Office Discipline and Student Behavior: Does Race Matter?

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Previous research has consistently found a relationship between student race and discipline. For example, African Americans are more likely than whites to be sent to the office or suspended. However, much of this work is limited by a lack of student behavior and school-level variables. This study examined the effect of student race on office referrals in 45 elementary schools while controlling for ratings of student behavior and using a fixed effects model to remove school-level influences. The results indicate that African American students are significantly more likely to be referred to the office than other racial groups. Neither student behavior nor school-level factors are sufficient to explain this relationship; however, these factors do dampen the effect of race on discipline, suggesting that previous work has reported inflated coefficients. Given the historical association between exclusionary school discipline and later negative life outcomes, this issue warrants increased attention. Implications and directions for future research are discussed.

Introduction

In the school discipline literature, racial disparity has generated much scholarly interest. Research has consistently uncovered a relationship between race and official sanctions, whereby minority students are more likely to be punished than ethnic majorities (Gottfredson 2001; Joseph 1996; Lipsey and Derzon 1998; Skiba et al. 2000, 2002). This is troubling because school discipline (e.g., office referrals, suspensions) is linked to poorer academic performance among other negative outcomes (Hirschi 1969; Rausch and Skiba 2004; Skiba and Rausch 2004; Wald and Losen 2003). Some have posited that the phenomenon of racial disparity in the school is comparable to that found in the criminal justice system (see McCarthy and Hoge 1987; Monroe 2005), as studies in this context have similarly identified racial disparity in discipline (see Kempf-Leonard 2007; Samp-

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son and Lauritsen 1997; Shaw and McKay 1972; Wacquant 2000). To date the causes of disparities in official discipline, regardless of the setting, remain unclear.

Research has pointed to several possible explanations for racial disparity in official discipline. The key debate is whether disproportionate minority discipline is a function of differential behavior (Do minorities offend more frequently?) or a function of differential treatment (Are officials acting in a biased fashion when enforcing laws/rules?). Some have argued that disparities in discipline are a function of differences in behavior (see Hindelang et al. 1979; Murray and Herrnstein 1994; Wilson and Herrnstein 1985). Some argue that behavioral differences are a result of environmental factors: factors such as community organization or class influence behavior, which in turn accounts for the greater misbehavior and official discipline of minorities (Anderson 1998; Sampson and Lauritsen 1997; Warr 2002; Wu et al. 1982). In essence, these camps argue that race and factors such as class are so entwined that the effect of one is difficult to discern independently of the other. Consequently, aggregate tests of racial disparity may not be appropriate without considering such confounding factors.

Racial disparity has been documented in the school setting, with some researchers suggesting bias as a cause of this disparity. To be sure, research has long suggested unequal minority treatment in this context. Minorities are more often placed in special education tracks (Harry and Klingner 2006; Reschly 1997; Skiba et al. 2006), often do not receive equal educational opportunities (Boozer et al. 1992; Darling-Hammond 1998), and are more likely to be disciplined (Skiba et al. 2000, 2002; Townsend 2000). Studies have consistently found that African Americans are punished at a rate disproportionate to their population (Children's Defense Fund 1975; Skiba et al. 1997; Skiba and Peterson 2000; Wu et al. 1982). Limited research exploring the role of behavior has indicated that minorities are more likely to be punished than racial majorities, a finding not accounted for by student behavior (see McFadden et al. 1992; Skiba et al. 2000; Wu et al. 1982).

Discussions about the origins of disproportionate minority discipline in schools tend to focus on cultural (see Heath 1983; Joseph 1996; Monroe 2005; Townsend 2000) or political (see Johnson et al. 2001; Monroe 2005; Taylor and Foster 1986) factors. These explanations center on the dominance of the American

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school by whites, which leads to an insensitivity toward African American culture or to policies enacted that serve as a "mechanism for racial suppression" (Taylor and Foster 1986, 499). Heath (1983) notes that cultural barriers lead to misunderstandings between the white school officials and minority students. That is, the way groups differ in communication styles may lead to differential treatment on the part of white teachers who do not understand the ways in which poor blacks (and poor whites) communicate. Thus, while researchers have been reticent to conclude that teachers may be acting in a biased manner (with some notable exceptions—see Johnson et al. 2001; Shaw and Braden 1990), the evidence to date suggests that disparity exists for perhaps illegitimate rather than legitimate reasons.[1] However, because of several limitations, no strong conclusions may be made on the basis of the literature.

This article will examine racial disparity in school discipline using data collected from 45 elementary schools. The literature on this topic to date is extensive but limited in several ways. First, in order to demonstrate that official bias plays a role in racial disparities, research must show that discipline rates are a function of more than simply behavior. That is, studies must take into account antisocial or deviant behavior of the students to conclude that disparities in discipline are unwarranted or unjustified. Yet, most studies of racial disparity do not control for student behavior when examining discipline rates (for an exception, see McCarthy and Hoge [1987]). Skiba and colleagues (2000) note that "the ideal test [of the hypothesis that differences in behavior are not the major cause of differences in discipline] would be to observe student classroom behavior and office referrals independently. Those data were not available for this study nor are we aware of any other study that has reported both observational and office referral data" (20). The present study will address this shortcoming by examining disparity in office referrals while taking into account general ratings of student behavior. As a result, this study is able to analyze whether minorities are still more likely to receive sanctions, holding overall behavior constant. Second, most studies use pooled samples. That is, they gather data from across multiple schools or school districts and then examine whether race predicts sanctions. Yet using this method makes it difficult to determine if racial differences in discipline are a result of differences in school policies or differences in treatment of minorities. Therefore, the present study will use a model to control for between-school (level 2) variation in discipline policies. This will essentially compare students within the same schools, ensuring that differences in school policies do not influence the results. To date, few studies have examined racial disparity within elementary schools by controlling both between-school effects and student behaviors measured independently of discipline.

In what follows, a review of the racial disparity literature is presented. Particular attention is paid to the methods of examining this subject. Then,

the methods used in the present study are discussed, and this is followed by the empirical results.

Racial Disparity in School Discipline Practices

Researchers have defined racial disparity in a variety of ways. Some refer to disparity as simply a difference between rates of discipline and a particular group's representation in the population (see Bridges and Crutchfield 1988; Schrantz and McElroy 2000). Others have used a "10 percent" rule, whereby racial bias is said to exist if the proportion of a group that receives discipline exceeds that group's population proportion by 10 percent or more (Skiba et al. 2000). This demarcation, though, is limited at best and arbitrary at worst. This current article considers disparity to be present if discipline is meted out disproportionately to the actual behavior of the student. That is, controlling for the level of "acting out," if African Americans are still punished more than other racial groups in the same schools, there is evidence of disparity. This definition focuses on differential treatment by race.

Studies examining the distribution of discipline in schools have consistently found that racial/ethnic minority students are more likely to be disciplined than majority groups. The Children's Defense Fund conducted one of the first studies to report such a finding in 1975—schools had been legally integrated for 21 years at that time. The findings of this investigation using national data revealed that African American students were from two to three times more likely to be suspended than whites (Skiba et al. 2000).

