [Flango and Sherbenou \(1976\)](#), [Liska and Bellair \(1995\)](#), [Glaeser and Sacerdote \(1996\)](#)). These results for the evolution of poverty-crime and race-crime gradients between 1980 and 2017 comport with [Friedson and Sharkey \(2015\)](#). However, they stand in contrast to older research, summarized in [Pratt and Cullen \(2005\)](#), that finds that violent crime’s correlation with race and poverty was stable, or strengthening, between 1950 and 1990. This transition from steepening to flattening gradients occurred concurrently with a reversal in overall crime rate trends from increasing (1950–1990) to decreasing (1990–2017). The contribution of any specific policy to the weakening poverty- and race-crime gradients is currently empirically undetermined, but could provide valuable insight into the root causes of violence.

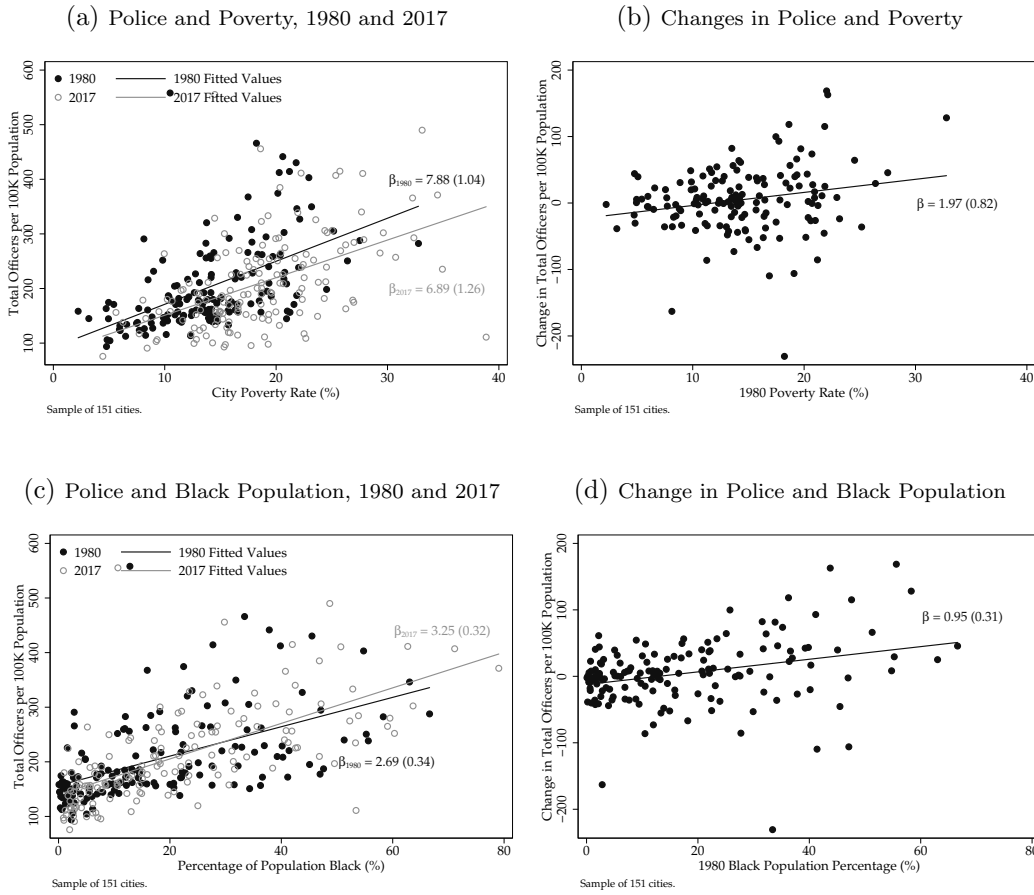
3 Police Presence and Practices across U.S. Cities, 1980-2017

3.1 Police Presence across U.S. Cities

The largest declines in crime between 1980 and 2017 were experienced in the cities with initially higher poverty rates and larger Black populations. Did the size of local police forces change commensurately? To address this question, we examine changes in the number of police officers per 100,000 people across the same cities over the same 37-year period. In Panel (a) of Figure 2, we see a slight flattening of the police-poverty gradient. However, looking at Panel (b), it is clear that those cities with higher initial poverty rates had, if anything, a greater number of police per capita by 2017.

