Higher Education in Law Enforcement and Racial Disparity in Arrests

HIGHER EDUCATION IN LAW ENFORCEMENT AND RACIAL DISPARITY IN ARRESTS

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Summary

Raising the educational standards for police officers represents a perennial police reform theme in the United States. Among other benefits, proponents herald college degree requirements as key to improving the quality and fairness of policing outcomes, including the chief formal response to crime: arresting suspected lawbreakers. However, the evidence-base regarding college education requirements' consequences for agency arrest behaviors is formative for various reasons, namely the absence of studies examining whether these policies contribute to racially equitable arrest outcomes.

The presented data show steeper decreases in the racial gap in Black and White people arrested for degree-requiring agencies compared to non-degree requiring agencies between 2000 and 2016. Albeit encouraging news, the disparity rate for agencies with a college standard remains relatively higher. While this entry implies that college degree requirements alone will not resolve racial disparities in police arrests, it is premature to draw concrete conclusions about this often taken-for-granted association until more rigorous research is conducted.

Keywords: police education; racial disparities; arrest; police reform; crime control

Introduction

Communities expect the police to provide safety and security without infringing upon their civil liberties. Unfortunately, this is not always the case given the legacy of racially disparate police outcomes for Black Americans (e.g., arrests, stop, and searches) (Kochel, Wilson, & Mastrofski, 2011; Pierson et al., 2020; Walker, 1977). Over the years, leading authorities and laypersons have advanced numerous recommendations for achieving more equitable policing outcomes, including defunding the police and reducing petty arrests. However, one has remained constant over the past century — the hiring of more college-educated officers.

Despite these prominent recommendations, it remains unclear whether raising education standards equates to more equitable policing, especially as it concerns the chief formal response to crime: making arrests. While the few studies on educational capital (policies and officers) and arrests tend to show null effects, educational attainment indicators are not focal in much of prior research. On top of this, investigations of racial differences in educational capital's effects on arrests are virtually nonexistent. Thus, prior research has not fully considered the effects of educational attainment, making it an unreliable guide for hiring and other operational strategies intended to promote racially equitable policing.

This entry takes stock of what is known about college education's impact on police arrests in the United States and explores ways to enrich theory, research, and policy. This piece begins by tracing historical efforts to enhance the educational profile of U.S. police forces. Next, a summary of the literature on the college education-police arrest association is provided. Law enforcement agencies (LEAs) are then characterized statistically and relative racial disparity trends in arrest by level of required education are reviewed using national criminal justice data.

The entry closes with plausible theoretical explanations and illuminates analytical pathways for better understanding the equity consequences of college-educated police forces.

The push for college-educated police forces in the US

This section provides a brief historical account of police education reform and its evolution over time in the United States, starting with the early 1900s up to the present day. We also highlight critical historical flashpoints in police-public relations and the elicited government response to improve educational attainment levels among the nation's police forces.

The early years

For nearly 100 years, increasing the educational levels among law enforcement officers (LEOs) has been widely viewed as a cornerstone of police reform. August Vollmer, "the father of modern law enforcement," first called for better-educated officers during policing's political era (mid 1800's through the 1920's; Brunson & Wright, 2016). This thinking was indeed innovative, if not radical, given that most officers had not graduated from high school at that time (Fogelson, 1977; Vollmer, 1936). However, despite some local success in California, Vollmer's work did not garner national attention until his 1929 appointment to the Wickersham Commission (National Advisory Commission on Higher Education for Police Officers, 1978; Vollmer, 1936; Walker, 1977).

While the appointment of the Wickersham Commission marked the dawn of the professional era in policing (end of the political era through the early 1970's), enhancing law enforcement's educational profile was not cast as a criminal justice priority until 30 years later (Walker, 1977). Prompted by soaring crime rates and widespread social unrest of the 1960s — largely due to the confluence of controversial policing practices, political turmoil, and

widespread racial injustices (Fisher-Stewart, 2007; Jacobs & Magdovitz, 1977), President Lyndon B. Johnson convened the President's Commission on Law Enforcement and Administration of Justice in 1967. Tasked with authoring best-practice recommendations for the justice system, the Johnson Commission published the landmark report, *The Challenge of Crime in a Free Society*. Among other guidance, the report suggested that "the ultimate aim of all police departments should be that all personnel with general enforcement powers have baccalaureate degrees" (p. 109).

Reflecting the widely held belief in college-educated officers' ability to serve the community fairly, the 1967 President's Commission contended that:

> Police personnel with two to four years of college should have a better appreciation of people with different racial, economic and cultural backgrounds or at least, should have the innate ability to acquire such understanding. Studies support the proposition that well-educated persons are less prejudiced toward minority groups than the poorly educated. (Winslow, 1968, p. 278)

Despite a formative understanding of the association between officer education and the treatment of citizens, scholars and government officials continued to endorse a college degree as an employment requirement for LEOs (see, e.g., American Bar Association, 1974; Kerner Commission, 1968; National Advisory Commission on Criminal Justice Standards Goals, 1973; National Commission on the Causes Prevention of Violence, 1969; National Advisory Commission on Higher Education for Police Officers, 1978).

