ABSTRACT

Title of Thesis:	THE ASSOCIATION BETWEEN SUSPENSION OR EXPULSION AND LATER SCHOOL SANCTIONS: DIFFERENCES BY STUDENT RACE AND SCHOOL RACIAL COMPOSITION Abbey Potter, Master of Arts, 2024
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The present study investigates the relationship between early childhood suspension or expulsion and students' odds of experiencing exclusionary discipline in adolescence. In particular, the study examines whether the relationship between childhood suspension and expulsion and the likelihood of experiencing exclusionary discipline in adolescence differs by the combination of student race and school racial composition. While labeling theory can speak to the role of individual student characteristics such as race in the labeling process, the theory is limited in that it says little about the role of social context. This study examines the impact of one aspect of school context, school racial composition, on the relationship between childhood and adolescent experiences of exclusionary discipline, drawing on insights from racial threat theory. The study uses data from the Future of Families and Child Wellbeing Study, a prospective longitudinal study of youth born in large US cities between 1998 and 2000. Main findings include a positive relationship between childhood and adolescent experiences of exclusionary discipline, an independent effect of student race on year 15 suspension risk, and heightened risk for Black, previously-suspended youth in

majority-minority school settings. Implications for labeling theory in context and surveillance of youth are discussed.

THE ASSOCIATION BETWEEN SUSPENSION OR EXPULSION AND LATER SCHOOL SANCTIONS: DIFFERENCES BY STUDENT RACE AND SCHOOL RACIAL COMPOSITION

By

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Introduction

Exclusionary discipline is a type of school punishment that involves removing students from their usual classrooms in response to disruptive behavior. It includes ISS (in school suspension), OSS (out of school suspension) and expulsion. ISS involves removing students from their usual classroom and placing them in an alternate classroom and can range from several hours to several days long (US Department of Education 2022). OSS involves temporarily removing students from school and may or may not include provisions for students to complete and receive full credit for their missed classwork (US Department of Education, 2022). Expulsions involve permanently removing students from school and are the most serious and least common of the three sanctions (US Department of Health and Human Services, 2023). Suspension and expulsion are used frequently in American schools, and disproportionately in cases involving students of color (Blake et al 2020; Morris 2014; Mittleman 2018b; Skiba et al 1997). In the 2017-2018 school year, there were over 2.6 million in school suspensions, about 2 and a half million out of school suspensions, and over 100,000 expulsions from US public schools (US Department of Education, 2018). A disproportionate number of those suspended and expelled were Black and Hispanic (US Department of Education, 2018).

Despite its widespread use, exclusionary discipline is a damaging experience for many students. It is associated with negative academic, behavioral, social-psychological, and criminal-legal outcomes for students (Brent and Mowen 2016; Fabelo et al. 2011; Monahan et al. 2014; Mittleman 2018a; Arcia 2006; Triplett et al. 2014; Brent and Mowen 2016; Fabelo et al. 2011; Lee et al. 2011; Suh and Suh 2007; Cohen et al 2021; Mittleman 2018a; Jacobsen 2020, Novak and Krohn 2021; Pyne 2019). One negative outcome of exclusionary discipline that has not been well-examined is the increased risk of subsequent school discipline that students experience after a suspension or expulsion. Exclusionary discipline is associated with increased risk of being

suspended or expelled in the future, even after accounting for students' behavior, commitment to school, and other theoretically important constructs (Wiley et al. 2020; Wilkerson and Afacan 2022; Arcia 2006; Raffaele Mendez 2003; Mittleman 2018a; Fisher et al. 2022). Researchers and policymakers should be concerned about the drivers of repeat suspension and expulsion because repeated experiences of exclusionary discipline increase students' odds of experiencing the negative outcomes associated with single suspensions such as dropout, low educational achievement, and arrest (Brent and Mowen 2016; Mittleman 2018a).

Prior research has examined the relationship between exclusionary discipline and risk for later sanctions using labeling theory. Labeling theory argues that the stigma of a sanction such as suspension or expulsion changes how sanctioned people are viewed and treated. Stigma, according to Goffman (1963) is a "deeply discrediting" attribute that leads people who have the attribute and those who do not to avoid interactions with one another (Goffman 1963 in Davis 1997, p. 212). These reactions may result in weakened social bonds, a change in a student's self-concept, and increased surveillance by teachers and administrators. This reactionary process may explain much of the tendency for people to experience repeat punishment over the life course (Sampson and Laub 1997; Lemert 1951; Liberman et al. 2014). Existing research has shown that experiencing exclusionary discipline is associated with weakened social bonds (Jacobsen 2020), thus making continued delinquency more likely, and suggests that suspension records increase teacher and administrator surveillance of students, regardless of any change in behavior (Liberman et al. 2014; Mittleman 2018a).

Labeling theory has also been used to understand how the impacts of suspension and expulsion vary by student race (Fisher and Widdowson 2023), but prior research and theory are inconclusive regarding whether sanctions are more or less stigmatizing for Black and Hispanic

individuals than for their white peers (Fisher and Widdowson 2023; Hirschfield and Piquero 2010, Hirschfield 2008; Sampson and Laub 1997; Jacobsen 2020). It may be the case that suspensions are more stigmatizing for Black and Hispanic students than they are for their white peers because these sanctions activate teacher stereotypes of Black and Hispanic criminality (Fisher et al. 2022). On the other hand, it may be the case that suspension and expulsion are less stigmatizing for Black and Hispanic students than for their white peers because these sanctions are so disproportionately common for students of color that they become normalized (Hirschfield 2008; US Department of Education, 2018).

Research on the normalization of punishment suggests that whether sanctions are stigmatizing depends, at least in part, on context (Hirschfield 2008). Labeling theory is limited in that it says little about types of social contexts that will make a sanction more or less stigmatizing (e.g., Paternoster and Iovanni 1989), thereby assuming that the labeling process is the same for students across different social contexts. This limits the theory's usefulness for explaining how punishments impact people's risk for later sanctions. In this paper, I investigate the impact of one particular aspect of school context, school racial composition, on the effects of suspension and expulsion on students' risk of later sanctions. I expect that student race and school racial composition will interact to shape the impact of exclusionary discipline on students' risk of experiencing secondary suspensions or expulsions.

Differences in school racial composition are associated with differences in overall school punitiveness and surveillance. Schools where most students are Black or Hispanic tend to use exclusionary discipline more frequently than do schools where most students are white (Welch and Payne 2010; Welch and Payne 2018). To understand this finding in prior work and its implications for student outcomes, I draw on racial threat theory, which predicts that in schools

with greater Black and Hispanic student populations, teachers and administrators will perceive a greater threat of criminal or delinquent activity posed by students of color and will act more punitively towards these students as a result (Blalock 1967; Irwin et al. 2022; Liska and Chamlin 1984). Thus, previously suspended or expelled Black and Hispanic students may face greater increases in their risk for secondary sanctions than their peers in other school contexts because of the heightened punitiveness associated with majority Black and Hispanic schools. On the other hand, high rates of suspension and expulsion in majority-minority schools may mean that punishment is normalized in these settings, carrying less stigma than it would in a less punitive context.

The purpose of this paper is to advance an understanding of how students' experiences of exclusionary school punishment impact their likelihood of subsequent suspension and expulsion by incorporating propositions about contextual variation into labeling theory. First, I will examine the relationship between suspension and expulsion in elementary school and exclusionary discipline in adolescence. Second, I will assess the extent to which this association varies by student race and school racial composition. Lastly, I will investigate whether changes in risk after a suspension or expulsion differ by the combination of student race and school racial composition. That is, I will investigate whether particular school contexts are more or less risky for previously-suspended students within racial groups.

If findings indicate that Black and Hispanic students with prior suspensions, for example, face the highest odds of repeat suspension when they are in majority white schools, the present study will imply a need for protective measures for these students when they return to school. Teacher bias training and increased administrator attention to repeat punishment disparities may decrease the differences in risk for sanctioned white students and students of color. If findings

indicate that majority-minority schools are particularly risky for Black and Hispanic students relative to their white peers, on the other hand, it will imply a need to decriminalize these settings, reducing surveillance and trying to address punitive attitudes.

Theoretical Background

Suspension and Social Exclusion

Suspensions and expulsions may increase students' risk of later exclusionary discipline by weakening their bonds to school. Labeling theorists argue that punishments are often stigmatizing, and that these stigmatizing sanctions can lead to further sanctions in three primary ways: by weakening social bonds, changing self-concepts, and increasing surveillance (Lemert 1951). A central claim of labeling theory is that punishments weaken people's participation in prosocial institutions and normative relationships (Sampson and Laub 1997). When an individual's bonds to prosocial institutions and people are weakened, they are less likely to be impacted by the controls those institutions and people would otherwise exert over their behavior. This leads to increased deviant behavior, and therefore increased odds of subsequent punishment.

Evidence suggests that students' bonds to school are damaged by exclusionary discipline (Jacobsen 2020; Pyne 2019) and that suspension and expulsion are associated with increases in antisocial behavior. Jacobsen (2020) finds, using peer network data, that suspended students experience greater discontinuity in friendship ties after suspension. Pyne (2019) also finds evidence for weakened social bonds after suspension, showing that suspension is associated with decreases in self-reported school trust and identification with school even after controlling for race, English proficiency, earlier attitudes, and free or reduced-price lunch status (Pyne 2019).

Exclusionary discipline is also associated with increases in later problem behavior. Mittleman (2018a) finds that students who are suspended or expelled by age 9 experience greater increases in behavioral problems by age 15 than their non-suspended peers (Mittleman 2018a). Cohen and colleagues (2021) find that even after accounting for students' behavior in the beginning of the school year, more frequent in-school and out-of-school suspensions are associated with more disruptive behavior at the end of the school year (Cohen et al. 2021).

The stigma of a suspension or expulsion can also put students at risk by changing how they view themselves. After a person receives a stigmatizing sanction, others often treat them like they are deviant, criminal, or "at-risk" (Goffman 1963; Tannenbaum 1938; McNulty and Roseboro 2009). Labeling theory argues that stigmatized people may begin to see themselves from this perspective, adopting a deviant self-concept and acting in ways that are consistent with it (Lemert 1951). If students who receive suspensions and expulsions are viewed and treated as delinquent by their teachers and peers, they may start to see themselves as "troublemakers" or "bad kids" and to act out more than they had before. This disruptive or delinquent behavior can lead to increased odds of subsequent punishment and may explain some of the relationship between exclusionary discipline and risk of later school sanctions.

Research to date supports the argument that experiencing stigmatizing sanctions impacts adolescents' views of themselves and therefore their behavior (Rios 2011; Restivo and Lanier 2015; Wiley et al. 2013). Restivo and Lanier (2015) find that having been arrested makes adolescents more likely to think and feel negatively about themselves, and that this relationship partly explains the positive association between experiencing an arrest and subsequent delinquency. In addition, Rios (2011) presents qualitative evidence that stigmatizing labels impact teens' self-concepts and behavior. He writes that being treated as criminals-in-the-making

led many of his study participants, Black and Hispanic adolescents in Oakland, to adopt deviant identities and to commit crime. Rios writes that many of the boys in his study internalized the criminal and delinquent labels placed on them to some extent. Many believed that they had no other choice than to act in ways that were consistent with delinquent, criminal identities.

Some of the behavior that leads to high risk of suspension and expulsion may not be the result of prior sanctions, but rather the result of experiences and dispositions that students bring into the classroom. Students with preexisting risk factors for antisocial behavior (such as impulsivity, experiences of abuse and neglect, and experiences with harsh and erratic parental discipline) have a higher baseline risk of exhibiting antisocial or delinquent behavior and therefore suspension than their peers (Raffaele Mendez 2003; Sampson and Laub 1997; Gottfredson and Hirschi 1990; Moffit 1993; Farrington 2005; Ebesutani et al. 2014; Hoffman et al. 2013). It is important to recognize that students face different levels of risk for repeat suspension based on the combination of their personal histories and their experiences with exclusionary school discipline. Because the present study is concerned with understanding the independent impacts of early suspension and expulsion on later exclusionary discipline risk, it is important to consider students' early childhood experiences and predispositions as potential confounders of the relationship between early and later school sanctions.

Surveillance and Secondary Sanctioning

It is also possible that the positive association between first and later suspensions is driven by secondary sanctioning. Secondary sanctioning is a concept derived from labeling theory which argues that people who have been formally sanctioned face increased surveillance after punishment because they come to be viewed as dangerous or "at-risk" (Liberman et al.

2014). Rios (2011) writes about surveillance as the constant, suspicious monitoring of people's behavior. He argues that Black and Latino students are embedded in systems that surveil them closely, with authority figures always watching for (and to an extent expecting) criminal or delinquent behavior from them. In the secondary sanctioning literature, this kind of surveillance is believed to lead to a higher likelihood of later punishment because highly-surveilled students are under more scrutiny than their peers (Liberman et al. 2014). In schools, this surveillance can mean that teachers pay closer attention to the behavior of their "at-risk" students and therefore become more likely to punish them. This relationship has been documented in the context of arrest. Mittleman (2018a) and Brent and Mowen (2016) find that experiencing exclusionary discipline increases students' odds of experiencing a juvenile arrest, independent of the negative effects of the suspension on their behavior. Additionally, Mittleman (2018a) finds that subsequent suspensions partially mediate the relationship between elementary school suspension and juvenile arrest and that this effect occurs independent of youths' behavior. He suggests that previously suspended students are under greater scrutiny than their peers, being surveilled more closely and punished more readily.