As illustrated in Panel (c) of Figure 2, the cross-sectional relationship between police presence and the share of the population that is Black has changed little over time. Additionally, echoing the results for poverty, there is a positive correlation between growth in the police force between 1980 and 2017 and the initial fraction of the population that was Black (Panel (d)). [Jackson and Carroll \(1981\)](#) find that, cross-sectionally, the share of a city’s population that was Black was a strong predictor of municipal police expenditures in the 1970s, and [Derenoncourt \(2021\)](#) presents evidence that the relationship between Black population shares and police spending is, at least partially, causal. To the extent that police force size proxies for police expenditures, our results suggest that the positive correlation observed 50 years ago persists today, which is consistent with existing correlational research (see [Beck and Goldstein \(2017\)](#) for a recent review). Our findings also echo those of [Carmichael and Kent \(2014\)](#) and [Vargas and McHarris \(2017\)](#), who find that in the decades leading up to 2010, increases in minority populations and economic inequality relate positively to police force size and police spending in the U.S.

Figure 2: Police Presence, Poverty, and Race across U.S. Cities



Notes: Data derived from the Uniform Crime Reports, Decennial Census, and American Community Survey. Includes cities with populations of at least 100,000 in 1980 as well as complete data on crime, arrests, and police force size in 1980 and 2017. Coefficients (β s) are from unweighted univariate regressions of the variable on the y-axis against the variable on the x-axis. Standard errors (in parentheses) are heteroskedasticity robust.

Against the backdrop of major changes in the geography of crime, the relatively stable geography of policing points to a degree of persistence in police force sizes. It also opens the door to changes in the breadth of police activities that also vary across cities in a way that is correlated with poverty and racial composition. This builds on the cautious framing of the Great Crime Decline in [Sharkey \(2018\)](#). Exposure to violence is no longer a necessary fact of life in many U.S. cities, but as also emphasized by [Chetty et al. \(2014\)](#), inequality in opportunities and experiences across places is stubbornly persistent. Larger police forces were an important contributor to the fall in crime, and cutting police forces is likely to lead to higher crime in the absence of any corresponding policy change ([Weisburst, 2018](#)). However,

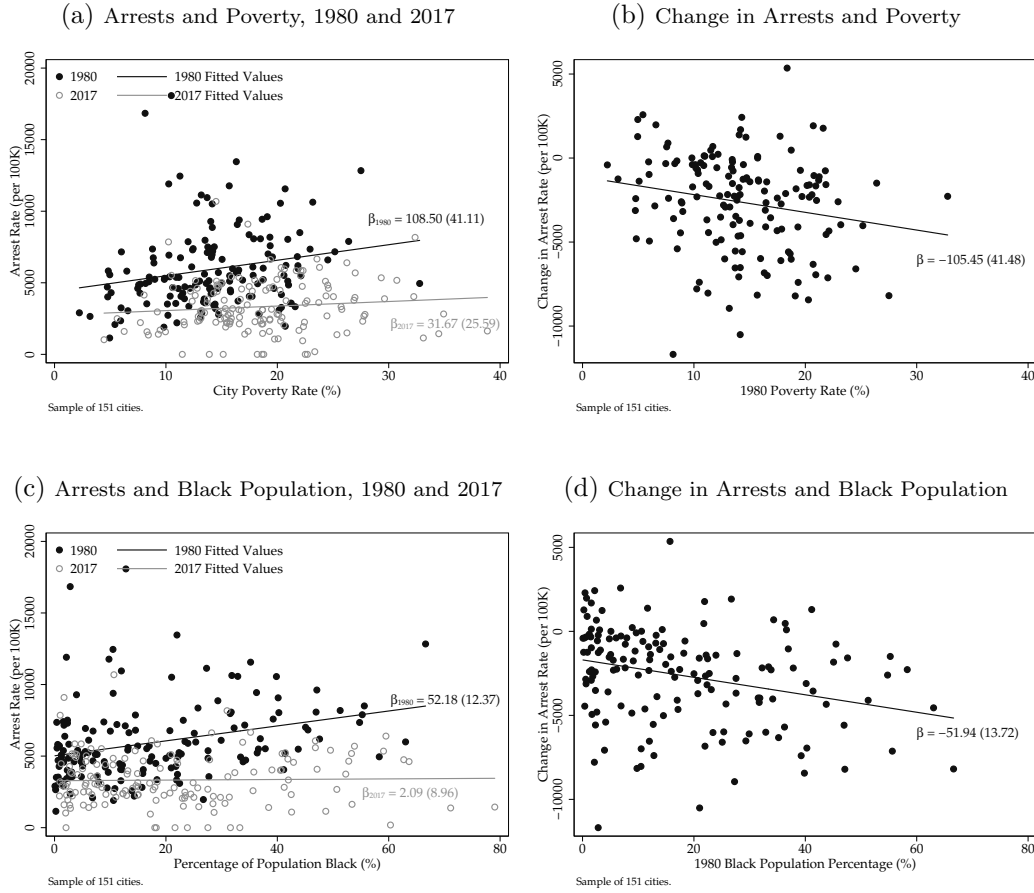
the observation that cities with more Black and more lower-income residents remain more heavily policed when violent crime is (still) at relatively low levels leads to the question of what, exactly, the tasks of policing look like across U.S. cities today.

