MLDS Center
Maryland Longitudinal Data System
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The Effects of a Statewide Ban on School Suspensions March 17, 2023

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Policy Background

Beginning in the Fall of 2017, the state of Maryland **banned the use of out-of-school suspensions for grades pk-2**

Prior to the ban

- 3 out of 4 Maryland elementary schools had suspended students in pk-2
- MSDE raised concerns about disproportionality in suspension use through data reports and offered PD and technical assistance to implement non-exclusionary strategies

Policy Description

- Suspensions in grades pk-2 were prohibited except for infraction that posted an imminent threat to students or adults on campus
- Suspensions recommendations in pk-2 require consultation with a mental health professional (e.g. school psychologist)
- Students in upper elementary grades could still be suspended for other infractions (e.g. willful disobedience, academic dishonesty)

Research Questions

Can a statewide, top-down ban on suspensions in early grades change school discipline practices in ways that improve student outcomes?

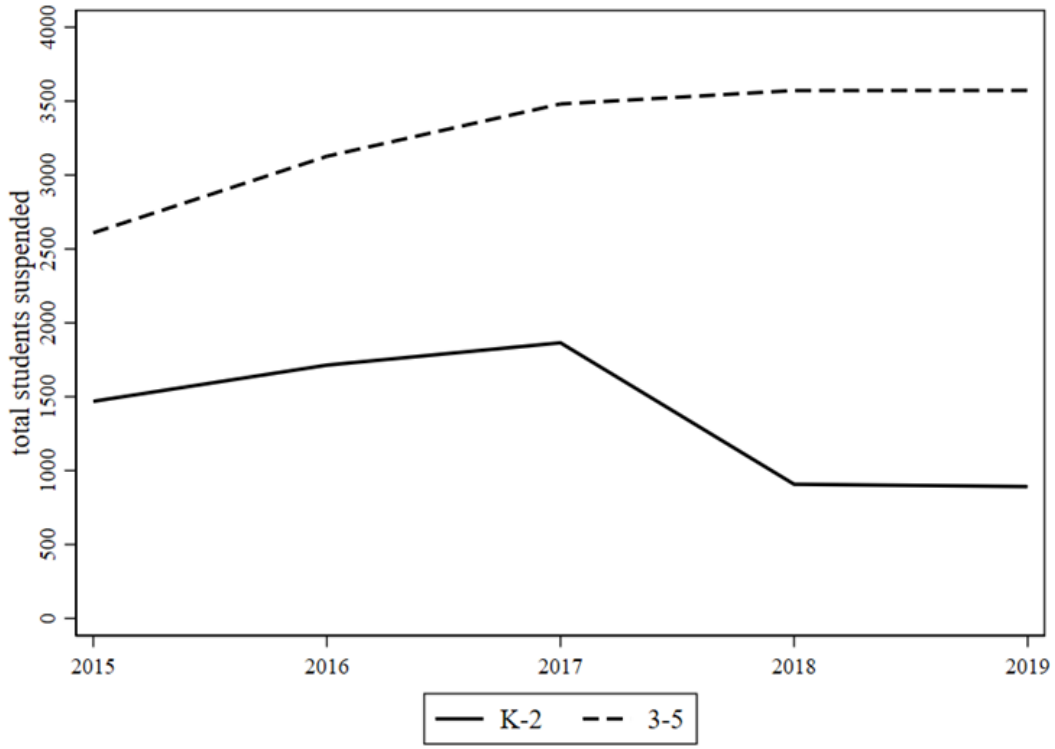
- What was the effect of the ban on discipline outcomes for students in grades with and without the ban?
- Did schools increase the use of *in-school* suspensions or shift infraction coding practices in response to the ban?
- Are there differential effects for students in groups that are historically suspended more often (Black students, SPED students, low-income students, etc.)?
- Did the suspension ban have any effects on academic outcomes?

Literature on Suspensions

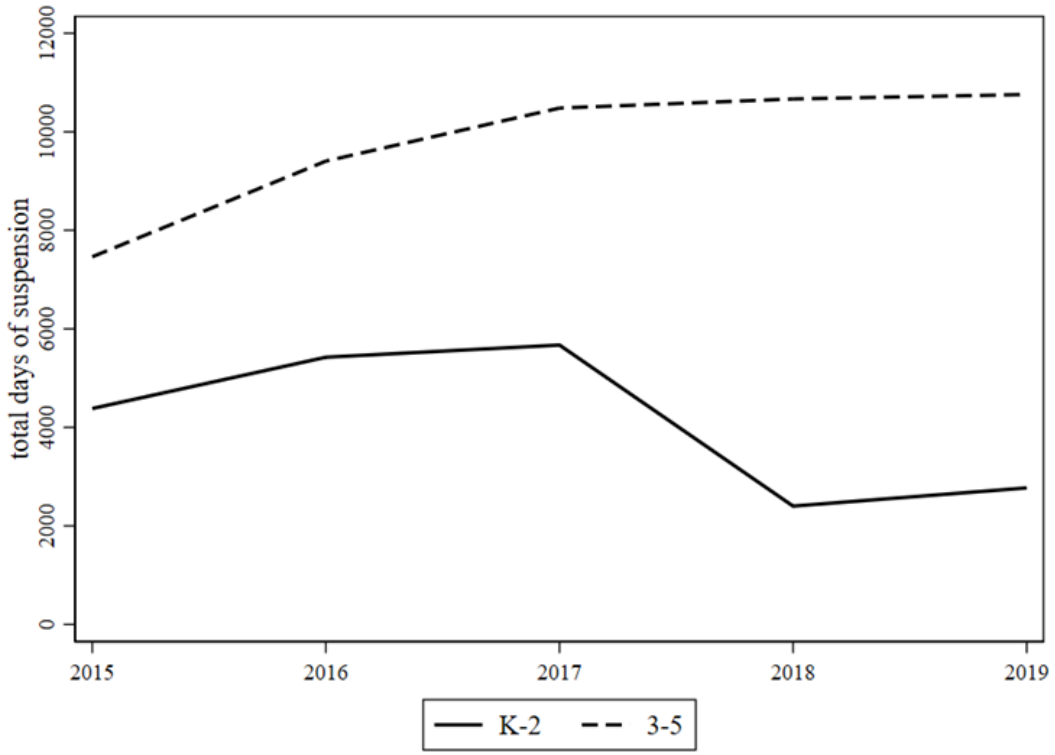
- A third of students in the US are suspended from school at some point (Skiba et al, 2014; Fabelo et al., 2011).
- Black students are disproportionately suspended (Anderson and Ritter, 2017; Anyon et al., 2014; Kinsler, 2011; Skiba et al., 2014, 2002).
- This disproportionality has increased with school integration (Chin, 2021) and state “zero tolerance” policies (Curran, 2016).
- Limited district suspension bans for certain infractions substantially reduced suspensions and some disproportionality in LAUSD (Hashim, Strunk, and Dhaliwal, 2018) and other districts (Wang, 2022). Short-term effects on academic performance are small (Cleveland 2023).
- Prior suspensions bans are typically optional and at the high school level. Maryland is the first to ban suspension at the state level in elementary grades.

