Parsing Disciplinary Disproportionality: Contributions of Behavior, Student, and School

Characteristics to Suspension and Expulsion

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Running Head: CONTRIBUTIONS TO SUSPENSION AND EXPULSION

Abstract

It has been widely documented that the characteristics of behavior, students, and schools all make a contribution to school discipline outcomes. The purpose of this study is to report on a multilevel examination of variables at these three levels to identify the relative contributions of type of behavior, student demographic variables, and school characteristics to rates of and racial disparities in out-of-school suspension and expulsion. Results indicated that variables at all three levels made a contribution to the odds of being suspended or expelled. Type of behavior and previous incidents at the behavioral level; race, gender and to a certain extent SES at the individual level; and school enrollment, percent Black enrollment, and principal perspectives on discipline at the school level all made a contribution to the probability of out-of-school suspension or expulsion. For racial disparities in discipline, however, school level variables, including principal perspective on discipline, appear to be stronger predictors of disproportionality in suspension and expulsion than either behavioral or individual characteristics.

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Characteristics to Suspension and Expulsion

Recent national reports have increasingly documented issues involving the use of out-of-school suspension and expulsion as disciplinary responses. The national report *Breaking School Rules* released by the Council of State Governments (2011), provided evidence of increased risks for dropout and contact with the juvenile justice system associated with out-of-school suspension; those findings motivated the U.S. Departments of Justice and Education to announce a national initiative to support reform in school discipline practices (St. George, 2011).   At the same time, recent national reports (Losen & Skiba, 2010) as well as the March, 2012 release of the USDOE Office for Civil Rights *Civil Rights Data Collection* (2012) indicate that overrepresentation of African American students in school discipline outcomes continues to be sizaable and pervasive across school districts and states, and appears to be increasing over time.

The path from student misbehavior to administrative consequences represents a complex and multi-determined process (Morrison & Skiba, 2001). One would expect disproportionality in discipline to be likewise complex, the result of interactions between the type or frequency of behavior exhibited, characteristics of students, and characteristics of the school. Although multi-level studies have begun to examine the contribution of student and teacher characteristics (Bradshaw et al., 2010; Gregory & Weinstein, 2008), or student and school characteristics (Peguero & Shkarkhar, 2011) to disciplinary outcomes, there has not yet been a study that has simultaneously considered behavioral, student and school characteristics. The purpose of this paper is to report on a multilevel examination of variables at these three levels, in order to identify relative contributions to school exclusion, and racial and ethnic disparities in school exclusion.

Previous literature, reviewed below, indicates that characteristics of behavior, students, and schools all make a contribution to school discipline outcomes.

Behavioral characteristics

At first glance, the use of out-of-school suspension appears to be scaled to the severity of student behavior.   Both surveys of administrators (Costenbader & Markson, 1994) and analysis of actual office disciplinary referrals indicate that the offense most likely to result in suspension is fighting or aggression. Recent research clearly indicates that the probability that suspension and expulsion will be applied appears to increase in proportion to the perceived seriousness of the offense. In a national sample office disciplinary referrals and consequences, Skiba, Horner, Chung, Rausch, Tobin & May (2011) reported that the odds of being suspended or expelled for safety threatening or criminal infractions such as use and possession of drugs or weapons or assault were much higher than for infractions such as disruption or noncompliance.

Yet since suspension is among the most widely used disciplinary techniques, and used in response to a wide range of student behaviors (Skiba et al., 1997), the use of out-of-school suspension is not restricted to serious, safety threatening behaviors, but is rather distributed across a wide range of infractions. The data consistently shows that students are suspended most frequently for minor to moderate infractions such as disobedience and disrespect, defiance, attendance problems, and general classroom disruption (Skiba, Peterson, & Williams, 1997; Skiba, & Knesting, 2001; Gregory & Weinstein, 2008). Rosen (1997) conducted a study that suggests that the most common reasons for suspension were defiance to school authority, failing to report to detention, and in-class disruption.