Federal investments in police education

On the heels of the 1967 Commission report, the Law Enforcement Assistance Administration (LEAA) was established with the passage of the Omnibus Crime Control and

Safe Streets Act of 1968. This initiative set in motion a precipitous expansion in federal spending on law enforcement allocated under LEAA, including massive investments in police education through the Law Enforcement Education Program (LEEP) (Roberg & Bonn, 2004). As one of LEAA's signature programs, LEEP executives doled out substantial funds to grow undergraduate policing curricular at colleges and universities and incentivized college enrollment among working officers through grants and loans (Shernock, 1992).

Five years later, the National Advisory Commission on Criminal Justice Standards Goals (1973) reinforced the Johnson Commission's proposal on police education standards, noting that "twenty years ago the high school diplomas were a significant educational achievement; it is not today. To continue recruiting at this level of education is to invite mediocrity" (p. 327). That same year, the American Bar Association's Advisory Committee on urban policing's endorsement of higher education standards proclaimed that college-educated officers were more progressive, knowledgeable of human behavior, self-disciplined, and socially conscious (Telep, 2011).

In 1978, the National Advisory Commission on Higher Education for Police Officers nuanced the discourse about police education minimums. Instead of "educating the recruited," they urged departments to focus on "recruiting the educated" in their report, *The Quality of Police Education*. This strategic shift was primarily premised on the belief that officers who begin college after police training academy would "already have developed a set of occupational attitudes as well as a set of operational styles" (Worden, 1990, p. 568) that could potentially rival the expected benefits of higher education.

LEEP's funding eventually ended two years later in 1980 (Eskridge, 1989). Though short-lived, officers apparently took early advantage of these educational incentives. Nationally,

the proportion of degreed officers climbed from three percent in 1960 to about nine percent just 14 years later (Carter & Sapp, 1990).

The 1994 Crime Bill through the Obama Administration

As law enforcement philosophies began to pivot toward community engagement in the 1980s (Paoline, Myers, & Worden, 2000; Wilson & Kelling, 1982), college credentialed officers' value appreciated among LEAs (Carter & Sapp, 1990). As urban crime rates spiked in the early 1990s, Congress passed the Violent Crime Control and Law Enforcement Act in 1994 — the most massive anti-crime bill in U.S. history (Zhao, Scheider, & Thurman, 2003). Though known mostly for its harsh sentencing provisions (e.g., three strikes mandates), this bill also aimed to increase the number of college-educated LEOs serving communities. Under its provisions, Congress authorized nearly $300 million for college scholarships for in-service LEOs and students agreeing to join the police force through Police Corps (Government Accountability Office, 1980).

Insomuch as the 1994 Crime Act, along with a host of other factors (e.g., a booming economy and shrinking crack-cocaine market), has been credited with driving down violent crime rates in the 2000s (Marvell & Moody, 1996; Zhao et al., 2003; Zimring, 2017), it did little to repair the strained police-citizen relationship nor eliminate enduring racial disparities in policing. Following a rash of deadly police shootings of unarmed black men, the Obama Administration assembled the President's Task Force on 21st Century Policing in 2015. Once again, the federal government positioned higher education for officers as central to the fair exercise of police authority. Representing a prominent focus of the 2015 Task Force (the fifth "pillar" of policing), they suggested that "the federal government, as well as state and local agencies, should encourage and incentivize higher education for law enforcement officers" (p.

51). Among other objectives, the Task Force sought to build public trust and improve police effectiveness by placing more college-credentialed officers on the streets.

The Trump Administration to the present

No presidential commission appointments have occurred since President Obama left office in 2016. While some criminal justice reform strides were made during Donald Trump's presidency, more education for LEOs was not a priority. Considering this, along with President Biden's current predisposal with the pandemic, political discord, and soaring violent crime rates, it is unclear whether increasing the number of college-educated officers remains a top cabinet-level priority. Nevertheless, following the tragic death of George Floyd in Minneapolis and the ensuing protests, some jurisdictions have taken action to raise the education levels of their police forces. For example, California lawmakers took steps toward imposing stricter requirements for becoming a police officer, including college minimums for new hires, by passing the Peace Officers Education and Age Conditions for Employment (PEACE) Act (see State of California - AB 89 - PEACE Act for more details).

In contrast, police departments in larger U.S. cities like Philadelphia and New Orleans relaxed their college hiring requirements in response to Covid-related labor shortages and recruitment challenges (Riess, Tucker, & Nickeas, 2022). Amid the pandemic and current police legitimacy crisis, this approach has shown promise for expanding the recruitment pool. For instance, Chicago police reported an uptick in police applicants after this policy change, with approximately four hundred candidates applying the same day of the college credit waiver's announcement (Riess et al., 2022).

Despite not requiring a college degree, many LEAs without this hiring policy often find other ways to improve their educational profiles. For example, in cities like Detroit requiring

only a high school diploma, the police department partnered with local colleges to help officers further their education (Hernandez, 2021). In line with recommendations from the National Institute of Law Enforcement and Criminal Justice (NILECJ) (1978) and the 2015 President's Task Force, many LEAs have also set higher education standards for promotion and offer support such as tuition reimbursement to increase the proportion of college-educated officers (Gardiner, 2021). Other agencies have turned to educational pay incentives to attract college-educated applicants. For instance, Bureau of Justice Statistics (BJS) data show that nearly a third (31%) of local police departments offered this incentive in 2013 (Reaves, 2015).[2]

The evolving educational profile of U.S. police forces

Unlike some European countries (e.g., Finland and Norway) (Terpstra & Schaap, 2021), there is no national college education standard for the over 18,000 U.S. police forces. Instead, the hiring selection policy for departments is primarily determined by local needs, customs, resources, and sometimes politics. Nonetheless, it appears that the push for better-educated police forces gained some purchase among LEAs. In 1974, just five percent of jurisdictions required some level of college education for new officers (NILECJ, 1978). Most recent estimates indicate that roughly a third of agencies have such a standard (Hyland & Davis, 2019).

