

## **The Impacts of Implementation: Local Variation in State Policy Reform**

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WORKING PAPER

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### **Abstract**

Flexibility in how policies are implemented affords lower-level jurisdictions the ability to ensure that policies can be contextually appropriate, innovative, and effective for their specific populations. In some cases, however, variation in how policies are implemented can result in unevenly distributed social and economic outcomes. Using detailed data from the California Department of Justice, we examine the local impacts of a major state policy reform designed to reduce incarceration. We find that although the policy resulted in overall reductions in imprisonment, its implementation varied widely. To illustrate, we estimate that if all arrests had been made in the most lenient county, the result would have been 80% fewer prison sentences. In contrast, the state would have had 150% more prison sentences if all arrests had been made in the most severe county. These findings help clarify the important role federalism can play in determining the effects of policy reform.

**Keywords:** Federalism, Policy Implementation, Criminal Justice, Local Government

## **The Impacts of Implementation: Local Variation in State Policy Reform**

In the United States, policy-making frequently occurs across more than one level of government. For instance, federal officials make policies concerning Medicaid that are then managed by state agencies. States retain broad discretion in how Medicaid policies are applied, including who is eligible to enroll, which can lead to wide variation in how successful the policy is in achieving its stated goals. Similarly, in education, states make policies around curricular changes that are then implemented and enforced by local administrators. School districts might take sizably different approaches to teacher training, instructional practice, and evaluation, which can shape success towards achieving intended outcomes.

Some of the variation that occurs during the implementation process is likely to be beneficial. Flexibility in implementation affords lower-level jurisdictions the opportunity to make policies more contextually appropriate, innovative, or effective for their specific populations. In other cases, however, variation can result in unequal provision of services, lack of enforcement, and unevenly distributed social and economic outcomes. Bureaucratic discretion, along with both political and structural factors, frequently means that these unequal outcomes map onto existing demographic inequalities, with disproportionate harm (or lack of proportional benefits) to minority racial groups.

In this paper, we examine local implementation in an important area of policymaking: criminal justice reform. Specifically, we employ detailed data from the California Department of Justice (CA DOJ) to explore the impacts of Public Safety Realignment, AB 109, a major state policy change designed to reduce incarceration. Although statewide

declines in the likelihood of imprisonment show the reform worked as intended by policymakers, we find that implementation of AB 109 varied widely across counties.

To illustrate, we estimate that if all arrests had been made in the county with the most lenient practices, the result would have been 80% fewer prison sentences. In contrast, we estimate the state would have had 150% more prison sentences during this period if all arrests had been made in the county with the most severe approach. Importantly, we also assess how local implementation shapes racial disparities, examining changes in imprisonment by race/ethnicity at the county level. While Black Californians had lower eligibility for reformed sentencing in nearly every county, arrest and prosecution practices differed widely in the two years post-reform.

These findings help clarify the sizable role of federalism in determining the outcomes of policy reform. While statewide policies might have their intended effects in the aggregate, the way localities implement these policies can result in substantial variation in how outcomes are distributed. This has important substantive implications, as county variation in the implementation of criminal justice reform can be hugely significant for the trajectories of individuals and their families (e.g., Mauer and Chesney-Lind, 2002). As our results make clear, the impact of reforms on the likelihood of a person's exposure to prison—and its potentially lifelong harms—can depend largely on where they happen to live or have their case adjudicated, and can vary substantially across racial groups.

More broadly, these results make evident the importance of research not only on how policies are passed, but on how they are implemented. As Andrew Graham notes, “The need for sustained oversight in the implementation of important public policy cannot be underscored... Politicians and senior bureaucrats become distracted and lessen their focus on

the nitty-gritty. They move on. They move out. They pursue higher priorities. They pursue headlines. They get bored. This is unfortunate, because it is the great middle of public policy that is implementation, and it is often left on its own” (Education First Consulting, 2011). The same might be said of researchers, who have not always focused attention on the ways that local-level politics can shape state-level policy outcomes. We conclude with a set of motivating questions for reviving this research agenda.