Variation by Race

Student race

It is possible that the impacts of surveillance and social exclusion on punishment risk vary for students based on their race. It could be the case that the relationship between experiencing exclusionary discipline and student likelihood of being suspended or expelled again in a later year is stronger for minority students if their exclusionary punishments are more stigmatizing than those of their white peers. Disadvantages resulting from punishment may

accumulate faster for those who are already disadvantaged or marginalized (Sampson and Laub 1997). Privilege and the resources associated with it create a buffer against social exclusion and stigma for people who are sanctioned. These resources allow sanctioned individuals to maintain their positions and reputations in prosocial institutions. In her 2014 paper on how class operates for white youth, Calarco writes that middle class, as opposed to working class, youth are often able to get extra time and exemptions on assignments because their parents intervene and pressure teachers on their behalf. Middle class white youth are more likely than their lower-class peers to have well-connected parents to advocate for them and may be so involved in prosocial institutions like sports teams and afterschool clubs that a suspension does not do much to exclude them. Because socioeconomic disadvantage is disproportionately concentrated among youth of color, it would be reasonable to expect the social exclusion and surveillance resulting from punishment to lead to higher odds of later sanctions, on average, for Black and Hispanic students than for their white peers.

It could also be the case that minority students' suspensions carry less stigma and are less damaging to bonds than those of their white peers because Black and Hispanic students are suspended disproportionately more often (Fagan and Meares 2008). Prior research on arrest stigma suggests that Black and Hispanic students' sanctions are less stigmatizing than those of their white peers because of normalization of punishment in racial minority communities (Hirschfield and Piquero 2010). Sanctions which are disproportionately concentrated in a group may no longer stigmatize or exclude sanctioned individuals to the same extent because they are normalized or seen as common experiences (Hirschfield 2008). Stigmatization and social exclusion require some distance between the sanctioned person and the normative, conventional community. Therefore, the association between exclusionary discipline and subsequent

suspension or expulsion may be weaker for Black and Hispanic students compared to their white peers.

It is also possible that suspensions and expulsions lead to a greater increase in punishment risk for Black and Hispanic students than for their white peers because of harmful stereotypes of Black and Hispanic youth as criminal, delinquent, or "at-risk". Fisher and Widdowson (2023) argue that school punishments are often "stereotype-congruent" for students of color, meaning they reinforce or activate biases against Black and Hispanic students. Morris (2016) writes about the impact of racist stereotypes on the unfair treatment and frequent disciplining of Black students. She writes that Black students' behavior in the classroom is often viewed through the lens of racialized expectations of disruptiveness or disrespect, leading teachers to view Black students' actions as deserving of more punishment than those of their white peers (Morris 2016). Hispanic students face a distinctive set of harmful stereotypes associating them with illegality and crime due to public rhetoric surrounding issues of immigration and lawbreaking (Fisher and Widdowson 2023; Chavez 2020). If exclusionary discipline is stereotype-congruent for Black and Hispanic students, their experiences with punishment may lead to greater stigma, surveillance, and risk for later suspension than those of their white peers.

School Racial Composition

It is possible that the effects of suspension and expulsion on later risk are impacted not only by student race, but also by school racial composition. Blalock's (1967) racial threat theory proposes that white majority populations perceive threat from minority groups as a function of their proportion of the population. That is, as minority populations grow, so will whites'

perception of a "minority threat" to their power and institutional positions. Blalock argues that increased perceptions of threat will lead to increased discrimination and discriminatory social control. A criminal threat interpretation of Blalock's (1967) work (Liska and Chamlin 1984) suggests that white majority populations may perceive a "criminal threat" posed by people of color as minority populations increase.

Liska and Chamlin's (1984) extension of Blalock's work suggests that surveillance and punishment of Black and Hispanic students will be highest in schools with high percentages of minority students as they will be perceived as posing a criminal threat in the school environment. In fact, research to date has shown that schools with greater proportions of minority students tend to rely on harsher punishments than those with more white students and that this cannot be explained by differences in behavior (Welch and Payne 2012; Edwards 2016). Previously suspended students in majority minority schools may face greater increases in risk for later suspensions than their peers in mostly-white schools. Teachers and administrators in majority-minority schools are more likely than those in majority-white schools to surveil students heavily, and are primed to see students as at-risk for delinquent and criminal behavior as a default (Owens 2022; Edwards 2016). Owens (2022) describes a "blaming climate" among staff in majority-minority schools that leads them to view student behavior as more indicative of criminality and threat than it would be in a school with more white students. If students in majority-minority schools already face more surveillance and suspicion than their peers in other school contexts, having a prior suspension or expulsion could exacerbate this heightened surveillance, leading to a greater risk of later school sanctions.

It is also possible that secondary sanctioning risk is lower for students in majority-minority schools than for their peers in majority-white schools. Research to date suggests that

social context is important for understanding the extent to which labels and sanctions are stigmatizing. Buchanan and Krohn (2018), for example, find that the association between adolescent arrest and later delinquency and low self-esteem is conditioned by a youth's social group. They find that arrest is associated with higher odds of delinquency and low self-esteem for youth in non-delinquent groups, while youth in gangs and delinquent peer groups are protected from these negative outcomes associated with labeling. The authors hypothesize that in the context of delinquent peer groups, an arrest is not a particularly stigmatizing sanction and so is less likely to trigger a negative labeling process than in a more conventional group.

The context of one's larger community can also impact the labeling process. Hirschfield (2008) argues that in contexts where criminal sanctions are very common (such as socioeconomically disadvantaged urban areas), they can lose some of their stigmatizing power, becoming normalized. Applying this work on stigma, labels and context to the school setting implies that because suspension and expulsion are so common in majority-minority schools, they may be normalized, carrying very little stigma. If this is the case, students' risk of repeated sanctions may be lower in majority-minority schools than in majority-white ones.

Race and School Racial Composition; Summary of Hypotheses

I also investigate how student race and school racial composition interact to shape the risk of later sanctions for previously suspended and expelled students. Recent work lends support to the idea that students' odds of being sanctioned depend not only on their race and school racial context, but also on the interaction between them (Edwards 2016; Smith et al. 2023). Based on prior theory and research, I anticipate that among Black and Hispanic students, those in majority-white schools will experience the greatest increases in risk associated with a prior suspension. I

expect that these youth will be most likely to be singled-out for repeat punishment in homogeneously white school contexts because they are more likely to be seen as dangerous from a racial threat perspective than their peers in schools with higher proportions of Black and Hispanic students.

Evidence to date suggests that Black-white suspension disparities are greater in majority-white schools than in majority-Black schools (Edwards 2016; Smith et al. 2023). Edwards (2016) adopts a racial threat approach to explain her findings, hypothesizing that individual Black students are viewed as more threatening in a white school environment than they would be in a majority-minority or more integrated school, where the impact of the perceived threat posed by Black students is more diffuse. Smith and colleagues (2023) suggest that Black students face more disproportionality in punitive treatment in school settings where they are among the only students of color. The authors argue that Black students in white schools are more likely to be singled out for sanctions, where in more diverse schools, other students of color act as a protective buffer. If, as Edwards (2016) suggests, the mechanisms behind sanctioning disparities by race and school composition are suspicion and surveillance, differences between racial groups in secondary suspension risk should be even greater than the risk disparities found in prior work on the topic, as the increased stigma and surveillance faced by students of color in white schools will be compounded by the stigma of a prior suspension.

Salience of early suspensions

Research to date suggests that childhood suspensions and expulsions are especially important for shaping students' educational and disciplinary trajectories. The early years of a child's life and education set the stage for both their cognitive and social-emotional development (US Dept of Health and Human Services & US Dept of Education 2020; Olson 2012). A child's

environment and experiences have a cumulative impact on their wellbeing and cognitive skills, and prolonged exposure to stressors can lead to aggressive or unhealthy coping patterns in young children that follow them into adolescence and adulthood (Olson 2012).

Elementary school suspensions and expulsions are stressful and stigmatizing events that occur at a very important point in the life course (Wahman et al. 2022; Jacobsen et al. 2019). These experiences may accelerate or compound the negative outcomes associated with later suspension and expulsion. Research to date shows that early exposure to suspension and expulsion is associated with negative behavioral and disciplinary outcomes for students, disadvantaging them at an early stage in their educational careers (Novak 2021; Novak 2022; Mittleman 2018). Jacobsen and colleagues (2019), for example, find that suspension in early elementary school is associated with within-student increases in both teacher and parent-reported aggressive behavior by the fourth grade. In addition, Novak (2020) finds that there are two primary trajectories of exclusionary school discipline for youth, and that those who are suspended and expelled earlier in elementary school become more likely to experience exclusionary discipline at every stage of their educational careers. The extant literature on early suspensions and expulsions suggests that elementary school experiences of exclusionary discipline are especially salient both for youth's behavioral and disciplinary outcomes. For this reason and to fill gaps in existing research on early exclusionary discipline, the present study focuses on the impacts of elementary school suspension and expulsion on risk of later sanctions.

Limitations of existing research and contributions of the present study

Very little work to date has focused on understanding how secondary sanctioning effects may vary by the race and racial context of the sanctioned person, but some studies offer important insights about race and surveillance that can be useful for the present study.

While prior work acknowledges that context matters for the salience of criminal or delinquent labels (Easterling and Feldmeyer 2017; Hirschfield 2018; Buchanan and Krohn 2017), none to date has addressed the applicability of these insights to understanding the labels associated with school punishment. These studies have also been unable to test the nuances of the labeling process in context by comprehensively considering how context and individual characteristics interact. For example, while Easterling and Feldmeyer (2017) argue that white women in rural settings experience heightened stigma and shame after incarceration, they do not examine reactions to similarly situated Black women. The present study builds on this body of work on labeling in context by considering not just how social contexts influence the impact of a label, but also how individual characteristics interact with the social environment to shape the labeling process.

Fisher and Widdowson (2023) find that receiving a suspension in middle or high school increases students' odds of arrest in the following year and that this effect is stronger for students of color than for their white peers. The authors suggest that the labeling effects of a suspension activate racialized stereotypes that frame Black and Hispanic students as criminal or delinquent, thereby stigmatizing them and increasing their risk of later sanctions. Fisher and Widdowson (2023) acknowledge macro-level racial stratification in America and its importance for how individual students are perceived, but do not develop an argument about how the meaning of race changes with context. Stigmatization and racialization do not occur only in a vacuum or only in

the macro-level context of American society. The labeling process necessarily occurs within particular institutions and environments. The present study builds upon Fisher and Widdowson's (2023) work by considering how racialized stereotypes interact with racialized environments to impact the labeling process. The present study will add to the discussion that the authors have started with their work by extending labeling theory to better understand how labeling effects differ by race and context.

Edwards (2016) examines the cross-sectional relationship between race, school racial composition, and student's odds of being suspended or expelled, finding that Black students in majority-white schools face higher odds of disproportionate punishment than their peers in majority-minority or more heterogeneous schools. Smith and colleagues (2023) replicate these findings using administrative data on student race and reason for suspension, which suggests that the pattern seen in Edwards (2016) is present regardless of whether students' behavior is measured using self or official reports.

While these prior studies suggest that differences in racialized surveillance explain differences in suspension risk by student race and school racial composition, they do so cross-sectionally. No studies to date have been able to test this proposed mechanism of contextualized racial surveillance using measures of repeated suspension. In the present study, using longitudinal data and a labeling framework, I leverage the presence or absence of a stigma-inducing sanction to test the possibility that surveillance and suspicion attach to students differently based on their race and school racial composition, and that this surveillance impacts later suspension risk. If my findings are in line with my predictions in the previous section, this will lend support both to Edwards' (2016) and Smith and colleagues' (2023) interpretations of their findings as the result of differences in stigma and surveillance of students based on race and

racial context. Supportive findings would also extend beyond this prior work by illuminating the longitudinal impact of racialized surveillance and stigma on students' educational trajectories. Given the existing literature and theoretical background, this study will test the following hypotheses:

1. There will be a positive relationship between elementary school suspension or expulsion and adolescent risk for suspension or expulsion.
2. There will be a positive relationship between being Black or Hispanic and the odds of adolescent suspension or expulsion.
3. Students in schools with higher proportions of Black and Hispanic enrollment will be more likely to experience suspension or expulsion by year 15.
4. The relationship between suspensions and expulsions in elementary school and suspensions and expulsions in adolescence will differ based on student race.
    4a. This relationship will be stronger for Black and Hispanic students than for their white peers.
5. The relationship between suspensions and expulsions in elementary school and suspensions and expulsions in adolescence will differ based on the interaction of student race and school racial composition.
    5a. For Black and Hispanic students, the increase in risk associated with year 9 suspension will be greatest in racially homogenous schools.

Data and Methods

In order to address these hypotheses, I use the Future of Families and Child Wellbeing Study (FFCWS). This study provides longitudinal data on around 4898 children born in large US cities to disproportionately unmarried parents between 1998 and 2000 and follows them through age 22 (Reichman et al. 2001). Future of Families researchers interviewed parents when children were 1, 3, 5, 9 and 15 years old, and children were interviewed at years 9 and 15. To better understand issues facing disadvantaged families in large cities, researchers oversampled unmarried parents. Parents in the Future of Families sample were more likely (compared to the US average) to have low educational attainment, and to have racial minority status (Reichman et al. 2001).

The Future of Families data are especially well-suited for the present study first because of the oversampling of disadvantaged youth in large US cities. This oversampling of students who are disproportionately likely to receive suspensions and expulsions (Reichman et al. 2001) allows for a meaningful exploration of variation in the explanatory variable. In addition, while this feature of the data will limit study generalizability, for example, to all youth in urban areas or to youth in more rural contexts, the data are uniquely suited for a study examining the experiences of a highly vulnerable population of youth.

