

# Safety for Whom? School Policing, Institutional Authority, and Racial Inequality in Discipline

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## Abstract

Do formally race-neutral policies produce race-neutral outcomes? This paper examines how school safety policies governing the role of law enforcement in schools affect racial gaps in exclusionary discipline. I estimate the effects of statewide requirements that school resource officers (SROs) hold sworn law enforcement credentials or complete specialized training on Black-white gaps in suspensions, expulsions, law enforcement referrals, and school-related arrests. Using variation in the timing of state law adoption between 2014-15 and 2020-21, I implement a difference-in-differences framework with school-level data from the Civil Rights Data Collection. I find that mandates requiring SROs to hold sworn law enforcement credentials substantially increase Black-white gaps in suspensions and law enforcement referrals in majority Black schools, with no detectable effects in minority Black schools. In contrast, training requirements have no measurable impact on racial gaps in any school context. These results are more consistent with the predictions of institutional frameworks than with those of purely individual-based mechanisms. The findings instead indicate that institutional authority plays a central role in generating racial gaps in school discipline.

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# 1 Introduction

Racial disparities in school discipline are a persistent feature of the U.S. education system. Black students are more likely than white students to experience suspensions, expulsions, law enforcement referrals, and school-related arrests. These disparities arise within an institutional landscape in which education and the criminal legal system increasingly intersect, particularly through school resource officers (SROs). According to the 2013-14 Civil Rights Data Collection (CRDC), approximately 29 percent of U.S. public schools reported employing an SRO, exposing over 20 million students, including nearly half of Black students and more than 40 percent of white students nationwide, to school-based law enforcement.<sup>1</sup>

This paper examines whether these disparities are driven primarily by individual behavior or by institutional structures that differentially shape outcomes across racialized environments. If disparities arise primarily from individual behavior, interventions targeting training or decision-making may be effective. However, if disparities reflect the interaction between institutional authority and structurally disadvantaged environments, then policies that expand enforcement authority may exacerbate inequality, even when they are formally race-neutral. Interventions that solely target individual behavior, such as officer training, implicitly assume that disparities arise from individual actions. In contrast, reforms that alter institutional authority, such as requiring SROs to hold sworn law enforcement credentials, change the structure within which intervening decisions are made. If disparities are also shaped by institutional processes, these two types of interventions may have fundamentally different effects.

I study this distinction by examining the effects of state laws governing SRO qualifications on racial gaps in school discipline. A primary empirical challenge is isolating the causal effect of changes in institutional authority from pre-existing differences in school environments correlated with policy adoption and disciplinary outcomes. Schools serving different student populations may differ systematically in unobserved ways, making it difficult to attribute changes in racial gaps to policy alone. I address this challenge by exploiting staggered adoption of two types of state-level policies: mandates requiring SROs to hold sworn law enforcement credentials and mandates requiring specialized training. Using a difference-in-differences framework applied to a near-census of U.S. public schools from the CRDC, I estimate the effects of these policies on Black-white gaps in exclusionary school discipline.

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1. Based on author calculations.

School exclusionary discipline refers to a set of punitive practices that remove students from the classroom or school environment, most commonly through suspensions and expulsions. These practices are among the most severe forms of school discipline because they directly limit students' access to instructional time and school-based resources. Prior research links exclusionary discipline to a range of adverse academic and social outcomes. By removing students from opportunities to learn and weakening their attachment to school, suspensions and expulsions reduce academic engagement and increase the risk of disengagement (Skiba et al., 2011). These disruptions are associated with poorer academic performance, higher likelihood of school dropout, and greater involvement with the juvenile justice system (Skiba et al., 2011). At the same time, there is limited evidence that exclusionary discipline improves student behavior or overall school climate, raising concerns about its effectiveness as a disciplinary strategy (Skiba et al., 2011; Kupchik, 2010). Importantly, these practices are not applied uniformly: extensive evidence documents persistent racial disparities in the use of suspension and expulsion, with Black students facing substantially higher rates of exclusionary discipline even for similar behaviors (Skiba et al., 2002; Skiba et al., 2011; Kupchik, 2010; Wolf and Kupchik, 2017). This evidence suggests that exclusionary discipline is a high-risk response with significant implications for both short- and long-term student outcomes.

The results of this paper on SRO policies on school discipline reveal a clear asymmetry. The analysis does not directly observe mechanisms. Instead, mechanisms are evaluated through the pattern of heterogeneous treatment effects where the patterns of heterogeneity provide evidence that is more consistent with institutional explanations than with purely individual-based interpretations. Mandates requiring law enforcement credentials substantially increase Black-white discipline gaps in majority Black schools, with no detectable effects in schools with lower Black enrollment. Restricting the sample to schools with SROs present in every observed period isolates policy effects from changes in SRO presence, avoiding bias from extensive or intensive margin adjustments. This asymmetry provides an empirical comparison between divergent explanations: individual-based frameworks predict similar effects across school contexts, while institutional frameworks predict that policy effects depend on the interaction between enforcement authority and the racial composition of the environment. In contrast, training mandates have no measurable impact on racial gaps in either context.

While the results may be partially consistent with statistical discrimination, such a framework would predict differential treatment across school contexts, rather than effects concentrated in majority Black schools. The absence of effects in lower Black enrollment schools suggests that

belief-based explanations alone cannot account for the observed patterns. Instead, the results are consistent with a framework in which institutional authority interacts with racialized environments to amplify gaps in contexts where Black students are more heavily represented. Using school-based law enforcement as a setting in which this interaction can be cleanly identified, these findings provide evidence on a broader mechanism through which embedding law enforcement authority within stratified institutional environments can generate unequal outcomes.

To interpret these findings, I develop a conceptual framework that contrasts individualist and institutional explanations of racial disparities. Standard individualist theories, including rational choice, deterrence, and discrimination (taste-based, statistical, stereotype-based), predict that improving officer training or qualifications should reduce disparities if they stem from behavior or bias. In contrast, a stratification-based framework predicts that policies which expand enforcement authority may exacerbate disparities when implemented in structurally disadvantaged contexts, even in the absence of changes in individual preferences or behaviors, and that individual training will have limited impacts. The empirical results align with the latter set of predictions.

Causal evidence on the role of institutional authority in generating racial gaps in school discipline provides substantive contributions to research on group inequality. By leveraging policy-induced variation in SRO qualifications, I show that formally race-neutral policies can produce highly unequal effects depending on the institutional context in which they are implemented. The findings contribute to a broader understanding of how stratified institutional environments shape the impact of public policy. Standard individual-based frameworks attribute disparities to differences in behavior, detection, or direct (non-structural) discrimination, implying that policy effects should not systematically vary with institutional context once observable characteristics are accounted for. In contrast, stratification-based frameworks emphasize that school discipline is produced within institutional environments shaped by racial hierarchy, implying that policy effects may differ jointly by student race and school context.

Leveraging state-level variation in credential and training requirements for school resource officers further provides causal evidence that policies altering institutional authority can generate fundamentally different patterns of inequality than those targeting individual behavior. The contrast between credential mandates and training requirements highlights that formally race-neutral interventions that target different policy levers may have unequal effects depending on the institutional contexts in which they operate. These findings shift the focus from how disparities reflect individual behavior to how institutional environments shape the impact of policy.

Thus, this paper contributes to a growing economic literature showing that disparities in social and economic outcomes may arise through institutional processes operating across interconnected systems rather than solely through individual behavior or preferences. Recent work emphasizes how institutional structures shape opportunities, constraints, and inequalities across racialized environments (Derenoncourt, 2022; Baron et al., 2024; Darity, 2022; Bohren, Hull, and Imas, 2025). Building on this perspective, I provide evidence suggesting that formally race-neutral school safety policies can produce systematically unequal effects through their interaction with pre-existing institutional conditions as proxied by school racial composition.

The paper also contributes to the interdisciplinary literature on school policing and student discipline. Existing work, primarily in education, criminology, and sociology, shows that greater police presence in schools is often associated with higher rates of exclusionary discipline, particularly for marginalized student groups (Theriot, 2009; Na and Gottfredson, 2013). A growing set of causal studies corroborates these patterns, but most rely on proxy measures of school policing or focus on geographically limited settings (Owens, 2017; Weisburst, 2019; Sorensen, Shen, and Bushway, 2021; Sorensen et al., 2023). Although this literature frequently emphasizes the importance of officer qualifications and training, there is limited causal evidence on how policies governing SRO authority and training affect student outcomes. By leveraging the Civil Rights Data Collection, which provides a near-census of schools and direct measures of SRO presence, this paper addresses these limitations and provides new causal evidence on how credential and training mandates affect racial gaps in school discipline.

More broadly, this paper examines whether persistent racial disparities in school discipline are driven by individual behavior or by institutional processes that differentially shape outcomes across racialized contexts.

The rest of the paper proceeds as follows. Section 2 provides institutional background on school policing and the SRO policies examined in the analysis. I develop a conceptual framework that generates testable hypotheses linking policy interventions to racially heterogeneous school discipline in Section 3. Section 4 describes the data and presents descriptive statistics. I outline the empirical strategy and identification in Section 5. I present the main results and interpret them through the lens of the conceptual framework in Section 6. Section 7 concludes. Additional tables, figures, and supporting materials are provided in the appendix.

## 2 Institutional Background

School policing in the United States expanded substantially over the past several decades, driven by a combination of desegregation-era policies, crime control strategies, and school safety concerns. Early adoption of police presence in schools was closely tied to efforts to manage racial integration, particularly in urban districts with large Black student populations (The Center for Public Integrity, 2021; Counts et al., 2018). Subsequent expansions in the 1980s and 1990s were shaped by broader shifts in criminal legal policy, including the “War on Drugs” and the adoption of zero-tolerance discipline policies, which increased the use of punitive responses to student behavior (Welsh, Braga, and Bruinsma, 2015; Rosenbaum et al., 1994; Irby and Coney, 2021).

These developments coincided with growing law enforcement presence in schools serving low-income and racially segregated, predominantly minority, communities, where students were more likely to be exposed to exclusionary discipline and external policing (Hinton, 2015; Owens, 2017). As a result, school policing became embedded within broader institutional environments characterized by racially disparate resources, surveillance, and punishment. Historical context on the evolution of policing and education, which motivates the institutional explanations considered in the conceptual framework, is provided in Appendix B.

More recent policy reforms have sought to regulate the role of school resource officers by standardizing qualifications and training requirements. In particular, states have adopted statutes requiring SROs to hold sworn law enforcement credentials or complete specialized training in areas such as adolescent development, de-escalation, and mental health. These policies provide a setting to evaluate whether interventions that target institutional authority or individual behavior differentially affect racial disparities in school discipline. These policies differ in the levers of change they target: credential requirements expand formal law enforcement authority within schools, while training mandates aim to modify individual officer behavior without altering institutional structure.

## 3 Conceptual Framework

I develop a reduced-form framework to examine how school resource officer (SRO) policies affect school discipline and how these effects vary across student race and institutional contexts.

Let  $D_{ijst}$  denote a disciplinary outcome for student  $i$  in school  $j$  and state  $s$  at time  $t$ . Say discipline can be defined by:

$$D_{ijst} = \mathcal{D}(P_{st}, R_i, S_s, X_{jst}),$$

where  $P_{st}$  captures SRO policies,  $R_i$  denotes student race,  $S_s$  captures institutional context proxied by school racial composition, and  $X_{jst}$  represents institutional and environmental factors. While school racial composition is not itself a policy variable, it captures differences in institutional context that are central to the conceptual framework, including variation in resource constraints, administrative priorities, and exposure to surveillance.

The conceptual causal objects of interest are the differential effects of an SRO policy with respect to student race and institutional context:

$$\frac{\partial^2 D_{ijst}}{\partial P_{st} \partial R_i}, \quad \frac{\partial^2 D_{ijst}}{\partial P_{st} \partial S_s}.$$

These parameters are not directly estimated but serve as concepts to develop testable hypotheses. The empirical analysis instead recovers reduced-form treatment effects across racial groups and institutional contexts that correspond to discrete analogues of these differential effects through comparisons across groups.

### 3.1 Competing Frameworks

I consider two divergent frameworks for interpreting racial disparities in school discipline.

**Individual-based explanations.** Under standard models of deterrence and discrimination, school discipline reflects individual preferences, behavior, and decision-making (Becker, 1968; Ehrlich, 1973). In these models, policies that increase monitoring or improve officer quality affect outcomes by altering detection, deterrence, or rational choice sets. Racial disparities arise from differences in individual behavior or direct discrimination, including taste-based, statistical, or stereotype-based discrimination (Becker, 1971; Phelps, 1972; Arrow, 1973; Aigner and Cain, 1977; Bordalo et al., 2016). Under this framework, policy effects may differ across racial groups but are not expected to vary systematically with institutional contexts beyond differences captured by observed characteristics or endogenous behavioral responses.

Under this framework, discipline can be defined as:

$$D_{ijst} = \mathcal{D}(P_{st}, R_i, X_{jst}),$$

where  $S_s$  can be interpreted as either non-existent, embedded in the error term, or incorporated by  $X_{jst}$ .

**Institutional or stratification-based explanations.** Under a stratification framework, school

discipline is shaped by institutional processes embedded in historically and socially constructed racial hierarchies (Darity, 2022; Bohren, Hull, and Imas, 2025). These processes may operate across interconnected systems, influencing how behavior is interpreted and sanctioned (Derenoncourt, 2022; Baron et al., 2024). Policies that alter enforcement authority may interact with these environments, changing the interpretation and sanctioning of behavior. In this case, policy effects may vary jointly by student race and institutional context.

The main point of divergence leading to different predictions and interpretations is illustrated by this definition of discipline:

$$D_{ijst} = \mathcal{D}(P_{st}, R_i, S_s, X_{jst}),$$

where  $S_s$  is explicitly captured as a driving factor of the disciplinary process.

These frameworks imply that policies targeting individual behavior and those altering enforcement authority operate through distinct channels and therefore generate different empirical predictions.

### 3.2 Testable Implications

The two frameworks generate distinct predictions not only for treatment effect heterogeneity, but also for how different types of policies affect school discipline.

**Individual-based explanations.** Policies that improve officer quality or reduce bias affect outcomes by altering individual behavior. Under this framework, school discipline may vary with student race but is not expected to depend on institutional context:

$$\frac{\partial D_{ijst}}{\partial R_i} \neq 0, \quad \frac{\partial D_{ijst}}{\partial S_s} \approx 0.$$

Training mandates, which target officer behavior, are predicted to affect outcomes and reduce disparities:

$$\frac{\partial D_{ijst}}{\partial T_{st}} \neq 0, \quad \frac{\partial^2 D_{ijst}}{\partial T_{st} \partial R_i} \neq 0, \quad \frac{\partial^2 D_{ijst}}{\partial T_{st} \partial S_s} \approx 0,$$

where  $T_{st}$  denotes training policies.

Policies that expand enforcement authority, such as credential mandates  $C_{st}$ , may have ambiguous but nonzero effects, depending on whether detection or deterrence is more salient, and may



vary by student race but not by institutional context:

$$\frac{\partial D_{ijst}}{\partial C_{st}} \neq 0, \quad \frac{\partial^2 D_{ijst}}{\partial C_{st} \partial R_i} \neq 0, \quad \frac{\partial^2 D_{ijst}}{\partial C_{st} \partial S_s} \approx 0.$$

Policy effects may differ across racial groups but are not expected to vary systematically with institutional context:

$$\frac{\partial^3 D_{ijst}}{\partial P_{st} \partial R_i \partial S_s} \approx 0.$$

**Institutional or stratification-based explanations.** Under this framework, school discipline depends on both student race and institutional context:

$$\frac{\partial D_{ijst}}{\partial R_i} \neq 0, \quad \frac{\partial D_{ijst}}{\partial S_s} \neq 0.$$

Training mandates may still affect outcomes, but their effects may be attenuated or offset in more disadvantaged contexts:

$$\frac{\partial D_{ijst}}{\partial T_{st}} \neq 0, \quad \frac{\partial^2 D_{ijst}}{\partial T_{st} \partial R_i} \neq 0, \quad \frac{\partial^2 D_{ijst}}{\partial T_{st} \partial S_s} \approx 0.$$

Importantly, while the institutional-based predicted result of training is the same as the individual-based prediction, the interpretation differs based on the role of  $S_s$ .

In contrast, policies that expand enforcement authority are predicted to generate effects that vary by student race and institutional context:

$$\frac{\partial D_{ijst}}{\partial C_{st}} \neq 0, \quad \frac{\partial^2 D_{ijst}}{\partial C_{st} \partial R_i} \neq 0, \quad \frac{\partial^2 D_{ijst}}{\partial C_{st} \partial S_s} \neq 0.$$

Together, this implies that institutional interventions generate context-dependent heterogeneity, while individual-level interventions do not:

$$\frac{\partial^3 D_{ijst}}{\partial T_{st} \partial R_i \partial S_s} \approx 0, \quad \frac{\partial^3 D_{ijst}}{\partial C_{st} \partial R_i \partial S_s} \neq 0.$$

The primary distinction between the two frameworks lies in whether institutional context directly shapes school discipline and mediates policy effects. The joint pattern of (i) nonzero effects of training policies and (ii) homogeneity across institutional contexts is consistent with solely individual-based explanations. In contrast, the absence of training effects combined with context-

dependent effects of credential policies is more consistent with institutional explanations. The key point of divergence between the frameworks lies in the role of institutional context in shaping school discipline,  $S_s$ .

### 3.3 Empirical Interpretation

I estimate reduced-form treatment effects and evaluate whether observed patterns of heterogeneity across student race and school racial composition align with the differential predictions of these frameworks. In particular, evidence of context-dependent racial disparities combined with limited effects of training policies supports the role of institutional context, captured by  $S_s$ , in shaping school discipline. The framework is not intended as a formal structural test of competing models, but rather as a guide for interpreting empirical patterns of heterogeneity.

## 4 Data and Descriptive Statistics

The primary data source is the Civil Rights Data Collection (CRDC), a near-census of U.S. public schools covering the 2013-14, 2015-16, 2017-18, and 2020-21 school years. The CRDC provides school-level information on school discipline disaggregated by race, as well as indicators of school resource officer (SRO) presence.

I construct school-level measures of exclusionary discipline, including suspensions, expulsions, law enforcement referrals, and school-related arrests, and define Black-white discipline gaps as differences in exclusion rates between Black and white students.

I merge the CRDC with state-level data on SRO statutes, specifically the timing of laws requiring law enforcement credentials or specialized training. Additional school- and state-level covariates are drawn from the CRDC, Common Core of Data, and other administrative sources.

SROs are less likely to be assigned to elementary schools, and exclusionary discipline practices are more tightly regulated at that level, so I exclude these schools from the analysis. The empirical sample is thus restricted to public middle and high schools that have SROs present in each observed period and nonzero enrollment of both Black and white students. Restricting the sample in this way helps ensure that treatment effects are not confounded by extensive or intensive margin changes in SRO presence. This restriction defines the estimand as the effect of policy-induced changes in SRO qualifications holding SRO presence fixed, rather than the effect of policies on the extensive margin of SRO adoption. After imputing the missing 2015 CRDC SRO indicator and removing

observations with missing values for variables used in the analysis, the final empirical sample contains approximately 12,200 school observations per period.<sup>2</sup> Appendix Tables A1 and A2 provide detailed descriptions of the outcome variables and covariates used in the analysis.

Table 1 summarizes school characteristics by SRO presence. Schools with SROs tend to be larger and have higher shares of Black students, but overall differences in observable characteristics are modest. Table 2 shows that schools with SROs exhibit higher exclusion rates for both Black and white students, as well as larger Black-white discipline gaps. Appendix Tables A3 and A4 compare the empirical sample to the full CRDC population and suggest that the estimation sample is broadly comparable to the underlying population on observed dimensions. Additional details on data construction, imputation procedures, and sample restrictions are provided in Appendix C.

[INSERT TABLE 1 HERE]

[INSERT TABLE 2 HERE]

## 5 Empirical Framework

I estimate the causal effects of SRO credential and training policies using variation in the timing of state laws requiring law enforcement credentials and specialized training. Both policies exhibit staggered adoption across states between the 2014–15 and 2020–21 academic years, providing state-level policy variation for schools with SROs already present.

Figures 1 and 2 illustrate the spatial and temporal variation in these policies. Fifteen states adopt credential requirements and twenty adopt training mandates during the sample period, while a set of states remain untreated throughout. Schools in states adopting policies before 2014-15 are excluded. Details on the statute citations and effective dates of these policies are provided in Appendix Table A5 and Appendix D. This staggered adoption allows for the estimation of group-time average treatment effects using the methodological framework of Callaway and Sant’Anna (2021).

[INSERT FIGURE 1 HERE]

[INSERT FIGURE 2 HERE]

Appendix Tables A6-A9 show that these policies do not produce immediate changes in SRO presence or staffing levels in schools, suggesting that estimated effects primarily reflect changes in the institutional role, authority, or qualifications of SROs rather than changes in exposure to SROs.

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2. Because of a data anomaly in the 2015 CRDC, I impute missing SRO indicators using adjacent survey waves; details are provided in Appendix C.

This pattern is consistent with policies affecting the composition or behavior of SROs rather than the extensive or intensive margins of SRO presence.

The empirical analysis estimates group-time average treatment effects,  $ATT(g, t)$ , following Callaway and Sant’Anna (2021), where  $g$  indexes the timing of policy adoption. These estimates compare changes in outcomes for schools in adopting states to those in states that do not adopt during the study period, accounting for variation in treatment timing across state cohorts.

Formally, the parameter of interest is:

$$ATT(g, t) = \mathbb{E}[Y_{jst}(1) - Y_{jst}(0) | G_s = g] \approx \mathbb{E}[Y_{jst} - Y_{js, g-1} | X, G_s = g] - \mathbb{E}[Y_{jst} - Y_{js, g-1} | X, C = 1],$$

where  $Y_{jst}(1)$  and  $Y_{jst}(0)$  denote treated and untreated potential outcomes, respectively, in school  $j$ , state  $s$ , and academic year  $t$ ,  $Y_{jst}$  denotes conditional, observed post-treatment outcomes and  $Y_{js, g-1}$  conditional, baseline pre-treatment outcomes separately for treatment group  $G_s = g$  and comparison group  $C = 1$ . These estimates can be viewed as generalized difference-in-differences comparisons that flexibly weight cohort-specific treatment effects, accounting for heterogeneity with respect to adoption timing and avoiding the weighting problems associated with two-way fixed effects estimators under staggered adoption (Goodman-Bacon, 2021).

Because outcomes are observed at the school level, the estimated treatment effects capture reduced-form averages of policy impacts across schools. By estimating treatment effects separately by student race and school racial composition, the analysis recovers the dimensions of heterogeneity illustrated by the conceptual framework. In particular, differences in treatment effects across racial groups correspond to policy-by-race interactions, while differences across school contexts capture the role of institutional environments. Joint variation across both dimensions provides evidence on the interaction between policy, race, and institutional context. These estimates can be interpreted as discrete analogues of the differential effects described in Section 3, rather than direct estimates of those conceptual parameters.

I implement this design using the doubly robust difference-in-differences estimator of Sant’Anna and Zhao (2020), which combines outcome regression and inverse probability weighting to estimate  $ATT(g, t)$  in this staggered adoption setting. For ease of interpretation, I report aggregated treatment effects that combine the group-time estimates,  $ATT(g, t)$ , across cohorts and post-treatment periods. Following Callaway and Sant’Anna (2021), these aggregated effects summarize the average impact of each policy on the treated units and correspond to the conventional difference-in-

differences estimand in settings without staggered adoption. Thus, I report weighted averages of  $ATT(g, t)$  across adoption groups and time periods, where weights reflect the size of the adoption cohorts and time spent treated.

To test the predictions of the conceptual framework, I estimate treatment effects separately by student race and school racial composition, allowing policy effects to vary across groups and institutional contexts, conditional on a set of school-level covariates. Satisfying identifying assumptions, these estimates identify the causal effect of policy-induced changes in SRO qualifications on outcomes, while the interpretation between individual-based and institutional explanations is evaluated through the pattern of heterogeneous treatment effects rather than direct observation of mechanisms.

The key identifying assumption is that, conditional on covariates, trends in school discipline would have evolved in parallel across treated and comparison states in the absence of the SRO policy changes. I assess the validity of this assumption using event-time aggregates and balance tests on pre-treatment characteristics. Event-time aggregates (Appendix Figures A1-A8) show no systematic evidence of differential pre-trends, although some individual coefficients are imprecisely estimated, and balance tests (Appendix Table A10) indicate that schools in treated and comparison states have similar distributions of observed characteristics. While policy adoption is not random, limited evidence of differential pre-trends and observable imbalances supports the identifying assumption that, conditional on covariates, school discipline in treated and comparison states would have evolved similarly in the absence of the policy. While pre-trends and balance tests support the identifying assumptions, the estimates may still reflect unobserved state-level factors that evolve differentially with policy adoption. The robustness checks are designed to mitigate, but cannot fully eliminate, this concern. Additional details on estimation, aggregation of treatment effects, and identifying assumptions are provided in Appendix E.