Beginning in the 1980s, research interest surrounding racial disparity in schools increased. Much of the work in this arena concentrated on the middle school and high school years (see Costenbader and Markson 1998; Massachusetts Advocacy Center 1986; Nichols et al. 1999; Skiba et al. 1997, 2000, 2002; Thornton and Trent 1988). This work is generally consistent in that minority students, especially African Americans, are more likely to be referred to the office or suspended than whites. For example, Skiba et al. (2000) presented data in which African Americans represented 56 percent of total enrollment but 66 percent of office referrals, for a discrepancy of 11 percent. Fewer studies have focused specifically on the elementary years. However, the research that has included elementary schools has shown similar results as the middle school and high school studies (Kinsler 2006; Lietz and Gregory 1978; Taylor and Foster 1986; Wu et al. 1982).

For the most part, these studies focus on the proportion of students within racial/ethnic groups receiving discipline to determine whether "bias" exists. If one racial group has a higher proportion of disciplined students (e.g., the "10 percent rule"), researchers conclude that they have found disparity in

discipline—and therefore unequal treatment. Often the statistical analyses of these tests are relatively simple (e.g., percentages or chi-square tests), failing to account for other potentially biasing variables (see Costenbader and Markson 1998; Lietz and Gregory 1978; Skiba et al. 1997, 2002; Taylor and Foster 1986). These studies are only able to show that there is a relationship between race and discipline, without offering more insights.

Certain researchers have recognized that confounding variables may obscure the relationship between race and discipline. For example, race and socioeconomic status are, at times, difficult to disentangle (see Henry 2007). Indeed, studies have found that lower-class youth are disciplined more than others (Skiba et al. 1997; Wu et al. 1982). Thus, some studies have attempted to control for socioeconomic status when looking at racial disparity in discipline. Yet, by and large, after controlling for socioeconomic status, racial disparity in discipline is still found (see Skiba et al. 2000; Wu et al. 1982). These results seem to suggest that something other than environmental factors are driving racial disparity in schools.

Differential Treatment or Differential Involvement?

Perhaps the major issue in the racial disparity debate is whether or not disparities in discipline are a function of differences in behavior. Some have argued that minorities are punished more often than whites because they are disproportionately involved in deviant acts (see Hindelang et al. 1979; Hunter 2007). The focus of some research, then, is directed toward finding the cause of these differences in behavior instead of examining why officials punish some groups more than others.

Few studies regarding racial disparity in school discipline have attempted to account for differences in behavior. Some researchers have compared the behaviors for which students receive sanctions (McFadden et al. 1992; Shaw and Braden 1990; Skiba et al. 2002). The intention here is to determine whether minorities engage in more "serious" behaviors than whites. These studies tend to show that minorities are not differentially involved in more serious acts for which discipline occurs (Skiba et al. 2002) or that officials punish minorities more severely for similar acts (McFadden et al. 1992; Skiba et al. 2000).

These studies suffer from an inherent shortcoming, however. In general, using behavior that resulted in discipline is an insufficient method to examine whether disproportionate minority contact is a function of differential behavior because these measures say nothing at all about the overall behavior of the student. That is, a finding that minorities are punished for behavior X more than racial majorities may result because minorities engage in behavior X

more than others or because teachers are more likely to punish minorities than whites for behavior X. Without examining behavior independently of the disciplinary incident, this crucial question remains unanswered.

Certain studies have argued that cultural differences are the driving force behind racial disparity in school discipline practices. This research has focused on differences in actual interests of people from different cultures as well as differences in how behaviors are interpreted by individuals of different cultures. Irvin et al. (2004) conclude upon the basis of their review that studies of office discipline referrals indicate that "cultural values" play a role in the differential treatment of students. For example, Murdock et al. (2000) show that students who do not value education and who are not motivated are more likely to be disciplined by teachers. This finding may explain differential behavior by racial/ethnic group as data have consistently shown minorities to be less motivated and less likely to perceive schooling as beneficial (Anderson 1998; Ogbu 1987). Other cultural explanations suggest that differential discipline by race may be driven by miscommunication. As Heath (1983) argues, misinterpretation of behavior/communication styles may lead to the assumption on the part of white teachers that black students are misbehaving when in fact there was no such intention.

Several studies have used self-report and teacher report data to evaluate disparity in discipline (McCarthy and Hoge 1987; Wu et al. 1982). These studies represent an important advance over previous analyses, but they are somewhat limited in that they fail to take important control variables into account. In one of the most innovative studies to date, McCarthy and Hoge (1987) conducted a survey of 1,125 students across six middle and high schools, asking them to report delinquent acts they had committed during school. They then controlled for delinquent behavior when examining racial disparity in discipline, finding that minorities were still more likely to be suspended. They collected teacher ratings on the students' behavior to validate the student self-reports, also entering them into a regression equation along with self-reported behavior and other potential confounding variables. The results indicated that race still predicted suspensions, suggesting official bias. However, this study did not include school- or district-level variables, such that the differences in discipline by race may have been a function of which school the individual attended rather than bias. That is, it may be that students who attend certain schools are more likely to be punished because of harsher policies even if they are comparatively better behaved than students in other schools.

In perhaps the most complete study on racial disparities in school discipline, Wu et al. (1982) drew on a national sample of 641 schools that included self-reports of 31,373 students and reports of 23,895 teachers in junior high and high schools. They found that student attitudes (a proxy for misbehavior) did factor in suspensions levied to students but could not account for all racial

disparity. However, they did not have a measure of individual student behavior, relying on questions regarding attitudes and teacher reports of overall student behavior at their school. Wu and colleagues (1982) noted this limited measure of behavior, stating that "the relationship between students' behavioral profiles and suspensions cannot be directly examined" (252). Thus, while the authors attempted to account for student behavior to determine the cause of disproportionate minority discipline, the limited measures precluded conclusive results. Notably though, this study did take school-level factors into account, a topic which will be discussed next.

School Effects as a Potential Bias

The present study recognizes that school effects likely matter in the processes of discipline. For instance, a few studies have noted that discipline policies vary widely (Bickel and Qualls 1980; Brown and Beckett 2006; Kinsler 2006; Mendez et al. 2002). According to Kinsler (2006), differences in school policies may largely drive racial disparities at the aggregate level. If minorities are concentrated in schools with more harsh policies, then by that statistical artifact, aggregate tests will show them to have higher rates of discipline. Indeed, this is exactly what Mendez et al. (2002) found in their examination of suspension policies across schools in Florida. Kinsler (2006) notes: "If schools treat African American and white deviant students equally, the observed aggregate disparities in discipline can only be generated if schools serving high proportions of minority students use more severe forms of discipline" (3).