Another strength of the Future of Families data for this project is that the data include measurements of potential confounding variables across the life course. A wide range of personal characteristics and early adverse experiences are known to increase students' odds of experiencing behavioral problems in school. FFCWS is unique in that it includes measures of early adverse experiences starting at birth, and so confounders for the association between suspension or expulsion in elementary school and suspension or expulsion in adolescence can be accounted for especially well with the data. FFCWS also includes detailed measures of the characteristics of the schools youth attend at year 15, which allows the present study to account for a wide range of school characteristics, including but not limited to school racial composition, such as rates of suspension and the proportion of students qualifying for free lunch that may impact school climate.

One important limitation of the FFCWS for studying student suspension and expulsion trajectories is the gap in data collection between ages 9 and 15. At year 15, students are asked about the past two years, and this allows some understanding of their middle school experiences (most will still be in middle school at age 13). Whether middle and high school teachers are aware of their students' elementary school discipline records is unclear. However, qualitative

research on students' reputations as "at-risk" or disruptive has shown that these reputations, based in part on disciplinary incidents, can follow students from teacher to teacher and even from school to school through teacher networks (Ferguson 2001). Ferguson (2001) writes, for example, that teachers share stories about "problem" students in staff meetings and professional development settings, leading to the solidification of certain students' reputations as troublemakers. It would be reasonable to expect that students who had been suspended or expelled in early grades would be at risk for greater surveillance and punishment as they move through elementary to middle and even high school. However, because of the gap in data collection between years 9 and 15 resulting in a greater potential for unobserved confounders, a supplementary analysis is used to illuminate mechanisms and strengthen the assertion that secondary sanctioning plays a role in increasing students' risk for subsequent suspensions and expulsions.

Analytic Sample

Because the research questions for the present study involve comparing students' year 15 disciplinary outcomes based on their suspension or expulsion histories at year 9, the analytic sample only includes students for whom there is nonmissing information on suspension and expulsion in both years. There is information on year 9 suspension or expulsion history (either from youth themselves or from their primary caregivers) for about 68 percent of total respondents (n= 3,346). There is information on year 15 suspension or expulsion (either from youth themselves or from their primary caregivers) for about 71 percent of respondents (n=3481). Of these youth, I limit my analytic sample to the 63 percent of surveyed youth for whom there is information on suspension or expulsion history at both years 9 and 15 (N=3,080). T-tests of group means confirms that cases included in the analytic sample are not significantly

more likely to report being male, white, Black, Hispanic, or a member of another race than members of the full sample. Students included in the analytic sample are also not significantly more or less likely than those in the full sample to have parents who were married at baseline, fathers who were incarcerated at baseline, or mothers who used food stamps at their baseline interviews.

In the full analytic sample, twelve youth (less than 0.5% of the sample) had parents report that they were not in school at year 15. Of these youth who were not in school at year 15, eight are coded as having been suspended in the two years prior to year 15. These youth are retained in the sample because they could have been in school (and therefore at risk for exclusionary discipline) in the two years prior to year 15 data collection.

Variables of Interest: Dependent variable

The main dependent variable in the present study is a binary indicator of whether a student was suspended or expelled in the two years prior to year 15 of data collection. No data were collected between years 9 and 15, so the exclusionary discipline survey question in year 15 bridges some of the gap by asking students whether they have been suspended or expelled in the previous two years. Response categories are “yes” “no” “refused” “don't know” and “na/homeschooled”. Primary Caregivers (PCGs) also provide data on suspension or expulsion at year 15 and are asked how many times their child has been suspended or expelled in the past two years. For the present study, students are considered to have been suspended or expelled at year 15 if either they or their PCG indicated they were. Overall, 1031 students (33.5% of my analytic sample) are coded as having been suspended or expelled in the two years prior to year 15.

Variables of Interest: Explanatory variable

The main independent variable in the present study is a binary indicator of whether students were either suspended or expelled by year 9 of data collection. Students in year 9 were asked whether they had ever been suspended or expelled. For students who refused to answer, said they didn't know, or were missing on the question, PCG surveys were cross-referenced to see if any information about suspension or expulsion history could be found on focal children. At year 9, PCGs were asked whether their children had been absent because of a suspension or expulsion in the current or most recent school year. Students are considered to have been suspended or expelled by year 9 if either they or their PCG indicated they had been. It is important to note that student and PCG questions at year 9 cover different but overlapping time periods. This is discussed in more detail below. Overall, 589 students either self-reported or had a PCG report that they had been suspended or expelled by year 9. For some students, neither they nor their PCG gave an answer to the question about suspension and expulsion history at year 9. These students are considered missing on the independent variable because there is no usable information on their experiences with exclusionary discipline by age 9.

It is important to address the issue of inconsistency between parent and student reports of suspension or expulsion in years 9 and 15. In both years, some students report suspensions and expulsions while their parents or primary caregivers do not and vice versa. This inconsistency, however, does not necessarily indicate that either parent or student reports are unreliable indicators of suspension and expulsion history. First, parents at year 9 are asked about suspension and expulsion in the current school year, while youth at year 9 are asked about suspension and expulsion over their entire school careers. These questions, therefore, cover different time periods and so the numbers should not be expected to correspond exactly with one

another. At year 15, parents and youth are asked about suspension and expulsion history over the past two years, so the issue of different time periods covered cannot explain discrepancies in reporting. In both years however, it's possible that when students are given in-school suspensions, this is not effectively communicated to parents, which could drive discrepancies in reporting.

Controls: Race, Behavior, and School Bonds

Analyses for the present study control for students' self-reported race or ethnicity at Year 15. Students are coded into the categories: White, Black, Hispanic and "other race". An "other race" category is used because there are not enough students in groups other than white, Black and Hispanic to allow for a meaningful analysis of variation in their experiences. Students who indicate that they are multi-racial will be included in the "other race" category for the sake of the present study. While it is true that this will likely underestimate the extent to which students experience punishment risk differently by race, there are not enough students in the multi-racial category to conduct any meaningful analysis on these students as a group and it is not clear what race groups youth refer to when they indicate being multiracial. Of those 51 youth in the "other race" group who reported a suspension or expulsion at year 15, about 21 percent identified as American Indian or Alaska Native (AIAN), just over 19 percent identified as Asian, almost 30 percent identified as multi-racial, and 17.6 percent are only identified as European. The remaining 13 percent of this group are scattered across the following categories: Native Hawaiian/ Pacific Islander, "American", and "religious category". It is important to note that "other race" youth make up a very small proportion of the total analytic sample (224 of 3080 observations). For this reason, results for "other race" students should be interpreted with caution.

In order to account for the possibility that the association between suspension and expulsion and subsequent risk for exclusionary discipline is driven by differences in students' behavior, the present study includes controls for self-reported delinquency and substance use in the past year, measured at year 15. In addition, analyses account for indicators of students' bonds to school at year 15. Labeling theory suggests that students who are suspended or expelled will have weaker bonds to school as a result and will therefore be more prone to delinquency. Though the study controls for self-reported delinquent behavior, a control for school bonds is included to account for any otherwise unmeasured variation in delinquency that might be caused by damaged ties to school. To rule out spuriousness, analyses also control for individual, family, and community-level background characteristics that may increase students' odds of both engaging in problem behavior and being suspended or expelled. Individual level controls include the student's biological sex at birth, eligibility for free or reduced-price lunch, and whether students have an ADHD or Autism diagnosis. Family level characteristics include housing instability, household income, parental impulsivity, father's incarceration, parents' marital status, and parents' level of education. Analyses also control for sample city, the level of socioeconomic disadvantage in youth's home communities at year 15 as well as the percentage of students in their schools eligible for free or reduced-price lunch and the school's OSS rate.

School Racial Composition

To measure school racial composition, the present study relies on information in the Future of Families Study from the National Center for Education Statistics (NCES). This NCES file includes information on the racial composition of youth's year 15 schools. Schools are categorized in the present study based on the percentage of their student body that reports being

either Black or Hispanic. Schools are organized into four categories based on these percentages (0-25%, >25-50%, >50-75%, >75-100%).

Analytic plan: **Logistic regression**

The present study utilizes a logistic regression approach to understand the impact of suspension or expulsion status by age 9 on the likelihood of reporting exclusionary discipline at age 15. Model 1 regresses year 15 suspension or expulsion on year 9 suspension or expulsion with no controls. Model 2 regresses year 15 suspension or expulsion on year 9 suspension or expulsion, with the addition of controls (see Appendix A for a full list of controls). Model 3 (the fully specified model) adds interaction terms for (>25-50% Black and Hispanic Enrollment x year 9 suspension), (>50-75% Black and Hispanic Enrollment x year 9 suspension), and (>75-100% Black and Hispanic Enrollment x year 9 suspension).

All models are run in the full analytic sample and separately for each student racial group. Models using the full analytic sample also include interaction terms for each non-white student race category multiplied by year 9 suspension. White students are used as the comparison group for the analyses using the full sample because they experience the lowest rates of suspension and expulsion in the data as well as in the literature. Running all models separately in each student racial group will allow for an understanding of how risk changes for students within racial groups and across school racial contexts. For example, the analysis will allow for a comparison of suspension risk for Hispanic students in schools with 0-25% Black and Hispanic enrollment to that of Hispanic students in schools with 75-100 % Black and Hispanic enrollment.

To better understand the impact of school racial composition on the odds of exclusionary discipline at year 15, all models are run in the full analytic sample and in each student racial

group with and without a control for the OSS rate at students' year 15 schools. If controlling for this variable reduces the effects of school racial composition on risk, would suggest that school racial composition impacts student risk primarily through its association with schools' overall punitiveness. If controlling for school OSS rate does not alter the independent effect of school racial composition on risk, it will indicate that something else about racial composition shapes students' risk for suspension and expulsion at year 15.

Though logistic regression models are run that do and do not control for school OSS rate at year 15 for the full sample and each student racial group, there are only substantive differences between the results of these models for the "other race" group. For the "other race" group, coefficients from models with and without the OSS rate control variable will be reported in the results section so that differences can be discussed. For all other racial groups as well as the full analytic sample, only coefficients from the fully specified versions of models 2 and 3 will be reported.

Analytic Plan: Supplementary Analysis

A supplementary analysis is conducted to allow for a better understanding of the mechanisms leading to higher suspension and expulsion risk for previously suspended and expelled students in the sample. This is especially important given the gap in FFCWS data collection between years 9 and 15, which leaves room for important life course events and developmental processes to occur that impact students' odds of later suspension. The supplementary analysis in the present study exploits variations in the available data to better understand the plausibility of the inference that labeling processes underly the associations seen between suspensions and risk in the main analysis.

This analysis uses the full analytic sample and leverages the fact that some youth moved between years 9 and 15 of data collection to better understand the impact of a year 9 suspension or expulsion on later risk. Youth's labels and reputations should be more likely to follow them from year to year if they remain in the same school district, surrounded by the same peers, teachers, and other adults. If the stigma of an elementary school sanction and resulting secondary sanctioning are the mechanisms leading to a positive suspension-suspension association, students who move should be less likely to experience increases in risk after a suspension or expulsion.

Moving between years 9 and 15 is measured using a question from the year 15 primary caregiver survey. PCGs are asked if they have moved since their last interview, and youth whose PCGs indicated that they did are coded as having moved for this supplementary analysis. It is important to note that PCGs are not asked whether they moved within the same city or to an entirely different city or region. The variable "moved" in this supplementary analysis necessarily combines youth with varying experiences, some of whom may have moved across their neighborhoods while others moved across the country. The implications of this measurement limitation for the interpretation of results are discussed below. In addition, this supplementary analysis includes controls for OSS rates in students' schools at year 15, so even if students who move end up in more or less punitive contexts, this should not confound the relationship between moving and year 15 risk.

Missing Data

Most variables in the present study are missing in fewer than 7% of cases. The variable with the most missingness in the analytic sample is the school OSS rate at year 9, with about 17

percent of responses coded as missing and imputed (see Appendix A for an explanation of coding of all control variables). Multiple imputation using chained equations is used to handle missing data in the analytic sample. This results in 20 multiply imputed datasets, and results are combined across datasets using Rubin's rules (Rubin 1987).

Results: Descriptive Statistics

Descriptive statistics, presented in Table 1, indicate that around 19 percent of the analytic sample reported a suspension or expulsion by year 9. Of those who were suspended or expelled by year 9, about 67 percent were suspended or expelled again between years 13 and 15. Of those who were not suspended by age 9, only about 26 percent were suspended or expelled between years 13 and 15.

Black students are overrepresented among those suspended or expelled by year 9. These youth make up just over 50 percent of the total analytic sample and around 77 percent of those suspended or expelled by age 9. White and Hispanic students are underrepresented among those suspended or expelled by age 9. White students make up about 17 percent of the analytic sample and 4.6 percent of those suspended or expelled by year 9. Hispanic students make up around 25 percent of the sample and 12 percent of those suspended or expelled by year 9. Students eligible for free or reduced-price lunch are overrepresented among those suspended or expelled by year 9. Around 73 percent of the analytic sample was eligible for free or reduced-price lunch at year 9. Students qualifying for free or reduced-price lunch, however, make up over 87 percent of those suspended or expelled by year 9.