Data on the number of college-educated officers are not easily retrievable or tracked by many agencies (Carter & Sapp, 1990; Gardiner, 2021; Langworthy et al., 1995). However, the best available resources indicate the profession has kept pace with the broader U.S. uptrend in educational attainment (U.S. Department of Education, 2020). The share of college-degreed police officers has risen three-fold since 1960 when three percent of officers had a bachelor's degree (National Institute of Law Enforcement and Criminal Justice, 1978). Approximately nine

[2] 2013 is the last year LEMAS data captured education pay incentive indicators.

percent of officers carried this credential by the mid-1970s (Carter & Sapp, 1990). Fast-forwarding 20 years, reports indicate that approximately a quarter of all officers graduated from college. While only one percent of agencies require a bachelor's degree (Hyland & Davis, 2019), recent estimates indicate that U.S. law enforcement employs more degreed personnel than any other protective services profession (U.S. Census Bureau, 2018; see Table 1). Further, even though a large proportion of officers holds bachelor's degrees, over half of all U.S. law enforcement personnel have earned associate's degrees (Gardiner, 2021).

Importantly, national estimates mask the considerable variation in departments' educational requirements and officer education levels across agency sizes, types, regions, and unionization status. Gardiner's (2021) national study of 958 local law enforcement agencies, for example, found that whereas nearly a quarter of officers working in smaller agencies had bachelor's degrees, well over a third of officers in larger departments had completed a bachelor's program. She also reported that agencies in the New England, Mid-Atlantic, and Pacific regions employed a substantially higher proportion of degreed officers.

[insert Table 1 here]

Table 1. Percent of full-time protective services employees with a bachelor's degree in 2016, by occupation

	%
Supervision	
First-line supervisors of correctional officers	26.0
First-line supervisors of police and detectives	**42.1**
First-line supervisors of firefighting and prevention workers	26.7
Non-supervision	
Firefighters	21.7

Fire inspectors	20.0
Bailiffs, correctional officers, and jailers	18.0
Detectives and criminal investigators	**54.1**
Police and sheriff's patrol officers	**39.0**
Security guards and gaming surveillance officers	18.1
Transportation security screeners	22.8

Source: 2016 U.S. Census Bureau American Community Survey; Occupation codes are based on the Standard Occupational Classification 2010.

Prior research on college education and police arrests

In the few published accounts of education's effects on arrest rates, mostly statistically insignificant findings have been reported (Chappell, MacDonald, & Manz, 2006; Eitle, 2005; Eitle, Stolzenberg, & D'Alessio, 2005; Tillyer, 2018). For instance, in a nationwide study of city agencies in the US, Chappell and colleagues' (2006) found a non-significant inverse association between departmental education minimums and arrest rates for overall and violent crime. More recently, Tillyer (2018) investigated community policing's impact on arrests for kidnapping, robbery, and violent felony offenses across large agencies. Again, education policy was not predictive of arrest.

While the literature shows that departmental education requirements do not affect felony arrests, there is some evidence that education effects might emerge for more discretionary, relatively low-level arrests. Whereas, for example, Eitle et al.'s (2005) analysis of arrest probabilities for simple and aggravated assault across 105 U.S. cities shows that educational minimums did not appreciably influence aggravated assault arrests, they observed an increase in the probability of simple assault arrests per education level (i.e., 1 = no requirement to 5 = 4-year college degree). Contending that more educated police forces may be relatively younger, they

considered this finding suggestive of greater formalism in better-educated departments that limit discretion. However, this explanation fails to square with their reported findings, as arrest decisions for simple assault are likely more discretionary than for felony assault.

Adding to this, scholars report greater productivity among college-educated officers in the form of more stops, searches, and general arrests (Glasglow, Green, & Knowles, 1973; Rojek, Rosenfeld, & Decker, 2012; Rosenfeld, Johnson, & Wright, 2020). For example, Rosenfeld and colleagues (2020) discovered that college-credentialed officers were more likely than officers without college experience to stop drivers for less serious traffic violations, conduct consent searches, and make arrests on discretionary grounds. Drawing on interdisciplinary scholarship, the authors surmised that these results reflected college-educated officers' high achievement-orientation and eagerness for advancement based on the traditional performance criteria.

Do college-educated police forces produce equitable arrest outcomes?

The literature review did not uncover a single focal analysis of the relationship between educational capital and race differentials in arrest. In this section, population-weighted descriptive statistics are used to explore this association. First, before statistically characterizing the working environments of LEOs employed in agencies with college degree requirements (associate's or bachelor's degree), theoretical insights into why college education is thought to be predictive of racial fairness are offered. Degree-requiring LEAs' racial disparities in arrests over time are then compared against those outcomes in non-college degree requiring agencies.