## 6 Results and Discussion

### 6.1 Main Results

#### 6.1.1 SRO Law Enforcement Credentials on Suspensions

The institutional framework predicts that policies expanding enforcement authority may increase racial gaps in school discipline, particularly in institutional contexts characterized by higher baseline enforcement. Consistent with this prediction, Figure 3 shows that law enforcement credential

policies substantially increase suspension rates in majority Black schools, driven by increases for Black students.

**[INSERT FIGURE 3 HERE]**

In majority Black schools, the Black-white ISS gap increases by 10.6 percentage points, from a baseline of 7.5 to 18.2 percentage points, and the OSS gap increases by 14.0 percentage points. These changes are driven by large increases in suspension rates for Black students, with more modest, and statistically insignificant, changes for white students, resulting in substantially wider racial gaps. Tables 3 and 4 report the full set of estimates across outcomes.

In contrast, Figure 4 shows no meaningful effects of law enforcement credential policies in minority Black schools. Estimated changes in ISS and OSS gaps are small and statistically insignificant. Given the large sample size of minority Black schools, these estimates are precisely measured, suggesting that credential policies do not substantially affect suspension outcomes in these settings.

**[INSERT FIGURE 4 HERE]**

These results indicate that credential policies increase racial gaps in suspensions in majority Black schools but not in minority Black schools, consistent with institutional explanations that emphasize the interaction between enforcement authority and structural factors.

### 6.1.2 SRO Special Training on Suspensions

The conceptual framework predicts that policies targeting individual behavior, such as special training requirements, should reduce racial gaps if individual-based explanations are the primary driver of school discipline. Figure 5 shows no evidence of such effects in majority Black schools.

**[INSERT FIGURE 5 HERE]**

Estimated changes in ISS and OSS gaps are small and statistically insignificant. While there is suggestive evidence of offsetting movements across outcomes, these patterns are imprecisely estimated and not statistically distinguishable from zero. Tables 5 and 6 report the full set of estimates.

Figure 6 shows similarly null effects in minority Black schools, with estimated changes in suspension gaps that are small and statistically insignificant. Consistent with these patterns, suspension rates for Black students and overall suspension rates show no meaningful changes in either school context.

**[INSERT FIGURE 6 HERE]**

These results show that policies targeting individual officer behavior do not meaningfully affect suspension outcomes or racial gaps in either school context. This pattern is not consistent with explanations that operate solely at the individual level.

### **6.1.3 SRO Law Enforcement Credentials on Rare School Exclusion Actions**

A stratification or systems-based framework suggests that policies expanding enforcement authority may not only increase overall discipline gaps, but also shift the composition of disciplinary actions toward greater involvement with the criminal legal system through closer interaction between schools and law enforcement. Figure 7 provides evidence consistent with this pattern in majority Black schools.

**[INSERT FIGURE 7 HERE]**

Law enforcement credential policies substantially increase law enforcement referral rates in majority Black schools, driven by increases for Black students and resulting in larger racial gaps. The Black-white law enforcement referral gap increases by 4.9 percentage points, from a baseline of 0.5 to 5.4 percentage points. In contrast, expulsion rates decline or show no meaningful change, and arrest rates exhibit smaller, statistically insignificant increases, suggesting that the additional referrals do not necessarily translate into arrests. Tables 3 and 4 report the full set of estimates across outcomes.

These results suggest a shift in the composition of more extreme disciplinary actions following the adoption of credential policies, with small reductions in expulsions offset by increases in law enforcement referrals. This pattern is consistent with substitution toward forms of discipline that increase student contact with law enforcement.

In contrast, Figure 8 shows no meaningful effects of law enforcement credential policies on rare exclusion outcomes in minority Black schools. Estimated changes in expulsions, law enforcement referrals, and arrests are small and statistically insignificant. These estimates are precisely measured, suggesting that credential policies do not substantially affect disciplinary actions in these settings.

**[INSERT FIGURE 8 HERE]**

### **6.1.4 SRO Special Training on Rare School Exclusion Actions**

The conceptual framework predicts that policies targeting officer behavior, such as special training requirements, should reduce gaps across a broad set of disciplinary outcomes if individual-based

explanations are the primary driver. Figure 9 shows no evidence of such effects for rare exclusion outcomes in majority Black schools.

**[INSERT FIGURE 9 HERE]**

Estimated changes in expulsions, law enforcement referrals, and arrests are small and statistically insignificant. These results mirror the suspension findings, showing no meaningful impact of training policies on school discipline or racial gaps. Tables 5 and 6 report the full set of estimates across outcomes.

Figure 10 shows similarly null effects in minority Black schools, with estimated changes across all outcomes that are small and statistically insignificant. Consistent with these patterns, neither Black nor overall discipline rates show meaningful changes in either school context.

**[INSERT FIGURE 10 HERE]**

These results show that training policies do not meaningfully affect rare exclusion outcomes or racial gaps in either school context. Combined with the suspension results, this pattern suggests that interventions targeting individual officer behavior are unlikely to substantially alter school discipline, providing little support for solely individual-based explanations of gaps.

## 6.2 Robustness

The main findings are robust to a range of alternative specifications and identification checks, as shown in Tables 3-6.

**[INSERT TABLE 3 HERE]**

**[INSERT TABLE 4 HERE]**

**[INSERT TABLE 5 HERE]**

**[INSERT TABLE 6 HERE]**

First, restricting the sample by SRO presence shows that effects are concentrated in schools with SROs, consistent with the view that these policies operate through changes in SRO composition rather than changes in SRO presence along the extensive or intensive margins. This restriction defines the estimand as the effect of policy-induced changes in SRO qualifications holding SRO presence fixed, rather than the effect of policies on the extensive margin of SRO adoption. I reproduce the analysis in schools without SROs to conduct a falsification test. The check shows law enforcement credential and training policies have minimal and generally insignificant effects on school discipline, suggesting that the main estimates are unlikely to be driven by spurious policy correlations.



Second, results are robust to alternative comparison groups. Using the not-yet-treated group yields slightly smaller but directionally similar estimates, with credential policies continuing to increase suspension rates and law enforcement referrals in majority Black schools.

Third, allowing for anticipation effects strengthens the main results. Accounting for a one-year anticipation period leads to larger estimated impacts of credential policies on exclusion outcomes in majority Black schools.

Finally, the main findings are robust to adjustments for multiple hypothesis testing. Applying a Bonferroni correction reduces statistical significance for some estimates but preserves the key patterns, with increases in Black-white suspension and law enforcement referral gaps remaining statistically meaningful.

These results indicate that the main findings are not driven by changes in SRO presence, alternative comparison groups, anticipation effects, or multiple testing concerns.

### 6.3 Discussion

The conceptual framework developed in Section 3 provides a set of testable predictions for how SRO policies should affect school discipline under alternative explanations of racial disparities. In particular, individual-based explanations predict that policy effects may differ by race but should not systematically vary with school racial composition, while a stratification framework predicts that policy effects depend jointly on student race and institutional context, as well as the lever of the policy changes (i.e., individual versus structural).

The empirical results are more consistent with the predictions of institutional frameworks than with those of purely individual-based mechanisms. While these patterns do not fully rule out all individual-level mechanisms, they place strong restrictions on the set of explanations consistent with the data. If disparities were only driven by differences in student behavior or individual officer behavior and preferences, policies such as training mandates would be expected to reduce racial gaps or produce similar effects across school contexts. Instead, I find that training policies have no meaningful effects on school discipline or racial gaps, and that credential mandates widen Black-white gaps only in majority Black schools. These results indicate that individual-level explanations alone are insufficient to explain the observed patterns of heterogeneity.

While some patterns may be consistent with statistical discrimination, the framework emphasizes how institutional rules governing enforcement authority can systematically produce differential outcomes across racial groups independent of individual behavior. A pure statistical discrimination

framework would predict differential treatment of Black students even in minority Black schools, where decision-makers may rely on group-based priors under uncertainty. The absence of effects in these settings, combined with large effects in majority Black schools, suggests that the observed gaps are not solely driven by belief-based explanations, but instead reflect institutional factors that interact with the racial composition of the environment.

By contrast, the findings are more consistent with a stratification framework. The joint dependence of policy effects on student race and school racial composition suggests that the impact of SRO policies is shaped by the institutional environments in which they operate. In particular, the concentration of effects in majority Black schools on Black students suggests that the formalization of law enforcement authority interacts with existing institutional conditions to expand exclusionary discipline for Black students. Further, the results are not attributed to changes in the presence or number of SROs in a school, but rather the compositional shift from out-of-compliance SROs to in-compliance SROs with respect to the policy change.

The comparison between credential and training policies provides further insight into the underlying explanations. Credential mandates increase exposure to sworn law enforcement authority, which may shift how student behavior is interpreted and sanctioned. The results show that this policy increases suspensions and law enforcement referrals for Black students in majority Black schools and shifts the composition of extreme disciplinary actions toward greater involvement with the criminal legal system. In contrast, training mandates, which target individual officer behavior without altering institutional structure, have no measurable impact on school discipline or gaps.

One interpretation of the null effects of training requirements is that such interventions are insufficiently implemented or ineffective in practice. However, an alternative, non-mutually exclusive interpretation is that individual-level training does not meaningfully alter outcomes in the presence of institutional structures that shape behavior. While the estimates for training effects are precisely estimated around zero for several outcomes, the analysis cannot fully rule out small or context-specific effects of training. Though imprecisely estimated, the point estimates of special training policies suggest there is more potential for impact in minority Black schools than majority Black schools. The contrast between training requirements and credentialing mandates is therefore consistent with a stratification framework in which structural features of institutions, rather than solely individual interventions, drive persistent disparities.

These findings suggest that disciplinary disparities are not primarily driven by individual preferences, behavior, biases, or beliefs alone, but instead reflect broader institutional processes em-

bedded within stratified social contexts. Prior research highlights the role of differential exposure to policing, unequal access to educational resources, and the legacy of segregation in shaping opportunities and constraints for Black students (Derenoncourt, 2022; Shores, Kim, and Still, 2020; Gleit, 2022). The results of this paper are consistent with these explanations, indicating that policies that expand enforcement authority may amplify existing inequalities when implemented in contexts characterized by structural disadvantage.

The evidence suggests that interventions targeting individual behavior alone are unlikely to substantially reduce gaps in school discipline. Instead, the effects of SRO policies appear to reflect the interaction between institutional structures and enforcement authority, highlighting the importance of addressing structural conditions in efforts to improve school safety.

## 7 Conclusion

This paper examines whether formally race-neutral school safety policies produce race-neutral outcomes. Using variation in the timing of state laws requiring law enforcement credentials and specialized training for school resource officers (SROs), I estimate the impact of these policies on Black-white gaps in exclusionary discipline across U.S. middle and high schools.

I find that requiring SROs to hold sworn law enforcement credentials substantially increases racial gaps in suspensions and law enforcement referrals in majority Black schools, with no meaningful effects in minority Black schools. In contrast, special training requirements have no measurable impact on school discipline or racial gaps in either setting. These findings are consistent with compositional shifts in the types of SROs induced by the policy changes, though the data do not directly observe officer characteristics, and robust to a range of alternative specifications and identification checks.

The results indicate that policies expanding formal enforcement authority can widen racial disparities in school discipline, particularly in institutional contexts characterized by structural disadvantage. By contrast, policies targeting individual behavior alone appear unlikely to substantially alter these outcomes. These patterns are not consistent with purely individual-based explanations and are more consistent with frameworks that emphasize the role of institutional context and structural factors in shaping group disparities. Using school-based law enforcement as a setting in which this interaction can be cleanly identified, these findings provide evidence on a broader mechanism through which embedding law enforcement authority within stratified institutional environments

can generate unequal outcomes.

This paper contributes to the literature by providing causal evidence that institutional features of school policing generate heterogeneous effects across racialized school contexts, and by showing that these patterns are more consistent with institutional than purely individual-based explanations of racial inequality in school discipline. More broadly, it highlights the importance of incorporating institutional and structural considerations into the analysis of policies that shape intergroup inequality.

Several limitations should be noted. The analysis relies on administrative data that do not capture detailed information on individual officers or local institutional conditions, and estimates may be affected by residual differences across schools in treated and comparison states. Future work that incorporates richer local data or examines specific institutional mechanisms could provide additional insight into the processes underlying these effects.

More broadly, these findings speak to how historically rooted systems of stratification can be reproduced through contemporary policy interventions. Rather than operating solely through individual bias or decision-making under uncertainty, the results suggest that differences in institutional environments that are strongly correlated with race, particularly those that embed authority, surveillance, and enforcement, can differentially shape outcomes across social groups in ways that reinforce existing hierarchies. In this sense, the paper provides empirical evidence on one pathway through which stratified inequality persists within modern U.S. institutions.

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## 8 Main Figures

Figure 1: Law Enforcement Credentials Statute

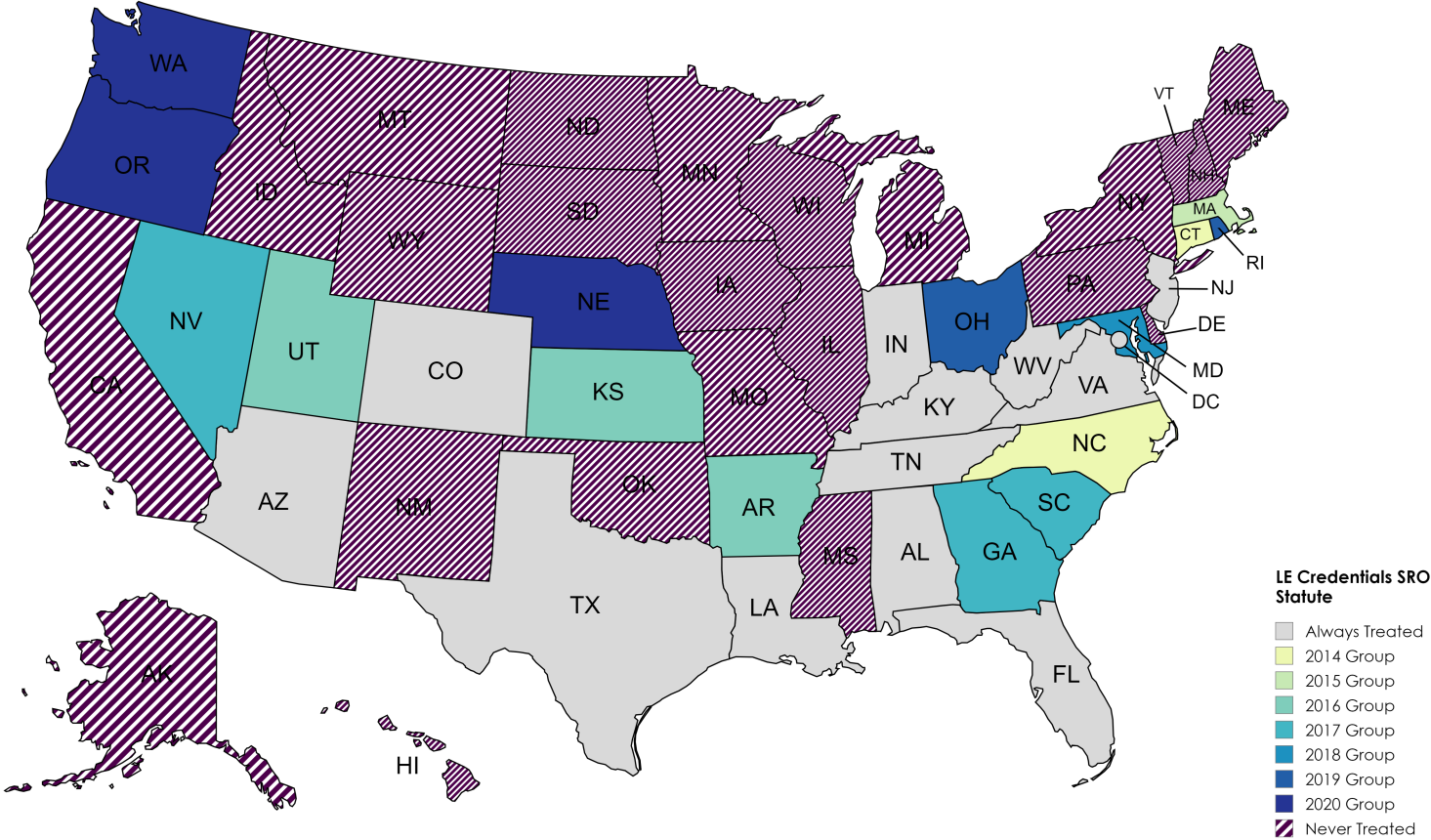


Figure 2: Special Training Statute

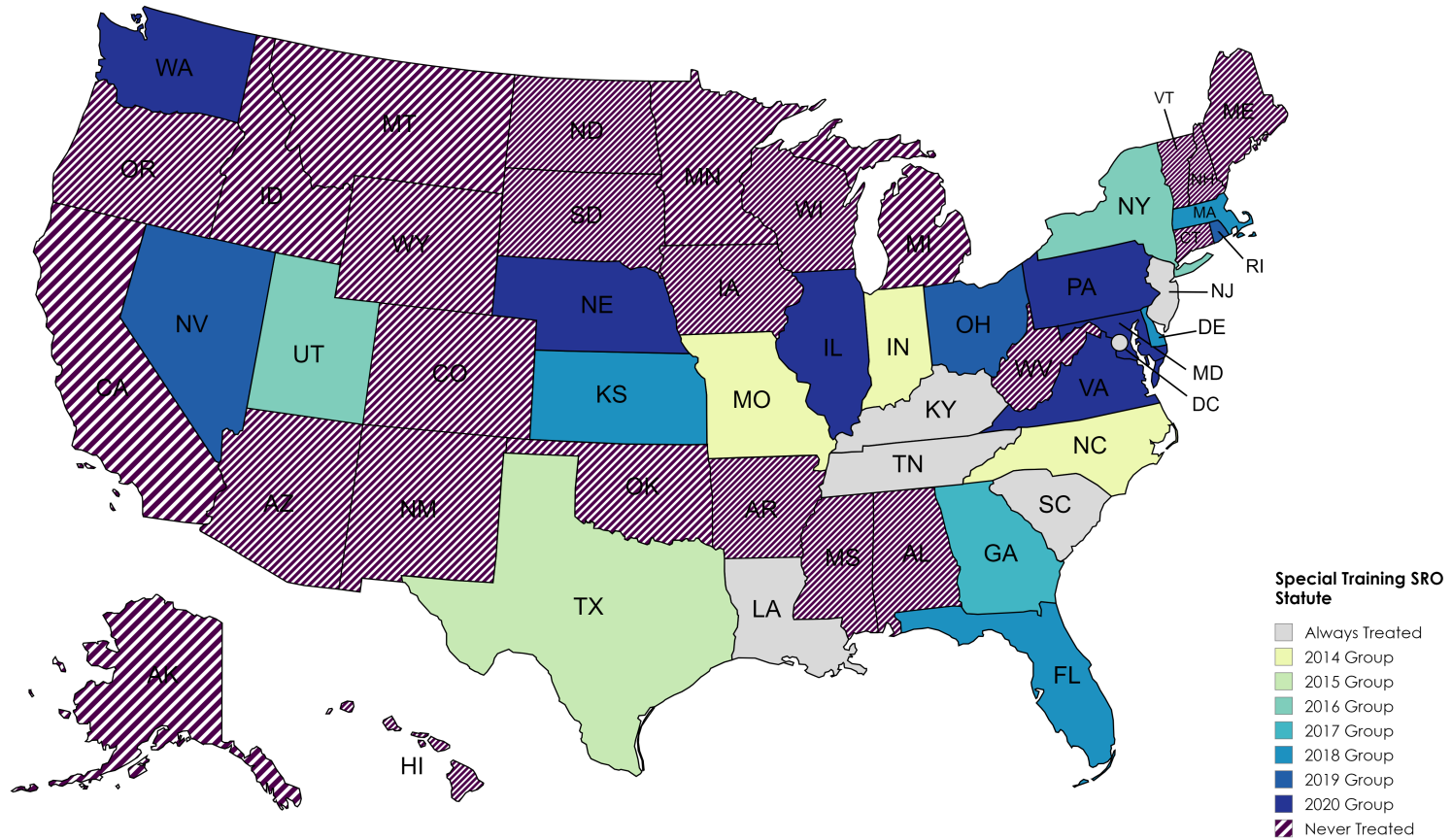
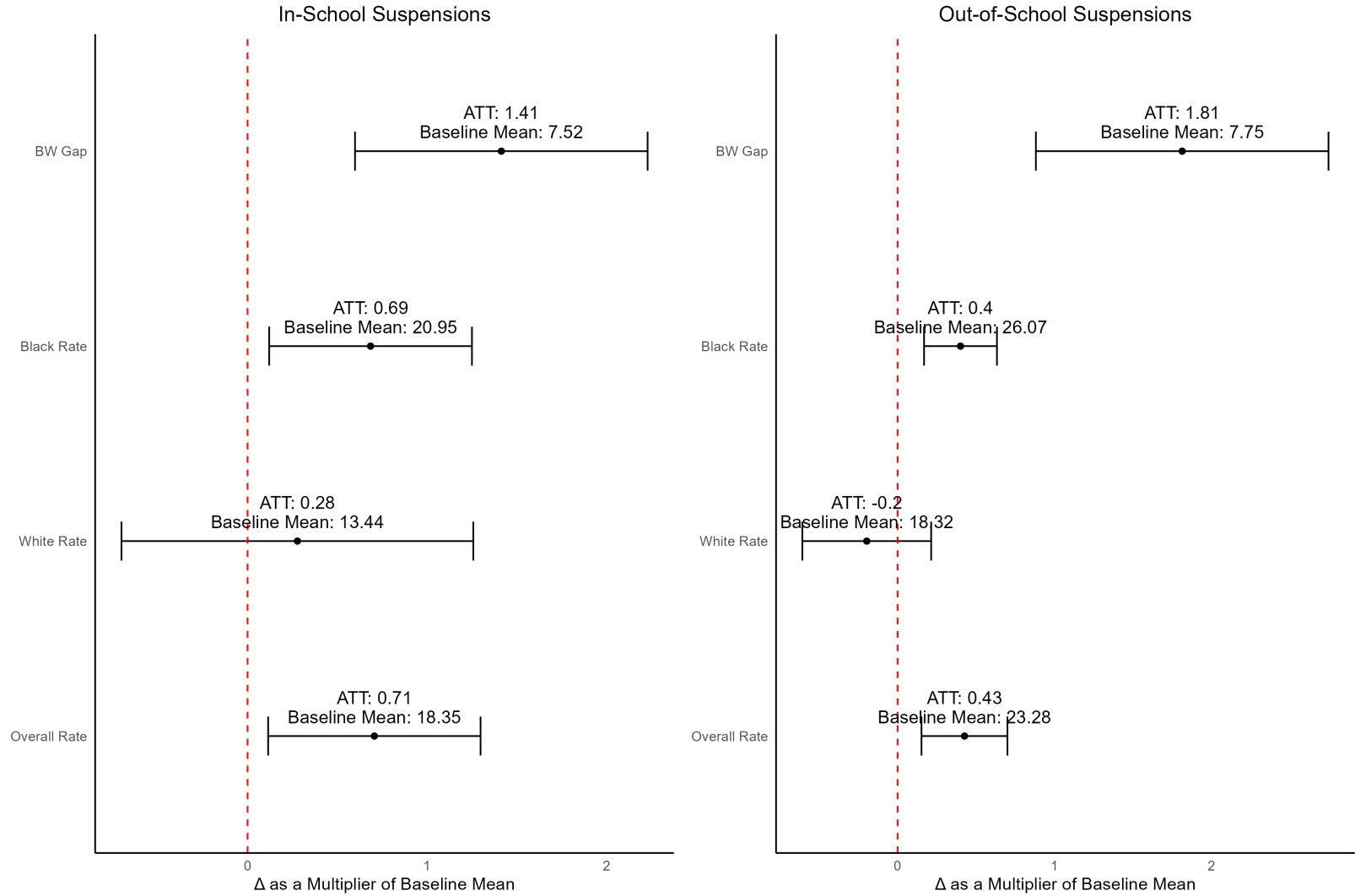


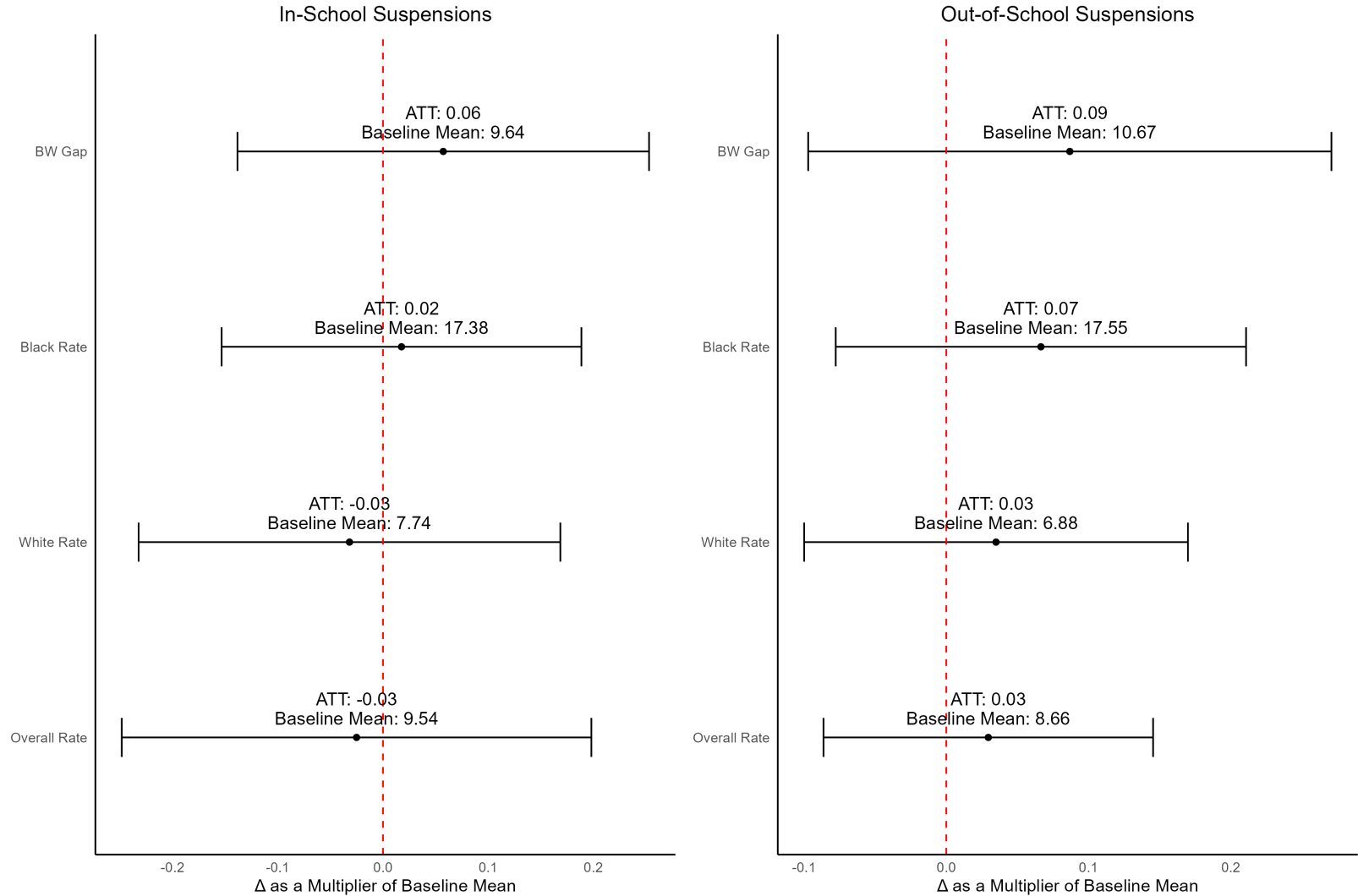
Figure 3: Aggregate  $ATT(g,t)$  Estimates of Law Enforcement Credentials on Suspensions in Majority Black Schools



27

Notes: Estimands shown:  $\sum_g \left( \frac{1}{\tilde{n}-g+1} \sum_{t=g}^{\tilde{n}} ATT(g,t) \right) P(G = g | G \leq \tilde{n})$ . Estimates were derived from the DRDID estimator and group aggregation using the Callaway and Sant'Anna 'did' package. Clustered, bootstrapped standard errors at the state level. Estimates are interpreted as the average change in the outcome measure as a multiplier of the baseline outcome mean (e.g., 1.41 is a 141% increase in the baseline average Black-White (BW) gap). All regressions include covariates for the Black share of enrollment, traditional school status, high school status, large city status, small city status, and fringe rural status. The BW gap is measured as the difference between the Black and White rates. The Black rate is measured as (number of Black students excluded / number of Black students enrolled)  $\times$  100. The White rate is measured as (number of White students excluded / number of White students enrolled)  $\times$  100. The overall rate is measured as (number of students excluded / number of students enrolled)  $\times$  100. Summary of estimates found in Table 3.