### **Policy Implementation across Levels of Government**

In the United States, national policymakers frequently rely on state governments to implement federal policies, and states frequently rely on local jurisdictions to implement policies made at the state level (Lester & Bowman, 1989; McGovern, 2011; Stewart, 1977). This is a functional necessity given the structure of governance, and instrumentally it can provide policymakers with the flexibility they require to meet the needs of a large and diverse population. In this section, we briefly summarize the literature on federalism and implementation. As we discuss, many of the factors that drive implementation of federal policy at the state level are similar to those that characterize intra-state variation.

#### **Federal Policies, State Implementation**

The extent of a policy’s ambiguity can determine the degree of variation in its implementation (Matland, 1995). Specifically, variation can be predicted by the extent to which a policy both details the requirements for implementation and reflects the realities of implementation for key actors (Sabatier & Mazmanian, 1980). Policy ambiguity arises from many sources, but broadly falls into two categories: ambiguity of means and ambiguity of

goals. Ambiguity of means refers to a lack of clarity regarding the roles of actors, availability of technology, measures of success, and use of tools. This type of policy ambiguity can also impact the ability of implementers or other interested parties to monitor outcomes.

Ambiguity of outcome, or “statutory coherence,” refers to unclear goals and objectives, and reduces the ability of stakeholders and implementers to develop a common understanding of how to approach implementation. In environmental policy, for example, a lack of clarity in the definition of “good environmental status” among implementing states in the European Union resulted in key actors selecting lower environmental targets, risking failure to meet the policy’s target outcomes (Raicevich et al., 2017). Similarly, inter-state variation in national family planning programs can in some cases be explained by a lack of clarity in the underlying theory of change (McFarlane, 1989). In the case of hazardous waste disposal policies, too, similar issues arose regarding unclear problem identification. In this case, the magnitude of the problem of hazardous waste was not clear prior to implementation, and states therefore ended up getting conflicting and confusing information on requirements for compliance (Lester & Bowman, 1989).

But implementation variation can also occur even when policies themselves are clear in their intent, because policy actors may have differing views. This type of “policy conflict” refers broadly to the disagreements that occur regarding the goals of a policy, as well as the activities required to carry that policy out (Matland, 1995). Returning again to the context of environmental policy as an example, policy actors might disagree over whether global warming is a pressing problem that should be addressed through policy action. Alternatively, actors might agree about the need to address global warming, but disagree on the best approach.

A synthesis of case studies examining state-level implementation of federal policymaking emphasizes that implementation variation is largely driven by a few key factors related to both means and goals: politics, bureaucratic management, and the extent of stakeholder involvement. First and most obviously, politics have an impact on the way many federal policies are implemented at the state level. High levels of policy conflict arise when interdependent actors are required to collaborate but have incompatible or conflictual objectives (Matland, 1995). For instance, large variation in state-level implementation of the No Child Left Behind Act resulted in part from the politicization of the proposed reforms (McGovern, 2011; Wong, 2015). Inadequacy of financial resources can exacerbate these political conflicts, because significant costs of compliance lead to differing political willingness to comply (Stewart, 1977; Van Rooij & Lo, 2010). We can again see this operationalized in education policy, where a lack of funding for enforcement of No Child Left Behind resulted in widespread state-level opposition to bearing the costs of implementation (McGovern, 2011).

Second, issues of public management can affect state-level implementation of federal policy. Management issues arise when complex policies are delegated to agencies that have limited capacity to carry out the mandate (Matland, 1995). For instance, federal reliance on states to implement environmental programs without adequate state personnel to do so created uncertainty about feasibility. At the same time, state government agencies were subject to significant local pressures. This high-conflict, high-ambiguity scenario disincentivized state administrators to carry out federal mandates with fidelity (Stewart, 1977).

Finally, the influence of advocacy groups and other stakeholders can contribute to variation of state-level policy implementation (Matland, 1995). The influence of stakeholder groups can also vary based on the types of change a policy requires. In education reform, for example, every state was able to meet waiver requirements regarding alternate assessments, English language proficiency assessments, and data collection and use. However, fewer states implemented principal evaluation schemes, student support systems, student monitoring, and other more politically charged or administratively challenging changes. These changes require the buy-in of multiple stakeholders, which was harder to achieve in some states (Wong, 2015).