3.2 Arrests across U.S. Cities

Much of what police officers do in the field remains unobserved to researchers, and to some extent their supervisors as well (Koper et al., 2020). While the capacity of police departments to monitor their officers' activities has grown enormously since the 1980s, when it could take months for a captain to learn about a felony arrest (Sherman, 2000), departments regularly report only one on-the-job task of a sworn officer to the FBI's Uniform Crime Reports: arrests made.

While levels of policing have remained stable with respect to cities' poverty levels and racial composition, arrests – the observed actions taken by officers – have fallen in ways commensurate with violent crime. Figure 3 shows plots similar to those in Figure 1, but using arrest rates as opposed to violent crime rates. Again, the correlations between arrest rates and poverty rates as well as between arrest rates and the share of the population that is Black have declined since 1980. That is, the arrest-poverty and arrest-race gradients flattened, and the cities with initially higher poverty rates and fractions of the population that were Black saw sharper declines in arrests per city resident.

Figure 3: Arrest Rates, Poverty, and Race Across U.S. Cities



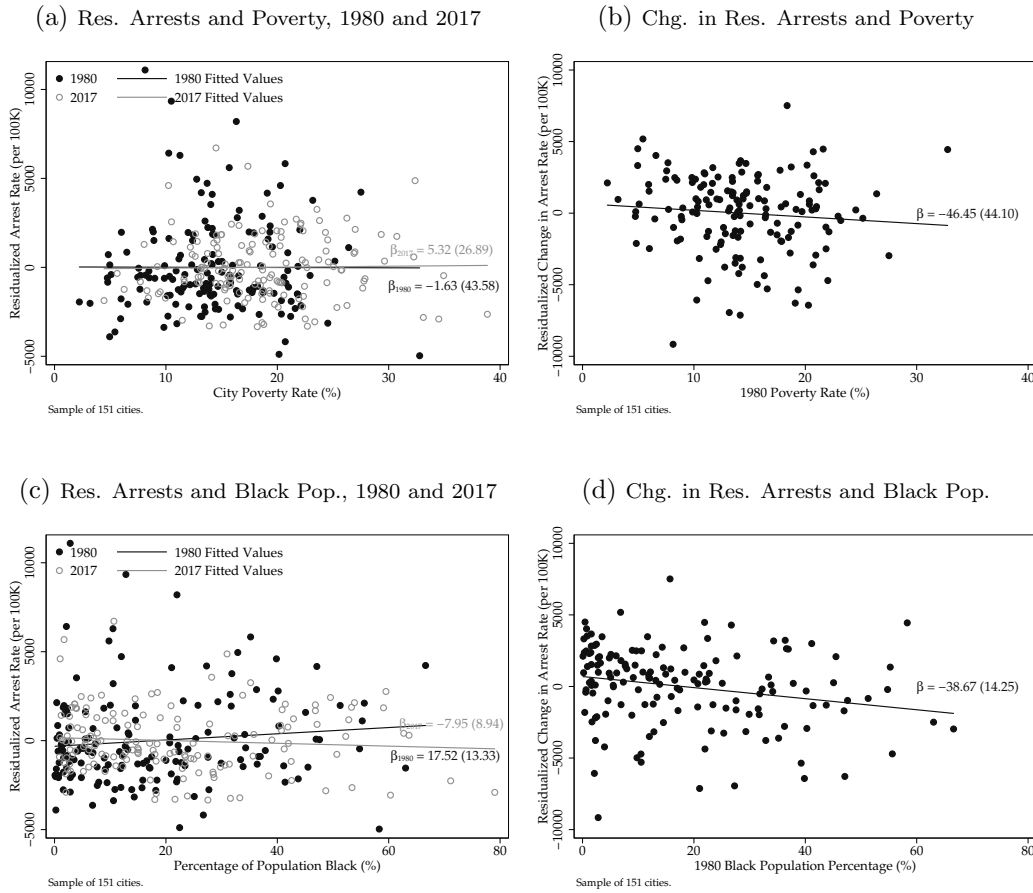
Notes: Data derived from the Uniform Crime Reports, Decennial Census, and American Community Survey. Includes cities with populations of at least 100,000 in 1980 as well as complete data on crime, arrests, and police force size in 1980 and 2017. Coefficients (β s) are from unweighted univariate regressions of the variable on the y-axis against the variable on the x-axis. Standard errors (in parentheses) are heteroskedasticity robust.

Given the relationships depicted in the previous figures, a natural question is how arrest rates have evolved for cities with different poverty levels or racial composition *conditional* on changes in crime rates. If the propensity of each police officer to make arrests were fixed, then conditional on crime rates, we would expect to see more arrests happening in cities that were poorer and had larger Black populations, as those are the places that, still, have more police per resident. However, as Figure 4 shows, we see that if anything, residualized arrest rates (i.e., the residual from a regression of arrest rates on violent crime rates) are negatively related to 1980 poverty rates and Black population shares.