

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

January 4th, 2026

Presentation Roadmap

1 Introduction

2 Data

3 Empirical Strategy

4 Results

5 Conclusion

Up Next

1 Introduction

2 Data

3 Empirical Strategy

4 Results

5 Conclusion

What is a School Resource Officer (SRO)?



What is a School Resource Officer (SRO)?



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

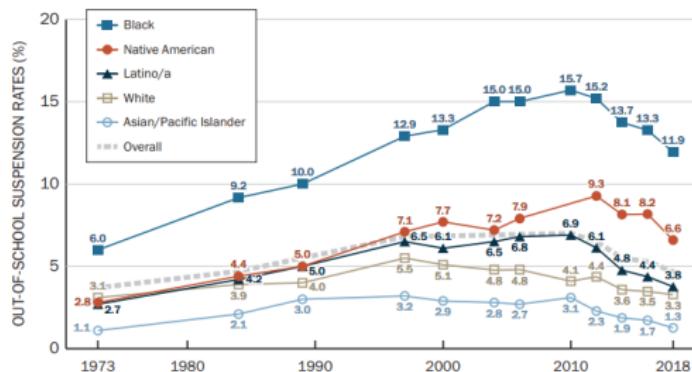
► SRO History

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

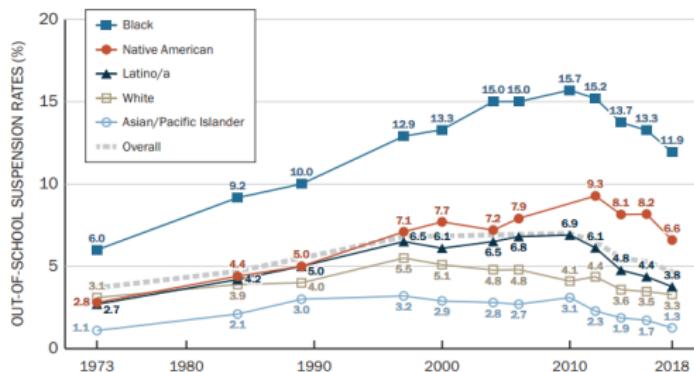


Notes: The years in the graph represent the spring of the school year the data was collected. To reduce cluttering, data labels for overall suspension rates were not included in the graph. The suspension rate for Native American students in the 2009–10 school year is not included due to data irregularities. 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.

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.

Persistent disparities signal institutional processes, not isolated individual behavior.

Source: Learning Policy Institute

School Policing as an Institutional Source of Exclusion

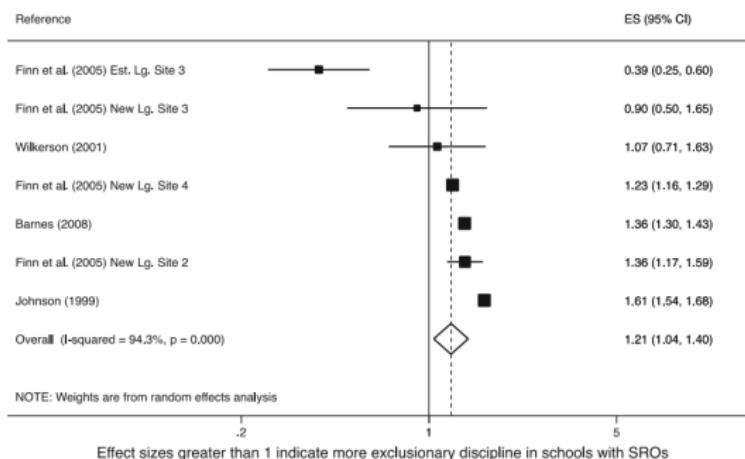


Fig. 3 Forest plot of meta-analysis of rate ratios of exclusionary discipline for studies using a pre-post design ($k = 7$)

School Policing as an Institutional Source of Exclusion

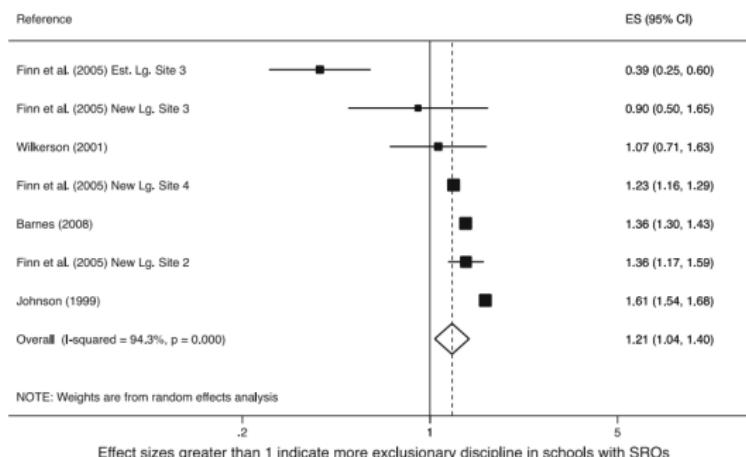


Fig. 3 Forest plot of meta-analysis of rate ratios of exclusionary discipline for studies using a pre-post design ($k = 7$)

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

► Related Literature

► Contribution

Source: Fisher & Hennessy (2016)

Motivating the Research Questions

- School exclusion restricts access to human capital development, with downstream effects on educational attainment and labor market outcomes

Motivating the Research Questions

- School exclusion restricts access to human capital development, with downstream effects on educational attainment and labor market outcomes
- School exclusion contributes to the school-to-prison pipeline, reinforcing intergenerational inequality

Motivating the Research Questions

- School exclusion restricts access to human capital development, with downstream effects on educational attainment and labor market outcomes
- 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

Motivating the Research Questions

- School exclusion restricts access to human capital development, with downstream effects on educational attainment and labor market outcomes
- 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

What I Do in My Paper

- **Research Question:**

- What is the impact of requiring SROs to have **LE credentials** or complete **special training** on racial gaps in exclusion in **majority** vs. **minority Black schools**?

What I Do in My Paper

- **Research Question:**

- What is the impact of requiring SROs to have **LE credentials** or complete **special training** on racial gaps in exclusion in **majority** vs. **minority Black schools**?

- **Method:**

- Use **national data** and **state variation** in statutes regulating SRO policies and programs.
 - Apply a **difference-in-difference (DID)** method to estimate SRO policy effects on Black-White gaps in school exclusion.

What I Do in My Paper

- **Research Question:**

- What is the impact of requiring SROs to have **LE credentials** or complete **special training** on racial gaps in exclusion in **majority** vs. **minority Black schools**?

- **Method:**

- Use **national data** and **state variation** in statutes regulating SRO policies and programs.
 - Apply a **difference-in-difference (DID)** method to estimate SRO policy effects on Black-White gaps in school exclusion.

- **Findings:**

- LE credential policies **more than double** racial gaps in suspensions and LE referrals in majority Black schools
 - * Driven by increases in Black exclusion rates by 69% in in-school suspensions, 40% in out-of-school suspensions, and 362% in LE referrals

What I Do in My Paper

- **Research Question:**

- What is the impact of requiring SROs to have **LE credentials** or complete **special training** on racial gaps in exclusion in **majority** vs. **minority Black schools**?

- **Method:**

- Use **national data** and **state variation** in statutes regulating SRO policies and programs.
 - Apply a **difference-in-difference (DID)** method to estimate SRO policy effects on Black-White gaps in school exclusion.

- **Findings:**

- LE credential policies **more than double** racial gaps in suspensions and LE referrals in majority Black schools
 - * 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

Up Next

1 Introduction

2 Data

3 Empirical Strategy

4 Results

5 Conclusion

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*

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*

● Covariates:

- Source: CRDC
 - * Student demographics, staffing, enrollment & type
 - * School-level
 - * Academic period
 - * 2013, 2015, 2017, and 2020

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*

● Covariates:

- Source: CRDC
 - * Student demographics, staffing, enrollment & type
 - * School-level
 - * Academic period
 - * 2013, 2015, 2017, and 2020
- 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