Maryland Statewide Changes Over Time

Students Suspended



Days of Suspension

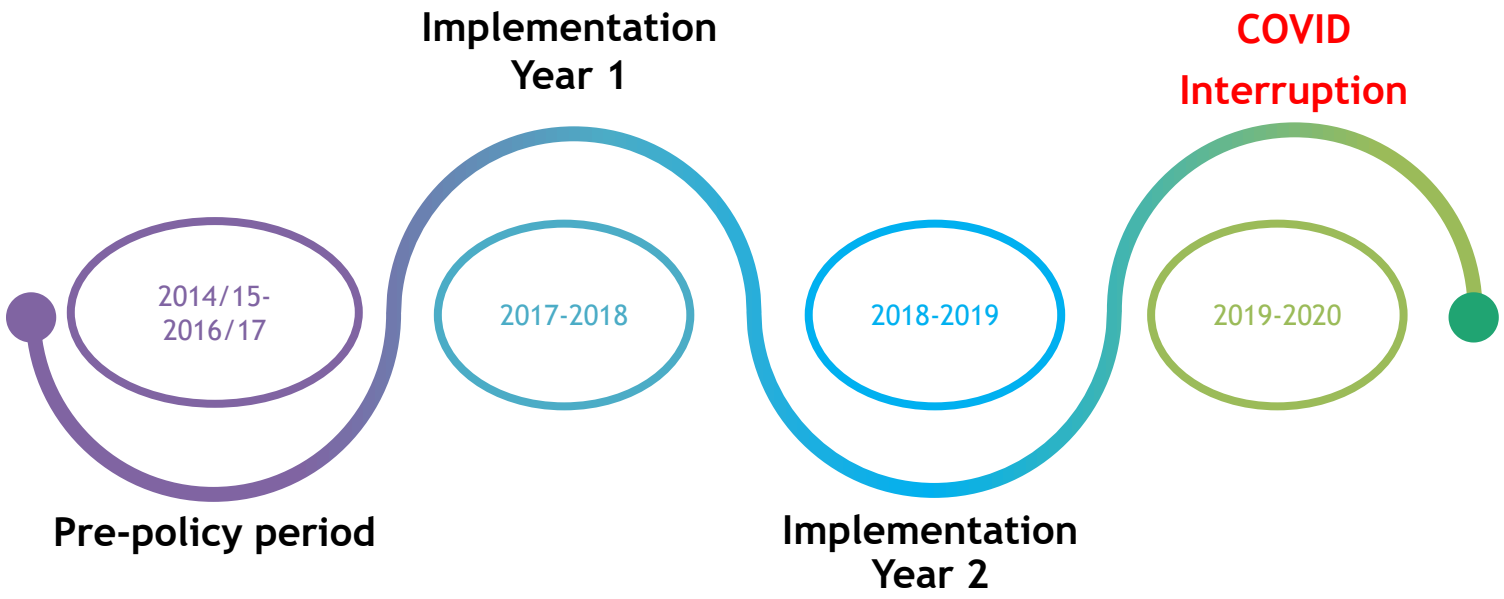


Pre-Treatment Student Characteristics

	(1)	(2)	(3)	(4)	(5)	(6)
		Grades K-2			Grades 3-5	
	All	Never Suspended	Suspended	All	Never Suspended	Suspended
Suspensions						
Ever	0.011	0.000	1.000	0.023	0.000	1.000
Frequency	0.019	0.000	1.775	0.036	0.000	1.546
Number of days	0.032	0.000	3.033	0.069	0.000	2.979
Characteristics						
Black	0.321	0.317	0.679	0.326	0.317	0.681
Hispanic	0.177	0.179	0.065	0.166	0.168	0.080
Asian	0.061	0.062	<0.01	0.058	0.059	<0.01
Multiple or Other	0.119	0.119	0.055	0.110	0.111	0.059
Male	0.512	0.509	0.835	0.515	0.509	0.765
FPRL eligible	0.467	0.464	0.745	0.453	0.446	0.776
Extra risk factors	0.015	0.015	0.045	0.014	0.014	0.041
Special education	0.137	0.134	0.388	0.179	0.174	0.393
English language learners	0.160	0.161	0.052	0.105	0.107	0.049
Attended multiple schools	0.003	0.003	0.007	0.003	0.003	0.006
N students	176,986	175,108	1,878	109,272	106,748	2,524

Extra risk factors include foster care, homelessness, or migrant status

Implementation & Evaluation Timeline



Data from MLDS Center

Students

- Maryland public school students from 2015-2019
- Includes grade K-2 (treated) and 3-5 (untreated)
- Did not change schools during the academic year
- Within 2 years of the expected age for grade

Variables

- Student-level discipline reports (all grades) of suspensions and in-school suspensions including events, duration, and infraction
- State standardized test performance beginning in grade 3
- Race, gender, FRPL, SPED, language, homeless, foster care, and migrant status

Discipline data are coded and entered by schools and subject to local variation. ~24% of schools never suspended in K-2 prior to the ban.