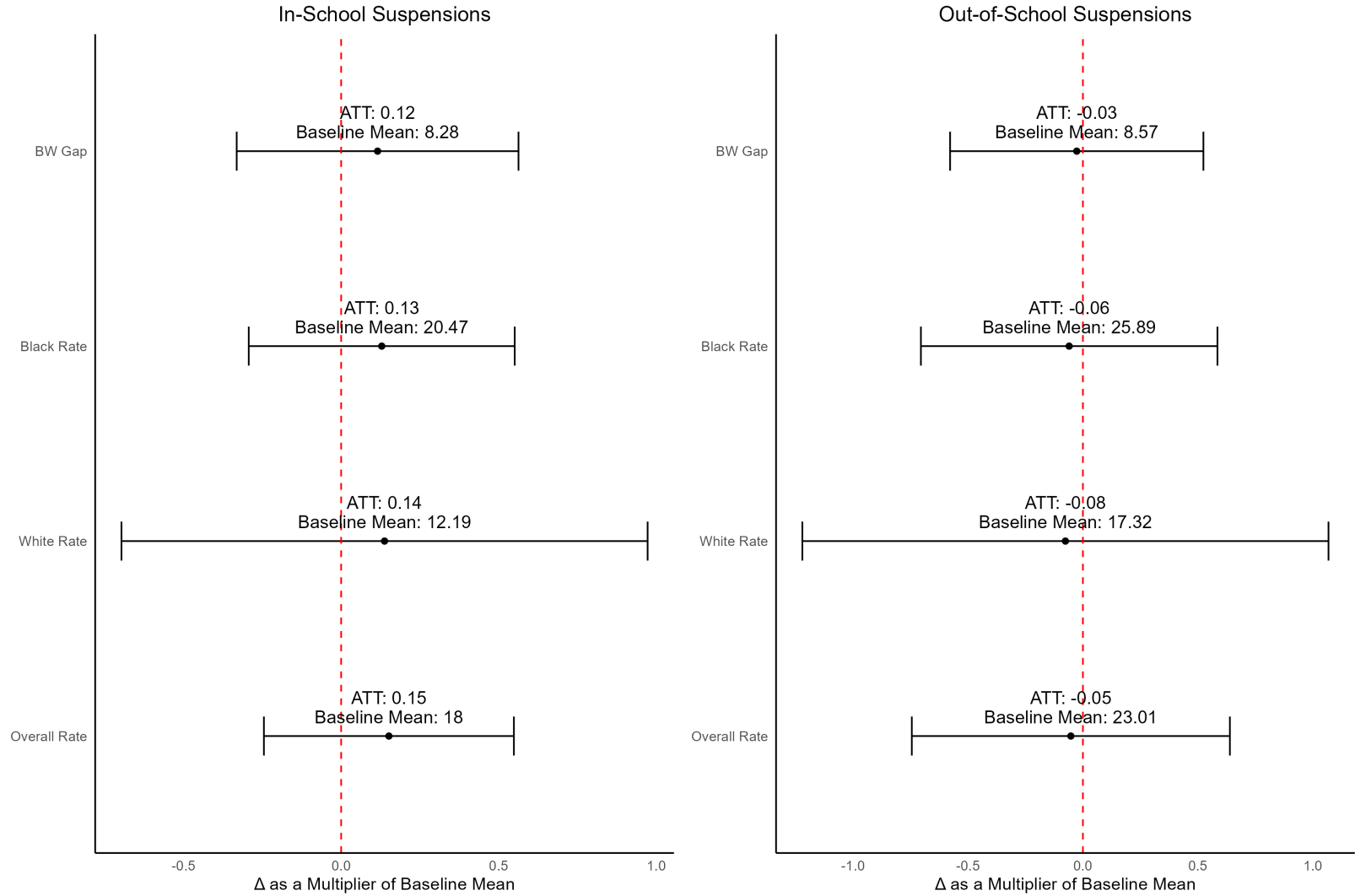
Figure 4: Aggregate  $ATT(g,t)$  Estimates of Law Enforcement Credentials on Suspensions in Minority Black Schools



28

Notes: Estimands shown:  $\sum_g \left( \frac{1}{\tilde{\eta}-g+1} \sum_{t=g}^{\tilde{\eta}} ATT(g,t) \right) P(G = g | G \leq \tilde{\eta})$ . Estimates were derived from the DRDID estimator and group aggregation using the Callaway and Sant'Anna 'did' package. Clustered, bootstrapped standard errors at the state level. Estimates are interpreted as the average change in the outcome measure as a multiplier of the baseline outcome mean (e.g., 1.41 is a 141% increase in the baseline average Black-White (BW) gap). All regressions include covariates for the Black share of enrollment, traditional school status, high school status, large city status, small city status, and fringe rural status. The BW gap is measured as the difference between the Black and White rates. The Black rate is measured as (number of Black students excluded / number of Black students enrolled)  $\times$  100. The White rate is measured as (number of White students excluded / number of White students enrolled)  $\times$  100. The overall rate is measured as (number of students excluded / number of students enrolled)  $\times$  100. Summary of estimates found in Table 4.

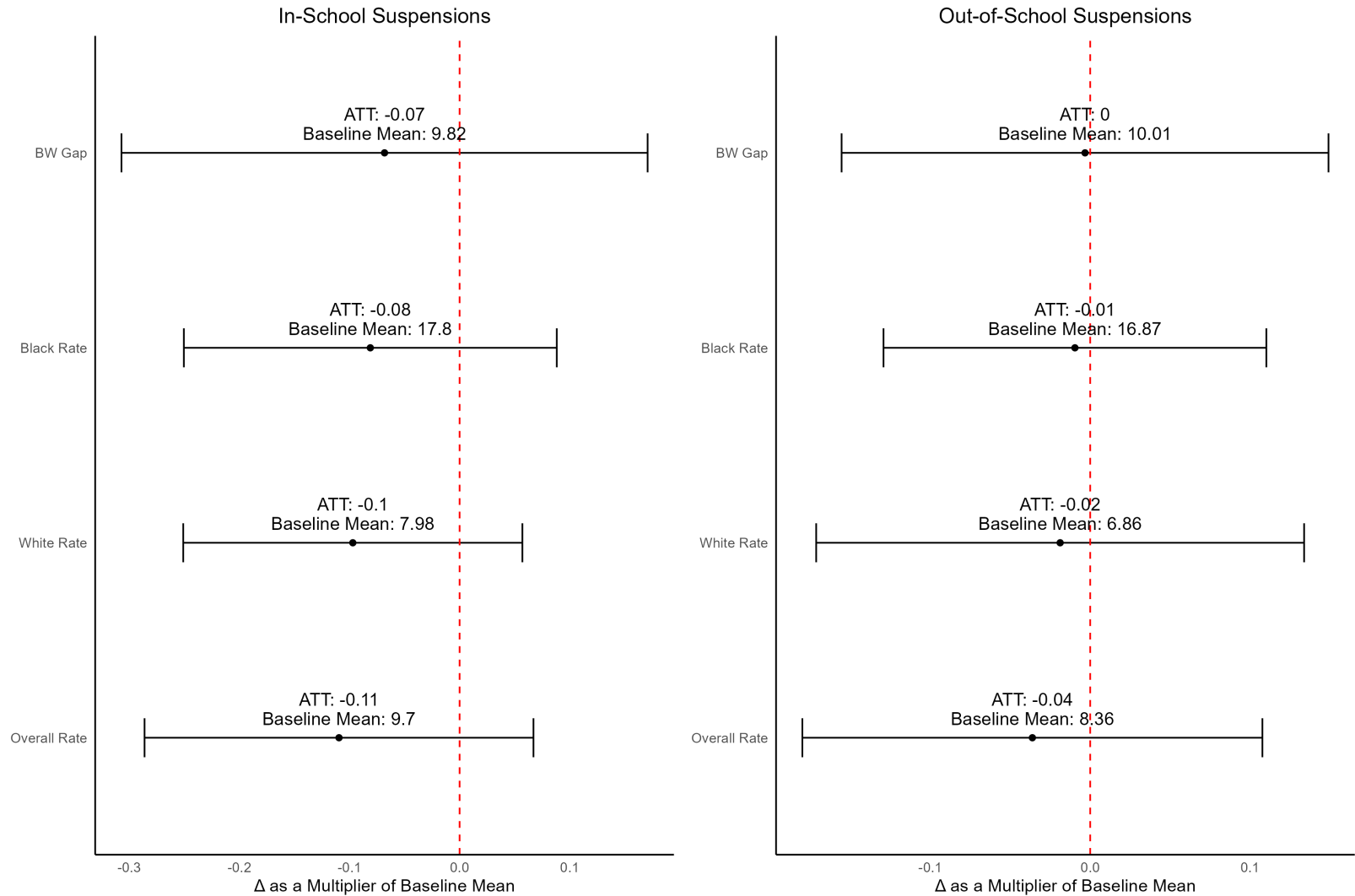
Figure 5: Aggregate ATT(g,t) Estimates of Special Training on Suspensions in Majority Black Schools



29

Notes: Estimands shown:  $\sum_g \left( \frac{1}{\tilde{\eta}-g+1} \sum_{t=g}^{\tilde{\eta}} ATT(g,t) \right) P(G = g | G \leq \tilde{\eta})$ . Estimates were derived from the DRDID estimator and group aggregation using the Callaway and Sant'Anna 'did' package. Clustered, bootstrapped standard errors at the state level. Estimates are interpreted as the average change in the outcome measure as a multiplier of the baseline outcome mean (e.g., 1.41 is a 141% increase in the baseline average Black-White (BW) gap). All regressions include covariates for the Black share of enrollment, traditional school status, high school status, large city status, small city status, and fringe rural status. The BW gap is measured as the difference between the Black and White rates. The Black rate is measured as (number of Black students excluded / number of Black students enrolled)  $\times$  100. The White rate is measured as (number of White students excluded / number of White students enrolled)  $\times$  100. The overall rate is measured as (number of students excluded / number of students enrolled)  $\times$  100. Summary of estimates found in Table 5.

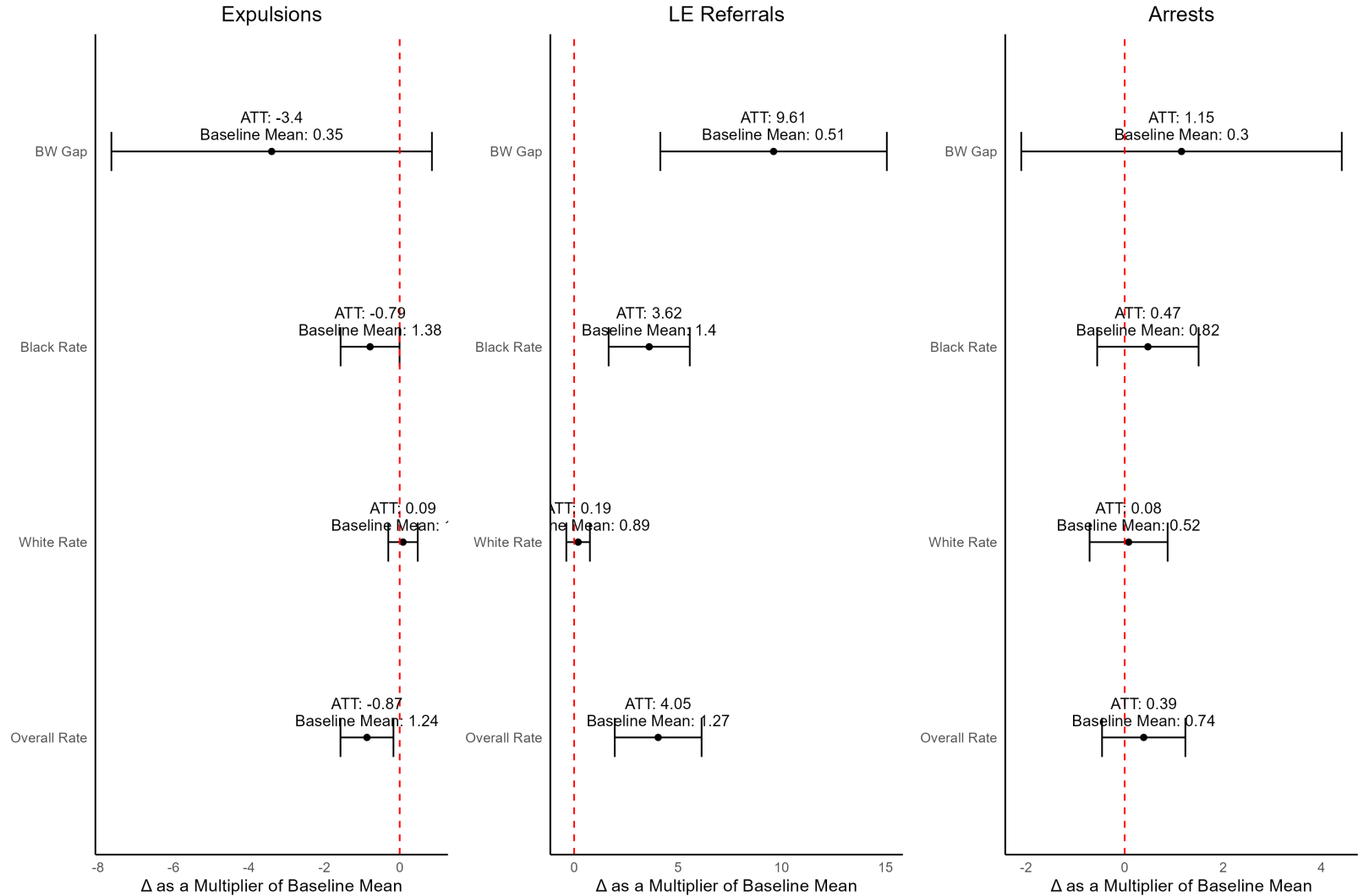
Figure 6: Aggregate  $ATT(g,t)$  Estimates of Special Training on Suspensions in Minority Black Schools



30

Notes: Estimands shown:  $\sum_g \left( \frac{1}{\tilde{\eta}-g+1} \sum_{t=g}^{\tilde{\eta}} ATT(g,t) \right) P(G = g | G \leq \tilde{\eta})$ . Estimates were derived from the DRDID estimator and group aggregation using the Callaway and Sant'Anna 'did' package. Clustered, bootstrapped standard errors at the state level. Estimates are interpreted as the average change in the outcome measure as a multiplier of the baseline outcome mean (e.g., 1.41 is a 141% increase in the baseline average Black-White (BW) gap). All regressions include covariates for the Black share of enrollment, traditional school status, high school status, large city status, small city status, and fringe rural status. The BW gap is measured as the difference between the Black and White rates. The Black rate is measured as (number of Black students excluded / number of Black students enrolled)  $\times$  100. The White rate is measured as (number of White students excluded / number of White students enrolled)  $\times$  100. The overall rate is measured as (number of students excluded / number of students enrolled)  $\times$  100. Summary of estimates found in Table 6.

Figure 7: Aggregate  $ATT(g,t)$  Estimates of Law Enforcement Credentials on Other Exclusion in Majority Black Schools

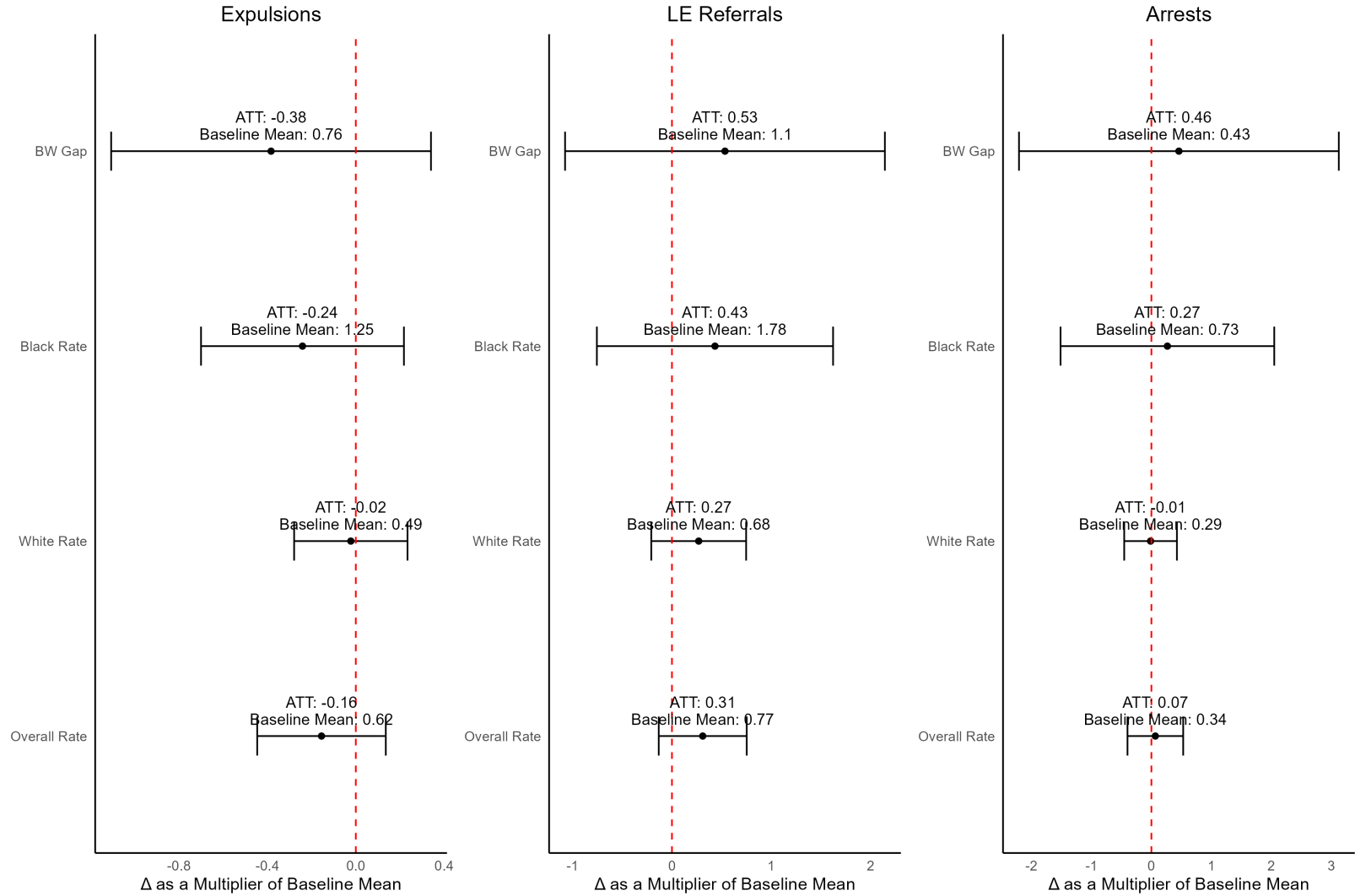


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Notes: Estimands shown:  $\sum_g \left( \frac{1}{\bar{\eta}-g+1} \sum_{t=g}^{\bar{\eta}} ATT(g,t) \right) P(G = g | G \leq \bar{\eta})$ . Estimates were derived from the DRDID estimator and group aggregation using the Callaway and Sant'Anna 'did' package. Clustered, bootstrapped standard errors at the state level. Estimates are interpreted as the average change in the outcome measure as a multiplier of the baseline outcome mean (e.g., 1.41 is a 141% increase in the baseline average Black-White (BW) gap). All regressions include covariates for the Black share of enrollment, traditional school status, high school status, large city status, small city status, and fringe rural status. The BW gap is measured as the difference between the Black and White rates. The Black rate is measured as (number of Black students excluded / number of Black students enrolled)  $\times$  100. The White rate is measured as (number of White students excluded / number of White students enrolled)  $\times$  100. The overall rate is measured as (number of students excluded / number of students enrolled)  $\times$  100. Summary of estimates found in Table 3.