Higher education and racial fairness

A lengthy research record shows that educational attainment profoundly liberalizes racial and social attitudes (see Wodtke, 2018). Whether the college experience genuinely "enlightens" graduates or makes them more sensitive to racial issues is up for debate. Nonetheless, there is solid evidence that college experience influences attendee's racial tolerance and commitment to racial equity in at least three ways: 1) it cultivates greater knowledge of the historical barriers to racial equity, 2) it teaches students to recognize discrimination and its consequences, and 3) it facilitates interactions with diverse peers (Dey, 1997; Hyman & Wright, 1979; Quinley & Glock, 1979). The well-documented relationship between educational achievement and anti-racist attitudes would suggest higher education levels among police forces promise to blunt both the frequency and intensity of unfair or unnecessary arrests.

Comparison of Black-White disparity trends by college hiring standards

This section reports arrest trends for agencies with and without a college degree requirement between 2000 and 2016. Before turning to the descriptive statistics, the data sources used to create the following figures and tables are briefly discussed.

Data sources

Police agency education policy indicators reflecting the level of college education required for new officers were extracted from Law Enforcement Management and Administrative Statistics (LEMAS) data. These nationally representative data are derived from direct survey of about 3,000 state and local LEAs and include details on personnel, expenditures, operations, equipment, and policies. These data, collected every three or so years since 1987, are used to describe the policy and operational backdrop of officers in degree-requiring agencies.

Race-specific arrest rates came from the Uniform Crime Reports (UCR) Age, Sex, Race (ASR) of persons arrested data. The ASR provides counts of persons arrested by race on 43

offenses, ranging from violent crime to gambling. The ASR data counts one arrest for each separate instance in which a person is arrested, cited, or summoned for an offense. While persons may be arrested multiple times throughout a year, arrest figures reflect the number of times that persons are arrested rather than the number of individuals who have been arrested.

These data were merged with corresponding place-level U.S. Census Bureau data, resulting in a balanced five-wave panel with 235 city agencies from 2000-2016 (see Table 2 for more details). Although municipal police agencies are not representative of all LEAs, they represent the predominant agency type in the US, as about two-thirds of full-time sworn LEOs work for city departments (Hyland & Davis, 2019). This geographically diverse sample includes police agencies for cities of various sizes, including the nation's largest cities, and was spread across 35 different states. The arrest statistics and visualizations in the upcoming section are based on these data.

[insert Table 2 here]

Table 2. Crosstab: education policy adoption among sampled cities

Associate's degree requirement	No = 0	Yes = 1	Total
Year			
2000	211	24	235
2003	217	18	235
2007	209	26	235
2013	204	31	235
2016	211	24	235
Total	1,052	123	1,175

Source. BJS Law Enforcement Management and Administrative Statistics data.

Statistical profile of college degree-requiring LEAs

Descriptive statistics are used to characterize the working environments of LEOs employed in sampled agencies requiring a college degree (t-test results not shown). Compared to agencies without a degree standard, degree-requiring agencies tend to serve more affluent and formally educated communities. These agencies also appear to be less racially diverse and have lower expenditures per capita. These jurisdictions experienced lower levels of reported serious crime based on the violent and property crime rates. While non-degree requiring agencies had higher White arrest rates, officers in agencies requiring a college degree arrested Black people at a higher clip despite the lower percentage of Black residents in these areas over time.

Measuring the Black-White disparity gap in arrests

Black-White (B-W) disparity rate ratios (DRR) were developed for total and offense-specific arrests from UCR and Census Bureau data. DRR is a common, and relatively standardized, measure of disparity reflecting the ratio of rates for two groups. This article focuses on B-W arrest disparities because UCR arrest data for Latinx and Hispanic persons were unavailable until 2013-14 and missing data remains problematic for other racial groups.

Some agencies reported zero Black arrests for some periods between 2000 and 2016 (with most occurring in jurisdictions with little to no Black residents), raising the "zero-numerator/denominator" problem common to disparity research. To deal with this challenge, a population adjustment to the numerator and denominator recommended by Redbird and Albrecht (2020) was applied. For the numerator, arrest counts for each department were increased by the proportion of the Black city residents. For example, an agency that arrested 11 Black people in a 18% Black jurisdiction will have a numerator of 11.18 instead of 11. For the denominator, 1 was added to the race-specific city population counts for adults and juveniles ($x + 1$). Even if no Black people reside in a jurisdiction, this value represents a benchmark level that would be

attained in a hypothetical case where at least one Black person traveled through or visited during this span.