Student Cohorts

2015	2016	2017	2018	2019
K	K	K	K	K
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	5	5

directly impacted by suspension ban

Student Cohorts

2015	2016	2017	2018	2019
K	K	K	K	K
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	5	5

directly impacted by suspension ban

impacted by schoolwide changes only

Student Cohorts

2015	2016	2017	2018	2019
K	K	K	K	K
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	5	5

directly impacted by suspension ban

impacted by ban in 2nd grade

impacted by schoolwide changes only

What is the policy effect?

Grades K-2

Difference pre/post = suspension ban + schoolwide effect

Grades 4 & 5

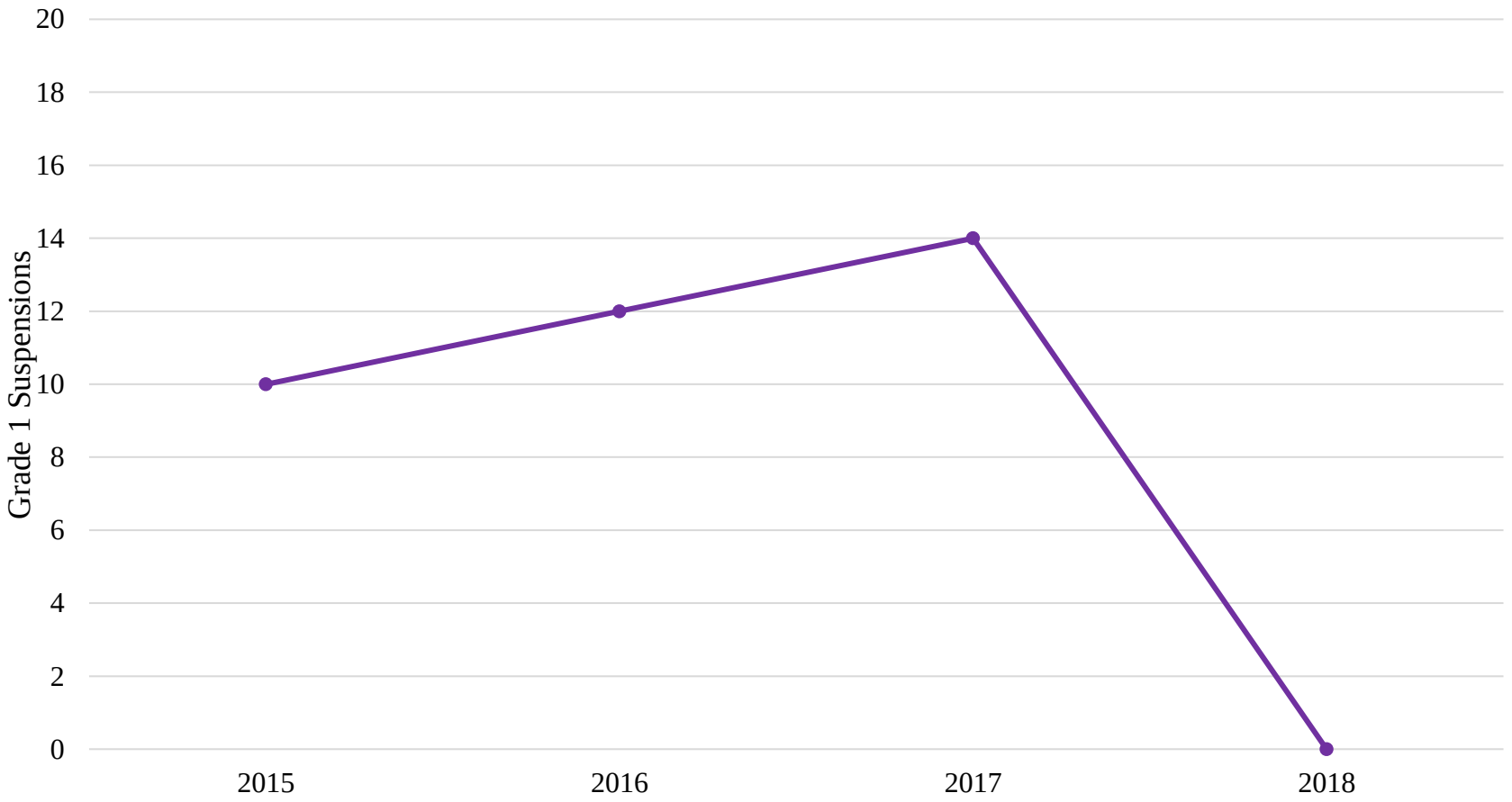
Difference pre-post = schoolwide effect only