Results in full analytic sample

Model 1 using the full analytic sample in Table 2 shows that year 9 suspension or expulsion is a positive and statistically significant predictor of year 15 suspension or expulsion (b = 1.772, SE = 0.100, $p<0.05$). The odds of being suspended or expelled in the past two years at age 15 are 488% greater among students who report a suspension or expulsion by age 9 than they are among students who do not. When controls are added in Model 2, the magnitude of the year 9 suspension or expulsion coefficient decreases, but it remains a positive and statistically significant predictor of year 15 suspension or expulsion (b = 0.956, SE = 0.123, $p<0.05$). Model 2 also shows that being Black (b=0.633, SE= 0.191, $p<0.05$) or a member of the "other race" group (b=0.569, SE= 0.230, $p<0.05$) is a statistically significant, positive predictor of year 15 suspension or expulsion, net of controls. This means that Black and "other race" students in the full sample are at a higher risk for year 15 suspension when compared to their white peers, net of background, behavioral, and school level covariates, as well as suspension history. The coefficient for Hispanic youth compared to white youth is positive in this model but does not reach statistical significance (b=0.241, SE= 0.207).

In Model 2, the coefficients for >25-50% Black and Hispanic enrollment (b= -0.193, SE= 0.192), >50-75% Black and Hispanic enrollment (b= -0.091, SE=0.188), and >75-100% Black and Hispanic enrollment (b= -0.097, SE=0.205) are small in magnitude and are not significantly associated with year 15 suspension or expulsion when adjusting for the other variables in the model.

The fully specified model (Model 3) includes interaction terms for each school racial composition category multiplied by prior suspension or expulsion as well as for each student racial group multiplied by prior suspension or expulsion. In Model 3, year 9 suspension or

expulsion remains a positive and statistically significant predictor of year 15 suspension or expulsion (b=1.480, SE= 0.541, $p<0.05$). The coefficients for Black (b = 0.761, SE = 0.206, $p<0.05$), Hispanic (b = 0.263, SE =0.225) and "other race" (b = 0.623, SE = 0.248, $p<0.05$) are positive, but only those for Black and "other race" reach statistical significance. The coefficients for >25-50% Black and Hispanic enrollment (b= -0.208, SE= 0.208), >50-75% Black and Hispanic enrollment (b= -0.170, SE= 0.205) and >75-100% Black and Hispanic enrollment (b= -0.136, SE= 0.217) are not significantly associated with year 15 suspension or expulsion.

The coefficients for the school racial composition-suspension interaction terms (>25-50% Black and Hispanic enrollment x Y9 suspension or expulsion, b = 0.055, SE = 0.485) (>50-75% Black and Hispanic enrollment x Y9 suspension or expulsion, b = 0.370, SE = 0.455) and (>75-100% Black and Hispanic enrollment x Y9 suspension or expulsion, b = 0.209, SE = 0.396 are all statistically insignificant in this model. In addition, the coefficients for the interactions between Black and Y9 suspension or expulsion (b= -0.895, SE= 0.552), Hispanic and Y9 suspension or expulsion (b=0.225, SE= 0.612), and "other race" and Y9 suspension or expulsion (b= -0.619, SE= 0.733) do not reach statistical significance at the $p<0.05$ level in Model 3.

Results for Black students

Among Black students, Model 1 in Table 3 shows that year 9 suspension or expulsion is a positive and statistically significant predictor of year 15 suspension or expulsion (b = 1.340, SE = 0.122, $p<0.05$). The odds of suspension or expulsion in the past two years at age 15 are 282% greater for students who report a suspension or expulsion by age 9 relative to students who do not.

When controls are added in Model 2, year 9 suspension or expulsion remains a positive and statistically significant predictor of year 15 suspension or expulsion (b = 0.781, SE = 0.147 $p<0.05$). The coefficients for the school racial composition categories are all negative and statistically insignificant in the model (>25-50% Black and Hispanic enrollment, b= -0.327, SE= 0.299), (>50-75% Black and Hispanic enrollment, b= -0.140, SE= 0.283), (>75-100% Black and Hispanic enrollment, b= -0.075, SE= 0.304).

The fully specified model (Model 3) includes interaction terms for each school racial composition category multiplied by the indicator for suspension or expulsion at year 9. When interaction terms are added, the coefficient for year 9 suspension or expulsion loses statistical significance (b= -0.209, SE= 0.525) in the model for Black youth. In Model 3, the coefficients for the independent effect of each school racial composition category are all negative and statistically insignificant at the $p<0.05$ level (>25-50% Black and Hispanic enrollment, b= -0.525, SE= 0.332), (>50-75% Black and Hispanic enrollment, b= -0.441, SE= 0.315), (>75-100% Black and Hispanic enrollment, b= -0.333, SE= 0.327).

The coefficients for the school racial composition-suspension interaction terms are all positive in this model, but only one is statistically significant at the $p<0.05$ level. The coefficient for the interaction between >25-50% Black and Hispanic enrollment and Y9 suspension or expulsion is positive but does not reach statistical significance (b=0.795, SE=0.686). The coefficient for the interaction between >50-75% Black and Hispanic enrollment and Y9 suspension or expulsion is a positive and significant predictor of year 15 suspension or expulsion in the model (b=1.225, SE= 0.615), $p<0.05$). The coefficient for the interaction between >75-100% Black and Hispanic enrollment and Y9 suspension or expulsion (b=1.051, SE= 0.550, $p=0.056$) is a positive predictor of year 15 suspension or expulsion in the model and is

significant at the $p<0.1$ level. Marginal odds of year 15 suspension for Black youth who have and have not been suspended by year 9 in each school racial composition category are shown in Figure 1. These results show that while there is a difference in year 15 suspension risk for students with and without a year 9 suspension or expulsion in all school contexts, this gap is statistically significant at the $p<0.05$ level in schools with over 75% Black and Hispanic enrollment.

Results for White students

Among white students, Model 1 in Table 4 shows that year 9 suspension or expulsion is a positive and statistically significant predictor of year 15 suspension or expulsion ($b = 2.436$, $SE = 0.433$, $p<0.05$). The odds of suspension or expulsion in the past two years at age 15 are 1043% greater for students who report a suspension by age 9 relative to students who do not.

When controls are added to the model, year 9 suspension or expulsion remains a positive and statistically significant predictor of year 15 suspension or expulsion ($b = 1.577$, $SE = 0.504$ $p<0.05$). The coefficients for the school racial composition categories are all statistically insignificant in the model. While the coefficient for >25-50% Black and Hispanic enrollment is positive ($b=0.103$, $SE= 0.433$), those for >50-75% Black and Hispanic enrollment ($b= -0.336$ $SE= 0.617$ and for >75-100% Black and Hispanic enrollment are negative ($b= -1.227$, $SE= 0.702$).

The fully specified model includes interaction terms for each school racial context category multiplied by the indicator for suspension or expulsion at year 9. Year 9 suspension or expulsion remains a positive and significant predictor of year 15 suspension or expulsion in this model ($b=2.231$, $SE= 0.931$, $p<0.05$). The coefficients for the independent effect of each school racial composition category remain insignificant in the model (>25-50% Black and Hispanic

enrollment, b= 0.114, SE= 0.468), (>50-75% Black and Hispanic enrollment, b= -0.137, SE= 0.594), (>75-100% Black and Hispanic enrollment, b= -1.317, SE= 0.904).

The coefficients for the school racial composition-suspension interaction terms are all negative and statistically insignificant in this model, (>25-50% Black and Hispanic enrollment x Y9 suspension or expulsion, b= -0.577, SE= 1.586), (>50-75% Black and Hispanic enrollment x Y9 suspension or expulsion, b= -1.804, SE= 1.460), (>75-100 % Black and Hispanic enrollment x Y9 suspension or expulsion, b= -0.300, SE= 1.823).

Results for Hispanic Students

Among Hispanic students, Model 1 in Table 5 shows that year 9 suspension or expulsion is a positive and statistically significant predictor of year 15 suspension or expulsion (b = 1.900, SE = 0.275, $p<0.05$). The odds of suspension or expulsion in the past two years at age 15 are 569% greater for students who were suspended or expelled by age 9 relative to students who were not suspended or expelled by this age.

When controls are added in Model 2, year 9 suspension or expulsion remains a positive and statistically significant predictor of year 15 suspension or expulsion (b = 1.678, SE = 0.365 $p<0.05$). The coefficients for the school racial composition categories are all negative and statistically insignificant in the model (>25-50% Black and Hispanic enrollment, b= -0.600, SE= 0.539), (>50-75% Black and Hispanic enrollment, b= -0.422, SE= 0.513), (>75-100% Black and Hispanic enrollment, b= -0.732, SE= 0.540).

Model 3 includes interaction terms for each school racial context category multiplied by the indicator for suspension at year 9. In Model 3, the coefficient for the independent effect of year 9 suspension or expulsion remains positive but loses statistical significance (b= 1.490, SE=

0.982). It is also important to note that for Hispanic youth, the coefficient for Autism was omitted by the model because it was a perfect predictor of year 15 suspension or expulsion. This was not seen in any other groups.

The coefficients for the independent effect of school racial composition are all negative and insignificant in this model (>25-50% Black and Hispanic enrollment, b= -0.801, SE= 0.614), (>50-75% Black and Hispanic enrollment, b= -0.492, SE= 0.537), (>75-100% Black and Hispanic enrollment, b= -0.765, SE= 0.581). Coefficients for the school racial composition - suspension interaction terms are all statistically insignificant in this model, (>25-50% Black and Hispanic enrollment x Y9 suspension or expulsion, b= 1.479, SE= 1.557), (>50-75% Black and Hispanic enrollment x Y9 suspension or expulsion, b= 0.399, SE= 1.196), (>75-100 % Black and Hispanic enrollment x Y9 suspension or expulsion, b= -0.090, SE= 1.100).

Results for students in the "other race" group

Among students in the "other race" group, Model 1 in Table 6 shows that year 9 suspension or expulsion is a positive and statistically significant predictor of year 15 suspension or expulsion ($b = 1.909$, $SE = 0.395$, $p<0.05$). The odds of suspension or expulsion in the past two years at age 15 are 575% greater for students who report a suspension or expulsion age 9 relative to students who do not.

Results of both versions of Models 2 (2a and 2b) and 3 (3a and 3b) are reported for the "other race" group. To review, the only difference between models a and b is the inclusion of a control variable for the OSS rate at students' year 15 schools in the b models. In Models 2a ($b = 1.287$, $SE = 0.611$, $p<0.05$) and 2b ($b=1.342$, $SE= 0.639$, $p<0.05$), year 9 suspension or expulsion is a positive and statistically significant predictor of year 15 suspension or expulsion. In Model 2a, the coefficients for >25-50% Black and Hispanic enrollment (b=0.306, SE=0.692), >50-75%

Black and Hispanic enrollment (b=1.298, SE= 0.794), and>75-100% Black and Hispanic enrollment (b=1.478, SE= 0.801) are positive and statistically insignificant. When a control is added for school OSS rate at year 15 (model 2b) the coefficients for >25-50% Black and Hispanic enrollment (b=0.291 SE=0.708), >50-75% Black and Hispanic enrollment (b=1.202, SE= 0.825), and>75-100% Black and Hispanic enrollment (b=1.006, SE= 0.855) remain positive and insignificant at the $p<0.05$ level.

Models 3a and 3b include interaction terms for each school racial context category multiplied by the indicator for suspension at year 9. In both Models 3a (b=2.377, SE= 1.600) and 3b (b=2.431, SE= 1.641), year 9 suspension or expulsion remains a positive predictor of year 15 suspension or expulsion. In Model 3a, the coefficients for >25-50% Black and Hispanic enrollment (b=0.348, SE=0.718) and >50-75% Black and Hispanic enrollment (b=1.412, SE= 0.863) are positive, but only that for >75-100% Black and Hispanic enrollment reaches statistical significance (b=1.617, SE= 0.823, $p<0.05$). When a control is added for school OSS rate at year 15 (Model 3b), the only substantive change in results is that the coefficient for >75-100% Black and Hispanic enrollment loses statistical significance at the $p<0.05$ level (b=1.175, SE= 0.880).

Regardless of whether the control for year 15 OSS rate is included in Model 3, The coefficients for the school racial composition x Y9 suspension or expulsion interaction terms are all negative and statistically insignificant. In Model 3b the coefficient for the interaction between >75-100% Black and Hispanic enrollment and Y9 suspension or expulsion is the largest in magnitude (b= -1.681, SE= 1.868), followed by that for the interaction between >50-75% Black and Hispanic enrollment and Y9 suspension or expulsion (b=-1.064, SE= 2.156) and that for the interaction between >25-20% Black and Hispanic enrollment and Y9 suspension or expulsion (b= -0.384, SE= 2.438).

Results: Supplementary Analysis

Interestingly, the supplementary analysis in Table 7 shows no significant difference in the impact of a year 9 suspension or expulsion on year 15 risk for youth who do and do not move between waves. In the fully specified model, the interaction between year 9 suspension or expulsion and whether youth moved is positive but statistically insignificant at the $p<0.05$ level ($b = 0.298$, $SE = 0.244$). Though this relationship is not what would be expected based on a secondary sanctioning explanation for the effects seen in the main models, measurement issues limit the extent to which this supplementary analysis can actually show how a move impacts youth suspension risk.

Discussion

The present study extends prior research on school punishment, race, and the importance of social context for understanding the labeling process. While prior research examines the impact of race and school racial composition on exclusionary discipline cross-sectionally (Edwards 2016; Smith et al. 2023) and the impact of race on the longitudinal relationship between early experiences of exclusionary discipline and later punishment (Fisher et al. 2022; Fisher and Widdowson 2023), this study is the first to integrate school racial context, student race, and suspension history for a more complete understanding of student risk and the labeling process.

