



Examining the Predictors of Children’s School Suspension and Expulsion

Christina N. Caramanis, The University of Texas at Austin & Jayanti Owens, Brown University
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What We Studied

Over the last forty years, schools’ use of exclusionary discipline tactics, such as suspension and expulsion, increased by nearly 50% (Office for Civil Rights 2014). Research suggests that the suspension and expulsion of students may negatively affect future educational attainment, interaction with the criminal justice system, and other indicators of economic and social wellbeing (Andrew and Blake 2017; Fabelo et al. 2011; Mittleman 2017; Wolf and Kupchik 2017). Previous research also shows that not all children are equally likely to be suspended or expelled (Ramey 2015; Skiba and Williams 2014). Students’ discipline experiences vary substantially by gender, socio-economic status, and race/ethnicity. Many questions still remain about the causes of schools’ increasing use of suspension and expulsion, especially among already disadvantaged populations. To identify the predictors of suspension and expulsion, education researchers and other social scientists have focused primarily on differences in the composition and characteristics of children’s schools, differences in children’s school behaviors and, to a lesser extent, differences in children’s family backgrounds (Skiba et al. 2002; Skiba and Williams 2014). Several potential explanations have been presented in past research:

1. The *behavior perspective* argues that suspension and expulsion are due to children’s social-emotional development, such as differences in rule-following, attention, self-regulation, aggression, and the ability to get along with peers and teachers (Gregory, Skiba and Noguera 2010; Raffaele-Mendez 2003).
2. The *family resources perspective* argues that suspension and expulsion are partly due to family income, parental education, and family structure (Calarco 2014; Lareau 1989).
3. The *school contexts perspective* expands on the family resources perspective, arguing that families with more socioeconomic resources are more likely to be able to send their children to high-quality daycare and pre-kindergarten and to receive counseling or medication to help control behavior problems if they emerge, which reduces their children’s chances of suspension and that parents with greater resources are able to be more selective about their children’s schools (Gregory, Cornell and Fan 2011; Ramey 2015; Skiba et al. 2014; Skiba et al. 2002; Wallace et al. 2008).

However, due primarily to limitations in available data, researchers have not been able to thoroughly investigate how the complex constellation of children’s family structure, family structure transitions, social and economic resources, parenting, and residential transitions may – in addition to school characteristics – serve as risk factors for children’s later suspension and expulsion. Understanding these family and school factors, and how they may additionally intersect in shaping children’s suspension/expulsion risk requires the merging of school discipline records not only with school and academic records, but also with detailed longitudinal data on children’s family experiences.

In this study, we proposed to help distill and extend what we know about the effects of family context factors on children’s risk of suspension and expulsion. Drawing on one of the largest and most complete State Longitudinal Data Systems (SLDS) in the nation, this study accessed Texas ERC data to analyze current school discipline outcomes of a sample of 757 children matched to their mothers in the Texas subsample of the Fragile Families and Child Wellbeing Study. Using common identifiers in both sets of longitudinal data, this study was able to leverage a unique dataset incorporating detailed survey data including family backgrounds and characteristics of 757 children born between 1998

and 2000 with their administrative school-level records from preschool through entry into higher education or the workforce. The expected benefit of these combined data was superior analytic capabilities than either source of data by itself. As far as we know, ours was the first project to combine necessary school discipline and academic records with longitudinal survey data on children to be able to jointly examine the relative associations between child, family, and school/neighborhood factors – measured from birth through adolescence – on suspension and expulsion. Given sufficient findings, the hope was that by investigating this broad range of factors and family characteristics that predict future suspension and expulsion, schools would have information needed to intervene earlier in children’s school careers, implementing policies designed to ameliorate children’s behaviors.

How We Analyzed the Data

This study proposed to answer the following questions:

1. *How are parent and teacher assessment of children’s problem behaviors related to suspension and expulsion?*
 - How well do teacher and parent reports of a child’s externalizing behavior problems as reported through Child Behavior Checklist (CBCL) items in the FFCWS survey data predict a child’s ISS, OSS, and expulsion based on school administrative data?
 - Do these associations differ across time (from age 3 to age 15 or by infraction type?)
 - Does the association between children’s problem behaviors and suspension/expulsion vary based on children’s background characteristics like gender, socio-economic status, and race/ethnicity?
2. *What contextual characteristics predict suspension and expulsion?*
 - What family, child care, school, and home and school neighborhood characteristics predict children’s ISS, OSS, and expulsion based on school administrative data?
 - Do these associations differ across time (from age 3 to age 15)?
 - Does the association between contextual characteristics and suspension/expulsion vary based on children’s background characteristics like gender, socio-economic status, and race/ethnicity?
3. *What factors contribute to inequalities in suspension and expulsion?*
 - To what extent do differences in children’s behavior account for gender, socio-economic, and racial/ethnic differences in suspension and expulsion?
 - To what extent do differences in family, child care, school, and neighborhood contexts account for gender, socio-economic, and racial/ethnic differences in suspension and expulsion?
 - To what extent do changes in school composition influence individual students’ probability of suspension and expulsion?

The combined analytic sample consisted of linked data files from the Fragile Families and Child Wellbeing Study (FFCWS), and TEA data housed within the Texas ERC repository.

Measures from Texas ERC database

We used ERC student data to investigate different potential predictors of suspension/expulsion including: student grade retention (through enrollment and grade), attendance, test scores and course completion, special education, and Advanced Placement and IB courses. Teacher characteristics were also taken into account. To account for school/district context, the following ERC data was also used: school demographic data, school and district level suspension/expulsion rates (aggregated from ERC disciplinary data), and school and district level graduation rates.

