

Exploitative Revenues, Law Enforcement, and the Quality of Government Service

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Abstract

A growing body of evidence indicates that local police departments are being used to provide revenue for municipalities by imposing and collecting fees, fines, and asset forfeitures. We examine whether revenue collection activities compromise the criminal investigation functions of local police departments. We find that police departments in cities that collect a greater share of their revenue from fees solve violent and property crimes at significantly lower rates. The effect on violent crime clearance is more salient in smaller cities where police officers' assignments tend not to be highly specialized. We find that this relationship is robust to a variety of empirical strategies, including instrumenting for fines revenue using commuting time. Our results suggest that institutional changes—such as decreasing municipal government reliance on fines and fees for revenue—are important for changing police behavior and improving the provision of public safety.

Keywords

policing, local public finance, law enforcement and public safety, crime

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Recent high-profile tensions between Black citizens and police officers in the United States have led to protests and calls for reforms. The ensuing popular and scholarly discussion of inequality in police practices has been focused, for the most part, on individual police officers' implicit bias or lack of appropriate training.¹ Comparatively less attention has been paid to police departments' institutional structures and incentives, even though these characteristics have been shown to significantly influence police behavior (Fung 2003; Kantor, Kitchens, and Pawlowski 2017; Luna 2003; Maguire and Uchida 2000; Willis, Mastrofski, and Weisburd 2007).

One aspect of recent criticism of police departments has been centered on the aggressive imposition and collection of fees, fines, and civilly forfeited assets (Harris, Evans, and Beckett 2010). The Department of Justice's (DOJ) investigation of the Ferguson, Missouri, police department revealed that a key driver of the behavior of the Ferguson police was the desire to generate municipal revenue by issuing traffic tickets and imposing fees.² Scholarly evidence indicates the practices unearthed in Ferguson are by no means unique. Census of Governments data from 2012 show that about 80% of American cities with law enforcement institutions derive at least some revenue from fees, fines, and asset forfeitures, with about 6% of cities collecting more than 10% of their revenues this way in 2012 (Sances and You 2017). Implementing this practice requires close coordination between governing bodies, such as mayors and city councils, and local police forces, as the DOJ's Ferguson report vividly describes.³

If police agencies keep a substantial fraction of revenues from fines and fees, they could be augmenting their own budgets through fee and fine enforcement. In practice, revenue from fines and fees is typically contributed directly to the municipal budget, not the police budget, meaning that direct financial incentives for police departments to collect revenue may be weak. But police forces are also the agents of local governments: Local police chiefs are appointed by the city executive (mayor or city manager), and must respond to city politicians (Chaney and Saltzstein 1998; Ostrom and Whitaker 1973; Williams 1984; Wilson 1968). This means that the police in some cities are under significant pressure from city authorities to raise city funds. Given that local police offices have limited resources, and that police officers have broad discretion to focus on any of a wide variety of activities (Brown 1981; Lipsky 1980; Wilson 1968), a focus on revenue-generating activities may distract police departments from their primary duty of providing public safety. Although political scientists know little about how police departments respond to institutional incentives (Gottschalk 2008), a recent study shows that police officers are highly responsive to managerial directives (Mummolo 2018), which suggests that at least in some cases, political pressure on police leadership can translate into officer behavior.

In this article, we examine whether revenue-collection activities compromise the criminal investigation functions of local police departments. We do so by studying the relationship between police-generated local revenue and crime clearance rates (that is, the rate at which a person or persons are charged or otherwise identified by law enforcement as perpetrators of particular crimes). In cities where the proportion of local revenue coming from fines and fees is higher, there is presumably more pressure on the local police to raise revenue, and they might engage in revenue-generating activities instead of investigating crimes when such resource allocation decisions must be made on the margin. In addition, aggressive collection of fines and fees by police officers could affect local residents' trust in law enforcement officers. In turn, this may lead to less cooperation from citizens to solve crimes at the local level, which also could contribute to less effective police investigations (Desmond, Papachristos, and Kirk 2016).

Establishing a causal link between reliance on revenues from fees and fines and crime clearance is challenging because the allocation of police resources to revenue collection is not random. Municipalities may face different types of crime—such as prevalent gang activity—which could systematically affect the crime clearance rate. In addition, while we argue that reliance on fines is associated with lower clearance rates, we cannot rule out reverse causality or omitted variable bias using observational data. To address these concerns, we use two strategies.

First, we use county fixed effects to account for heterogeneity across municipalities that is constant within counties. This strategy leverages within-county, across-city variation in the use of fines to estimate the impact of fine revenue on clearance rates. By making the comparison within counties, we are able to rule out any omitted variables that vary at the county level such as county-level criminal justice policies.

Second, we also employ an instrumental-variables strategy to rule out municipal-level confounders and reverse causality. Specifically, we use the average commuting time as an instrument for fines and fees revenue. More than 86% of workers in the United States drive to work (McKenzie and Rapino 2011), and traffic-related violations and charges account for a significant share of fines and fees revenue. In 2011, among 62.9 million U.S. residents age 16 or older who had one or more contacts with police during the prior 12 months, 49% of contacts were involuntary or police-initiated. Among these involuntary contacts, in 2011, 86% involved traffic stops (Langton and Durose 2016). Therefore, we argue, longer commuting times are related to fee and fine imposition, and are unrelated to crime clearance rates. Using American Community Survey (ACS) data on the average commuting time to work at the municipal level, we show that longer commuting times are strongly associated with increased local government reliance on fines and fees as revenue sources.

We find that, in cities where a relatively higher share of revenue is collected through fines, fees, and asset forfeitures, violent and property crimes are cleared at a relatively lower rate, conditional on the background crime rate, the overall police budget, and a host of relevant sociodemographic variables. In particular, we find in our instrumental variables specifications that a 1% increase in the share of own-source revenues from fees, fines, and forfeitures is associated with a statistically and substantively significant 6.1 percentage point decrease in the violent crime clearance rate and 8.3 percentage point decrease in the property crime clearance rate.

Importantly, the effect on violent crime clearance is driven entirely by cities with populations less than 28,010 (the bottom 80% of the U.S. city population distribution). This is a crucial component of our results because large police departments tend to have many specialized divisions charged with performing specific functions. Therefore, in a large police department, it is unlikely that revenue pressure would affect a department's decisions to choose between different types of activities, because most officers are confined to specific functions. However, in small-town police departments, officers "function as generalists, performing a wide variety of problem-solving, administrative, public service and law enforcement tasks, as opposed to the big-city departments where specialization is highly valued" (Falcone, Wells, and Weisheit 2002). Thus, our results are consistent with the hypothesis that officers devote time to revenue collection rather than investigation in departments where officers perform a wide variety of functions.

Research suggests that low clearance rates for violent crimes in disadvantaged neighborhoods both reflect and generate low levels of trust in the local police force (Kane 2005; Leovy 2015). Studies also document that exposure to violent crimes is associated with many negative social outcomes, including lack of local employment opportunities and economic mobility (Sharkey 2018; Sharkey and Torrats-Espinosa 2017). This article suggests that aggressive fee and fine enforcement can compound this vicious cycle by further diverting resources from investigations that might identify perpetrators. Both the institutional and the individual harms of aggressive fee and fine collection fall heavily on a city's most disadvantaged residents: Fees and fines are most frequently imposed on them (Harris, Evans, and Beckett 2010), and they are most likely to become victims of crimes (Gibson, Fagan, and Antle 2014).⁴

Our work contributes to political scientists' growing focus on the causes and consequences of local law enforcement practices. Recent research points to the unequal impacts of involuntary contacts with law enforcement officials on residents' political participation (Lerman and Weaver 2014; Weaver and Lerman 2010). Our results complement the existing research by documenting one of the institutional causes of unequal policing—the use of police officers

as revenue generators—and one of its institutional consequences—compromising police departments' roles as public safety providers. The analysis we present here also has important implications for proposed criminal justice reforms, which mostly focus on officer-level changes such as body camera use or implicit bias reduction. Our results suggest that institutional reforms, such as decreasing municipal government reliance on fines and fees for revenue, may also be an important step for reforming criminal justice systems and providing higher levels of public safety.