³ The relationships are weak,

³We are not trying to measure police effectiveness, but rather people's exposure to the police and police

though.

Figure 4: Residualized Arrest Rates, Poverty, and Race Across U.S. Cities



Notes: Data derived from the Uniform Crime Reports, Decennial Census, and American Community Survey. Includes cities with populations of at least 100,000 in 1980 as well as complete data on crime, arrests, and police force size in 1980 and 2017. Coefficients (β s) are from unweighted univariate regressions of the variable on the y-axis against the variable on the x-axis. Standard errors (in parentheses) are heteroskedasticity robust.

Hence, the data show that, in tow with crime rates, arrest rates have fallen more so in cities with initially higher poverty and with larger Black population shares. This has occurred despite the fact that police presence has not changed dramatically across cities. Put differently, the number of arrests made per officer, which has fallen significantly on average across cities between 1980 and 2017, has fallen even more sharply in cities with initially higher poverty and larger Black population shares.

activities. Therefore, instead of looking at arrests per crime (clearance rates), we examine arrests per capita and how they vary with city demographics conditional on city crime rates.

3.3 Non-Arrest Activities

During their shift, what an officer does can be coarsely divided into comparable, observed actions (arrests) and less comparable, unobserved actions (everything besides arrests). Arrests are a serious intrusion by the state into the liberty of civilians, and systematic reporting of them is certainly warranted. At the same time, however, making an arrest is only a small component of an officer’s job, occurring in fewer than 10% of civilian interactions ([Owens et al., 2018](#)).