In their analyses, Wu et al. (1982) did attempt to control for school-level factors (e.g., school suspension rate, teacher attitudes, administrative centralization, school governance, perceptions of achievement, socioeconomic disadvantage, and racial status). Interestingly, Wu and colleagues found that the type of school the student attended affected his or her likelihood of being suspended. However, the analyses did not incorporate a method to examine race while controlling for all between-school effects. For example, the "school effects" the researchers chose for their model may not have included important school factors associated with discipline (e.g., teacher experience), thus biasing the results.

To account for the potential statistical bias of school effects, Kinsler (2006), in an unpublished chapter from his dissertation, used a model that was able to control for all school effects—an approach most researchers in this area have not taken. Kinsler estimated what he called a "fixed school effects" model by controlling for all school effects in his equations. In the aggregate (pooled estimates), African American students received longer suspensions for similar offenses than whites. Yet, the fixed effects model, which essentially examines students "within" schools rather than across them, showed that demographic

characteristics did not strongly predict discipline. This model is stronger than the one used by Wu and colleagues because all school effects are accounted for rather than only those that researchers can measure. However, much like the majority of the discipline research, Kinsler did not examine discipline and behavior of students independently.

In sum, studies during the past 30 years have consistently shown that race is associated with discipline in schools. Yet, most of this work focuses on the middle school or high school years, failing to recognize that racial disparity is likely more problematic during the younger, formative years. In addition, and more importantly, most studies do not disentangle behavior from discipline. This means that differences in rates of discipline by race may have arisen from differences in behavior. Finally, few studies, including those that have attempted to control for behavior, consider school effects (e.g., differences in policies of schools that minority students attend). It is important to analyze racial disparity while controlling for all possible school effects, which prior studies have not done. In this sense, while the past research is suggestive, it is by no means conclusive as to the causes of disparity in school discipline.

The Present Study

Drawing on data from 45 elementary schools, producing a sample of nearly 29,000, this research intends to build on previous work in several ways. First, this study examined racial disparities in office referrals while controlling for behavioral ratings of each student by teachers in his or her school. This allowed the study to examine behavior and discipline separately. Second, this study focused specifically on elementary school students—a population somewhat neglected in the school racial disproportionality literature. Finally, in order to control for differential policies by school (see, e.g., Bickel and Qualls 1980; Kinsler 2006), this study attempted to control for between-school effects by estimating a model that fixes school effects by essentially comparing students "within" their own schools rather than pooled across schools. Based on previous literature in a variety of fields, it is anticipated that racial disparities are influenced by more than student behavior and school policies. That is, taking into account behavioral ratings, school effects, and other covariates, a student's race increases his or her likelihood of having an office referral.

Data and Method

The subjects for this research include 28,634 students in 45 elementary schools located in one Virginia county. Data were collected from official school records

and teacher reports on their individual students for the 2005–6 school year. School officials provided demographic and disciplinary data. Disciplinary data were collected and aggregated to the student level. These data were then combined with demographic, grades, and student behavior data for the purposes of the present analysis. All data were collected as part of a separate study analyzing the impact of a school program.

A total of 503 (2 percent of the total) students were over the age of 11 or their age could not be ascertained, and they were therefore excluded from the analyses. These students were found in the disciplinary data but not the demographic data. It is interesting to note that the excluded cases accounted for 89 (4 percent) of the office referrals in the present data set, indicating that this group represents a disproportionate amount of disciplinary infractions. This is in accord with prior research that has shown that older adolescents (e.g., those ages 16–18) are more likely to be involved in delinquency or to be punished by officials (Braithwaite 1989; Hirschi and Gottfredson 1983).

Dependent Variable

The dependent variable is a binary variable to indicate whether a student received an office referral during the 2005–6 year. Officials in the school recorded incidents in which a teacher or school official sent a student to the office for disciplinary purposes. The outcome of the referral (e.g., suspension, call to parents) was available for some cases, but that is not examined here because of inconsistency in the recording of such incidents. The data were transferred with the incident as the unit of analysis. For the present study, these data were aggregated so that the student was the unit of analysis (see Skiba et al. 2000). These recorded incidents are diverse in nature but are generally nonviolent and nonserious. Examples include truancy, disrespect, and, more rarely, assault or fighting. A student is coded one if he or she received at least one referral during the study period. In the present data, 2,091 students received an office referral.

Independent Variables and Covariates

For this research, the main interest was in the effect of race in the processes of school discipline. The study sought to investigate whether, controlling for a number of potentially confounding factors, minority status—particularly African American—is associated with an increased chance to receive an office referral. However, other factors have been identified as a correlate of student discipline and race that may be driving the relationship between race and discipline. These

factors were therefore entered as covariates in the analyses that follow. The covariates for this study include socioeconomic status, gender, grades, and student behavior.

Race.—Race represents the main independent variable for this research. Because the majority of the literature focuses on African American students, the analyses proceed by examining whether students within this racial group have a greater chance of being referred to the office than others. African American is a binary variable, coded one if the student was African American and zero if otherwise. Other racial categories represented in the data are white, American Indian, Hispanic, Hawaiian, and Asian. Some students were not racially/ethnically identified. They are coded as unspecified. The data also include a minority variable, with African American, American Indian, Hispanic, and Hawaiian coded as one and others coded as zero.

Age.—The sample for this study was derived from an elementary school–age population. The range was 5–11 years. Age has been found to be associated with misbehavior and official punishment. The relationship is perhaps more pronounced with respect to adolescents and the well-publicized "age-crime curve" (Hirschi and Gottfredson 1983) in which deviant behavior tends to increase around age 16 and then drop in the late twenties. Age has also been associated with school discipline in previous work (McCarthy and Hoge 1987). Age was therefore entered as a covariate in the regression equations.

Special education.—Students in special education courses have been found to be disproportionately disciplined in school settings (see Gregory and Weinstein 2008). This item is dichotomous, scored one if a student is classified as special education and zero otherwise.

Socioeconomic status.—Previous research has indicated that socioeconomic status is related to delinquency and student discipline (see Laub and Sampson 1988; Skiba et al. 2000). Since race and class status are intertwined, it is necessary to control for class when examining the effect of race. No general measure of socioeconomic status is available in the data analyzed for this study. However, a measure is available that indicates whether the student received free lunch. While this is not an entirely satisfying measure, it does capture disadvantage, and other school discipline researchers have used this variable as a proxy for socioeconomic status (see Rausch and Skiba 2004; Skiba et al. 2000). To ensure that class is not overly biasing the results, "free lunch" was included as an independent variable in the analyses.

Gender.—Student gender is also strongly related to discipline and delinquency and thus must also be accounted for (McCarthy and Hoge 1987; Skiba et al. 2000). Gender is a binary variable, scored one if male and zero if female.

Academic performance.—Research has consistently linked school performance to delinquency and discipline (see Gottfredson 2001; Hirschi 1969; Rausch and Skiba 2004; Skiba et al. 1997). School performance is indexed by average

report card grades across five subjects (math, science, social studies, writing, and reading) for five terms. This summary measure, hereafter referred to as GPA, was included in the analyses.