Policing for Profit and Police as Bureaucrats

Whereas it is well known that cities have limited discretion in many policy areas (Ferreira and Gyourko 2009; Peterson 1981; Tiebout 1956), municipal governments have ample discretion over the collection of fines and fees because local police forces and municipal courts that oversee their collection are mainly controlled by city councils. In addition, policing and public safety are two policy areas over which local governments have strong influence compared with other policies (Gerber and Hopkins 2011).

Previous research has shown that when municipal governments experience financial stress, their reliance on fees and fines increases (Garrett and Wagner 2009; Makowsky and Stratmann 2009). Although property taxes are the main component of own-source revenue for local governments, real estate prices rarely change significantly or quickly enough for property tax revenue levels to change quickly (Alm, Buschman, and Sjoquist 2011). Therefore, local governments tend to rely on traffic tickets and other fines when other revenue sources are limited.⁵

There is extensive academic study of the negative consequences of police- and court-imposed fees and fines on affected individuals. Scholars tend to focus on the function of these fees and fines as, effectively, forms of regressive taxation (Harris 2016; Harris, Evans, and Beckett 2010; Katzenstein and Waller 2015; Kohler-Hausmann 2014; Natapoff 2015). Another stream of research focuses on the democratic consequences of involuntary contact with law enforcement. The issuance of fines and fees often occurs at traffic stops, which are the most common type of involuntary contact with law enforcement personnel (Langton and Durose 2016). Studies document that individuals who have repeated unwanted interactions with the law enforcement system are likely to withdraw from civic and political life, further impeding their ability to influence police policy through their local elected officials (Lerman and Weaver 2014; Weaver and Lerman 2010).⁶

When police forces play a role in generating revenue for their municipality, it is easy to imagine the police shifting some resources from patrol and

criminal investigation functions to revenue generation in a resource-scarce environment. Such a shift in resources has been documented in the case of the collection of court and correctional fees. A New York University (NYU) Brennan Center study of legal debts in the 15 states with the largest prison populations concluded that “Overdependence on fee revenue compromises the traditional functions of courts and correctional agencies When probation and parole officers must devote time to fee collection instead of public safety and rehabilitation, they too compromise their roles” (Diller, Bannon, and Nagrecha 2010).

All this suggests that institutional context matters in understanding the behavior of law enforcement agencies. Police officers are classic examples of street-level bureaucrats because of their discretion and autonomy in deciding whom to arrest and whom to overlook (Lipsky 1980). Police departments, like schools and welfare agencies, have the special property that within the organization, discretion increases as one moves *down* the hierarchy (Wilson 1968). Existing research on police officer discretion mainly focuses on personal characteristics of police officers and environmental or circumstantial factors affecting decision-making (Brooks 2015). While institutional conditions have been considered one of the most important factors influencing incentives of federal bureaucrats (e.g., Bawn 1995; McCubbins 1985; Moe 1990; Wood and Waterman 1991), questions of how institutions shape incentives for local bureaucrats, such as police officers, are relatively understudied.

Police agencies could face both financial and political incentives for revenue generation from fines and fees. There are a handful of existing studies that address the issue of how police activities might be redirected as a result of financial incentives. Studies find that when local governments allow police agencies to keep a substantial fraction of the assets that they seize in drug arrests, police respond to the real net incentives for seizures by increasing the drug offense arrest rate (Baicker and Jacobson 2007; Benson, Rasmussen, and Sollars 1995; Holcomb, Kovandzic, and Williams 2011). If agencies can keep a substantial fraction of revenues from fines and fees, they could help increase their budgets or the municipal budget (Lemos and Minzner 2014; Niskanen 1971).

But, unlike asset forfeitures from arrests for drug offenses, revenues from fines and fees generally accrue to the city’s general fund rather than to the police department’s own budget.⁷ If this is the case, a direct monetary incentive to increase police departments’ own revenue from issuing more tickets and citations would be weak. However, there is another mechanism—political incentives—that can explain the coordination of law enforcement for policing for city revenues. A chief of police is appointed by either the city council or the chief executive—the mayor or city manager. Given that city

officials have some control over police budgets and the choice of a police chief, some scholars argue that municipal police departments have always been political institutions in the United States (Williams 1984) and that political control of police departments can, at times, explain police behavior (Chaney and Saltzstein 1998; Ostrom and Whitaker 1973).

Law enforcement agencies also often have a reputational incentive to participate in policing for profit, if their reputation in the eyes of city officials depends on their success in generating revenue (Lemos and Minzner 2014). If pressure to generate revenue from fines and fees comes without additional resources (such as hiring more police officers or allocating more public funds for overtime pay), local police officers may need to divert resources from traditional activities, such as criminal investigation, in favor of revenue-generation activities. This effect would be more salient in police departments where police officers' work assignments are flexible rather than specialized.⁸

Police officials are sometimes frank about the pressures they face. James Tignanelli, president of the Police Officers Association of Michigan union, told *Car and Driver* magazine in 2009 that, "When elected officials say, 'We need more money,' they can't look to the department of public works to raise revenues, so where do they find it? The police department" (Hunter 2009).⁹

Data and Empirical Strategy

Our aim is to examine how reliance on police-collected fees and fines for municipal revenue affects crime clearance in local areas. To measure the use of fees and fines, we use the Census of Governments (COG), a U.S. Census Bureau program that collects revenue and expenditure data for all of the roughly 90,000 local governments in the United States in years ending in two and seven. Starting in 2007, the COG began asking all cities how much of their revenue was collected via fines and fees. As the COG survey instructs respondents, this variable includes receipts from penalties imposed for violation of law; civil penalties (e.g., for violating court orders); court fees if levied upon conviction of a crime or violation . . . and forfeits of deposits held for performance guarantees or against loss or damage (such as forfeits of bail and collateral).¹⁰

It is important to note that the survey captures fees and fines that go to the city's budget, and would exclude any money collected through fees and fines that may have gone to the police department's own budget.

From the 2007 and 2012 COG, we begin by keeping only "municipal governments" and "township governments," excluding counties, school districts, and special districts. Because we are interested in resource allocation for law

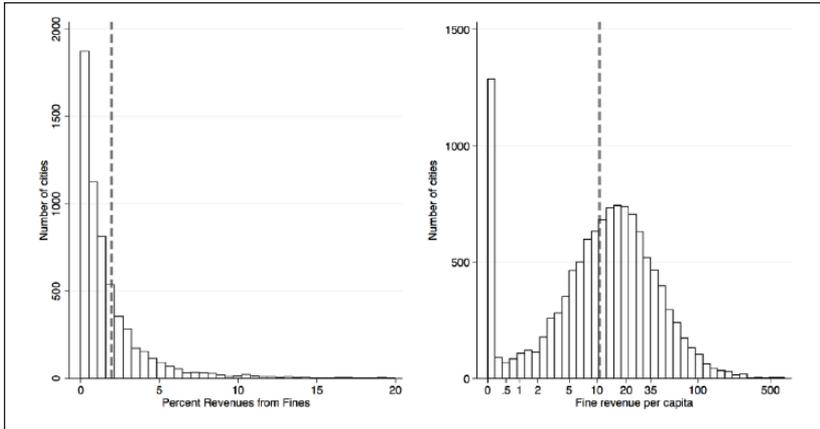


Figure 1. Distribution of per capita revenue from fines and fees, 2012.

enforcement in municipal governments, we further restrict the sample to governments with a police force and/or a court.¹¹ For each municipality, we calculate the percentage of own-source revenues from fines and fees, as well as the per capita revenues from these sources.¹²

To measure the crime clearance rate, we use the Uniform Crime Reporting (UCR) data. The FBI has gathered crime statistics from law enforcement agencies across the country since the 1930s, and the UCR program collects statistics on violent crime (murder and nonnegligent manslaughter, forcible rape, robbery, and aggravated assault) and property crime (burglary, larceny-theft, and motor vehicle theft).¹³ The UCR data include crime counts and crime clearance rates by types of crime.¹⁴ We use the UCR data for years 2007 and 2012, and merge these with local government public finance data using a unique Census place code. This leaves 5,935 unique municipal governments. To account for other variables that are associated with the crime clearance rate, we collect local government demographic data from the ACS.

