

Safety for Whom? How Law Enforcement and School Resource Officer Training Impacts Racial Gaps in School Exclusion

Labor Markets and Education: Papers in the Bill Spriggs Research and Policy Tradition

Monique E. Davis, Ph.D.

Economist, W.E. Upjohn Institute for Employment Research

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Presentation Roadmap

- 1 Introduction
- 2 Data
- 3 Empirical Strategy
- 4 Results
- 5 Conclusion

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What is a School Resource Officer (SRO)?



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SROs represent a formal linkage between the education system and the criminal legal system, embedding policing institutions inside schools.

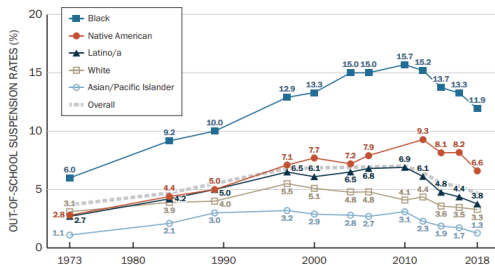
► SRO History

Source (Left): [Teen Vogue](#)

Source (Right): [Daily News-Record](#)

Persistent Racial Disparities in School Exclusion

Trends in Out-of-School Suspension Rates in K-12 Schools, by Race and Ethnicity, 1973–2018

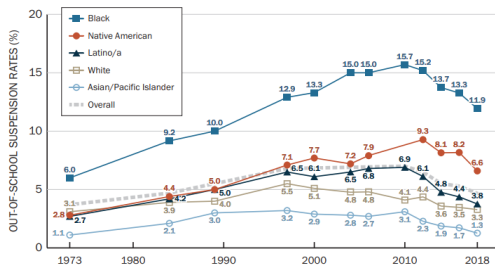


Notes: The years in the graph represent the spring of the school year the data was collected. To reduce cluttering, data labels for overall suspension rates were not included in the graph. The suspension rate for Native American students in the 2009–10 school year is not included due to data irregularities. We combined Asian and Pacific Islander students into one group for comparability with earlier data, which reported the two groups as one.

Sources: U.S. Department of Education Office for Civil Rights, Civil Rights Data Collection, 2011–12, 2013–14, 2015–16, and 2017–18; U.S. Department of Education Office for Civil Rights, Civil Rights Data Collection, State and national estimations, 2000, 2004, 2006, and 2010; Losen, D. J., & Martinez, P. (2020). *Lost opportunities: How disparate school discipline continues to drive differences in the opportunity to learn*. Learning Policy Institute; Center for Civil Rights Remedies at the Civil Rights Project, UCLA; Verdugo, R. R. (2002). Race-ethnicity, social class, and zero-tolerance policies: The cultural and structural wars. *Education and Urban Society*, 35(1), 50–55; Losen, D. J., & Gillespie, J. (2012). *Opportunities suspended: The disparate impact of disciplinary exclusion from school*. Center for Civil Rights Remedies at the Civil Rights Project, UCLA.

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Persistent disparities signal institutional processes, not isolated individual behavior.

Source: Learning Policy Institute

School Policing as an Institutional Source of Exclusion

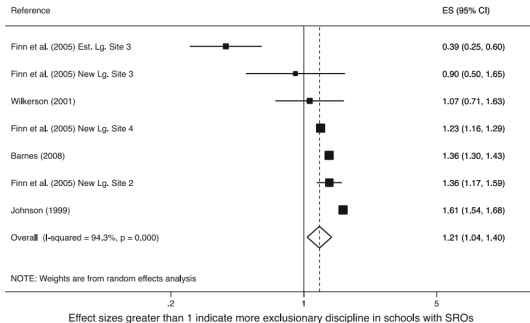
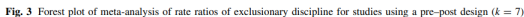


Fig. 3 Forest plot of meta-analysis of rate ratios of exclusionary discipline for studies using a pre-post design ($k = 7$)

Prior work shows that SRO presence increases exclusion, raising questions about institutional design rather than officer intent.



Source: Fisher & Hennessy (2016)

Motivating the Research Questions

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- School exclusion contributes to the school-to-prison pipeline, reinforcing intergenerational inequality
- Many school safety reforms rely on explanations rooted in individual behavior or insufficient officer training
- This context provides an opportunity to demonstrate how **individual-focused interventions** fail to address persistent racial inequality

[» SRO Policy Background](#)[» SRO Requirements](#)[» School Environments](#)

What I Do in My Paper

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● Findings:

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 - * Driven by increases in Black exclusion rates by 69% in in-school suspensions, 40% in out-of-school suspensions, and 362% in LE referrals
- Special training policies have **no significant impact** on racial gaps in exclusion in either school type

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Treatment Data: State SRO Policies

[» Motivate Treatment](#)[» Define Treatment](#)

- **State Legislative Statute Sources:**

- Education Commission of the States
- National Center on Safe Supportive Learning Environments

- **Contains:**

- SRO statute citations
- State-level
- Covers 1997 through 2022

Inclusion and Covariate Data: School Characteristics

- **Inclusion Variable:**

- Source: Civil Rights Data Collection (CRDC)
 - * SRO presence
 - * School-level
 - * Academic period
 - * 2013-14, 2015-16, 2017-18, and 2020-21*

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- Source: Common Core of Data
 - * Geographic descriptors and socioeconomic status
 - * School-level
 - * Academic period
 - * 2013 through 2020

Covariate Data: State Characteristics

- **Covariates:**

- Source: Policy Surveillance Program
 - * School exclusionary discipline statute citations
 - * (1) Mandates, (2) allowances, (3) prohibitions, and (4) alternatives
 - * State-level

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- Source: Easy Access to the Census of Juveniles in Residential Placement
 - * Juvenile placement rates
 - * State-level
 - * Annual
 - * 2013 through 2020

Outcome Data: Black-White Exclusion Gaps

Key Outcome Measure:

- $\left(\frac{\# \text{ Black students excluded}}{\# \text{ Black students enrolled}} \times 100 \right) - \left(\frac{\# \text{ White students excluded}}{\# \text{ White students enrolled}} \times 100 \right)$:
 - **In-school suspensions (ISS)**
 - **Out-of-school suspensions (OSS)**
 - Expulsions
 - LE referrals
 - School-related arrests

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Source: CRDC

- Number of students excluded and enrolled by race
- School-level
- Academic year
- 2013, 2015, 2017, and 2020

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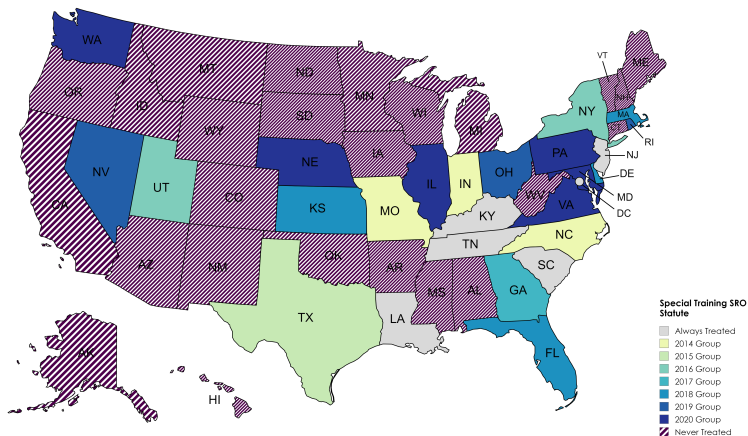
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LE Credentials SRO Statute

- Always Treated
- 2014 Group
- 2015 Group
- 2016 Group
- 2017 Group
- 2018 Group
- 2019 Group
- 2020 Group
- Never Treated

State and Time Variation in Special Training Policies



Empirical Strategy

Research Design

- Using the variation in the **location** and **timing** of state SRO policies to estimate their effects on racial exclusion gaps.
 - Apply Callaway and Sant'Anna (2021) staggered DID method.
 - Aggregate weighted group-time average treatment effects on the treated.
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 - Aggregate weighted group-time average treatment effects on the treated.
 - Compute clustered, bootstrapped standard errors at the state level.
- Assumes **conditional parallel exclusionary discipline trends** between treated and comparison groups in the absence of an SRO state statute.

$$E[Y_t(0) - Y_{t-1}(0) | X, G_g = 1] = E[Y_t(0) - Y_{t-1}(0) | X, C = 1]$$

► Other Assumptions

Estimation

$$\widehat{ATT}(g, t) = E[Y_t - Y_{g-1} | X, G_g = 1] - E[Y_t - Y_{g-1} | X, C = 1] \quad (1)$$

$$\widehat{ATT} = \sum_g \left(\frac{1}{2020 - g + 1} \sum_{t=g}^{2020} \widehat{ATT}(g, t) \right) P(G = g | G \leq 2020) \quad (2)$$

► Sant'Anna and Zhao (2020) Doubly Robust Estimator

- Treatment group $g \in \{2014, 2015, 2016, 2017, 2018, 2019, 2020\}$
- Observed period $t \in \{2013, 2015, 2017, 2020\}$
- Y_t : outcome in period t
- Y_{g-1} : outcome in period $g - 1$
- $G_g = 1$ if a state is **first treated** in period g ; $G_g = 0$ otherwise
- $C = 1$ if a state is **never treated** in any period; $C = 0$ otherwise
- X : vector of school characteristics

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State SRO LE Credentials Policy Impacts

What is the Impact of the SRO LE Credentials Statutes on Racial Exclusion Gaps in Majority and Minority Black Schools?

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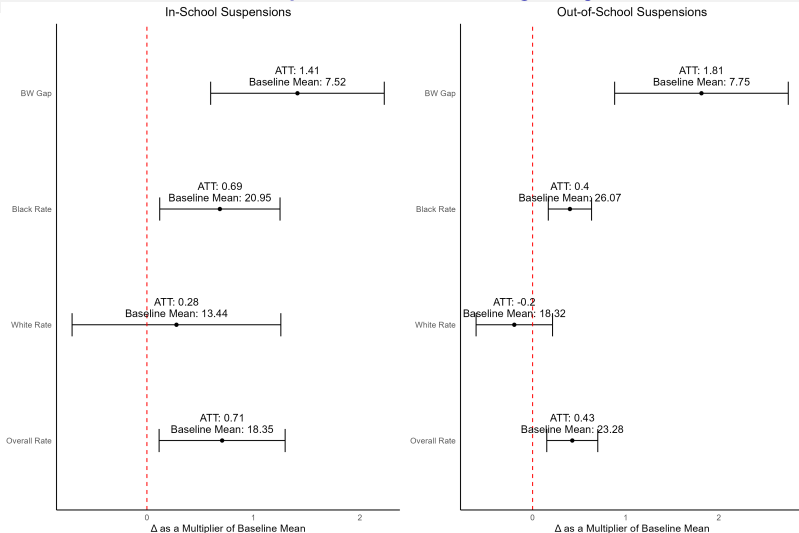
Estimator: Sant'Anna and Zhao (2020) DRDID.

Sample: (1) Middle and high schools; (2) SROs present in all periods; (3) Black and White students enrolled; and (4) schools in treated and never-treated states.

Majority Black: Black share of enrollment greater than 50%.

