Exclusionary School Punishment: The Effect of Racial Threat on Expulsion and Suspension

Kelly Welch\textsuperscript{1} and Allison Ann Payne\textsuperscript{1}

Abstract
Schools today frequently resort to punishments that exclude students from the classroom, such as expulsion, suspension, and in-school suspension, much like the criminal justice system excludes criminals from greater society. Although prior research testing the racial threat hypothesis has found that racial composition is associated with the use of more punitive criminal punishment and harsher student discipline, no threat research to date has assessed the possibility that school-level racial composition affects the likelihood that specific exclusionary student punishments will be implemented. Using a national random sample of schools, this study is the first to test and support the racial threat perspective in relation to the use of expulsion and suspension, finding that zero tolerance policies often contribute to this effect.

Keywords
exclusionary punishment, racial threat, school discipline, social control

The expansion of student punishment in schools over the last couple of decades is now well documented (Beger, 2002; Kupchik, 2009; Wallace, Goodkind, Wallace, & Bachman, 2008) and is a somewhat surprising phenomenon, considering that rates of student delinquency and student victimization have steadily decreased during this time (Centers for Disease Control, 2004; DeVoe, Peter, Noonan, Snyder, & Baum, 2005; Dinkes, Cataldi, & Lin-Kelly, 2009). It has been widely argued that one reason for this punitive trend in school policy is that American schools are increasingly responding to student violations with a crime control approach (Simon, 2007). Specifically, schools are not only becoming more like prisons (Ferguson, 2000; Fine, Burns, Payne, & Torre, 2004; Parenti, 2000; Watts & Erevelles, 2004), but they are also using exclusionary punishments, such as expulsion, suspension, and in-school suspension (Fabelo et al., 2011; Skiba, 2000) to banish students, much in the same way that broader society banishes criminals by incarcerating them (Fine et al., 2004; Giroux, 2003; Noguera, 2008).

\textsuperscript{1}Department of Sociology and Criminal Justice, Villanova University, Villanova, PA, USA

Corresponding Author:
Kelly Welch, Department of Sociology and Criminal Justice, Villanova University, 274 Saint Augustine Center, 800 Lancaster Avenue, Villanova, PA 19085, USA
Email: kelly.welch@villanova.edu
These forms of exclusionary discipline have been used with increasing frequency for the past couple of decades (Cameron, 2006; Fabelo et al., 2011; Wallace et al., 2008), the results of which have been particularly consequential for the students subjected to them. Research shows that exclusionary punishments are associated with various negative academic outcomes, including school failure, grade retention, negativity toward school, and a greater likelihood of dropping out (Fabelo et al., 2011; Nichols, 2004; Schiraldi & Zeidenberg, 2001). Further, exclusionary forms of discipline actually increase the probability that the students receiving these punishments will commit delinquent acts at school, such as participate in physical fights, carry weapons, smoke, and use alcohol and other drugs (Schiraldi & Zeidenberg, 2001), as well as engage in delinquency within the greater community (Foney & Cunningham, 2002; Nichols, 2004). Thus, involvement in the juvenile and criminal justice systems is expected to increase for these individuals (Fabelo et al., 2011), thereby resulting in “future difficulties with employment prospects and other life opportunities” (Kupchik, 2009, p. 311).

For these reasons, it is crucial that we understand what leads to the sanctioning of expulsion and both in- and out-of-school suspensions so that the expanding use of these punishments may eventually be stymied by school officials and policy makers. Prior research has mainly focused on how individual-level student behaviors and characteristics are associated with exclusionary punishment, while only a limited amount has examined the potential impact of school-level influences. This study aims to fill this gap by being the first to assess whether the three commonly used forms of exclusionary discipline are predicted in part by the racial composition of schools, as hypothesized by the racial threat perspective.

Explanations for Harsh School Punishment

It could be presumed that the growing use of expulsion, suspension, and in-school suspension is a reaction by schools to an upsurge in more incidents of high severity. However, the use of more punitive discipline has not been associated with significant increases in either serious or minor forms of school delinquency (Kupchik & Monahan, 2006; Schiraldi & Zeidenberg, 2001). So, while exclusionary punishments seem to be reserved for more serious forms of delinquency, it is doubtful that it is only students who are the most troublesome that are being punished with the harshest forms of discipline (Morrison & D’Incau, 1997). Studies have shown that the use of exclusionary punishments is often arbitrary, being assigned for both serious and more trivial violations (Fabelo, 2011; Skiba, 2000; Wu, Pink, Crain, & Moles, 1982), and frequently results from different standards among teachers for noticing and addressing student misbehaviors (Ferguson, 2000). Furthermore, school characteristics appear to influence the rate at which these exclusionary punishments are assigned once they are brought to the attention of the administration (Massachusetts Advocacy Center, 1986).