We also use the data from the Census of State and Local Law Enforcement Agencies (CSLLEA) to control for the police department's budget, the number of full-time sworn officers, and their functions. Conditioning on these variables in our analysis is important because the overall capacity of law enforcement agencies can influence both crime clearance rates and the need to reallocate resources in the face of budget pressures.¹⁵

Figure 1 presents the distributions of percentage of own-source revenue from (left) and per capita (right) fines, fees, and forfeitures for the year 2012.¹⁶ The dotted lines indicate the mean values of the share of fines

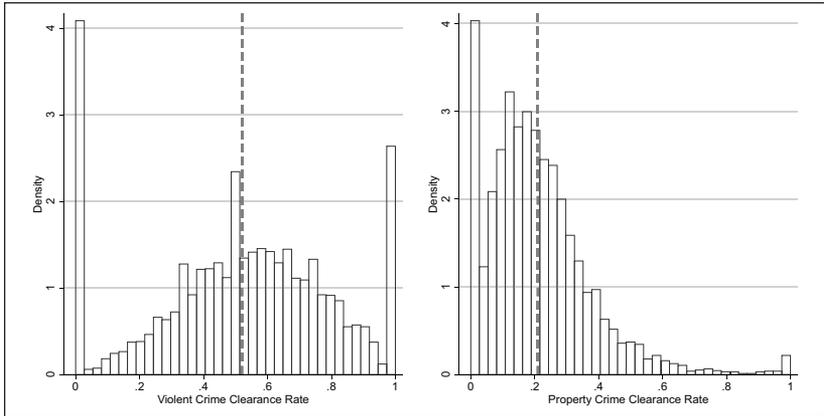


Figure 2. Distribution of crime clearance rates, 2012.

revenue and per capita revenue from fines, fees, and forfeitures in 2012. The averages are 2% and \$10 per capita, respectively, and there is significant variation across cities.¹⁷ Cities with a higher number of African-Americans, less-educated residents, lower tax revenues, and lower descriptive representation of minorities tend to collect a greater share of revenues from fines and fees (Sances and You 2017).

We present the distribution of clearance rates for violent crimes (left) and property crimes (right) for 2012 in Figure 2. The dotted lines denote the mean value for each clearance rate. Consistent with previous literature on crime clearance (Chalfin and McCrary, n.d.; Roberts and Roberts 2015), the figure shows that the property crime clearance rate is much lower than the violent crime clearance rate, on average. Both crime clearance rates also show significant variation across municipalities.

Identifying the causal effect of reliance on fines and fees for municipal revenue on crime clearance rates is challenging because revenues from fines and fees are distributed nonrandomly across municipal governments. Even if we include an array of control variables, it is possible that omitted variable bias remains due to unobserved and unobservable variables, such as racial tension or trust between police and residents, which could affect both the practice of revenue generation from fees and fines and crime clearance rates. Reverse causality is also possible—it may be the case that when the crime clearance rate is low, people are reluctant to move to the area, thereby reducing property values and prompting the municipal government to rely more on fines and fees.

To address these concerns, we employ two strategies. First, we use county fixed effects to account for time-invariant county-specific characteristics.¹⁸ The main empirical specification we estimate is,

$$C_{ijt} = \alpha_j + \alpha_t + \beta_1 \text{Fines}_{ijt} + \beta_2 X_{ijt} + \varepsilon_{ijt} \quad (1)$$

where C_{ijt} indicates the crime clearance rate in city i in county j at time t . The α_j denotes the county fixed effect, α_t denotes the time fixed effect, Fines_{ijt} indicates a share of own-source revenue from fines and fees in city i in county j at time t , and X_{ijt} denotes other variables that could be related to both fines collection and crime clearance: local government police budgets as a proportion of total local government expenditures, number of full-time sworn personnel with full arrest powers, total population, proportion of the population between the ages of 15 and 34, Black population, education level, unemployment rate, income inequality, and median income.¹⁹

Second, we use commuting times as an instrumental variable (IV) to account for potentially omitted variables.²⁰ Studies have shown that traffic tickets and fees related to traffic violations are important revenue sources for local governments, especially when municipalities are financially strained (Garrett and Wagner 2009; Makowsky and Stratmann 2009). It is also well known that the most frequent interactions between citizens and police officers are traffic stops (Langton and Durose 2016). It follows that as individuals spend more time driving, they are more likely to interact with police, and that cities with longer commutes provide more opportunities for fee and fine revenue collection. Thus, we use municipal-level data on commuting time as an instrument for revenue from fines and fees.²¹ We obtain data on average commute times from the ACS, and we show in Appendix Figure A5 that longer average commute times are associated with a greater share of municipal revenue coming from fees and fines.²²

According to a series of reports published by the American Association of State Highway and Transportation Officials (AASHTO), the main factors that affect commute time are weather, trip mode, population growth, labor force participation, and transportation infrastructure.²³ Therefore, we argue that commute time only affects crime clearance rates insofar as it affects the prevalence of fee and fine collection by police officers. One potential concern with using commute time as an instrument for fee and fine revenue is that commute time could be correlated with high crime rates in the city (if high city crime rates prompt residents to relocate farther away from the city center, where their commute time might be longer). To address this concern, we analyze whether lagged crime rates or crime clearance rates are correlated with commute time at the municipality level, and we show in Table A2 in the

appendix that this is not the case. Also, as Frug and Barron (2008) discuss, U.S. cities *lack* control over traffic policy, as generally, congestion pricing, highway construction, and traffic fine schedules are set at the state level. This means that the only discretionary area for municipalities is enforcement—that is, the aggressiveness with which they choose to impose fees and fines.

The empirical specification for the IV analysis is as follows:

$$\begin{aligned} \text{(First Stage) } \text{Fines}_{ist} &= \alpha_s + \alpha_t + \gamma_1 * (\ln)\text{Commuting}_{ist} \\ &\quad + \Gamma \mathbf{X}_{ist} + v_{ist} \\ \text{(Second Stage) } \text{Clearance}_{ist} &= \alpha_s + \alpha_t + \beta_1 \text{Fines}_{ist} + \Theta \mathbf{X}_{ist} + \varepsilon_{ist}, \end{aligned} \quad (2)$$

where i, s, t denote city, state, and year, respectively. $(\ln)\text{Commuting}_{ist}$ indicates a log-transformed average time to commute (in minutes) to work at city i . Fines_{ist} indicates the percentage of municipal own-source revenues from fines and fees. Clearance_{ist} is the violent and property crime clearance rate (%). \mathbf{X}_{ist} includes the same set of control variables as in the county fixed effect model such as the total number of crimes, percent budgeted for police out of a city's total expenditures, police employment, and demographic variables. The α_s and α_t indicate state and year fixed effects, respectively. We include state fixed effects to control for different state laws on revenue collections from fines and fees (Harris 2016), as well as state-level traffic policies that could affect commuting times (Frug and Barron 2008).