Student behavior.—In order to examine the actual impact of student race on office discipline referrals, it is important to control for behavior. In the present analyses, student behavior or demeanor was represented by teacher ratings. This offers a method to examine the general behavior of each student, separate from any disciplinary incident. In this way, the analyses offer a more appropriate measure of behavior than previous work examining differences in behaviors for which students are disciplined (Skiba et al. 2000), which says nothing about the behavior of students who are not punished.

Researchers gathered teacher reports on each of their respective students during the 2005–6 school year. Of interest for this study is a battery of items measuring the externalizing or antisocial behavior of each student. These questions referred to how much the student acts out, disregards rules, and is generally disruptive. An "externalizing scale" was created by averaging these eight items, which range from 0 (student does not exhibit behavior) to 3 ($\alpha = .90$). The appendix displays the item content for this scale, which will be entered in the analyses to account for student behavior. Perhaps a better way to measure behavior truly "independent" of discipline would be to have a person who is not involved in discipline observe the students. However, the only measure available in the data is derived from teacher reports.

It is important to note that these ratings were made by the student's teacher at approximately midyear. An implicit assumption of this methodology is that teachers are able to rate students in an unbiased manner. This does not, however, assume that discipline is meted out in such an objective fashion. And if we make the assumption that bias is inherent in ratings (i.e., teachers rate African Americans as MORE misbehaved) and the results still show disparity in office referrals, this is stronger evidence that bias exists in discipline. That is, bias in teacher ratings of behavior (given bias in punishment) should make it less likely, not more likely, that, when ratings of behavior are held constant in the analyses, the data will show African Americans to have a greater chance than other groups to be punished. If teachers rate African Americans as misbehaved (even if it is untrue) and then are more likely to punish this group, there should be no disparity between behavioral ratings and discipline.

Finally, it should be noted that there are missing data in this item, reducing the overall sample with ratings to 22,195. Analyses indicated that the data were not missing completely at random (MCAR) and were related to ethnicity/race, age, and GPA. Several methods were used to ensure that the missing data on the behavioral scale did not meaningfully alter the main results. First, the results (presented below) were replicated using dummy variable adjustment (Allison 2001, 9–10; McKnight et al. 2007). For this method (1) a dummy

variable (D), scored one if missing on the student behavior scale, was computed; (2) a variable ***X**** was created that represents the behavior scale, with missing values replaced with a constant c (which, for ease of interpretation is the mean of the behavior scale); and (3) the regression equations include D and ***X**** (in the place of the original behavior scale). This method permits subjects with missing data on the student behavior scale but with complete data on the other items to be included in the analysis. Second, linear interpolation methods were used to impute missing data on the behavioral scale. Linear interpolation methods involve using "nearby" cases to impute values for each missing case. Both methods did not result in any substantive change in the interpretation of the main results. For clarity of presentation and parsimony, the results presented below use the original nontransformed behavioral scale.[2]

Analytic Strategy: Random Effects Regression Controlling for School Effects

The analytic strategy employed in this study was twofold. First, pooled analyses are displayed (mirroring previous work) in which a logistic regression approach is based on the following equation:

$$\text{Logit} \quad = \Pr(Y = 1 \mid x) = \log\left(\frac{\Pr(Y = 1 \mid x)}{1 - \Pr(Y = 1 \mid x)}\right) = \beta_0 + \beta_1 X_1 \ \ldots \ \beta_k X_k.$$

This indicates that the dependent variable is binary, and the slope parameters $\beta_1 X_1 \ \ldots \ \beta_k X_k$ predict the log odds of the dependent variable (office referral). Exponentiating these coefficients provides the odds ratios, which will be discussed in the results section. This equation includes all students from all schools, thus obscuring the potential effect of school factors.

In order to fully control for between-school effects it is necessary to estimate a model that accounts for all such effects. According to Paul Allison (2006), the problem with nonexperimental research is an inability in the research design to control all unobserved factors that could bias the observed effect of the independent variable on the dependent variable. The model used here involves coding a dummy variable for each school in the data and entering all but one in the equation. This results in a within-school analysis (e.g., students in each school are compared to one another), such that school effects cannot effect the relationship between the independent variable and the dependent variable.

TABLE 1

Demographic and Descriptive Statistics

Item	*n*	Range	Mean	SE (Mean)
Dependent variable:				
Office referral	28,634	0–1	.07	.00
Independent variables and covariates:				
Age	28,634	5–11	8.27	.01
Special education	28,634	0–1	.11	.00
Race/ethnicity	28,634			
White		0–1	.43	.00
Hispanic		0–1	.26	.00
African American		0–1	.20	.00
Asian		0–1	.07	.00
Unspecified		0–1	.04	.00
American Indian		0–1	.00	.00
Hawaiian		0–1	.00	.00
Gender	28,634			
Male		0–1	.52	.00
SES	28,629			
Free lunch		0–1	.31	.00
Grades	28,102			
GPA		0–4.00	3.04	.00
Behavior	22,195			
Externalizing scale		0–3.00	.29	.00

NOTE.—Behavior and grades items have missing data because of a failure to gather reports on all students.

Results

Table 1 displays descriptive information with respect to racial demographics, gender, free lunch, grades, and office referrals. As is shown, whites (43 percent) represent the largest ethnic/racial category, followed by Hispanics (26 percent) and African Americans (20 percent). Over half of the sample (52 percent) is male. The average age is 8, the average student GPA is 3, and 31 percent of students received free lunch. Finally, the majority of students in the sample did not receive an office referral (93 percent).

As is shown in table 2, African American students were more likely to receive an office referral than whites. In fact, the data show that, while 5 percent of white students received a referral, 14 percent of African American students did. Interestingly, only 6 percent of Hispanics received an office referral.

TABLE 2

Proportion of Disciplinary Incidents by Racial or Ethnic Category

		OFFICE REFERRALS			
CATEGORY	*n*	*r*	Proportion	SE	95% CONFIDENCE INTERVAL
White	12,223	−.07**	.05	.00	.05–.06
Hispanic	7,313	−.03**	.06	.00	.05–.06
African American	5,779	.14**	.14	.00	.14–.15
Asian	1,997	−.05**	.03	.00	.02–.04
Unspecified	1,204	.00	.07	.01	.06–.09
American Indian	87	.01	.11	.03	.05–.18
Hawaiian	31	.01	.16	.07	.02–.30
Total	28,634				

** $p < .01$.

Table 2 also displays point-biserial correlations between each racial/ethnic group and office referrals (because both items were categorical, Pearson correlations are an inappropriate statistic). These correlations show that, interestingly, only American Indian, Hawaiian, and African American groups are positively related to office discipline referrals. Hispanic, Asian, and white groups are negatively related to discipline.

The interpretation of the results shown in table 2, as indicated in the literature review, is not altogether clear. A statistically significant relationship between African American and discipline does not mean that teachers are acting in an arbitrary manner. Past research, however, has accepted findings such as these as evidence of bias on the part of school teachers and officials. However, it may be the case that African American students exhibit more misbehavior than other students. In fact, analyses indicated that the student misbehavior scale and African American status were positively correlated (data not shown).