Some argue that the greater use of exclusionary punishments is attributable to the implementation of zero tolerance policies (Kupchik, 2009; Noguera, 2008; Schiraldi & Ziedenberg, 2001; Wallace et al., 2008). Whereas certain components of these policies are federally mandated, such as required expulsion for possession of a firearm per the 1994 Gun-Free Schools Act, other details of these policies are developed by individual schools. These locally generated policies typically require the automatic expulsion or suspension of students who are found in possession of various additional contraband, such as tobacco, alcohol, drugs, and knives, or for committing other offenses. Although this explanation is reasonable, research shows that a considerable amount of individual-level discretion is employed in determining which student behaviors are actually addressed by zero tolerance (Vavrus & Cole, 2002) and other disciplinary policies (Ferguson, 2000). That is, more expulsions and suspensions are not necessarily an accurate reflection of more violations that demand mandatory punishments because their use involves the discretion of school officials and teachers in acknowledging student misbehaviors (Fabelo et al., 2011).
Studies have only examined the role that a handful of school-level characteristics have had on the frequency with which exclusionary punishments are used. Schools located in urban areas are more likely to suspend or expel students in response to misbehavior (DeVoe et al., 2005; Gottfredson et al., 2000; Kupchik & Monahan, 2006; Wu et al., 1982). In addition, the leadership style demonstrated by principals—a factor that influences overall school effectiveness (Gottfredson et al., 2000)—is related to the type and quality of school discipline policies (Di Lullo, 2004; Lasley & Wayson, 1982). Conversely, poor school governance has been associated with greater use of exclusionary punishments (Wu et al., 1982). Research shows that discipline training for teachers and administrators is also related to the quality of a school’s disciplinary response, such that more training is associated with greater use of discipline (Gottfredson et al., 2000; Wu et al., 1982). However, it seems that exclusionary punishments have been more frequently used in schools in which teachers actually feel less equipped to deal with student misbehavior (Wu et al., 1982), suggesting that discipline training may not lead to teachers feeling more confident about their ability to control their classrooms.

In addition, certain traits of individual students—other than participation in delinquent activities that violate school policies—are associated with greater use of expulsion and suspension. Among these influential characteristics is student race. Minority students are expelled (Gottfredson & Gottfredson, 2001; Gregory & Weinstein, 2008; Meier, Stewart, & England, 1989), and suspended, both inside and outside of school (APA Zero Tolerance Task Force, 2006; Brooks, Schiraldi, & Ziedenberg, 1999; Gregory & Weinstein, 2008; Nichols, 2004; Raffaele Mendez, Knoff, & Ferron, 2002; Vavrus & Cole, 2002), more often than White students. Additionally, Black students receive exclusionary punishments as a result of zero tolerance policies more often than White students (Beger, 2002; Ferguson, 2000; Schiraldi & Zeidenberg, 2001; Vavrus & Cole, 2002).

One would expect that greater involvement of Black students in delinquency could explain this well-documented relationship between student race and school discipline, however there is much evidence to the contrary that clearly demonstrates Black students do not misbehave at a higher rate than other students (McCarthy & Hoge, 1987; Shaw & Braden, 1990; Skiba, Michael, Michael, Nardo, & Peterson, 2002; Wallace et al., 2008). Notably, research has identified a number of factors unrelated to either delinquency or the student characteristics described above that may have an impact on racial disparities in expulsion and suspension. Possible reasons that Black students more often receive the harshest school punishments include teacher and administrator racial bias or discrimination (Brown & Beckett, 2006; Ferguson, 2000; Giroux, 2003; Watts & Erevelles, 2004), fear of crime and criminal victimization (Kupchik & Monahan, 2006; Noguera, 2003), perceptions that Blacks are disproportionately involved in violence (Brown & Beckett, 2006; Ferguson, 2000; Morrow & Torres, 1995; Nichols, 2004; Noguera, 2003), and the “adultification” of Black youth, which suggests that normal youthful acting-out can be misunderstood as viciousness that must be controlled (Ferguson, 2000). Yet, prominent school discipline researcher, Russell Skiba, recently commented “We don’t really know enough about the reasons for African-American... over-representation in school discipline” (Schwarz, 2011).