Reliance on Fees and Fines and Crime Clearance Rates

In this section, we present the main results and discuss potential causal mechanisms. First, we present ordinary least squares (OLS) results with county fixed effects. Table 1 presents the results from estimating equation (1). Column (1) presents the simple bivariate relationship between revenues from fines and fees and violent crime clearance rates, and there is a statistically significant and negative relationship.²⁴ Column (2) presents the same result with the addition of relevant controls and county fixed effects. We divide cities in our sample into two groups based on population size (larger or smaller than 28,010 people) to see whether there are more salient effects of revenue generation via fines and fees on violent crime clearance in smaller cities where police functions might be more flexible because officers tend to be more generalist.²⁵

Columns (3) and (4) in Table 1 present the results for small and large cities separately, and illustrate that the entire overall average effect is driven by

Table 1. % Revenue from Fines and Fees and Crime Clearance Rates: County Fixed Effects.

| | Violent Crime Clearance | | | Property Crime Clearance | | |
|---|-------------------------|--------------------|-------------------|--------------------------|---------------|--------------------------------|
| | All Cities (1) | (2) | (3) | Larger Cities (4) | (5) | All Cities ^b (6) |
| Fines and Fees as City's Own-Source Revenue (%) | -0.503*** (-5.08) | -0.182* (-1.81) | -0.233*** (-2.12) | -0.195 (-0.55) | 0.0507 (0.80) | -0.00884 (-0.12) |
| (ln) Total Violent Crime | | -0.121 (-0.20) | 0.527 (0.73) | -0.566 (-0.52) | | -0.0182 (-0.06) |
| (ln) Total Property Crime | | -3.255*** (-4.16) | -3.674*** (-4.11) | -4.513** (-2.53) | | -0.184 (-0.35) |
| Police Budget (%) ^c | | 0.114*** (2.64) | 0.141*** (2.82) | -0.0833 (-0.94) | | 0.0497* (1.94) |
| Full-time Sworn Officer per ^d | | -87.93 (-0.43) | 186.2 (0.66) | 409.1 (0.32) | | 214.6 (1.13) |
| (ln) Population | | 1.996** (2.37) | 2.093* (1.82) | 3.496* (1.78) | | 0.628 (1.11) |
| Population aged 15-34 (%) | | 0.0290 (0.47) | 0.0496 (0.63) | -0.299** (-1.98) | | 0.0693** (2.01) |
| Black (%) | | -0.0925*** (-2.99) | -0.0960** (-2.52) | -0.171*** (-2.62) | | -0.0473** (-2.06) |
| Lower Education (%) ^e | | -0.156*** (-2.93) | -0.0754 (-1.17) | -0.631*** (-5.59) | | -0.0522* (-1.70) |
| Unemployment (%) | | -0.131 (-0.55) | -0.161 (-0.60) | 0.435 (0.93) | | -0.208 (-1.58) |
| Gini | | -0.0956 (-1.26) | -0.0787 (-0.86) | -0.311* (-1.78) | | -0.0483 (-1.16) |
| (ln) Median Income | | 2.226 (1.27) | 2.405 (1.22) | -5.928 (-1.20) | | -0.582 (-0.59) |
| Year FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| County FE | | ✓ | ✓ | ✓ | ✓ | ✓ |
| N | 10,361 | 9,468 | 7,613 | 1,855 | 10,650 | 9,725 |
| Adjusted R ² | .004 | .356 | .330 | .575 | .008 | .350 |

Note: t Statistics in parentheses. Standard errors are clustered at the municipality level. FE = fixed effects; PC = per capita

a.Smaller cities are defined as having populations equal to or less than 28,010, which constitutes the bottom 80% of the sample. Larger cities have populations greater than 28,010.

b.For property crime, there is no statistically significant relationship between fee and fine revenue and clearance rates in large or small cities so we do not present the separate results for them.

c.% of municipal government's budget spent on the local police department. The police budget could be endogenous to a municipality's fines and fees revenue, so we also use police budget data from 2002 (the latest year that Census of Government data are available prior to the sample period), and there is no significant difference in the results.

d.Number of full-time sworn personnel with full arrest powers per capita.

e.% of population over 25 whose education attainment is less than high school.

*p < .10. **p < .05. ***p < .01.

small cities. The share of revenue from fines and fees has a statistically significant, negative relationship with violent crime clearance rates in small cities, but we do not observe the same effect in large cities (population more than 28,010). In small cities, the average number of full-time sworn officers is 20, whereas that number is 248 in large cities. This suggests that in smaller cities, where officers perform a variety of functions from traffic enforcement to criminal investigation, officers are more able to adjust their duties in response to political pressure—and these are exactly the cities where we observe a negative relationship between fee and fine revenue and violent crime clearance rates.²⁶ Columns (5) and (6) present the results for property crime clearance rates. In contrast to violent crime, property crime clearance rate does not appear to be significantly related to per capita revenue from fines and fees.

Next, we present the results from the IV analysis in Table 2. The full results from the first-stage regression are reported in Appendix Table A4, but we provide summary results in the footer, which shows a statistically significant and positive relationship between commute time and municipal revenues collected from fines and fees. Columns (1) through (3) present the results for violent crime clearance, and columns (4) through (6) present the result for property crime clearance. The results of the IV analysis are consistent with the results from the county fixed effects analysis on violent crime clearance: fees and fines revenue is positively associated with a lower violent crime clearance rate, and the negative relationship between a reliance on fines and fees and a violent crime clearance rate is mainly driven by smaller cities, where police functions are more flexible. Specifically, based on the results in column (2) of Table 2, a 1% increase in own-source revenues from fines and fees is associated with a 4.8% percentage point decrease in the violent crime clearance rate in small cities.

In contrast to the results from the county fixed effect regressions, here, we find there is also a negative impact of fees and fines collection on property crime clearance rates, both in smaller and larger cities, although the *F* statistic from the first-stage regression for the subset of large cities is smaller than the cutoff point of 10 (Stock, Wright, and Yogo 2002).²⁷ On average, a 1% increase in own-source revenues from fines and fees is associated with an 8.3 percentage point decrease in the property crime clearance rate (column (1) of Table 2).

It is also important to note the significance of the percentage of Blacks in the municipality in the IV regression on violent crime clearance. An increase of 10% in the municipality's Black population is associated with a nearly 1.1% lower rate of violent crime clearance, even after controlling for crime rate, police budget, population, proportion of youth in the population, and

Table 2. % Revenue from Fines and Fees and Crime Clearance Rates—Instrumental Variable Analysis.

| | Violent Crime Clearance | | | Property Crime Clearance | | |
|----------------------------------|-------------------------|-----------------------------|-------------------|--------------------------|-------------------|------------------|
| | All Cities | Smaller Cities ^a | Larger Cities | All Cities | Smaller Cities | Larger Cities |
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Panel A: Second Stage | | | | | | |
| Fines and Fees as City's | | | | | | |
| Own-Source Revenue (%) | -6.104*** (-2.77) | -4.809** (-2.09) | -7.751 (-1.36) | -8.377*** (-4.43) | -7.906*** (-3.84) | -10.12** (-2.11) |
| (ln) Total | 0.299 (0.51) | 0.581 (0.93) | -0.541 (-0.46) | 0.450 (0.98) | 0.527 (1.07) | 0.202 (0.23) |
| Violent Crime | | | | | | |
| (ln) Total | -3.838*** (-5.46) | -3.873*** (-5.43) | -6.187** (-2.29) | -1.544** (-2.28) | -1.717+ (-2.41) | -3.452 (-1.25) |
| Property Crime | | | | | | |
| Police Budget ^b | 0.668*** (2.92) | 0.577** (2.38) | 0.380 (0.98) | 0.860*** (4.34) | 0.833*** (3.83) | 0.653** (1.99) |
| Full-time Sworn | 666.4 (1.33) | 771.0 (1.37) | -73.85 (-0.17) | 1347.1** (2.18) | 1576.5** (2.13) | 997.8** (2.52) |
| Office per: capita ^c | | | | | | |
| (ln) Population | 0.746 (0.90) | 1.028 (0.98) | 3.156 (1.41) | 0.275 (0.32) | 1.094 (0.91) | 0.528 (0.22) |
| Population aged 15–34 (%) | 0.156 (1.56) | 0.101 (0.95) | 0.0926 (0.51) | 0.307*** (3.27) | 0.310*** (2.99) | 0.230 (1.34) |
| Black (%) | -0.115** (-2.56) | -0.119*** (-2.69) | -0.162*** (-2.58) | -0.0148 (-0.28) | -0.0140 (-0.24) | -0.0344 (-0.59) |
| Lower Education (%) ^d | -0.0900 (-1.50) | -0.0405 (-0.69) | -0.354** (-2.53) | -0.0437 (-0.70) | -0.0752 (-1.14) | 0.0853 (0.64) |
| Unemployment (%) | -0.138 (-1.11) | -0.156 (-1.20) | -0.189 (-0.98) | -0.0525 (-0.41) | -0.0222 (-0.16) | -0.338* (-1.81) |
| Gini | -0.291*** (-2.69) | -0.262** (-2.18) | -0.257* (-1.92) | -0.388*** (-3.77) | -0.384*** (-3.32) | -0.202 (-1.40) |
| (ln) Median Income | 0.0316 (0.01) | -0.858 (-0.35) | -4.089 (-0.85) | -0.113 (-0.05) | -1.169 (-0.47) | 2.788 (0.62) |
| Year FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| State FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| N | 9,467 | 7,612 | 1,855 | 9,724 | 7,866 | 1,858 |