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LE Credentials on Suspensions in Majority Black Schools



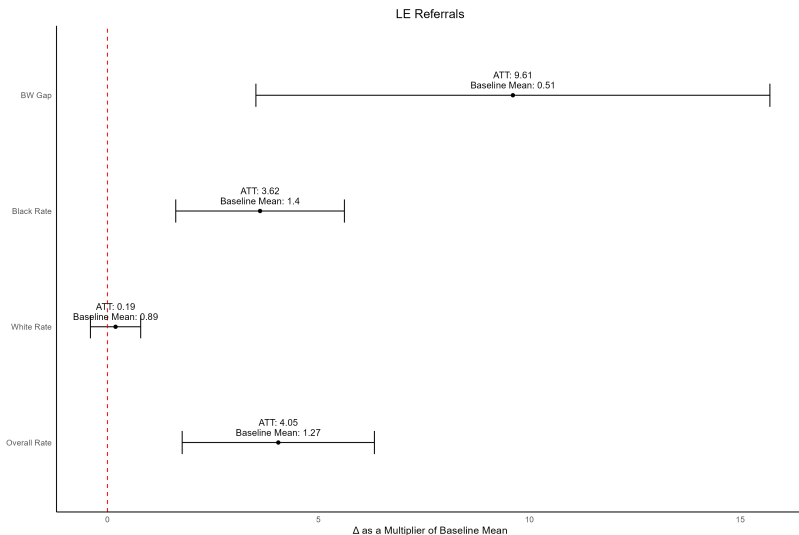
» ES Suspensions

» Rare Exclusion

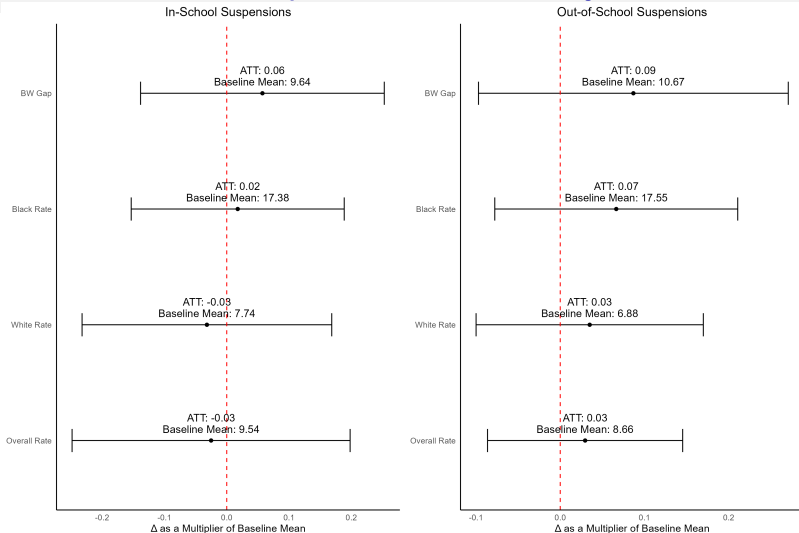
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» Robustness

LE Credentials on LE Referrals in Majority Black Schools



LE Credentials on Suspensions in Minority Black Schools



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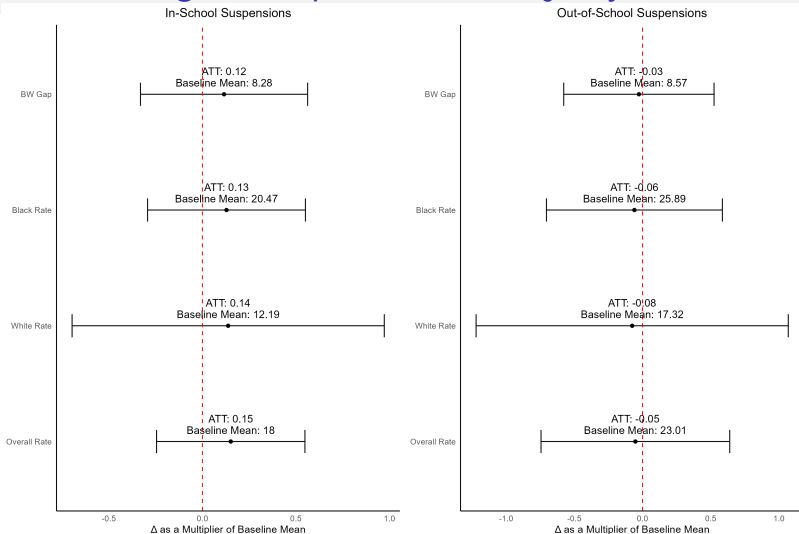
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Special Training on Suspensions in Majority Black Schools



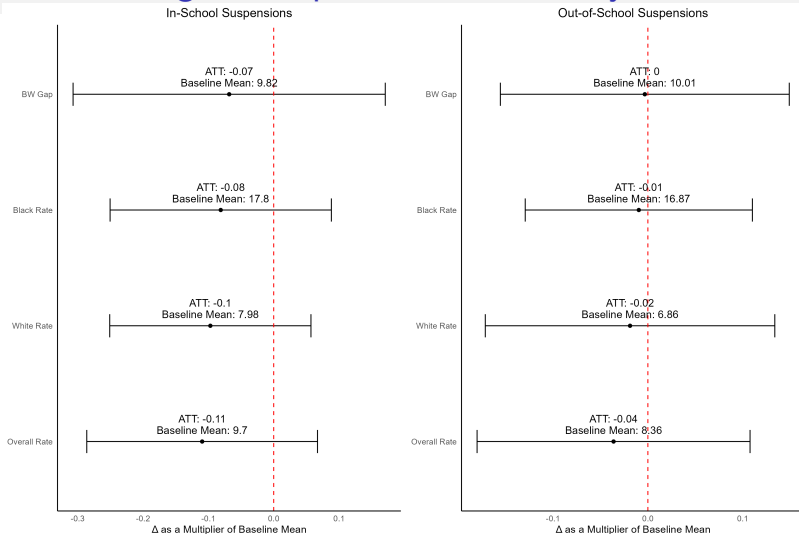
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» Rare Exclusion

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Special Training on Suspensions in Minority Black Schools



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Considering Systemic Factors to Explain the Findings

► Economic Framework

► Systemic Discrimination Framework

- **Law Enforcement in Black Schools**

- The **institution of policing**, not merely individual officers, has historically treated Black populations as more criminal (Durr, [2015](#); Parks and Kirby, [2022](#)).