This study has five main findings. First, the present study finds support for the hypothesis that suspension or expulsion by year 9 predicts exclusionary discipline at year 15. In the full analytic sample and in each racial composition group, models with and without controls show a positive and statistically significant effect of year 9 suspension or expulsion on students' risk of exclusionary discipline at year 15. The finding that year 9 suspension or expulsion is a positive

and significant predictor of year 15 suspension or expulsion in most models is consistent with research to date on suspension trajectories (e.g. Wiley et al. 2020; Novak and Krohn 2020). Behavior and the bond to school, as well as a long list of demographic and contextual covariates fail to fully explain the positive association between early exclusionary discipline and students' likelihoods of year 15 suspension or expulsion. Given that these findings held up to controls for behavior and other potential confounders, this finding is consistent with a secondary sanctioning explanation in which the mechanisms of stigma and increased surveillance play a role in increasing the likelihood that labeled people experience further sanctions (Liberman et al. 2014; Mittleman 2018a). For a more direct test, future research should attempt to account for direct measures of school surveillance after a suspension or expulsion, such as the number of stops by SROs that a student experiences before and after suspension or expulsion. Second, the present study finds mixed support for the hypothesis that being Black or Hispanic has an independent, positive effect on the odds of year 15 suspension or expulsion. In models using the full analytic sample, the coefficient for "Black" is positive and significant, indicating that, compared to their white peers, Black youth face a disproportionate risk of suspension or expulsion at year 15, net of controls. This finding is consistent with research to date on race and exclusionary discipline showing that Black youth face a higher risk for suspension and expulsion than their similarly situated white peers (e.g. US Department of Education 2018; Mittleman 2018a; Blake et al 2020; Morris 2014; Mittleman 2018b; Skiba et al 1997; Morris 2016; Owens and McLanahan 2020). This result in the present study underscores the finding in prior work that being Black has an independent positive impact on students' odds of suspension or expulsion, regardless of student behavior and other theoretically important constructs including school racial composition (see Owens and McLanahan 2020). The present study adds to the understanding of the Black-white

gap in suspension risk by showing that suspension and expulsion history do not explain the association between being Black and exclusionary discipline risk. Specifically, though early suspensions and expulsions are disproportionately concentrated among Black youth in the data, they do not, in combination with behavioral differences and school racial composition, explain the increased risk faced by Black youth in adolescence.

The present study does not find evidence that being Hispanic is associated with an independent increase in risk. It is interesting that identifying as Hispanic does not significantly increase student risk net of controls in the present study. It is doubtful that this is the case because of a lack of power to detect these differences for Hispanic students, as these youth make up over 25 percent of the analytic sample. The results for Hispanic students in the present study may be an artifact of the FFCWS data, as Hispanic youth are not disproportionately suspended and expelled in this sample. However, the finding that being Hispanic does not independently increase students' odds of suspension or expulsion is consistent with some of the literature to date on this student group. While some scholars have found that Hispanic students are punished disproportionately in schools (e.g. Skiba et al. 1997, Skiba et al. 2011; Lehmann 2023), others have failed to find a significant independent effect of being Hispanic on exclusionary discipline risk or have found more mixed results (e.g. Morgan and Wright 2018). Recent research has suggested that factors like immigrant generation status (Peguero and Shekarkhar 2011) and nationality (Lehmann and Meldrum 2023) may impact the relationship between self-identifying as Hispanic and the odds of exclusionary discipline. Future research should examine the school, community, and individual level factors that impact Hispanic students' exclusionary discipline risk.

Additionally, findings show that being a member of the "other race" group significantly increases students' odds of experiencing a year 15 suspension or expulsion. It is difficult to say with certainty how racial dynamics impact students in this group. The youth are split between groups with vastly different histories and who face different political and social realities in the US. Among "other race" youth who were suspended or expelled at year 15, the largest two racial subgroups are American Indian or Alaska Native (AIAN) and "multiracial" students. Given the history of oppression of Indigenous peoples in the US, Native American youth may face structural conditions that lead to an increased risk of school sanctions. It is also plausible that youth who are identified as multi-racial in the data are viewed by teachers and administrators as Black, which would explain why they face disproportionate odds of school suspension similar to Black youth in the sample. These youth may face the same structural barriers and stereotypes as their peers who self-identify as Black. Future research should unpack who is categorized as racially "other" and how these youth are viewed in the school setting. In particular, future work should examine whether stigmatization and criminalization similarly impact youth who identify as Black and those who identify as racially "other".

Third, the present study does not find evidence for an independent effect of school racial composition on the odds of year 15 suspension or expulsion in the full analytic sample, or in any group besides the "other race" category. This is surprising especially given the robust finding in the literature that schools with higher proportions of Black and Hispanic students tend to have harsher disciplinary policies and to use exclusionary discipline more frequently than majority white schools (Welch and Payne 2010, Welch and Payne 2018). Even more surprising is the fact that this insignificant result in the present study is the same regardless of whether school OSS rate is controlled for. Because research has generally shown that higher proportions of Black and

Hispanic students are associated with more frequent use of punitive and exclusionary discipline (Welch and Payne 2010; Welch and Payne 2018; Owens and McLanahan 2020), it would make sense intuitively for school racial composition to influence risk through its impact on school level use of exclusionary discipline. Results of the present study suggest, however, that for most student race groups and the full sample, school racial composition does not impact year 15 suspension or expulsion risk either through increased use of exclusionary discipline or some other, unmeasured aspect of the school environment that is associated with racial composition.

It could be the case that what these results reflect is not an independent relationship between school racial composition and suspension risk but rather one that is conditioned by individual student race. The present study does not include interaction terms for school racial composition multiplied by student race, which would get at the possibility that school racial composition matters differently for different groups of youth. For example, if being white or Hispanic in a majority-Black school is associated with decreased risk and being Black in a majority-Black school is associated with increased risk, the coefficients for school racial composition categories in the present study would fail to capture that relationship. While within-group analyses allow for a comparison of risk for youth in the same racial groups but in different school racial compositions, it does not allow for a comparison of the effects of each school type on students in different racial groups. Investigating this interaction is an important direction for future research and could help to clarify why school racial composition impacts suspension or expulsion risk independent of OSS rate.

Findings suggest a different relationship between school racial composition, school OSS rate, and year 15 suspension or expulsion risk for "other race" youth. For youth in this category, being in a school with >75-100% Black and Hispanic enrollment is associated with a significant

increase in year 15 suspension risk when school OSS rate at year 15 is not controlled for. Interestingly, however, when a control for school OSS rate is introduced, the coefficient for >75-100% Black and Hispanic enrollment declines in size and loses statistical significance at the $p<0.05$ level. This suggests that for "other race" students, school racial composition impacts risk via the association between higher proportions of Black and Hispanic students and greater use of OSS at the school level. It is unclear why school racial composition would have an independent effect on year 15 suspension and expulsion risk among other race youth, but not among youth in other racial groups. It is possible, however, that youth in this group, and particularly multiracial youth, occupy an in-between racial position that makes school racial composition more important for how they are racially categorized and treated than it is for youth in more clearly defined categories. For example, it could be the case that "other race" youth are more often considered white or white-adjacent in majority-white schools and more often considered part of the "collective Black" in schools with high proportions of minority youth (Bonilla-Silva 2012). Research to date suggests that racial self-identification depends, in part, on racial context (Cardwell 2023). It is reasonable to suggest then, that how youth are racialized by others also depends on context. If the increased school punitiveness associated with majority Black racial composition increases risk for Black students (or those considered Black) more than it does for their white peers, then it would make sense for racial composition to impact other race youth via increases in OSS rates.

Fourth, the study finds no evidence that the relationship between year 9 and year 15 suspension or expulsion differs for students based on their race. In the full analytic sample, none of the coefficients for the interaction terms for student race multiplied by year 9 suspension or expulsion reach statistical significance. This is a surprising result, especially given Fisher and

Widdowson's (2023) finding that Black students with suspension records face greater increases in sanction risk than their previously-suspended white peers. Additionally, this result is inconsistent with Sampson and Laub's (1997) argument that people in marginalized social positions experience greater cumulative disadvantage resulting from sanctions than their more advantaged peers. Sampson and Laub (1997) argue that disadvantages accumulate faster for people who start off from socially disadvantaged or marginalized positions. The present study's lack of evidence for race-based differences in the effect of a year 9 suspension or expulsion on year 15 risk stands in contrast to what would be predicted by this cumulative disadvantage framework. It could be the case that by combining results for Black students across school racial composition categories, the race-suspension interaction terms in this analysis obscure important within-race differences in the relationship between year 9 suspension and expulsion and year 15 risk. For example, if Black students in majority-white schools face significant increases in risk compared to their white peers, but Black students in majority-Black schools do not, the coefficient for the Black x suspension interaction may fail to capture this dynamic.

In fact, results suggest that the impact of a year 9 suspension or expulsion on the odds of year 15 suspension or expulsion among Black students is conditioned by school racial composition. For Black students, attending a school with >50-75% or >75-100% Black and Hispanic enrollment is associated with an increase in the relationship between year 9 suspension or expulsion and year 15 suspension or expulsion. This result holds even when the OSS rate of students' year 15 schools is controlled for. This suggests that previously-suspended Black students in schools with over 50% Black and Hispanic enrollment are at greater risk than their previously-suspended Black peers in other school contexts and that this risk is not explained by increased punitiveness at the school level.

This is an interesting result because it suggests that for Black students in particular, something about having been previously suspended or expelled is especially risky in majority-Black and Hispanic schools, and that this effect cannot be explained by suspension rates at the school level. It could be the case that majority Black and Hispanic schools tend to surveil students heavily and punish them harshly, but that this punitiveness is directed primarily at students who have suspension records or are otherwise marked as "at-risk". A targeted surveillance explanation would be consistent with Ferguson's (2001) qualitative finding that in a school with over 50% Black and Hispanic enrollment, Black students who had also been characterized as "at-risk" were on the receiving end of heightened surveillance and more frequent punishment compared to those who were not similarly labeled.

Because there are no data on teacher race in the FFWCS, the present study cannot speak to whether the racial composition of teachers at a particular school influences students' disciplinary outcomes. However, it is possible that school personnel in majority-minority school contexts attempt to protect "at-risk" Black youth with harsh treatment, and that the logic of this harshness differs based on teacher race. Ferguson (2001) notes that some Black school staff in her majority-minority research site lived in the surrounding disadvantaged neighborhood, and felt they needed to act as an authority figure for "troubled" students, assuming that they lacked structure or role models at home. This explanation is consistent with the argument in Forman's (2017) work that some Black stakeholders and community members view punishment as a way to protect Black youth from negative consequences they would otherwise face later in their lives. Forman argues that for some Black stakeholders, overly lenient treatment of Black youth signals that society has given up on them or doesn't expect more from them.

It is also possible that white school staff in majority Black and Hispanic school contexts see their Black students, and particularly those marked as "at-risk" by a suspension record, as in need of saving, and that this leads them to treat these youth punitively in an attempt to prepare them for success or avert negative consequences. In Sondel and colleagues' (2022) research, for example, they find that white teachers in highly segregated Black schools police students' classroom behaviors and treat them harshly because they've been taught by administrators that this is necessary to put Black, "at-risk" students on track for academic and workplace success. Other research on majority-minority charter schools' treatment of students shows that harsh and exclusionary discipline at the hands of white teachers and administrators is framed and rationalized as a way to help youth to become better students and citizens (e.g. Golann 2021; Carey 2024). It could be the case that this dynamic of punitiveness as "for their own good", especially in majority-minority contexts, explains the finding that being Black and previously suspended is especially risky in majority Black and Hispanic schools.

Discussion: Supplementary Analysis

Results of the supplementary analysis suggest that moving does not impact the extent to which a student's year 9 suspension and expulsion history affects their year 15 risk. Though this is not what was expected based on a labeling framework for understanding school punishment trajectories, measurement limitations make this result unconvincing as an argument against a secondary sanctioning interpretation of the study's main results. Because the data are unable to distinguish between youth who moved within and between cities and neighborhoods, the group of youth who are coded as moving may have had very different experiences. Future research in this area should tease out the effects of a within-city as opposed to between-city move on youth suspension trajectories.

Limitations and future directions

An important limitation of this study is the lack of information on youth's experiences between years 9 and 15 of data collection. Though analyses indicate that year 9 suspension or expulsion has an independent, positive impact on the odds of year 15 suspension, the current study is unable to say with certainty that important life course events and developmental processes do not occur between waves of data collection that impact student odds of year 15 suspension. More data is needed to fully unpack the relationship between early childhood and adolescent suspensions and expulsions.

It is also important to acknowledge that while year 15 suspension or expulsion is measured as any experience of exclusionary discipline in the two years prior to the year 15 interview, the present study is only able to speak to school racial composition at youth's year 15 schools. It is possible that youth who were suspended or expelled at years 13 and 14 were in schools with different racial compositions than their year 15 schools. This is not something that can be addressed with the data available in the FFCWS study. Understanding whether and how the racial composition of youth's schools changes as they transition from year 13 to year 15 and how that impacts their risk for suspension is an important direction for future work.

Finally, this study is limited in that the FFCWS does not have data on teacher or administrator race in youth's year 15 schools. If racial threat dynamics are at play, teacher race may shape whether and how school racial composition translates into perceptions of threat and increased social control. If racialized surveillance of "at-risk" students is a meaningful mechanism driving increased risk for labeled Black youth in majority-minority settings, understanding the role of teacher race is vital. Future research in this area should incorporate

information on teacher and administrator racial composition into analyses of school discipline risk and school racial context.