These findings are probably less paradoxical than they appear. While safety-threatening or criminal behaviors lead to school exclusion more reliably, these represent a small proportion

of actual school behavior (Robers, Zhang, & Truman, 2012).   Thus, although the odds of a single incident of minor or moderate misbehavior leading to school exclusion are lower, the sheer volume of more minor and subjective infractions ensures that a greater proportion of out-of-school suspension will occur in response to those more common infractions.

This analysis is supported by patterns in the use of school expulsion. Expulsion is applied in schools on a much less regular basis: while some studies have found suspension to be applied to one third or more of office referrals, the use of expulsion is much more rare, perhaps occurring in as few as 1 in 1000 incidents (Skiba & Rausch, 2006). As a result, expulsion appears to be used primarily in response to more seriously disruptive, violent, or criminal behavior (Heaviside, Rowand, Williams, & Farris, 1998).

Student characteristics

The literature also suggests that particular student characteristics make students more likely to be disciplined. Males are suspended and expelled at a higher rate than females (e.g., Costenbader & Markson, 1998; McFadden, et al., 1992; Raffaele Mendez et al., 2002; Skiba et al., 2002; Skiba et al., 1997; Thornton & Trent, 1998; Wu et al., 1982).   Males represent 51% of the public school student population nationally, but constitute 70% of out-of-school suspensions; in comparison, females comprise 49% of the student population, but represent only 30% of suspensions (Petras, Masyn, Buckley, Ialongo, & Kellam, 2011). It has been suggested that gender disproportionality could be accounted for by the fact that some teachers see boys as more defiant and disruptive than other groups (Newcomb, Abbott, Catalano, Hawkins, Battin-Pearson, & Hill, 2002; Wentzel, 2002). Boys have been found to be over four times as likely as girls to be disciplined (Imich, 1994; Gregory, 1996) and comprise over three quarters of all disciplinary referrals (McFadden et al., 1992).

Poverty has also been found to be a consistent predictor of school discipline, with low socioeconomic status (SES) students receiving suspension and expulsion at a higher rate (Brantlinger, 1991; Christle, Nelson, & Jolivette, 2004; Nichols, 2004; Petras et al., 2011; Raffaele Mendez, et al., 2002; Skiba et al., 1997; Wu et al., 1982). A wide range of sociodemographic variables, including father or mother absence and quality of home resources, have been found to be predictors of the likelihood of suspension (Hinojosa, 2008). Even controlling for student levels of aggression, Petras et al. (2011) discovered that students who live in poverty were still more likely to be removed from school.

Finally, research has been highly consistent in documenting disproportionate rates of out-of-school suspension and expulsion for African American students (e.g., Costenbader, & Markson, 1998; Gordon, Piana, & Kelecher, 2000; McFadden, et al., 1992; Morrison, & D'Incau, 1997; Petras et al., 2011; Raffaele Mendez, et al., 2002). African American students are over-represented in a range of school disciplinary outcomes, including classroom referrals (Bradshaw et al., 2010; Rocque, 2010), out-of-school suspension (Gregory & Weinstein, 2008; Hinojosa, 2008; Eitle & Eitle, 2004), and zero-tolerance related expulsions (Tailor & Detch, 1998).

The association in American society between race/ethnicity and socioeconomic status (Duncan, Brooks-Gunn, & Klebanov, 1994; McLoyd, 1998) engender a hypothesis that findings of disproportionality due to race are a by-product of disproportionality associated with SES. Yet the relationship between race/ethnicity and socioeconomic status is complex: multivariate analyses have consistently demonstrated that race remains a significant predictor of suspension and expulsion even after controlling for poverty (see e.g., Wallace et al., 2008; Wu et al, 1982). Nor has research supported the notion that higher rates of suspension and expulsion are due

higher rates of African American misbehavior. Analyzing one year of disciplinary data for urban middle schools, Skiba, Michael, Nardo and Peterson (2002), found that White students were more often referred to the office for offenses that appear to be more objective: *smoking*, *vandalism*, *leaving without permission*, and *obscene language,* while African American students were referred more often for *disrespect*, *excessive noise*, *threat*, and *loitering*, behaviors with more subjective connotations. Bradshaw, Mitchell, O'Brennan, and Leaf (2010) reported that African American students had significantly greater odds of receiving teacher-reported office disciplinary referrals even after controlling for those same teachers' ratings of classroom behavior.