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- Training policies operate on individuals, while **disciplinary authority remains institutionally structured**.

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● Why Special Training Falls Short

- Training policies operate on individuals, while **disciplinary authority remains institutionally structured**.
- Without structural changes, marginal interventions cannot undo inequality generated by stratifying institutions (Hirschfield, 2008).

Ongoing Work

- This paper focuses on SRO policy impacts using CRDC data from 2013-14 through 2020-21.
- I am currently extending this work to incorporate:
 - Additional 2021-2022 CRDC survey wave
 - Expanded discipline outcome measures by gender and disability status
 - Exploration of potential mechanisms linking law enforcement presence to school disciplinary environments
- Preliminary patterns from this ongoing work suggest that the relationship between school policing and student outcomes may reflect multiple, interacting institutional channels.

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Summarizing My Paper

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- I study whether race-neutral SRO reforms reduce racial exclusion gaps across distinct institutional school contexts.

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● Implications:

- Persistent racial disparities reflect **institutional design**, not missing controls or deficient behavior.
- Effective reform requires confronting how education and policing institutions jointly produce inequality.

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www.moniqueedavis.com

Email



davis@upjohn.org

Bluesky



[@moniqueedavis-phd](https://bsky.app/profile/@moniqueedavis-phd)

Thank you for your time; let's connect!

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SRO Origins and Expansion

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Phase I: school desegregation and war on crime (1950s – 1970s)

- First police officers permanently assigned to schools in Flint, MI in 1953 (The Center for Public Integrity, [2021](#))
- Following the 1954 Brown v. Board decision, schools increasingly acquire police to patrol campuses (Counts et al., [2018](#))
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Phase III: mass school shootings (2000s – present)

- The 1999 mass shooting at Columbine High School propels school police expansion

[▶ Define SRO](#)

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- Motivations to have sworn credentialed SROs present vs. specially trained SROs present, may lead to different impacts on the school environment

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►► Motivating RQs

A Small Sample of Related Literature

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- **Disproportionate exclusion** of Black and other marginalized students is associated with SRO presence (A. Jackson, [2002](#); Crawford and Burns, [2016](#); Lynch, Gaaney, and Chappell, [2016](#); Sorensen et al., [2023](#))

► SROs and School Exclusion

Causal Analyses in the Literature

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 - President’s Commission on Law Enforcement and Administration of Justice of 1967
 - 1968 Omnibus Crime Control and Safe Streets Act
 - 1974 Juvenile Justice and Delinquency Act
 - 1979 National Advisory Commission on Criminal Justice Standards

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 - 1994 Crime Bill yields largest increases in hiring and funding for law enforcement and established COPS grants and funds \$150 million for punishment of “youthful offenders” (M. Jackson, [1995](#); Rosenfeld, [2020](#))

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 - 2002 No Child Left Behind Act also leads to increased school policing practices and enforcement of zero tolerance policies with disparate impacts in communities of color (The 107th United States Congress, [2001](#); Gordon Klehr, [2009](#))

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- Some state efforts mandated school districts place armed police officers in every school ([Texas State Legislature, 2023](#); [Florida Department of State, 2023](#))

History of School Policing

- “The U.S. Department of Education releases national data on school-based arrests and referrals to law enforcement for the first time [in 2012]. Civil rights advocates say the data confirms fears that the practices disproportionately harm Black students and students with disabilities.” (The Center for Public Integrity, [2021](#))

▶▶ Historical Background

Why LE Credentials and Special Training SRO Policies?

• LE Credentials - Historical Context:

- Policing since the 17th century treats White and non-White populations differently (Durr, [2015](#); Parks and Kirby, [2022](#); Weiss Jr., [1994](#)).
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• Benefits of State Regulation:

- **Natural Experiment:** Policies act as a shock to schools with SROs present before and after implementation
- **Variation:** Policies are adopted in different states across different periods

Defining Treatment and Comparison Groups

- **LE Credentials (Special Training)**

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▶▶ Treatment Data

Distribution of Characteristics are Balanced b/w 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)
High School	0.009* (0.005)	0.000 (0.005)	0.013 (0.018)	-0.010** (0.004)
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)
Small City	-0.003* (0.002)	-0.004 (0.005)	-0.003** (0.001)	-0.005 (0.005)
Fringe Rural	0.007** (0.003)	0.002 (0.004)	0.007** (0.003)	-0.001 (0.004)

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.

►► School Characteristics

►► State Characteristics

Empirical Strategy Assumptions

- **Irreversibility of Treatment:**

In the pretreatment period: $D_t = 0$;

In the posttreatment period: $D_{t-1} = 1 \implies D_t = 1$.

- **Random Sampling:**

$\{Y_{s,2013}, \dots, Y_{s,2020}, X_s, D_{s,2013}, \dots, D_{s,2020}\}_{s=1}^n$ is independent and identically distributed.

- **No Treatment Anticipation:**

$$E[Y_t(g) \mid X, G_g = 1] = E[Y_t(0) \mid X, G_g = 1]$$

for all $g \in \{2014, 2015, 2016, 2017, 2018, 2019, 2020\}$ and $t \in \{2013, 2015, 2017, 2020\}$ such that $t < g$.

- **Overlap:**

For each $t \in \{2015, 2017, 2020\}$ and

$$g \in \{2014, 2015, 2016, 2017, 2018, 2019, 2020\},$$

there exists $\epsilon > 0$ such that $P(G_g = 1) > \epsilon$ and $p_{g,t}(X) < 1 - \epsilon$.