3rd grade only

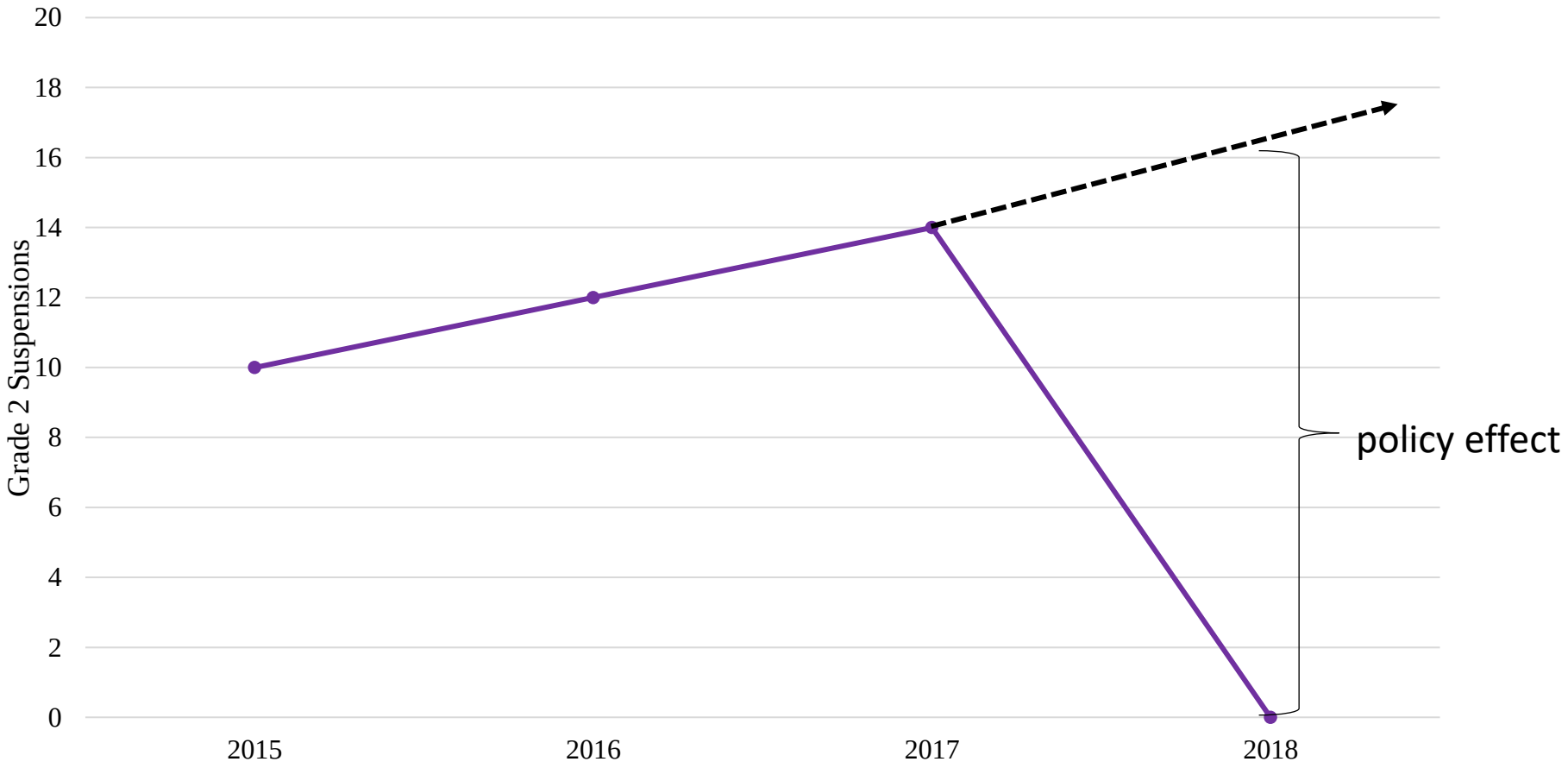
2018 Difference = schoolwide effect only

2019 Difference = schoolwide effect + follow-up effect of ban in 2nd grade

Following the Time Trend



Follow the Time Trend



Empirical Strategy

Comparative Interrupted Time Series (CITS) model that differentiates time trends and policy effects by grade level:

$$Y_{igjt} = \alpha + \theta_1 t + \theta_2 (t * kto2) + \sum_{g=\{k,1,2,4\}} (\beta_g * grade_{igt}) + \gamma post_t + \sum_{g=\{k,1,2,4\}} (\delta_g * grade_{igt} * post_t) + \lambda_j + \varepsilon_{igjt}$$

Where student *i* attends grade *g* at school *j* in time *t*. *t* is centered to equal zero in the first post-policy year. *Post*=1 when *t*≥0.

β's estimate pre-ban differences in outcomes by grade level. θ_1 is the linear time trend for grades 4-5, and θ_2 the differential trend for grades k-2. γ estimates the schoolwide effect. δ's estimate differential shifts by grade level for k-2 and 4, relative to grade 5. λ_j is a school FE (robust to person FE)