Racial Threat and Social Control

Recent research has also shown that macro-level racial threat is related to the use of various types of student punishment at the school level (Payne & Welch, 2010; Welch & Payne, 2010). Racial threat is different from individual student race that has predicted school punitiveness in prior research. The racial threat perspective is derived from the power threat and social threat hypotheses, which posit that punitive social controls will expand in response to a larger proportion of minorities—particularly Blacks—relative to Whites because of the presumed economic and political competition they would present to the White majority (Blalock, 1967; Blumer, 1958), as well as the presumed
criminal threat they pose (Liska, 1992). More recently, as a consequence of the close association made by much of the public between Blacks and crime, this phenomenon has been referenced as racial threat (Crawford, Chiricos, & Kleck, 1998).

Because crime and punishment are so closely linked with race, tests of a racial threat effect are predominantly examined in criminal justice contexts (Demuth & Steffensmeier, 2004; Keen & Jacobs, 2009). These assessments typically employ measures of racial composition of place to establish aggregated race-related differences in punitive criminal justice policies and practices (Behrens, Uggen, & Manza, 2003; Demuth & Steffensmeier, 2004; Jacobs & Kleban, 2003; Smith & Holmes, 2003). Studies corroborating this effect have found that places with relatively more Blacks have higher arrest rates (Mosher, 2001), incarcerate a greater proportion of law violators (Jacobs & Carmichael, 2001), and execute more murderers (Tolnay, Beck, & Massey, 1992), among various additional harsh criminal justice responses. Some research has also assessed threat with perceptual measures that are hypothesized to mediate the relationship between racial composition and social control. These studies have found that the proportion of crime that is perceived to be committed by Blacks (Chiricos, Welch, & Gertz, 2004) and the perception that Blacks are violence-prone (Barkan & Cohn, 2005) are consequential for the degree to which the public supports punitive crime policies. Further, race-related stereotypes of drug criminals (Steen, Engen, & Gainey, 2005) are also associated with greater punitiveness. Thus, there is relatively strong support for the racial threat explanation for punitive control even when alternative measures are used.

While the effects of racial threat have traditionally used a criminal justice framework (Chiricos et al., 2004; Demuth & Steffensmeier, 2004; Keen & Jacobs, 2009), it seems that the implicit connection between race and crime potentially made by teachers, administrators, and policy makers at the local level generally result in harsher punishments being sanctioned in schools with more Black students in order to control what may be perceived as a growing threat to safety (Welch & Payne, 2010). The limited research on racial threat’s effects in schools has found that racial composition of schools’ students does, indeed, influence the broad types of disciplinary policies implemented. Specifically, schools with a greater proportion of Black students favor more punitive approaches, more often implement zero tolerance policies, and less often apply restorative responses for student misbehavior (Welch & Payne, 2010), although even schools with proportionally more White students have also become more punitive over time (Kupchik, 2009). Student racial composition also tends to influence how certain types of school discipline affect the use of other forms of discipline (Payne & Welch, 2010). What has not been shown, however, is how school-based racial threat may affect the use of specific school punishments, particularly the forms that exclude students from their academic environments and are the most consequential for future involvement in crime and the criminal justice system.

**The Present Research**

Because of the numerous negative outcomes of expulsion, suspension, and in-school suspension for students reviewed earlier, it is important to explore whether the use of these particular school punishments are related to racial threat. It should not be assumed that the findings of prior school-based racial threat studies would apply in the context of these individual exclusionary punishments. To examine these possible relationships, a national sample of schools will gauge whether racial composition of students contributes to the recent increase in the use of exclusionary punishments. Specifically, we will test the following hypotheses: (1) The proportion of Black students in schools is positively related to the use of expulsion, (2) the use of suspension, and (3) the use of in-school suspension in those schools. As noted, it is possible that many uses of exclusionary student punishments are the direct result of zero tolerance policies that mandate suspension or expulsion. Therefore, we also assess whether schools’ use of exclusionary punishment resulting from specific types of zero
tolerance policies is influenced by racial threat in the following hypotheses: (4) the proportion of Black students in schools is positively related to the use of mandatory exclusionary punishments for possession of tobacco, (5) alcohol, (6) drugs, (7) knives, and (8) guns in those schools. This analysis goes beyond previous studies on the broad effects of racial threat in schools by examining the influence of racial composition on the use of the three specific disciplinary sanctions that research has shown are so uniquely detrimental to student academic success and predictive of later involvement in criminal justice.