### **State Policies, Local Implementation**

While many of the factors that drive intra-state variation in policy implementation are similar to those that characterize implementation of federal policy at the state level, there are two distinctive features. First, bureaucratic discretion takes on a more central role. In the context of implementation of federal policies, much of the variation across states can be explained by contextual factors like budget allocations, clarity of laws and regulations, and the capacity of state-level actors. In contrast, local statutory coherence often takes the form of misalignment between priorities of state-level decision makers and local front-line workers (Keiser, 1999).

Policies where bureaucratic discretion plays a role are often characterized by low conflict and low ambiguity (Matland, 1995)—where implementation outcomes are clear and there is little disagreement on the policy's goals, but where the success of implementation is determined by the preferences, expertise, and abilities of street-level bureaucrats. Some



amount of discretion can be useful, as it allows bureaucrats to ensure they are able to aid those most in need. But limited resources and high caseloads can also result in unequal treatment of clients (Keiser, 1999; White 2014; White, Nathan, & Faller, 2015). The resulting unequal allocation of resources can result from individual discretion or bias on the part of local bureaucrats, as well as from larger institutionalized biases against the needs of particular communities (Tomlins, 1997; Freitag & Schlicht, 2009).

More broadly, statutory coherence can be low when there are tensions between the political objectives of state policymakers and how policies are operationalized by local-level actors. For instance, social service case workers report understanding the state-level priorities for TANF implementation, but many say they do not have any reason to center those priorities as they perform the responsibilities of their jobs. Instead, caseworkers frequently prioritize more concrete aspects of their roles, such as interpreting rules for eligibility (Riccucci, 2005). These interpretive decisions, like more overt or implicit biases, can result in different outcomes across demographic groups of constituents.

Such organizational biases are difficult to constrain, and even in highly formalized settings this kind of individual discretion may persist. For example, state disability benefits vary significantly in implementation across localities in ways that significantly impact claimants' standard of living. One explanation for this variation is that disability can be inherently difficult to define and measure, resulting in weak statutory coherence and high levels of discretion for bureaucrats (Keiser, 1999).

A second distinctive feature of local-level implementation variation is the importance of citizen engagement. On the federal level, well organized and financed actors are frequently the crucial players in defining the extent to which a policy is implemented in alignment with

its stated purpose. In contrast, many of the enforcement mechanisms that exist on the local level are related to the demands of local organizations and residents. For instance, environmental activists and industries impacted by regulation have different levels of political efficacy at different levels of government (Stewart, 1977). Environmental policy often requires participation by polluters and companies that manage waste, whose private interests can conflict with their willingness to comply (Lester & Bowman, 1989). Likewise, grassroots and community coalitions may have greater influence at the local-level, relative to higher levels of governance (e.g., state and federal) where more resources are needed to influence policy (Miller, 2008). The prevalence, characteristics, and behavior of these actors can all play a role in how local implementation occurs (Van Rooij & Lo, 2010) and the extent to which policy effects are experienced differently across racial and social groups (Miller, 2008).

### **California's Public Safety Realignment**

Like many other policy domains in the United States, criminal justice is highly fractured across federal, state, and local jurisdictions. American criminal justice is therefore not truly one “system,” or “the” carceral or penal state (Pfaff, 2017; Rubin & Phelps, 2017). Rather, multiple, overlapping, and sometimes contradictory policies and practices of different jurisdictions play a role. Even within one state or local system, activities like policing, incarceration, and reentry “[activate] the universe of human service actors, criminal justice agencies, and policy and program planners” who all have “specific goals, conceptualize prisoners in specific ways, and advocate for specific kinds of interventions in former prisoners’ lives” (Miller & Stuart, 2017). Criminal justice reform is therefore never a simple

cycle of “consensus and upheaval” but instead must account for the “complex relationships and contestation...among actors with conflicting opinions, beliefs, and preferences within the constraints and opportunities posed by changes in crime rates, racial politics, the economy, and other social forces” (Rubin, 2017).

