Assessing the Effect of Exclusionary Discipline on Student Academic Outcomes

Kaitlin Anderson
Gary Ritter

Office for Education Policy
University of Arkansas

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Agenda

1. Introduction and Motivation
2. Revisit time trends
3. Revisit disproportionalities
4. Ask new questions:
   – What is the impact of exclusionary discipline on student academic achievement?
   – Does exclusionary discipline affect academic achievement of certain subgroups differently?
5. Conclusion and Resources
Introduction and Motivation
Introduction to Arkansas Act 1329

• **OEP** has been presenting regularly in response to Act 1329:

  – Disproportionalities
    • There are disparities for **both subjective and objective** types of infractions
    • **Most but not all** of these disparities are driven by **between school differences rather than within school differences**

  – Differences across types of schools
    • Non-white students are more likely to attend “high-discipline” schools

  – Time trends
Motivation for This Study

• Exclusionary discipline (suspensions/expulsions) and zero tolerance associated with:
  
  – lower academic achievement (Raffaele-Mendez, 2003; Skiba & Rausch, 2004; Rausch & Skiba, 2005; Arcia, 2006; Beck & Muschkin, 2012; Cobb-Clark et al., 2015)
  
  – school drop-out and grade retention (Raffaele-Mendez, 2003; Fabelo et al., 2011; Balfanz et al., 2014; Marchbanks et al., 2014; Cobb-Clark et al., 2015)
  
  – involvement in the juvenile justice system (Balfanz et al., 2003; Nicholson-Crotty et al., 2009; Fabelo et al., 2011)

• Disproportionate rates of exclusion for marginalized/disadvantaged students (Skiba et al., 2002; Losen & Skiba, 2010; Skiba et al., 2011; Anyon et al., 2014; Skiba et al., 2014; Losen et al., 2015; Sartain et al., 2015; Anderson & Ritter, 2015; Anderson & Ritter, 2016)
Moving Toward Causal Impacts

Previous work is only correlational; great potential for reverse causality:

- **We see suspensions precede low academic performance** (Rausch & Skiba, 2005; McIntosh et al., 2008; Balfanz et al., 2014; Cobb-Clark et al., 2015)

- **Suspensions and loss of instructional time are associated with lower academic achievement** (Davis & Jordan, 1994; Scott & Barrett, 2004)

- **But low academic achievement is also predictive of a variety of undesirable behaviors in the future** (Miles & Stipek 2006; Arcia, 2006; Choi 2007; McIntosh et al., 2008)
Goals for Today

I. Revisit time trends

II. Revisit disproportionalities

III. Ask new questions:
   – What is the impact of exclusionary discipline on student achievement, measured by student test scores?
   – Does exclusionary discipline affect academic achievement of certain subgroups differently?
     • Low- versus high-performing students
     • By grade level
     • Socioeconomic Status (FRL)
     • By race/ethnicity
Time Trends
Reported Consequence Types Over Time

As a % of total, exclusionary discipline has decreased over past few years, but both buckets have increased (perhaps improved reporting).
Non-Exclusionary Discipline Over Time

- In-School Suspension
- Other
- Corporal Punishment
- No Action
- ALE

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Revisiting Disproportionalities
What are the OUT OF SCHOOL SUSPENSION rates for various subgroups of students?

Key Takeaways:
1. African-American students are over-represented in OSS rates
2. Rates have increased over the past few years
What are the EXPULSION rates for various subgroups of students?

Key Takeaways:
1. African-American students are over-represented in Expulsion rates
2. Yet these rates overall are quite low
What are the CORPORAL PUNISHMENT rates for various subgroups of students?

Frequency of Corporal Punishment

<table>
<thead>
<tr>
<th>Race</th>
<th>2012-13</th>
<th>2013-14</th>
<th>2014-15</th>
</tr>
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<tbody>
<tr>
<td>White</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>African American</td>
<td>7</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>Hispanic</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Other Races</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

Key Takeaways:
1. African-American students are over-represented in Corporal Punishment Rates
2. Overall rates relatively stable over past few years
Differences Across School Types
High discipline schools tend to serve more non-white students.