The previously discussed changes in the geography of policing and arrests opens the door to potentially more heterogeneity in the non-arrest activities of police officers across cities, and points to particularly high levels of unobserved actions in cities with higher poverty rates and larger Black populations. Crime rates have fallen, and officers are relatively less likely to be making arrests in these cities. To the extent that fewer arrests, conditional on crime rates, means that fewer people become involved with the criminal justice system, this is a positive development. However, a reduction in observed tasks also implies a reduction in the fraction of police activities that can be easily tracked and evaluated by supervisors or researchers. What police officers are doing with their time not spent making arrests may or may not be welfare improving; without a means to quantify and compare those officer actions across jurisdictions and over time, and to determine how they relate to measures of population well-being, economic activity, and crime, we cannot form a scientific base of “what works” at the city level or in multiple jurisdictional contexts.⁴

Individual departments increasingly make electronic records of non-arrest officer activity available to the public. These records include responses to 911 calls, traffic stops made, citations issued, and instances in which force was used. However, these electronic records are

⁴This is related to a note of caution raised in [National Academies of Sciences, Engineering, and Medicine \(2018\)](#): there are many randomized controlled trials run at the individual police department level that have shown specific proactive policing policies to be effective in reducing crime. However, these studies have focused on randomized treatments within a single jurisdiction and with generally short (less than one year) follow up periods. The extent to which these credible results will generalize if implemented at scale and over a long time period is unknown ([Blattman et al., 2017](#)).

generally produced for administrative use by a specific department, and are not standardized in a way that makes cross-city comparisons informative. For example, [Geller et al. \(2020\)](#) show that different reasonable decisions about how to code administrative records in nine large cities changes the size of estimated racial disparities in the use of force that are large enough to change the cities' relative rankings along this dimension.

One dataset that provides some insight into police operations nationwide is the Law Enforcement Management and Administrative Survey (LEMAS). The 2016 LEMAS does not ask specific questions about the types non-arrest activity or community engagement in which police officers participated. However, it does provide information on the number of officers explicitly dedicated to community policing or community relations roles, which may be more focused on engaging the community in a positive, non-enforcement way. Using data from the 136 of the 151 cities in our data whose police departments are in the LEMAS,⁵ we find a negative cross-sectional relationship between the percent of the jurisdiction that is Black and the percent of officers who are explicitly dedicated to community policing or community relations roles. However, the correlation is not strong ($\rho = -0.16$). The relationship between community policing and city-level poverty is even weaker ($\rho = 0.07$).

The persistence of policing in cities with larger lower-income and Black populations may also reflect different preferences across cities for police engagement in actions that are only tangentially related to crime. This could be particularly true in impoverished areas where other public goods and services are not available. In recounting her experience as an officer in Washington, DC, [Brooks \(2021\)](#) observed, “When other social goods and services are absent or scarce, police become the default solution to an astonishingly wide range of problems” (152). Two different, but not necessarily mutually exclusive, mechanisms for this function creep have been noted by researchers. One is a story of governments actively transferring funds from social services to law enforcement (e.g., [Hinton \(2016\)](#)). A slightly different mechanism involves residents calling for more police to fill voids left by retreating service