School contributions

Increasingly complex multivariate analyses have demonstrated that the disciplinary outcomes of suspension and expulsion are not simply a linear function of student and behavioral characteristics, but are also in part determined by characteristics of the school, a process that appears to start with classroom office referral. Teacher attitude, tolerance, and classroom management skill all appear to influence teacher rates of office disciplinary referral (Gregory & Weinstein, 2008; Vavrus & Cole, 2002). Across a sample of 364 elementary and secondary schools implementing PBIS across 17 states, Skiba et al. (2011) found that African American students were twice as likely as White students to be referred to the office at the elementary level and up to four times as likely in middle school. Examining disciplinary outcomes within schools, Gregory and Weinstein (2008) found that African American referrals for defiance showed consistency across classrooms for only a small percentage of students.

Disproportionality has also been found to be the result of variability in the consequences issued by administrators, independent of characteristics of the infraction.   Variations in rates of

school suspension and expulsion appear to be attributable in part to variability in principal attitudes toward discipline (Advancement Project/Civil Rights Project, 2000; Fenning & Rose, 2007; Mukuria, 2002).   African American students are more likely than White students to receive suspension and expulsion for minor infractions, even holding the previous step of teacher referral constant (Skiba et al., 2011). In an analysis across school districts in a single state, Nicholson-Crotty, Birchmeier, and Valentine (2009) found that African American students who committed a weapons offense were more likely to receive an out-of-school suspension than White students committing a similar offense.

Emerging research has begun to explore the possible contributions of school climate to rates of racial and ethnic disparities in discipline. Mattison and Aber (2007) found an association between school discipline and what they term the racial climate; that is, Black students' self-reported experiences of racism and perceptions of decreased fairness were associated with higher rates of detention and suspension. Gregory, Cornell, and Fan (2011) reported that "indifferent" schools, those that scored the lowest on measures of warmth/support and academic press/expectations, demonstrated the highest rates of suspension, and the largest Black-White suspension gap. Together, such studies suggest that school climate can serve either as a protective factor against, or a contributing factor towards, racial disparities in discipline.

Percentage of African American students enrolled in a particular school has been shown to be a predictor of more punitive and exclusionary discipline. The statistical relationship between black enrollment and increased punishment has been well-documented (Rocha & Hawes, 2009; Welch & Payne, 2010). In particular, schools with higher proportions of African American students appear to use more punitive and fewer supportive interventions for school discipline, even when controlling for a range of demographic variables (Welch & Payne, 2010).

In a nationally representative sample, Welch & Payne (2010) found that schools with a higher Black enrollment were more likely to have higher rates of exclusionary discipline, court action, and zero tolerance policies, even after controlling for school levels of misbehavior and delinquency.

The socioeconomic status of the district appears to play a role in both the rate of discipline, and in racial disparities in suspension and expulsion, not always in the expected direction. Absolute rates of suspension appear to be highest in poor urban districts (Losen & Skiba, 2010; Nicholson-Crotty et al., 2009). Yet disparities between black and white suspension rates appear to be as great or greater in higher resourced suburban districts (Eitle & Eitle, 2004; Rausch & Skiba, 2006; Wallace et al., 2008).