As a result, reforms designed at one level (e.g., state government) may vary in implementation at another (e.g., local government). For instance, individuals released from prison to counties that prioritize reentry services have better recidivism outcomes than counties that prioritize enforcement (Bird & Grattet, 2017). In this sense, county-specific interpretation and implementation of reforms tends to reinforce the pre-existing prosecution and sentencing practices within the county (Austin, Clark, Hardyman, & Henry, 1999; Feeley & Kamin, 1996; Verma, 2015). This could be rooted in a variety of factors, including different agency priorities, leadership instructions, staff diversity, or characteristics of the clientele (Riccucci, 2005), but suggests a significant impact of local-level politics and management.

Together, these factors can lead to the accumulation of small discretionary decisions throughout the criminal adjudication process (Bibas, 2005). In particular, counties use discretionary options to prosecute cases in accordance with prosecutors’ personal principles of proportionality and those of the local community (Bowers, 2001), the county’s political leanings, resources for prosecution, and priorities for crime control (Percival, 2004). The result can be sizable disparities in outcomes across racial groups (Lynch, 2018; Ulmer, Painter-Davis, & Tinik, 2016).

As an example, under California's Three Strikes law, prosecutorial discretion was employed to mitigate or maximize penalties, producing lower average sentences in counties

with a high case flow relative to the budget for prosecution, and more punitive outcomes in politically conservative contexts (Marion, 1999; Stuntz, 1997; Sutton, 2013). Prosecutors in the liberal-leaning county of San Francisco considered the law's harsh mandates disproportional, and jurors were unwilling to endorse it. As a result, San Francisco saw virtually no change after Three Strikes was passed, because the law was only applied to defendants charged with violent felonies. On the opposite end of the spectrum, San Diego prosecuted nearly every felony as a strike (Bowers, 2001).

In this study, we build on existing scholarship by examining state and local implementation of California's Public Safety Realignment (AB 109). AB109 was passed in 2011 and aimed to reduce the number of individuals sent to state prisons each year. The policy was largely successful at achieving this goal. As one study notes, "from January 2009 to the end of June 2016, the prison population [in California] declined by about 41,600 inmates. Realignment is estimated to have contributed to well over half of this decline, or about 27,000 inmates" (Lofstrom, Bird & Martin 2016).

We hypothesize, however, that differences at the local level in how AB 109 was implemented are consequential for variation in policy success. Specifically, we suspect that counties with more punitive practices prior to the reform effort will have implemented Public Safety Realignment in ways that preserved this relatively punitive orientation. In contrast, more progressive counties will have carried out implementation in ways that are more ideologically consistent with the policy's stated goals. Most concerning, we hypothesize that this variation in implementation is likely to reinforce or exacerbate existing racial disparities in criminal justice outcomes across the state.

## Data and Methods

Our analysis utilizes individual-level data from the California Department of Justice's (CA-DOJ) Automated Criminal History System (ACHS). These data include all adults 18 and over arrested in California and we limit our analysis to the two years prior to AB 109 implementation (October 1, 2009 – September 30, 2011; termed pre-AB 109) and two years following (October 1, 2011 – September 30, 2013; termed post-AB 109). For each individual, data include arrest charges, charges filed, charges receiving convictions, and sentence length and location, along with dates of arrest and case disposition. The records contain all of the sample's prior arrests in California, allowing us to control for criminal history. Finally, each arrest record contains demographic information of the person arrested, including age at arrest, race/ethnicity, sex, and the county in which the arrest occurred.

We begin with a descriptive comparison of local-level variation. Specifically, we compare state-wide differences pre- and post- implementation to the range across counties. The data describe differences both in the percentage of all felony arrests resulting in a prison sentences, as well as sentences to incarceration for all AB109 offenses. In addition, we describe variation in the racial gap (both white-Black and white-Latinx) both before and after AB109.