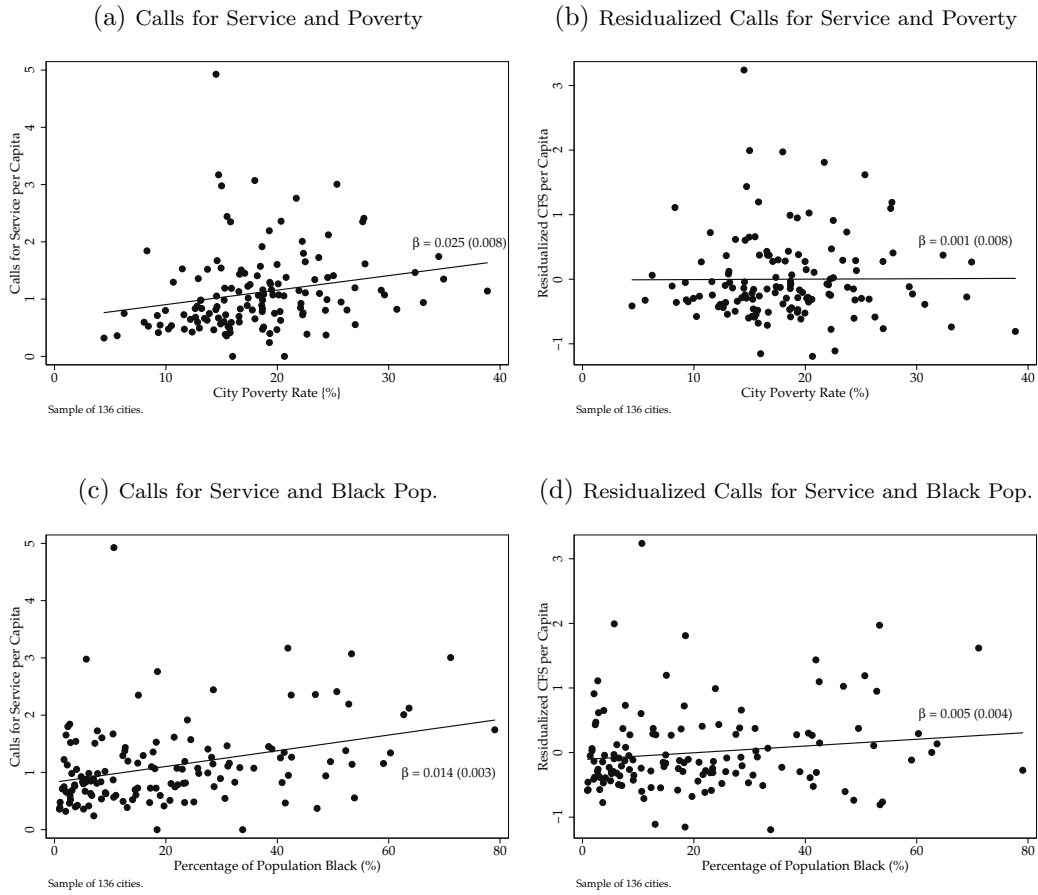
⁵We further limit the LEMAS sample to departments with more than 100 officers, all of which receive LEMAS surveys. Small departments are surveyed via stratified sampling.

providers (e.g., Lum (2021)); in this model, the police are, in effect, the last government institution available to residents of particularly marginalized communities.

To shed some light on mechanisms, we use the LEMAS data to study how calls for service vary across cities. Here, we assume that the frequency with which civilians contact the police reflects their demand for police assistance in solving a problem, which may or may not be crime-related. We find that calls for service per capita are positively correlated with both the share Black and the poverty rate of a city. Panels (a) and (c) of Figure 5 illustrate these relationships. The positive correlations are driven in part by the lingering (albeit now weaker) positive correlation between crime and the poverty rate as well as the racial composition of cities (as depicted in Figure 1). Therefore, in Panels (b) and (d) of Figure 5, we use residualized calls for service per capita; i.e., the residual from a regression of arrest rates on violent crime rates (similar to in Figure 4). We find that even conditional on crime rates, cities with larger Black populations tend to have more calls for service per capita, but the relationship is not statistically significant. Further, we do not observe any meaningful relationship between residualized calls for service per capita and city poverty rates.⁶ To the extent that calls for service proxy for demand for police presence, these results suggest that much of the city-level relationship between demographics and calls for service is driven by variation in underlying crime patterns as opposed to differences in group preferences about law enforcement.

⁶Similarly, we find positive, but weak correlations between the fraction of calls for which officers are dispatched and a city's poverty rate and the share of a city's population that is Black ($\rho = 0.095$ and $\rho = 0.104$, respectively).

Figure 5: Calls for Service, Poverty, and Race Across U.S. Cities, 2016/17



Notes: Data derived from the 2016 LEMAS and 2017 American Community Survey. Includes cities with populations of at least 100,000 in 1980 as well as complete data on crime, arrests, police force size, and calls for service. Coefficients (β s) are from unweighted univariate regressions of the variable on the y-axis against the variable on the x-axis. Standard errors (in parentheses) are heteroskedasticity robust.