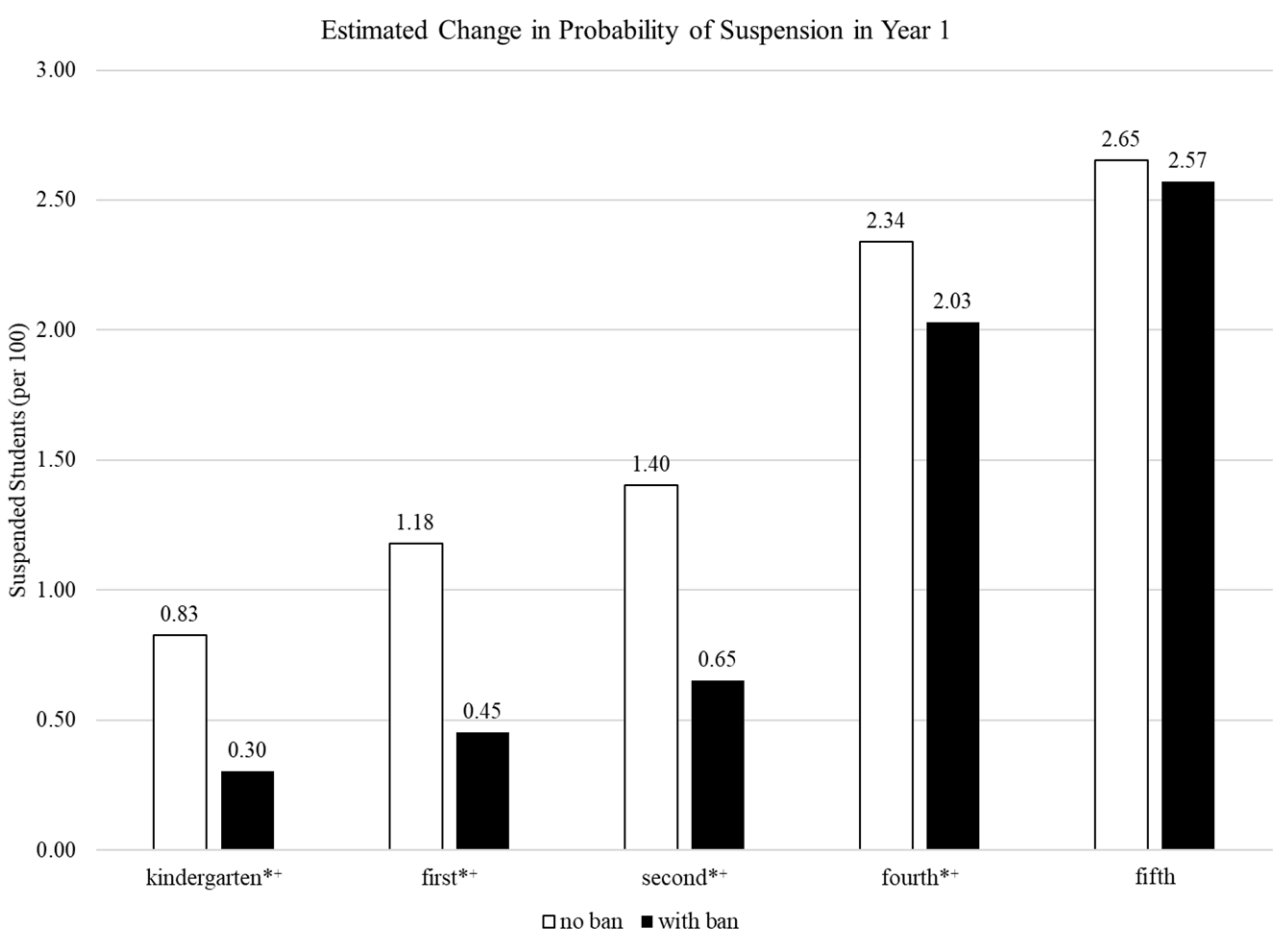
Empirical Strategy

- Subgroup analyses:
  - Equations estimated individually for subgroups – compare effects across subgroups in the predicted percent change in an outcome with/without the policy.
  - Estimate the effects of the policy on disproportionality by calculating a ratio of one group (*g*) to another:

$$Disproportionality_g = \frac{suspension\ rate_{g=1}}{suspension\ rate_{g=0}}$$

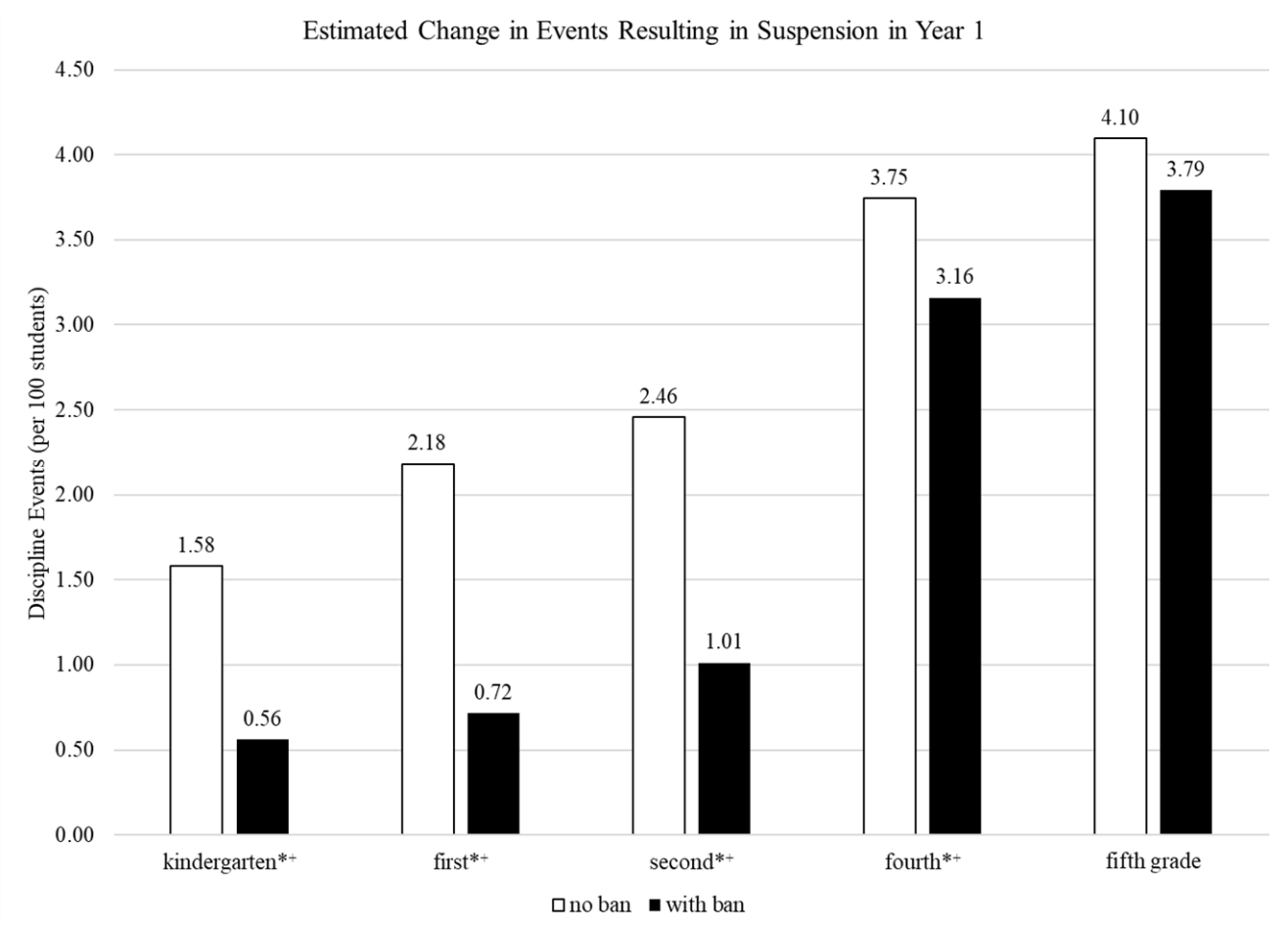
g indicates key subgroups. Evidence of reduced disproportionality would require these ratios to be substantively closer to equality following the ban.