Given substantial variation in county-level implementation of AB 109, we then estimate the extent to which the number of prison sentences would have been altered for each racial/ethnic group, if the full state hypothetically had adopted each county's implementation practices. To do this, we use county-specific logit models specified in Equation (1) to estimate the probability of prison sentence for all people arrested for a felony offense in the

two years post-realignment, given the person’s demographics, case characteristics, and criminal history.

$$(1) Y_{it} = \beta_0 + \beta_1(Month_t) + \beta_2(Race_i) + \beta_3(AB109_i) + \beta_4(AB109_i * Race_i) + X_{it} \Gamma + \varepsilon_{itc}$$

Coefficients estimated in the model include calendar month, race/ethnicity, a binary variable for whether the arrest was an AB 109 offense, and an interaction between race/ethnicity and AB 109 arrest to allow for the effect of eligibility to differ by group. We also include vectors of variables for demographics, arrest charges, and criminal history. Demographics, in addition to race/ethnicity specified above, include age modeled as a cubic spline, and sex. Four sets of categorical (0, 1, 2 or more) variables are used for case characteristics and criminal history: 1) arrest charges in each offense category, separately by felony and misdemeanor offense: weapons, sex, drug, property, violent, or other; 2) prior convictions for a felony, misdemeanor, or 1170(h) disqualifying offense; 3) prior sentences to jail, prison, or probation; and 4) number of prior arrests.

$$Y_{it} = \beta_0 + \beta_1(Month_t) + \beta_2(Race_i) + \beta_3(AB109_i) + X_{it} \Gamma + \varepsilon_{itc}$$

Each county’s model coefficients are used to estimate the probability of prison sentence for everyone arrested statewide in the two years post-realignment, if they had been prosecuted in that county. Probabilities are summed to generate the estimated number of prison sentences, which we compare to the actual number of prison sentences that occurred in the two years post realignment as absolute and percent differences, by race/ethnicity. To account for uncertainty in model estimates, we take bootstrap samples with replacement of

the state population, stratified by race/ethnicity and county, and re-estimate the county-specific models and statewide predicted probabilities with 1,000 replications.<sup>1</sup>

## Results

In the two years before AB 109, the likelihood of a prison sentence among those arrested in different counties diverged widely (see Figure 1). Statewide, about 7.4 percent of all felony arrests and 7.3 percent of all AB109 arrests resulted in a prison sentence. Variation in imprisonment practices across counties was significant, however, ranging from 0.4 to 15.8 percent for all felony arrests and .3 to 15.7 percent for AB109 arrests. Similarly, counties varied widely prior to reform in their differences across racial groups. Prior to implementation, the black-white and Latinx-white gaps in prison sentences for all felony arrests statewide were 2.1 and 1.9 percentage points, respectively. Again, however the variation across counties was sizable (-3.8 to 7.9 points for Black-white sentences to prison, and -0.6 to 7.4 for Latinx-white). For AB109 arrests, the numbers are again similar.

### FIGURE 1 HERE

Even more notable is the variation in change over time pre- and post-reform (see Figure 1). Across the state, there was a decline in both the percentage of all felony arrests sent to prison (-2.0 points) and of all AB109 arrests (-3.1 points). There was also a decline in the Black-white and Latinx-white gap (-0.4 percentage points for each). In contrast, there was

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<sup>1</sup> For sufficient data to estimate prison sentence probabilities by county, we group counties with small populations by region, generating 40 unique counties or county groupings. County groupings include 1) Sierra Region: Alpine, Amador, Calaveras, Inyo, Mariposa, Mono, Tuolumne; 2) Del Norte, Lassen, Modoc, Siskiyou; 3) Colusa, Glenn, Tehama, Trinity; 3) Nevada, Plumas, Sierra; 4) Lake, Mendocino; 5) Monterey, San Benito; 6) Sutter, Yuba. San Diego was excluded as well because their prison rate of 0.6% - the second lowest in the state - was greatly misaligned with other reports on sentencing in the county, so we suspected substantial under-reporting of case dispositions.

a slight statewide *increase* in both the Black-white (0.2 points) and Latinx-white differences (0.1 points). Again, however, counties responded to the reform in distinctly different ways, both overall and across racial groups. As shown in Figure 2, some counties saw increases in incarceration and racial gaps, while other counties experienced declines. The differences between the minimum and maximum change across counties was roughly 6 percentage points in the likelihood of incarceration following arrest, and up to 14 percentage points in the size of racial gaps. (Detailed descriptive data is provided in online Appendix A.)