Sant'Anna and Zhao (2020) Doubly Robust Estimator

$$\widehat{ATT}_{dr}^{nev}(g, t) = E_n \left[\left(\frac{G_g}{E_n[G_g]} - \frac{\frac{\widehat{p}_g(X; \widehat{\pi}_g)C}{1 - \widehat{p}_g(X; \widehat{\pi}_g)}}{E_n \left[\frac{\widehat{p}_g(X; \widehat{\pi}_g)C}{1 - \widehat{p}_g(X; \widehat{\pi}_g)} \right]} \right) \left(Y_t - Y_{g-1} - \widehat{m}_{g,t}^{nev}(X; \widehat{\beta}_{g,t}^{nev}) \right) \right] \quad (3)$$

- Doubly-robust difference-in-difference estimator (Sant'Anna and Zhao, 2020) for group-time average treatment effects on the treated (Callaway and Sant'Anna, 2021).

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- Difference between the estimated relative weighting factor of being in group g for $G_g = 1$ and the estimated relative weighting factor of being in group g for $C = 1$.

Sant'Anna and Zhao (2020) Doubly Robust Estimator

$$\widehat{ATT}_{dr}^{nev}(g, t) = E_n \left[\left(\frac{G_g}{E_n[G_g]} - \frac{\frac{\hat{p}_g(X; \hat{\pi}_g)C}{1 - \hat{p}_g(X; \hat{\pi}_g)}}{E_n \left[\frac{\hat{p}_g(X; \hat{\pi}_g)C}{1 - \hat{p}_g(X; \hat{\pi}_g)} \right]} \right) \left(Y_t - Y_{g-1} - \hat{m}_{g,t}^{nev}(X; \hat{\beta}_{g,t}^{nev}) \right) \right] \quad (3)$$

- Doubly-robust difference-in-difference estimator (Sant'Anna and Zhao, 2020) for group-time average treatment effects on the treated (Callaway and Sant'Anna, 2021).

$$\frac{G_g}{E_n[G_g]} - \frac{\frac{\hat{p}_g(X; \hat{\pi}_g)C}{1 - \hat{p}_g(X; \hat{\pi}_g)}}{E_n \left[\frac{\hat{p}_g(X; \hat{\pi}_g)C}{1 - \hat{p}_g(X; \hat{\pi}_g)} \right]}$$

- Difference between the estimated relative weighting factor of being in group g for $G_g = 1$ and the estimated relative weighting factor of being in group g for $C = 1$.

$$Y_t - Y_{g-1} - \hat{m}_{g,t}^{nev}(X; \hat{\beta}_{g,t}^{nev})$$

- Difference-in-differences between the treatment group g and the never-treated group $C = 1$.

Sant'Anna and Zhao (2020) Nuisance Functions

$$p_g(X)|_{G_g+C=1} = \text{logit}^{-1}(\eta_g + \pi_g G_g + \lambda_g X + \nu_g) \quad (4)$$

- Conditional probability function, using an IPW estimator, estimating the probability of being in group g on the combined sample of $G_g = 1$ and $C = 1$ schools, conditional on X .

Sant'Anna and Zhao (2020) Nuisance Functions

$$p_g(X)|_{G_g+C=1} = \text{logit}^{-1}(\eta_g + \pi_g G_g + \lambda_g X + \nu_g) \quad (4)$$

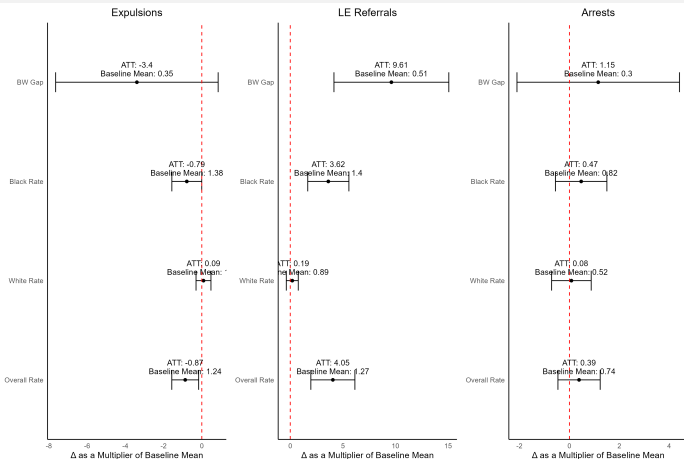
- Conditional probability function, using an IPW estimator, estimating the probability of being in group g on the combined sample of $G_g = 1$ and $C = 1$ schools, conditional on X .

$$m_{g,t}^{nev}(X) = \alpha_{g,t}^{nev} + \beta_{g,t}^{nev} C + \gamma_{g,t}^{nev} X + \mu_{g,t}^{nev} \quad (5)$$

- Conditional expectation function, using an OLS estimator, estimating the expected change in exclusion rates from the adoption period corresponding with treatment group g to the observed period t for $C = 1$, conditional on X .