Results – *Out-of-school suspensions*



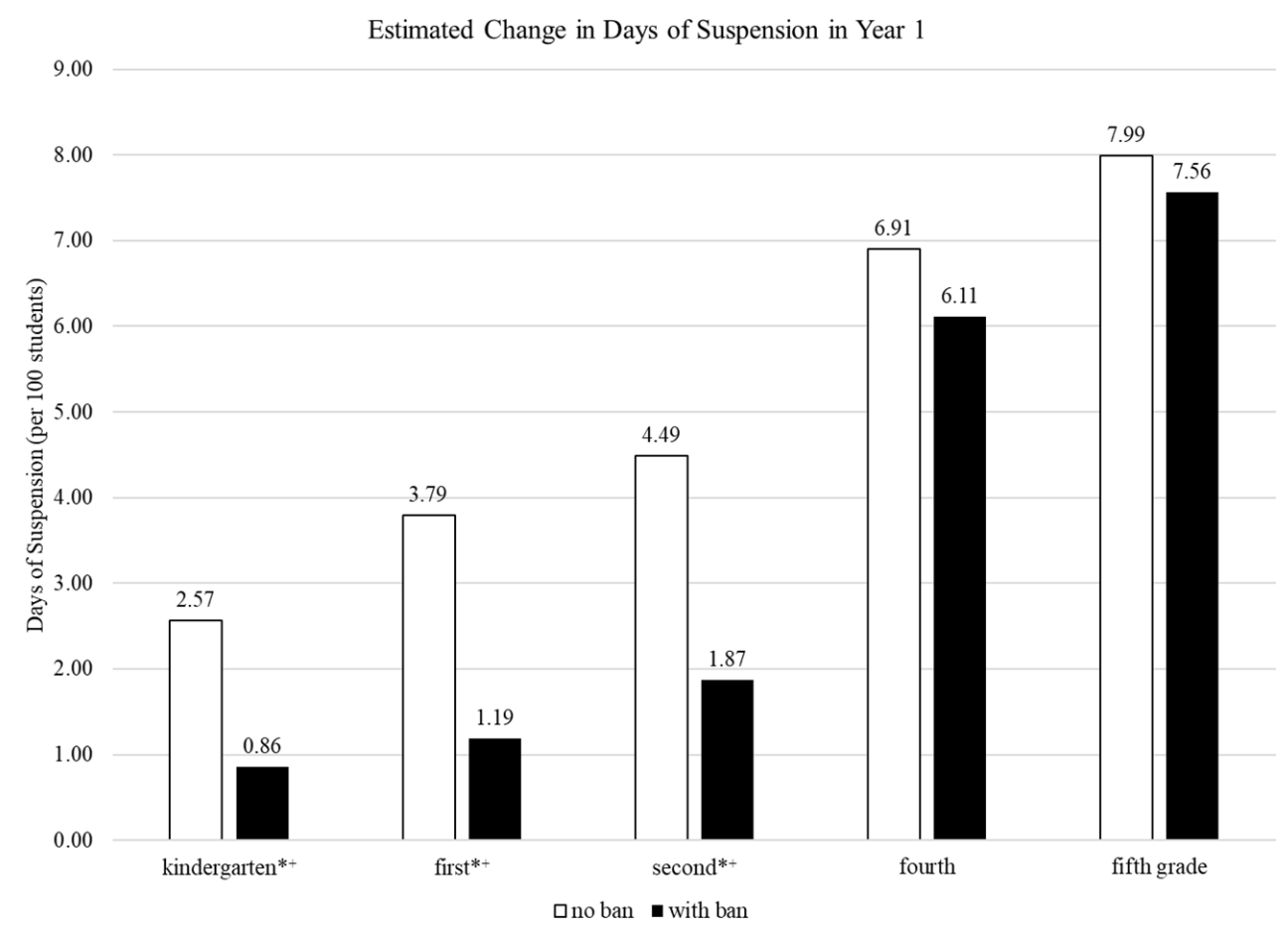
- Student's **probability of suspension**:
  - Direct effects in grades k-2
  - Some spillover effects in grade 4
- At least 53% reduction in the rate of suspension
  - Smaller reduction in 4th grade (13%)
  - No reduction in 5th grade
- All three treated grades had significantly greater reductions than (untreated) fifth grade (+)