### **FIGURE 2 HERE**

As Figures 1 and 2 make clear, and in line with expectations, counties largely responded to the reform in ways that retained their relative level of punitiveness in the use of incarceration. Counties like Merced, Marin, and Santa Cruz that had made relatively judicious use of imprisonment prior to reform stayed very progressive in their treatment of AB109 crimes. Indeed, many of these counties did not see significant changes following reform because they were already sending few people to prison for this set of crimes. In contrast, some counties that had been much more punitive in their approach had more significant declines following reform. Despite this, however, they still remained sizably more likely to make use of imprisonment—and in a small number of punitive counties, reform resulted in increases in both incarceration and racial gaps.

To illustrate how implementation played out differently across counties, we follow changes from arrest to sentencing in two counties on the opposite ends of the spectrum: the progressive county of San Francisco, where law enforcement agencies had long been at the forefront of local and statewide decarceration reforms, and Kings County, where the share of cases sentenced to prison was the highest in the state.



For example, though the number of prison admissions per 1,000 felony arrests declined by 54% and 56% in the first two years of implementation in Kings County and San Francisco County, respectively, the rate in Kings County was still 7-fold higher compared to San Francisco (Males, M., 2013; Males, Mike & Buchen, 2013). Kings County sentenced 22% of Black arrestees to prison, 14% of whites, and 15% of Latinx. In San Francisco, prison sentences were a much rarer event: 3% of Black arrestees were sentenced to prison, 2% of whites, and 3% of Latinx. Though Black arrestees in San Francisco were far less likely to be sentenced to prison than any racial group in Kings County, they still bore a hugely disproportionate share of the prison sentences handed down: 62% in San Francisco, compared to 17% in Kings County.

This was partially due to local differences in arrests before AB 109 (see Figure 3). In San Francisco, the share of eligible arrests among Blacks was much lower than for other groups (50%, compared to 60% among Latinx and 65% among whites). Whereas in Kings County, though whites still benefited from a higher share of eligible arrests, the proportion was similar among Blacks and Latinx (46% and 49%, respectively, and 59% among whites). Greater proportions of eligible arrests among whites in both places translated to greater reductions in prison sentences after the reform. In San Francisco, prison sentences per arrest declined 67% among whites, compared to 47% among Blacks and 49% among Latinx. In Kings County, declines for whites were 35%, compared to declines of 2% among Blacks and 11% among Latinx.

### **FIGURE 3 HERE**

Shifts in the racial distribution of prison sentences, however, can also arise from changes in arrest counts. Here is where San Francisco and Kings County are most markedly

divergent. In San Francisco, arrests declined in all groups, and to a similar extent across race/ethnicity (13% among Blacks, 15% among Latinx, and 11% among whites). In contrast, in Kings County arrests increased substantially in every group (29% among Blacks, 27% among Latinx, 25% among whites).

Since the proportional rise in arrests among Blacks and Latinx in Kings County was greater than their decline in prison sentences per arrest, the number of prison sentences in both of these groups *increased* (27% among Blacks and 13% among Latinx), while whites experienced declines of 19%. Conversely, San Francisco reduced arrests as well as prison sentences per arrest in every racial/ethnic group, leading to declines in the number of prison sentences across the board. But as in Kings County, whites in San Francisco still benefited from the greatest percentage declines in prison sentences per arrest, fueling the largest percentage declines of any group in the number of prison admissions (71% decline, vs. 54% among Blacks and 57% among Latinx).

Ultimately, these analyses suggest that disproportionality in prison sentences among Blacks and Latinx increased in counties like San Francisco and also in those like Kings County, but for different reasons. In San Francisco, increases were the result of prison sentences among minority groups declining less than for whites. In Kings County, inequalities widened because prison sentences among Blacks and Latinx *increased*, while whites saw declines. The result was that the share of prison sentences among whites dropped from 26% to 19% in San Francisco, and 31% to 24% in Kings County. This compared to a rise in shares from 62% to 69% among Blacks and 12% pre and post among Latinos in San Francisco, and a rise in shares from 17% to 21% and 51% to 55% among Blacks and Latinx in Kings County.