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

► Balance Table

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

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

Source: CRDC

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

Up Next

1 Introduction

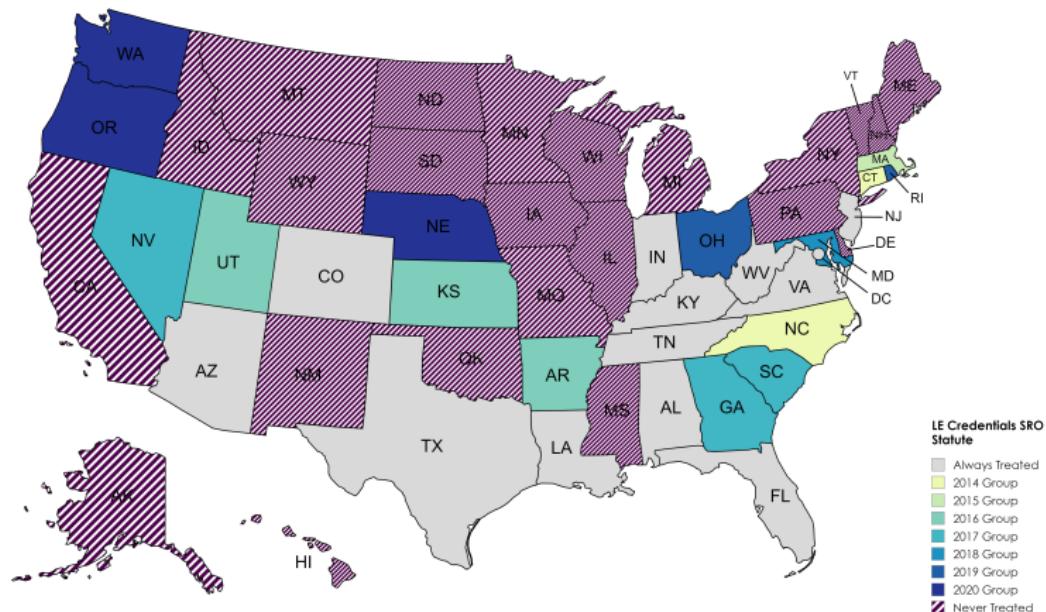
2 Data

3 Empirical Strategy

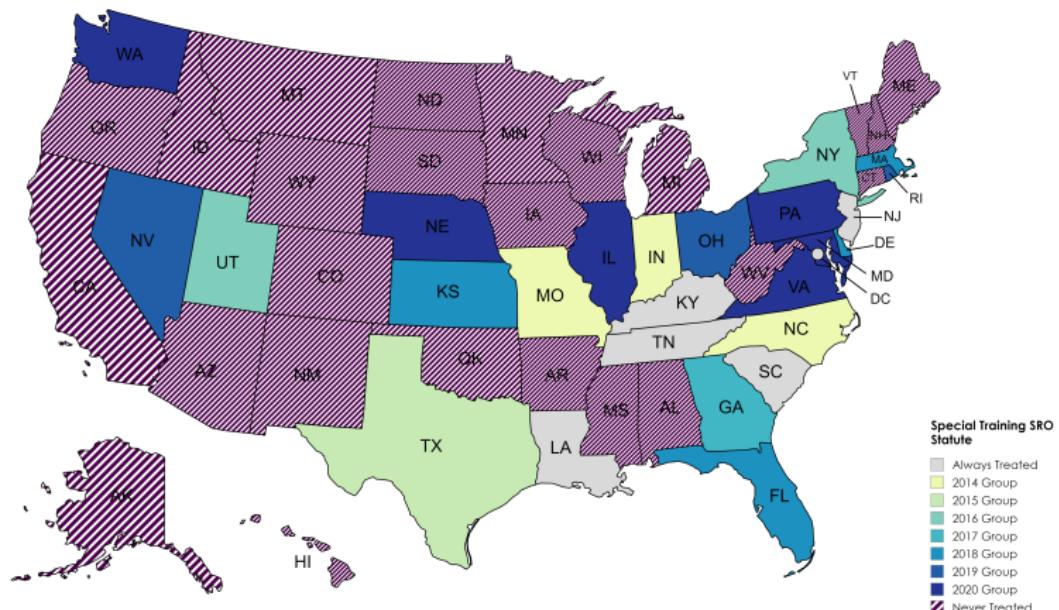
4 Results

5 Conclusion

State and Time Variation in LE Credentials Policies



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.
 - Compute clustered, bootstrapped standard errors at the state level.

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.
 - 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

Up Next

1 Introduction

2 Data

3 Empirical Strategy

4 Results

5 Conclusion

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?

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

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

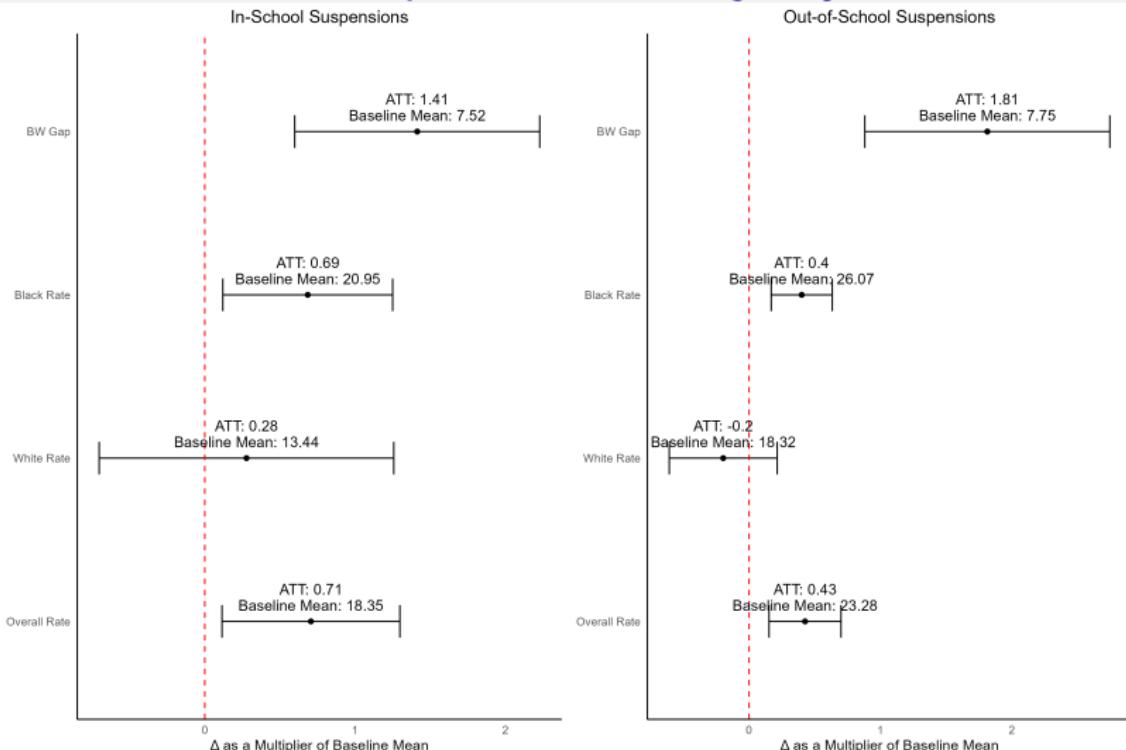
Estimator: Sant'Anna and Zhao (2020) DRDID.

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.

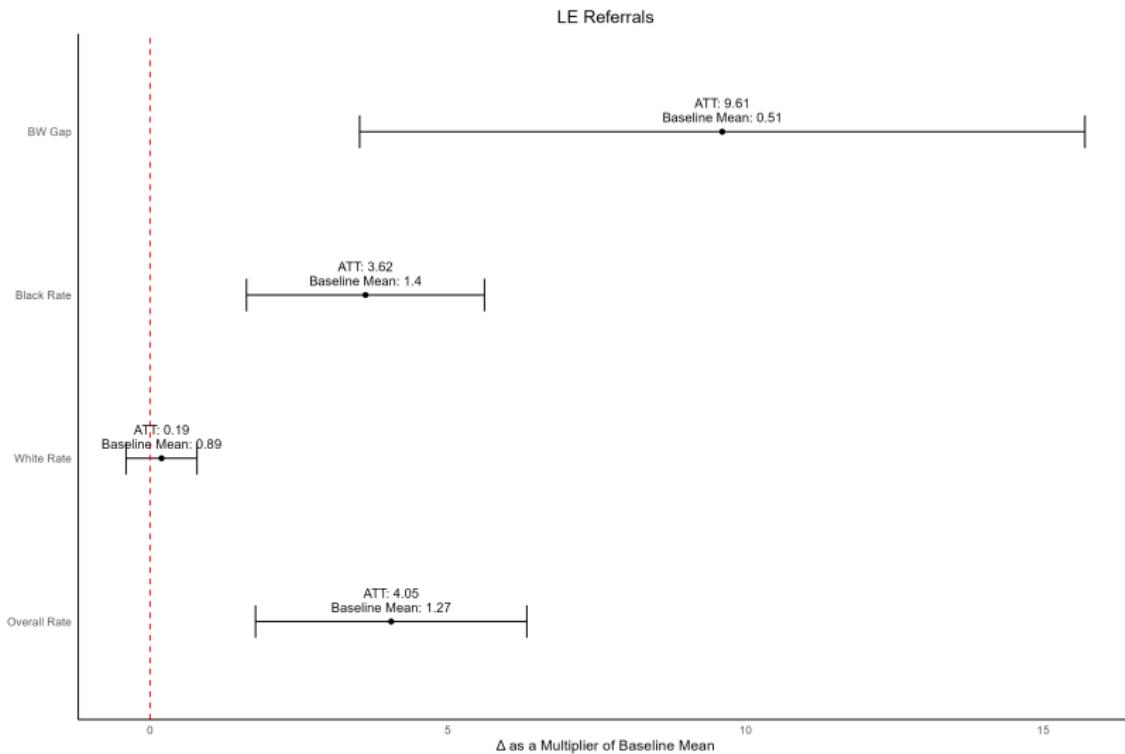
Majority Black: Black share of enrollment greater than 50%.

Minority Black: Black share of enrollment less than or equal to 50%.

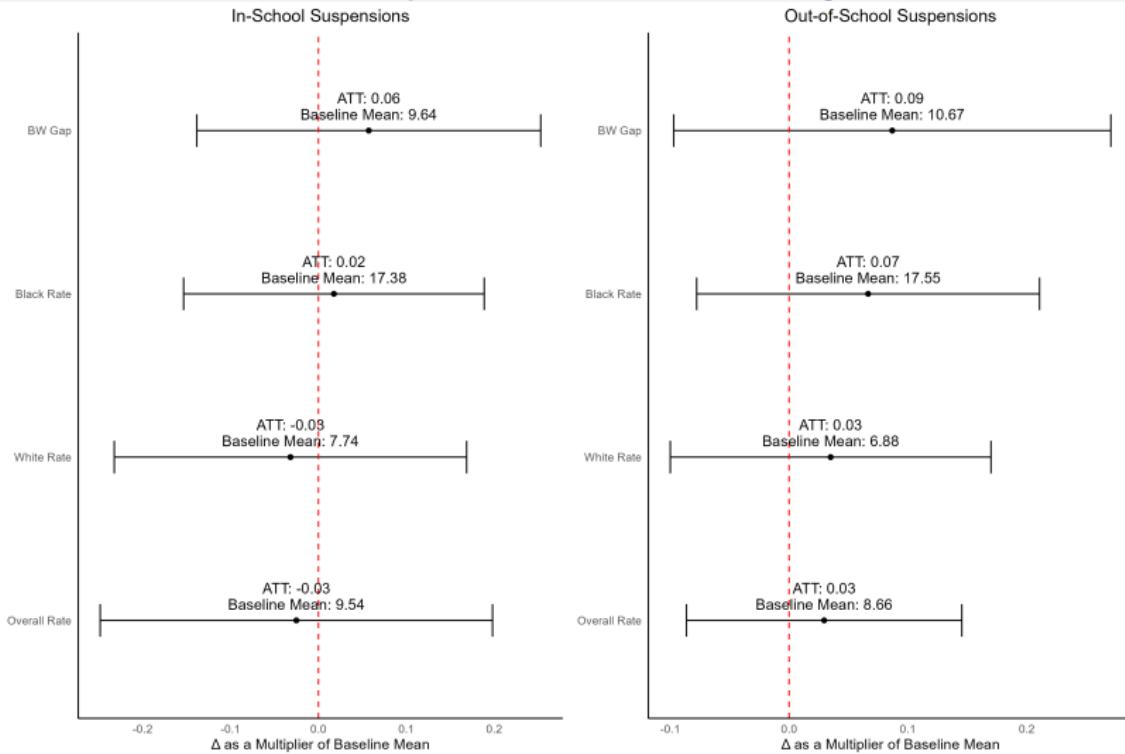
LE Credentials on Suspensions in Majority Black Schools