Summary and Purpose

Together these results suggest that both rates of, and disparities in, out-of-school suspension and expulsion are determined by a complex interaction of behavioral, student, and school characteristics. The advent of multi-level modeling approaches has allowed a more sophisticated exploration of this range of variables, simultaneously examining student and teacher (Bradshaw et al., 2010; Gregory & Weinstein, 2008), or student and school contributions (Peguero & Shkarkhar, 2011). Yet there has not been to this point an investigation exploring characteristics of infractions, student demographics, and schools simultaneously. The purpose of this study was to use a hierarchical linear modeling approach to explore the contributions and interactions of behavior, student characteristics, and school level variables to exclusionary discipline and racial disparities in discipline.

Method

Data Base and Measures

School discipline data. Discipline data were drawn from an extant data base containing records of all incidents of suspension and expulsion in all public schools a single Midwestern state for a single year. The data reported by schools to the state was originally organized by disciplinary incident within student in the 2007-2008 school year. The data base included a total of 104, 445 discipline events. This data was then aggregated to the student level and demographic variables contained within a student database available for all students in the state were merged with the disciplinary data at the student level. This resulted in a total of 43,320 cases at the student characteristics level. Finally, school-level demographic data obtained from the state Department of Education were merged with school-level data on principal attitudes on discipline to describe school characteristics. Three hundred and sixty five schools were used for the analysis.

Disciplinary Practices Survey

The Disciplinary Practices Survey is a survey instrument designed to provide data on a broad range of principal attitudes toward the process of school discipline. Items were generated based on a review of previous surveys of principals' perceptions and practices related to school discipline: National Study of Delinquency Prevention in Schools (Gottfredson, Gottfredson, Czeh, Cantor, & Hantman, 2000); Discipline in Secondary Schools (Greene & Barnes, 1993); Violence and Discipline Problems in U.S. Public Schools (Heaviside et al., 1998); Suspension, a Wake-up Call (Henderson & Friedland, 1996); and Indicators of School Crime and Safety (Kaufman et al., 2001). These items were integrated into an on-line survey, the Disciplinary Practices Survey, available to all principals in the state. Principals were asked to rate their agreement with statements reflecting various attitudes about the purpose, process and outcomes

of school discipline; they also rated the usage of a number of preventive disciplinary strategies (e.g., bullying prevention, conflict resolution, metal detectors) in their school.

The final Disciplinary Practices Survey was comprised of sixty questions organized into seven content areas: a) attitude toward discipline in general, b) awareness and enforcement of disciplinary procedures, c) beliefs concerning suspension/expulsion and zero tolerance, d) beliefs about responsibility for handling students misbehaviors, e) attitude toward differential discipline of disadvantaged students or students with disabilities, f) resources available for discipline, and g) attitude toward and availability of prevention strategies as an alternative to exclusion. Forty-nine of the questions assessed principal opinion about one of these aspects of discipline, using a five-point Likert scale (1, Strongly Disagree to 5, Strongly Agree). The other eleven items asked principals to estimate how frequently they used certain disciplinary or preventive strategies (peer mediation or in-school suspension) with response anchors ranging from 1, Never Used, to 5, Frequently Used.

A cluster analysis of the results yielded a two cluster solution; responding principals split into a cluster representing a more preventive orientation, and another representing attitudes more favorable to the use of school exclusion as a disciplinary strategy.

Data Analysis

We used hierarchical linear modeling (HLM) (Raudenbush, Bryk, & Congdon, 2004) to examine the relative contribution of incidents, student characteristics, and school variables simultaneously. The nesting of behavioral incidents within students and the nesting of students within schools makes HLM the most appropriate analytic strategy for this data. Using a standard Ordinary Least Squares (OLS) model results in an overestimation of standard errors, resulting in

an underestimation of significance for predictors (Lee, 2000). In order to create the most robust analysis, HLM is used to reduce the underestimation of significance (Sberna, 2005).