(continued)

Table 2. (continued)

| | Violent Crime Clearance | | | Property Crime Clearance | | |
|---------------------------------------|----------------------------|------------------------------------|---------------------------|----------------------------|----------------------------|---------------------------|
| | All Cities (1) | Smaller Cities ^a (2) | Larger Cities (3) | All Cities (4) | Smaller Cities (5) | Larger Cities (6) |
| Panel B: First Stage | | | | | | |
| DV = revenues from fines/fees (%) | | | | | | |
| (ln) Average Commuting Time (minutes) | 0.34 ^{***} (5.11) | 0.35 ^{***} (4.54) | 0.26 ^{**} (2.38) | 0.35 ^{***} (5.34) | 0.36 ^{***} (4.74) | 0.28 ^{**} (2.51) |
| F statistics | 26.1 | 20.6 | 5.6 | 28.5 | 22.4 | 6.3 |
| Year FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| State FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

Note. ^t Statistics in parentheses. Standard errors are clustered at municipality level. FE = fixed effects; DV = dependent variable.

a. Smaller cities are defined as having populations equal to or less than 28,010, which constitutes the bottom 80% of the sample. Larger cities, in contrast, are having populations greater than 28,010.

b. % of municipal government's budget spent on local police department. We also use police budget data from 2002 to address the potential endogeneity of the police budget, and there is no significant difference in the results.

c. Number of full-time sworn personnel with full arrest powers per capita.

d. % of population over 25 whose education attainment is less than high school. Using state-year fixed effect to control state-specific time trend instead of state fixed effect and year fixed effect separately produces a similar result.

* $p < .10$. ** $p < .05$. *** $p < .01$.

other relevant sociodemographic variables. This result is consistent with qualitative and quantitative accounts of mistrust between Black communities and the police (Desmond, Papachristos, and Kirk 2016; Goffman 2009; Lerman and Weaver 2014). Income inequality, which is captured by the variable *Gini*, is also negatively correlated with both violent and property crime clearance rates.

One potential mechanism that explains the negative relationship between local government reliance on fee and fine revenue and crime clearance rates is that policing for profit is related to law enforcement personnel reallocating their time and resources away from investigative functions and toward revenue generation due to time and budget constraints. To further establish this as the main mechanism explaining the relationship between reliance on fines or fees and lower crime clearance rates, we need to show that law enforcement agencies face budget and time constraints.

Regarding budget constraints, one threat to this explanation is that cities might increase their police department's budgets when they increase their reliance on fines and fees. To address this issue, we control for the size of the police budget in the main empirical section, and therefore, any changes in police budgets should be accounted for. Although we do not have data on how police officers spend their time and our data do not allow us to be certain that the increased fee and fine revenue come from more unique fines rather than more expensive fines concentrated among the same (or a smaller) number of people, available evidence suggests that the police focus on a combination of these strategies and that both lead them to spend more of their time issuing and enforcing fees and fines at the expense of other kinds of police activities. For example, a report on the Oakland Police Department found that although the department was understaffed by 169 officers and did not investigate 80% of robberies at all in 2014, the department assigned 61% of staff and 54% of funds to patrol activities (Gammon 2015). As for academic research, Garrett and Wagner (2009) found an increase in the number of traffic tickets issued per capita in North Carolina's counties following particularly difficult fiscal years from 1990 to 2003. Furthermore, both the DOJ's Ferguson report and the NYU Brennan Center report (on court fees and fines) show that when fees and fines are more expensive, police then spend time issuing additional fines and arrest warrants for nonpayment. Furthermore, insofar as much fine activity comes from traffic fines, traffic fine schedules are set by states, not cities, so cities do not have direct control over the cost of traffic fines in any case.

Another mechanism that could explain the negative relationship between reliance on fines and fees for local government revenue and violent crime clearance rates is changes in levels of trust and legitimacy of local law

enforcement due to aggressive fee and fine collection. It is possible that, even if a police department is able to put the same amount of effort into solving violent crimes, these efforts could be less effective if community members in high-fine-imposition areas are less willing to cooperate with the police due (in whole or in part) to negative experiences related to aggressive fee and fine collection. Studies have shown that negative interactions with law enforcement personnel and salient police misconduct cases increase cynicism of the legal system, reduce trust in the police (especially in Black communities; Kirk et al. 2012), and lead to fewer crimes reported via 911 calls by citizens (Desmond, Papachristos, and Kirk 2016). Due to data limitations, it is not possible to know for certain whether this subtly different potential mechanism is operating in tandem with the main resource allocation mechanism for which we argue. Both mechanisms, though, ultimately reflect the use of the police as a source of municipal revenue compromising public safety.

Conclusion

This article shows that a municipality's increased share of revenue from fees, fines, and asset forfeitures is negatively associated with its rate of violent and property crime clearances, conditional on the crime rate, the total police budget, and a host of relevant sociodemographic variables. County fixed effects analysis shows these results are not driven by omitted variables at the county level, and an IV analysis leveraging greater traffic-related fines and fees revenue from longer average commute times confirms these results are not being driven by reverse causality. Furthermore, we show that the result on violent crime clearance is mainly driven by cities with smaller-than-average populations, where the mean number of sworn police officers is just 20; thus, this pattern emerges where police officers are most able to flexibly switch between different functions in response to political pressure, rather than being cordoned into specialized divisions.

These results contribute to the scholarly understanding of the negative consequences generated by municipal revenue collection from fees and fines. When revenue is collected through systems of fees, fines, and forfeitures rather than through taxes, the fee collection systems themselves generate undesirable outcomes that may not have been anticipated by policy makers aiming simply to cover a revenue shortfall: Reallocation of police resources is associated with neglect of other important police functions, namely, the investigation of violent and property crimes. These results suggest that cities where the police are relied upon to collect revenue through fees, fines, and asset forfeitures essentially commandeer their police for revenue collection, which compromises their ability to perform their traditional functions.

These results also contribute to a broader understanding of the relationship between law enforcement and high-crime communities, and the consequences of that relationship. Almost 40 years ago, James Q. Wilson's book *Varieties of Police Behavior* described different police force "styles" with regard to aggressiveness, courtesy, and public-service mission. This research shows that a municipality's revenue needs can contribute to its police force's "style." Furthermore, the same police department can deliver differing qualities of police services to different groups of citizens within their community, which may partly explain why citizens of different races and classes can have very different views of the police, even within one city (Skogan 2006).