- Compared 2014-15 discipline rates in schools with high and low non-white populations
- Focus on three most common consequences (ISS, Other Action, and OSS), representing 91% of all consequences

### Number of Schools in Each Quintile:

<table>
<thead>
<tr>
<th>Quintile</th>
<th>Number of Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quintile 1 (61 - 100% Minority)</td>
<td>200</td>
</tr>
<tr>
<td>Quintile 2 (38 - 60% Minority)</td>
<td>197</td>
</tr>
<tr>
<td>Quintile 3 (18 - 37% Minority)</td>
<td>193</td>
</tr>
<tr>
<td>Quintile 4 (8 - 17% Minority)</td>
<td>195</td>
</tr>
<tr>
<td>Quintile 5 (0 - 7% Minority)</td>
<td>199</td>
</tr>
</tbody>
</table>

### AR Total

<table>
<thead>
<tr>
<th>Category</th>
<th>Quintile 1</th>
<th>Quintile 2</th>
<th>Quintile 3</th>
<th>Quintile 4</th>
<th>Quintile 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISS</td>
<td>33</td>
<td>25</td>
<td>15</td>
<td>14</td>
<td>13</td>
</tr>
<tr>
<td>Other Action</td>
<td>31</td>
<td>21</td>
<td>17</td>
<td>17</td>
<td>16</td>
</tr>
<tr>
<td>OSS</td>
<td>25</td>
<td>11</td>
<td>6</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

- ISS: Immediate Suspension
- Other Action
- OSS: Out-of-School Suspension

Quintile 1 (61 - 100% Minority) is the highest quintile with the largest number of schools and consequences. Quintile 5 (0 - 7% Minority) is the lowest quintile.
What is the *impact* of exclusionary discipline on student achievement, measured by student test scores?
How does exclusionary discipline relate to student academic performance?

- Low Achievement
- Disengaged Student
- Bad Behavior
- Suspension and lost instruction

Other shock to student’s life?
How does exclusionary discipline relate to student academic performance? ONLY CORRELATIONAL

Disciplinary Rates by Math Proficiency Level

- **Advanced**
  - OSS: 1
  - ISS: 2
  - Total Infractions: 3

- **Proficient**
  - OSS: 2
  - ISS: 3
  - Total Infractions: 5

- **Basic**
  - OSS: 15
  - ISS: 20
  - Total Infractions: 35

- **Below Basic**
  - OSS: 40
  - ISS: 50
  - Total Infractions: 90

Incidences Per 100 Students

- OSS
- ISS
- Total Infractions
How does exclusionary discipline relate to student academic performance? **ASSESSING CAUSALITY**

One rigorous method:

Test **how exclusionary discipline affects a student’s test score trajectory** (“student fixed effects”)

**Student Fixed Effects Method**

- Typical Trajectory
- With Exposure to Exclusionary Discipline
How is exclusionary discipline related to future math test scores?

Per-incident “effect” of exclusionary consequence on next year’s math test scores

St. Dev. Test Score Impacts

Zero Controls
Add controls for infractions reported
School year, grade level, and district
Student demographics and prior year test scores
Student FE (constant individual student characteristics)

-0.27
-0.15
-0.1
-0.05
0

MORE CAUSAL

PURELY CORRELATIONAL
We see a very similar story with ELA....

But are different types of students affected differently?
Non-white students’ test scores are harmed slightly more than white students’ test scores.
Lower performing students are harmed more by exclusionary discipline. Higher-performing ELA students unharmed in ELA.
In math, non-FRL students may be harmed more, but in ELA, non-FRL students appear unharmed.
Conclusion

• Need for rigorous methods to address reverse causality

• Slight negative impacts on academic outcomes for students who are excluded from the learning environment more often

• More harmful for students who are already lower performing and for minority students

• Given that there are disproportionalities in the administration of stricter punishments, particularly across schools, what resources are available?
Resources

– As of May 2015, laws in 22 states and DC require or encourage limiting use of exclusionary discipline, implement more non-punitive strategies (Steinberg & Lacoe, 2016)

– Some evidence that changes to student codes of conduct can be effective (Lacoe & Steinberg, 2016; Mader et al., 2016)

– Little rigorous evidence on alternative school-based strategies:
  
  • Non-experimental evidence supports Response to Intervention (Fairbanks et al, 2007), restorative justice (Fronius et al, 2016) or some combination (Collins-Ricketts & Rambo, 2015)

  • Experimental studies find benefits of PBIS (Flannery et al., 2014; (Horner et al., 2009)
Future Research

• Alternative strategies/solutions
  – Qualitative research to further understand school-level implementation of discipline policy (strengths, weaknesses, challenges, opportunities) and relationship to school climate and academic performance
  – Rigorous assessment (random assignment) of PBIS, restorative justice, or other alternatives

• Another issue we don’t cover in this study:
  – School-wide/system-wide or peer effects
  – Impacts on the non-suspended students are hypothesized to either be positive (Burke & Herbert, 1996; Kinsler, 2013) or negative (Perry & Morris, 2014)
Questions?
kaitlina@uark.edu
garyr@uark.edu
oep@uark.edu

www.officeforeducationpolicy.org
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