The HLM regression model was a multinomial logit predicting three possible disciplinary outcomes: in-school suspension, out-of-school suspension, and expulsion. In-school suspension served as the index variable, allowing us to examine which independent variables made a contribution to the more exclusionary forms of discipline, out-of-school suspension and expulsion. Independent variables were contained within three levels: incident level (behavioral characteristics), student level (individual characteristics), and school level (school characteristics). Two models were tested; Model 1 contained incident and student level variables, while Model 2 including those variables plus all level 3 variables.

Incident Level Variables

Level 1 (Incident) variables included the type and frequency of infraction leading to each incident of suspension/expulsion. Seventeen original classifications present in the database were regrouped into four categories:

- Use/Possession: Alcohol, Drugs, Deadly weapons, Handguns, rifles or shotguns, Other firearms, Tobacco

- Fighting/Battery: fighting, battery;

- Moderate Infractions: intimidation, verbal aggression or profanity, destruction of property

- Defiance/Disruption/Other: defiance, attendance, other.

In order to test the hypothesis that repeat offending increases the probability of suspension or expulsion, this level also included a count of the number of previous incidents leading to suspension and expulsion for each student.

Student Level Variables

Level 2 (Student) includes student characteristics:

- Gender,

- Eligibility for free and reduced lunch (FRL): Eligibility for the National School

  Lunch Program, based on family income.

- Race (Black or White).

School Level Variables

Level 3 (School) included characteristics at the school level: school enrollment, proportion of African American students enrolled in the school, average years of teacher experience, percentage of students in the school eligible for free or reduced lunch, percentage of students passing math and English on the state accountability exam, and principal perspective on school discipline. This last variable was generated from a cluster analysis of a scale measuring principal attitudes and beliefs regarding school discipline (see below).

Results

Descriptive Data

Table 1a and Table 1b present descriptive statistics for the variables included in the analysis. Level 1 (Incident) indicates an apparent increase in the severity of discipline administered in proportion to the severity of the offense. While Defiance/Disruption/Other is the most frequently-occurring infraction, students who participated in fighting/battery appear to be more likely to receive out-of-school suspension, while use/possession, the least common infraction, appears to be the infraction most often associated with expulsion.

Level 2 (Student) indicates the particular student demographic characteristics included in this study. Of all the students, 68.6% were male. Slightly more than half of the students received free or reduced lunch, and 76.3% were White students in this analysis.

In terms of Level 3 (School) variables, the mean school enrollment in this study was 608 students. The mean percentage of Black students enrolled in the schools was 7.9%. The average number of years of teacher experience in these schools was 15 years. The mean percentage of free of reduced lunch was 38.7% and percentage of students passing math and English in ISTEP testing is 65.3%. Among the principals surveyed, 57.1% of responding principals expressed

beliefs that placed them in a cluster supporting the use of suspension and expulsion, while 42.9%

of respondents fell into a cluster indicating support of preventive alternatives.

Results of HLM

As noted, an HLM was conducted in order to identify incident, individual, and school-

level influences on severity of school punishments. Results will be described across the three

levels of analysis (Table 2).

Incident

All three types of infractions entered in Level 1 (Incident)—Use/Possession,

Fighting/Battery, and Moderate Infractions--increased the odds of receiving more severe levels

of suspension and expulsion as compared to Defiance/Disruption/Other, suggesting that the

probability of receiving more severe consequences increased with the seriousness of the offense.

The least common infraction, Use/Possession, was the type of behavior most likely to lead to

out-of-school suspension (OSS) (OR= 7.430) and expulsion (OR= 45.625). The number of prior

incidents of suspension or expulsion also significantly increased one's odds of receiving OSS

(OR=1.058) and expulsion (OR=1.214).

Student characteristics

Among Level 2 (Student) variables, race was the strongest predictor of disciplinary

outcomes regardless of incident. Black students were more likely to receive both OSS (OR=

1.518) and expulsion (OR= 1.239) than White students. Males were slightly more likely to

receive OSS, but there were no gender differences for expulsion. Students eligible for free or

reduced lunch were more significantly more likely to receive out-of-school suspension, but less

likely to incur expulsion.