Another consequence of a police focus on revenue generation is that it necessarily involves a relatively higher level of involuntary citizen contact with law enforcement. This consequence is particularly important in light of the recent work by, among others, Weaver and Lerman (2010) and Lerman and Weaver (2014), both of which illustrate that involuntary contact with law enforcement significantly decreases democratic participation, even for those whose voting rights have not been affected. In general, it seems that those who have contact with the carceral state withdraw from all types of contact with the state—including voting, which has the potential to change policy in ways that might benefit them personally. In this way, policing for profit can be part of a vicious cycle of chronic, involuntary contact with law enforcement and low levels of civic engagement.

All the cited studies of the consequences of law enforcement behavior for democratic citizenship, including Wilson's, comment extensively on the ways in which racial bias shapes these phenomena. The literature on racial bias in the imposition of fees and fines, particularly traffic fines, is vast and does not merit a summary here, although interested readers should refer to Epp, Maynard-Moody, and Haider-Markel (2014). Fines and fees that generate municipal revenue are often implemented in a dramatically racially discriminatory fashion. Furthermore, the pattern we show in this article may contribute to the well-documented racial gap in perceptions of police legitimacy (Epp, Maynard-Moody, and Haider-Markel 2014; Skogan 2006; Warren 2011).

For many Americans, contact with the police—as a suspect, a victim, or a witness—is the only contact they have with any emissary of the local, state, or federal governments. It seems that some communities, which are the target of aggressive fee and fine enforcement, are overpoliced with regard to the police's revenue-generation function and consequently underpoliced with regard to the police's criminal investigation function. For these community members, their taxes are paying for a government service that exploits them

for profit rather than protecting them from violence and theft. In this sense, they are poorly represented by the local government, and understandably pessimistic about their power to change it.

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Supplemental Material

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Notes

1. See, for example, Carey and Goode (2016).
2. United States Department of Justice Civil Rights Division (2015).
3. In March 2010, the city's finance director wrote to the chief of police that "unless ticket writing ramps up significantly before the end of the year, it will be hard to significantly raise collections next year . . . Given that we are looking at a substantial sales tax shortfall, it's not an insignificant issue." Later, in January 2013, the police chief reported to the city manager that "Municipal Court gross revenue for calendar year 2012 passed the \$2,000,000 mark for the first time in history, reaching \$2,066,050," to which the city manager responded, "Awesome! Thanks!" (United States Department of Justice Civil Rights Division 2015).
4. In this project, we limit our analysis to U.S. police departments. Exploitative police behavior is familiar in many countries outside the United States, and certainly detracts from effective police investigations in other countries (Huggins 1998), but the contemporary United States is a unique context that combines low levels of egregious police corruption with a long history of police as an institution that reinforces social inequalities.

5. To be clear, financial stress may not be the sole reason that local governments increase levying fines and fees on their residents. Scholars also argue that the imposition of fines and fees and resulting poverty is a contemporary form of social control of the poor and minorities by bureaucrats and law enforcement officials (Hackworth 2007; Harris 2016; Soss, Fording, and Schram 2011). Our primary interest in this study is isolating the impact of a reliance on fines for revenue while acknowledging that social control may still play an important role in why cities rely on fines.
6. The consequences are even more severe for those who are incarcerated, and labor market opportunities for those with criminal records are severely curtailed as well (Western, Kling, and Weiman 2001).
7. For example, Michigan outlines its policy on the distribution of funds from traffic citations in this memorandum, http://www.house.mi.gov/hfa/PDF/Judiciary/Traffic_Citation_Revenue_Memo.pdf.
8. Municipalities with larger police forces, such as the New York Police Department (NYPD), have many specialized divisions for investigative functions. In those places, the mechanism we outline here might not be observed, especially for violent crime clearance. In our analysis, we test whether the relationship between reliance on fines and fees and crime clearance depends on the size of the police force, and we find that it does.
9. Police Chief Michael Reaves of Utica, Michigan, quoted in the same *Car and Driver* story, said that “When I first started in this job 30 years ago, police work was never about revenue enhancement, but if you’re a chief now, you have to look at whether your department produces revenues” (Hunter 2009). Separately, a retired NYPD officer also told reporters that “revenue generating” came first in his job (<http://thefreethoughtproject.com/retired-police-officer-revenue-generating/>).
10. This variable excludes “penalties relating to tax delinquency; library fines; and sale of confiscated property”: https://www.census.gov/govs/www/class_ch7_misc.html. Appendix Figure A1 presents an example of a survey form asking localities about revenue sources.
11. We code a city as having police or courts if the city reports spending more than zero dollars on either service. Based on our correspondence with the Census Bureau, this is the best available method for determining which governments provide what services.
12. Although not all revenues from fines and fees come from police activities, late court fees and correctional fees often originate from interactions with law enforcement, and in any case, the police are responsible for collecting these fees when they go unpaid.
13. The data for offenses known and clearances by arrest are submitted voluntarily by city, county, and state law enforcement agencies. Once received, the FBI checks the agencies’ reports for completeness and arithmetical accuracy. If an unusual fluctuation is detected in an agency’s crime count, the FBI compares those counts with counts from previous reports or compares the frequencies with those of agencies similar to the agency in question. When necessary, law enforcement agencies are contacted to correct or explain the figures. “Uniform

- Crime Reporting [UCR] Program Data [United States]: Offenses Known and Clearances by Arrest, 2007." ICPSR 25101.
14. The FBI has used the National Incidence-Based Reporting System (NIBRS) since 1991 as a more disaggregated system for reporting crime data from law enforcement agencies. The UCR's Summary Reporting System (SRS) and NIBRS differ in four main ways: "(1) The SRS collects aggregated monthly crime in ten offense categories. (2) NIBRS collects disaggregated offense, victim, offender, property, and arrestee information for 49 offenses. (3) The SRS employs a hierarchy rule, which NIBRS does not. (4) NIBRS counts up to 10 offenses per incident." The hierarchy rule is a reporting standard requiring that when more than one offense occurs within an incident, only the most serious crime contributes to the agency's monthly crime totals. The FBI reports that switching from SRS to NIBRS only increased the incidence rate by 2.1%, and the majority of those changes come from property crimes that are placed in lower ranks under the Hierarchy Rule (U.S. Department of Justice—Federal Bureau of Investigation, 2015). Therefore, there is no significant difference between using UCR's SRS data and its NIBRS, especially for violent crimes. Also, only a subset of law enforcement offices under the UCR's Summary Reporting System has been participating in NIBRS.
 15. We use the Census of State and Local Law Enforcement Agencies (CSLLEA) data from 2008, the latest year the complete data are available. The Department of Justice's (DOJ) Bureau of Justice Statistics also periodically publishes survey data from the Law Enforcement Management and Administrative Statistics (LEMAS) program. The LEMAS samples around 3,000 law enforcement agencies based on the CSLLEA. Although the LEMAS data are available for both 2007 and 2012, the number of agencies in those data is limited, and information provided under the LEMAS are mostly covered under the CSLLEA.
 16. There are about 600 cities, towns, and villages that reported zero revenue from fines in our sample. Cities may report zero fines revenue because although they may issue fines, they do not use them as a general revenue source (perhaps, instead, putting the money in a separate state or local fund such as a library fund).
 17. There are 29 cities whose share of own-source revenues from fines and fees was more than 20% in 2012. For ease of reading the graph, we do not include those cities when we present the distribution of % revenues from fines and fees (left) in Figure 1.
 18. A more stringent empirical strategy would be to use municipality-level fixed effects, but there is insufficient variation in fee and fine revenue within municipalities for the two observed (Census of Government) years 2007 and 2012.
 19. Appendix Table A1 presents the summary statistics for these variables.
 20. Instrumental variables (IV) analysis is one strategy for identifying the causal effect of an endogenous treatment (in our case, reliance on fines and fees). Instrument z should be correlated with an explanatory variable x (reliance on fines and fees) but should not have a direct effect on the outcome variable y (crime clearance) other than through the effect on x (Angrist and Pischke 2009). We argue that commuting time (z), which is mainly determined by state-level