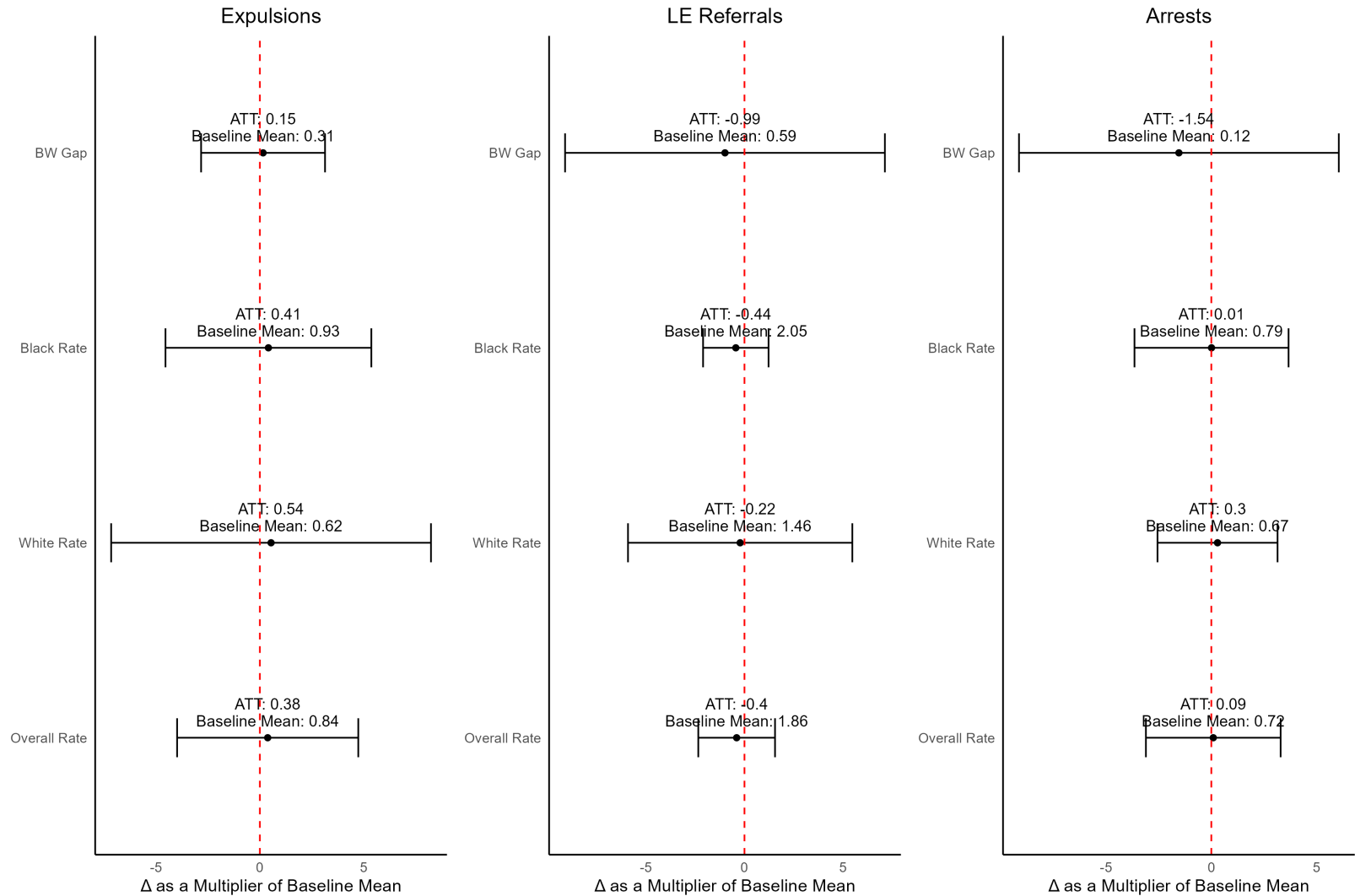


Figure 8: Aggregate  $ATT(g,t)$  Estimates of Law Enforcement Credentials on Other Exclusion in Minority Black Schools



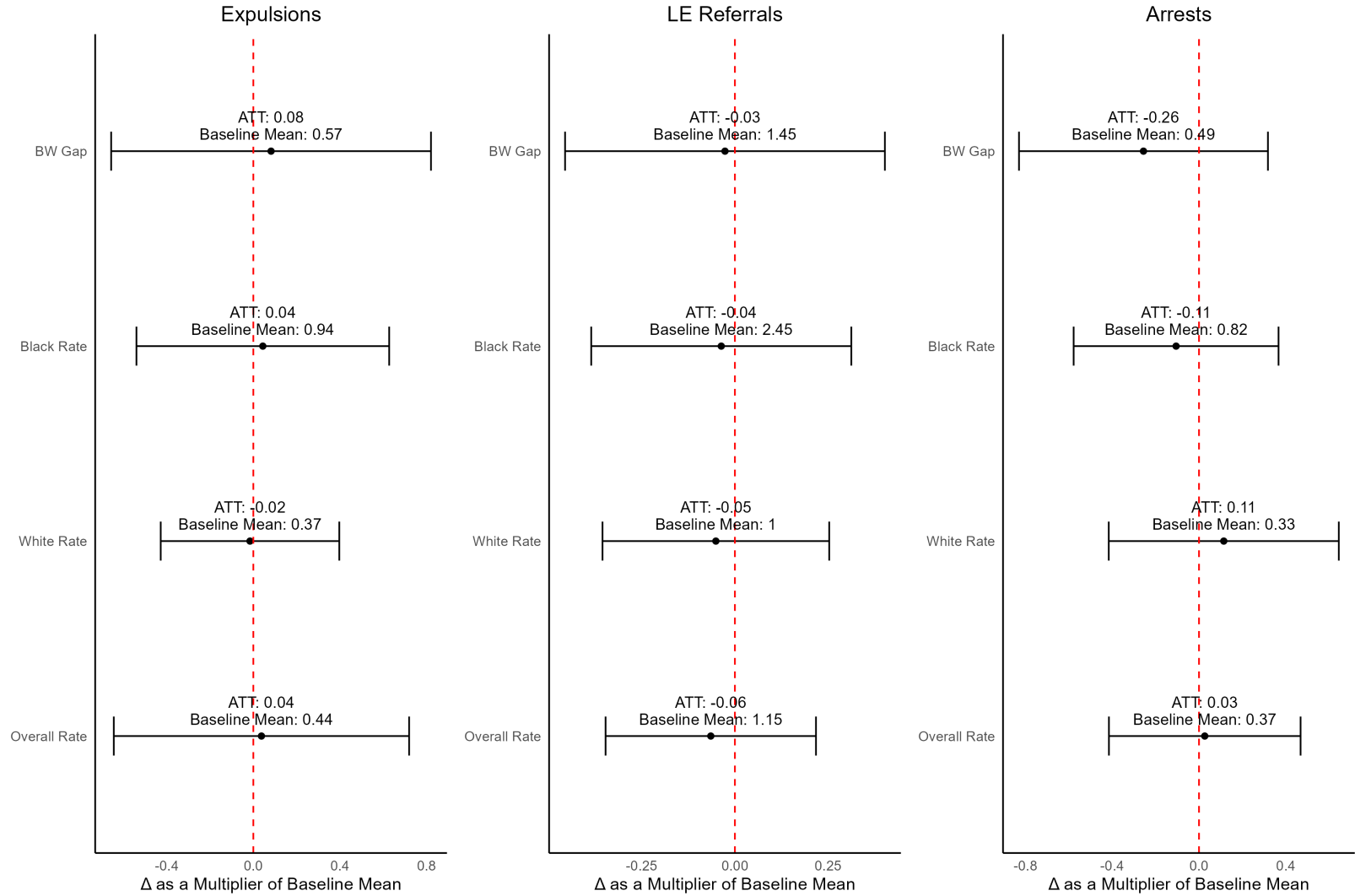
Notes: Estimands shown:  $\sum_g \left( \frac{1}{\tilde{\eta}-g+1} \sum_{t=g}^{\tilde{\eta}} ATT(g,t) \right) P(G = g | G \leq \tilde{\eta})$ . Estimates were derived from the DRDID estimator and group aggregation using the Callaway and Sant'Anna 'did' package. Clustered, bootstrapped standard errors at the state level. Estimates are interpreted as the average change in the outcome measure as a multiplier of the baseline outcome mean (e.g., 1.41 is a 141% increase in the baseline average Black-White (BW) gap). All regressions include covariates for the Black share of enrollment, traditional school status, high school status, large city status, small city status, and fringe rural status. The BW gap is measured as the difference between the Black and White rates. The Black rate is measured as (number of Black students excluded / number of Black students enrolled)  $\times$  100. The White rate is measured as (number of White students excluded / number of White students enrolled)  $\times$  100. The overall rate is measured as (number of students excluded / number of students enrolled)  $\times$  100. Summary of estimates found in Table 4.

Figure 9: Aggregate ATT(g,t) Estimates of Special Training on Other Exclusion in Majority Black Schools



Notes: Estimands shown:  $\sum_g \left( \frac{1}{\tilde{\eta}-g+1} \sum_{t=g}^{\tilde{\eta}} ATT(g,t) \right) P(G = g | G \leq \tilde{\eta})$ . Estimates were derived from the DRDID estimator and group aggregation using the Callaway and Sant'Anna 'did' package. Clustered, bootstrapped standard errors at the state level. Estimates are interpreted as the average change in the outcome measure as a multiplier of the baseline outcome mean (e.g., 1.41 is a 141% increase in the baseline average Black-White (BW) gap). All regressions include covariates for the Black share of enrollment, traditional school status, high school status, large city status, small city status, and fringe rural status. The BW gap is measured as the difference between the Black and White rates. The Black rate is measured as (number of Black students excluded / number of Black students enrolled)  $\times$  100. The White rate is measured as (number of White students excluded / number of White students enrolled)  $\times$  100. The overall rate is measured as (number of students excluded / number of students enrolled)  $\times$  100. Summary of estimates found in Table 5.

Figure 10: Aggregate  $ATT(g,t)$  Estimates of Special Training on Other Exclusion in Minority Black Schools



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Notes: Estimands shown:  $\sum_g \left( \frac{1}{\tilde{\eta}-g+1} \sum_{t=g}^{\tilde{\eta}} ATT(g,t) \right) P(G = g | G \leq \tilde{\eta})$ . Estimates were derived from the DRDID estimator and group aggregation using the Callaway and Sant'Anna 'did' package. Clustered, bootstrapped standard errors at the state level. Estimates are interpreted as the average change in the outcome measure as a multiplier of the baseline outcome mean (e.g., 1.41 is a 141% increase in the baseline average Black-White (BW) gap). All regressions include covariates for the Black share of enrollment, traditional school status, high school status, large city status, small city status, and fringe rural status. The BW gap is measured as the difference between the Black and White rates. The Black rate is measured as (number of Black students excluded / number of Black students enrolled)  $\times$  100. The White rate is measured as (number of White students excluded / number of White students enrolled)  $\times$  100. The overall rate is measured as (number of students excluded / number of students enrolled)  $\times$  100. Summary of estimates found in Table 6.

## 9 Main Tables

Table 1: CRDC Descriptive Statistics - Covariates

Descriptive Statistics	Full CRDC (n = 123,022)	Analytic Sample (n = 101,703)	SRO (n = 48,886)	No SRO (n = 52,817)	Mean Difference (Clstrd Std. Error)
<b>Student Characteristics</b>					
% Black	0.17 (0.23)	0.15 (0.22)	0.16 (0.22)	0.13 (0.21)	0.03* (0.01)
% White	0.52 (0.32)	0.56 (0.31)	0.56 (0.30)	0.56 (0.32)	0.00 (0.02)
% Hispanic	0.22 (0.25)	0.21 (0.25)	0.20 (0.24)	0.22 (0.25)	-0.02 (0.02)
% Asian	0.04 (0.08)	0.04 (0.07)	0.03 (0.06)	0.04 (0.08)	-0.00 (0.00)
% AIAN	0.01 (0.05)	0.01 (0.05)	0.01 (0.04)	0.02 (0.06)	-0.01 (0.00)
% NHPI	0.00 (0.03)	0.00 (0.02)	0.00 (0.01)	0.00 (0.02)	-0.00 (0.00)
% Multiracial	0.03 (0.03)	0.03 (0.03)	0.03 (0.03)	0.03 (0.04)	-0.00 (0.00)
Diversity Index	0.42 (0.20)	0.41 (0.20)	0.41 (0.20)	0.40 (0.21)	0.01 (0.01)
% Female	0.48 (0.09)	0.48 (0.06)	0.48 (0.05)	0.48 (0.08)	0.00** (0.00)
% ELL	0.06 (0.10)	0.06 (0.09)	0.06 (0.09)	0.06 (0.10)	-0.00 (0.01)
% Section 504 Disability	0.03 (0.04)	0.03 (0.04)	0.03 (0.03)	0.03 (0.04)	0.00 (0.00)
% IDEA Disability	0.15 (0.12)	0.14 (0.11)	0.13 (0.08)	0.15 (0.13)	-0.02*** (0.00)
% FRPL Eligible	0.51 (0.29)	0.50 (0.27)	0.50 (0.26)	0.50 (0.28)	0.00 (0.01)
<b>Staff Characteristics</b>					
Teacher:Pupil	0.08 (0.08)	0.07 (0.07)	0.07 (0.06)	0.08 (0.08)	-0.01*** (0.00)
Counselor:Pupil	0.00 (0.02)	0.00 (0.01)	0.00 (0.01)	0.00 (0.01)	-0.00** (0.00)
<b>School Characteristics</b>					
Total Enrolled	721.42 (622.39)	749.24 (610.95)	935.43 (648.34)	576.91 (517.59)	358.53*** (31.37)
6th thru 8th Grade	0.53 (0.50)	0.53 (0.50)	0.48 (0.50)	0.57 (0.49)	-0.10*** (0.02)
9th thru 12th Grade	0.62 (0.48)	0.61 (0.49)	0.61 (0.49)	0.60 (0.49)	0.01 (0.02)
Special Education School	0.01 (0.12)	0.01 (0.12)	0.01 (0.08)	0.02 (0.14)	-0.01*** (0.00)
Magnet School/Program	0.06 (0.23)	0.05 (0.22)	0.06 (0.23)	0.04 (0.20)	0.02* (0.01)
Charter School	0.07 (0.25)	0.06 (0.24)	0.02 (0.13)	0.10 (0.30)	-0.09*** (0.01)
Alternative School	0.07 (0.25)	0.05 (0.21)	0.03 (0.17)	0.07 (0.25)	-0.03*** (0.01)
<b>Geographic Locale</b>					
Large City	0.12 (0.32)	0.10 (0.30)	0.09 (0.28)	0.11 (0.32)	-0.03+ (0.02)
Midsized City	0.06 (0.24)	0.06 (0.23)	0.06 (0.25)	0.05 (0.22)	0.01+ (0.01)
Small City	0.07 (0.25)	0.07 (0.25)	0.08 (0.27)	0.06 (0.24)	0.02* (0.01)
Large Suburban	0.21 (0.40)	0.20 (0.40)	0.20 (0.40)	0.20 (0.40)	0.01 (0.02)
Midsized Suburban	0.03 (0.16)	0.03 (0.16)	0.03 (0.17)	0.02 (0.15)	0.01** (0.00)
Small Suburban	0.02 (0.12)	0.02 (0.12)	0.02 (0.13)	0.01 (0.12)	0.00 (0.00)
Fringe Town	0.03 (0.18)	0.04 (0.19)	0.04 (0.19)	0.04 (0.19)	0.00 (0.00)
Distant Town	0.07 (0.26)	0.08 (0.27)	0.08 (0.28)	0.07 (0.26)	0.01* (0.01)
Remote Town	0.04 (0.20)	0.05 (0.21)	0.04 (0.21)	0.05 (0.21)	-0.00 (0.00)
Fringe Rural	0.13 (0.34)	0.14 (0.34)	0.16 (0.37)	0.11 (0.32)	0.05*** (0.01)
Distant Rural	0.10 (0.29)	0.10 (0.30)	0.08 (0.27)	0.12 (0.33)	-0.05*** (0.01)
Remote Rural	0.04 (0.20)	0.04 (0.21)	0.02 (0.14)	0.07 (0.25)	-0.05*** (0.01)

Notes: +  $p < .10$ ; \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$ . Standard deviations are in parentheses unless otherwise noted. Full CRDC represents approximately 91.2% of the 42,113 U.S. public middle and high schools. The Analytical Sample is the result of excluding observations out-of-scope of the study population of interest and listwise deletion (removal of all data for a school-year observation with one or more missing values for variables used in analysis) of the Full CRDC study population to adjust for item non-response, non-applicable survey questions, and data anomaly issues (post-imputation); this represents 91.2% of all U.S. public schools in the Full CRDC study population. The SRO column represents the Analytic Sample schools with at least one SRO present in a given academic period. The No SRO column represents the schools in the Analytic Sample that had no SROs in a given academic period. The Mean Difference column is the average difference between the SRO and No SRO schools.

Table 2: CRDC Descriptive Statistics - Outcomes

Descriptive Statistics	Full CRDC (n = 123,022)	Analytic Sample (n = 101,703)	SRO (n = 48,886)	No SRO (n = 52,817)	Mean Difference (Clstrd Std. Error)
<b>Discipline Outcomes (per 100 students)</b>					
Total ISS	7.78 (12.07)	7.79 (11.15)	9.25 (11.62)	6.45 (10.52)	2.79*** (0.44)
Black ISS	12.84 (21.63)	13.19 (21.37)	15.38 (20.83)	11.16 (21.67)	4.22*** (0.56)
White ISS	6.55 (11.50)	6.55 (10.34)	7.58 (10.65)	5.60 (9.95)	1.98*** (0.35)
Total OSS	8.05 (13.71)	7.67 (11.38)	8.24 (11.21)	7.15 (11.51)	1.09*** (0.31)
Black OSS	13.67 (23.46)	13.58 (21.68)	14.63 (20.25)	12.61 (22.87)	2.02*** (0.40)
White OSS	6.93 (14.51)	6.55 (12.04)	6.80 (11.56)	6.31 (12.46)	0.50 <sup>+</sup> (0.26)
Total Expulsions	0.52 (3.74)	0.43 (2.27)	0.48 (2.33)	0.39 (2.21)	0.09* (0.04)
Black Expulsions	0.81 (5.94)	0.78 (5.44)	0.86 (4.88)	0.71 (5.91)	0.14 (0.09)
White Expulsions	0.40 (3.28)	0.37 (2.56)	0.40 (2.67)	0.34 (2.45)	0.06 (0.04)
Total LE Referrals	0.88 (3.81)	0.77 (2.67)	0.92 (2.82)	0.63 (2.52)	0.29*** (0.07)
Black LE Referrals	1.54 (7.08)	1.50 (6.89)	1.84 (7.06)	1.18 (6.72)	0.66*** (0.14)
White LE Referrals	0.76 (3.92)	0.69 (3.21)	0.82 (3.33)	0.58 (3.09)	0.24** (0.07)
Total Arrests	0.30 (2.93)	0.22 (1.52)	0.29 (1.60)	0.16 (1.42)	0.14*** (0.02)
Black Arrests	0.46 (3.58)	0.43 (3.31)	0.58 (3.53)	0.29 (3.09)	0.29*** (0.05)
White Arrests	0.22 (2.59)	0.20 (2.26)	0.25 (1.86)	0.15 (2.58)	0.10*** (0.02)
<b>Black-to-White Discipline Rate Ratios</b>					
ISS	2.67 (6.15)	2.71 (6.33)	2.70 (5.73)	2.72 (6.95)	-0.02 (0.08)
OSS	2.94 (5.90)	2.99 (5.90)	3.04 (5.10)	2.93 (6.68)	0.10 (0.07)
Expulsion	2.33 (9.02)	2.39 (9.26)	2.56 (9.51)	2.14 (8.88)	0.42* (0.17)
LE Referral	2.85 (9.73)	2.91 (9.92)	3.10 (10.07)	2.61 (9.67)	0.49** (0.17)
Arrest	2.71 (10.13)	2.76 (10.28)	2.97 (11.23)	2.30 (7.81)	0.68** (0.21)

Notes: <sup>+</sup> p < .10; \* p < .05; \*\* p < .01; \*\*\* p < .001. Standard deviations are in parentheses unless otherwise noted. Full CRDC represents approximately 91.2% of the 42,113 U.S. public middle and high schools. The Analytical Sample is the result of excluding observations out-of-scope of the study population of interest and listwise deletion (removal of all data for a school-year observation with one or more missing values for variables used in analysis) of the Full CRDC study population to adjust for item non-response, non-applicable survey questions, and data anomaly issues (post-imputation); this represents 91.2% of all U.S. public schools in the Full CRDC study population. The SRO column represents the Analytic Sample schools with at least one SRO present in a given academic period. The No SRO column represents the schools in the Analytic Sample that had no SROs in a given academic period. The Mean Difference column is the average difference between the SRO schools and No SRO schools.

Table 3: Robustness Test Summary - Law Enforcement Credentials in Majority Black Schools

Measure	Main	No SRO Schools	Not Yet Treated	One Year Anticipation	Multiple Hypothesis Testing
<b>In-School Suspension</b>					
Black-White Gap	1.41*** (0.41)	-0.55 (0.38)	0.99** (0.41)	1.61*** (0.43)	1.41* (0.82)
Black Rate	0.69** (0.30)	-0.43 (0.40)	0.64** (0.30)	0.75** (0.31)	0.69 (0.56)
White Rate	0.28 (0.50)	-0.35 (0.43)	0.44 (0.43)	0.28 (0.52)	0.28 (1.03)
Overall Rate	0.71** (0.33)	-0.44 (0.38)	0.65** (0.31)	0.78*** (0.29)	0.71 (0.63)
<b>Out-of-School Suspension</b>					
Black-White Gap	1.81*** (0.49)	-0.71 (0.47)	1.60*** (0.39)	2.11*** (0.61)	1.81* (1.02)
Black Rate	0.40*** (0.12)	0.01 (0.13)	0.40*** (0.12)	0.44*** (0.13)	0.40* (0.24)
White Rate	-0.20 (0.21)	0.30** (0.13)	-0.10 (0.15)	-0.27 (0.22)	-0.20 (0.41)
Overall Rate	0.43*** (0.13)	0.02 (0.13)	0.42*** (0.13)	0.47*** (0.13)	0.43 (0.29)
<b>Expulsion</b>					
Black-White Gap	-3.40* (2.05)	0.94 (6.17)	0.17 (2.01)	-4.04* (2.11)	-3.40 (4.30)
Black Rate	-0.79* (0.40)	-0.38 (1.40)	0.09 (0.41)	-0.87* (0.51)	-0.79 (0.82)
White Rate	0.09 (0.19)	-1.02 (0.80)	0.06 (0.16)	0.18 (0.18)	0.09 (0.40)
Overall Rate	-0.87** (0.36)	-0.49 (1.19)	-0.02 (0.40)	-0.95** (0.45)	-0.87 (0.73)
<b>Law Enforcement Referral</b>					
Black-White Gap	9.61*** (2.99)	-0.01 (0.85)	6.63** (2.71)	11.64*** (3.32)	9.61* (5.68)
Black Rate	3.62*** (1.10)	0.68** (0.27)	2.61*** (0.91)	4.27*** (1.10)	3.62* (2.01)
White Rate	0.19 (0.30)	1.15** (0.51)	0.31 (0.29)	0.05 (0.26)	0.19 (0.61)
Overall Rate	4.05*** (1.13)	0.74** (0.35)	2.96*** (1.02)	4.83*** (1.24)	4.05* (2.31)
<b>School-Related Arrest</b>					
Black-White Gap	1.15 (1.71)	0.20 (1.05)	0.79 (1.25)	0.98 (1.67)	1.15 (3.62)
Black Rate	0.47	0.10	0.44	0.39	0.47

**Table 3 continued from previous page**

<b>Measure</b>	<b>Main</b>	<b>No SRO Schools</b>	<b>Not Yet Treated</b>	<b>One Year Anticipation</b>	<b>Multiple Hy- pothesis Testing</b>
	(0.56)	(0.51)	(0.43)	(0.37)	(1.07)
White Rate	0.08	0.01	0.24	0.05	0.08
	(0.40)	(0.05)	(0.44)	(0.40)	(0.84)
Overall Rate	0.39	0.19	0.36	0.34	0.39
	(0.42)	(0.93)	(0.39)	(0.39)	(0.83)

Notes: \*  $p < 0.1$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$ . Estimates were derived from the DRDID estimator and group aggregation using the Callaway and Sant'Anna 'did' package. Clustered, bootstrapped standard errors at the state level. Estimates are interpreted as the average change in the outcome measure as a multiplier of the baseline outcome mean (e.g., 1.41 is a 141% increase in the baseline average Black-White (BW) gap). All regressions include covariates for the Black share of enrollment, traditional school status, high school status, large city status, small city status, and fringe rural status. The BW gap is measured as the difference between the Black and White rates. The Black rate is measured as (number of Black students excluded / number of Black students enrolled)  $\times$  100. The White rate is measured as (number of White students excluded / number of White students enrolled)  $\times$  100. The overall rate is measured as (number of students excluded / number of students enrolled)  $\times$  100. The second column contains the estimates from the preferred specification. The third column contains estimates on the sample of schools with no SROs present. The fourth column contains estimates using the not-yet-treated group as the counterfactual. The fifth column contains estimates based on schools making changes in anticipation of the policy going into effect one year in advance. The last column contains estimates with Bonferroni corrected, clustered, bootstrapped standard errors at the state level.