School characteristics

The addition of Level 3 (School Characteristics) variables in Model 2 resulted in a substantial increase in the model fit. The greater the proportion of Black students in a school, the more likely a student was to receive OSS (OR= 5.726), but the less likely a student was to be expelled (OR= 0.713). Indeed, proportion of black enrollment was among the strongest predictors of OSS, behind Use/Possession and Fighting/Assault. As was the case with FRL at the individual level, percent of students at the school receiving free or reduced lunch was positively related to OSS (OR= 1.269), but was a negative predictor of the likelihood of expulsion (OR= 0.025). Overall school size made a small but significant contribution to the probability of both OSS and expulsion (OR= 1.001). Rates of both suspension and expulsions were negatively related to achievement: students were less likely to receive OSS (OR= 0.175) or expulsion (OR= 0.002) the higher the percentage of students passing the state accountability test. Finally, principal perspective on discipline was predictive of disciplinary practices: In schools in which principals were more oriented towards prevention efforts, students were significantly less likely to receive out-of-school suspension (OR= 0.693) and expulsion (OR= 0.431).

Among the most notable findings of the analysis was the impact on the contribution of the individual characteristic of student race to discipline when other variables at various levels were introduced. Neither type of infraction variables nor student level of poverty were able to fully account for the contribution of race to the likelihood of receiving a more severe consequence. When incident level variables were introduced, student race remained a significant predictor of both suspension and expulsion in the presence of a variety of types of infractions regardless of type of behavior or the number of prior incidents involving suspension or expulsion. Nor did the presence of free/reduced lunch status reduce the contribution of race to suspension and expulsion to non-significance. When school level variables, including total

enrollment, percent of Black enrollment, and principal perspectives on discipline were introduced into the equation, however, the contribution of individual student race was reduced to non-significance for both out-of-school suspension and expulsion.

Discussion

The purpose of this study was to use a multi-level modeling approach to gain estimates of the relative contributions of behavioral, individual, and school level characteristics to the probability of receiving more severe exclusionary consequences when disciplined: Our operating hypothesis was that the disciplinary consequences of suspension and expulsion would be a complex function of variables at all three levels. For school discipline in general, this hypothesis was upheld, as type of behavior and prior infractions, race, gender and SES, and school characteristics such as Black enrollment rate and principal perspective, all made significant contributions to the probability of being suspended. Yet the analyses also suggested a somewhat different picture regarding racial disparities in discipline, however. While neither behavioral nor other individual characteristics fully accounted for the contribution of race to school discipline, school-level characteristics did reduce that relationship to non-significance. For racial disparities in suspension and expulsion, system level characteristics appear to be more important predictors than behavioral or individual characteristics.

Behavioral Characteristics

The relative strength of a range of infractions supports previous findings that the most reliable predictors of more serious outcomes in school discipline are more serious, less frequently occurring infractions. There was a proportional and consistent increase in the likelihood of more severe consequences according to the severity of behavior; this relationship was even stronger for expulsion, where the use or possession of drugs or weapons led to

dramatically increased odds of removal, perhaps because expulsion is mandatory in the case of firearms under the Gun-Free Schools Act (1994). Yet while these relationships are predictive of overall likelihood of suspension or expulsion, they may not necessarily predict racial disparities in discipline as well. Skiba et al (2011) reported that while the assumptions of *graduated discipline*—that consequences are scaled in proportion to the severity of behavior—held in general across a national sample of elementary and middle schools, African American and Latino students were far more likely to receive suspension and expulsion for mild and moderate offenses.