Measures from Texas subsample of FFCWS data

Key variables of interest from the FFCWS included child’s suspension and expulsion (child and mother reports), child’s externalizing behavior problems as reported through Child Behavior Checklist (teacher and parent reports), and child’s cognitive skills as measured by the Peabody Picture Vocabulary Test (PPVT). Data on family and neighborhood contexts - including parental relationships, parenting quality, residential mobility, early childhood care

arrangements, timing of family experiences, neighborhood racial/ethnic and socioeconomic composition, neighborhood safety, and neighborhood cohesion - were also included from FFCWS.

Additional background variables were drawn from the FFCWS data such as child race/ethnicity, gender, social class background, and any reports of child's diagnoses including disabilities (e.g. ADHD, depression, autism, learning disability).

Research Methods

The first and second research objectives examined how children's behavior and childhood contexts were related to children's history of suspension/expulsion. For these sets of analyses, data on childhood behaviors and contexts came from the FFCWS combined with data on suspension/expulsion from TEA reports within the ERC repository. We fit a series of linear probability models and negative binomial regression models to predict whether children were ever suspended/expelled and the number of suspension/expulsions, respectively. In particular, we compared the strength of the associations between different FFCWS measures of children's behavior (teacher reports at ages 5 and 9, parent reports at ages 3, 5, 9, and 15) and TEA suspension/expulsion reports. We followed a similar analytic approach for the family, neighborhood and school contexts in which children grew up from birth through adolescence. For both children's behavior and contextual characteristics, we carried out analyses separately by time periods (before and after age 9).

Finally, we examined the extent to which differences in children's behavior and contextual characteristics contributed to inequalities in suspension/expulsion. We began by documenting differences in rates of suspension/expulsion by gender (i.e., male vs. female), socio-economic status (e.g., parent has college education vs. no college education; income poor vs. not income poor), and race/ethnicity (e.g., white, non-Hispanic vs. Hispanic, any race vs. Black, non-Hispanic). We first fit a series of linear probability models (and supplementary logistic regression models) with indicator variables for each demographic group of interest. Next, we sequentially added the set of mediating variables hypothesized to account for group differences in suspension/expulsion, including: (1) parent and teacher reports of children's problem behaviors; (2) family characteristics (e.g., social and financial resources, parenting behaviors); (3) neighborhood-level characteristics (e.g., neighborhood poverty, social capital); and (4) school-level characteristics (e.g., student composition and school policies). Last, we conducted a two stage Oaxaca-Blinder decomposition, which parses differences in suspension/expulsion between groups into two components: (1) the portion of the gap associated with group differences in mean levels of a given variable; and (2) the portion of the gap associated with group differences when both groups have the same levels of a given variable. Results from these series of decomposition analyses indicated the extent to which group differences in children's behavior and contextual characteristics accounted for group differences in rates of suspension/expulsion.

What We Discovered

We were unable to replicate the Black-White gap in suspension that is present within the full FFCWS sample within the subset of FFCWS in Texas. The Latino-White gap was also essentially non-existent. Moreover, our other goal for this project was to examine how externalizing scores from FFCWS map onto different infraction category reports from the ERC administrative data. Here, too, we found ourselves in a bit of an unexpected situation because a very high percentage -- around 90% -- of infractions were reported within a single administrative category, like 'defiance'. This minimized useful variation and limited our ability to look at how externalizing scores map onto different infraction category reports.

We did not expect to find this lack of racial gap in discipline within the subset of FFCWS in Texas for whom we were able to link to ERC data. We also attempted to explore disparities within sub-groups of our students, for example between African American-Whites, Latino-Whites, Latino immigrants-Whites, etc. Unfortunately, however, we found either no significant gap, or ran into small cell size issues (e.g., N~20). Additionally, there was not much variation on infraction report categories so we were not able to pursue our other research questions either.

Policy Recommendations

The fundamental policy-relevant aim of this study was a deeper understanding of risk associated with school suspension and expulsion in Texas. Rates of suspension and expulsion both in Texas and across the nation are high, with particularly alarming trends for students of color and students with more disadvantaged backgrounds, often leading to negative consequences for children's future success. In Texas, harsh discipline frequently results in juvenile arrests, which research shows can perpetuate a cycle of future misconduct and disciplinary action (Lieberman, Kirk, & Kim 2014). Reinforcing bad behavior or, in many cases, encouraging students to drop out, can lead to what sociologists call the "school-to-prison-pipeline." Most research is based on school record data, which is limited in terms of providing an overall picture of children's experiences. By linking administrative school records with longitudinal data from birth, we hoped to identify characteristics of children's family and neighborhood environments that put them at risk for future suspension. Early identification of risk can be useful to Texas by enabling schools to intervene earlier in children's school careers by implementing policies designed to mitigate problem behavior before it escalates.

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The University of Texas at Austin ERC is a research center and P-20/Workforce Repository site which provides access to longitudinal, student-level data for scientific inquiry and policymaking purposes. Since its inception in 2008, the Texas ERC's goal is to bridge the gap between theory and policy by providing a cooperative research environment for study by both scholars and policy makers. As part of its mission, the ERC works with researchers, practitioners, state and federal agencies, and other policymakers to help inform upon critical issues relating to education today.

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