Table 4: Robustness Test Summary - Law Enforcement Credentials in Minority Black Schools

<b>Measure</b>	<b>Main</b>	<b>No SRO Schools</b>	<b>Not Yet Treated</b>	<b>One Year Anticipation</b>	<b>Multiple Hy- pothesis Testing</b>
<b>In-School Suspension</b>					
Black-White Gap	0.06 (0.10)	0.07 (0.19)	0.07 (0.09)	0.08 (0.11)	0.06 (0.20)
Black Rate	0.02 (0.08)	-0.04 (0.15)	0.03 (0.09)	0.01 (0.11)	0.02 (0.18)
White Rate	-0.03 (0.10)	-0.17 (0.32)	-0.01 (0.10)	-0.07 (0.12)	-0.03 (0.21)
Overall Rate	-0.03 (0.11)	-0.12 (0.25)	0.00 (0.11)	-0.06 (0.13)	-0.03 (0.21)
<b>Out-of-School Suspension</b>					
Black-White Gap	0.09 (0.09)	0.12 (0.27)	0.09 (0.09)	0.10 (0.10)	0.09 (0.19)
Black Rate	0.07 (0.07)	0.04 (0.13)	0.07 (0.06)	0.06 (0.08)	0.07 (0.13)
White Rate	0.03 (0.07)	-0.06 (0.15)	0.04 (0.07)	-0.01 (0.08)	0.03 (0.13)
Overall Rate	0.03 (0.06)	-0.03 (0.13)	0.04 (0.06)	0.00 (0.06)	0.03 (0.12)
<b>Expulsion</b>					
Black-White Gap	-0.38 (0.32)	0.15 (0.28)	-0.32 (0.38)	-0.23 (0.41)	-0.38 (0.71)
Black Rate	-0.24 (0.25)	0.10 (0.17)	-0.16 (0.26)	-0.11 (0.27)	-0.24 (0.48)
White Rate	-0.02 (0.13)	0.03 (0.12)	0.10 (0.16)	0.08 (0.13)	-0.02 (0.24)
Overall Rate	-0.16 (0.15)	0.05 (0.10)	-0.03 (0.20)	-0.08 (0.15)	-0.16 (0.30)
<b>Law Enforcement Referral</b>					
Black-White Gap	0.53 (0.84)	0.68 (1.20)	0.51 (0.85)	0.08 (0.92)	0.53 (1.62)
Black Rate	0.43 (0.61)	0.45 (0.78)	0.41 (0.61)	0.15 (0.72)	0.43 (1.18)
White Rate	0.27 (0.28)	0.20 (0.49)	0.23 (0.26)	0.27 (0.30)	0.27 (0.52)
Overall Rate	0.31 (0.24)	0.23 (0.73)	0.26 (0.22)	0.33 (0.25)	0.31 (0.47)
<b>School-Related Arrest</b>					
Black-White Gap	0.46 (1.33)	-0.25 (1.34)	0.39 (1.41)	0.54 (1.63)	0.46 (2.83)
Black Rate	0.27	-0.48	0.20	0.24	0.27

Table 4 continued from previous page

Measure	Main	No SRO Schools	Not Yet Treated	One Year Anticipation	Multiple Hypothesis Testing
	(0.87)	(0.57)	(0.90)	(1.04)	(1.77)
White Rate	-0.01	-0.76	-0.06	-0.20	-0.01
	(0.22)	(0.89)	(0.24)	(0.37)	(0.45)
Overall Rate	0.07	-0.57	0.00	-0.06	0.07
	(0.22)	(0.66)	(0.23)	(0.28)	(0.47)

Notes: Estimates were derived from the DRDID estimator and group aggregation using the Callaway and Sant'Anna 'did' package. Clustered, bootstrapped standard errors at the state level. Estimates are interpreted as the average change in the outcome measure as a multiplier of the baseline outcome mean (e.g., 1.41 is a 141% increase in the baseline average Black-White (BW) gap). All regressions include covariates for the Black share of enrollment, traditional school status, high school status, large city status, small city status, and fringe rural status. The BW gap is measured as the difference between the Black and White rates. The Black rate is measured as (number of Black students excluded / number of Black students enrolled)  $\times$  100. The White rate is measured as (number of White students excluded / number of White students enrolled)  $\times$  100. The overall rate is measured as (number of students excluded / number of students enrolled)  $\times$  100. The second column contains the estimates from the preferred specification. The third column contains estimates on the sample of schools with no SROs present. The fourth column contains estimates using the not-yet-treated group as the counterfactual. The fifth column contains estimates based on schools making changes in anticipation of the policy going into effect one year in advance. The last column contains estimates with Bonferroni corrected, clustered, bootstrapped standard errors at the state level.

Table 5: Robustness Test Summary - Special Training in Majority Black Schools

Measure	Main	No SRO Schools	Not Yet Treated	One Year Anticipation	Multiple Hypothesis Testing
<b>In-School Suspension</b>					
Black-White Gap	0.12 (0.24)	-0.39 (0.38)	0.07 (0.25)	0.02 (0.34)	0.12 (0.48)
Black Rate	0.13 (0.21)	-0.28 (0.33)	0.11 (0.28)	0.05 (0.26)	0.13 (0.40)
White Rate	0.14 (0.45)	-0.20 (0.32)	0.14 (0.62)	0.07 (0.51)	0.14 (0.85)
Overall Rate	0.15 (0.19)	-0.29 (0.31)	0.13 (0.30)	0.07 (0.26)	0.15 (0.40)
<b>Out-of-School Suspension</b>					
Black-White Gap	-0.03 (0.27)	-0.62 (0.68)	0.05 (0.25)	-0.10 (0.26)	-0.03 (0.53)
Black Rate	-0.06 (0.32)	-0.03 (0.43)	-0.06 (0.31)	-0.09 (0.38)	-0.06 (0.67)
White Rate	-0.08 (0.59)	0.24 (0.50)	-0.11 (0.57)	-0.08 (0.70)	-0.08 (1.13)
Overall Rate	-0.05 (0.35)	-0.03 (0.43)	-0.05 (0.34)	-0.08 (0.42)	-0.05 (0.70)
<b>Expulsion</b>					
Black-White Gap	0.15 (1.66)	0.24 (1.76)	0.10 (2.26)	-0.20 (1.88)	0.15 (3.12)
Black Rate	0.41 (2.54)	0.09 (0.71)	0.23 (2.05)	0.39 (3.06)	0.41 (5.21)
White Rate	0.54 (3.94)	-0.02 (0.41)	0.29 (3.96)	0.69 (4.94)	0.54 (9.28)
Overall Rate	0.38 (2.31)	-0.02 (0.74)	0.17 (1.87)	0.38 (2.81)	0.38 (4.18)
<b>Law Enforcement Referral</b>					
Black-White Gap	-0.99 (4.13)	-0.43 (0.98)	-0.97 (5.00)	-1.09 (5.15)	-0.99 (8.26)
Black Rate	-0.44 (0.89)	-0.25 (0.33)	-0.50 (1.09)	-0.60 (1.03)	-0.44 (1.73)
White Rate	-0.22 (2.89)	-0.15 (0.55)	-0.31 (3.52)	-0.40 (3.55)	-0.22 (5.79)
Overall Rate	-0.40 (1.01)	-0.23 (0.35)	-0.45 (1.26)	-0.55 (1.29)	-0.40 (2.10)
<b>School-Related Arrest</b>					
Black-White Gap	-1.54 (3.94)	-0.72 (1.25)	-1.56 (4.43)	-1.98 (5.10)	-1.54 (8.02)
Black Rate	0.01	-0.51	0.01	-0.08	0.01

Table 5 continued from previous page

Measure	Main	No SRO Schools	Not Yet Treated	One Year Anticipation	Multiple Hypothesis Testing
	(1.83)	(0.96)	(2.28)	(2.26)	(3.71)
White Rate	0.30	-0.30	0.30	0.27	0.30
	(1.47)	(0.51)	(1.83)	(1.80)	(2.90)
Overall Rate	0.09	-0.51	0.08	0.03	0.09
	(1.66)	(0.95)	(2.06)	(2.02)	(3.28)

Notes: Estimates were derived from the DRDID estimator and group aggregation using the Callaway and Sant'Anna 'did' package. Clustered, bootstrapped standard errors at the state level. Estimates are interpreted as the average change in the outcome measure as a multiplier of the baseline outcome mean (e.g., 1.41 is a 141% increase in the baseline average Black-White (BW) gap). All regressions include covariates for the Black share of enrollment, traditional school status, high school status, large city status, small city status, and fringe rural status. The BW gap is measured as the difference between the Black and White rates. The Black rate is measured as (number of Black students excluded / number of Black students enrolled)  $\times$  100. The White rate is measured as (number of White students excluded / number of White students enrolled)  $\times$  100. The overall rate is measured as (number of students excluded / number of students enrolled)  $\times$  100. The second column contains the estimates from the preferred specification. The third column contains estimates on the sample of schools with no SROs present. The fourth column contains estimates using the not-yet-treated group as the counterfactual. The fifth column contains estimates based on schools making changes in anticipation of the policy going into effect one year in advance. The last column contains estimates with Bonferroni corrected, clustered, bootstrapped standard errors at the state level.

Table 6: Robustness Test Summary - Special Training in Minority Black Schools

Measure	Main	No SRO Schools	Not Yet Treated	One Year Anticipation	Multiple Hypothesis Testing
<b>In-School Suspension</b>					
Black-White Gap	-0.07 (0.12)	-0.26* (0.13)	-0.07 (0.11)	-0.07 (0.14)	-0.07 (0.24)
Black Rate	-0.08 (0.09)	-0.17 (0.11)	-0.08 (0.08)	-0.08 (0.10)	-0.08 (0.17)
White Rate	-0.10 (0.08)	-0.05 (0.20)	-0.09 (0.08)	-0.10 (0.10)	-0.10 (0.15)
Overall Rate	-0.11 (0.09)	-0.09 (0.15)	-0.11 (0.08)	-0.11 (0.10)	-0.11 (0.16)
<b>Out-of-School Suspension</b>					
Black-White Gap	0.00 (0.08)	0.04 (0.14)	0.01 (0.07)	0.01 (0.10)	0.00 (0.15)
Black Rate	-0.01 (0.06)	0.10 (0.11)	0.00 (0.06)	-0.01 (0.07)	-0.01 (0.13)
White Rate	-0.02 (0.08)	0.17 (0.12)	-0.01 (0.08)	-0.05 (0.09)	-0.02 (0.15)
Overall Rate	-0.04 (0.07)	0.11 (0.12)	-0.03 (0.07)	-0.05 (0.08)	-0.04 (0.14)
<b>Expulsion</b>					
Black-White Gap	0.08 (0.35)	0.52** (0.26)	0.19 (0.31)	0.19 (0.43)	0.08 (0.78)
Black Rate	0.04 (0.30)	0.44** (0.17)	0.17 (0.23)	0.17 (0.34)	0.04 (0.59)
White Rate	-0.02 (0.21)	0.31 (0.41)	0.13 (0.17)	0.15 (0.23)	-0.02 (0.39)
Overall Rate	0.04 (0.34)	0.31 (0.26)	0.17 (0.22)	0.19 (0.37)	0.04 (0.70)
<b>Law Enforcement Referral</b>					
Black-White Gap	-0.03 (0.22)	0.33 (0.72)	0.01 (0.23)	-0.11 (0.25)	-0.03 (0.44)
Black Rate	-0.04 (0.17)	0.29 (0.45)	-0.03 (0.18)	-0.11 (0.19)	-0.04 (0.35)
White Rate	-0.05 (0.16)	0.23 (0.19)	-0.07 (0.17)	-0.11 (0.18)	-0.05 (0.31)
Overall Rate	-0.06 (0.14)	0.21 (0.36)	-0.09 (0.14)	-0.13 (0.15)	-0.06 (0.30)
<b>School-Related Arrest</b>					
Black-White Gap	-0.26 (0.30)	0.20 (0.43)	-0.28 (0.32)	0.05 (0.31)	-0.26 (0.57)
Black Rate	-0.11	0.25	-0.14	0.04	-0.11

**Table 6 continued from previous page**

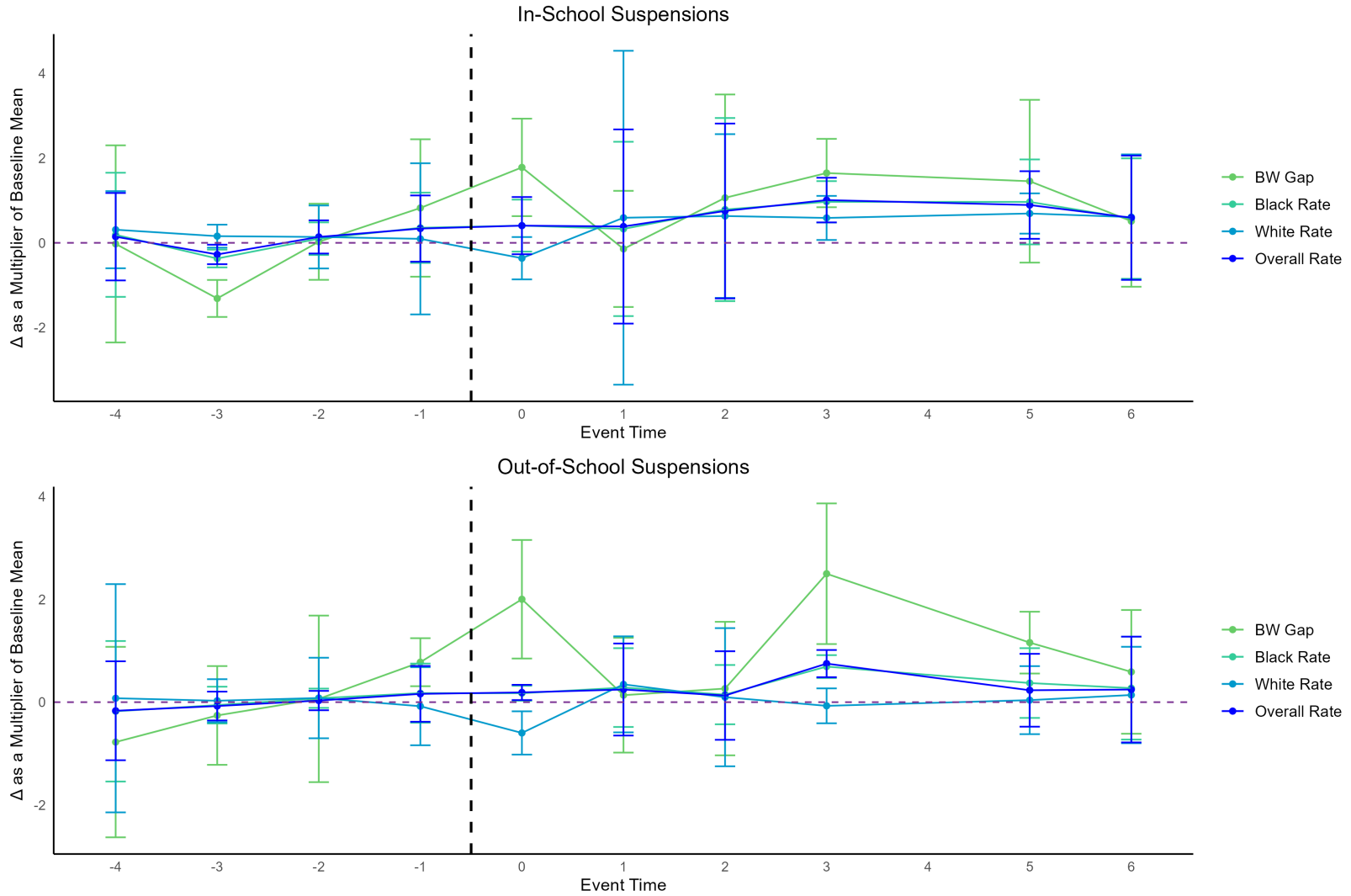
<b>Measure</b>	<b>Main</b>	<b>No SRO Schools</b>	<b>Not Yet Treated</b>	<b>One Year Anticipation</b>	<b>Multiple Hy- pothesis Testing</b>
	(0.24)	(0.28)	(0.25)	(0.27)	(0.50)
White Rate	0.11	0.31	0.07	0.04	0.11
	(0.25)	(0.19)	(0.24)	(0.35)	(0.53)
Overall Rate	0.03	0.24	-0.03	-0.03	0.03
	(0.23)	(0.19)	(0.20)	(0.27)	(0.47)

Notes: \*  $p < 0.1$ ; \*\*  $p < 0.05$ . Estimates were derived from the DRDID estimator and group aggregation using the Callaway and Sant'Anna 'did' package. Clustered, bootstrapped standard errors at the state level. Estimates are interpreted as the average change in the outcome measure as a multiplier of the baseline outcome mean (e.g., 1.41 is a 141% increase in the baseline average Black-White (BW) gap). All regressions include covariates for the Black share of enrollment, traditional school status, high school status, large city status, small city status, and fringe rural status. The BW gap is measured as the difference between the Black and White rates. The Black rate is measured as (number of Black students excluded / number of Black students enrolled)  $\times$  100. The White rate is measured as (number of White students excluded / number of White students enrolled)  $\times$  100. The overall rate is measured as (number of students excluded / number of students enrolled)  $\times$  100. The second column contains the estimates from the preferred specification. The third column contains estimates on the sample of schools with no SROs present. The fourth column contains estimates using the not-yet-treated group as the counterfactual. The fifth column contains estimates based on schools making changes in anticipation of the policy going into effect one year in advance. The last column contains estimates with Bonferroni corrected, clustered, bootstrapped standard errors at the state level.

## A Appendix A: Supplemental Figures and Tables

This appendix presents supplemental figures and tables referenced in the main text, including event-time aggregated estimates, variable definitions, sample comparisons, state statute coding, and balance tests.

Figure A1: Event-Time  $ATT(g,t)$  Estimates of Law Enforcement Credentials on Suspensions in Majority Black Schools

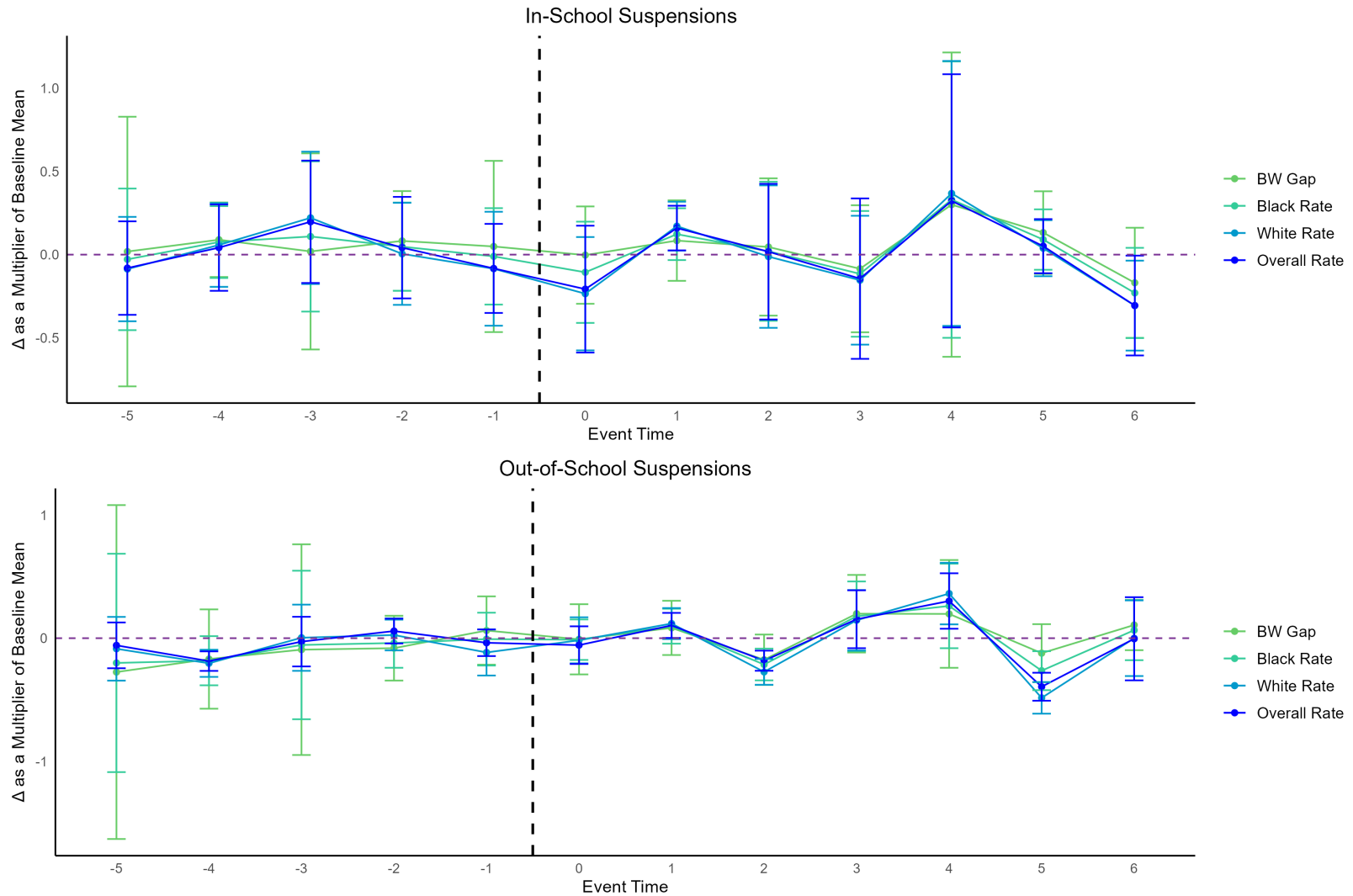


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Notes: Estimands shown:  $\sum_g \mathbf{1}\{g+e \leq \mathcal{T}\} P(G=g|G+e \leq \mathcal{T}) ATT(g, g+e)$ . Estimates were derived from the DRDID estimator and event time-aggregation using the Callaway and Sant'Anna 'did' package. Event Time represents the observed period relative to the first treatment period ( $e = 0$ ). Clustered, bootstrapped standard errors at the state level. Estimates are interpreted as the average change in the outcome measure as a multiplier of the baseline outcome mean (e.g., 1.41 is a 41% increase in the baseline average Black-White (BW) gap). All regressions include covariates for the Black share of enrollment, traditional school status, high school status, large city status, small city status, and fringe rural status. The BW gap is measured as the difference between the Black and White rates. The Black rate is measured as  $(\text{number of Black students excluded} / \text{number of Black students enrolled}) \times 100$ . The White rate is measured as  $(\text{number of White students excluded} / \text{number of White students enrolled}) \times 100$ . The overall rate is measured as  $(\text{number of students excluded} / \text{number of students enrolled}) \times 100$ .



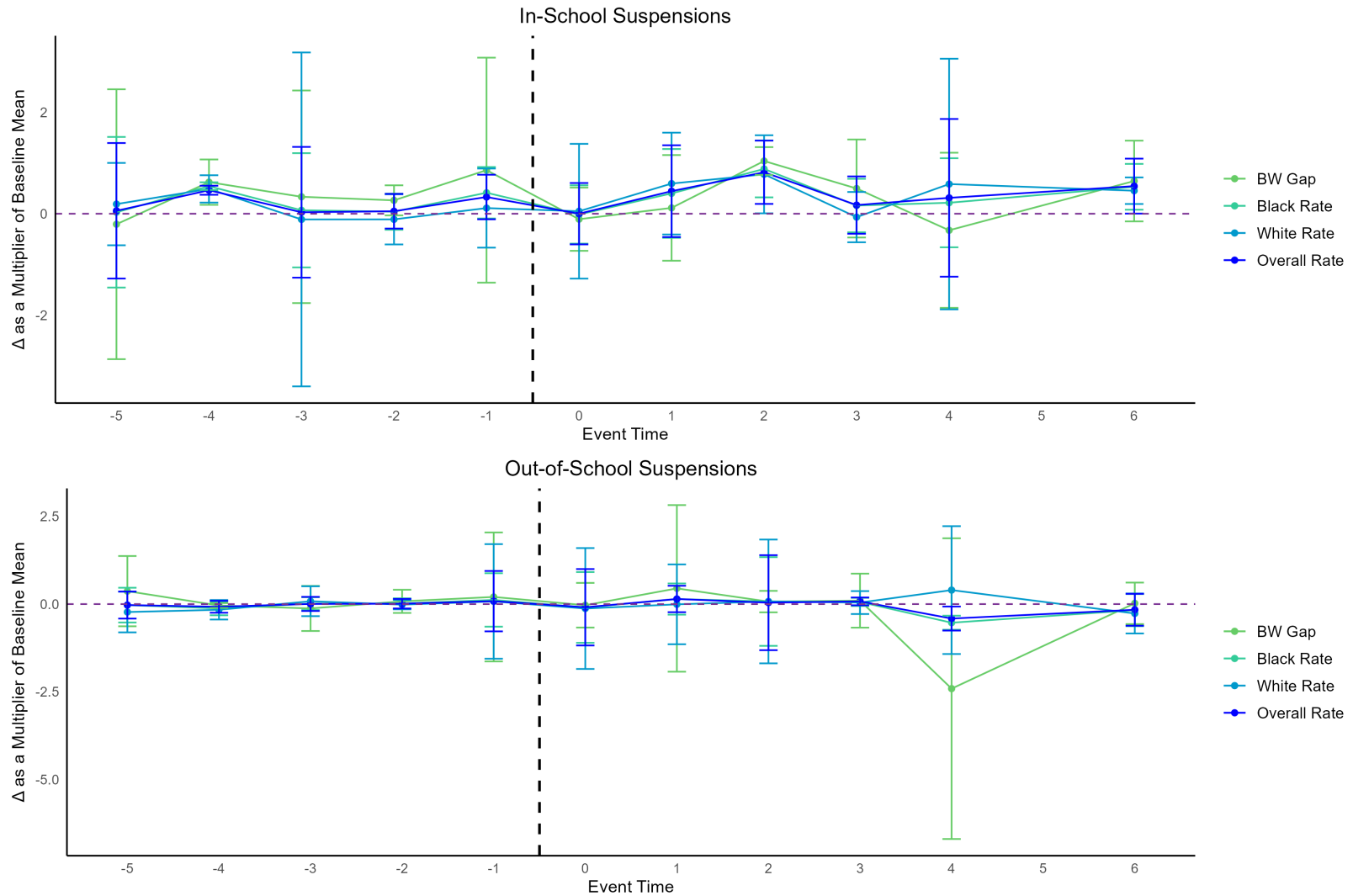
Figure A2: Event-Time ATT( $g,t$ ) Estimates of Law Enforcement Credentials on Suspensions in Minority Black Schools