For each arrest type, DRRs were calculated by dividing the Black arrest rates per 100,000 Black residents by the White arrest rates per 100,000 White residents:

$$\frac{\text{(number of Black arrests/Black population)} \times \text{100,000 Black residents)}}{\text{(number of White arrests/White population)} \times \text{100,000 White residents)}}$$

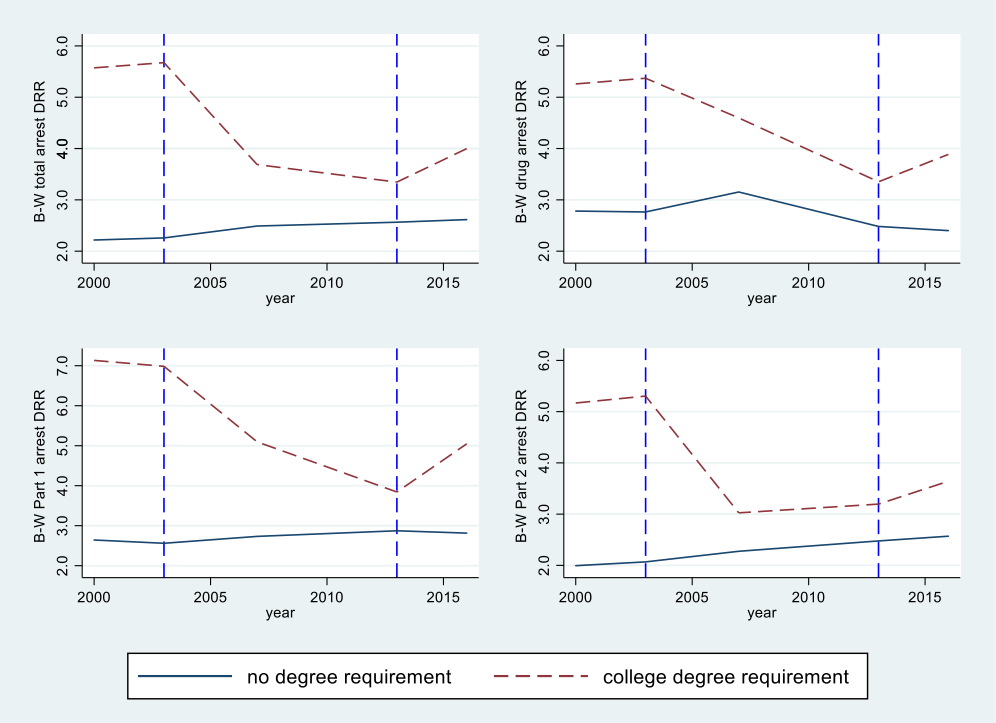
Race-specific population estimates were used to calculate arrest rates for those groups. DRRs equaling 1 indicate parity between the Black and White arrest rates. DRRs greater than 1 indicate that Black citizens were more likely than White citizens to be arrested. DRRs less than 1 indicate that Black citizens were less likely than their White counterparts to be arrested.

DRR and arrest trends based on agency college degree requirement

Figure 1 graphically depicts the average arrest DRRs. Table 3 displays the corresponding DRR and arrest statistics for sampled agencies based on their educational standards. Except for a .4 reduction (-14%) in the drug arrest disparity between 2000 and 2016, the overall, Part 1 (felony), and Part 2 arrest (misdemeanor) DRR trends for non-degree requiring agencies rose from 2.2 to 2.6, 2.6 to 2.8, and 2.0 to 2.6 across this period, respectively. For degree requiring agencies, a narrowing racial gap was observed for all arrest types. After falling almost continuously from a high of 5.7 in 2003 to a low of 3.35, the overall B-W arrest DRR abruptly rose to 4 by 2016. Racial disparity fell within each arrest category, but the largest decline was among Part 1 arrests, where it fell by 2 points from 7.1 to about 5.1, primarily due to the -47.2% decrease in the Black Part 1 arrest rate.

[insert Figure 1 here]

Figure 1. Arrest DRR trends by agency degree requirement



Based on author calculations from LEMAS, UCR, and Census Bureau data.

Despite these declines, the relative B-W disparity remains. As shown in Table 3, the racial gaps in arrest were larger across the board for degree requiring agencies. Further, even though the difference in the B-W disparity in total arrests between non-degree and degree-requiring agencies was smaller in 2016 than in 2000, Black people in the latter locations were 1.5 times more likely to be arrested than Black people in jurisdictions without a college degree minimum.

[insert Table 3 here]

Table 3. Arrest rates and DRRs by agency degree requirement and race[a]

Year	2000	2003	2007	2013	2016	% change
Total arrests						
B-W overall arrest DRR						
0 = non-active degree policy	2.22	2.26	2.49	2.57	2.62	17.95

1 = active degree policy	5.57	5.67	3.69	3.35	4.00	-28.25
Black arrest rate						
0 = non-active degree policy	11,047.76	10,634.17	11,667.14	8,754.47	7,578.01	-31.41
1 = active degree policy	22,535.22	23,299.24	14,837.18	9,695.25	10,991.02	-51.23
White arrest rate						
0 = non-active degree policy	4,982.26	4,708.62	4,685.24	3,412.91	2,897.42	-41.85
1 = active degree policy	4,043.89	4,106.40	4,023.59	2,896.95	2,748.82	-32.03
Drug arrests						
B-W drug arrest DRR						
0 = non-active degree policy	2.78	2.76	3.15	2.48	2.40	-13.69
1 = active degree policy	5.26	5.37	4.60	3.35	3.89	-26.11
Black drug arrest rate						
0 = non-active degree policy	1,863.68	1,885.64	2,270.27	1,324.87	1,148.60	-38.37
1 = active degree policy	3,011.37	3,069.15	2,799.65	1,432.79	1,879.28	-37.59
White drug arrest rate						
0 = non-active degree policy	669.95	682.20	719.96	533.73	478.40	-28.59
1 = active degree policy	572.62	571.49	609.09	427.35	483.60	-15.55
Part 1 arrests						
B-W part 1 arrest DRR						
0 = non-active degree policy	2.64	2.56	2.73	2.87	2.81	6.53
1 = active degree policy	7.13	6.99	5.10	3.84	5.05	-29.25
Black part 1 arrest rate						
0 = non-active degree policy	2,421.82	2,313.32	2,266.96	1,939.92	1,650.01	-31.87
1 = active degree policy	5,534.54	6,328.21	4,421.12	2,093.05	2,919.96	-47.24
White part 1 arrest rate						