LE Credentials on LE Referrals in Majority Black Schools



LE Credentials on Suspensions in Minority Black Schools



State SRO Special Training Policy Impacts

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

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

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

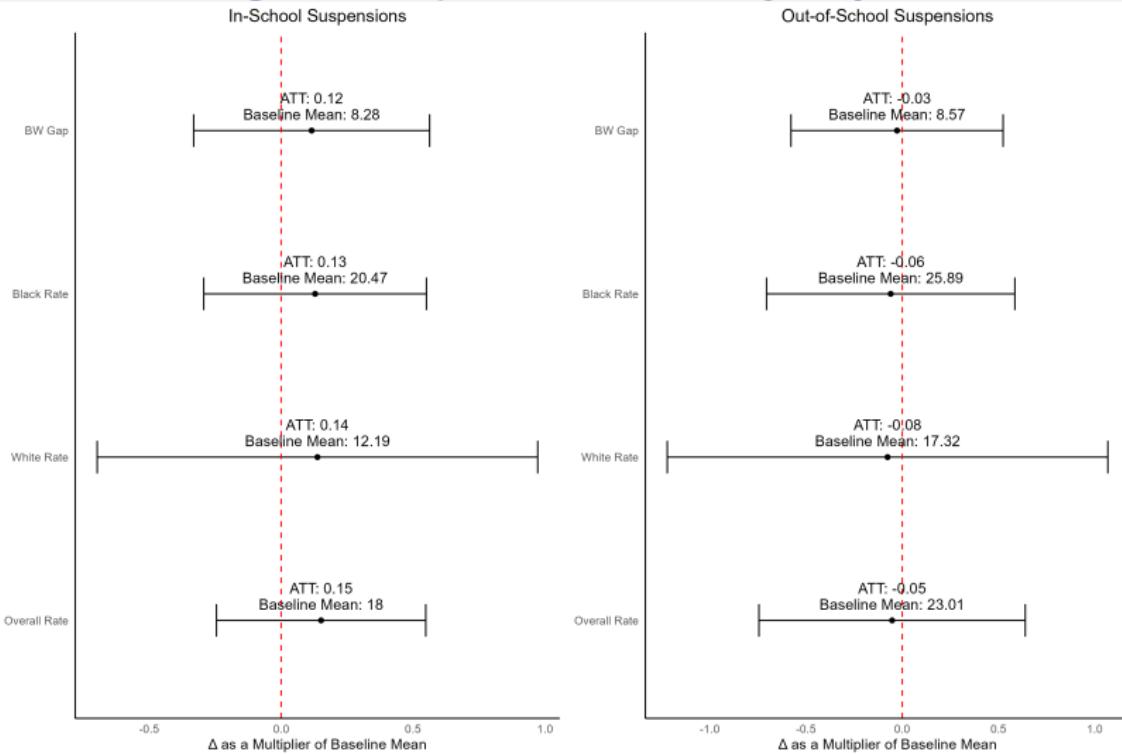
Estimator: Sant'Anna and Zhao (2020) DRDID.

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.

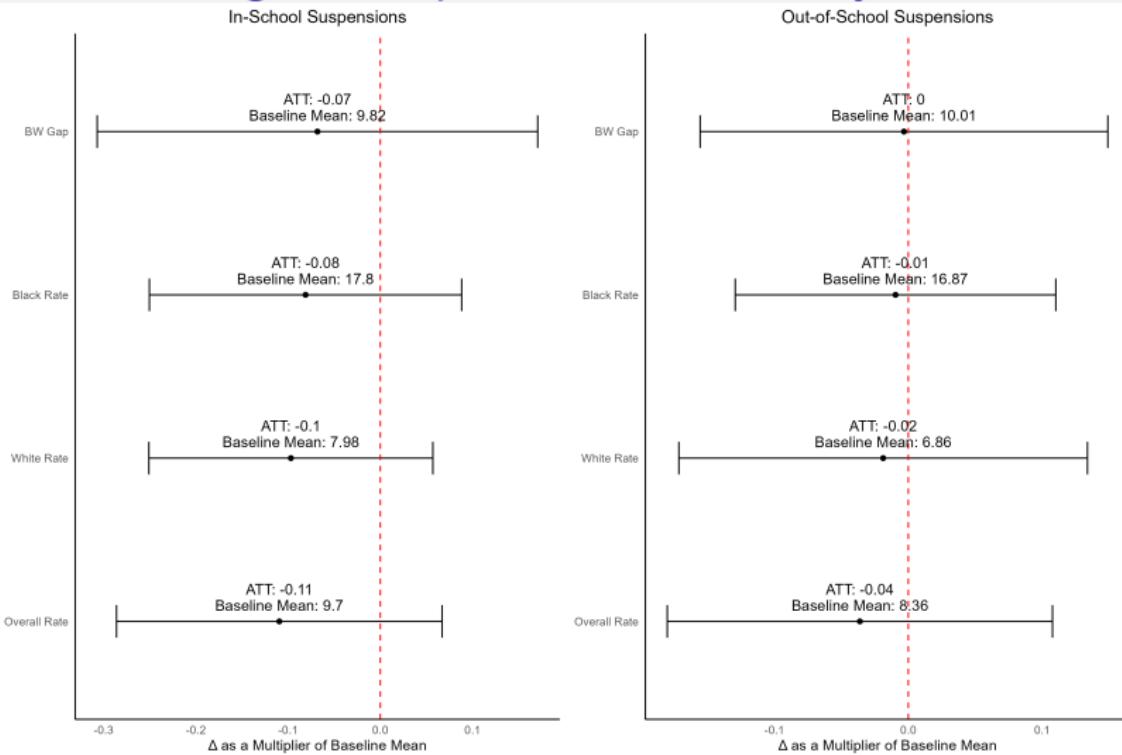
Majority Black: Black share of enrollment greater than 50%.

Minority Black: Black share of enrollment less than or equal to 50%.

Special Training on Suspensions in Majority Black Schools



Special Training on Suspensions in Minority Black Schools



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).

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).
- Law enforcement institutions are more likely to **define safety threats internally** in majority Black schools (Fisher et al., 2020).

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).
- Law enforcement institutions are more likely to **define safety threats internally** in majority Black schools (Fisher et al., 2020).
- Embedding policing institutions inside schools **expands surveillance and detection** of perceived offenses.

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).
- Law enforcement institutions are more likely to **define safety threats internally** in majority Black schools (Fisher et al., 2020).
- Embedding policing institutions inside schools **expands surveillance and detection** of perceived offenses.
- Increased detection mechanically produces **more referrals and exclusion**, even absent changes in student behavior (Gottfredson et al., 2020).

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).
- Law enforcement institutions are more likely to **define safety threats internally** in majority Black schools (Fisher et al., 2020).
- Embedding policing institutions inside schools **expands surveillance and detection** of perceived offenses.
- Increased detection mechanically produces **more referrals and exclusion**, even absent changes in student behavior (Gottfredson et al., 2020).

● Why Special Training Falls Short

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

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).
- Law enforcement institutions are more likely to **define safety threats internally** in majority Black schools (Fisher et al., 2020).
- Embedding policing institutions inside schools **expands surveillance and detection** of perceived offenses.
- Increased detection mechanically produces **more referrals and exclusion**, even absent changes in student behavior (Gottfredson et al., 2020).

● 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.

Up Next

1 Introduction

2 Data

3 Empirical Strategy

4 Results

5 Conclusion

Summarizing My Paper

- **Problem & Questions:**

- School exclusion undermines human capital formation and contributes to long-run labor market inequality.
- I study whether race-neutral SRO reforms reduce racial exclusion gaps across distinct institutional school contexts.

Summarizing My Paper

• Problem & Questions:

- School exclusion undermines human capital formation and contributes to long-run labor market inequality.
- I study whether race-neutral SRO reforms reduce racial exclusion gaps across distinct institutional school contexts.

• Findings:

- Mandating sworn law enforcement credentials **substantially widens** racial exclusion gaps in majority Black schools.
- Special training requirements do **not** meaningfully reduce racial gaps in exclusion across school contexts.

Summarizing My Paper

• Problem & Questions:

- School exclusion undermines human capital formation and contributes to long-run labor market inequality.
- I study whether race-neutral SRO reforms reduce racial exclusion gaps across distinct institutional school contexts.

• Findings:

- Mandating sworn law enforcement credentials **substantially widens** racial exclusion gaps in majority Black schools.
- Special training requirements do **not** meaningfully reduce racial gaps in exclusion across school contexts.

• 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.

Scan a QR Code to Connect

Website



www.moniqueedavis.com

Email



davis@upjohn.org

Bluesky



[@moniqueedavis-phd](https://bluesky.social/@moniqueedavis-phd)

Thank you for your time; let's connect!

References I

Anderson, Kenneth Alonzo. 2018. "Policing and Middle School: An Evaluation of a Statewide School Resource Officer Policy." *Middle Grades Review* 4 (2): 1–24.

Brown, Ben, and Wm. Reed Benedict. 2005. "Classroom Cops, What Do the Students Think? A Case Study of Student Perceptions of School Police and Security Officers Conducted in an Hispanic Community." *International Journal of Police Science & Management* 7 (4): 264–285.

Chrusciel, Margaret M., Scott Wolfe, J. Andrew Hansen, Jeff J. Rojek, and Robert Kaminski. 2015. "Law enforcement executive and principal perspectives on school safety measures: School resource officers and armed school employees." *Policing* 38 (1): 24–39.

References II

Counts, Jennifer, Kristina N. Randall, Joseph B. Ryan, and Antonis Katsiyannis. 2018. "School Resource Officers in Public Schools: A National Review." *Education and Treatment of Children* 41 (4): 405–430. ISSN: 19348924.
<https://doi.org/10.1353/etc.2018.0023>.

Crawford, Charles, and Ronald Burns. 2016. "Reducing school violence: Considering school characteristics and the impacts of law enforcement, school security, and environmental factors." *Policing* 39 (3): 455–477.

References III

Curran, F. Chris. 2019. "The Law, Policy, and Portrayal of Zero Tolerance School Discipline: Examining Prevalence and Characteristics Across Levels of Governance and School Districts." *Educational Policy* 33 (2): 319–349. ISSN: 15523896.
<https://doi.org/10.1177/0895904817691840>.

Durr, Marlese. 2015. "What is the Difference between Slave Patrols and Modern Day Policing? Institutional Violence in a Community of Color." *Critical Sociology* 41 (6): 873–879. ISSN: 15691632.
<https://doi.org/10.1177/0896920515594766>.

References IV

Fisher, Benjamin W., Ethan M. Higgins, Aaron Kupchik, Samantha Viano, F. Chris Curran, Suzanne Overstreet, Bryant Plumlee, and Brandon Coffey. 2020. "Protecting the Flock or Policing the Sheep? Differences in School Resource Officers' Perceptions of Threats by School Racial Composition." *Social Problems* 69 (2): 316–334. <https://doi.org/10.1093/socpro/spaa062>. <https://www.semanticscholar.org/paper/5f8b92b9f68c991d4eff836460df5d2ca7f8c75f>.

Florida Department of State. 2023. *6A-1.0018 School Safety Requirements and Monitoring*. <https://www.flrules.org/gateway/notice%7B%5C-%7DFiles.asp?ID=27538220>.