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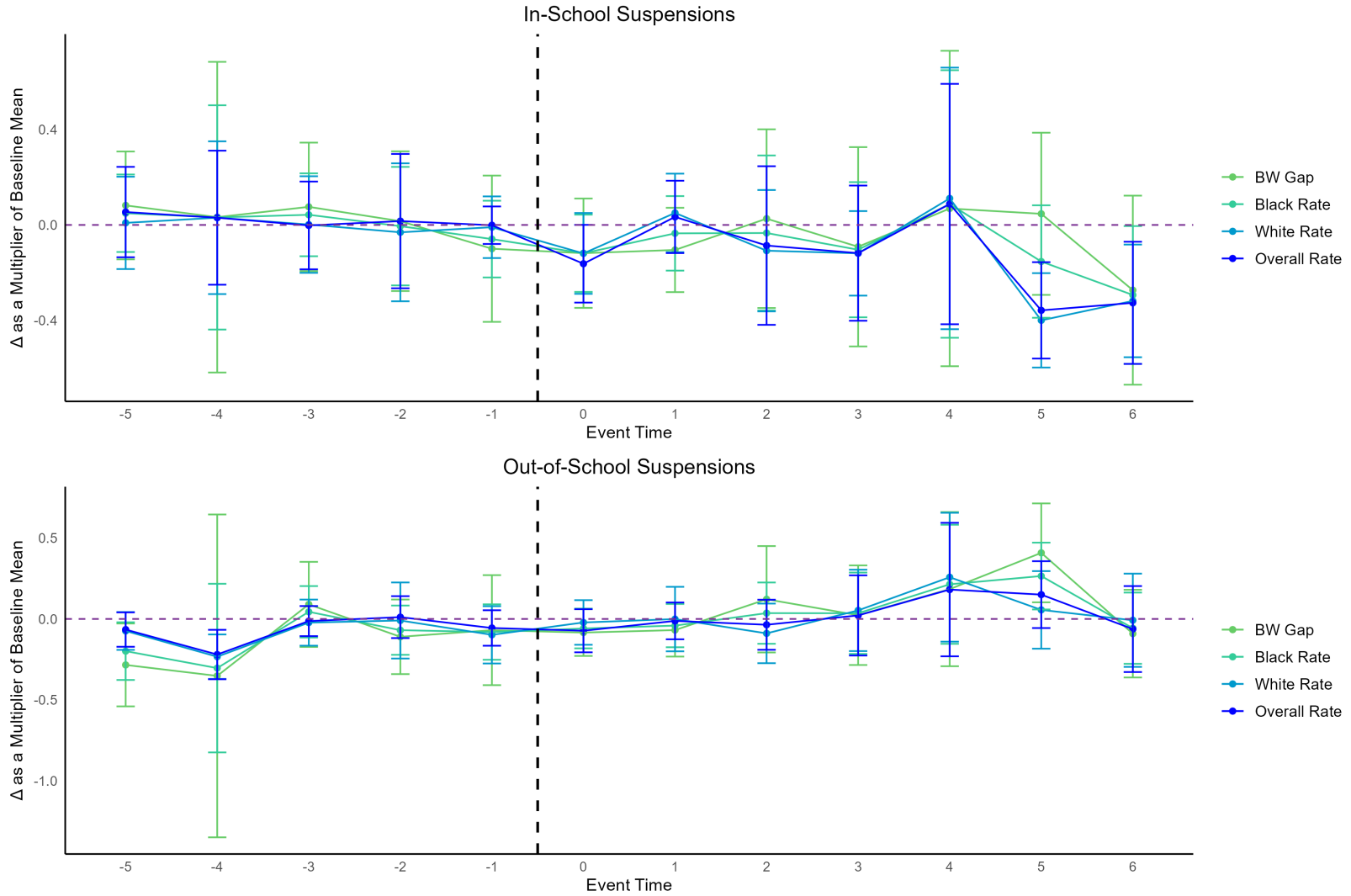
Notes: Estimands shown:  $\sum_g \mathbf{1}\{g+e \leq \mathcal{T}\} P(G=g|G+e \leq \mathcal{T}) ATT(g, g+e)$ . Estimates were derived from the DRDID estimator and event time-aggregation using the Callaway and Sant'Anna 'did' package. Event Time represents the observed period relative to the first treatment period ( $e = 0$ ). Clustered, bootstrapped standard errors at the state level. Estimates are interpreted as the average change in the outcome measure as a multiplier of the baseline outcome mean (e.g., 1.41 is a 41% increase in the baseline average Black-White (BW) gap). All regressions include covariates for the Black share of enrollment, traditional school status, high school status, large city status, small city status, and fringe rural status. The BW gap is measured as the difference between the Black and White rates. The Black rate is measured as  $(\text{number of Black students excluded} / \text{number of Black students enrolled}) \times 100$ . The White rate is measured as  $(\text{number of White students excluded} / \text{number of White students enrolled}) \times 100$ . The overall rate is measured as  $(\text{number of students excluded} / \text{number of students enrolled}) \times 100$ .

Figure A3: Event-Time ATT( $g,t$ ) Estimates of Special Training on Suspensions in Majority Black Schools



Notes: Estimands shown:  $\sum_g \mathbf{1}\{g+e \leq \mathcal{T}\} P(G=g|G+e \leq \mathcal{T}) ATT(g, g+e)$ . Estimates were derived from the DRDID estimator and event time-aggregation using the Callaway and Sant'Anna 'did' package. Event Time represents the observed period relative to the first treatment period ( $e = 0$ ). Clustered, bootstrapped standard errors at the state level. Estimates are interpreted as the average change in the outcome measure as a multiplier of the baseline outcome mean (e.g., 1.41 is a 141% increase in the baseline average Black-White (BW) gap). All regressions include covariates for the Black share of enrollment, traditional school status, high school status, large city status, small city status, and fringe rural status. The BW gap is measured as the difference between the Black and White rates. The Black rate is measured as  $(\text{number of Black students excluded} / \text{number of Black students enrolled}) \times 100$ . The White rate is measured as  $(\text{number of White students excluded} / \text{number of White students enrolled}) \times 100$ . The overall rate is measured as  $(\text{number of students excluded} / \text{number of students enrolled}) \times 100$ .

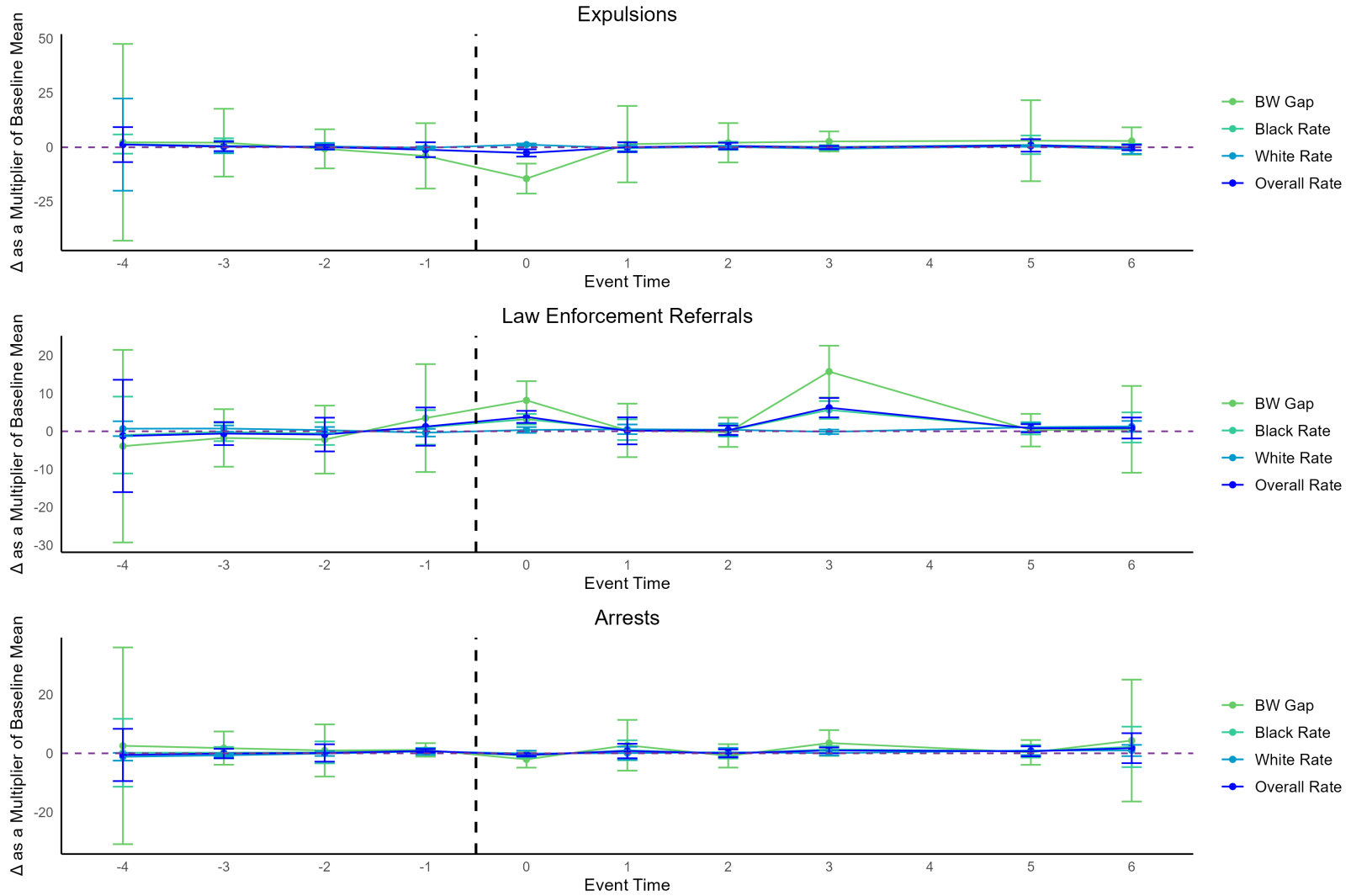
Figure A4: Event-Time ATT( $g,t$ ) Estimates of Special Training on Suspensions in Minority Black Schools



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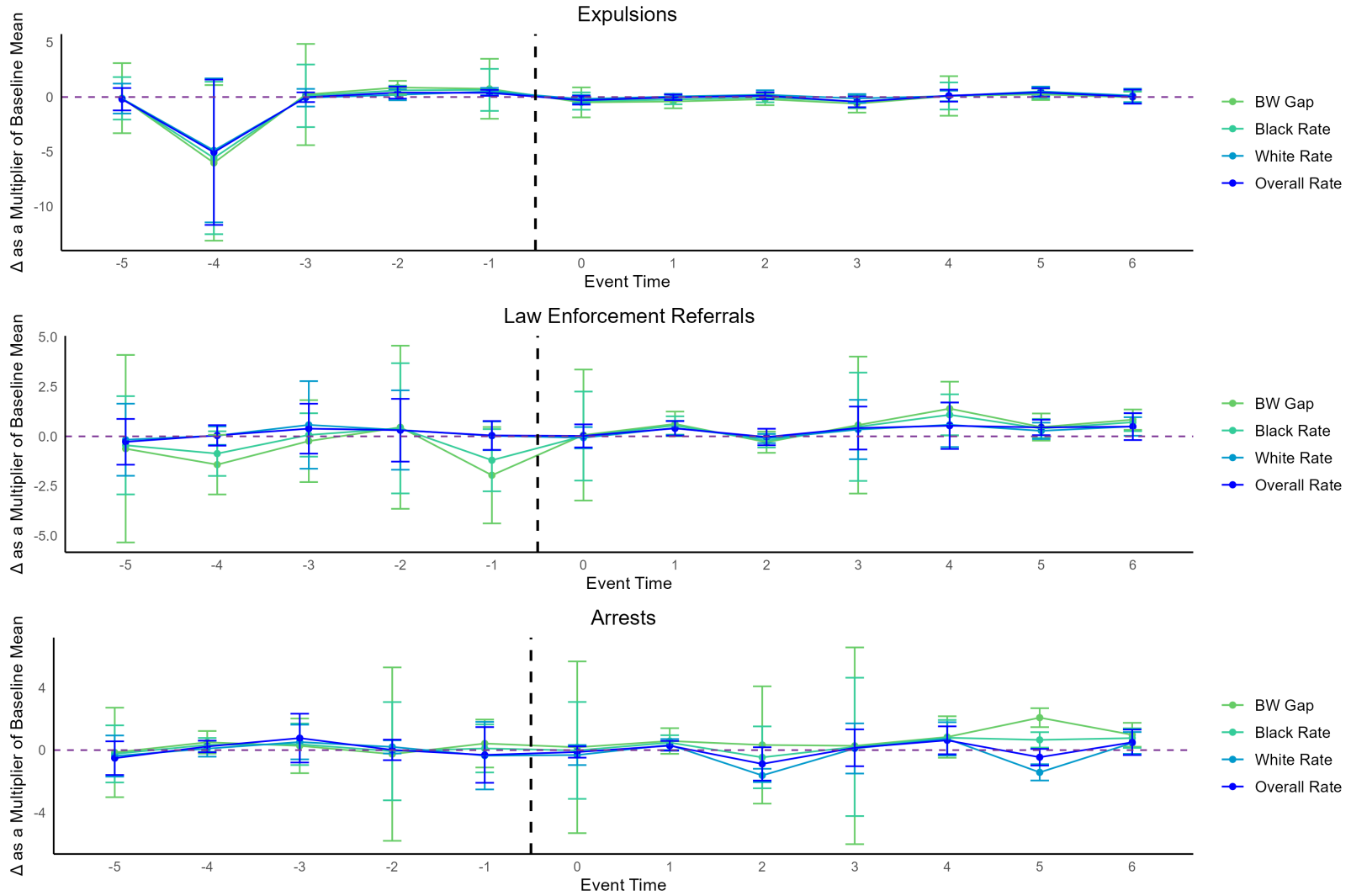
Notes: Estimands shown:  $\sum_g \mathbf{1}\{g+e \leq \mathcal{T}\} P(G=g|G+e \leq \mathcal{T}) ATT(g, g+e)$ . Estimates were derived from the DRDID estimator and event time-aggregation using the Callaway and Sant'Anna 'did' package. Event Time represents the observed period relative to the first treatment period ( $e = 0$ ). Clustered, bootstrapped standard errors at the state level. Estimates are interpreted as the average change in the outcome measure as a multiplier of the baseline outcome mean (e.g., 1.41 is a 41% increase in the baseline average Black-White (BW) gap). All regressions include covariates for the Black share of enrollment, traditional school status, high school status, large city status, small city status, and fringe rural status. The BW gap is measured as the difference between the Black and White rates. The Black rate is measured as  $(\text{number of Black students excluded} / \text{number of Black students enrolled}) \times 100$ . The White rate is measured as  $(\text{number of White students excluded} / \text{number of White students enrolled}) \times 100$ . The overall rate is measured as  $(\text{number of students excluded} / \text{number of students enrolled}) \times 100$ .

Figure A5: Event-Time ATT( $g,t$ ) Estimates of Law Enforcement Credentials on Other Exclusion in Majority Black Schools



Notes: Estimands shown:  $\sum_g \mathbf{1}\{g+e \leq \mathcal{T}\} P(G=g|G+e \leq \mathcal{T}) ATT(g, g+e)$ . Estimates were derived from the DRDID estimator and event time-aggregation using the Callaway and Sant'Anna 'did' package. Event Time represents the observed period relative to the first treatment period ( $e = 0$ ). Clustered, bootstrapped standard errors at the state level. Estimates are interpreted as the average change in the outcome measure as a multiplier of the baseline outcome mean (e.g., 1.41 is a 41% increase in the baseline average Black-White (BW) gap). All regressions include covariates for the Black share of enrollment, traditional school status, high school status, large city status, small city status, and fringe rural status. The BW gap is measured as the difference between the Black and White rates. The Black rate is measured as  $(\text{number of Black students excluded} / \text{number of Black students enrolled}) \times 100$ . The White rate is measured as  $(\text{number of White students excluded} / \text{number of White students enrolled}) \times 100$ . The overall rate is measured as  $(\text{number of students excluded} / \text{number of students enrolled}) \times 100$ .

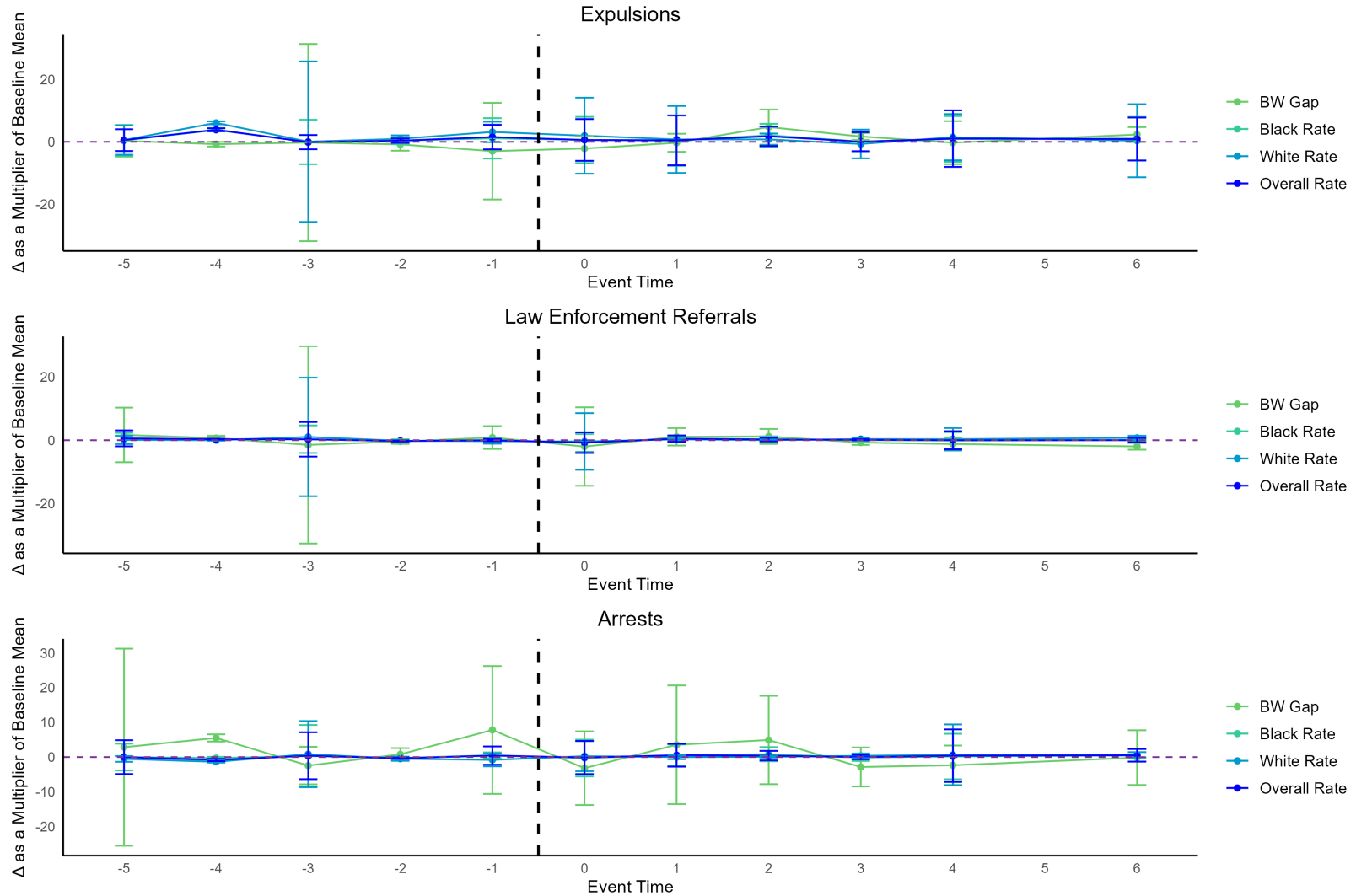
Figure A6: Event-Time ATT( $g,t$ ) Estimates of Law Enforcement Credentials on Other Exclusion in Minority Black Schools



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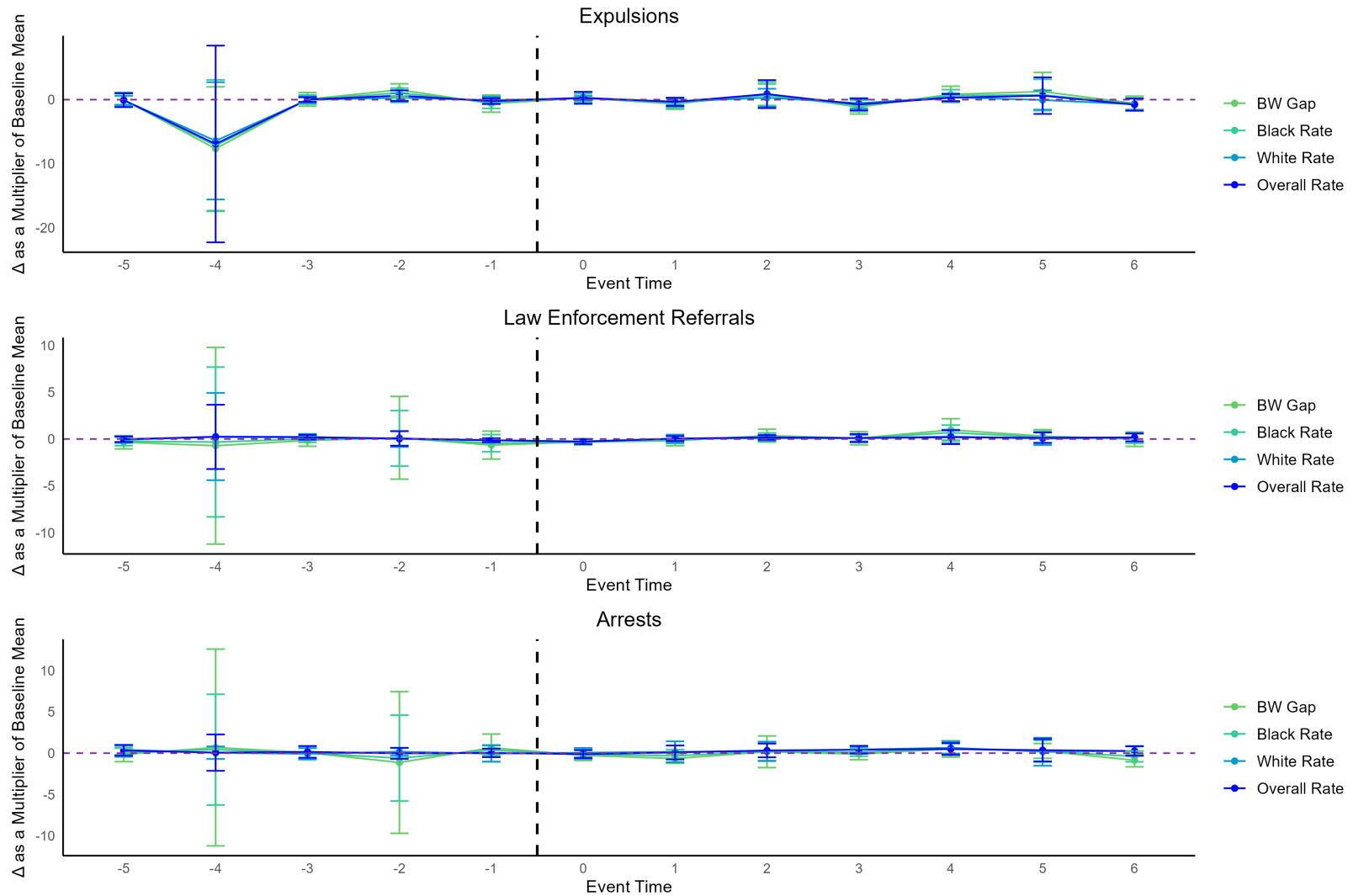
Notes: Estimands shown:  $\sum_g \mathbf{1}\{g+e \leq \mathcal{T}\} P(G=g|G+e \leq \mathcal{T}) ATT(g, g+e)$ . Estimates were derived from the DRDID estimator and event time-aggregation using the Callaway and Sant'Anna 'did' package. Event Time represents the observed period relative to the first treatment period ( $e = 0$ ). Clustered, bootstrapped standard errors at the state level. Estimates are interpreted as the average change in the outcome measure as a multiplier of the baseline outcome mean (e.g., 1.41 is a 41% increase in the baseline average Black-White (BW) gap). All regressions include covariates for the Black share of enrollment, traditional school status, high school status, large city status, small city status, and fringe rural status. The BW gap is measured as the difference between the Black and White rates. The Black rate is measured as  $(\text{number of Black students excluded} / \text{number of Black students enrolled}) \times 100$ . The White rate is measured as  $(\text{number of White students excluded} / \text{number of White students enrolled}) \times 100$ . The overall rate is measured as  $(\text{number of students excluded} / \text{number of students enrolled}) \times 100$ .