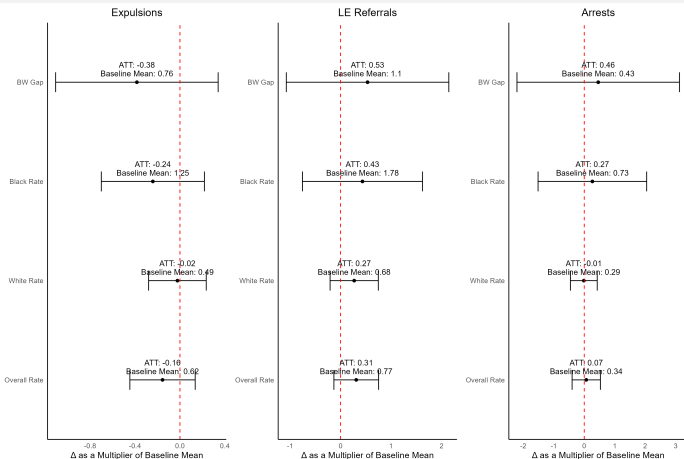
► Estimation

LE Credentials on Rarer Exclusion in Majority Black Schools



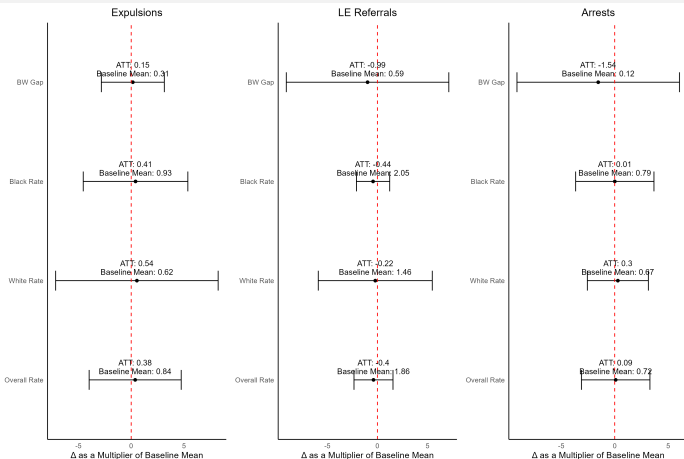
► Suspensions

LE Credentials on Rarer Exclusion in Minority Black Schools



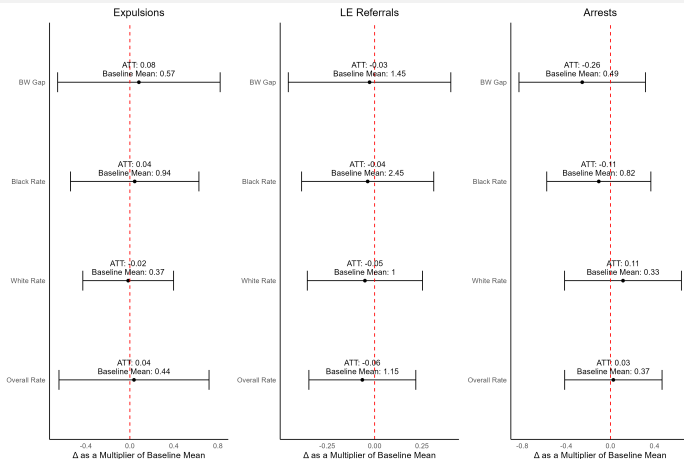
► Suspensions

Special Training on Rarer Exclusion in Majority Black Schools



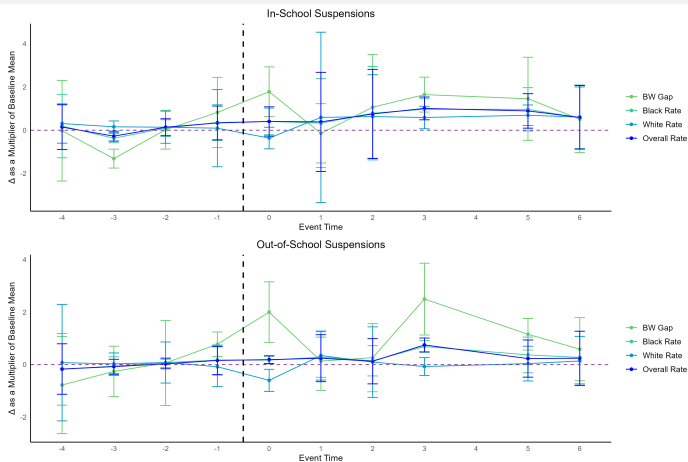
► Suspensions

Special Training on Rarer Exclusion in Minority Black Schools



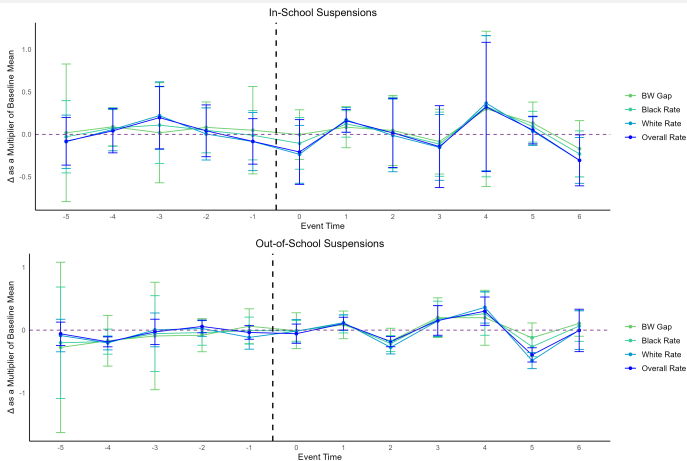
► Suspensions

Event-Time: LE Credentials on Suspensions in Majority Black Schools



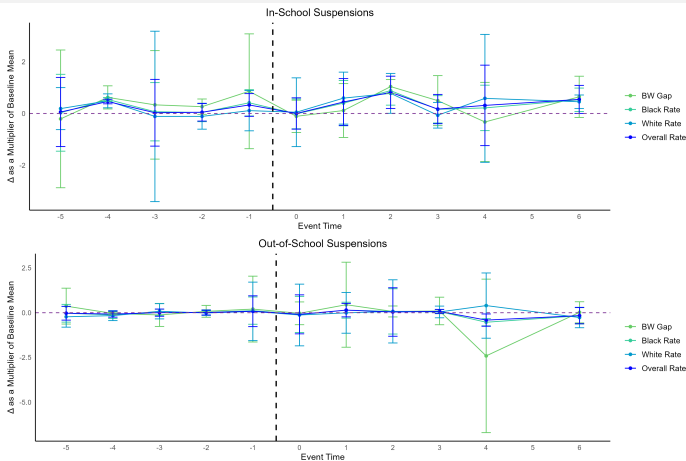
► Suspensions

Event-Time: LE Credentials on Suspensions in Minority Black Schools



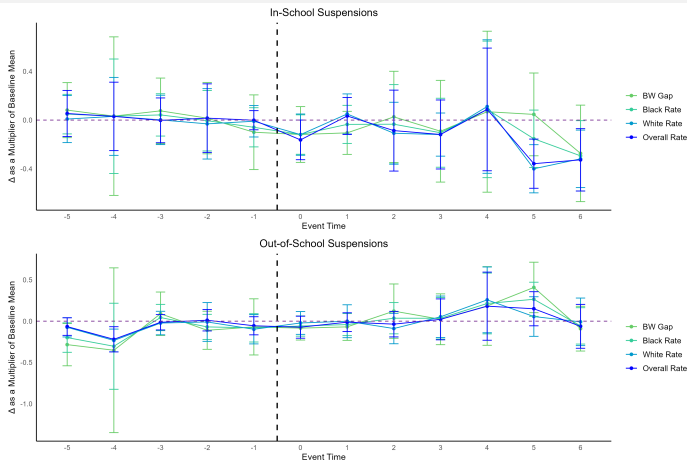
► Suspensions

Event-Time: Special Training on Suspensions in Majority Black Schools



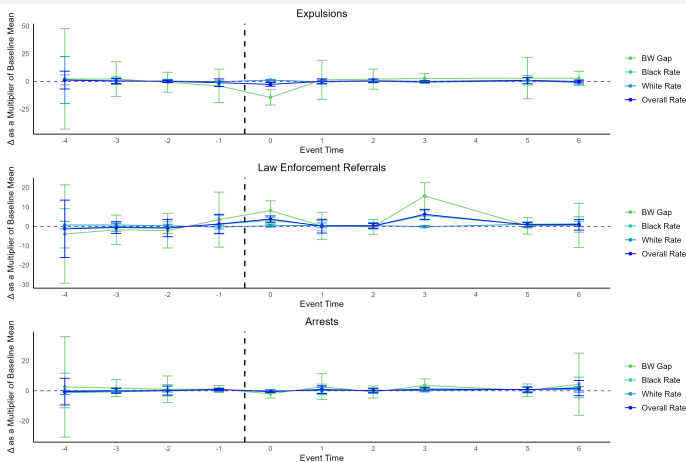
► Suspensions

Event-Time: Special Training on Suspensions in Minority Black Schools



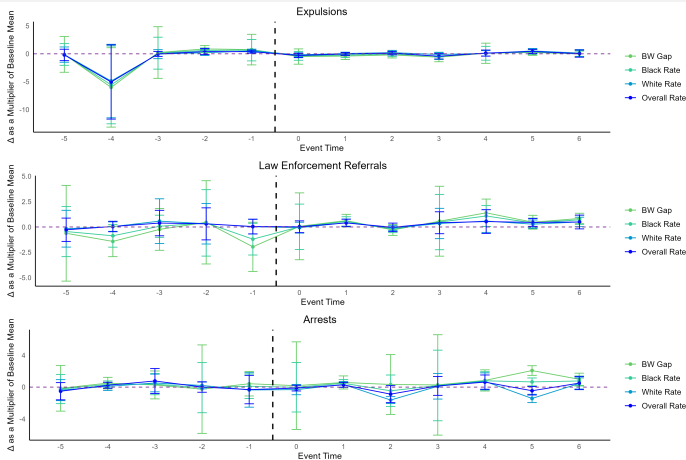
► Suspensions

Event-Time: LE Credentials on Rarer Exclusion in Majority Black Schools



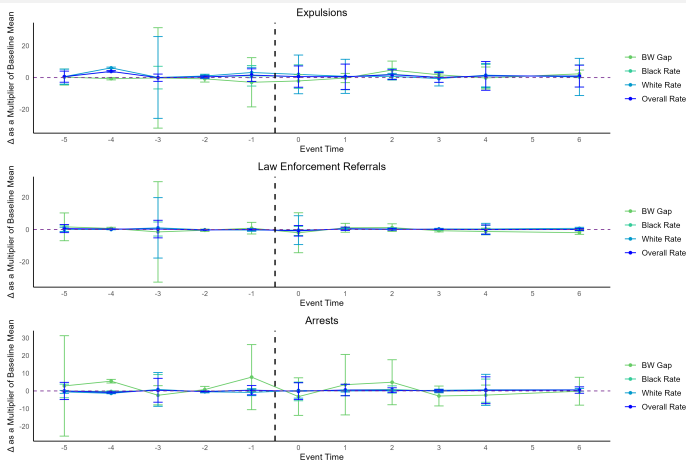