Conclusion

The present study explores the association between year 9 and year 15 suspension and expulsion from both a racial threat and secondary sanctioning perspective. Results indicate that though early suspension or expulsion is an important predictor of suspension or expulsion in adolescence, the impact of a suspension or expulsion by year 9 on year 15 risk is not constant across combinations of student race and school racial composition. In particular, among Black youth with a suspension or expulsion by year 9, being in a school with over 50% Black and Hispanic enrollment significantly increases year 15 suspension or expulsion risk. This has important implications for Black, previously-suspended and expelled youth in these settings. Specifically, results suggest that protective measures should be put in place to shield these students from over-surveillance and increased punitiveness.

It is also important to note that though interactions between student race and prior suspension are not significant predictors of year 15 suspension or expulsion in the full sample, this does not mean that race and suspension records do not matter for students. In the full sample and most race-specific models, suspension history significantly predicted year 15 suspension or expulsion net of a robust set of controls. In the full sample, individual student race (particularly identifying as Black or a member of the "other race" group) also had an independent and positive association with year 15 suspension or expulsion. The lack of significant interaction effects between individual student race and suspension history in the full sample, however, is good news for youth of color if it can be replicated. It suggests that a prior suspension or expulsion does not impact youth of color more negatively than their white peers on average. This means that

although disparities exist in elementary school discipline, they may not create compounding disadvantage on average by differentially impacting students' risk for suspension and expulsion as they move through their education.

The present study's findings underscore the importance of both student race and suspension history in predicting adolescents' risk of experiencing suspension and expulsion. A key takeaway and contribution of the study is the finding that a prior suspension appears to impact students differently based on the combination of their individual race and the racial composition of their school. In particular, the finding that a past suspension or expulsion has a greater impact on risk for Black students in majority-Black and Hispanic schools than for their peers in other school racial contexts implies a need for protective measures for these youth. Overly punitive responses to Black, labeled students in majority-Black and Hispanic schools should be avoided in order to give these youth a fair chance to succeed academically.

Table 1: Descriptive Statistics for Analytic Sample

Variable Name	Full Analytic Sample	Suspended or Expelled by Y9	Not Suspended or Expelled by Y9
	Mean (SD)	Mean (SD)	Mean (SD)
Outcome			
Suspended/ Expelled Y15	0.335	0.669	0.256
Main Predictor			
Suspended/ Expelled by Y9	0.191	1	0
Controls			
Male	0.515	0.715	0.468
White	0.172	0.046	0.201
Black	0.502	0.770	0.440
Hispanic	0.249	0.119	0.279
Other Race	0.077	0.066	0.080
Reduced- Price Lunch Y9	0.727	0.878	0.691
Delinquency Variety Y15	1.017 (1.513)	1.785 (1.943)	0.838 (1.333)
Substance Use Y15	0.166 (0.373)	0.245 (0.431)	0.148 (0.355)
School Bonds Scale Y15	10.202 (1.721)	9.926 (1.894)	10.266 (1.671)
School OSS rate Y15	0.122 (0.135)	0.179 (0.186)	0.109 (0.116)
Y15 school percent free and reduced-price lunch	0.586 (0.267)	0.686 (0.242)	0.561 (0.267)
Percent of households in PCG tract using public assistance Y15	0.049 (0.047)	0.062 (0.048)	0.046 (0.046)
Delinquency Variety Y9	0.506 (0.500)	0.812 (0.391)	0.434 (0.496)
Y9 Autism diagnosis	0.009 (0.097)	0.012 (0.108)	0.009 (0.093)
Y9 ADHD diagnosis	0.114 (0.318)	0.253 (0.435)	0.081 (0.273)
School OSS rate Y9	0.064 (0.085)	0.100 (0.108)	0.056 (0.077)
Father incarceration by Y5	0.448 (0.497)	0.620 (0.486)	0.407 (0.491)

Mother experienced DV Y5	0.128 (0.334)	0.140 (0.346)	0.125 (0.331)
Mother perception of neighborhood violence	0.168 (0.347)	0.237 (0.426)	0.151 (0.358)
Household income to poverty ratio Y5	1.913 (2.231)	1.251 (1.293)	2.070 (2.374)
Father's impulsivity	9.923 (4.844)	10.357 (5.086)	9.820 (4.781)
Mother's impulsivity	12.179 (3.663)	12.759 (3.878)	12.042 (3.598)
Harsh discipline Y5	0.514 (0.500)	0.611 (0.488)	0.491 (0.500)
Mother's depression Y5	0.120 (0.325)	0.136 (0.343)	0.117 (0.321)
Father's Y5 substance use	0.104 (0.306)	0.156 (0.363)	0.092 (0.290)
Parental involvement Y5	0.951 (0.815)	0.783 (0.828)	0.991 (0.807)
Housing instability Y5	0.070 (0.255)	0.068 (0.252)	0.070 (0.256)
Parents Married at Baseline	0.231 (0.421)	0.107 (0.309)	0.260 (0.439)
Mother substance use pregnancy	0 .256 (0.437)	0.320 (0.467)	0.241 (0.428)
Father's education	0.670 (0.471)	0.623 (0.485)	0.679 (0.467)
Mother's education	0.677 (0.468)	0.607 (0.490)	0.693 (0.461)
0-25% Black and Hispanic Enrollment	0.158 (0.365)	0.076 (0.266)	0.177 (0.382)
>25-50% Black and Hispanic Enrollment	0.130 (0.337)	0.083 (0.276)	0.141 (0.348)
>50-75% Black and Hispanic Enrollment	0.221 (0.415)	0.193 (0.395)	0.228 (0.420)
>75-100% Black and Hispanic Enrollment	0.526 (0.499)	0.662 (0.473)	0.494 (0.500)

Note: Future of Families and Child Wellbeing Study. Data limited to students for whom suspension data is available at year 9. N=3080 y9=year 9 M=mean SD=standard deviation. Means for City and Census Tract are not shown because they are numerically not meaningful without data on which city and census tract are associated with which numerical codes. Full list of controls can be found in Appendix A.

Table 2: Results for the Full Analytic Sample

Variable Name	Model 1	Model 2	Model 3
Year 9 Suspension or Expulsion	1.772 (0.100) *	0.956 (0.123) *	1.480 (0.541) *
Black		0.633 (0.191) *	0.761 (0206) *
Hispanic		0.241 (0.207)	0.263 (0.225)
Other Race		0.569 (0.230) *	0.623 (0.248) *
>25-50% Black and Hispanic Enrollment		-0.193 (0.192)	-0.208 (0.208)
>50-75% Black and Hispanic Enrollment		-0.091 (0.188)	-0.170 (0.205)
>75-100% Black and Hispanic Enrollment		-0.097 (0.205)	-0.136 (0.217)
Male		0.437 (0.098) *	0.431 (0.1099) *
Reduced Price Lunch Y9		0.135 (0.139)	0.121 (0.140)
Delinquency Variety Y15		0.394 (0.041) *	0.394 (0.041) *
Substance use Y15		0.420 (0.133) *	0.422 (0.134) *
School Bonds Scale Y15		-0.127 (0.028) *	-0.127 (0.028) *
School Percent Free and Reduced Price Lunch Y15		0.221 (0.307)	0.1227 (0.307)
Percent of households in PCG tract using public assistance Y15		1.243 (1.080)	1.254 (1.078)
Delinquency Variety Y9		0.215 (0.099) *	0.207 (0.100) *
Y9 Autism diagnosis		-0.250 (0.439)	-0.300 (0.443)
Y9 ADHD diagnosis		0.157 (0.150)	0.148 (0.150)
School OSS rate Y9		0.890 (0.639)	0.929 (0.632)
Father incarceration by Y5		0.364 (0.108) *	0.366 (0.108) *
Mother experienced DV Y5		-0.062 (0.177)	-0.060 (0.179)
Mother perception of neighborhood violence Y5		0.061 (0.126)	0.066 (0.126)
Household income to poverty ratio Y5		-0.088 (0.035) *	-0.090 (0.035) *
Father's impulsivity		-0.008 (0.010)	-0.007 (0.010)
Mother's impulsivity		0.005 (0.014)	0.005 (0.014)
Harsh discipline Y5		0.185 (0.100)	0.187 (0.100)
Mother's depression Y5		0.094 (0.145)	0.100 (0.145)
Father's Y5 substance use		-0.158 (0.167)	-0.152 (0.166)
Parental involvement Y5		-0.051 (0.065)	-0.049 (0.065)
Housing instability Y5		-0.127 (0.242)	-0.122 (0.244)
Parents Married at Baseline		-0.234 (0.140)	-0.243 (0.141)
Mother substance use pregnancy		0.122 (0.108)	0.118 (0.108)
Father's education		-0.126 (0.109)	-0.126 (0.109)
Mother's education		-0.178 (0.107)	-0.181 (0.107)
City		0.015 (0.010)	0.014 (0.010)
Census Tract		0.000(0.000)	0.000(0.000)
School OSS Rate Y15		1.894 (0.501) *	1.882 (0.500) *

Interaction Terms	
>25-50% Black and Hispanic Enrollment x Y9 Suspension or Expulsion	0.055 (0.485)
>50-75% Black and Hispanic Enrollment x Y9 Suspension or Expulsion	0.370 (0.455)
>75-100% Black and Hispanic Enrollment x Y9 Suspension or Expulsion	0.209 (0.396)
Black x Y9 Suspension or Expulsion	-0.895 (0.552)
Hispanic x Y9 Suspension or Expulsion	-0.2255 (0.612)
Other Race x Y9 Suspension or Expulsion	-0.619 (0.733)

Note: an asterisk indicates that the coefficient is statistically significant at the p=0.05 level. N=3080

Table 3: Results for Black students

Variable Name	Model 1	Model 2	Model 3
Year 9 Suspension or Expulsion	1.340 (0.122) *	0.781 (0.147) *	-0.209 (0.525)
>25-50% Black and Hispanic Enrollment		-0.327 (0.299)	-0.525 (0.332)
>50-75% Black and Hispanic Enrollment		-0.140 (0.283)	-0.441 (0.315)
>75-100% Black and Hispanic Enrollment		-0.075 (0.304)	-0.333 (0.327)
Male		0.487 (0.131) *	0.491 (0.130) *
Reduced Price Lunch Y9		0.064 (0.194)	0.064 (0.197)
Delinquency Variety Y15		0.458 (0.062) *	0.459 (0.052) *
Substance use Y15		0.241 (0.179)	0.252 (0.182)
School Bonds Scale Y15		-0.094 (0.037) *	-0.091 (0.036) *
School Percent Free and Reduced Price Lunch Y15		0.146 (0.407)	0.131 (0.413)
Percent of households in PCG tract using public assistance Y15		1.573 (1.308)	1.685 (1.332)
Delinquency Variety Y9		0.216 (0.134)	0.219 (0.133)
Y9 Autism diagnosis		-0.018 (0.640)	-0.038 (0.716)
Y9 ADHD diagnosis		-0.100 (0.215)	-0.068 (0.213)
School OSS rate Y9		1.035 (0.710)	1.047 (0.677)
Father incarceration by Y5		0.284 (0.146)	0.284 (0.146)
Mother experienced DV Y5		-0.047 (0.228)	-0.041 (0.225)
Mother perception of neighborhood violence Y5		0.117 (0.157)	0.108 (0.158)
Household income to poverty ratio Y5		-0.077 (0.050)	-0.082 (0.055)
Father's impulsivity		-0.006 (0.014)	-0.007 (0.013)
Mother's impulsivity		0.001 (0.018)	0.003 (0.018)
Harsh discipline Y5		0.245 (0.129)	0.236 (0.130)
Mother's depression Y5		0.048 (0.186)	0.046 (0.195)
Father's Y5 substance use		0.006 (0.239)	0.013 (0.235)
Parental involvement Y5		-0.037 (0.083)	-0.035 (0.084)
Housing instability Y5		-0.244 (0.351)	-0.240 (0.327)
Parents Married at Baseline		-0.057 (0.199)	-0.078 (0.211)
Mother substance use pregnancy		0.235 (0.143)	0.215 (0.145)
Father's education		0.007 (0.142)	0.011 (0.144)
Mother's education		-0.213 (0.141)	-0.209 (0.142)
City		0.008 (0.014)	0.008 (0.013)
Census Tract		0.000(0.000)	0.000(0.000)
School OSS Rate Y15		1.815 (0.581) *	1.813 (0.571) *
Interaction Terms			
>25-50% Black and Hispanic Enrollment x Y9 Suspension or Expulsion			0.795 (0.686)
>50-75% Black and Hispanic Enrollment x Y9 Suspension or Expulsion			1.225 (0.615) *
>75-100% Black and Hispanic Enrollment x Y9 Suspension or Expulsion			1.051 (0.550)

Note: an asterisk indicates that the coefficient is statistically significant at the p=0.05 level. N=1457.