- traffic policy, infrastructure, and weather—factors that are beyond the control of individual cities—is a sound instrument as it is statistically significantly correlated with reliance on fines and fees, but theoretically should not have a direct effect on crime clearance.
21. If many people commute to other municipalities and the majority of commuting time comes from driving in other municipalities, then our instrument could be measured with error. However, the Census Bureau's internal analysis demonstrates that commuter-adjusted populations are not very different from resident populations for most U.S. cities other than the very largest commuting centers such as New York City and Washington, D.C. (https://census.gov/content/dam/Census/library/working-papers/2013/acs/2013_McKenzie_02.pdf). Given that the most consistent and statistically significant results in our article mainly come from smaller cities (population below 28,100), and the median commuting time in those cities is 21 minutes, we do not think intermunicipality commuting imposes a serious issue in our analysis.
 22. Figure A2 in the appendix displays the survey form that the American Community Survey (ACS) uses to gather data on commute times. Figure A3 presents the distribution of the average commute time in minutes across different municipalities in our sample for 2012. Figure A4 in the appendix presents a map of average commute time at the county level for 2012.
 23. See American Association of State Highway and Transportation Officials (2013).
 24. We also present bivariate relationships between the percentage revenues from fines and fees and crime clearance rates and fitted lines from local polynomial regression in Figure A6 in the appendix.
 25. The number of cities with populations greater than 28,010 is 1,170 (20%), and cities with populations less than or equal to 28,010 is 4,765 (80%). Although the CSLLEA data include variables for police functions, such as crime investigation and traffic control, it is still difficult to know how strictly the division of labor is defined in each local police department. Therefore, we use population size as a proxy for the division of police functions.
 26. One potential threat to the validity of our results is that they might be driven by large, violent cities. For example, cities, such as Chicago and Los Angeles, have serious gang violence problems, and gang-related violent crimes are notoriously difficult to solve. As a result, police resources may be more efficiently allocated to other types of activities such as collecting traffic tickets in such an environment. To address this issue, we drop cities with the largest gang presences and reestimate the model; the results remain robust and are reported in Table A3 in the appendix. The excluded cities are Chicago, Los Angeles, Philadelphia, Miami, New York, Atlanta, Cleveland, St. Louis, Dallas, Memphis, Nashville, New Orleans, Milwaukee, Orlando, Houston, and Detroit. These cities were discussed as the large cities with the most serious gang problems in the 2013 report of the FBI's National Gang Intelligence Center.
 27. The size of effects in the county-fixed effects analysis and the IV analysis are different because IV estimates capture the local average treatment effect (LATE)

(Angrist and Pischke 2009). That is, IV estimates capture the effect of revenue collection from fines and fees on crime clearance rates among “complier” cities: cities that collected more revenue from fines and fees due to longer commuting time to work.

References

- Alm, James, Robert Buschman, and David Sjoquist. 2011. “Rethinking Local Government Reliance on the Property Tax.” *Regional Science and Urban Economics* 41 (4): 320–31.
- American Association of State Highway and Transportation Officials. 2013. “Commuting in America 2013: The National Report on Commuting Patterns and Trends.” <http://traveltrends.transportation.org/Pages/default.aspx>.
- Angrist, Joshua, and Jörn-Steffen Pischke. 2009. *Mostly Harmless Econometrics*. Princeton: Princeton Univ. Press.
- Baicker, Katherine, and Mireille Jacobson. 2007. “Finders Keepers: Forfeiture Laws, Policing Incentives, and Local Budget.” *Journal of Public Economics* 91:2113–36.
- Bawn, Kathleen. 1995. “Political Control Versus Expertise: Congressional Choices About Administrative Procedures.” *American Political Science Review* 89 (1): 62–73.
- Benson, Bruce, David Rasmussen, and David Sollars. 1995. “Police Bureaucracies, Their Incentives, and the War on Drugs.” *Public Choice* 83 (1): 21–45.
- Brooks, Laure Weber. 2015. “Police Discretionary Behavior.” In *Critical Issues in Policing: Contemporary Reading, Seventh Edition*, edited by Roger Dunham and Geoffrey Alpert. Long Grove, IL: Waveland Press. pp. 122–142.
- Brown, Michael. 1981. *Working the Street: Police Discretion and the Dilemmas of Reform*. New York: Russell Sage Foundation.
- Carey, Benedict, and Erica Goode. 2016. “Police Try to Lower Racial Bias, but Under Pressure, It Isn’t So Easy.” *The New York Times*, July 11. <https://nyti.ms/29JNznU>
- Chalfin, Aaron, and Justin McCrary. n.d. “The Effect of Police on Crime: New Evidence from US Cities, 1960–2010.” NBER Working Paper 18815. <http://www.nber.org/papers/w18815.pdf>.
- Chaney, Carole Kennedy, and Grace Hall Saltzstein. 1998. “Democratic Control and Bureaucratic Responsiveness: The Police and Domestic Violence.” *American Journal of Political Science* 42 (3): 745–68.
- Desmond, Matthew, Andrew Papachristos, and David Kirk. 2016. “Police Violence and Citizen Crime Reporting in the Black Community.” *American Sociological Review* 81 (5): 857–76.
- Diller, Rebekah, Alicia Bannon, and Mitali Nagrecha. 2010. “Criminal Justice Debt: A Barrier to Reentry.” New York Univ. School of Law. <https://www.brennancenter.org/publication/criminal-justice-debt-barrier-reentry>.
- Epp, Charles R., Steven Maynard-Moody, and Donald P. Haider-Markel. 2014. *Pulled Over: How Police Stops Define Race and Citizenship*. Chicago: Univ. of Chicago Press.

- Falcone, David N., L. Edward Wells, and Ralph A. Weisheit. 2002. "The Small-Town Police Department." *Policing: An International Journal of Police Strategies & Management* 25 (2): 371–84.
- Ferreira, Fernando, and Joseph Gyourko. 2009. "Do Political Parties Matter? Evidence from U.S. Cities." *Quarterly Journal of Economics* 124 (1): 399–422.
- Frug, Gerald E., and David J Barron. 2008. *City Bound: How States Stifle Urban Innovation*. Ithaca, NY: Cornell Univ. Press.
- Fung, Archon. 2003. "Survey Article: Recipes for Public Spheres: Eight Institutional Design Choices and Their Consequences." *Journal of Political Philosophy* 11 (3): 338–67.
- Gammon, Robert. 2015. "Why Oakland Police Can't Solve Crime." *East Bay Express*, May 20. <http://www.eastbayexpress.com/oakland/why-oakland-police-cantsolve-crime/Content?oid=4288948>.
- Garrett, Thomas, and Gary Wagner. 2009. "Red Ink in the Rearview Mirror: Local Fiscal Conditions and the Issuance of Traffic Tickets." *Journal of Law and Economics* 52 (1): 71–90.
- Gerber, Elizabeth, and Daniel Hopkins. 2011. "When Mayors Matter: Estimating the Impact of Mayoral Partisanship on City Policy." *American Journal of Political Science* 55 (2): 326–39.
- Gibson, Chris L., Abigail A. Fagan, and Kelsey Antle. 2014. "Avoiding Violent Victimization among Youths in Urban Neighborhoods: The Importance of Street Efficacy." *American Journal of Public Health* 104 (2): e154–61.
- Goffman, Alice. 2009. "On the Run: Wanted Men in a Philadelphia Ghetto." *American Sociological Review* 74 (3): 339–57.
- Gottschalk, Marie. 2008. "Hiding in Plain Sight: American Politics and the Carceral State." *Annual Review of Political Science* 11 (2): 235–60.
- Hackworth, Jason. 2007. *The Neoliberal City: Governance, Ideology and Development in American Urbanism*. Ithaca, NY: Cornell Univ. Press.
- Harris, Alexes. 2016. *A Pound of Flesh: Monetary Sanctions as Punishment for the Poor*. New York: Russell Sage Foundation.
- Harris, Alexes, Heather Evans, and Katherine Beckett. 2010. "Drawing Blood from Stones: Legal Debt and Social Inequality in the Contemporary United States." *American Journal of Sociology* 115 (6): 1753–99.
- Holcomb, Jefferson, Tomislav Kovandzic, and Marian Williams. 2011. "Civil Asset Forfeiture, Equitable Sharing, and Policing for Profit in the United States." *Journal of Criminal Justice* 39:273–85.
- Huggins, Martin Knisely. 1998. *Political Policing: The United States and Latin America*. Durham: Duke Univ. Press.
- Hunter, George. 2009. "More Tickets in Hard Times." *caranddriver.com*. <http://www.caranddriver.com/features/more-tickets-in-hard-times>.
- Kane, Robert. 2005. "Compromised Police Legitimacy as a Predictor of Violent Crime in Structurally Disadvantaged Communities." *Criminology* 43 (2): 469–98.
- Kantor, Shawn, Carl Kitchens, and Steven Pawlowski. 2017. "Civil Asset Forfeiture, Crime, and Police Incentives: Evidence from the Comprehensive Crime Control Act of 1984." NBER Working Paper 23873. <http://www.nber.org/papers/w23873>.