► Suspensions

Event-Time: LE Credentials on Rarer Exclusion in Minority Black Schools



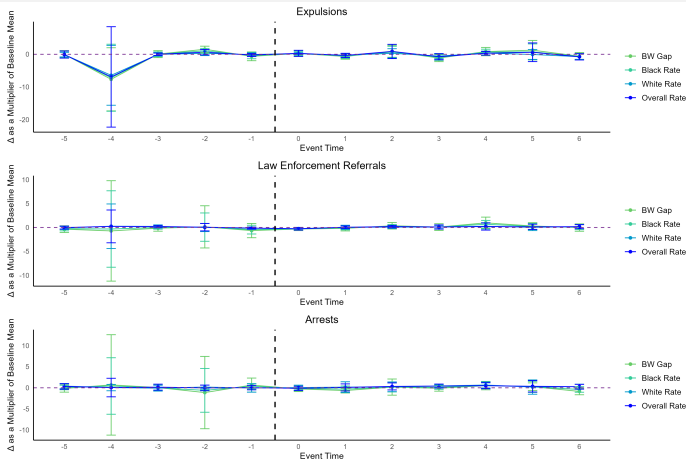
► Suspensions

Event-Time: Special Training on Rarer Exclusion in Majority Black Schools



► Suspensions

Event-Time: Special Training on Rarer Exclusion in Minority Black Schools



► Suspensions

Robustness: LE Credentials on Exclusion in Majority Black Schools

Measure	Main	No SRO Schools	Not Yet Treated	One Year Anticipation	Multiple Hypothesis Testing
In-School Suspension					
Black-White Gap	1.41*** (0.41)	-0.55 (0.38)	0.99** (0.41)	1.61*** (0.43)	1.41* (0.82)
Out-of-School Suspension					
Black-White Gap	1.81*** (0.49)	-0.71 (0.47)	1.60*** (0.39)	2.11*** (0.61)	1.81* (1.02)
Expulsion					
Black-White Gap	-3.40* (2.05)	0.94 (6.17)	0.17 (2.01)	-4.04* (2.11)	-3.40 (4.30)
Law Enforcement Referral					
Black-White Gap	9.61*** (2.99)	-0.01 (0.85)	6.63** (2.71)	11.64*** (3.32)	9.61* (5.68)
School-Related Arrest					
Black-White Gap	1.15 (1.71)	0.20 (1.05)	0.79 (1.25)	0.98 (1.67)	1.15 (3.62)

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 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.