Individual Characteristics

These results replicate and extend previous findings concerning the importance of individual characteristics—race, gender, and to a certain extent socioeconomic status—in predicting disciplinary outcomes. As in previous studies, race proved a strong and robust predictor of more severe disciplinary outcomes, even when holding a variety of other behavioral and demographic variables constant. Gender was also a significant predictor of increased likelihood of out-of-school suspension, but not expulsion. While SES has been found to be a predictor of school discipline in general (Brantlinger, 1991; Skiba et al., 1997; Wu et al., 1982), in the current study SES proved inconsistent in its effects, predicting out-of school suspension positively, but negatively related to expulsion.

School Level

Finally, even holding behavioral and student characteristics constant, school characteristics made a contribution to the likelihood of more severe consequences. Out-of-school suspension and expulsion were more likely in schools with larger enrollment, and significantly less likely in schools with a principal with a perspective favoring preventive

alternatives to suspension and expulsion. Again, SES entered the equation inconsistently: the percent of students on free and reduced lunch had no relationship with suspensions, while schools with lower SES had fewer expulsions.

These results were consistent with recent studies in finding that school percentage of Black enrollment is a strong and robust predictor of school punishment (Rocha & Hawes, 2009; Welch & Payne, 2010). In this study, attending a school with a higher percentage of Black students is among the strongest predictors of OSS and expulsion, behind only use and possession of weapons or drugs in importance. It is somewhat striking that attending a school with more Black students increases one's risk of out-of-suspension more than engaging in a fight or battery. It is even more startling to realize that this relationship holds *even after* controlling for student demographics or behavior. In rich and poor schools, regardless of the severity of behavior, simply attending a school with more Black students greatly increases one's risk for receiving an out-of-school suspension.

Race and Exclusionary Discipline

This study was consistent with numerous previous investigations in finding race to be among the strongest predictors of out-of-school suspension and expulsion. One of the key advantages to any multivariate approach is the ability to draw conclusions about a variable's unique variance, and the changes in that variance, as other variables are entered into the equation. Thus, the continuing significance of race in Model 1 in predicting higher levels of exclusionary discipline cannot be explained by behavioral severity or student characteristics—it is rather the unique contribution of race in and of itself. When, however, school characteristics, including school size, percent of black enrollment, and principal attitudes towards school discipline, are entered in Model 2, race becomes non-significant in predicting OSS and

expulsion. This pattern of results suggests that the causation of racial disparity in OSS and expulsion is different from the causation of rates of those consequences in general. That is, these analyses supported the general hypothesis that OSS and expulsion are determined by a complex combination of behavioral characteristics, student demographics, and school level variables. When it comes to the contribution of race to discipline, however, these results indicate that systemic school level variables are far more important in determining the over-representation of Black students in discipline than are any behavioral or student characteristics.

Limitations

It is important to note that these analyses refer to only one portion of the disciplinary decision-making process. Drawn from an extant database containing all incidents of in- and out-of-school suspension and expulsion for an entire state, the results are limited to administrative decisions. Previous research (Gregory et al., 2010; Skiba et al., 2011) has indicated that racial disparities in suspension and expulsion begin at the classroom level with office disciplinary referral. This data thus allows no statements about all the sources of variance that may enter into the disciplinary process prior to the administrative disposition.

The use of extant disciplinary data creates measurement questions, due to the numerous sources of variance that each disciplinary incident represents (Morrison et al., 2004). Specifically, the end result—the decision to suspend or expel a student—is influenced at various points by variations in instructional effectiveness (Scott, Nelson, & Liaupsin, 2001), classroom management abilities (Blankemeyer, Flannery, & Vazsonyi, 2002; Reinke & Herman, 2002) and tolerance levels for student activity and learning styles (Gerber, 1988; Wright & Dusek, 1998), all of which affect teacher's rates of office referral. Again, it must be made clear that these data

speak only to the seriousness of the consequence applied to students who have reached the point of suspension or expulsion.