Figure A7: Event-Time ATT( $g,t$ ) Estimates of Special Training on Other Exclusion in Majority Black Schools



Notes: Estimands shown:  $\sum_g \mathbf{1}\{g+e \leq \mathcal{T}\} P(G=g|G+e \leq \mathcal{T}) ATT(g, g+e)$ . Estimates were derived from the DRDID estimator and event time-aggregation using the Callaway and Sant'Anna 'did' package. Event Time represents the observed period relative to the first treatment period ( $e = 0$ ). Clustered, bootstrapped standard errors at the state level. Estimates are interpreted as the average change in the outcome measure as a multiplier of the baseline outcome mean (e.g., 1.41 is a 141% increase in the baseline average Black-White (BW) gap). All regressions include covariates for the Black share of enrollment, traditional school status, high school status, large city status, small city status, and fringe rural status. The BW gap is measured as the difference between the Black and White rates. The Black rate is measured as  $(\text{number of Black students excluded} / \text{number of Black students enrolled}) \times 100$ . The White rate is measured as  $(\text{number of White students excluded} / \text{number of White students enrolled}) \times 100$ . The overall rate is measured as  $(\text{number of students excluded} / \text{number of students enrolled}) \times 100$ .

Figure A8: Event-Time ATT( $g,t$ ) Estimates of Special Training on Other Exclusion in Minority Black Schools



Notes: Estimands shown:  $\sum_g \mathbf{1}\{g+e \leq \mathcal{T}\} P(G=g|G+e \leq \mathcal{T}) ATT(g, g+e)$ . Estimates were derived from the DRDID estimator and event time-aggregation using the Callaway and Sant'Anna 'did' package. Event Time represents the observed period relative to the first treatment period ( $e = 0$ ). Clustered, bootstrapped standard errors at the state level. Estimates are interpreted as the average change in the outcome measure as a multiplier of the baseline outcome mean (e.g., 1.41 is a 141% increase in the baseline average Black-White (BW) gap). All regressions include covariates for the Black share of enrollment, traditional school status, high school status, large city status, small city status, and fringe rural status. The BW gap is measured as the difference between the Black and White rates. The Black rate is measured as  $(\text{number of Black students excluded} / \text{number of Black students enrolled}) \times 100$ . The White rate is measured as  $(\text{number of White students excluded} / \text{number of White students enrolled}) \times 100$ . The overall rate is measured as  $(\text{number of students excluded} / \text{number of students enrolled}) \times 100$ .

Table A1: Variable Descriptions - Outcomes

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<b>School Resource Officers</b>	
SRO Presence	Binary indicator for whether the school has any sworn law enforcement officer with arrest authority assigned to the school
<b>Exclusionary Discipline Outcomes</b>	
In-School Suspensions (ISS)	Temporary removal from student’s regular classroom(s) for at least half a day for disciplinary purposes, but remains under the direct supervision of school personnel
Out-of-School Suspensions (OSS)	Temporary removal from student’s regular school for at least half a day, but less than the remainder of the school year, for disciplinary purposes to another setting
Expulsions	Includes: (1) Expulsion with educational services (removal from student’s regular school for disciplinary purposes and providing educational services to the student for the remainder of the school year or longer); (2) Expulsion without educational services (removal from student’s regular school for disciplinary purposes and not providing educational services to the child for the remainder of the school year or longer). Excludes: (3) Expulsions under zero-tolerance policies (removal from student’s regular school for disciplinary purposes for the remainder of the school year or longer because of zero-tolerance policies—policies that result in mandatory expulsion of any student who commits one or more specified offenses) because category (3) may be counted in either category (1) or (2)
Law Enforcement (LE) Referrals	Report student to any law enforcement agency or official for an incident that occurs on school grounds, during school-related events, or while taking school transportation, regardless of whether official action is taken. Includes citations, tickets, court referrals, and school-related arrests
School-Related Arrests (Arrests)	Arrest student for an incident that occurs on school grounds, during school-related events, or while taking school transportation, or due to a referral by any school official.
<b>Exclusion Rates (per 100 students)</b>	
Total ISS	The total number of students receiving one or more ISS per 100 students enrolled
Black ISS	The total number of students identifying as Black receiving one or more ISS per 100 Black students enrolled
White ISS	The total number of students identifying as White receiving one or more ISS per 100 White students enrolled
Total OSS	The total number of students receiving one or more OSS per 100 students enrolled
Black OSS	The total number of students identifying as Black receiving one or more OSS per 100 Black students enrolled
White OSS	The total number of students identifying as White receiving one or more OSS per 100 White students enrolled



**Table A1 continued from previous page**

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Total Expulsions	The total number of students receiving an expulsion per 100 students enrolled
Black Expulsions	The total number of students identifying as Black receiving an expulsion per 100 Black students enrolled
White Expulsions	The total number of students identifying as White receiving an expulsion per 100 White students enrolled
Total LE Referrals	The total number of students referred to a law enforcement agency or official per 100 students enrolled
Black LE Referrals	The total number of students identifying as Black referred to a law enforcement agency or official per 100 Black students enrolled
White LE Referrals	The total number of students identifying as White referred to a law enforcement agency or official per 100 White students enrolled
Total Arrests	The total number of students receiving a school-related arrest per 100 students enrolled
Black Arrests	The total number of students identifying as Black receiving a school-related arrest per 100 Black students enrolled
White Arrests	The total number of students identifying as White receiving a school-related arrest per 100 White students enrolled

**Black-to-White Discipline Rate Gaps**

ISS	The difference between Black ISS and White ISS
OSS	The difference between Black OSS and White OSS
Expulsion	The difference between Black expulsions and White expulsions
LE Referral	The difference between Black LE referrals and White LE referrals
Arrest	The difference between Black arrests and White arrests

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Notes: Binary SRO indicator for 2015-16 through 2020-21 academic years derived from FTE SRO variable. Count of students receiving disciplinary action per 100 student rates (Disciplinary Action: ISS, OSS, expulsions, LE referrals, and arrests) derived from (Unique count of students receiving respective disciplinary action / total student enrollment) \* 100. Count of Black students receiving disciplinary action per 100 Black student rates derived from (Unique count of Black students receiving respective disciplinary action / Black student enrollment) \* 100. Count of White students receiving disciplinary action per 100 Black student rates derived from (Unique count of Black students receiving respective disciplinary action / Black student enrollment) \* 100. All counts of students receiving disciplinary action are an aggregation of respective male and female students, with or without a disability under IDEA.

Table A2: Variable Descriptions - Covariates

<b>Student Characteristics</b>	
% Black	Proportion of male and female Black students on the rolls of the school out of total student enrollment
% White	Proportion of male and female White students on the rolls of the school out of total student enrollment
% Hispanic	Proportion of male and female Hispanic students on the rolls of the school out of total student enrollment
% Asian	Proportion of male and female Asian students on the rolls of the school out of total student enrollment
% AIAN	Proportion of male and female American Indian or Alaskan Native students on the rolls of the school out of total student enrollment
% NHPI	Proportion of male and female Native Hawaiian or other Pacific Islander students on the rolls of the school out of total student enrollment
% Multiracial	Proportion of male and female multiracial students on the rolls of the school out of total student enrollment
Diversity Index	0-to-1 measure of the level of racial/ethnic richness (amount of group representation) and evenness (distribution of group representation) in a school
% Female	Proportion of female students on the rolls of the school out of total student enrollment
% ELL	Proportion of male and female English language learner students on the rolls of the school out of total student enrollment
% Section 504 Disability	Proportion of male and female students with a disability who receive related aids and services solely under Section 504 of the Rehabilitation Act of 1973 (Section 504) on the rolls of the school out of total student enrollment
% IDEA Disability	Proportion of male and female students with disabilities who receive special education and related services under the Individuals with Disabilities Act (IDEA) on the rolls of the school out of total student enrollment
% FRPL Eligible	Proportion of Free Lunch Program or Reduced-price Lunch Program under the National School Lunch Act of 1946 eligible students on the rolls of the school out of total student enrollment
<b>Staff Characteristics</b>	
Teacher:Pupil	Inverse of the pupil-to-teacher FTE ratio
Counselor:Pupil	Inverse of the pupil-to-counselor FTE ratio
<b>School Characteristics</b>	
Total Enrolled	Count of students on the rolls of the school
6th through 8th Grade	Binary indicator for whether the school has at least one student enrolled in grades 6 through 8
9th through 12th Grade	Binary indicator for whether the school has at least one student enrolled in grades 9 through 12
Special Education School	Binary indicator for whether the school can be characterized as a special education school

**Table A2 continued from previous page**

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Magnet School/Program	Binary indicator for whether the school can be characterized as either a magnet school or a school operating a magnet program within the school
Charter School	Binary indicator for whether the school can be characterized as a charter school
Alternative School	Binary indicator for whether the school can be characterized as an alternative school
<b>Geographic Locale</b>	
Large City	Binary indicator for whether the school is located in a territory inside an urbanized area and inside a principal city with a population of 250,000 or more
Midsize City	Binary indicator for whether the school is located in a territory inside an urbanized area and inside a principal city with a population less than 250,000 and greater than or equal to 100,000
Small City	Binary indicator for whether the school is located in a territory inside an urbanized area and inside a principal city with a population less than 100,000
Large Suburban	Binary indicator for whether the school is located in a territory outside a principal city and inside an urbanized area with a population of 250,000 or more
Midsize Suburban	Binary indicator for whether the school is located in a territory outside a principal city and inside an urbanized area with a population less than 250,000 and greater than or equal to 100,000
Small Suburban	Binary indicator for whether the school is located in a territory outside a principal city and inside an urbanized area with a population less than 100,000
Fringe Town	Binary indicator for whether the school is located in a territory inside an urban cluster that is less than or equal to 10 miles from an urbanized area
Distant Town	Binary indicator for whether the school is located in a territory inside an urban cluster that is more than 10 miles and less than or equal to 35 miles from an urbanized area
Remote Town	Binary indicator for whether the school is located in a territory inside an urban cluster that is more than 35 miles from an urbanized area
Fringe Rural	Binary indicator for whether the school is located in a Census-defined rural territory that is less than or equal to 5 miles from an urbanized area, as well as rural territory that is less than or equal to 2.5 miles from an urban cluster
Distant Rural	Binary indicator for whether the school is located in a Census-defined rural territory that is more than 5 miles but less than or equal to 25 miles from an urbanized area, as well as rural territory that is more than 2.5 miles but less than or equal to 10 miles from an urban cluster
Remote Rural	Binary indicator for whether the school is located in a Census-defined rural territory that is more than 25 miles from an urbanized area and is also more than 10 miles from an urban cluster

**Table A2 continued from previous page**

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<b>State School Exclusion Statutes</b>	
Requires Exclusions	Ordinal ranking of the state exclusionary statutes requiring exclusionary discipline: (10: requires most/strictest actions; 1: no required actions)
Permits Exclusions	Ordinal ranking of the state exclusionary statutes permitting exclusionary discipline: (4: permits most/strictest actions; 1: permits fewest/most lenient actions)
Prohibits Exclusions	Ordinal ranking of the state exclusionary statutes prohibiting exclusionary discipline: (4: prohibits most/strictest actions; 1: no prohibited actions)
Exclusion Alternatives	Ordinal ranking of the state exclusionary statutes requiring or encouraging alternatives to exclusionary discipline: (3: requires alternatives; 1: neither requires or encourages alternatives)
<b>Juvenile Residential Placement</b>	
Juvenile Placement	The number of youth placed in a juvenile residential facility per 100,000 youth ages 10 through upper age of original juvenile court jurisdiction in each state

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Notes: Student demographic proportions (Demographics: Black, White, Hispanic, Asian, AIAN, NHPI, Multiracial, female, English language learners, Section 504 disability, IDEA disability, and FRPL eligibility): respective demographic student enrollment / total student enrollment. All enrollment counts are an aggregation of respective male and female students. FRPL eligibility is derived from counts of aggregated Free Lunch Program and Reduced-price Program eligible students in each school from the NCES-CCD. Racial/ethnic diversity index using Simpson's Diversity Index formula:  $D = 1 - \frac{\sum n(n-1)}{N(N-1)}$  where  $n$  represents the number of enrolled students of each race/ethnicity,  $N$  represents the total number of enrolled students of all races/ethnicities, and  $D$  ranges between 0 and 1. Inverse pupil-to-staff ratios (Staff: Teachers and counselors) derived from respective FTE staff variable / total student enrollment. The school's geographic locale is derived from the designated geographic locale of each school from the NCES-CCD. State school exclusion statutes are sourced from the PSP. Juvenile residential placement rates are sourced from the EZACJRP.

Table A3: CRDC Sample Comparison - Outcomes

Descriptive Statistics	Full vs. Analytic Overall Difference	Full vs. Analytic SRO Difference	Full vs. Analytic No SRO Difference
<b>Discipline Outcomes (per 100 students)</b>			
Total ISS	0.02 (0.11)	0.04 (0.05)	-0.02 (0.09)
Black ISS	0.34* (0.15)	0.26** (0.10)	0.26*** (0.08)
White ISS	-0.00 (0.08)	-0.01 (0.03)	0.01 (0.05)
Total OSS	-0.38* (0.17)	-0.26* (0.12)	-0.40*** (0.12)
Black OSS	-0.09 (0.25)	-0.08 (0.19)	-0.15 (0.13)
White OSS	-0.38* (0.15)	-0.26* (0.11)	-0.35*** (0.10)
Total Expulsions	-0.09* (0.04)	-0.07*** (0.02)	-0.13 <sup>+</sup> (0.08)
Black Expulsions	-0.02 (0.02)	-0.03 (0.02)	-0.03 <sup>+</sup> (0.02)
White Expulsions	-0.04* (0.01)	-0.04** (0.02)	-0.04** (0.01)
Total LE Referrals	-0.11** (0.04)	-0.08*** (0.02)	-0.13 <sup>+</sup> (0.07)
Black LE Referrals	-0.04* (0.02)	-0.04* (0.02)	-0.03 (0.02)
White LE Referrals	-0.07*** (0.01)	-0.06*** (0.01)	-0.06** (0.02)
Total Arrests	-0.08* (0.04)	-0.05*** (0.01)	-0.10 (0.08)
Black Arrests	-0.02** (0.01)	-0.02* (0.01)	-0.02** (0.01)
White Arrests	-0.03*** (0.01)	-0.03** (0.01)	-0.02** (0.01)
<b>Black-to-White Discipline Rate Ratios</b>			
ISS	0.04*** (0.01)	0.03*** (0.01)	0.03*** (0.01)
OSS	0.05*** (0.01)	0.03** (0.01)	0.06*** (0.01)
Expulsion	0.06*** (0.01)	0.04*** (0.01)	0.02* (0.01)
LE Referral	0.05** (0.02)	0.04*** (0.01)	0.06*** (0.01)
Arrest	0.05* (0.02)	0.05*** (0.01)	0.03 (0.02)

Notes: <sup>+</sup> p < .10; \* p < .05; \*\* p < .01; \*\*\* p < .001. Clustered standard errors in parentheses. Full CRDC represents approximately 91.2% of the 42,113 U.S. public middle and high schools. The Analytical Sample is the result of excluding observations out-of-scope of the study population of interest and listwise deletion (removal of all data for a school-year observation with one or more missing values for variables used in analysis) of the Full CRDC study population to adjust for item non-response, non-applicable survey questions, and data anomaly issues (post-imputation); this represents 91.2% of all U.S. public schools in the Full CRDC study population.

Table A4: CRDC Sample Comparison - Covariates

Descriptive Statistics	Full vs. Analytic Overall Difference	Full vs. Analytic SRO Difference	Full vs. Analytic No SRO Difference
<b>Student Characteristics</b>			
% Black	-0.02*** (0.00)	-0.01* (0.00)	-0.01*** (0.00)
% White	0.03** (0.01)	0.02+ (0.01)	0.02*** (0.01)
% Hispanic	-0.01* (0.01)	-0.01 (0.01)	-0.01* (0.00)
% Asian	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)
% AIAN	-0.00 (0.00)	-0.00+ (0.00)	-0.00 (0.00)
% NHPI	-0.00 (0.00)	-0.00* (0.00)	-0.00 (0.00)
% Multiracial	0.00 (0.00)	0.00 (0.00)	-0.00 (0.00)
Diversity Index	-0.01*** (0.00)	-0.01* (0.00)	-0.01*** (0.00)
% Female	0.01*** (0.00)	0.00** (0.00)	0.00*** (0.00)
% ELL	-0.01** (0.00)	-0.00* (0.00)	-0.00** (0.00)
% Section 504 Disability	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
% IDEA Disability	-0.00* (0.00)	-0.00 (0.00)	-0.00*** (0.00)
% FRPL Eligible	-0.01*** (0.00)	-0.01*** (0.00)	-0.01*** (0.00)
<b>Staff Characteristics</b>			
Teacher:Pupil	-0.00*** (0.00)	-0.00*** (0.00)	-0.00** (0.00)
Counselor:Pupil	-0.00*** (0.00)	-0.00*** (0.00)	-0.00*** (0.00)
<b>School Characteristics</b>			
Total Enrolled	27.82*** (5.41)	16.74+ (9.02)	17.49** (5.32)
6th thru 8th Grade	0.00 (0.00)	0.00* (0.00)	0.01* (0.00)
9th thru 12th Grade	-0.02*** (0.00)	-0.01*** (0.00)	-0.02*** (0.00)
Special Education School	-0.00* (0.00)	-0.00 (0.00)	0.00** (0.00)
Magnet School/Program	-0.01* (0.00)	-0.00* (0.00)	-0.01* (0.00)
Charter School	-0.00* (0.00)	-0.00 (0.00)	-0.00 (0.00)
Alternative School	-0.02*** (0.00)	-0.01*** (0.00)	-0.02*** (0.00)
<b>Geographic Locale</b>			
Large City	-0.02*** (0.00)	-0.01*** (0.00)	-0.01*** (0.00)
Midsized City	-0.00*** (0.00)	-0.00* (0.00)	-0.00* (0.00)
Small City	-0.00 (0.00)	0.00 (0.00)	-0.00 (0.00)
Large Suburban	-0.00 (0.00)	-0.00 (0.00)	0.00 (0.00)
Midsized Suburban	0.00 (0.00)	0.00 (0.00)	0.00** (0.00)
Small Suburban	0.00* (0.00)	0.00 (0.00)	0.00*** (0.00)
Fringe Town	0.00*** (0.00)	0.00*** (0.00)	0.00** (0.00)
Distant Town	0.00*** (0.00)	0.00** (0.00)	0.00*** (0.00)
Remote Town	0.00* (0.00)	0.00+ (0.00)	0.00 (0.00)
Fringe Rural	0.00*** (0.00)	0.00*** (0.00)	0.00** (0.00)
Distant Rural	0.01*** (0.00)	0.00** (0.00)	0.01** (0.00)
Remote Rural	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)

Notes: +  $p < .10$ ; \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$ . Clustered standard errors in parentheses. Full CRDC represents approximately 91.2% of the 42,113 U.S. public middle and high schools. The Analytical Sample is the result of excluding observations out-of-scope of the study population of interest and listwise deletion (removal of all data for a school-year observation with one or more missing values for variables used in analysis) of the Full CRDC study population to adjust for item non-response, non-applicable survey questions, and data anomaly issues (post-imputation); this represents 91.2% of all U.S. public schools in the Full CRDC study population.

Table A5: State School Resource Officer Statute Citations

State	Citation	Effective Start	Effective End
AK	N/A	N/A	N/A
AL	Ala. Code §16-1-44.1	5/22/2013	Current
	Ark. Code Ann. §6-10-128	7/22/2015	Current
AR	Ark. Code Ann. §17-40-330	9/1/2015	Current
	Ark. Code Ann. §16-81-118	7/22/2015	Current
AZ	Ariz. Rev. Stat. Ann. §15-154	6/30/2014	Current
	Ariz. Rev. Stat. Ann. §15-155	4/17/2017	Current
CA	Cal. Educ. Code §38001.5	7/22/2015	Current
CO	Colo. Rev. Stat. Ann. §22-32-109.1	6/2/2000	Current
	Colo. Rev. Stat. Ann. §24-31-312	5/19/2012	Current
	Conn. Gen. Stat. Ann. §10-233m	7/1/2015	Current
CT	Conn. Gen. Stat. Ann. §10-244a	7/1/2014	Current
	Conn. Gen. Stat. Ann. §7-294x	12/31/2020	Current
DC	D.C. Code §5-132.01	4/13/2005	Current
	D.C. Code §5-132.03	4/13/2005	Current
DE	Del. Code Ann. tit. 14, §4112F	7/1/2014	Current
	Del. Code Ann. tit. 14, §601	12/31/1953	Current
FL	Fla. Stat. Ann. §1006.12	3/9/2018	Current
GA	Ga. Code Ann. §35-8-2	5/1/2012	Current
HI	Haw. Rev. Stat. §88-21	3/14/2011	Current
	Haw. Code R. §8-19-2	9/1/1982	Current
IA	N/A	N/A	N/A
ID	N/A	N/A	N/A
IL	50 Ill. Comp. Stat. Ann. 705/10.22	1/1/2019	Current
	105 Ill. Comp. Stat. Ann. 5/10-20.68	1/1/2019	Current
IN	Ind. Code Ann. §20-26-18.2-1	5/7/2013	Current
	Ind. Code Ann. §20-26-18.2-3	5/7/2013	Current
	Kan. Stat. Ann. §72-6152	6/4/2015	Current
KS	Kan. Stat. Ann. §72-6146	7/1/2017	Current
	Kan. Admin. Regs. §16-16-2	12/16/2016	Current
	Kan. Admin. Regs. §16-16-3	12/16/2016	Current
KY	Ky. Rev. Stat. Ann. §158.441	4/10/1998	Current
LA	La. Rev. Stat. Ann. 17:416.19	8/15/2005	Current
MA	Mass. Gen. Laws Ann. 71 §37P	7/1/2015	Current
MD	Md. Code Ann., Educ. §7-1501	7/1/2013	Current
	Md. Code Ann., Educ. §7-1508	6/1/2018	Current
ME	Me. Rev. Stat. tit. 20-A, §6556	10/18/2021	Current
MI	N/A	N/A	N/A
MN	N/A	N/A	N/A
MO	Mo. Ann. Stat. §160.665	12/20/2014	Current
	Mo. Ann. Stat. §168.450	12/31/2013	Current
MS	Miss. Code Ann. §37-7-321	7/1/2006	Current
	Miss. Code Ann. §45-6-7	4/15/2009	Current
MT	N/A	N/A	N/A

**Table A5 continued from previous page**

<b>State</b>	<b>Citation</b>	<b>Effective Start</b>	<b>Effective End</b>
NC	N.C. Gen. Stat. Ann. §162-26	12/1/2013	Current
ND	N/A	N/A	N/A
	Neb.Rev.St. §79-2701	9/1/2019	Current
NE	Neb.Rev.St. §79-2702	9/1/2019	Current
	Neb.Rev.St. §79-2703	9/1/2019	Current
	Neb.Rev.St. §79-2704	9/1/2019	Current
NH	N.H. Rev. Stat. Ann. §186:11	7/26/2014	Current
NJ	N.J. Stat. Ann. §18A:17-43.1	1/6/2006	Current
NM	N.M. Stat. Ann§29-7-14	12/31/2020	Current
NV	Nev. Rev. Stat. Ann. §388.2358	7/1/2017	Current
	Nev. Rev. Stat. Ann. 388.2565	7/1/2019	Current
NY	N.Y. Educ. Law §2801-a	7/1/2016	Current
OH	Ohio Rev. Code Ann. §3313.951	11/2/2018	Current
OK	Okla. Stat. Ann. tit. 74, §360.18	9/1/1991	Current
OR	Or. Rev. Stat. Ann. §133.402	12/31/2019	Current
PA	24 Pa. Cons. Stat. Ann. §13-1313-C	6/22/2018	Current
	24 Pa. Cons. Stat. Ann. §13-1314-C	6/22/2018	Current
RI	R.I. Gen. Laws Ann. §16-7.2-6	6/22/2018	Current
SC	S.C. Code Ann. Regs. 43-210	5/26/2017	Current
	S.C. Code Ann. §5-7-12	6/4/2008	Current
	S.D. Codified Laws §13-64-1	12/31/2013	Current
SD	S.D. Codified Laws §13-64-3	12/31/2013	Current
	S.D. Codified Laws §23-3-35	12/31/1966	Current
	Tenn. Code Ann. §49-6-4217	12/31/2007	Current
TN	Tenn. Code Ann. §49-6-4206	4/27/2017	Current
	Tenn. Code Ann. §49-6-4202	12/31/1981	Current
	Tex. Occ. Code Ann. §1701.262	6/20/2015	Current
	Tex. Occ. Code Ann. §1701.601	9/1/2001	Current
TX	Tex. Educ. Code Ann. §37.081	5/30/1995	Current
	Tex. Educ. Code Ann. §§37.082	5/30/1995	Current
	Tex. Occ. Code Ann. §1701.263	6/20/2015	Current
	Utah Code Ann. §53G-8-701	5/10/2016	Current
UT	Utah Code Ann. §53A-11-1604: (Renumbered as 53G-8-703)	5/10/2016	Current
	Utah Code Ann. §53G-8-702	5/10/2016	Current
	Va. Code Ann. §9.1-101	7/1/2014	Current
	6 Va. Admin. Code 20-240-20	3/8/2006	Current
VA	Va. Code Ann. §22.1-280.2:1	7/1/2017	Current
	Va. Code Ann. §9.1-102	7/1/2014	Current
	Va. Code Ann. §9.1-184	7/1/2013	Current
	Va. Code Ann. §9.1-114.1	7/1/2019	Current
VT	Vt. Stat. Ann. tit. 16, §1167	5/4/2012	Current
WA	Wash. Rev. Code Ann. §28A.320.124	7/28/2019	Current
	Wash. Rev. Code Ann. §28A.310.515	7/25/2021	Current
WI	N/A	N/A	N/A



**Table A5 continued from previous page**

<b>State</b>	<b>Citation</b>	<b>Effective Start</b>	<b>Effective End</b>
WV	W. Va. Code R. §126-99	7/1/2019	Current
WY	N/A	N/A	N/A

Table A6: Law Enforcement Credentials Statute and SROs in Majority Black Schools

	SRO Presence	SRO Presence	SRO FTE	SRO FTE
Active LE Cred. Statute	0.43*** (0.03)		0.50*** (0.09)	
New LE Cred. Statute		0.17 (0.11)		0.01 (0.06)
N (school x year)	7,853	2,448	4,397	1,599
$R^2$	0.30	0.27	0.05	0.23
All States + DC	X		X	
In-scope States Only		X		X
2013-14 thru 2020-21 CRDCs	X			
Excl. 2015-16 CRDC		X		
2017-18 & 2020-21 CRDCs			X	X
State Fixed Effects	X	X	X	X
Academic Year Fixed Effects	X	X	X	X

Notes: \*\*\*  $p < 0.01$  In-scope states: AK, CT, GA, KS, MD, MA, NE, NV, NC, OH, OR, RI, SC, UT, WA. Cluster-robust standard errors in parentheses. Specifications control for school characteristics: total enrollment, grades 6-8 enrolled indicator, grades 9-12 enrolled indicator, special education school indicator, magnet school/program indicator, charter school indicator, alternative school indicator; student demographic composition characteristics: proportion of Black, White, Hispanic, Asian, American Indian/Alaskan Native (AIAN), Native Hawaiian/Pacific Islander (NHPI), multiracial, female, English language learner, Section 504 disability, and IDEA disability students, and the Simpson's diversity index; staff characteristics: inverse pupil-to-teacher and pupil-to-counselor ratios; and geographic locale subclassifications: large city, midsize city, small city, large suburban locale, midsize suburban locale, small suburban locale, distant town, fringe town, remote town, distant rural locale, fringe rural locale, and remote rural locale indicators. Geographic local subclassifications are sourced from the National Center for Education Statistics - Common Core of Data; all other data are sourced from the Civil Rights Data Collection.