0 = non-active degree policy	916.64	903.63	829.54	675.22	586.24	-36.05
1 = active degree policy	775.89	905.89	867.58	544.61	578.59	-25.43
Part 2 arrests						
B-W part 2 arrest DRR						
0 = non-active degree policy	1.99	2.07	2.28	2.48	2.57	28.87
1 = active degree policy	5.17	5.30	3.03	3.20	3.64	-29.55
Black part 2 arrest rate						
0 = non-active degree policy	6,755.53	6,465.79	7,110.46	5,448.26	4,684.22	-30.66
1 = active degree policy	14,364.07	14,180.27	7,880.23	6,288.38	6,343.81	-55.84
White part 2 arrest rate						
0 = non-active degree policy	3,387.79	3,126.44	3,125.40	2,199.60	1,822.84	-46.19
1 = active degree policy	2,779.04	2,673.55	2,604.67	1,967.76	1,742.10	-37.31

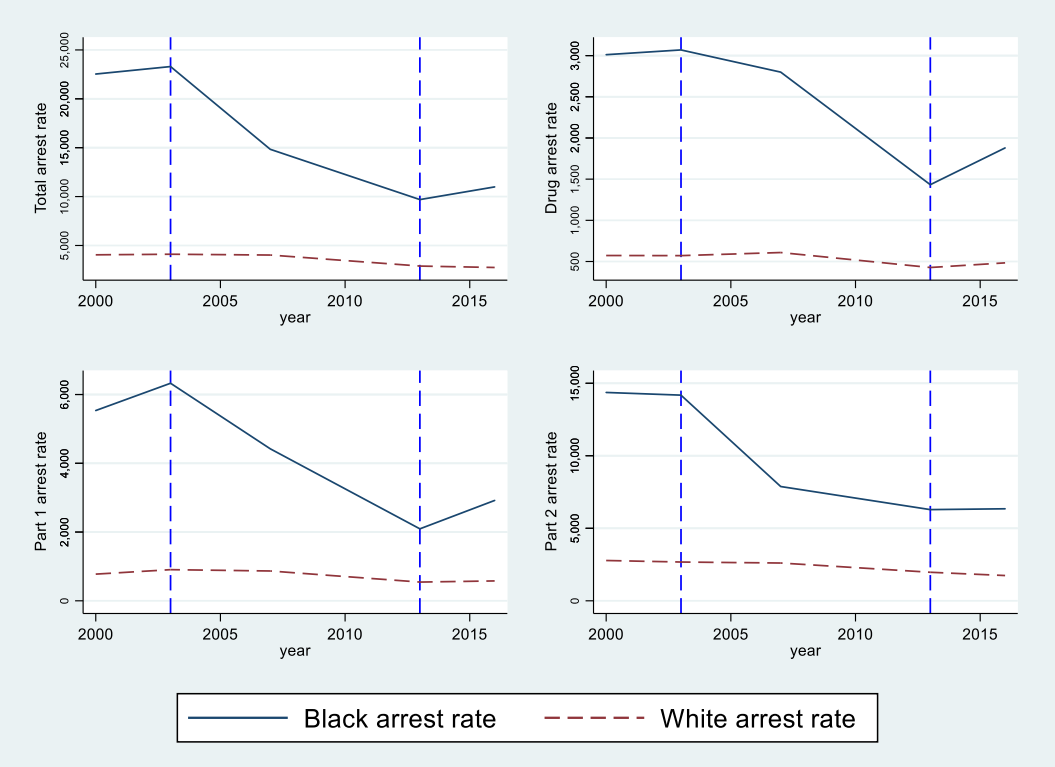
[a]Population-weighted DRRs were used for sample rates.
Based on author calculations from UCR and Census Bureau data.

A closer look at the racial imbalance in arrests among degree requiring agencies

Even though overall B-W arrest disparity fell by 28% in degree-requiring agencies and rose by 18% in agencies without this requirement, the racial gap in the former agencies remains over a third larger (35%). Figure 1 shows that the DRR for overall arrests was 3.35 points higher for agencies with a degree requirement than those not requiring a college degree in 2000. By 2016, that difference decreased to 1.38. Turning to Figure 2, readers can see that the Black arrest rate primarily drives both the changes and persistence of the racial gap for all arrest types in degree-requiring agencies.

[insert Figure 2 here]

Figure 2. Race-specific arrest rates for degree requiring agencies by offense type



Based on author calculations from LEMAS, UCR, and Census Bureau data.

Contextualizing racial disparities in arrests among degree requiring agencies

Judging from presented data, Black people are much more likely to be arrested in jurisdictions requiring a college degree for police officers. Deciphering how agency education requirements contribute to arrest disparity is both perplexing and intriguing. Further compounding this challenge, speculation about the reasons for the arrest disparity trends in these agencies is comparatively lacking and represents an area worthy of future research. Previous studies have focused on measuring and assessing educational attainment's impact on overall arrest outcomes and productivity rather than racially balanced enforcement. Several insights, however, can be drawn from prior scholarship on criminal justice disparity and reform.