References V

Gordon Klehr, Deborah. 2009. "Addressing the Unintended Consequences of No Child Left Behind and Zero Tolerance: Better Strategies for Safe Schools and Successful Students." *Georgetown Journal on Poverty Law & Policy* 16:585–610.

Gottfredson, Denise C., Scott B Crosse, Zhiqun Tang, Erin L. Bauer, Michele A. Harmon, Carol A. Hagen, and Angela D. Greene. 2020. "Effects of school resource officers on school crime and responses to school crime." *Criminology and Public Policy* 19 (3): 905–940. ISSN: 17459133. <https://doi.org/10.1111/1745-9133.12512>.

Hinton, Elizabeth. 2015. "Creating Crime: The Rise and Impact of National Juvenile Delinquency Programs in Black Urban Neighborhoods." *Journal of Urban History* 41 (5): 808–824. ISSN: 15526771. <https://doi.org/10.1177/0096144215589946>.

References VI

Hirschfield, Paul J. 2008. "Preparing for prison? The criminalization of school discipline in the USA." *Theoretical Criminology* 12 (1): 79–101. ISSN: 13624806.
<https://doi.org/10.1177/1362480607085795>.

Irby, Decoteau J., and Kylee Coney. 2021. "The 1994 Gun-Free Schools Act: Its Effects 25 Years Later and How to Undo Them." *Peabody Journal of Education* 96 (5): 494–507. ISSN: 0161956X.
<https://doi.org/10.1080/0161956X.2021.1991690>.
<https://doi.org/10.1080/0161956X.2021.1991690>.

References VII

Jackson, Arrick. 2002. "Police-school resource officers' and students' perception of the police and offending." *Policing* 25 (3): 631–650. ISSN: 1363951X. <https://doi.org/10.1108/13639510210437078>. <https://www.semanticscholar.org/paper/9c9f1f4dff9143913cdfdd9dff58661f17ea58c>.

Jackson, M.S. 1995. "Views on the Crime Bill: A Challenge for Juvenile Justice in the 21st Century." *Journal for Juvenile Justice and Detention Services* 10 (2): 46–48.

Lynch, Caitlin G., Randy R. Gainey, and Allison T. Chappell. 2016. "The effects of social and educational disadvantage on the roles and functions of school resource officers." *Policing* 39 (3): 521–535.

References VIII

Meek, Andrew H. 2022. "An Accident of History: The Fourth Amendment as Applied to Schools and *New Jersey v. T.L.O.*" *Journal of Supreme Court History* 47 (3): 305–323.
<https://doi.org/10.1353/sch.2022.a901695>.

Na, Chongmin, and Denise C. Gottfredson. 2013. "Police Officers in Schools: Effects on School Crime and the Processing of Offending Behaviors." *Justice Quarterly* 30 (4): 619–650.
<https://doi.org/10.1080/07418825.2011.615754>.
<https://www.semanticscholar.org/paper/f4c6260d3f997755a01bb30c576e74dd19db7b1a>.

References IX

Office of the Attorney General. 2014. *Department of Justice Awards Hiring Grants for Law Enforcement and School Safety Officers*.
<https://www.justice.gov/opa/pr/department-justice-awards-hiring-grants-law-enforcement-and-school-safety-officers>.

———. 2018. *Attorney General Sessions Announces New Actions To Improve School Safety And Better Enforce Existing Gun Laws*.
<https://www.justice.gov/opa/pr/attorney-general-sessions-announces-new-actions-improve-school-safety-and-better-enforce>.

Owens, Emily G. 2017. "Testing the School-to-Prison Pipeline." *Journal of Policy Analysis and Management* 36 (1): 11–37.
<https://doi.org/10.1002/PAM.21954>.
<https://www.semanticscholar.org/paper/b8d0884a5b304a29a71a2b13e2ce68cec2c9cd65>.

References X

Parks, Natalie, and Beverly Kirby. 2022. "The Function of the Police Force: A Behavior-Analytic Review of the History of How Policing in America Came to Be." *Behavior Analysis in Practice* 15 (4): 1205–1212. ISSN: 1998-1929.
<https://doi.org/10.1007/s40617-021-00568-6>.

Rosenbaum, Dennis P., Robert L. Flewelling, Susan L. Bailey, Chris L. Ringwalt, and Deanna L. Wilkinson. 1994. "Cops in the Classroom: A Longitudinal Evaluation of Drug Abuse Resistance Education." *Journal of Research in Crime and Delinquency* 31 (1): 3–31.

Rosenfeld, Richard. 2020. "The 1994 Crime Bill: Legacy and Lessons - Overview and Reflections." *Federal Sentencing Reporter* 32 (3): 147–152. ISSN: 1053-9867.

References XI

Sorensen, Lucy C., Montserrat Avila-Acosta, John B. Engberg, and Shawn D. Bushway. 2023. "The thin blue line in schools: New evidence on school-based policing across the U.S." *Journal of Policy Analysis and Management* 42 (4): 941–970. ISSN: 15206688. <https://doi.org/10.1002/pam.22498>.

Sorensen, Lucy C., Yinzhi Shen, and Shawn D. Bushway. 2021. "Making Schools Safer and/or Escalating Disciplinary Response: A Study of Police Officers in North Carolina Schools." *Educational Evaluation and Policy Analysis* 43 (3): 495–519. ISSN: 19351062. <https://doi.org/10.3102/01623737211006409>. <https://semanticscholar.org/paper/ef6db0fd7676e315e4c71e12666892e5e7d016c9>.

References XII

Texas State Legislature. 2023. *Texas House Bill 3*.
<https://capitol.texas.gov/tlodocs/88R/billtext/pdf/HB00003F.pdf%7B%5C#%7Dnavpanes=0>.

The 107th United States Congress. 2001. "H.R.1 - 107th Congress: No Child Left Behind Act of 2001," 1–670.
<https://www.congress.gov/bill/107th-congress/house-bill/1>.

The 115th United States Congress. 2018. "H.R. 4909 - Student, Teachers, and Officers Preventing School Violence Act of 2018,"
<https://www.congress.gov/bill/115th-congress/house-bill/4909/text?format=txt>.

References XIII

The Center for Public Integrity. 2021. "The History of School Policing." *The Center for Public Integrity*, <https://publicintegrity.org/education/criminalizing-kids/the-history-of-school-policing/>.

Theriot, Matthew T. 2009. "School resource officers and the criminalization of student behavior." *Journal of Criminal Justice* 37 (3): 280–287. <https://doi.org/10.1016/J.JCRIMJUS.2009.04.008>. <https://www.semanticscholar.org/paper/b96b247672fd617d9a4e52d2becba732ce20ab6a>.

Weisburst, Emily K. 2019. "Patrolling Public Schools: The Impact of Funding for School Police on Student Discipline and Long-term Education Outcomes." *Journal of Policy Analysis and Management* 38 (2): 338–365.

References XIV

Weiss Jr., Harold J. 1994. "The Texas Rangers Revisited: Old Themes and New Viewpoints." *Southwestern Historical Quarterly* 97 (4): 620–640.

Welsh, Brandon C., Anthony A. Braga, and Gerben J.N. Bruinsma. 2015. "Reimagining Broken Windows: From Theory to Policy." *Journal of Research in Crime and Delinquency* 52 (4): 447–463. ISSN: 1552731X. <https://doi.org/10.1177/0022427815581399>.

SRO Origins and Expansion

► School Policing History

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)
- Public officials tout concerns about “youth-based crime” (Hinton, 2015; Counts et al., 2018)

SRO Origins and Expansion

► School Policing History

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)
- Public officials tout concerns about “youth-based crime” (Hinton, 2015; Counts et al., 2018)

Phase II: war on crime and drugs (1980s – 1990s)

- The 1980s saw increased efforts to combat crime and drugs in urban areas
- The 1990s was a significant period of school police expansion

SRO Origins and Expansion

► School Policing History

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)
- Public officials tout concerns about “youth-based crime” (Hinton, 2015; Counts et al., 2018)

Phase II: war on crime and drugs (1980s – 1990s)

- The 1980s saw increased efforts to combat crime and drugs in urban areas
- The 1990s was a significant period of school police expansion

Phase III: mass school shootings (2000s – present)

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

► Define SRO



Background on State SRO Policies

- States did not implement SRO policies until the 1990s

Background on State SRO Policies

- States did not implement SRO policies until the 1990s
- Policy levers
 - Whether and where SROs can be assigned
 - Defining memorandums of understanding, roles, and responsibilities
 - Crisis Response
 - **Credentials/Qualifications**
 - **Special Training**

Background on State SRO Policies

- States did not implement SRO policies until the 1990s
- Policy levers
 - Whether and where SROs can be assigned
 - Defining memorandums of understanding, roles, and responsibilities
 - Crisis Response
 - **Credentials/Qualifications**
 - **Special Training**
- Credentials/Qualifications
 - 31 states have adopted related statutory requirements since 1997
 - Motivated by public concerns about **school safety**

Background on State SRO Policies

- States did not implement SRO policies until the 1990s
- Policy levers
 - Whether and where SROs can be assigned
 - Defining memorandums of understanding, roles, and responsibilities
 - Crisis Response
 - **Credentials/Qualifications**
 - **Special Training**
- Credentials/Qualifications
 - 31 states have adopted related statutory requirements since 1997
 - Motivated by public concerns about **school safety**
- Special Training
 - 29 states have adopted related statutory requirements since 1997
 - Motivated by public concerns about **disparities** related to SRO presence

SRO Requirements: Law Enforcement Credentials and Special Training

- Sworn Law Enforcement (LE) Credentials
 - Represent the policing institution that has historically treated Black individuals differently
 - Given to officers who have gone through standard police officer training

SRO Requirements: Law Enforcement Credentials and Special Training

- Sworn Law Enforcement (LE) Credentials
 - Represent the policing institution that has historically treated Black individuals differently
 - Given to officers who have gone through standard police officer training
- Special Training
 - Additional training to help officers understand and manage child or adolescent behavior
 - Includes adolescent development, conflict resolution/de-escalation, mental health/suicide prevention, students with disabilities, or general SRO training

SRO Requirements: Law Enforcement Credentials and Special Training

- Sworn Law Enforcement (LE) Credentials
 - Represent the policing institution that has historically treated Black individuals differently
 - Given to officers who have gone through standard police officer training
- Special Training
 - Additional training to help officers understand and manage child or adolescent behavior
 - Includes adolescent development, conflict resolution/de-escalation, mental health/suicide prevention, students with disabilities, or general SRO training
- Motivations to have sworn credentialed SROs present vs. specially trained SROs present, may lead to different impacts on the school environment