The next set of results displays a logistic regression equation using African American status of the student to predict office referrals along with individual-level covariates. Both ß coefficients and exponentiated coefficients (odds ratios) are displayed, though the latter (for ease of interpretation) are discussed. The model includes several variables that have been offered in the literature as alternate explanations for the race-discipline link. These include gender, grades, and socioeconomic status. The results of this analysis are shown in table 3.

Table 3 indicates that, controlling for variables associated with alternative explanations for racial disparity in discipline, African Americans are still more

TABLE 3

Pooled Logistic Regression of Race on Office Referrals

Item	β	SE	Odds Ratio	95% Confidence Interval (Odds Ratio)
African American	.91	.05	2.47	2.25–2.73
Free lunch	.26	.05	1.29	1.17–1.43
Age	.41	.01	1.15	1.12–1.19
Male	1.14	.06	3.08	2.76–3.43
GPA	−.71	.04	.49	.45–.53
Special education	.34	.06	1.41	1.24–1.60
Intercept	−2.82	.18	.06	

NOTE.—N = 28,098. All coefficients are significant at the .001 level.

likely to experience an office referral. As would be suggested by the literature, grades, socioeconomic status (measured using a "free lunch" variable), special education, age, and gender are related to discipline in a statistically significant manner. The finding of racial disparity is striking, with the odds ratio indicating that African Americans have a 2.47 greater odds of being referred to the office than other racial groups, even controlling for individual-level attributes. Consistent with previous research, males are much more likely than females to be referred to the office; those in special education, those receiving free lunch, and older students are also more likely to be referred to the office. As is shown by the GPA coefficient, academic achievement is negatively related to office referrals.

The analyses thus far have used pooled estimates, which ignore school effects. Such results have been routinely reported in previous studies. However, as noted in the literature review, minorities might disproportionately attend schools that have harsher disciplinary policies or other contextual factors that lead to higher rates of office discipline referrals. In this case, pooled analyses would find an association between race and discipline, but this would not be because of bias on the part of teachers. Consequently, it is important to separate out school effects in analyses of racial disparity in discipline. Table 4 presents the results of a logistic regression analysis that "fixes" the effects of schools by entering a dummy variable for 44 of the 45 schools. This essentially compares students within schools, thereby nullifying any school-level effects.

The results of the random effects logistic regression controlling for school effects show that African American students have a 2.27 greater odds of being referred to the office than other racial groups, even within the same schools. Note that the odds ratio for African American was slightly dampened when

TABLE 4

Logistic Regression of Race on Office Referrals Controlling for School Effects

Item	β	SE	Odds Ratio	95% Confidence Interval (Odds Ratio)
African American	.82	.05	2.27	2.04–2.52
Free lunch	.19	.06	1.21	1.08–1.35
Age	.14	.01	1.15	1.12–1.18
Male	1.21	.06	3.35	3.00–3.75
GPA	−.77	.04	.46	.43–.50
Special education	.41	.07	1.50	1.32–1.71
Intercept	.20	.18	.13	

NOTE.—N = 28,098. Dummy variables for schools are not shown. All coefficients are significant at the .001 level.

taking school factors into account, suggesting that these factors do play a role in racial disparity in school discipline. In other words, school contextual factors are responsible to an extent for the well-publicized finding of racial disparity in school discipline. Nonetheless, even while taking these (unobserved) contextual effects and individual-level characteristics into account, African Americans are still more likely to be referred to the office. The effects of gender, socioeconomic status, special education, age, and grades are relatively unchanged by controlling for school effects.

To show that racial disparity in school discipline is not entirely accounted for by school factors, however, is not sufficient evidence of racial bias. It is important to show that disparity exists even after controlling for student behavior. The set of results shown in table 5 include a summary measure of externalizing or disruptive behavior of each student. The analysis fixes school effects and controls for grades, socioeconomic status, special education, age, and gender as well.

Table 5 shows that neither overall behavior of the student nor school policies is able to explain disparity in school discipline. African Americans have a 1.58 greater odds of receiving an office referral than other racial/ethnic groups, controlling for school effects, individual characteristics, and behavior. The coefficient remains in the same direction and is statistically significant.[3] Thus, the overall story remains the same: African American students have a greater chance of being punished than other racial groups. Controlling for behavior, the likelihood of African American students being referred to the office is decreased by over 30 percent. Thus, while disparity remains, these data show that previous work without measures of student behavior grossly overestimated the extent to which racial disparity in school discipline is based upon illegit-

TABLE 5

Logistic Regression of Race and Behavior on Office Referrals Controlling for School Effects

Item	β	SE	Odds Ratio	95% Confidence Interval (Odds Ratio)
African American	.46	.07	1.58	1.39–1.81
Externalizing behavior	1.70	.05	5.48	4.97–6.05
Free lunch	.15*	.07	1.16	1.01–1.33
Age	.22	.18	1.25	1.20–1.29
Male	1.06	.07	2.89	2.52–3.30
GPA	−.51	.05	.59	.54–.66
Special education	.26	.08	1.30	1.11–1.53
Intercept	−3.00	.30	.05	

NOTE.—N = 22,044. Dummy variables for schools are not shown.
* $p < .05$; all other coefficients are significant at the .001 level.

imate factors. Misbehavior plays a large (though not sufficient) role in explaining office referrals.

This section examined the relationship between student race and the odds of being referred to the office. The analyses attempted to address several shortcomings of previous research by controlling for both behavior and school effects (e.g., school policies). The results indicated that African Americans have greater odds of receiving an office referral than other racial groups, holding these variables constant. This offers convincing evidence that racial disparity in school office discipline referrals is not caused by behavioral or school policy factors.

Discussion and Conclusion

Since the 1970s, the school discipline research literature has consistently shown that minorities, specifically African Americans, are more likely than whites to be punished. Using a variety of methods, this literature has suggested that there is evidence of bias in America's schools. Researchers have had to be tentative when interpreting results as data generally do not permit strong conclusions as to the causes of racial disparity. Much of this work has failed to control for student behavior or school effects. This study attempted to account for these explanations by controlling for the general behavior of students and by controlling school effects. In this way, any evidence of dis-

proportionality in discipline is more suggestive of bias on the part of teachers than previous work. The result is that stronger (though certainly not conclusive) inferences can be made.

The first set of results displayed confirmed previous research. A larger proportion of minorities in general and African American in particular received an office referral than whites. Interestingly, Hispanics did not seem more likely than whites to receive a referral. Next, the analyses included control variables that represent "alternative hypotheses" that could explain racial disparity in office discipline referrals (see, e.g., Skiba et al. 2000). These controls included gender, GPA, and free lunch status. The results showed that African Americans were still more likely to receive an office referral. The analyses also showed that, after controlling or fixing the effects of schools, there was still a significant relationship between African Americans status and office referrals. Finally, the analyses controlled for both behavior and school effects. Although the size of the coefficient decreased, the results told the same story: minorities and African Americans remained a significant predictor of discipline. These last results lead to two important conclusions: (1) it is inappropriate to make claims of racial bias on the basis of discipline data without access to associated behavioral data, and (2) the disproportionate rate of African American office referrals is not sufficiently explained by school effects, individual characteristics, or the behavior of students. This latter conclusion warrants further exploration into this issue.