Results – *Out-of-school suspensions*



- Large effects of the ban on the **number of suspensions** events

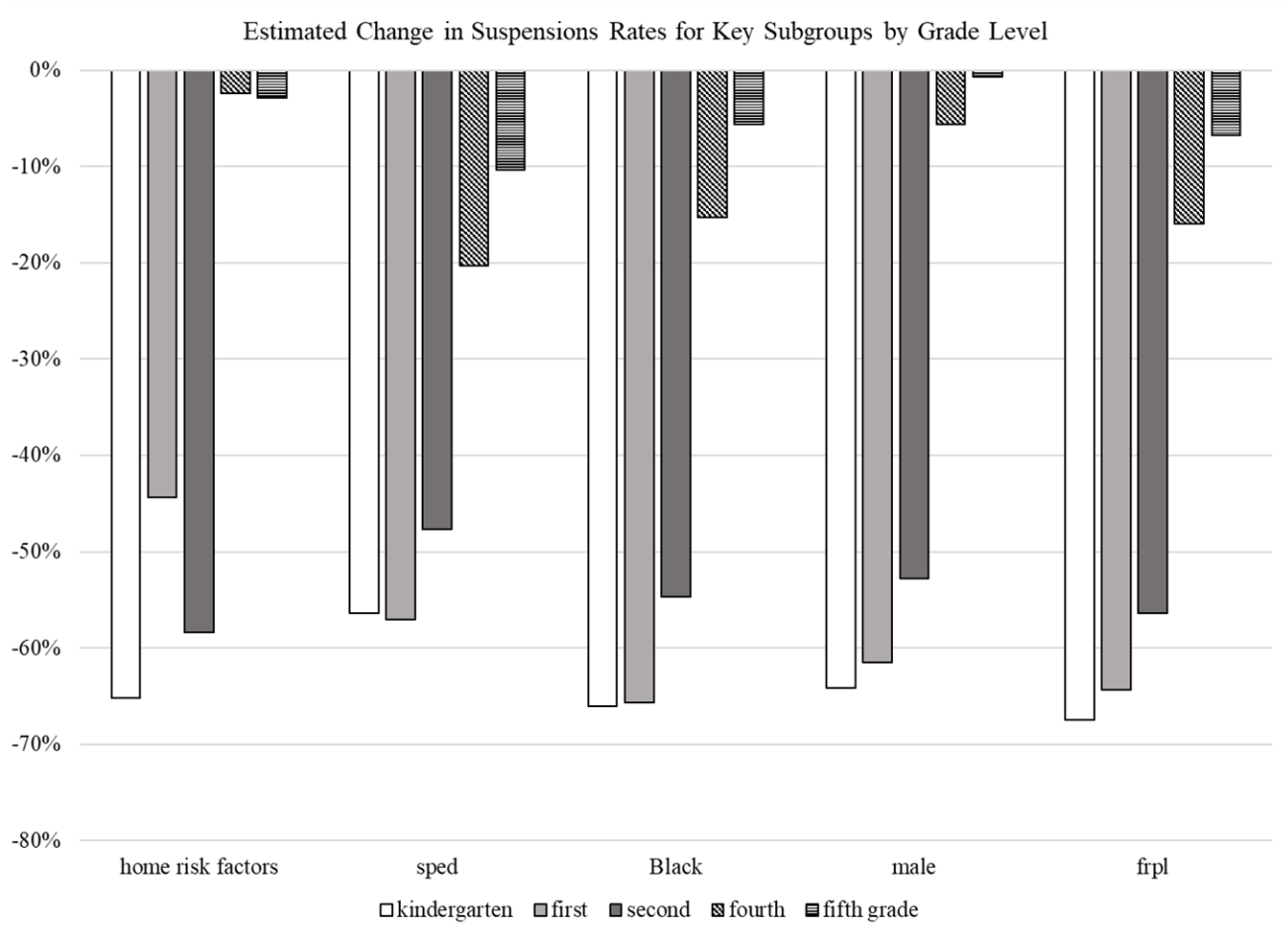
Results - *Out-of-school suspensions*



- Large (direct) effects of the ban on the **total days of suspensions** for treated grades (60-70%)
  - No significant differences in untreated grades

- Robustness checks:
  - School FE, sample with only schools that actively suspended k-2 students prior to the ban, most-frequently suspenders (top 25% for total k-2 suspensions in the 3 years prior to the ban)
  - Increases the effect sizes of the reduction in treated grades

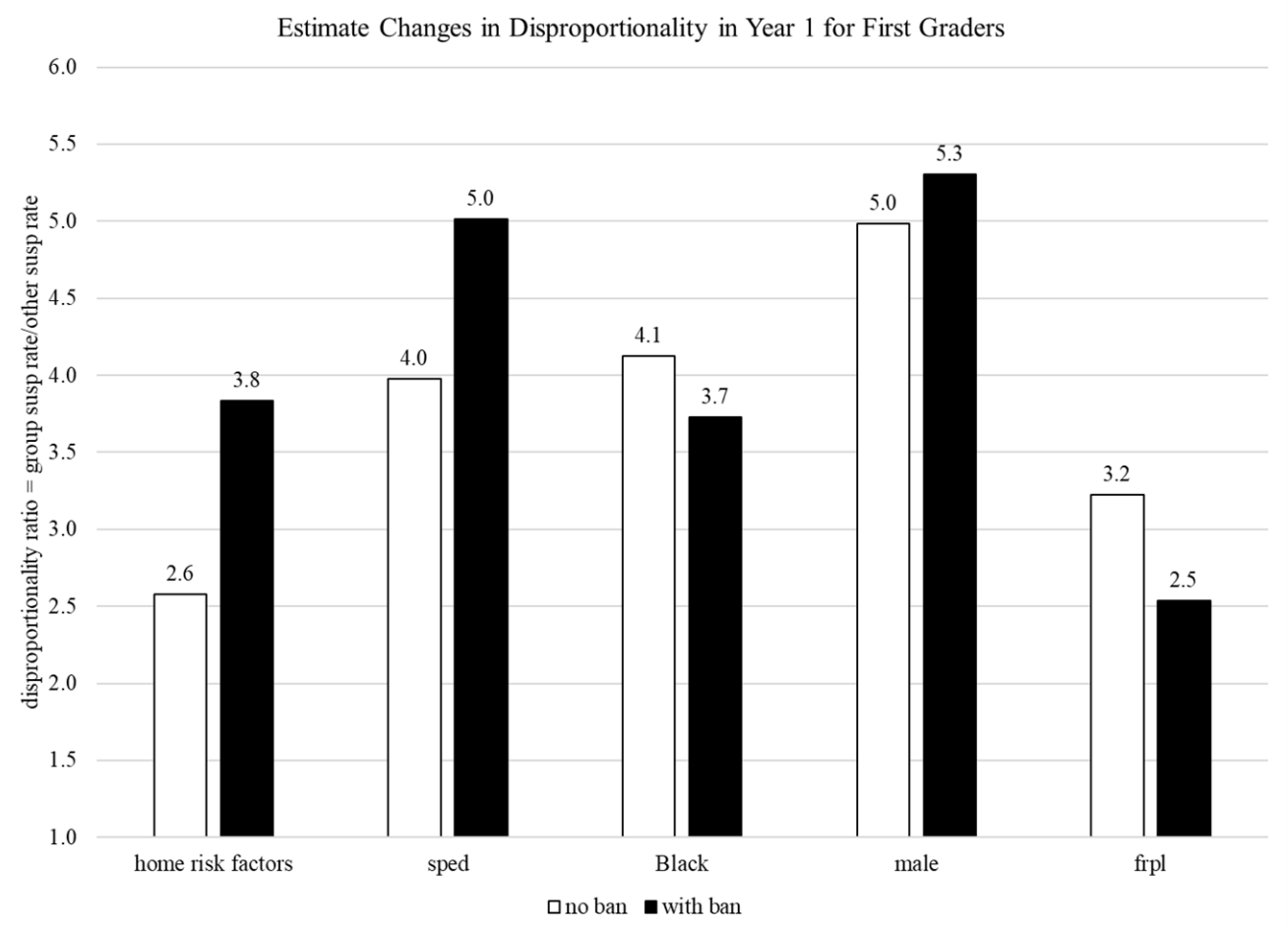
Results – *Out-of-school suspensions*



- **Probability of suspension** after the ban for key **subgroups**:
  - Significant negative effects in treated grades.
  - No significant effect in untreated grades.