Conclusions

In undertaking this work, our working hypothesis was that decisions to apply out-of-school suspension or expulsion are determined by a complex interaction of behavioral, student, and school level variables. With respect to the overall probability of OSS and expulsion, that hypothesis was supported: Type of behavior and previous incidents at the behavioral level; race, gender and to a certain extent SES at the individual level; and school enrollment, percent Black enrollment, and principal perspectives on discipline all made a contribution to the probability of out-of-school suspension or expulsion. These data continue to raise serious concerns about the extent to which race predicts exclusionary discipline, and especially the factors that contribute to that disproportionality. Racial disparities are ubiquitous and are more likely to occur wherever there are more Black students, regardless of SES and seriousness of infraction. It is important to note that our presumption that variables at all three levels contribute did not hold when it came to racial disparities in discipline. The single most important finding from this analysis may well be that systemic, school-level variables contribute to disproportionality in discipline far more than either behavioral characteristics or individual demographics. Such a finding strongly suggests that those wishing to have an effect on racial disparities in discipline would be well advised to seek interventions that focus on the school rather than the characteristics of students or their behaviors.

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Table 1a
Descriptive Statistics for Data used in HLM Analyses: Level 1 Variables

Level 1: Incident

	ISS		OSS		Expulsion			
	N	Row%	N	Row%	N	Row%	N	Row%
Type of Infraction								
Use/Possession	692	16.8%	2,795	68.0%	626	15.2%	4,113	100%
Fighting/Battery	3,630	26.7%	9,727	71.6%	227	1.7%	13,584	100%
Moderate Infractions	4,513	41.8%	6,138	56.8%	155	1.4%	10,806	100%
Defiance/Disruption/Other	45,757	60.3%	28,951	38.1%	1,234	1.6%	75,942	100%
Total	54,592	52.3%	47,611	45.6%	2,242	2.1%	104,455	100%
Number of Prior Sus/Exp (Mean)	2.08		1.75		2.53		1.94	

Table 1b
Descriptive Statistics for Data used in HLM Analyses: Level 2 Variables

Level 2: Student

		N	Column%
Gender	Male	29,712	68.6%
	Female	13,608	31.4%
SES	Free or Reduced Lunch	23,125	53.4%
	None	20,195	46.6%
Race	Black	10,251	23.7%
	White	33,069	76.3%

Table 2

HLM Multinomial Logit Regressions on Discipline Outcome [1]

	Model 1				Model 2			
	OSS		Expulsion		OSS		Expulsion	
	Odds Ratio	Sig.	Odds Ratio	Sig.	Odds Ratio	Sig.	Odds Ratio	Sig.
Level 1: Incident								
Type of Infractions								
Use/Possession	7.403	***	45.625	***	9.981	***	49.400	***
Fighting/Battery	4.715	***	3.324	***	6.659	***	5.355	***
Moderate Infractions	2.280	***	1.493	***	2.999	***	1.889	***
Defiance/Disruption/Other								
Number of Prior Sus/Exp	1.058	***	1.214	***	1.120	***	1.403	***
Level 2: Student								
Gender								
Male	1.202	***	0.983		1.156	***	1.001	
Female								
SES								
Free or Reduced Lunch	1.072	***	0.810	***	1.151	***	1.068	
None								
Race								
Black	1.518	***	1.239	***	1.002		1.080	
White								
Level 3: School								
Total Enrollment					1.001	**	1.001	***
% Black in Enrollment					5.726	**	0.713	
Avg. Yrs. of Tchr. Experience					0.998		1.016	
% Free or Reduced Lunch					1.269		0.025	***
% Passing Math and English					0.175		0.002	***
Principal's Attitude								
Prevention					0.693	*	0.431	***
Pro-Suspension								
Random Effect	Variance Component				Variance Component			
Level 2 Effect	1.431	***	2.964					
Level 3 Effect					7.007	***	9.355	***

[1] Reference category is In-School Suspension for outcome.
*** *p*<0.01, ** *p*<0.05, * *p*<0.1