Table 4: Results for White Students

Variable Name	Model 1	Model 2	Model 3
Year 9 Suspension or Expulsion	2.436 (0.433) *	1.577 (0.504) *	2.231 (0.931) *
>25-50% Black and Hispanic Enrollment		0.103 (0.433)	0.114 (0.468)
>50-75% Black and Hispanic Enrollment		-0.336 (0.617)	-0.137 (0.594)
>75-100% Black and Hispanic Enrollment		-1.227 (0.702)	-1.317 (0.904)
Male		0.919 (0.348) *	0.888 (0.364) *
Reduced Price Lunch Y9		0.132 (0.478)	0.104 (0.461)
Delinquency Variety Y15		0.365 (0.117) *	0.394 (0.126) *
Substance use Y15		0.330 (0.491)	0.220 (0.462)
School Bonds Scale Y15		-0.351 (0.1098) *	-0.351 (0.100) *
School Percent Free and Reduced Price Lunch Y15		-0.131 (1.161)	-0.058 (1.128)
Percent of households in PCG tract using public assistance Y15		6.808 (6.651)	7.379 (6.644)
Delinquency Variety Y9		0.263 (0.349)	0.269 (0.344)
Y9 Autism diagnosis		0.654 (0.857)	0.627 (1.182)
Y9 ADHD diagnosis		0.619 (0.376)	0.572 (0.418)
School OSS rate Y9		4.685 (3.574)	5.019 (3.430)
Father incarceration by Y5		0.186 (0.480)	0.180 (0.451)
Mother experienced DV Y5		-0.325 (0.783)	-0.333 (0.717)
Mother perception of neighborhood violence Y5		-0.294 (0.805)	-0.362 (0.762)
Household income to poverty ratio Y5		-0.012 (0.075)	-0.007 (0.084)
Father's impulsivity		0.017 (0.037)	0.010 (0.043)
Mother's impulsivity		-0.014 (0.023)	-0.014 (0.051)
Harsh discipline Y5		-0.055 (0.341)	-0.029 (0.340)
Mother's depression Y5		-0.152 (0.504)	-0.156 (0.516)
Father's Y5 substance use		-0.623 (0.634)	-0.617 (0.667)
Parental involvement Y5		-0.632 (0.256) *	-0.640 (0.267) *
Housing instability Y5		0.209 (0.966)	0.273 (0.891)
Parents Married at Baseline		-0.263 (0.470)	-0.295 (0.448)
Mother substance use pregnancy		-0.340 (0.369)	-0.343 (0.366)
Father's education		-0.726 (0.473)	-0.696 (0.438)
Mother's education		-0.031 (0.463)	-0.121 (0.455)
City		0.011 (0.033)	0.012 (0.035)
Census Tract		-0.000(0.000)	-0.000(0.000)
School OSS Rate Y15		0.590 (1.217)	0.503 (1.514)
Interaction Terms			
>25-50% Black and Hispanic Enrollment x Y9 Suspension or Expulsion			-0.577 (1.568)
>50-75% Black and Hispanic Enrollment x Y9 Suspension or Expulsion			-1.804 (1.460)
>75-100% Black and Hispanic Enrollment x Y9 Suspension or Expulsion			-0.300 (1.823)

Note: an asterisk indicates that the coefficient is statistically significant at the p=0.05 level. N=499.

Table 5: Results for Hispanic Students

Variable Name	Model 1	Model 2	Model 3
Year 9 Suspension or Expulsion	1.900 (0.275) *	1.678 (0.365) *	1.490 (0.982)
>25-50% Black and Hispanic Enrollment		-0.600 (0.539)	-0.801 (0.614)
>50-75% Black and Hispanic Enrollment		-0.422 (0.513)	-0.492 (0.537)
>75-100% Black and Hispanic Enrollment		-0.732 (0.540)	-0.765 (0.581)
Male		0.317 (0.237)	0.312 (0.235)
Reduced Price Lunch Y9		0.032 (0.322)	0.021 (0.332)
Delinquency Variety Y15		0.306 (0.078) *	0.311 (0.077) *
Substance use Y15		0.795 (0.290) *	0.794 (0.283) *
School Bonds Scale Y15		-0.223 (0.069) *	-0.222 (0.068) *
School Percent Free and Reduced Price Lunch Y15		0.890 (0.791)	0.938 (0.858)
Percent of households in PCG tract using public assistance Y15		-0.062 (2.941)	0.104 (2.878)
Delinquency Variety Y9		0.080 (0.227)	0.089 (0.229)
Y9 Autism diagnosis		Omitted	Omitted
Y9 ADHD diagnosis		0.202 (0.378)	0.185 (0.378)
School OSS rate Y9		-0.780 (2.794)	-0.682 (2.818)
Father incarceration by Y5		0.651 (0.247) *	0.634 (0.245) *
Mother experienced DV Y5		-0.001 (0.438)	0.032 (0.375)
Mother perception of neighborhood violence Y5		-0.070 (0.290)	-0.101 (0.288)
Household income to poverty ratio Y5		-0.223 (0.114)	-0.235 (0.114) *
Father's impulsivity		-0.025 (0.025)	-0.024 (0.025)
Mother's impulsivity		-0.008 (0.032)	-0.010 (0.031)
Harsh discipline Y5		0.601 (0.224) *	0.615 (0.226) *
Mother's depression Y5		0.571 (0.371)	0.537 (0.364)
Father's Y5 substance use		-0.458 (0.382)	-0.446 (0.381)
Parental involvement Y5		0.139 (0.153)	0.155 (0.152)
Housing instability Y5		-0.489 (0.539)	-0.568 (0.484)
Parents Married at Baseline		-0.491 (0.300)	-0.457 (0.305)
Mother substance use pregnancy		-0.260 (0.288)	-0.255 (0.285)
Father's education		-0.0363 (0.235)	-0.074 (0.236)
Mother's education		-0.037 (0.239)	-0.050 (0.247)
City		0.040 (0.024)	0.041(0.024)
Census Tract		0.000(0.000)	0.000(0.000)
School OSS Rate Y15		3.749 (2.050)	3.758 (2.000)
Interaction Terms			
>25-50% Black and Hispanic Enrollment x Y9 Suspension or Expulsion			1.479 (1.557)
>50-75% Black and Hispanic Enrollment x Y9 Suspension or Expulsion			0.399 (1.196)
>75-100% Black and Hispanic Enrollment x Y9 Suspension or Expulsion			-0.090 (1.100)

Note: an asterisk indicates that the coefficient is statistically significant at the p=0.05 level. N=723 for Model 1, N=719 for Models 2 and 3. The coefficient for an Autism diagnosis at Y9 is omitted by the model because of perfect

prediction. The 4 observations omitted between models 1 and 2 are youth who are coded as having an Autism diagnosis at Y9. This omission does not impact results.

Table 6: Results for Other Race Students

Variable Name	Model 1	Model 2a	Model 2b	Model 3a	Model 3b
Year 9 Suspension or Expulsion	1.909 (0.395) *	1.287 (0.611) *	1.342 (0.639) *	2.377 (1.600)	2.431 (1.641)
>25-50% Black and Hispanic Enrollment		0.306 (0.692)	0.291 (0.708)	0.348 (0.718)	0.304 (0.736)
>50-75% Black and Hispanic Enrollment		1.298 (0.794)	1.202 (0.825)	1.412 (0.863)	1.288 (0.897)
>75-100% Black and Hispanic Enrollment		1.478 (0.801)	1.006 (0.855)	1.617 (0.823) *	1.175 (0.880)
Male		-0.088 (0.436)	-0.199 (0.449)	-0.081 (0.477)	-0.197 (0.492)
Reduced Price Lunch Y9		0.564 (0.569)	0.621 (0.591)	0.597 (0.642)	0.642 (0.660)
Delinquency Variety Y15		0.299 (0.157)	0.311 (0.157) *	0.298 (0.156)	0.317 (0.162)
Substance use Y15		0.408 (0.541)	0.432 (0.555)	0.426 (0.561)	0.413 (0.580)
School Bonds Scale Y15		0.072 (0.131)	0.117 (0.136)	0.088 (0.128)	0.139 (0.135)
School Percent Free and Reduced Price Lunch Y15		-0.608 (1.141)	-1.378 (1.226)	-0.528 (1.205)	-1.308 (1.277)
Percent of households in PCG tract using public assistance Y15		-7.195 (5.657)	-8.636 (5.845)	-7.313 (6.300)	-8.953 (6.716)
Delinquency Variety Y9		0.702 (0.438)	0.791 (0.458)	0.707 (0.447)	0.799 (0.464)
Y9 Autism diagnosis		-0.121 (1.912)	0.577 (1.643)	0.086 (1.693)	0.829 (1.615)
Y9 ADHD diagnosis		-0.070 (0.652)	-0.174 (0.692)	-0.200 (0.792)	-0.317 (0.789)
School OSS rate Y9		1.100 (3.066)	-1.058 (3.476)	1.348 (3.023)	-0.936 (3.342)
Father incarceration by Y5		0.455 (0.427)	0.469 (0.468)	0.514 (0.469)	0.558 (0.495)
Mother experienced DV Y5		-0.012 (0.770)	0.226 (0.738)	-0.021 (0.756)	0.201 (0.781)
Mother perception of neighborhood violence Y5		1.027 (0.613)	1.013 (0.653)	1.067 (0.711)	1.067 (0.738)
Household income to poverty ratio Y5		-0.115 (0.122)	-0.103 (0.129)	-0.123 (0.156)	-0.117 (0.163)
Father's impulsivity		0.016 (0.043)	0.042 (0.048)	0.012 (0.046)	0.038 (0.050)
Mother's impulsivity		0.069 (0.068)	0.088 (0.070)	0.055 (0.068)	0.071 (0.072)
Harsh discipline Y5		-0.274 (0.438)	-0.364 (0.454)	-0.258 (0.454)	-0.349 (0.478)
Mother's depression Y5		-0.711 (0.724)	-0.663 (0.716)	-0.638 (0.715)	-0.544 (0.738)
Father's Y5 substance use		-1.464 (0.734) *	-1.551 (0.752) *	-1.492 (0.749) *	-1.588 (0.775) *
Parental involvement Y5		-0.308 (0.346)	-0.200 (0.364)	-0.299 (0.347)	-0.173 (0.371)
Housing instability Y5		1.364 (0.972)	1.231 (0.952)	1.271 (0.984)	1.162 (1.018)
Parents Married at Baseline		-0.124 (0.622)	0.249 (0.655)	-0.060 (0.606)	-0.150 (0.628)
Mother substance use pregnancy		0.600 (0.506)	0.521 (0.527)	0.590 (0.481)	0.497 (0.502)
Father's education		-0.296 (0.560)	-0.178 (0.590)	-0.366 (0.550)	-0.240 (0.566)
Mother's education		-0.482 (0.512)	-0.635 (0.538)	-0.449 (0.506)	-0.627 (0.533)
City		-0.002 (0.044)	-0.021 (0.048)	0.001 (0.049)	-0.016 (0.052)
Census Tract		0.000(0.000)	0.000(0.000)	0.000(0.000)	0.000(0.000)
School OSS Rate Y15			6.800 (3.009) *		6.922 (2.799) *
Interaction Terms					
>25-50% Black and Hispanic Enrollment x Y9 Suspension or Expulsion				-0.627 (2.372)	-0.384 (2.438)
>50-75% Black and Hispanic Enrollment x Y9 Suspension or Expulsion				-1.177 (2.078)	-1.064 (2.156)
>75-100% Black or Hispanic Enrollment x Y9 Suspension or Expulsion				-1.506 (1.807)	-1.681 (1.868)

Note: an asterisk indicates that the coefficient is statistically significant at the p=0.05 level. N=224

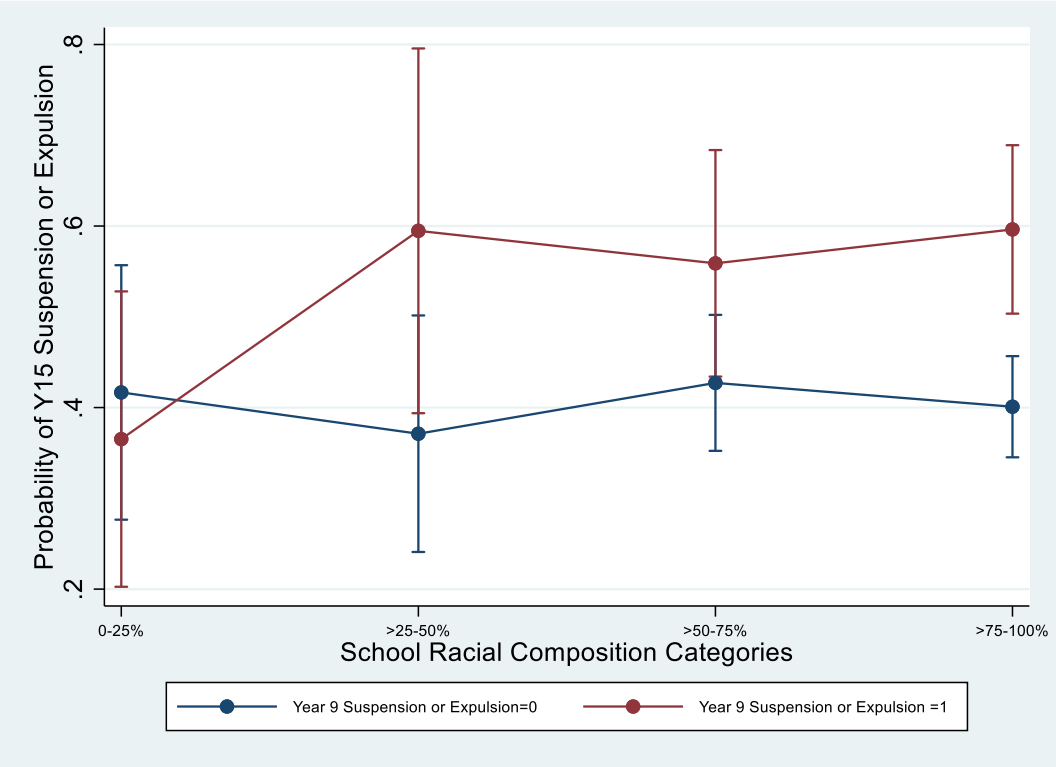
Table 7: Results of Supplementary Moving Analysis, Full Analytic Sample