If these results apply to previous work, this article highlights a systemic problem in which school officials punish certain students seemingly without merit. This is problematic because school discipline is associated with a number of factors, such as dropping out and delinquency, as well as difficulties later in the life course (Bowditch 1993; Rausch and Skiba 2004; Wald and Losen 2003). The consistent finding that the most "needy" students are more likely to be subjected to discipline practices in schools suggests that, rather than addressing student needs, discipline in schools may in fact exacerbate the problem, setting in motion a spiral of events (discipline leads to further discipline, suspension, or drop out) that increases the likelihood of later life struggles. In fact, some have labeled the connection between school discipline and later involvement in the criminal justice system the "school-to-prison pipeline" (Wald and Losen 2003, 11). The increasing resemblance of school discipline and criminal justice racial trends is a particular concern in this regard.

A large body of literature, which may apply to the present findings, has sought to explain why officials punish minorities in a seemingly biased manner in American society. Historically, racial minorities have been subject to various forms of social control in the United States (see Rocque 2008). Of particular relevance are the racial threat and labeling perspectives (see Chambliss 1973; Eitle et al. 2002; Tannenbaum 1938). According to the racial threat theory, when the dominant race in a society begins to feel threatened by another

group, the dominant group exerts greater social control over the minority group. The result could be disproportionate discipline directed at minorities. The labeling school in sociology/criminology posits that some groups are more likely to be labeled as deviant than others. This labeling may have the unintended consequence of increasing misbehavior of those labeled as deviant. As Tannenbaum aptly put it 70 years ago, "the person becomes the thing he is being described as being" (21). This explanation might account for the finding that previous behavior seems to influence a student's chance of being disciplined (McCarthy and Hoge 1987; Skiba et al. 2000).

The labeling perspective also argues that certain groups are more likely to be considered deviant than others regardless of behavior (see Paternoster and Iovanni 1989). According to Paternoster and Iovanni (1989, 363), the labeling theory posits that "extra-legal variables" and physical characteristics in part determine who is subjected to social control. Further, research in the psychological domain has demonstrated that there is a visual association for some that connects African Americans to crime (see Eberhardt et al. 2004). As Eberhardt et al. state, "the mere presence of an African American man . . . can trigger thoughts that he is violent and criminal" (876). It is possible that just as crime has a "black face" in American society (see Cole 1999; Monroe 2005), student misbehavior is similarly associated with certain racial groups.

Fenning and Rose (2007) contend that the overrepresentation of African Americans is due to a less invidious reason related to labeling: the perception of school officials to view African Americans as "not fitting in to the norm of the school" (537). Because school officials, especially in the zero-tolerance climate, are charged with maintaining order and control, those who do not fit the behavioral norms of the school are "labeled" as troublemakers and more often removed from the classroom (see Heath 1983). Within the school discipline literature, many researchers have offered theories to account for disparate discipline rates by race. Some have pointed to a possible misunderstanding of minority culture on the part of white teachers (see Joseph 1996; Monroe 2005; Townsend 2000). For example, the rough, physical play style of African American boys may be misread by teachers as aggression when none was intended (Anderson 1998; Heath 1983; Monroe 2005; Skiba et al. 2000). If this line of thought is valid, cultural training for teachers may go a long way toward ameliorating disproportionality in school office referrals.

Another line of reasoning is that the zero-tolerance policies, largely implemented as a response to school shootings by whites, have differentially affected African Americans (Keleher 2000; Monroe 2005). Other researchers have suggested that past behavior influences current discipline (McCarthy and Hoge 1987; Skiba et al. 2000). According to this line of reasoning, minorities are more likely to be referred to the office because of a reputation of deviance. This may explain the present findings that African Americans are more likely

to be referred to the office, holding behavior constant. Ratings of past behavior were not available for this study.

Finally, some have suggested that teacher perceptions and bias play a role in racial disparity with respect to school discipline. Wu and colleagues (1982) argue: "To the extent that nonwhite minorities experience more suspensions than white students, after adjusting for their respective share of misbehavior, the additional suspension experienced by the nonwhite student is thus indicative of unequal treatment against them. The higher rate of suspension experienced by nonwhite minorities is therefore indicative of racial discrimination" (40). Interestingly, teacher perceptions of the cause[s] of racial disparity in school discipline are conspicuously devoid of racial bias explanations (see Gregory and Mosely 2004). It is clear that the driving forces behind racial disparities in school discipline are insufficiently known and warrant further research that continues to explore these issues.

While this study was able to examine discipline of students, accounting for differential student behavioral profiles, and school policies, the results must be interpreted with caution. First and foremost, the measure of student behavior was somewhat limited. The teacher ratings of student behavior do not tell us anything about the behavior of the student at the time of the office referral. It is possible that, for each office referral, the student punished did misbehave. While it would have been more advantageous to have had an independent rating of the student's behavior at the time of the office referral, there is no reason to believe that the teacher ratings do not represent at least a partially accurate view of the student's demeanor.

As well, often the same individual disciplining the student made the ratings of that student's behavior. Critics may argue that if school officials are punishing in an arbitrary manner (as the results suggest), their ratings of students may be arbitrary as well, making the major control variable biased. Yet, if teachers are biased in their ratings (meaning they are rating well-behaved minorities as poorly behaved), this makes the present findings even stronger, as that would make a discrepancy between discipline and behavior more difficult to find.

In sum, this study examined factors related to racial disparity in school disciplinary practices. The analyses attempted to account for both school effects and student behavior as explanations of discipline. Neither of these factors nor other alternative explanations (e.g., gender, socioeconomic status, grades, age, special education) accounted for disparities by race in office referrals. The results, while not entirely conclusive, therefore suggest that racial disparity in school discipline is in part driven by bias on the part of school officials. Future research should seek better measurements of behavior and pursue statistical methods that allow for a multilevel approach in order to

gain a clearer understanding of the processes underlying racial disparity in school discipline.

Appendix

TABLE A1

Externalizing Behavior Scale Items

	Label
Item 1	Defies teachers or other school personnel
Item 2	Argues or quarrels with others
Item 3	Teases or taunts others
Item 4	Takes others property without permission
Item 5	Is physically aggressive or fights with others
Item 6	Gossips or spreads rumors
Item 7	Is disruptive
Item 8	Breaks rules

NOTE.—All items are scored 0–3.

Notes

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1. Researchers in the educational setting have seemingly been less interested in why disparity exists and instead have focused on proving that it exists. The large number of studies showing disparity attests to this notion. However, studies that have examined behavior (e.g., McCarthy and Hoge,1987; McFadden et al.1992; Shaw and Braden 1990; Skiba et al. 2002; Wu et al.1982) have found that racial disparities in discipline exist after controlling for (relatively crude measures of) student behavior. This suggests that bias exists on the part of those punishing students.

