The Effects of a Statewide Ban on School Suspensions
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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

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

*Extra risk factors include foster care, homelessness, or migrant status*
Implementation & Evaluation Timeline

Pre-policy period

Implementation Year 1
- 2014/15-2016/17
- 2017-2018

COVID Interruption
- 2018-2019
- 2019-2020
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

<table>
<thead>
<tr>
<th>Year</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
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<tbody>
<tr>
<td>K</td>
<td>K</td>
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</tbody>
</table>

- The green cells indicate students directly impacted by the suspension ban.
## Student Cohorts

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
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<td>K</td>
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</tbody>
</table>

- K: Kindergarten

*Remark:*
- Directly impacted by suspension ban
- Impacted by schoolwide changes only
## Student Cohorts

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
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- Students in **K** grades were directly impacted by suspension ban.
- Students in **1**nd grade were impacted by ban in **2**nd grade.
- Students in **2**nd and **3**rd grades were 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

Grade 1 Suspensions
Follow the Time Trend

Grade 2 Suspensions

2015 2016 2017 2018

policy effect
Empirical Strategy

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

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

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 \( t \geq 0 \).

\( \beta \)'s estimate pre-ban differences in outcomes by grade level. \( \theta_1 \) is the linear time trend for grades 4-5, and \( \theta_2 \) the differential trend for grades k-2. \( \gamma \) estimates the schoolwide effect. \( \delta \)'s estimate differential shifts by grade level for k-2 and 4, relative to grade 5. \( \lambda_j \) 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:

    \[
    \text{Disproportionality}_g = \frac{\text{suspension rate}_{g=1}}{\text{suspension rate}_{g=0}}
    \]

  \( g \) 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 4\textsuperscript{th} grade (13%)
  - No reduction in 5\textsuperscript{th} 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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