A period of penal reform in the US

First, the data displayed in Figure 1 showing a stark reduction in arrest disparity coincide with a period of vigorous criminal justice reform activity. According to Sabol and Bauman

(2020), contrary to the "tough on crime" era of the 1980s and 1990s embodying strict enforcement laws and policies that disproportionately affected non-White people, these reform efforts focused on dampening the punitiveness of the criminal justice system. Sabol and Bauman identified about 870 separate state law changes aimed at reducing the intensity and severity of punishment between 2000 and 2016 from the National Conference of State Legislatures (NCSL), the Sentencing Project, and the Vera Institute of Justice. Legislative activity intensified around 2009, but the greater part of this compilation of laws was enacted between 2010 and 2016 (see Austin, 2010; Brooke-Eisen & James, 2012; Lawrence, 2008; Mauer, 2011; NCSL, 2010, 2017; Porter, 2017; Subramanian & Delany, 2014; Subramanian & Moreno, 2014).

Why is this important? While the U.S. justice system is not a coherent collective, state-level legislation and socio-political factors often influence the actions of the various justice system actors, including the police. That said, though many of these legislative changes were not necessarily directed at police operations, past studies indicate that much of the racial disparity in later stages of the criminal justice process, such as sentencing and imprisonment, is owed largely to police arrest behaviors (Blumstein, 1982, 1993; Glaze & Parks 2012; Harris, Steffensmeier, Ulmer, & Painter-Davis, 2009; Tonry & Melewski, 2008). For example, when investigating this upstream process, Harris and colleagues (2009) found that Black, White, and Hispanic offenders admitted to and serving time in Pennsylvania state prison from 2003 to 2007 correspond closely to their representation in arrest statistics.

A period of community reinvestment in the US

Second, communities have also benefited from justice-based investments since the early 2000s that might underpin the arrest trends. For example, Susan Tucker and Eric Cadora introduced the justice reinvestment concept in 2003, which led to the Justice Reinvestment

Initiative (JRI) (Sabol & Bauman, 2020). This public-private collaboration between the Bureau of Justice Assistance (BJA) and the Pew Charitable Trusts (Pew) was intended to reduce the number of incarcerated persons in U.S. prisons (Austin & Coventry 2014; Tucker & Cadora, 2003). Adopted in some form by over two-thirds of states between 2007 and 2017 (Pew, 2018), JRI directed support to individual communities, managing costs, and legislating reforms to improve community efficacy and the efficiency of criminal justice system operations (Sabol & Bauman, 2020).

A period of declining racial disparity in corrections

Lastly, the arrest disparity patterns shown in Figures 1 and 2 coincide with decreasing racial disparities across all correctional populations since 2000, including jail populations that closely proxy police arrests (Sabol, Johnson, & Caccavale, 2020). Recall, prior research shows that college-educated officers are more politically and socially conscious (Aamodt, 2004; Feldman & Newcomb, 1969; Hawley, 1998; Telep, 2011) and policy-compliant (Cunningham, 2006). And since a college degree requirement for police departments theoretically symbolizes greater professionalism and progressivism, the leadership and priorities for degree-requiring agencies may more closely align with the 21st-century carceral shift in the US.

Responsiveness to change

Together, this would suggest that better educated police forces' arrest behaviors are powerfully informed by agency priorities, state reform initiatives, and other social elements. Moreover, this raises questions of whether degree-requiring agencies might be more responsive to the broader sociopolitical and penal culture and climate of the times. Of course, such questions require further inquiry, as it is unclear whether the arrest trends reflect changes in police or citizen behaviors. Either way, the possibility exists that states' evolving punitive preferences in

combination with community investments may have played a key role in the declining racial disparity in police arrest in general and among degree-requiring agencies in particular.

Explaining the greater racial disparity among college degree-requiring agencies

At first glance, the greater arrest disparity seen among degree-requiring agencies seems to fly in the face of the interdisciplinary theory and research on the moral, ethical, and equity benefits of higher education (see, e.g., Bebeau & Thoma, 2003; Good & Cartwright, 1998; Hood, 1984; King & Mayhew, 2002; McNeel, 1994; Pascarella & Terenzini, 1991, 2005; Treviño, Weaver, & Reynolds, 2006). The authors posit that the uncovered arrest trends do not necessarily contradict prior works nor reflect an overt expression of racism, especially seeing that the disparity declines are principally attributable to a substantial drop in Black arrest rates. Instead, the declining but comparatively higher disparity found in degree-requiring agencies could be chiefly explained by two factors: 1) college-educated officers' record of high productivity and 2) the uneven deployment of police resources in historically underserved communities.