2. All methods of missing data replacement have inherent deficiencies. For example, according to Allison (2001), the dummy variable method results in biased coefficient estimates. Linear interpolation methods rely on "nearby" cases, which may or may not be representative of the missing case. In general, each method (e.g., "hotdeck," maximum likelihood estimation methods, etc.) have known problems. For these reasons and because the missing data are not overwhelming on the behavioral scale, the missing cases were deleted in the main analyses.

3. It is important to note that the significance of the coefficients is perhaps not as

important as the odds ratios. The sample size is quite large, which means that associations are more likely to achieve "statistical significance."

References

Allison, Paul D. 2001. *Missing Data*. Quantitative Applications in the Social Sciences. Thousand Oaks, CA: Sage.

Allison, Paul D. 2006. "Fixed Effects Regression in SAS®." Paper presented at the thirty-first annual SAS Users Group International Conference (31), Philadelphia, April 10–13, http://www2.sas.com/proceedings/sugi31/184-31.pdf.

Anderson, Elijah. 1998. *The Code of the Streets: Decency, Violence, and the Moral Life of the Inner City*. New York: Norton.

Bickel, Frank, and Robert Qualls. 1980. "The Impact of School Climate on Suspension Rates in the Jefferson County Public Schools." *Urban Review* 12 (2): 79–86.

Boozer, Michael A., Alan B. Krueger, and Shari Wolkon. 1992. "Race and School Quality since Brown versus Board of Education." In *Brookings Papers on Economic Activity: Microeconomics, 1992*, ed. Clifford Winston and Martin N. Bailey. Washington, DC: Brookings Institution Press.

Bowditch, Christine. 1993. "Getting Rid of Troublemakers: High School Disciplinary Procedures and the Production of Dropouts." *Social Problems* 40 (4): 493–509.

Braithwaite, John. 1989. *Crime, Shame and Reintegration*. Cambridge: Cambridge University Press.

Bridges, George S., and Robert D. Crutchfield. 1988. "Law, Social Standing and Racial Disparities in Imprisonment." *Social Forces* 66 (3): 699–724.

Brown, Lionel H., and Kelvin S. Beckett. 2006. "The Role of the School District in Student Discipline: Building Consensus in Cincinnati." *Urban Review* 38 (3): 235–56.

Chambliss, William J. 1973. "The Saints and the Roughnecks." *Society* 11 (1): 24–31.

Children's Defense Fund. 1975. *School Suspensions: Are They Helping Children?* Cambridge, MA: Children's Defense Fund.

Cole, David. 1999. *No Equal Justice*. New York: Norton.

Costenbader, Virginia, and Samia Markson. 1998. "School Suspension: A Study with Secondary School Students." *Journal of School Psychology* 36 (1): 59–82.

Darling-Hammond, Linda. 1998. "Unequal Opportunity: Race and Education." *Brookings Review* 16:28–32.

Eberhardt, Jennifer L., Phillip A. Goff, Valerie J. Purdie, and Paul G. Davies. 2004. "Seeing Black: Race, Crime, and Visual Processing." *Journal of Personality and Social Psychology* 87 (6): 876–93.

Eitle, David, Stewart J. D'Alessio, and Lisa Stolzenberg. 2002. "Racial Threat and Social Control." *Social Forces* 81 (2): 557–76.

Fenning, Pamela, and Jennifer Rose. 2007. "Overrepresentation of African Americans in Exclusionary Discipline: The Role of School Policy." *Urban Education* 42 (6): 536–59.

Gottfredson, Denise C. 2001. *Delinquency Prevention in Schools*. New York: Cambridge University Press.

Gregory, Ann, and Pharmicia M. Mosely. 2004. "The Discipline Gap: Teachers' Views on the Overrepresentation of African American Students in the Discipline System." *Equity and Excellence in Education* 37 (1): 18–30.

Gregory, Ann, and Rhona S. Weinstein. 2008. "The Discipline Gap and African Americans: Defiance or Cooperation in the High School Classroom." *Journal of School Psychology* 46 (4): 455–75.

Harry, Beth, and Janet K. Klingner. 2006. *Why Are So Many Minority Students in Special Education? Understanding Race and Disability in Schools*. New York: Teachers College Press.

Heath, Shirley. 1983. *Ways with Words: Language, Life, and Work in Communities and Classrooms*. Cambridge: Cambridge University Press.

Henry, Kathy. 2007. "Race and Social Class," http://www.ezinearticles.com/?Race-and-Social-Classandid=446412.

Hindelang, Michael J., Travis Hirschi, and Joseph G. Weis. 1979. "Correlates of Delinquency: The Illusion of Discrepancy between Self-report and Official Measures." *American Sociological Review* 44 (6): 995–1014.

Hirschi, Travis. 1969. *Causes of Delinquency*. Berkeley: University of California Press.

Hirschi, Travis, and Michael Gottfredson. 1983. "Age and the Explanation of Crime." *American Journal of Sociology* 89 (3): 552–84.

Hunter, Jack. 2007. "Racial Imbalance in Discipline at Summerville High 'Ain't Misbehavin.'" *Charleston City Paper*, October 31.

Irvin, Larry K., Tary J. Tobin, Jeffrey R. Sprague, George Sugai, and Claudia G. Vincent. 2004. "Validity of Office Discipline Referral Measures as Indices of School-Wide Behavioral Status and Effects of School-Wide Behavioral Interventions." *Journal of Positive Behavior Interventions* 6 (3): 131–47.

Johnson, Tammy, Jennifer E. Boyden, and William J. Pittz. 2001. "Racial Profiling and Discipline in U.S. Public Schools: How Zero Tolerance Policies and High Stakes Testing Subvert Academic Excellence and Racial Equity." Evaluation report, Applied Research Center, Oakland, CA.

Joseph, Janice. 1996. "School Factors and Delinquency: A Study of African American Youths." *Journal of Black Studies* 26 (3): 340–55.

Keleher, Terry. 2000. *Racial Disparities Related to School Zero Tolerance Policies*. Testimony to the U.S. Commission on Civil Rights, February 18.

Kempf-Leonard, Kimberly. 2007. "Minority Youths and Juvenile Justice: Disproportionate Minority Contact after Nearly 20 Years of Reform Efforts." *Youth Violence and Juvenile Justice* 5 (1): 71–87.

Kinsler, Joseph. 2006. "Racial Disparities in School Discipline: Racism or Rational Choice?" Unpublished manuscript, Department of Economics, University of Rochester.

Laub, John H., and Robert J. Sampson. 1988. "Unraveling Families and Delinquency: A Reanalysis of the Gluecks' Data." *Criminology* 26 (3): 355–80.

Lietz, Jeremy J., and Mark K. Gregory. 1978. "Pupil Race and Sex Determinants of Office and Exceptional Education Referrals." *Educational Research Quarterly* 3 (2): 610–66.