- However, the reduction might not be enough to reverse disproportionalities…

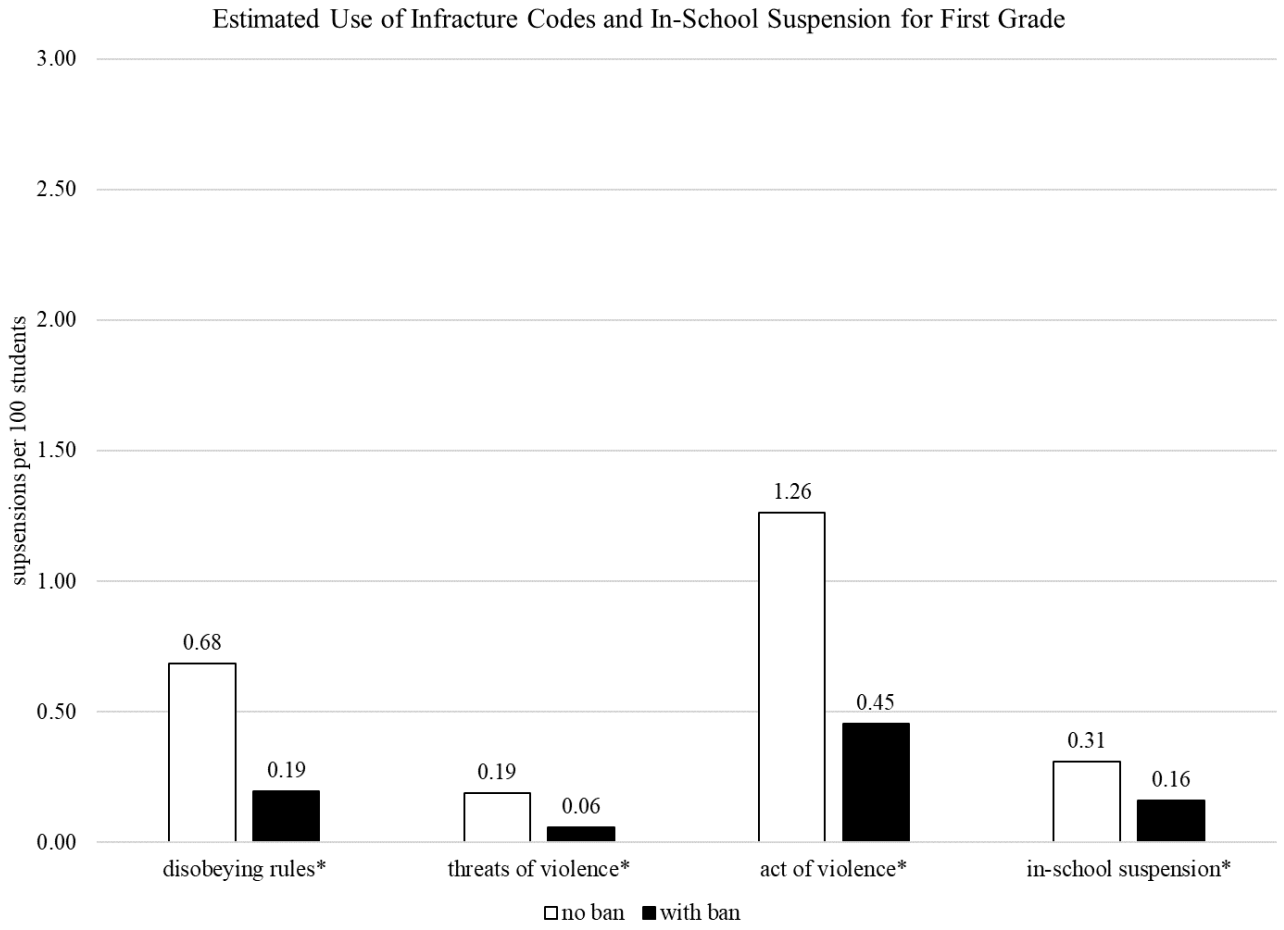
Results – *Disproportionality Ratio in out-of-school suspensions*



- SPED student groups increased in disproportional suspension after the ban.

- Analyses of overlapping groups (e.g. Black+FRPL) suggest that the percent change in average suspensions probabilities for these groups is not sufficient to reduce disproportionalities between key subgroups and other students.

Results – *In-school suspensions and violent events*



- Whether the ban induced unintended increases in discipline consequences that were allowable under the ban
  - No evidence – in treated or untreated grades
  - Significant reductions in treated groups
  - Results are robust for the top 25% of suspenders.

Key Findings

- Maryland's suspension ban substantially reduced but did not eliminate suspensions in targeted grades
- Schools did not substitute in-school suspension or increase use of infractions codes that indicate imminent threats
- Disproportionality remains because effects were similar across groups despite unequal baseline suspension rates
- Grades not subject to the ban experienced smaller reductions in suspensions and no change in disproportionality
- Effects are robust and larger at schools that historically had high K-2 suspension rates

Further Analysis

- No effects of the ban on attendance for either students who were previously suspended or those who were never suspended
- No spillover effects in 3rd for those subject to the ban in 2nd grade
- No effects standardized test scores in untreated grades

Limitations

- Only 2 years of post-ban data before COVID closures and only one cohort with a single year of follow-up data in grade 3
- No measures of academic achievement in grades k-2
- Can’t observe behavior, only coding of behavior
- Can’t observe school-wide responses to the ban, only outcomes

Thank you!

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