Higher education and productivity in policing

Regarding the relationship between police performance levels and educational attainment, several studies depict better-educated officers as being particularly achievement-centered (Johnson, 2011); career-oriented (Paoline et al., 2000); policy compliant (Cunningham, 2006); confident in their skills (Kakar, 1998, 2003); and ambitious (Gau, Terrill, & Paoline, 2013). Considering law enforcement's prevailing incentive structure emphasizes traditional enforcement metrics (e.g., citations and arrests) (Chalfin & McCrary, 2017; Hodgkinson, Caputo, & McIntyre, 2019; Sparrow, 2015; Wellford & Cronin, 1999), college credentialed officers might be especially vigorous in enforcing the law. Researchers have reported increased productivity among college-educated officers in the form of more discretionary stops, searches,

and general arrests (Glasglow et al., 1973; Rojek et al., 2012; Rosenfeld et al., 2020). Scholars point out that this increased productivity does not necessarily occur because they are more public safety conscious than their less-educated colleagues but largely because they "adhere more closely to departmental policies and procedures in the hope of furthering their careers" (Rosenfeld et al., 2020, p. 229). Thus, one possible explanation is that college-educated officers are more sensitive to the weight of core enforcement metrics in performance evaluations and govern themselves accordingly.

Consistent with this, human capital theory (HCT) conceptualizes the potential benefits of higher education in policing through the lens of work output or productivity (Becker, 1964; Mincer, 1958; Schultz, 1959). According to HCT, organizational investments in human capital (i.e., enhancing workers' education) will increase employee productivity as a function of increased knowledge, innovation, and commitment (Becker, 1964; Namasivayam & Denizci, 2006; Schultz, 1959). Education figures centrally in the development of human capital, which refers to the skills and intangible assets (e.g., motivation and ambition) people possess that add value to an organization (Becker, 1964). These theorists posit that advanced education improves individuals' cognitive abilities and teaches workers valuable skills that make them more productive than their less-educated colleagues (Becker, 1962; Schultz, 1963).

The human capital literature specifies three channels through which education affects productivity (Rosenzweig, 1995). First, education broadens a worker's access to various information sources. Second, education improves workers' ability to decipher and understand new information. Third, education increases a worker's ability to learn from prior experiences.

Again, like any other profession, law enforcement has its own, albeit crude, metrics for productivity in the form of arrests, citations, and seizures. Of these, arrest represents law

enforcement's de facto performance measure, mainly due to its two primary functions: 1) bringing criminals to justice and 2) reinforcing the police's ability to solve crime and apprehend offenders (Harmon, 2015). If the assumptions of HCT hold in policing, departments with college requirements are expected to show greater prowess at arresting suspected lawbreakers.

Uneven police contact with Black citizens

HCT provides a reasonable frame for interpreting the higher Black arrest rates in degree-requiring agencies relative to their non-degree requiring counterparts. Yet, it offers little explanation for why the B-W arrest disparity is more problematic for agencies with a degree standard. Understanding racial differences in police arrest outcomes, however, also requires accounting for differential exposure to police.

It is important to keep in mind that the criminal justice system is both a cause and consequence of racial inequity (Wakefield & Uggen, 2010; Western, 2006) and often serves as a "gateway" to broader marginalizing systems (Alexander, 2010). In the case in point, spatial distribution of police contacts is generally determined by resource deployment strategies that concentrate LEOs in high crime neighborhoods historically occupied by Black residents (Sampson & Wilson, 1995; Wheeler, 2020; Wilson, 2012). A likely and unfortunate consequence is disproportionate police contact that exacerbates Black people's risk of having unwelcomed and often unpleasant encounters with police that sometimes end in arrest. This historically uneven vulnerability to arrest paired with college-educated officers' record of high productivity could explain the more prominent race differentials in arrest observed for degree-requiring agencies.

Future research directions

Existing scholarship and data on officer education and arrest leave multiple gaps in knowledge; they also present numerous opportunities to strengthen the literature. As shown here, studies on the racially heterogeneous effects of educational capital on policing outcomes are noticeably absent in the literature. Illustrating the missed opportunities in prior research, the evidence presented in this entry converges to imply that degree-requiring agencies produce more racially imbalanced arrest outcomes than other agencies despite experiencing sharper declines in arrest disparity over time.

The presented descriptive statistics are hardly conclusive and too tenuous for meaningful inferences about the effects of agencies' college hiring policies for several reasons. For one, this paper's resident population-based disparity measures do not account for racial differences in offending or the effects of social and other agency factors related to arrest disparities. Since LEMAS provides nine waves of data covering the span of 1987 to 2016, a natural first step for future research is to formally evaluate this association over time using fully contextualized panel models.

Since arrests are not distributed uniformly throughout cities, another challenge to drawing concrete conclusions is place-based variation in arrests. Recall, the burden of arrest is disproportionately bore by Black people and police activity tends to be concentrated in or near areas where they live and congregate. Given the well-documented structural and interactional heterogeneity across neighborhoods, city-level analysis might obscure educational capital's more localized effects. While data sparseness would likely complexify things, further research in this vein could examine this relationship with precinct and other sub-city level data.

Another challenge is that although LEMAS educational minimum indicators serve as viable proxies for the educational composition of LEAs (Hilal, Densley, & Jones, 2017), at an

even deeper level, researchers would ideally examine the collective impacts of the proportion of college-educated officers. This challenge is especially critical since many college-educated officers work in agencies not requiring a college degree for new hires. Further, there is considerable geographic variability in officer education levels and agency college requirements. Unfortunately, such nationally representative measures are currently unavailable, underscoring the need for more detailed data on officer education credentials, including information on college majors and whether LEOs attended college before or after hiring.

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