Lipsey, Mark W., and James H. Derzon. 1998. "Predictors of Violent or Serious Delinquency in Adolescence and Early Adulthood: A Synthesis of Longitudinal Research." In *Serious and Violent Juvenile Offenders: Risk Factors and Successful Interventions*, ed. Rolf Loeber and David Farrington. Thousand Oaks, CA: Sage.

Massachusetts Advocacy Center. 1986. *The Way Out: Student Exclusion Practices in Boston Middle Schools*. Boston: Massachusetts Advocacy Center.

McCarthy, John D., and Dean R. Hoge. 1987. "The Social Construction of School Discipline: Racial Disadvantage out of Universalistic Process." *Social Forces* 65 (4): 1101–20.

McFadden, Anna C., George E. Marsh, Barry J. Price, and Yunhan Hwang. 1992. "A Study of Race and Gender Bias in the Discipline of Handicapped School Children." *Urban Review* 24 (4): 239–51.

McKnight, Patrick E., Katherine M. McKnight, Souraya Sidani, and Aurelio J. Figueredo. 2007. *Missing Data: A Gentle Introduction*. New York: Guilford.

Mendez, Linda M. R., Howard M. Knoff, and John M. Ferron. 2002. "School Demographic Variables and Out-of-School Suspension Rates: A Quantitative and Qualitative Analysis of a Large, Ethnically Diverse School District." *Psychology in the Schools* 39 (3): 259–77.

Monroe, Carla R. 2005. "Why Are 'Bad Boys' Always Black? Causes of Disproportionality in School Discipline and Recommendations for Change." *Clearing House* 79 (1): 45–50.

Murdock, Tamera B., Lynley H. Anderman, and Sheryl A. Hodge. 2000. "Middle-Grade Predictors of Students' Motivation and Behavior in High School." *Journal of Adolescent Research* 15 (3): 327.

Murray, Charles, and Richard J. Herrnstein. 1994. *The Bell Curve: Intelligence and Class Structure in American Life*. New York: Free Press.

Nichols, Joe D., William G. Ludwin, and Peter Iadicola. 1999. "A Darker Shade of Gray: A Year-End Analysis of Discipline and Suspension Data." *Equity and Excellence in Education* 32 (1): 43–55.

Ogbu, John U. 1987. "Variability in Minority School Performance: A Problem in Search of an Explanation." *Anthropology and Education Quarterly* 18 (4): 312–34.

Paternoster, Raymond, and Leeann Iovanni. 1989. "The Labeling Perspective and Delinquency: An Elaboration of the Theory and an Assessment of the Evidence." *Justice Quarterly* 6 (3): 359–94.

Rausch, M. Karega, and Russell Skiba. 2004. "The Academic Cost of Discipline: The Relationship between Suspension/Expulsion and School Achievement." Center for Evaluation and Education Policy, School of Education, Indiana University, http://www.agi.harvard.edu/Search/SearchAllPapers.php.

Reschly, Daniel J. 1997. "Disproportionate Minority Representation in General and Special Education: Patterns, Issues, and Alternatives." Report, Bureau of Special Education, Iowa Department of Education, October. (ERIC Document Reproduction Service no. ED 415632).

Rocque, Michael. 2008. "Strain, Coping Mechanisms, and Slavery: A General Strain Theory Application." *Crime, Law, and Social Change* 49 (4): 245–69.

Sampson, Robert J., and Janet L. Lauritsen. 1997. "Racial and Ethnic Disparities in Crime and Criminal Justice in the United States." *Crime and Justice* 21:311–74.

Schrantz, Dennis, and Jerry McElroy. 2000. *Reducing Racial Disparity in the Criminal Justice System: A Manual for Practitioners and Policy Makers*. Washington, DC: Sentencing Project.

Shaw, Clifford, and Henry McKay. 1972. *Delinquency and Urban Areas*. Chicago: University of Chicago Press.

Shaw, Steven R., and Jeffrey B. Braden. 1990. "Race and Gender Bias in the Administration of Corporal Discipline." *School Psychology Review* 19 (3): 278–83.

Skiba, Russell, Robert S. Michael, Abra C. Nardo, and Reece L. Peterson. 2000. "The Color of Discipline: Sources of Racial and Gender Disproportionality in School Discipline." Policy Research Report no. SRS1, Indiana Education Policy Center, Bloomington, IN.

Skiba, Russell J., Robert S. Michael, Abra C. Nardo, and Reece L. Peterson. 2002. "The Color of Discipline: Sources of Racial and Gender Disproportionality in School Discipline." *Urban Review* 34 (4): 317–42.

Skiba, Russell, and Reece Peterson. 2000. "School Discipline at a Crossroads: From Zero Tolerance to Early Response." *Exceptional Children* 66 (3): 335–96.

Skiba, Russell J., Reece L. Peterson, and Tara Williams. 1997. "Office Referrals and Suspension: Disciplinary Intervention in Middle Schools." *Education and Treatment of Children* 20 (3): 295–315.

Skiba, Russell, and Karega M. Rausch. 2004. "The Relationship between Achievement,

Discipline, and Race: An Analysis of Factors Predicting ISTEP Scores." Children Left Behind Policy Briefs, Supplementary Analysis 2-D, Center for Evaluation and Education Policy, Indiana University.

Skiba, Russell J., Ada Simmons, Shana Ritter, Kristin Kohler, Michelle Henderson, and Tony Wu. 2006. "The Context of Minority Disproportionality: Practitioner Perspectives on Special Education Referral." *Teachers College Record* 108 (7): 1424–59.

Tannenbaum, Frank. 1938. *Crime and the Community*. New York: Columbia University Press.

Taylor, Maurice C., and Gerald A. Foster. 1986. "Bad Boys and School Suspensions: Public Policy Implications for Black Males." *Sociological Inquiry* 56 (4): 498–506.

Thornton, Clarence, and William Trent. 1988. "School Desegregation and Suspension in East Baton Rouge Parish: A Preliminary Report." *Journal of Negro Education* 57 (4): 482–501.

Townsend, Brenda L. 2000. "The Disproportionate Discipline of African American Learners: Reducing School Suspensions and Expulsions." *Exceptional Children* 66 (3): 381–91.

Wacquant, Loic. 2000. "The New 'Peculiar Institution': On the Prison as Surrogate Ghetto." *Theoretical Criminology* 4 (3): 377–89.

Wald, Johanna, and Daniel Losen. 2003. "Defining and Redirecting a School-to-Prison Pipeline." *New Directions in Youth Development* 99 (Fall): 9–15.

Warr, Mark. 2002. *Companions in Crime: The Social Aspects of Criminal Conduct*. Cambridge: Cambridge University Press.

Wilson, James Q., and Richard J. Herrnstein. 1985. *Crime and Human Nature*. New York: Oxford.

Wu, Shi-Chang, William Pink, Robert C. Crain, and Oliver Moles. 1982. "Student Suspension: A Critical Reappraisal." *Urban Review* 14 (4): 245–303.