Of course, calls for service are an imperfect measure of demand for police services. Further, these city-level relationships may obscure important dynamics across neighborhoods within cities. Without more spatially disaggregated information on where the calls for service are originating, who is placing the calls, and why police presence is requested, we cannot uncover these dynamics. More requests for police from Black residents could reflect under-policing of important crime problems in predominantly Black neighborhoods. More requests may also reflect an increased propensity of non-Black people to call the police after encountering a Black person (Owens and Ba, 2021). The latter phenomenon is consistent with the “racial threat” hypothesis (Blalock, 1967; Stults and Baumer, 2007), which broadly involves

police being used as an instrument to support and entrench existing racialized power relationships in society. The existence of either of these forces in a particular place does not negate the existence of the other; both under- and over-policing can happen simultaneously. Quantitative research using geographically disaggregated data on who calls the police and why can shed light on this critical issue.

4 Discussion

Why does it matter that police are spending more time in unmeasured, non-arrest activities in certain cities? The answer to this question lies in the myriad ways in which police engagement can affect civilians.

As agents of the government, police officers have information about and access to city services that civilians may not. Calls from police to emergency medical assistance or family services may be taken more seriously and receive a swifter response than calls from civilians. Police may also spend time working with communities proactively to solve problems that contribute to local crime, like cleaning up public spaces or supervising youth recreational centers. Non-punitive police officer efforts that ingratiate the officers with the communities they serve can also signal to otherwise marginalized residents that they are valued and supported by the local government. Indeed, officers participating in more positive, non-punitive interactions with the community was recommended by the President's Task Force on 21st Century Policing as a way to advance both crime control and police legitimacy in Black communities.

At the same time that some of what police do outside of making arrests can benefit civilians, police engagement that does not rise to the level of arrest can have negative consequences for directly engaged civilians, as well as for the persistence of poverty and racial disparities. For example, many low-level offenses are not punishable by arrest, but rather by citation – requiring the individual to pay a fine. [Makowsky and Stratmann \(2009; 2011\)](#)

document a variety of extra-legal factors that influence the frequency with which police issue citations, including whether or not the individual lives nearby and the size of the local budget surplus. [Makowsky, Stratmann and Tabarrok’s \(2019\)](#) finding that citations of Black and Hispanic people appear to be particularly sensitive to local revenue needs highlights the need for further research on the causes and consequences of citations.

Additionally, the act of being stopped and searched by an officer can impose costs on a civilian, particularly if the civilian is not actually engaged in criminal behavior. [Manski and Nagin \(2017\)](#) explicitly include these costs in their model of optimal police activity. Research suggests that even these “low level” negative police encounters can have important social, psychological, and physical health consequences ([Rios, 2011](#); [Geller et al., 2014](#); [Sewell, Jefferson and Lee, 2016](#); [McFarland, Geller and McFarland, 2019](#); [Del Toro et al., 2019](#); [Kerrison and Sewell, 2020](#); [Bandes et al., 2020](#)).

It is also important to highlight that a reduced fraction of time devoted to observable, arrest-related activity is necessary, but not sufficient, for a growing divergence in what “policing” means across cities. Indeed, while [Lum et al. \(2020\)](#) note that a large fraction of non-traditional proactive policing activities are not recorded, they also suggest that such practices are limited in scope in most departments, and largely homogeneous across agencies.

There is currently much more that we need to know about the net social impact of many non-arrest policing policies. In addition, the increased scope for variation in what police are actually doing, which has occurred as crime in general has fallen, has created a situation where a “typical” police encounter may vary dramatically based on where that encounter takes place.

5 Conclusion and Avenues for Future Research

In this chapter, we illustrate and connect several facts regarding changes in the geography of crime and policing across U.S. cities in recent decades. Between 1980 and 2017, the

correlations between violent crime and poverty as well as violent crime and race across cities have weakened. Against a backdrop of falling crime rates overall, cities with initially higher poverty rates and larger Black populations have witnessed disproportionately large drops in crime. This trend is a reversal from that observed between 1950 and 1990 (Pratt and Cullen, 2005), when crime rates overall were increasing. However, our findings echo those from work studying within-city changes in the distribution of crime and crime reductions in recent decades; across neighborhoods within cities, the relationship between poverty and crime has also diminished, but not disappeared entirely (Friedson and Sharkey, 2015).