Majority Black Schools vs. Minority Black Schools

- Majority Black schools often have a history of segregation, underfunding, and over-policed neighborhoods

Majority Black Schools vs. Minority Black Schools

- Majority Black schools often have a history of segregation, underfunding, and over-policed neighborhoods
- These structural factors can contribute to differences between majority and minority Black schools, not just in personnel, but in policy implementation and execution

Majority Black Schools vs. Minority Black Schools

- Majority Black schools often have a history of segregation, underfunding, and over-policed neighborhoods
- These structural factors can contribute to differences between majority and minority Black schools, not just in personnel, but in policy implementation and execution
- LE credentialed SROs may behave differently in majority vs. minority Black schools if they view these environments as more criminal

Majority Black Schools vs. Minority Black Schools

- Majority Black schools often have a history of segregation, underfunding, and over-policed neighborhoods
- These structural factors can contribute to differences between majority and minority Black schools, not just in personnel, but in policy implementation and execution
- LE credentialed SROs may behave differently in majority vs. minority Black schools if they view these environments as more criminal
- Special training requirements may have different impacts in majority vs. minority Black schools if institutional factors create more barriers to changing individual behaviors

► Motivating RQs

A Small Sample of Related Literature

- SROs can have a beneficial impact on **school safety** (Brown and Benedict, 2005; Theriot, 2009; Chrusciel et al., 2015)

A Small Sample of Related Literature

- SROs can have a beneficial impact on **school safety** (Brown and Benedict, 2005; Theriot, 2009; Chrusciel et al., 2015)
- Often at the cost of increased **exclusion**, especially of younger students and for minor offenses (Theriot, 2009; Na and Gottfredson, 2013; Owens, 2017)

A Small Sample of Related Literature

- SROs can have a beneficial impact on **school safety** (Brown and Benedict, 2005; Theriot, 2009; Chrusciel et al., 2015)
- Often at the cost of increased **exclusion**, especially of younger students and for minor offenses (Theriot, 2009; Na and Gottfredson, 2013; Owens, 2017)
- **Disproportionate exclusion** of Black and other marginalized students is associated with SRO presence (A. Jackson, 2002; Crawford and Burns, 2016; Lynch, Gainey, and Chappell, 2016; Sorensen et al., 2023)

► SROs and School Exclusion

Causal Analyses in the Literature

- The best **causal analyses** suggests SROs do increase school safety and school exclusion, where these effects vary across different students and schools (Owens, [2017](#); Weisburst, [2019](#); Sorensen, Shen, and Bushway, [2021](#); Sorensen et al., [2023](#))

Causal Analyses in the Literature

- The best **causal analyses** suggests SROs do increase school safety and school exclusion, where these effects vary across different students and schools (Owens, 2017; Weisburst, 2019; Sorensen, Shen, and Bushway, 2021; Sorensen et al., 2023)
 - Focus on impacts of changes in the extensive and intensive margins of SRO presence

Causal Analyses in the Literature

- The best **causal analyses** suggests SROs do increase school safety and school exclusion, where these effects vary across different students and schools (Owens, 2017; Weisburst, 2019; Sorensen, Shen, and Bushway, 2021; Sorensen et al., 2023)
 - Focus on impacts of changes in the extensive and intensive margins of SRO presence
 - * **Contribution:** State SRO policy impacts

Causal Analyses in the Literature

- The best **causal analyses** suggests SROs do increase school safety and school exclusion, where these effects vary across different students and schools (Owens, 2017; Weisburst, 2019; Sorensen, Shen, and Bushway, 2021; Sorensen et al., 2023)
 - Focus on impacts of changes in the extensive and intensive margins of SRO presence
 - * **Contribution:** State SRO policy impacts
 - Utilize indirect measures of SRO presence or limited geographical context

Causal Analyses in the Literature

- The best **causal analyses** suggests SROs do increase school safety and school exclusion, where these effects vary across different students and schools (Owens, 2017; Weisburst, 2019; Sorensen, Shen, and Bushway, 2021; Sorensen et al., 2023)
 - Focus on impacts of changes in the extensive and intensive margins of SRO presence
 - * **Contribution:** State SRO policy impacts
 - Utilize indirect measures of SRO presence or limited geographical context
 - * **Contribution:** Direct measure of school-level SRO presence in a national context

Causal Analyses in the Literature

- The best **causal analyses** suggests SROs do increase school safety and school exclusion, where these effects vary across different students and schools (Owens, 2017; Weisburst, 2019; Sorensen, Shen, and Bushway, 2021; Sorensen et al., 2023)
 - Focus on impacts of changes in the extensive and intensive margins of SRO presence
 - * **Contribution:** State SRO policy impacts
 - Utilize indirect measures of SRO presence or limited geographical context
 - * **Contribution:** Direct measure of school-level SRO presence in a national context
 - Rely on theoretical frameworks limited to individual SRO and student behavior

Causal Analyses in the Literature

- The best **causal analyses** suggests SROs do increase school safety and school exclusion, where these effects vary across different students and schools (Owens, 2017; Weisburst, 2019; Sorensen, Shen, and Bushway, 2021; Sorensen et al., 2023)
 - Focus on impacts of changes in the extensive and intensive margins of SRO presence
 - * **Contribution:** State SRO policy impacts
 - Utilize indirect measures of SRO presence or limited geographical context
 - * **Contribution:** Direct measure of school-level SRO presence in a national context
 - Rely on theoretical frameworks limited to individual SRO and student behavior
 - * **Contribution:** Structural lens incorporating systemic discrimination

History of School Policing

- Records of the first police officers permanently assigned to schools in Flint, MI, in 1953 during the arguments of the Brown v. Board of Education Supreme Court case (The Center for Public Integrity, [2021](#))

History of School Policing

- Records of the first police officers permanently assigned to schools in Flint, MI, in 1953 during the arguments of the Brown v. Board of Education Supreme Court case (The Center for Public Integrity, 2021)
- Through the years following the Brown v. Board 1954 decision, when schools were integrating, more schools began to assign officers to patrol school campuses, mostly in low-income and de facto segregated schools (Counts et al., 2018)

History of School Policing

- Records of the first police officers permanently assigned to schools in Flint, MI, in 1953 during the arguments of the Brown v. Board of Education Supreme Court case (The Center for Public Integrity, 2021)
- Through the years following the Brown v. Board 1954 decision, when schools were integrating, more schools began to assign officers to patrol school campuses, mostly in low-income and de facto segregated schools (Counts et al., 2018)
- During this time, public officials are also touting concerns about “youth-based crime” and seems to drive the expansion of school-based police, particularly in urban areas with higher Black populations (e.g., Baltimore, MD and Washington D.C.) (Hinton, 2015; Counts et al., 2018)

History of School Policing

- Records of the first police officers permanently assigned to schools in Flint, MI, in 1953 during the arguments of the Brown v. Board of Education Supreme Court case (The Center for Public Integrity, 2021)
- Through the years following the Brown v. Board 1954 decision, when schools were integrating, more schools began to assign officers to patrol school campuses, mostly in low-income and de facto segregated schools (Counts et al., 2018)
- During this time, public officials are also touting concerns about “youth-based crime” and seems to drive the expansion of school-based police, particularly in urban areas with higher Black populations (e.g., Baltimore, MD and Washington D.C.) (Hinton, 2015; Counts et al., 2018)
 - 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

History of School Policing

- The 1980s brought about an era of increased efforts to combat crime and drugs in urban areas, where these efforts extend to schools

History of School Policing

- The 1980s brought about an era of increased efforts to combat crime and drugs in urban areas, where these efforts extend to schools
 - “Broken Windows” crime prevention strategies introduced: policing low-level offenses will maintain order and prevent more serious crimes in communities of color (Welsh, Braga, and Bruinsma, 2015)

History of School Policing

- The 1980s brought about an era of increased efforts to combat crime and drugs in urban areas, where these efforts extend to schools
 - “Broken Windows” crime prevention strategies introduced: policing low-level offenses will maintain order and prevent more serious crimes in communities of color (Welsh, Braga, and Bruinsma, 2015)
 - Zero tolerance policies begin to take off in this spirit (Curran, 2019)

History of School Policing

- The 1980s brought about an era of increased efforts to combat crime and drugs in urban areas, where these efforts extend to schools
 - “Broken Windows” crime prevention strategies introduced: policing low-level offenses will maintain order and prevent more serious crimes in communities of color (Welsh, Braga, and Bruinsma, 2015)
 - Zero tolerance policies begin to take off in this spirit (Curran, 2019)
 - The Drug Abuse Resistance Education (DARE) program started in 1983, further integrating police into students’ day-to-day (Rosenbaum et al., 1994)

History of School Policing

- The 1980s brought about an era of increased efforts to combat crime and drugs in urban areas, where these efforts extend to schools
 - “Broken Windows” crime prevention strategies introduced: policing low-level offenses will maintain order and prevent more serious crimes in communities of color (Welsh, Braga, and Bruinsma, 2015)
 - Zero tolerance policies begin to take off in this spirit (Curran, 2019)
 - The Drug Abuse Resistance Education (DARE) program started in 1983, further integrating police into students’ day-to-day (Rosenbaum et al., 1994)
 - In 1985, the New Jersey v. T.L.O Supreme Court decision weakened students’ Fourth Amendment rights (Meek, 2022)

History of School Policing

- The 1990s becomes a significant period of expanded school police crime prevention, targeting “high crime” areas

History of School Policing

- The 1990s becomes a significant period of expanded school police crime prevention, targeting “high crime” areas
 - The National Association of School Resource Officers (NASRO) was founded in 1991 and promotes and increases efforts to expand police in schools (Counts et al., 2018)

History of School Policing

- The 1990s becomes a significant period of expanded school police crime prevention, targeting “high crime” areas
 - The National Association of School Resource Officers (NASRO) was founded in 1991 and promotes and increases efforts to expand police in schools (Counts et al., 2018)
 - Gun-Free Schools Act required adoption of zero tolerance policies and expulsions for gun possessions and leads towards zero tolerance of drugs and alcohol (Irby and Coney, 2021)

History of School Policing

- The 1990s becomes a significant period of expanded school police crime prevention, targeting “high crime” areas
 - The National Association of School Resource Officers (NASRO) was founded in 1991 and promotes and increases efforts to expand police in schools (Counts et al., [2018](#))
 - Gun-Free Schools Act required adoption of zero tolerance policies and expulsions for gun possessions and leads towards zero tolerance of drugs and alcohol (Irby and Coney, [2021](#))
 - 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](#))

History of School Policing

- Following the 1999 mass shooting at Columbine High School, we enter a new era of school police expansion to combat school shootings

History of School Policing

- Following the 1999 mass shooting at Columbine High School, we enter a new era of school police expansion to combat school shootings
 - COPS creates the “COPS in Schools” (CIS) grant, which awarded more than \$750 million in federal grants to specifically aid law enforcement agencies in hiring school police officers (Owens, 2017)