These changes in disparities within counties, when considered in the context of already wide variation in imprisonment rates across geography, complicates how we might interpret the impacts of the reform. In San Francisco, though the disparity between racial/ethnic groups increased within the county, arrests and prison sentences declined following AB109 and the likelihood of prison among Blacks in San Francisco remained lower than both whites and Latinx in all but four other counties. In Kings County, already sizable disparities increased due to rising arrest rates following the reform.

### **The Policy Implications of Local Implementation**

To further understand the implications of this local variation on outcomes of state reform, we model the number of hypothetical prison sentences that *would have been* handed down if everyone in the state – given their true arrest charges and criminal histories – were prosecuted in a given county. These modeled estimates are shown in Figure 4 (see also online Appendix B).

Returning to the example of San Francisco, if everyone arrested statewide in the two years post AB 109 had been prosecuted in San Francisco, there would have been an estimated 10,023 fewer prison sentences among Blacks (95% CI: -10,447, -9,600), 13,879 fewer among whites (95% CI: -14,546, -13,213), and 18,981 fewer among Latinx (95% CI: -20,385, -17,577). In comparison, if everyone had been prosecuted in Kings County, prison sentences would have *increased* by 18,616 among Blacks (95% CI: 13,638, 23,593), 15,709 among whites (95% CI: 11,061, 20,358) and 18,197 among Latinx (95% CI: 14,062, 22,333).

**FIGURE 4 HERE**

Interpreting these absolute numbers in terms of percent change, there would have been an estimated 78% *fewer* prison sentences among Blacks (95% CI: -81, -75), compared to 85% fewer among whites (95% CI: -89, -81) and 82% fewer among Latinx (95% CI: -88, -76) if all cases had been prosecuted in San Francisco. While this would be an enormous population-wide decline in prison sentences for all racial groups, the greater *proportional* change for whites would also mean an *increase* in the racial disparities in those sent to prison. Specifically, the share of prison sentences handed down to Black Californians would have been an estimated 30% (95% CI: 24%, 36%), compared to the actual share: 24% (see Figure 5 and online Appendix B).

In contrast, had all cases been prosecuted in Kings County, the number of prison sentences would have nearly doubled among whites and Latinx, and increased by nearly 150% among Blacks (percent increase among whites: 96%, 95% CI: 68, 125; Blacks: 145%, 95% CI: 106, 183; Latinx: 78%, 95% CI: 61, 96). In this scenario of rising prison sentences, it is the lesser percentage change among whites compared to Blacks that would lead to an increase in racial/ethnic disparities. The share of prison sentences among Blacks would rise to 30% (95% CI: 26-34), ultimately matching the share in San Francisco despite the divergent direction of change in the number of admissions. Finally, it is worth noting the larger pattern of racial/ethnic distributions of prison sentences in Figure 5. As the share of prison sentences among Black Californians declines, it is the share among Latinx, not whites, that tends to rise.

**FIGURE 5 HERE**

## **Discussion**

Previous research has shown that AB109 substantially reduced California's state prison population. Yet statewide summaries mask sizable local variation, giving more weight to counties with larger populations. In this paper, we examine how changes following reform were distributed across counties, with particular focus on the way local variation shaped racial outcomes.

In the example of Kings County, large increases in arrests, combined with minimal decreases in the likelihood of prison if arrested, resulted in a rise in the number of prison sentences for Black and Latinx people. Whites, in contrast, experienced substantial declines in the likelihood of prison if arrested, as well as the total number of prison sentences. San Francisco's implementation practices were better aligned with the intent of the reform – in this county, prison sentences declined by more than 50% in every group. However, the same pattern of differential benefits by race held true. Declines in prison among whites overshoot those experienced by Blacks and Latinx, redistributing the county's prison sentences to increase the share among people of color.

These results provide a starting point for a robust research agenda. Variation in implementation is not necessarily a problematic feature of federalist policy making. Indeed, in some cases, government may actively seek to create these differences. In the context of education, for instance, the federal government often seeks to foster innovation, variance, and diversity in educational approaches at the state level. It then rewards relative success to incentivize progress (McGovern, 2011). In some cases, however, structural biases, bureaucratic discretion, and policy conflict result in unequal outcomes, with potentially serious consequences for those groups who are disproportionately affected (Stewart, 1977).