Changes in police presence across cities and over time have not mirrored changes in violent crime; if anything, despite their relatively large drops in crime, cities with initially higher poverty and larger Black populations have more police per capita now than they did in 1980. However, the relatively greater number of police in these cities has not translated into a disproportionate number of arrests; conditional on changes in crime rates, arrest rates are largely orthogonal to city poverty rates or racial composition.

Taken together, the results suggest that the geographic distribution of police with respect to city poverty and racial composition has remained stable in the face of substantial changes in the geography of crime. Given the fact that arrest rates have fallen in tow with violent crime rates across cities, our results point to potentially more heterogeneity in the non-arrest activities of police officers across cities. Further, there is substantially more scope for time spent in unobserved, non-arrest activities to increase in cities with higher poverty rates and larger Black populations. This time could be spent patrolling neighborhoods, interacting with citizens, responding to non-criminal justice related calls or complaints, training, completing other administrative work, and more. Hence, while there has been a convergence in exposure to violent crime across cities, there has been growing possibility for a divergence in people's experiences with police.

Our findings underscore the importance of investigating further how police officers use their time. Qualitative work in this area could be particularly helpful in guiding the de-

velopment of data necessary for larger-scale quantitative work. In most departments, very little is recorded or measured about what police officers are doing when they are not making arrests. Some of their untracked activities could be welfare-improving, whereas others might not be. Further, the extent to which police activity is currently observed appears to be a function of the racial composition of a city, and patterns illustrated in this chapter suggest this is a growing, rather than stable or diminishing, problem. Rectifying this situation is a first-order issue for anyone serious about evidence-based policing.

More precise records of the tasks police undertake could improve our understanding of the ways in which different groups are interacting with the police across places in the U.S. To the extent that jurisdictions have provided more detailed records on, for example, police movements (Weisburd, 2021) and officer-civilian encounters (Voigt et al., 2017), they have yielded important insights into police behavior and its impacts on relevant outcomes. However, data just for select agencies are less useful in characterizing broader, cross-jurisdictional patterns of police activities, and therefore we are still limited in our ability to assess past and present differences in different groups' experiences with the police. Even across similar cities, it is plausible that police engage in very different sets of activities, which in turn could have implications not just for crime control, but also for relations with the public and police legitimacy.

At the same time, efforts to collect and disseminate detailed data on policing should be undertaken with consideration of the costs. Increased data collection and reporting requirements may require reallocations of resources within departments or more taxpayer funds. Time spent tracking officer behavior and recording information may be time that would otherwise be spent on activities that help to reduce crime or benefit the community in other ways. In some instances, greater monitoring and record-keeping could discourage inappropriate or unwarranted actions by officers, but in others they might alter police behavior in ways that are not socially desirable (Stuart et al., 2018). Data collection and reporting requirements that are viewed as overly burdensome could also affect compliance and the

reliability of data made available.

Concerns about the costs of additional data collection and reporting have been raised in the context of recent efforts to increase data availability as well as officer and departmental accountability in certain jurisdictions. For example, the San Diego County Sheriff's Department estimated that officers spent six minutes per civilian stop complying with the reporting required by California's recent Racial and Identity Profiling Act, which mandated additional stop-data collection in order to help address racial disparities in law enforcement ([San Diego County Sheriff's Department, 2019](#)). Even automated data collection can be costly; for example, the Massachusetts State Police estimated that it spends \$50,000 per month to track and store data for 2,900 cars using an Automated Vehicle Location system ([Croteau, 2020](#)). Additionally, just as civilians report costs associated with surveillance, qualitative work suggests that officers bear psychic costs when their actions are monitored continuously by supervisors ([Brayne, 2021](#)).

Finally, our results illustrating patterns over time across cities beg the question of whether similar patterns hold across neighborhoods within cities. [Sharkey \(2018\)](#) documents relatively large declines in crime in the poorest neighborhoods of six cities in recent decades. However, how the extent and nature of policing has changed across neighborhoods is not clear. One potential consequence of the spread of "hot spots" policing, or "focused deterrence," discussed in other chapters of this book, is the amplification of a city level divergence in the relationships that police have with different groups of civilians that they serve.

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