History of School Policing

- Following the 1999 mass shooting at Columbine High School, we enter a new era of school police expansion to combat school shootings
 - COPS creates the “COPS in Schools” (CIS) grant, which awarded more than \$750 million in federal grants to specifically aid law enforcement agencies in hiring school police officers (Owens, 2017)
 - Independent state efforts also contribute to increased law enforcement in schools (Anderson, 2018; Counts et al., 2018)

History of School Policing

- Following the 1999 mass shooting at Columbine High School, we enter a new era of school police expansion to combat school shootings
 - COPS creates the “COPS in Schools” (CIS) grant, which awarded more than \$750 million in federal grants to specifically aid law enforcement agencies in hiring school police officers (Owens, 2017)
 - Independent state efforts also contribute to increased law enforcement in schools (Anderson, 2018; Counts et al., 2018)
 - 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)

History of School Policing

- The Obama administration promotes federal grant applications for hiring SROs following the 2013 Sandy Hook Elementary School Shooting ([Office of the Attorney General, 2014](#))

History of School Policing

- The Obama administration promotes federal grant applications for hiring SROs following the 2013 Sandy Hook Elementary School Shooting ([Office of the Attorney General, 2014](#))
- Also, after the 2018 mass shooting at Marjory Stoneman Douglas High School, the Trump administration prioritizes federal funds to help hire SROs ([Office of the Attorney General, 2018](#))

History of School Policing

- The Obama administration promotes federal grant applications for hiring SROs following the 2013 Sandy Hook Elementary School Shooting ([Office of the Attorney General, 2014](#))
- Also, after the 2018 mass shooting at Marjory Stoneman Douglas High School, the Trump administration prioritizes federal funds to help hire SROs ([Office of the Attorney General, 2018](#))
- Student, Teachers, and Officers Preventing (STOP) School Violence Act funded \$50 million a year to school districts for increasing school security and safety ([The 115th United States Congress, 2018](#))

History of School Policing

- The Obama administration promotes federal grant applications for hiring SROs following the 2013 Sandy Hook Elementary School Shooting ([Office of the Attorney General, 2014](#))
- Also, after the 2018 mass shooting at Marjory Stoneman Douglas High School, the Trump administration prioritizes federal funds to help hire SROs ([Office of the Attorney General, 2018](#))
- Student, Teachers, and Officers Preventing (STOP) School Violence Act funded \$50 million a year to school districts for increasing school security and safety ([The 115th United States Congress, 2018](#))
- 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).
- Thus, law enforcement may behave differently in majority Black schools.

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).
 - Thus, law enforcement may behave differently in majority Black schools.

- **Special Training - Individual-Based Policy:**

- Common policy response to SRO-related discipline disparities by targetting changes in SRO actions, biases, or beliefs.
 - Existence of systemic discrimination may limit the effectiveness of an individual-based policy.

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).
 - Thus, law enforcement may behave differently in majority Black schools.

- **Special Training - Individual-Based Policy:**

- Common policy response to SRO-related discipline disparities by targetting changes in SRO actions, biases, or beliefs.
 - Existence of systemic discrimination may limit the effectiveness of an individual-based policy.

- **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)**

- **Treated State:** A state that passed a statute requiring SROs to have LE credentials (complete specialized training) after the 2013-14 and before the 2020-21 academic period.

Defining Treatment and Comparison Groups

- **LE Credentials (Special Training)**

- **Treated State:** A state that passed a statute requiring SROs to have LE credentials (complete specialized training) after the 2013-14 and before the 2020-21 academic period.
- **Treatment Group:** I assigned treated states to a treatment group based on the first academic year their state's legislature *initially* set the statute effective date.

Defining Treatment and Comparison Groups

- **LE Credentials (Special Training)**

- **Treated State:** A state that passed a statute requiring SROs to have LE credentials (complete specialized training) after the 2013-14 and before the 2020-21 academic period.
- **Treatment Group:** I assigned treated states to a treatment group based on the first academic year their state's legislature *initially* set the statute effective date.
- **Comparison State:** A state that did not pass a statute requiring SROs to have LE credentials (complete specialized training) before the 2020-21 academic period.

» Treatment Data

Distribution of Characteristics are Balanced b/w Groups

Covariate	LE Credentials		Special Training	
	Majority Black	Minority Black	Majority Black	Minority Black
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:**

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

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

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

- 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).

Sant'Anna and Zhao (2020) Doubly Robust Estimator

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

- 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).

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

- 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

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

- 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).

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

- 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 $C = 1$.

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

- 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

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

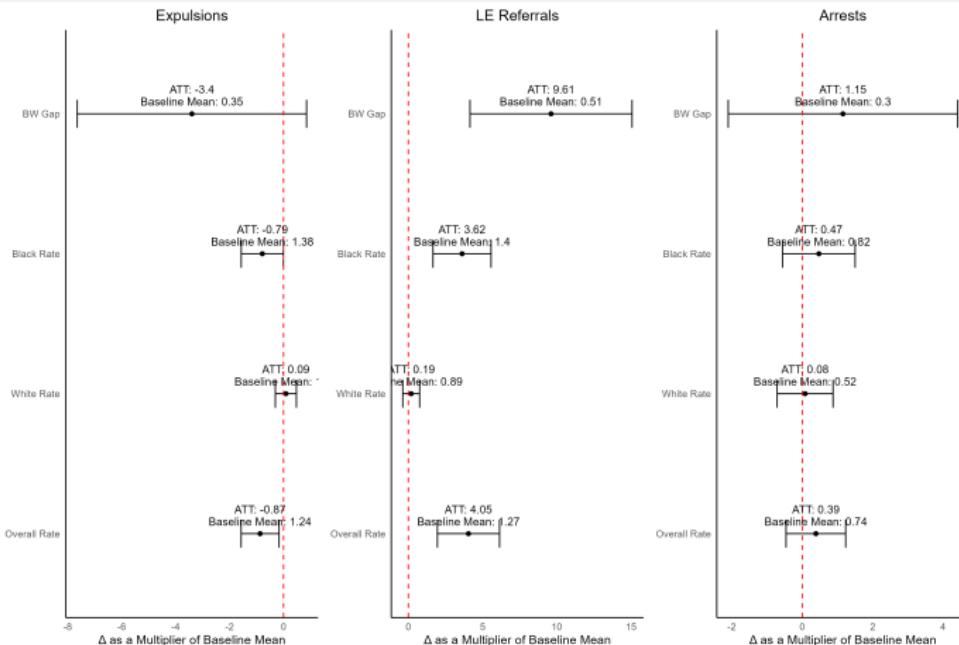
- Conditional probability function, using an IPW estimator, estimating the probability of being in group g on the combined sample of $G_g = 1$ and $C = 1$ schools, conditional on X .

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

- 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 .