Table A7: Law Enforcement Credentials Statute and SROs in Minority Black Schools

	SRO Presence	SRO Presence	SRO FTE	SRO FTE
Active LE Cred. Statute	0.06** (0.01)		0.11*** (0.03)	
New LE Cred. Statute		0.01 (0.05)		-0.01 (0.02)
N (school x year)	82,591	18,097	47,962	12,112
$R^2$	0.26	0.24	0.10	0.21
All States + DC	X		X	
In-scope States Only		X		X
2013-14 thru 2020-21 CRDCs	X			
Excl. 2015-16 CRDC		X		
2017-18 & 2020-21 CRDCs			X	X
State Fixed Effects	X	X	X	X
Academic Year Fixed Effects	X	X	X	X

Notes: \*\*\*  $p < 0.01$  In-scope states: AK, CT, GA, KS, MD, MA, NE, NV, NC, OH, OR, RI, SC, UT, WA. Cluster-robust standard errors in parentheses. Specifications control for school characteristics: total enrollment, grades 6-8 enrolled indicator, grades 9-12 enrolled indicator, special education school indicator, magnet school/program indicator, charter school indicator, alternative school indicator; student demographic composition characteristics: proportion of Black, White, Hispanic, Asian, American Indian/Alaskan Native (AIAN), Native Hawaiian/Pacific Islander (NHPI), multiracial, female, English language learner, Section 504 disability, and IDEA disability students, and the Simpson's diversity index; staff characteristics: inverse pupil-to-teacher and pupil-to-counselor ratios; and geographic locale subclassifications: large city, midsize city, small city, large suburban locale, midsize suburban locale, small suburban locale, distant town, fringe town, remote town, distant rural locale, fringe rural locale, and remote rural locale indicators. Geographic local subclassifications are sourced from the National Center for Education Statistics - Common Core of Data; all other data are sourced from the Civil Rights Data Collection.

Table A8: Special Training Statute and SROs in Majority Black Schools

	SRO Presence	SRO Presence	SRO FTE	SRO FTE
Active Spec. Train. Statute	-0.38*** (0.06)		-0.33*** (0.12)	
New Spec. Train. Statute		0.08 (0.07)		0.32 (0.27)
N (school x year)	7,853	3,642	4,397	2,362
$R^2$	0.30	0.27	0.05	0.07
All States + DC	X		X	
In-scope States Only		X		X
2013-14 thru 2020-21 CRDCs	X			
Excl. 2015-16 CRDC		X		
2017-18 & 2020-21 CRDCs			X	X
State Fixed Effects	X	X	X	X
Academic Year Fixed Effects	X	X	X	X

Notes: \*\*\*  $p < 0.01$  In-scope states: DE, FL, GA, IL, IN, KS, MD, MA, MO, NE, NV, NY, NC, OH, PA, RI, TX, UT, VA, WA. Cluster-robust standard errors in parentheses. Specifications control for school characteristics: total enrollment, grades 6-8 enrolled indicator, grades 9-12 enrolled indicator, special education school indicator, magnet school/program indicator, charter school indicator, alternative school indicator; student demographic composition characteristics: proportion of Black, White, Hispanic, Asian, American Indian/Alaskan Native (AIAN), Native Hawaiian/Pacific Islander (NHPI), multiracial, female, English language learner, Section 504 disability, and IDEA disability students, and the Simpson's diversity index; staff characteristics: inverse pupil-to-teacher and pupil-to-counselor ratios; and geographic locale subclassifications: large city, midsize city, small city, large suburban locale, midsize suburban locale, small suburban locale, distant town, fringe town, remote town, distant rural locale, fringe rural locale, and remote rural locale indicators. Geographic local subclassifications are sourced from the National Center for Education Statistics - Common Core of Data; all other data are sourced from the Civil Rights Data Collection.

Table A9: Special Training Statute and SROs in Minority Black Schools

	SRO Presence	SRO Presence	SRO FTE	SRO FTE
Active Spec. Train. Statute	-0.25*** (0.02)		-0.36*** (0.02)	
New Spec. Train. Statute		0.02 (0.05)		0.04** (0.02)
N (school x year)	82,591	35,583	47,962	23,711
$R^2$	0.26	0.20	0.10	0.11
All States + DC	X		X	
In-scope States Only		X		X
2013-14 thru 2020-21 CRDCs	X			
Excl. 2015-16 CRDC		X		
2017-18 & 2020-21 CRDCs			X	X
State Fixed Effects	X	X	X	X
Academic Year Fixed Effects	X	X	X	X

Notes: \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$  In-scope states: DE, FL, GA, IL, IN, KS, MD, MA, MO, NE, NV, NY, NC, OH, PA, RI, TX, UT, VA, WA. Cluster-robust standard errors in parentheses. Specifications control for school characteristics: total enrollment, grades 6-8 enrolled indicator, grades 9-12 enrolled indicator, special education school indicator, magnet school/program indicator, charter school indicator, alternative school indicator; student demographic composition characteristics: proportion of Black, White, Hispanic, Asian, American Indian/Alaskan Native (AIAN), Native Hawaiian/Pacific Islander (NHPI), multiracial, female, English language learner, Section 504 disability, and IDEA disability students, and the Simpson's diversity index; staff characteristics: inverse pupil-to-teacher and pupil-to-counselor ratios; and geographic locale subclassifications: large city, midsize city, small city, large suburban locale, midsize suburban locale, small suburban locale, distant town, fringe town, remote town, distant rural locale, fringe rural locale, and remote rural locale indicators. Geographic local subclassifications are sourced from the National Center for Education Statistics - Common Core of Data; all other data are sourced from the Civil Rights Data Collection.

Table A10: Balance in Characteristics Between Treatment and Comparison Groups

<i>Covariate</i>	LE Credentials		Special Training	
	<i>Majority Black</i>	<i>Minority Black</i>	<i>Majority Black</i>	<i>Minority Black</i>
Proportion Black	-0.004 (0.021)	-0.001 (0.001)	-0.004 (0.010)	-0.002 (0.002)
Proportion White	-0.006 (0.015)	-0.002 (0.003)	-0.004 (0.012)	0.001 (0.004)
Proportion Hispanic	0.008 (0.010)	0.006** (0.003)	0.005 (0.007)	0.002 (0.003)
Proportion Asian	0.001 (0.005)	0.000 (0.001)	0.000 (0.003)	0.001 (0.001)
Proportion AIAN	0.000 (0.004)	0.000 (0.001)	-0.001 (0.002)	0.000 (0.002)
Proportion NHPI	-0.001 (0.001)	0.000 (0.001)	0.000 (0.000)	0.000 (0.001)
Proportion Multiracial	0.002 (0.005)	-0.003** (0.001)	0.003 (0.005)	-0.001 (0.002)
Diversity Index	0.007 (0.021)	0.003 (0.004)	0.004 (0.011)	0.001 (0.006)
Proportion Female	-0.006 (0.018)	0.000 (0.001)	-0.006 (0.008)	0.000 (0.001)
Proportion ELL	0.004 (0.014)	0.000 (0.003)	-0.001 (0.010)	0.006 (0.004)
Proportion Section 504	-0.002 (0.005)	0.002 (0.002)	0.001 (0.007)	0.004* (0.002)
Proportion IDEA	0.008 (0.031)	-0.001 (0.002)	0.000 (0.010)	-0.002 (0.002)
Proportion FRPL Eligible	0.003 (0.094)	-0.005 (0.023)	-0.010 (0.089)	-0.003 (0.025)
Pupil:Teacher Ratio	0.195 (2.077)	-0.232 (0.309)	-0.120 (1.068)	-0.051 (0.218)
Pupil:Counselor Ratio	16.368 (25.533)	16.597 (10.129)	30.264 (29.809)	9.244 (8.263)
Total Enrolled	30.286 (49.859)	2.795 (13.128)	18.665 (30.344)	13.293 (10.702)
Middle School	–	0.003 (0.004)	–	0.000 (0.003)
High School	0.009* (0.005)	0.000 (0.005)	0.013 (0.018)	-0.010** (0.004)
Middle & High School	-0.009* (0.005)	-0.003 (0.007)	-0.013 (0.017)	0.010* (0.005)
Special Education School	-0.004 (0.010)	0.002 (0.009)	0.012 (0.009)	0.001 (0.015)
Magnet School/Program	-0.020 (0.058)	-0.018 (0.026)	-0.005 (0.031)	-0.011 (0.037)
Charter School	–	-0.003	–	-0.002

Table A10 continued from previous page

<i>Covariate</i>	LE Credentials		Special Training	
	<i>Majority Black</i>	<i>Minority Black</i>	<i>Majority Black</i>	<i>Minority Black</i>
	–	(0.003)	–	(0.001)
Alternative School	-0.004 (0.010)	0.001 (0.002)	0.012 (0.009)	0.003 (0.002)
Traditional School	0.025 (0.058)	0.018 (0.026)	0.003 (0.032)	0.010 (0.026)
Large City	0.024* (0.014)	0.007 (0.013)	0.024 (0.017)	0.004 (0.015)
Midsize City	-0.021 (0.015)	-0.002 (0.014)	-0.021 (0.017)	-0.005 (0.015)
Small City	-0.003* (0.002)	-0.004 (0.005)	-0.003** (0.001)	-0.005 (0.005)
Large Suburb	-0.012 (0.089)	0.012 (0.044)	0.003 (0.072)	-0.016 (0.025)
Midsize Suburb	–	0.018 (0.014)	–	-0.010 (0.013)
Small Suburb	-0.006 (0.008)	-0.013 (0.008)	-0.006 (0.008)	-0.011 (0.010)
Fringe Town	–	0.002** (0.001)	–	0.001 (0.001)
Distant Town	-0.003 (0.004)	-0.001 (0.001)	-0.003 (0.004)	0.001 (0.001)
Remote Town	0.003 (0.004)	0.002 (0.002)	0.003 (0.004)	0.001 (0.002)
Fringe Rural	0.007** (0.003)	0.002 (0.004)	0.007** (0.003)	-0.001 (0.004)
Distant Rural	–	0.000 (0.001)	–	-0.001 (0.001)
Remote Rural	-0.004* (0.002)	0.000 (0.000)	-0.004 (0.003)	0.000 (0.001)
Juvenile Placement Rate	2.848 (26.186)	11.732 (9.864)	-2.805 (11.552)	4.918 (9.992)
Requires Exclusion	–	0.002 (0.047)	–	–
Permits Exclusion	0.024 (0.140)	0.109 (0.076)	–	–
Prohibits Exclusion	-0.044 (0.995)	-0.198 (0.124)	–	-0.019 (0.072)
Exclusion Alternatives	-0.113 (0.344)	0.129 (0.138)	-0.044 (0.159)	-0.028 (0.038)

**Table A10 continued from previous page**

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<i>Covariate</i>	LE Credentials		Special Training	
	<i>Majority Black</i>	<i>Minority Black</i>	<i>Majority Black</i>	<i>Minority Black</i>

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Notes: \*  $p < 0.1$ ; \*\*  $p < 0.05$ . State clustered standard errors in parentheses. Estimates are the aggregated doubly-robust average treatment effects on the treated of a policy on a school or state characteristic and represent the unconditional change in a characteristic after a policy goes into effect. AIAN: American Indian or Alaskan Native. NHPI: Native Hawaiian or Pacific Islander. ELL: English Language Learner. Section 504: Section 504 of the Rehabilitation Act of 1973. IDEA: Individuals with Disabilities Act. FRPL: Free or Reduced-Price Lunch.



## B Appendix B: Historical Foundations of Policing and Education

This appendix provides historical context for the conceptual framework. The framework emphasizes how institutional environments shape the implementation and effects of policies related to school discipline. The historical evolution of policing and education in the United States illustrates how these institutions have been intertwined with racial hierarchy and differential access to resources.

### B.1 Policing and Racial Control

The origins of policing in the United States are closely linked to the maintenance of racial and social order. In the South, early forms of organized policing emerged as slave patrols tasked with monitoring and controlling enslaved populations and enforcing slave codes (Durr, 2015; Parks and Kirby, 2022). In the North, policing institutions developed in response to concerns about public disorder, often targeting immigrant populations and marginalized groups (Parks and Kirby, 2022). Other early policing bodies, such as the Texas Rangers, were instrumental in enforcing the dispossession of Native and Mexicano populations (Weiss Jr., 1994).

Following the abolition of slavery, formal policing institutions in the South continued to enforce racial hierarchy through Black Codes and Jim Crow laws, while informal groups such as the Ku Klux Klan operated with limited constraint (Durr, 2015). During the twentieth century, policing expanded alongside urbanization, the Great Migration, and the Civil Rights movement, often serving as a mechanism to manage racial tensions and social change (Derenoncourt, 2022; Parks and Kirby, 2022). Contemporary research continues to document racial disparities in policing and the allocation of public resources toward law enforcement in disadvantaged communities (Knowles, Persico, and Todd, 2001; Close and Mason, 2007; Goncalves and Mello, 2021).

### B.2 Education, Segregation, and Inequality

The development of the U.S. education system has also been shaped by racial exclusion and unequal access to resources. Early legal frameworks explicitly prohibited the education of enslaved individuals, beginning with statutes such as the South Carolina Slave Code of 1740 (Mitchell, 2008; Boutte et al., 2023). Following the Civil War, efforts to expand educational access during Reconstruction were undermined by the rise of segregationist policies and the Supreme Court’s decision in *Plessy v. Ferguson* (1896), which legitimized “separate but equal” schooling (Brook, 1997).

Throughout the twentieth century, racial segregation and unequal funding persisted in both the South and the North, limiting access to high-quality education for Black students (Shertzer and Walsh, 2019; Smith, 2020). Although *Brown v. Board of Education* (1954) formally ended de jure segregation, resistance to integration and patterns such as white flight slowed progress toward educational equity (Webb, 2004; Shertzer and Walsh, 2019). Today, substantial disparities in school

quality and segregation remain, with Black students disproportionately attending under-resourced schools (Shores, Kim, and Still, 2020; Weathers and Sosina, 2022).

Together, these historical developments highlight how policing and education have evolved within a broader system of racial stratification. This context motivates the conceptual framework used in the paper, which emphasizes the role of institutional environments in shaping how policies are implemented and how they affect different groups.

## C Appendix C: Data Construction and Limitations

This section provides additional detail on data construction, variable definitions, and key limitations relevant to the empirical analysis.

### C.1 Data Sources

The primary data source is the Civil Rights Data Collection (CRDC), a near-census of U.S. public schools covering the 2013–14, 2015–16, 2017–18, and 2020–21 school years. The CRDC is a mandatory survey administered by the U.S. Department of Education’s Office for Civil Rights, with response rates typically exceeding 99% of schools and districts.

The CRDC provides school-level information on school discipline disaggregated by race, as well as indicators of school resource officer (SRO) presence. These data allow for the construction of school-level measures of exclusionary discipline and Black-white discipline gaps.

I supplement the CRDC with additional data sources. School-level demographic, urbanicity, and free-and-reduced-price lunch (FRPL) measures are drawn from the National Center for Education Statistics Common Core of Data (CCD). State-level policy data on exclusionary discipline are obtained from the Policy Surveillance Program, and measures of juvenile justice involvement are drawn from the Easy Access to the Census of Juveniles in Residential Placement.

### C.2 Variable Construction

Using CRDC data, I construct a binary indicator for SRO presence and measures of exclusionary discipline, including suspensions, expulsions, law enforcement referrals, and school-related arrests. I convert discipline counts into rates per 100 students and compute Black-white discipline gaps as differences between race-specific exclusion rates. These measures form the basis of the race-specific, overall, and Black-white gap outcomes analyzed in the main text.

School demographic composition is constructed using enrollment counts by race. I also construct a racial diversity index using Simpson’s Diversity Index (Simpson, 1949), which captures both the richness and evenness of racial and ethnic composition within schools.

### C.3 Data Limitations and Imputation

The CRDC began collecting data on SRO presence in 2013, limiting the analysis to four survey waves. As a result, the empirical analysis focuses on relatively short-run effects of SRO policies.

A data collection issue in the 2015 CRDC resulted in substantial missingness in the SRO presence and full-time equivalent (FTE) variables. To address this issue, I impute missing 2015 SRO indicators using information from adjacent survey waves. Specifically, I assign the 2015 SRO indicator based on 2013 and 2017 values when both are observed and equal. This approach relies

on the stability of SRO assignment over time, as relatively few schools switch SRO status across three consecutive survey waves.

This imputation strategy allows me to recover a portion of the sample affected by the 2015 data anomaly while preserving the variation necessary for identification. However, because SRO characteristics are not observed, this approach cannot capture changes in the demographic composition of officers when overall SRO presence remains constant.

#### **C.4 Sample Construction**

The empirical sample is restricted to public middle and high schools with nonzero enrollment of both Black and white students. Elementary schools are excluded because SRO presence is less common and disciplinary practices differ systematically at that level. For the main empirical analysis, I further restrict the sample to schools with SRO presence in each observed period so that estimated policy effects are not confounded by extensive or intensive margin changes in SRO presence.

After applying these restrictions and removing observations with missing values for variables used in estimation, the final sample contains approximately 12,200 school observations per period.

Appendix Tables [A1](#) and [A2](#) provide detailed definitions of outcome and control variables, and Appendix Tables [A3](#) and [A4](#) compare the empirical sample to the full CRDC population.

## D Appendix D: State SRO Statutes and Coding

This section briefly describes the construction of state-level policy variables governing school resource officer (SRO) requirements.

I identify statutes related to SRO qualifications, roles, and responsibilities using publicly available sources from the Education Commission of the States (ECS) and the National Center on Safe Supportive Learning Environments (NCSSLE).<sup>3</sup> I cross-validate statutes from these sources and verify each citation using official state/district legislative websites. For each statute, I record the relevant provisions and the date at which regulations governing SROs became effective.

Using these sources, I construct two policy indicators. These indicators correspond to the credential and training policies analyzed separately in the main text. The first captures statutes requiring SROs to hold sworn law enforcement credentials or equivalent experience. The second captures statutes requiring SROs to complete specialized training, including training in areas such as adolescent development, conflict resolution, or mental health.

For each policy, I code the effective year of the statute and construct indicators for whether the policy is active in a given state-year cell. These indicators are used to define treatment timing in the staggered difference-in-differences framework described in the main text.

Appendix Table A5 lists the statutory citations and effective dates for all states, including Washington D.C. These data provide the basis for the policy variation used in the empirical analysis.

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3. ECS's 50-state comparison on K–12 school safety is available at <https://www.ecs.org/50-state-comparison-k-12-school-safety-2022/>. The NCSSLE compendium on school discipline laws and regulations is available at <https://safesupportivelearning.ed.gov/school-discipline-laws-regulations-state>.

## E Appendix E: Empirical Strategy and Identification

This appendix provides additional detail on the estimation strategy, identification assumptions, and implementation of the empirical framework described in the main text.

### E.1 Estimand and Interpretation

The empirical analysis estimates group-time average treatment effects on the treated,  $ATT(g, t)$ , following Callaway and Sant’Anna (2021). These parameters capture the average effect of SRO policies for units first treated in period  $g$  when observed in period  $t$ .

Let  $Y_{jst}$  denote a school-level outcome. The causal parameter of interest is:

$$ATT(g, t) = \mathbb{E}[Y_{jst}(1) - Y_{jst}(0) \mid G_s = g] \approx \mathbb{E}[Y_{jst} - Y_{js, g-1} \mid X, G_s = g] - \mathbb{E}[Y_{jst} - Y_{js, g-1} \mid X, C = 1],$$

where  $Y_{jst}(1)$  and  $Y_{jst}(0)$  denote treated and untreated potential outcomes, respectively, in school  $j$ , state  $s$ , and academic year  $t$ ,  $Y_{jst}$  denotes conditional, observed post-treatment outcomes and  $Y_{js, g-1}$  conditional, baseline pre-treatment outcomes for treatment group  $G_s = g$  and comparison group  $C = 1$ .

These estimates can be interpreted as reduced-form averages of policy impacts across schools. By examining treatment effects separately by student race and school racial composition, the analysis recovers the dimensions of heterogeneity implied by the conceptual framework. In particular, differences in treatment effects across racial groups capture policy-by-race interactions, while differences across school contexts capture the role of institutional environment. Joint variation across these dimensions provides evidence on the interaction between policy, race, and institutional context implied by the conceptual framework.

In practice, this corresponds to evaluating differences in treatment effects across both race and school context, which provides evidence on a triple-difference type interaction among policy, race, and institutional environment.

### E.2 Estimation

I implement the estimation using the doubly robust difference-in-differences (DRDID) estimator of Sant’Anna and Zhao (2020). This approach combines outcome regression and inverse probability weighting to estimate  $ATT(g, t)$  in staggered adoption settings.

Estimation proceeds in two steps. First, I estimate the propensity score and outcome regression functions conditional on a vector of covariates  $X$ . Second, I combine these estimates to construct doubly robust estimates of treatment effects for each group-time pair.

Standard errors are clustered at the state level and computed using bootstrap procedures.

To summarize the large number of group-time estimates, I report aggregated treatment effects following Callaway and Sant’Anna (2021):

$$\sum_g \left( \frac{1}{H-g+1} \sum_{t=g}^H ATT(g,t) \right) P(G = g | G \leq H),$$

which aggregate treatment effects across groups and post-treatment periods.

I also report event-time aggregated estimates to assess pre-treatment trends.

### E.3 Sample and Treatment Variation

The identifying variation in this design comes from differences in the timing of policy adoption across states. Treatment is defined at the state level, while outcomes are measured at the school level. Because the main empirical sample is restricted to schools with SRO presence in each observed period, treatment variation reflects changes in the qualifications and institutional role of SROs rather than changes in schools hiring more or fewer SROs, or whether schools employ SROs at all.

### E.4 Identification Assumptions

The identification strategy relies on several standard assumptions.

First, I assume no anticipation of treatment. This assumption is plausible in this setting because school resource allocation decisions are made in advance and are unlikely to respond to policy changes prior to implementation.

Second, I assume conditional parallel trends: in the absence of treatment, outcomes for treated and comparison units would have evolved similarly, conditional on observed covariates. This assumption is indirectly tested by assessing pre-trends and balance in observed characteristics reported in the main text.

Third, I assume overlap, meaning that for each treated unit there exist comparable untreated units with similar observable characteristics.

Finally, the analysis assumes the stable unit treatment value assumption (SUTVA), ruling out interference in treatment assignment across units.

### E.5 Outcome Construction

The primary outcomes are school-level rates of exclusionary discipline, specifically suspensions, expulsions, law enforcement referrals, and arrests. These are constructed as rates per 100 students.

Racial gaps are defined as differences between Black and white exclusion rates. I also report race-specific and overall exclusion rates to assess the sources of changes in racial gaps.