Method

Data

The National Study of Delinquency Prevention in Schools (Gottfredson et al., 2000) is the source for our study’s data. A probability sample of 1,287 public, private, and Catholic schools was selected; 848 schools (66.3%) responded to the 1997 Phase One Principal Questionnaire and 635 schools (74.9% of the 848) responded to the 1998 Phase Two Principal Questionnaire (which asked different questions from those asked in the first survey). Student and Teacher Questionnaires were also administered in 1998, although only in the secondary schools; 310 schools (55.6% of the 558 secondary schools involved in Phase 2) participated in the student survey and 403 schools (72.2%) participated in the teacher survey. Correlations show that schools located in small towns or rural areas were significantly more likely to have participated while those located in communities with more female-headed households with children, a greater proportion of urban population, and more households receiving public assistance were less likely to have participated.

We exclude certain categories of schools from our analyses. Private and religious schools are not included in our sample for two reasons. First, disciplinary policies and norms in public schools vary widely from these schools, thus assessing private and religious schools would require separate analyses. In addition, previous discipline research focuses almost exclusively on public schools (Kupchik & Monahan, 2006); thus our study fits better within established theoretical frameworks. Alternative schools for disruptive youth include a large number of outliers on several of our study’s variables of interest and therefore are also excluded. Finally, because the student and teacher surveys were only administered in middle and high schools, we only examine these secondary schools. Therefore, our final sample includes 294 public, nonalternative middle and high schools.

Listwise deletion was used to account for missing data in analyses, which resulted in 221 schools used in the final models. Because this represents a loss of 25% of the sample, the models were rerun in exploratory analyses without the percent free/reduced lunch variable that accounted for so much of the missing data; these models had a sample of 243 schools. Similar results were seen, such that variables significant in the final set of models were significant in the exploratory models, and the strength and direction of the significant coefficients were comparable. We address the implications of the low response rates, nonrandom attrition, and missing data in the Discussion section.

Measures

Items and scales composed from the principal, teacher, and student questionnaires are described below and descriptive statistics are provided in Table 1.

Exclusionary punishments. We operationalize three forms of exclusionary discipline with individual questions from the Phase 2 Principal Questionnaire regarding expulsion (exclusion of students for over 30 days), suspension (exclusion of students for 30 days or less), and in-school suspension (brief exclusion of students from attendance in regular classes). Each question asks whether school administrators use the exclusionary discipline response to student misconduct. The questions began with
the following introduction: “Different schools make use of different responses to student misconduct. Following is a list of possible responses to student misconduct school administrators might use. Please indicate if your school uses these responses.” Possible answers to the questions are “not used,” “used,” and “used often.” After an examination of the frequency distributions, these variables were collapsed into binary measures (Bernard, 2000). The variable expulsion was measured as used (=1) (which includes the responses “used often” and “used”) or not used (=0). Suspension and in-school suspension were each measured as used often (=1) or not used often (=0) (which includes the responses “used” and “not used”). In addition, we operationalize the use of automatic expulsion or suspension that derive from five types of zero tolerance policies. These questions also come from the Phase 2 Principal Questionnaire and ask whether schools use this automatic response to possession of tobacco, alcohol, other drugs, a knife, and a gun. Possible responses to these questions were “not usually used, usually used,” and “automatic”. Again, after an examination of the frequency distributions, these variables were collapsed into binary measures with the possible responses “automatic” (=1) or “not automatic” (=0), which includes the responses “not usually used” and “usually used” (Bernard, 2000). Because the eight final dependent variables are binary and range from zero to one, the mean shown in Table 1 represents the proportion of schools that report using that particular disciplinary response. The limitation of using self-report measures to represent the dependent variables is reviewed in the Discussion section.