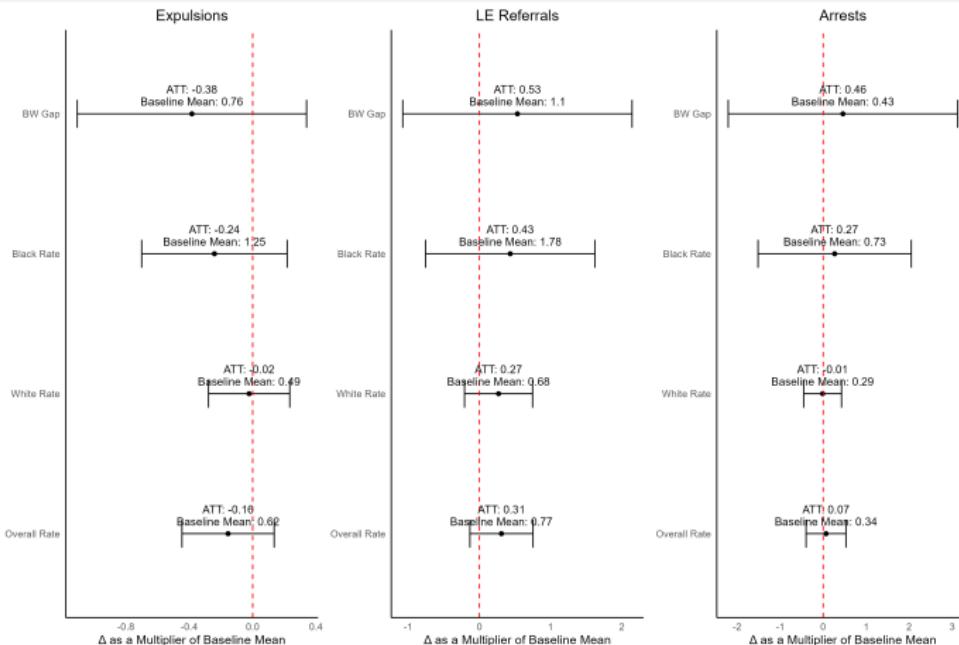
▶ Estimation

LE Credentials on Rarer Exclusion in Majority Black Schools



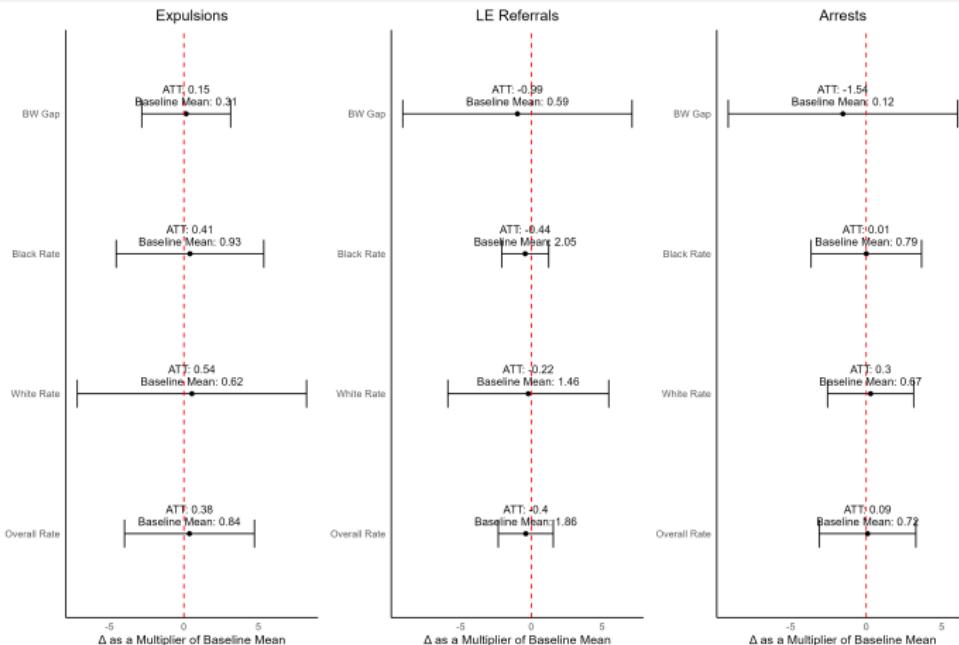
▶ Suspensions

LE Credentials on Rarer Exclusion in Minority Black Schools



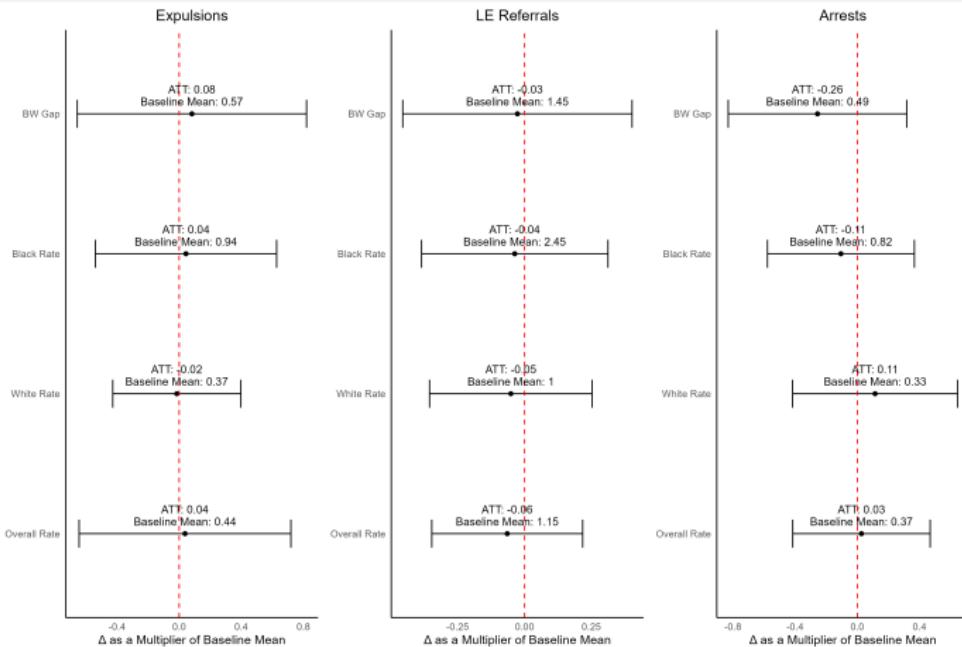
▶ Suspensions

Special Training on Rarer Exclusion in Majority Black Schools



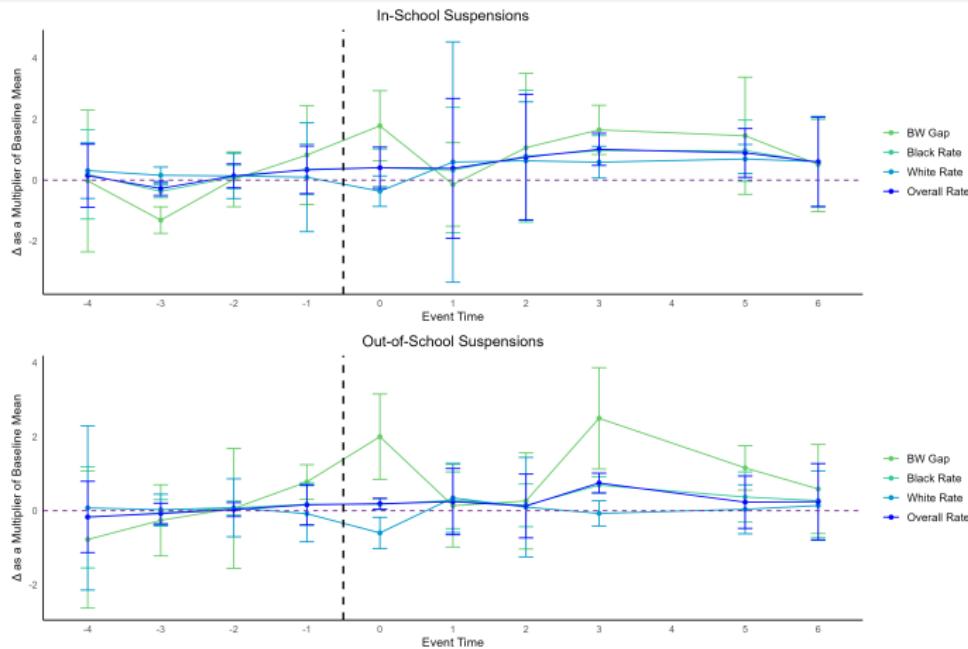
▶ Suspensions

Special Training on Rarer Exclusion in Minority Black Schools



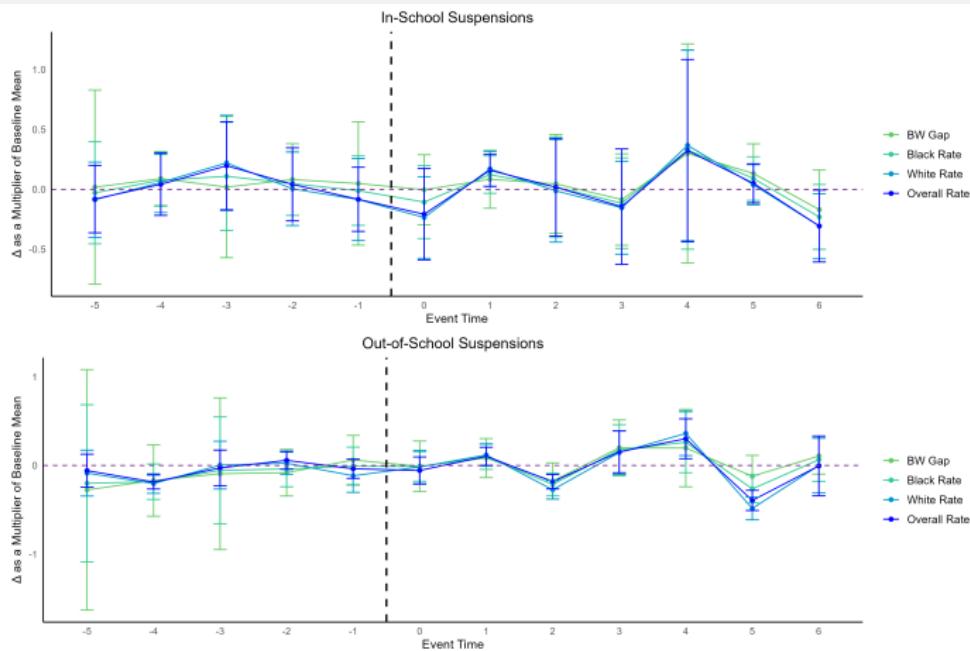
▶ Suspensions

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



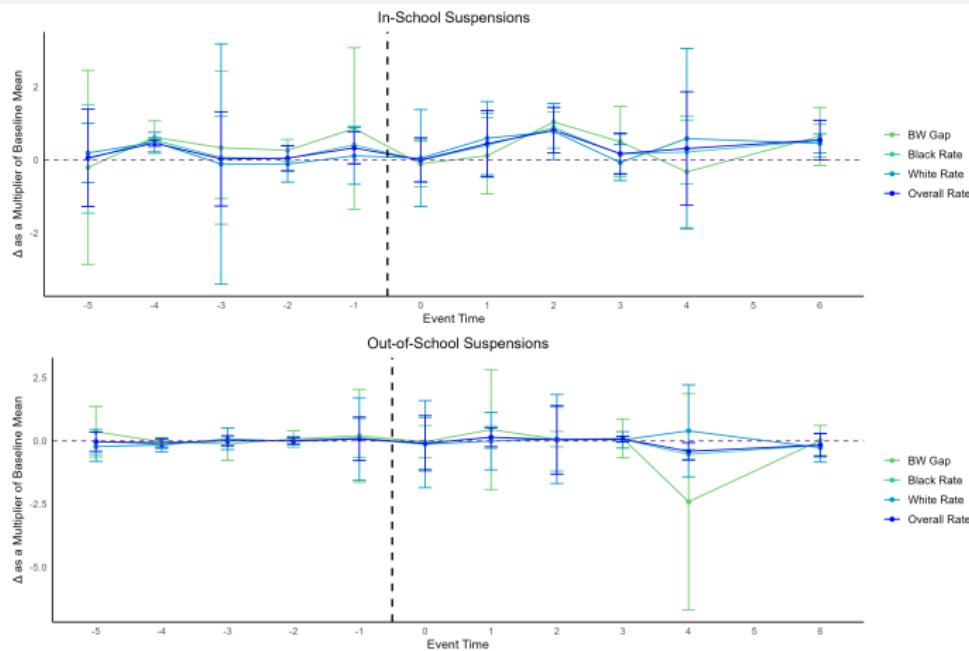
▶ Suspensions

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



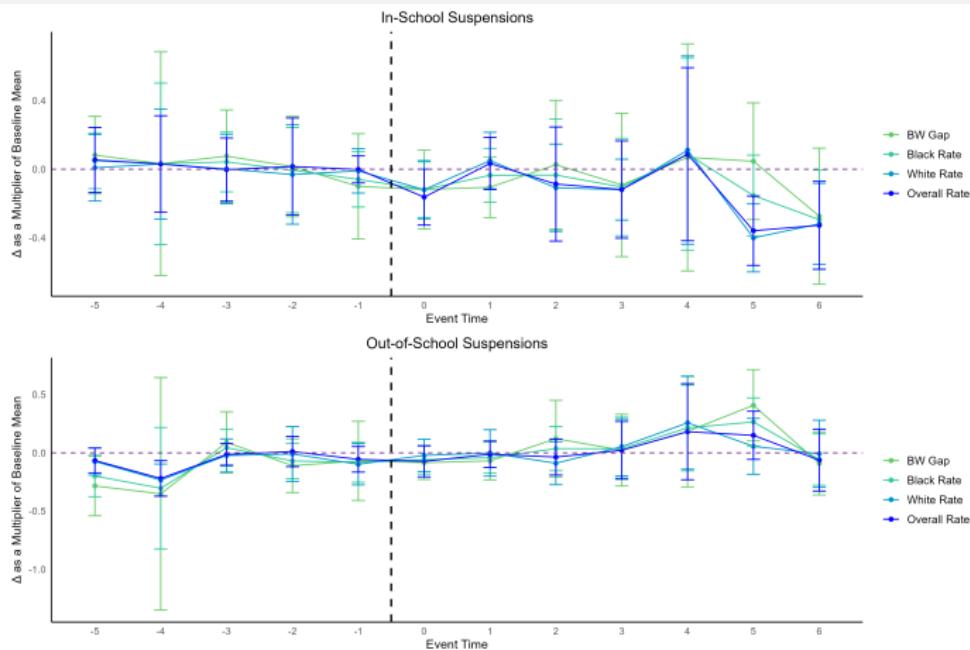
▶ Suspensions

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



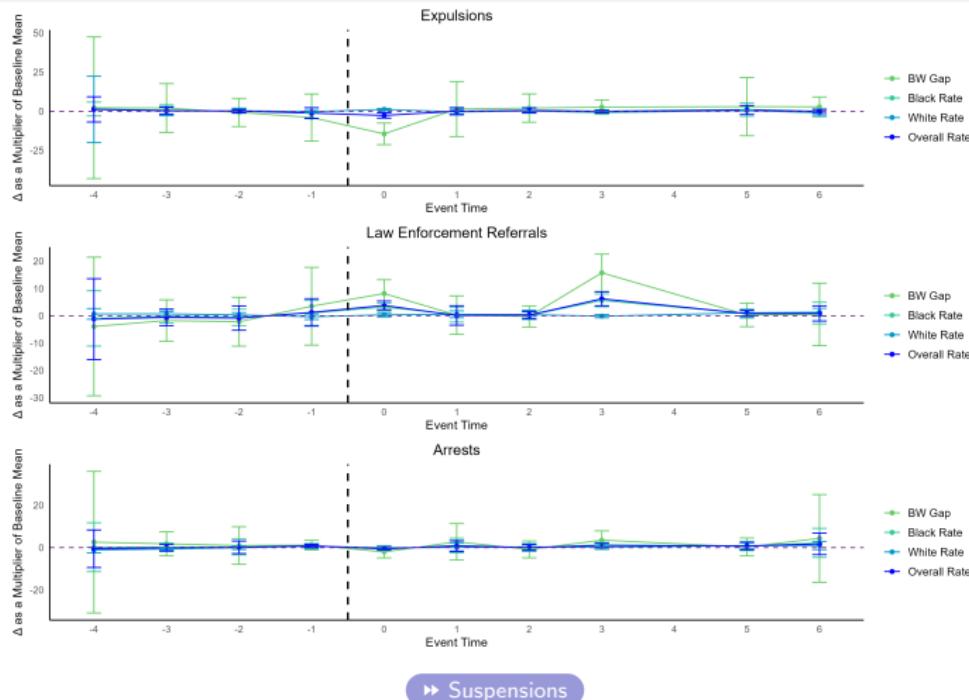
▶ Suspensions