- Katzenstein, Mary Fainsod, and Maureen R. Waller. 2015. "Taxing the Poor: Incarceration, Poverty Governance, and the Seizure of Family Resources." *Perspectives on Politics* 13 (3): 638–56.
- Kirk, David, Andrew Papachristos, Jeffrey Fagan, and Tom Tyler. 2012. "The Paradox of Law Enforcement in Immigrant Communities: Does Tough Immigration Enforcement Undermine Public Safety?" *Annals of the American Academy of Political and Social Sciences* 641 (1): 79–98.
- Kohler-Hausmann, Issa. 2014. "Managing Justice and Mass Misdemeanors." *Stanford Law Review* 66 (2): 611–93.
- Langton, Lynn, and Matthew Durose. 2016. "Police Behavior during Traffic and Street Stops, 2011." Bureau of Justice Statistics. Washington D.C. <https://www.bjs.gov/content/pub/pdf/pbtss11.pdf>
- Lemos, Margaret, and Max Minzner. 2014. "For-Profit Public Enforcement." *Harvard Law Review* 127 (3): 853–913.
- Leovy, Jill. 2015. *Ghettoside: A True Story of Murder in America*. New York: Penguin Random House.
- Lerman, Amy E., and Vesla M. Weaver. 2014. *Arresting Citizenship: The Democratic Consequences of American Crime Control*. Chicago: Univ. of Chicago Press.
- Lipsky, Michael. 1980. "Street-Level Bureaucracy: Dilemmas of the Individual in Public Services." New York: Russel Sage Foundation.
- Luna, Erik. 2003. "Race, Crime, and Institutional Design." *Law and Contemporary Problems* 66 (3): 183–220.
- Maguire, Edward R., and Craig D. Uchida. 2000. "Measurement and Explanation in the Comparative Study of American Police Organizations." *Criminal Justice* 4:491–557.
- Makowsky, Michael, and Thomas Stratmann. 2009. "Political Economy at Any Speed: What Determines Traffic Citations?." *American Economic Review* 99 (1): 509–27.
- McCubbins, Mathew. 1985. "The Legislative Design of Regulatory Procedure." *American Journal of Political Science* 29 (4): 721–48.
- McKenzie, Brian, and Melanie Rapino. 2011. "Commuting in the United States: 2009." United States Census Bureau Report: ACS-15. <https://www.census.gov/prod/2011pubs/acs-15.pdf>
- Moe, Terry. 1990. "Political Institutions: The Neglected Side of the Story." *Journal of Law, Economics, & Organization* 6 (2): 213–53.
- Mummolo, Jonathan. 2018. "Modern Police Tactics, Police-Citizen Interactions and the Prospects for Reform." *Journal of Politics* 80 (1): 1–15.
- Natapoff, Alexandra. 2015. "Misdemeanor Decriminalization." *Vanderbilt Law Review* 68 (4): 1055–1116.
- Niskanen, William A. 1971. *Bureaucracy & Representative Government*. New York: Routledge.
- Ostrom, Elinor, and Gordon Whitaker. 1973. "Does Local Community Control of Police Make a Difference? Some Preliminary Findings." *American Journal of Political Science* 17 (1): 48–76.
- Peterson, Paul. 1981. *City Limits*. Chicago: Univ. of Chicago Press.

- Roberts, Aki, and John Roberts. 2015. "Crime Clearance and Temporal Variation in Police Investigative Workload: Evidence from National Incidence-Based Reporting System (NIBRS) Data." *Journal of Quantitative Criminology* 31:1–24.
- Sances, Michael W., and Hye Young You. 2017. "Who Pays for Government? Descriptive Representation and Exploitative Revenue Sources." *Journal of Politics* 79 (3): 1090–94.
- Sharkey, Patrick. 2018. "The Long Reach of Violence: A Broader Perspective on Data, Theory, and Evidence on the Prevalence and Consequences of Exposure to Violence." *Annual Review of Criminology* 1:85–102.
- Sharkey, Patrick, and Gerald Torratts-Espinosa. 2017. "The Effect of Violent Crime on Economic Mobility." *Journal of Urban Economics* 102 (1): 22–33.
- Skogan, Wesley G. 2006. "Asymmetry in the Impact of Encounters with Police." *Policing & Society* 16 (2): 99–126.
- Soss, Joe, Richard Fording, and Sanford Schram. 2011. *Disciplining the Poor: Neoliberal Paternalism and the Persistent Power of Race*. Chicago: Univ. of Chicago Press.
- Stock, James, Jonathan Wright, and Motohiro Yogo. 2002. "Survey of Weak Instruments and Weak Identification in Generalized Method of Moments." *Journal of Business & Economic Statistics* 20 (4): 518–29.
- Tiebout, Charles. 1956. "A Pure Theory of Local Public Expenditures." *Journal of Political Economy* 64 (5): 416–24.
- U.S. Department of Justice—Federal Bureau of Investigation. 2015. "Effects of NIBRS on Crime Statistics" https://ucr.fbi.gov/nibrs/2014/resource-pages/effects_of_nibrs_on_crime_statistics_final.pdf.
- United States Department of Justice Civil Rights Division. 2015. "Investigation of the Ferguson Police Department." *United States Department of Justice Civil Rights Division*, March 4. Washington, D.C. https://www.justice.gov/sites/default/files/opa/press-releases/attachments/2015/03/04/ferguson_police_department_report.pdf
- Warren, Patricia Y. 2011. "Perceptions of Police Disrespect during Vehicle Stops: A Race-Based Analysis." *Crime & Delinquency* 57 (3): 356–76.
- Weaver, Vesla M., and Amy E Lerman. 2010. "Political Consequences of the Carceral State." *American Political Science Review* 104 (4): 817–33.
- Western, Bruce, Jeffrey R. Kling, and David F. Weiman. 2001. "The Labor Market Consequences of Incarceration." *Crime & Delinquency* 47 (3): 410–27.
- Williams, Gregory. 1984. *The Law and Politics of Police Discretion*. Westport, CT: Greenwood Publishing Group.
- Willis, James J., Stephen D. Mastrofski, and David Weisburd. 2007. "Making Sense of COMPSTAT: A Theory-Based Analysis of Organizational Change in Three Police Departments." *Law & Society Review* 41 (1): 147–88.
- Wilson, James Q. 1968. *Varieties of Police Behavior*. Cambridge: Harvard Univ. Press.
- Wood, B. Dan, and Richard W. Waterman. 1991. "The Dynamics of Political Control of the Bureaucracy." *American Political Science Review* 85 (3): 801–28.

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