Variable Name	Model 3
Year 9 Suspension or Expulsion	1.289 (0.567) *
Black	0.768 (0.207) *
Hispanic	0.267 (0.225)
Other Race	0.628 (0.248) *
>25-50% Black and Hispanic Enrollment	-0.208 (0.208)
>50-75% Black and Hispanic Enrollment	-0.169 (0.205)
>75-100% Black and Hispanic Enrollment	-0.135 (0.217)
Male	0.431 (0.099) *
Reduced Price Lunch Y9	0.116 (0.140)
Delinquency Variety Y15	0.393 (0.041) *
Substance use Y15	0.427 (0.134) *
School Bonds Scale Y15	-0.129(0.028) *
School Percent Free and Reduced Price Lunch Y15	0.222 (0.308)
Percent of households in PCG tract using public assistance Y15	1.322 (1.077)
Delinquency Variety Y9	0.209 (0.100) *
Y9 Autism diagnosis	-0.319 (0.446)
Y9 ADHD diagnosis	0.156 (0.150)
School OSS rate Y9	0.940 (0.635)
Father incarceration by Y5	0.365 (0.109) *
Mother experienced DV Y5	-0.061 (0.180)
Mother perception of neighborhood violence Y5	0.066 (0.126)
Household income to poverty ratio Y5	-0.088(0.035) *
Father's impulsivity	-0.007 (0.010)
Mother's impulsivity	0.005 (0.014)
Harsh discipline Y5	0.191 (0.097) *
Mother's depression Y5	0.094 (0.145)
Father's Y5 substance use	-0.161 (0.167)
Parental involvement Y5	-0.051 (0.065)
Housing instability Y5	-0.125 (0.245)
Parents Married at Baseline	-0.240 (0.141)
Mother substance use pregnancy	0.117 (0.108)
Father's education	-0.128 (0.109)
Mother's education	-0.183 (0.107)
City	0.014 (0.010)
Census Tract	0.000(0.000)
School OSS Rate Y15	1.872 (0.501) *
Moved	-0.036 (0.112)
Interaction Terms	
>25-50% Black and Hispanic Enrollment x Y9 Suspension or Expulsion	0.047 (0.486)
>50-75% Black and Hispanic Enrollment x Y9 Suspension or Expulsion	0.366 (0.460)
>75-100% Black and Hispanic Enrollment x Y9 Suspension or Expulsion	0.204 (0.400)

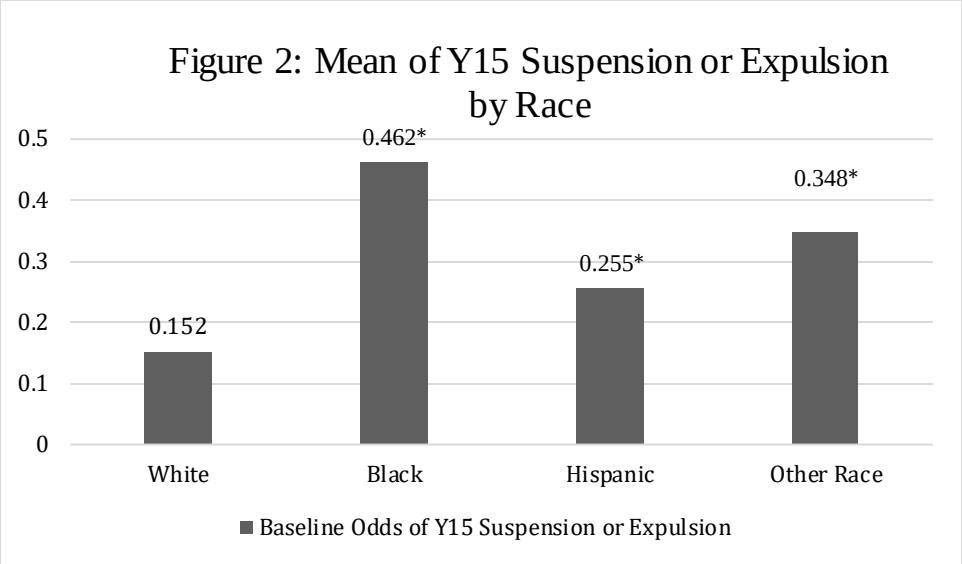
Black x Year 9 Suspension or Expulsion	-0.916 (0.566)
Hispanic x Year 9 Suspension or Expulsion	-0.195 (0.624)
Other Race x Year 9 Suspension or Expulsion	-0.608 (0.742)
Moved x Year 9 Suspension or Expulsion	0.298 (0.244)

Note: an asterisk indicates that the coefficient is statistically significant at the p=0.05 level. N=3080

Figure 1: Predictive margins of school racial composition categories x year 9 suspension for Black youth



Note: The discussion of marginal risk for Black students in different categories of school racial composition references results of STATA's marginsplot command using only the first of 20 imputed datasets. Marginal risk for these groups does not change substantively between imputed datasets.



Note: an asterisk indicates a statistically significant difference at the p<0.05 level from white youth as a comparison group.

Appendix A: Description of Coding of Control Variables

variable name	variable description
Parents Married at Baseline	Coded as 1 if parents married at baseline and 0 if not. No imputed values.
Male	Coded 1 if child was born male and 2 if child was born female. No imputed values, recorded at baseline
Father incarceration by Y5	Mother asked if child's father has spent any time in jail, coded as 1 if yes and 0 if no. 4.5 percent of values are imputed.
Mother experienced DV Y5	Binary indicator of whether mother experienced domestic violence at Y5. Coded as 1 if yes and 0 if no. No values are imputed.
Mother perception of neighborhood violence Y5	Mother asked if she was ever afraid to let child go outside because of neighborhood violence. Coded as 1 if yes and 0 if no. 6.1 percent of values are imputed.
School Bonds Scale Y15	Higher values indicate a stronger bond to school. 2.6 percent of values are imputed.
Delinquency Variety Y15	Variety score for focal child delinquency, recorded at Y15. Higher values indicate more variety in delinquency. 1.2 percent of values are imputed.
Substance use Y15	Binary indicator of substance use at Y15 based on questions about drug and alcohol use. Less than 1.5 percent of values are imputed.
Reduced-Price lunch Y5	Coded as 1 if yes and 0 if no. Less than 1 percent of values are imputed.
School percent free or reduced-price lunch Y15	Constructed from restricted data on school context. Higher values indicate a higher percentage of students qualifying for free and reduced-price lunch at the focal child's school during Y15 of data collection. Less than 1 percent of values are imputed.
School OSS Rate Y15	Constructed from restricted data on school context. Higher values indicate higher rates of OSS in the focal child's school during Y15 of data collection. About 17 percent of values are imputed.

Household to income poverty ratio Y5	Ratio of mother's household income to poverty threshold. 5.7 percent of values are imputed.
Father's impulsivity	Higher scores indicate more impulsivity. 8.1 percent of values are imputed. Measured at year 1.
Harsh Discipline Y5	Higher values indicate more frequent harsh discipline. No imputed values.
Mother's Depression Y5	Coded as 1 if mother meets criteria for depression, coded as 0 if she does not. 5.8 percent of values are imputed.
Father's Y5 substance use	Coded as 1 if mother reports father alcohol/ drug problems and 0 if she does not. 11.2 percent of values are imputed.
Parent Involvement at Y5	Higher scores indicate more parental involvement. 9.9 percent of values are imputed.
Mother impulsivity	Higher values indicate more impulsivity. 6.4 percent of values are imputed. Measured at year 3.
Mother's substance use pregnancy	Higher values indicate more frequent drug use. Less than 1 percent of values are imputed.
Father's Education	Constructed using father and mother's report of father's highest education level, recorded at baseline. Coded as 1 if father completed high school or above. 3.5 percent of values are imputed.
Mother's Education	Constructed using mother report of her highest education level, recorded at baseline. Coded as 1 if mother completed high school or above and 0 if she did not. Less than 1 percent of values are imputed.
White	Coded as 1 if focal child reports being white and 0 if not. 5.7 percent of values are imputed. Recorded at Y15.
Black	Coded as 1 if focal child reports being Black and 0 if not. 5.7 percent of values are imputed. Recorded at Y15.

Hispanic	Coded as 1 if focal child reports being Hispanic and 0 if not. 5.7 percent of values are imputed. Recorded at Y15.
City of birth	City of focal child's birth, recorded at baseline. No imputed values.
Census tract Y15	Census tract where primary caregiver lives at Y15. No imputed values.
Housing instability Y5	Coded as 1 if mother moved more than 3 times in previous 2 years, and 0 if she did not. No imputed values.
Percent of households in PCG tract using public assistance Y15	Measure of the percent of households in PCG's census tract at Y15 who received public assistance. About 1 percent of values are imputed.
Y9 ADHD diagnosis	Indicates whether child was diagnosed with ADHD by Y9. Coded as 1 if they were and 0 if they were not. Less than 1 percent of values are imputed.
Y9 Autism diagnosis	Indicates whether child was diagnosed with autism by Y9. Coded as 1 if they were and 0 if they were not. Less than 1 percent of values are imputed.
School OSS Rate Y9	Constructed from restricted data on school context. Higher values indicate higher rates of OSS in the focal child's school during Y15 of data collection. About 17 percent of values are imputed.
Delinquency Variety Y9	Variety score for focal child delinquency, recorded at Y9. Higher values indicate more variety in delinquency. Less than 1 percent of values are imputed.

Appendix B: Descriptive Statistics for Imputed Dataset 1

Variable Name	Full Analytic Sample	Suspended or Expelled by Y9	Not Suspended or Expelled by Y9
	Mean (SD)	Mean (SD)	Mean (SD)
Outcome			
Suspended/ Expelled Y15	0.335	0.669	0.256
Main Predictor			
Suspended/ Expelled by Y9	0.191	1	0
Controls			
Male	0.515	0.715	0.468
White	0.172	0.046	0.198
Black	0.501	0.766	0.440
Hispanic	0.250	0.124	0.282
Other Race	0.077	0.066	0.080
Reduced- Price Lunch Y9	0.727	0.878	0.692
Delinquency Variety Y15	1.028 (1.519)	1.793 (1.950)	0.847 (1.335)
Substance Use Y15	0.169 (0.375)	0.248 (0.432)	0.151 (0.358)
School Bonds Scale Y15	10.201 (1.719)	9.937 (1.902)	10.264 (1.667)
School OSS rate Y15	0.122 (0.134)	0.178 (0.176)	0.108 (0.118)
School percent free and reduced-price lunch Y15	0.578 (0.270)	0.681 (0.242=3)	0.554 (0.270)
Percent of households in PCG tract using public assistance Y15	0.049 (0.047)	0.062 (0.049)	0.046 (0.046)
Delinquency Variety Y9	0.506 (0.500)	0.813 (0.390)	0.434 (0.496)
Y9 Autism diagnosis	0.009 (0.097)	0.012 (0.108)	0.009 (0.093)
Y9 ADHD diagnosis	0.114 (0.318)	0.253 (0.435)	0.081 (0.274)
School OSS rate Y9	0 .065 (0.085)	0.101 (0.104)	0.057 (0.078)

Father incarceration by Y5	0.455 (0.498)	0.621 (0.485)	0.415 (0.493)
Mother experienced DV Y5	0.128 (0.334)	0.139 (0.346)	0.125 (0.331)
Mother perception of neighborhood violence Y5	0.163 (0.370)	0.229 (0.421)	0.148 (0.355)
Household income to poverty ratio Y5	1.882 (2.231)	1.234 (1.313)	2.035 (2.371)
Father's impulsivity	9.879 (4.853)	10.273 (5.131)	9.786 (4.781)
Mother's impulsivity	12.223s (3.665)	12.772 (3.848)	12.093 (3.609)
Harsh discipline Y5	0.514 (0.500)	0.611 (0.488)	0.491 (0.500)
Mother's depression Y5	0.140 (0.347)	0.148 (0.355)	0.138 (0.345)
Father's Y5 substance use	0.125 (0.331)	0.182 (0.386)	0.112 (0.315)
Parental involvement Y5	0.924 (0.824)	0.760 (0.841)	0.963 (0.815)
Housing instability Y5	0.070 (0.255)	0.068 (0.252)	0.070 (0.256)
Parents Married at Baseline	0.231 (0.421)	0.107 (0.309)	0.260 (0.439)
Mother substance use pregnancy	0.257 (0.437)	0.319 (0.467)	0.242 (0.428)
Father's education	0.666 (0.472)	0.626 (0.484)	0.675 (0.469)
Mother's education	0.676 (0.468)	0.606 (0.489)	0.693 (0.461)
0-25% Black and Hispanic Enrollment	0.183 (0.387)	0.092 (0.289)	0.205 (0.404)
>25-50% Black and Hispanic Enrollment	0.149 (0.356)	0.095 (0.294)	0.161 (0.368)
>50-75% Black and Hispanic Enrollment	0.266 (0.442)	0.236 (0.425)	0.274 (0.446)
>75-100% Black and Hispanic Enrollment	0.451 (0.498)	0.599 (0.490)	0.416 (0.493)

Note: Future of Families and Child Wellbeing Study. Data limited to students for whom suspension data is available at year 9. N=3080 y9=year 9 M=mean SD=standard deviation. Means for City and Census Tract

are not shown because they are numerically not meaningful without data on which city and census tract are associated with which numerical codes. are not shown. Full list of controls can be found in Appendix A.

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