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

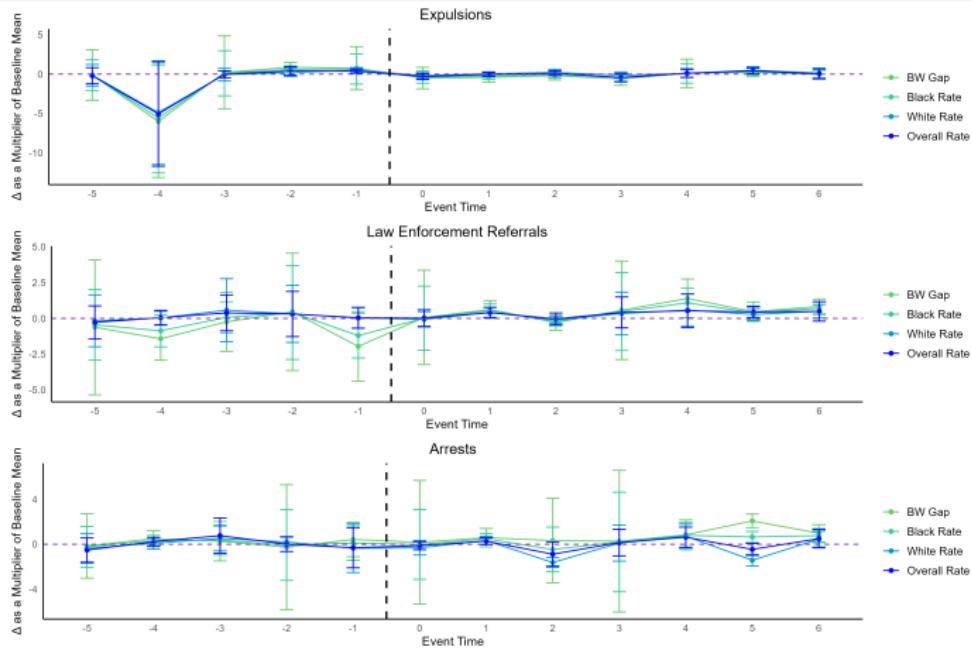


▶ Suspensions

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

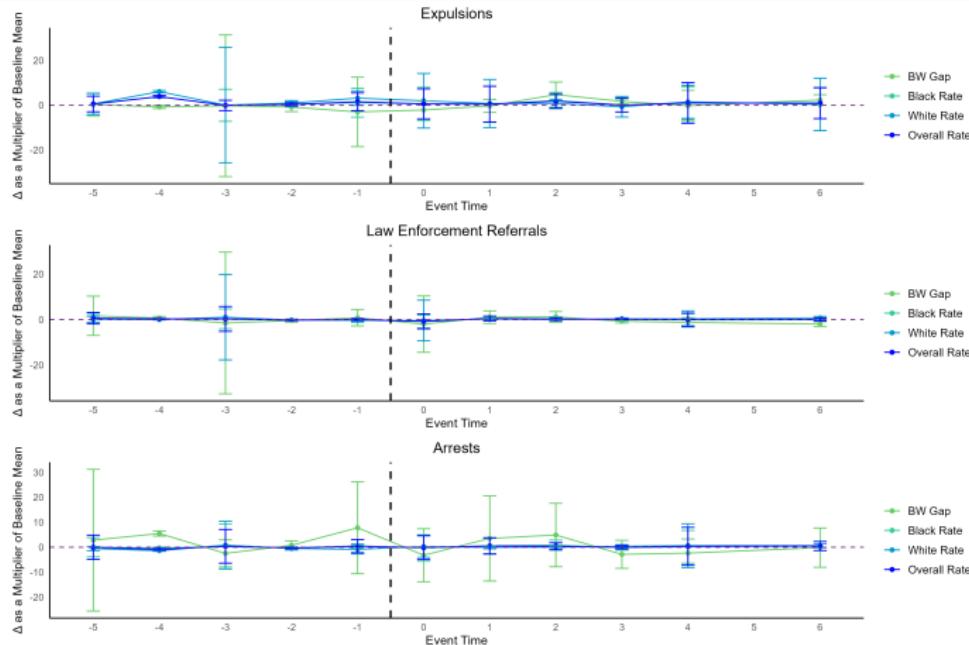


Event-Time: LE Credentials on Rarer Exclusion in Minority Black Schools



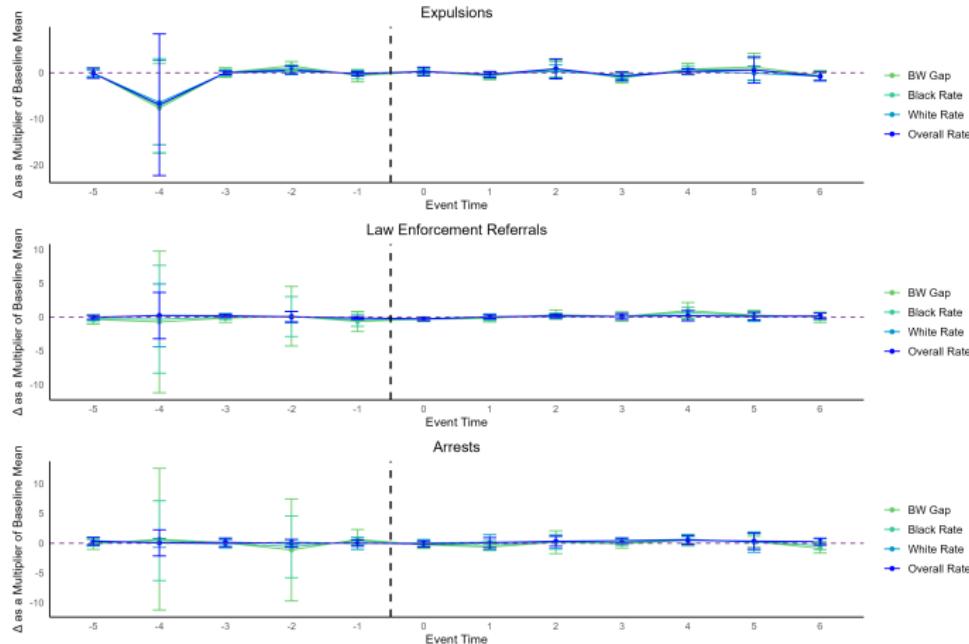
▶ Suspensions

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.

► Main



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.

► Main

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.

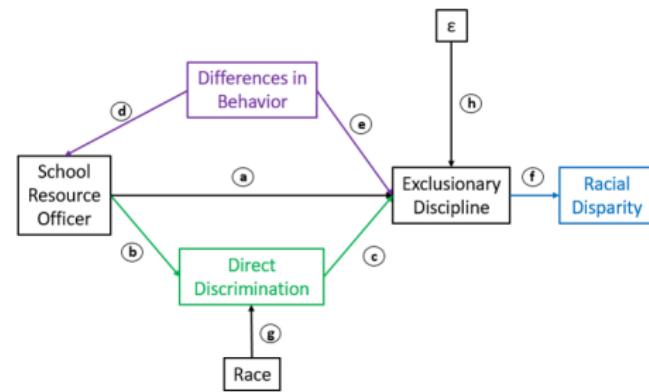
► Main



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

► Discussion

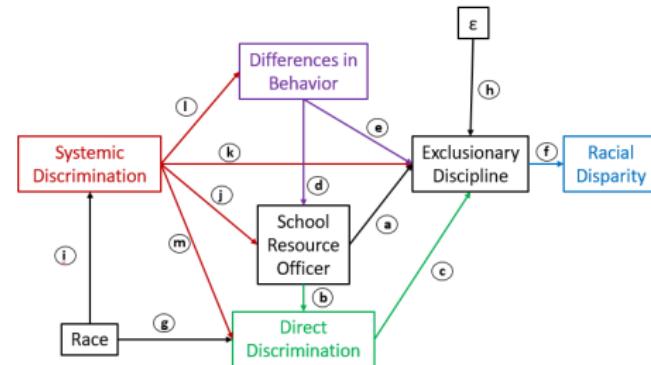


SRO policies target the SRO's individual actions, biases, and beliefs, mitigating the mediating path. Thus, SRO policies will reduce or eliminate racial gaps

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.