Our findings have important implications for how we understand the role of local governments in implementing state-level policy reforms. The intent of realignment was to reduce prison populations and, overall, it did. At the same time, the reform performed differed by county and these differences produced substantial racial disparities. Specifically, our findings reinforce the idea that counties use discretionary elements of state laws in ways that align with the politics and priorities of the jurisdiction (Austin et al., 1999; Bowers, 2001; Feeley & Kamin, 1996; Percival, 2004; Verma, 2015). In the case of prison reform, counties that start out with high rates of imprisonment might implement decarceration efforts in ways that maintain the status quo, and that benefit whites at the cost of their Black and brown counterparts.

Taken together, our results suggest that *meaningful state-level reform requires coordination and buy-in across levels of government*. Reformers and legislators need to consider policy implementation at the state level as part of a broader system. In particular, state reforms that affect local agencies must solicit input and buy-in from local actors early in the process to ensure that issues related to implementation get fully incorporated into policy design. At the very least, local stakeholders must have a seat at the table to discuss reform efforts and to voice concerns that might otherwise not receive consideration. In the domain of criminal justice, this is likely to matter both for efforts to reduce prison populations in a sustainable way, as well as ensuring that jails do not remain a central site of contact between citizens and the criminal justice system even as prison populations are reduced.

More broadly, future research might investigate how variation that leads to unequal treatment across racial groups might be effectively constrained. The ability of governments to constrain variable implementation depends on the nature of the conflict (Matland, 1995).

However, there are at least two tools available to policymakers seeking to circumscribe discretion. The first is the enactment of direct mandates. For instance, Congress may authorize the EPA to compel state and local implementation of environmental process (Stewart, 1977). However, policymakers are often not empowered with the tools, knowledge, or ability to enforce or require implementation in a way that maintains fidelity to a policy's intent (Stewart, 1977).

This is especially true when variation stems primarily from bureaucratic discretion and individual bias. In this regard, efforts to reduce the negative impacts of discretion need to be institutionalized and evaluated on an on-going basis, in order to ensure they are having the intended impact (Tomlins, 1997). Adjustments to eligibility criteria and metrics for success might also help address both institutionalized and unconscious bias against certain groups (Tomlins, 1997). At the same time, a lack of demographic diversity among front-line bureaucrats can exacerbate inequalities in outcome. Diversifying the public sector workforce could reduce the incidence of discretionary biases that result in unequal service provision across social groups (White et al., 2015).

A second mechanism available to policymakers to constrain variation is the imposition of conditions on funding. Indeed, the theory of centralized federalism hypothesizes that national institutions can use incentives to influence subnational policy implementation, and the mere threat of this power, even if infrequently used, can be effective (Wood, 1991). As one example of this, the Obama administration had some success using waivers and other mechanisms to incentivize states to adopt changes to education policy. However, some areas of reform were less successful, such as changing teacher and principal evaluation approaches (Wong, 2015). Furthermore, it is unclear whether these mechanisms

are able to effectively address the myriad sources of variation in the implementation of federal policies, which are influenced by such a wide variety of both political and bureaucratic factors.

Most importantly, our results illustrate that the potential consequences of inconsistent implementation can be profound, exacerbating racial, ethnic, class, or spatial inequalities (Bibas, 2005). To illustrate this in our analysis, we estimate that nearly 80% fewer prison sentences (11,000) would have occurred among Black men and women if all arrests statewide had been prosecuted in San Francisco, while all prosecutions in Kings County would have increased prison sentences in this racial group by nearly 150% (19,000). Despite this divergence, however, pre-reform racial disparities were obstinate; whites would benefit from the greatest prison declines in San Francisco and the smallest increases in Kings County. In the context of criminal justice, variation in police enforcement, prosecutorial decision-making, and sentencing practices of this kind might not only exacerbate existing inequalities, but may also undermine perceptions of fairness and legitimacy overall.



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