Robustness: LE Credentials on Exclusion in Minority Black Schools

Measure	Main	No SRO Schools	Not Yet Treated	One Year Anticipation	Multiple Hypothesis Testing
In-School Suspension					
Black-White Gap	0.06 (0.10)	0.07 (0.19)	0.07 (0.09)	0.08 (0.11)	0.06 (0.20)
Out-of-School Suspension					
Black-White Gap	0.09 (0.09)	0.12 (0.27)	0.09 (0.09)	0.10 (0.10)	0.09 (0.19)
Expulsion					
Black-White Gap	-0.38 (0.32)	0.15 (0.28)	-0.32 (0.38)	-0.23 (0.41)	-0.38 (0.71)
Law Enforcement Referral					
Black-White Gap	0.53 (0.84)	0.68 (1.20)	0.51 (0.85)	0.08 (0.92)	0.53 (1.62)
School-Related Arrest					
Black-White Gap	0.46 (1.33)	-0.25 (1.34)	0.39 (1.41)	0.54 (1.63)	0.46 (2.83)

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 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.

Robustness: Special Training on Exclusion in Majority Black Schools

Measure	Main	No SRO Schools	Not Yet Treated	One Year Anticipation	Multiple Hypothesis Testing
In-School Suspension					
Black-White Gap	0.12 (0.24)	-0.39 (0.38)	0.07 (0.25)	0.02 (0.34)	0.12 (0.48)
Out-of-School Suspension					
Black-White Gap	-0.03 (0.27)	-0.62 (0.68)	0.05 (0.25)	-0.10 (0.26)	-0.03 (0.53)
Expulsion					
Black-White Gap	0.15 (1.66)	0.24 (1.76)	0.10 (2.26)	-0.20 (1.88)	0.15 (3.12)
Law Enforcement Referral					
Black-White Gap	-0.99 (4.13)	-0.43 (0.98)	-0.97 (5.00)	-1.09 (5.15)	-0.99 (8.26)
School-Related Arrest					
Black-White Gap	-1.54 (3.94)	-0.72 (1.25)	-1.56 (4.43)	-1.98 (5.10)	-1.54 (8.02)

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 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.

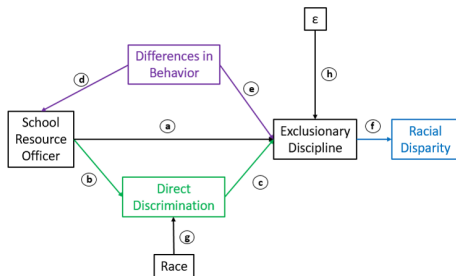
Robustness: Special Training on Exclusion in Minority Black Schools

Measure	Main	No SRO Schools	Not Yet Treated	One Year Anticipation	Multiple Hypothesis Testing
In-School Suspension					
Black-White Gap	-0.07 (0.12)	-0.26* (0.13)	-0.07 (0.11)	-0.07 (0.14)	-0.07 (0.24)
Out-of-School Suspension					
Black-White Gap	0.00 (0.08)	0.04 (0.14)	0.01 (0.07)	0.01 (0.10)	0.00 (0.15)
Expulsion					
Black-White Gap	0.08 (0.35)	0.52** (0.26)	0.19 (0.31)	0.19 (0.43)	0.08 (0.78)
Law Enforcement Referral					
Black-White Gap	-0.03 (0.22)	0.33 (0.72)	0.01 (0.23)	-0.11 (0.25)	-0.03 (0.44)
School-Related Arrest					
Black-White Gap	-0.26 (0.30)	0.20 (0.43)	-0.28 (0.32)	0.05 (0.31)	-0.26 (0.57)

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 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.

Prevailing Economics Framework

- a: SROs impact exclusion outcomes
- b: SROs directly discriminating
- c: Discriminant actions leading to exclusion
- d: Student behavior/environment determining SRO policy
- e: Student behavior/environment determining exclusion policy
- f: When Black rate \neq White rate
- g: Race determines whether an individual experiences DD
- h: SD, if it exists, is often assumed to be included in ϵ



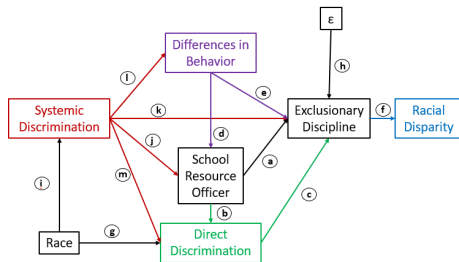
SRO policies target the SRO's individual actions, biases, and beliefs, mitigating the mediating path. Thus, SRO policies will reduce or eliminate racial gaps

►► Discussion

Systemic Discrimination Framework

- **h: SD exists, is not included in ϵ**
- **i:** Race determines whether an individual experiences SD
- **j:** SD supports a police role to enforce laws made in a racialized system and maintain social order
- **k:** SD creates barriers to opportunities for upward mobility
- **l:** SD impacts information, choice sets, constraints, strategies, and payoff structures
- **m:** SD leads to preferences and beliefs about social-group identities through laws, politics, culture, etc.

► Discussion



SRO policies target the SRO's individual actions, biases, and beliefs, mitigating the mediating path, but do not address the confounding paths through SD. Thus, SRO policies will not reduce racial gaps.