**Racial threat.** We operationalize racial threat by the percentage of Black students in each school (percent black students). This variable is taken from the Common Core of Data, a program of the U.S. Department of Education’s National Center for Education Statistics that collects data on public education (Gottfredson et al., 2000). Our use of this measure to operationalize racial threat accords

### Table 1. Descriptive Statistics for Study Variables

<table>
<thead>
<tr>
<th>Measure</th>
<th>M</th>
<th>SD</th>
<th>Range</th>
<th>α</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Exclusionary punishment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expulsion</td>
<td>0.83</td>
<td>0.38</td>
<td>0.00–1.00</td>
<td>—</td>
<td>260</td>
</tr>
<tr>
<td>Suspension</td>
<td>0.26</td>
<td>0.44</td>
<td>0.00–1.00</td>
<td>—</td>
<td>262</td>
</tr>
<tr>
<td>In-school suspension</td>
<td>0.46</td>
<td>0.50</td>
<td>0.00–1.00</td>
<td>—</td>
<td>261</td>
</tr>
<tr>
<td><strong>Zero tolerance</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tobacco</td>
<td>0.40</td>
<td>0.49</td>
<td>0.00–1.00</td>
<td>—</td>
<td>260</td>
</tr>
<tr>
<td>Alcohol</td>
<td>0.73</td>
<td>0.44</td>
<td>0.00–1.00</td>
<td>—</td>
<td>260</td>
</tr>
<tr>
<td>Other drugs</td>
<td>0.78</td>
<td>0.41</td>
<td>0.00–1.00</td>
<td>—</td>
<td>258</td>
</tr>
<tr>
<td>Knife</td>
<td>0.68</td>
<td>0.47</td>
<td>0.00–1.00</td>
<td>—</td>
<td>258</td>
</tr>
<tr>
<td>Gun</td>
<td>0.83</td>
<td>0.37</td>
<td>0.00–1.00</td>
<td>—</td>
<td>259</td>
</tr>
<tr>
<td><strong>Racial threat</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent Black students</td>
<td>13.52</td>
<td>22.45</td>
<td>0.00–99.69</td>
<td>—</td>
<td>294</td>
</tr>
<tr>
<td><strong>Control variables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent students free/reduced lunch</td>
<td>33.26</td>
<td>26.08</td>
<td>0.00–100.00</td>
<td>—</td>
<td>222</td>
</tr>
<tr>
<td>Percent Hispanic students</td>
<td>10.29</td>
<td>18.73</td>
<td>0.00–98.11</td>
<td>—</td>
<td>263</td>
</tr>
<tr>
<td>Percent male students</td>
<td>39.11</td>
<td>7.08</td>
<td>25.00–96.80</td>
<td>—</td>
<td>243</td>
</tr>
<tr>
<td>Principal supervision</td>
<td>3.15</td>
<td>0.37</td>
<td>2.11–4.00</td>
<td>.91</td>
<td>285</td>
</tr>
<tr>
<td>Perceptions of administration</td>
<td>0.93</td>
<td>0.16</td>
<td>0.47–1.25</td>
<td>.84</td>
<td>287</td>
</tr>
<tr>
<td>Discipline training</td>
<td>1.63</td>
<td>0.35</td>
<td>1.00–2.00</td>
<td>.90</td>
<td>238</td>
</tr>
<tr>
<td>Student delinquency and drug use</td>
<td>0.00</td>
<td>1.00</td>
<td>−1.84–7.24</td>
<td>.86</td>
<td>243</td>
</tr>
<tr>
<td>Perceived school risk</td>
<td>0.85</td>
<td>0.36</td>
<td>0.00–4.00</td>
<td>.94</td>
<td>287</td>
</tr>
<tr>
<td>Teacher victimization</td>
<td>0.16</td>
<td>0.07</td>
<td>0.00–1.00</td>
<td>.61</td>
<td>287</td>
</tr>
<tr>
<td>Poverty and disorganization</td>
<td>−0.15</td>
<td>0.65</td>
<td>−1.20–3.00</td>
<td>—</td>
<td>281</td>
</tr>
<tr>
<td>Urbanicity</td>
<td>−0.20</td>
<td>0.95</td>
<td>−2.32–2.39</td>
<td>—</td>
<td>281</td>
</tr>
</tbody>
</table>
with previous aggregate-level research on racial threat that uses a range of objective measures of the racial composition of place, including minority composition of schools (Welch & Payne, 2010), as well as communities (Smith & Holmes, 2003), cities (Mosher, 2001), counties (Demuth & Steffensmeier, 2004), states (Behrens et al., 2003), and nations (Jacobs & Kleban, 2003). Results show that, in this study, Black students comprise 13.52% of an average school’s student body.

Other predictors of exclusionary school punishment. Certain predictors of student punishment or school discipline management are suggested by previous research, thus we include measures of these concepts in our models to control for potential effects on exclusionary discipline. One such factor is student socioeconomic status, represented here by the percentage of students receiving free or reduced-price lunches (percent students free/reduced lunch), a Phase 1 Principal Questionnaire item that is predicted to be positively related to the use of exclusionary punishment. Percent Hispanic students, aggregated from responses to the Student Questionnaire, is also included, as previous studies have shown that the relative size of the Hispanic population increases the severity of criminal justice practices (Eitle & Taylor, 2008; Holmes, Hosch, Daudistel, Perez, & Graves, 1996; Jacobs & Carmichael, 2002). In addition, we include the percentage of male students in schools (percent male students) because of its potential to increase the use of exclusionary school discipline, which is similarly aggregated from responses to the Student Questionnaire.

We also include two measures of effective principal leadership. Principal supervision is a scale from the Phase 1 Principal Questionnaire in which principals were asked their emphasis on a variety of work activities. Items about presence and visibility, consideration, planning, and supervision and feedback were included and possible responses were “top,” “high,” “some,” and “little.” The mean of the principal’s responses to each item forms a school’s score. Perceptions of administration is the second measure, a scale from the Teacher Questionnaire that includes true/false items measuring teachers’ perceptions of principal leadership, such as “the administration is supportive of teachers” and “teachers feel free to communicate with the principal.” A school’s score is the mean across teachers of the proportion of items endorsed. Both variables are predicted to be negatively related to punitiveness.

A measure of discipline training is also included because of its expected positive relationship with school punishments and is operationalized by a scale from the Phase 2 Principal Questionnaire (discipline training). This scale assesses the quality and quantity of the training received by school personnel in its disciplinary procedures and includes questions like “how much initial in-service training in school discipline procedures was completed?” as well as various yes/no statement items, including “participants practiced applying the principles.” To obtain a school’s score on this scale, all nonbinary items were collapsed and then all items were averaged to form a proportion of items endorsed.

Because crime salience has been found to increase punitiveness (Costelloe, Chiricos, & Gertz, 2009), we controlled for its influence with a few different measures. The effects of student crime and delinquency are controlled with the inclusion of a scale, student delinquency and drug use, taken from the Student Questionnaire. This scale asks about a variety of crimes committed by the student and a variety of different drugs used by the student during the 12 months prior to the survey; possible responses were “yes” and “no.” A school’s score on this scale is the mean across respondents of the proportion of items endorsed. We also included two measures of crime salience, as previous research has supported this in the prediction of punitive school discipline. Perceived school risk is a scale taken from the Teacher Questionnaire that asks teachers how safe they feel in various places in the school, with the possible responses of “very unsafe,” “fairly unsafe,” “average,” “fairly safe,” and “very safe.” The scale is coded so that higher values indicate higher levels of perceived risk and a school’s score is the mean across teachers of their responses to each item. Teacher victimization is also a scale from the Teacher Questionnaire and measured the type and amount of victimization.
experienced by teachers during the 12 months prior to the survey. A school’s score on this scale is the mean across respondents of the proportion of binary items to which teachers responded “yes.” Each of these variables is expected to be positively associated with school discipline.

Finally, we measure characteristics of the surrounding community using 1990 Census data and school districting information (Brantlinger, 1991; DeVoe et al., 2005; Simonsen, 1998). Specifically, we control for the poverty, disorganization, and urbanicity of the census tract in which each school is located, based on varimax-rotated factor analyses conducted by Simonsen (1998). Poverty and disorganization is a factor scale including median income (proportion of households with income below $27,499), poverty (ratio of persons below the 1.24 poverty level to persons above), welfare (average household public assistance income), divorce rate (ratio of persons over 15 years who are married to those who are separated, divorced, or have a spouse absent), unemployment (proportion of unemployed males/females in the labor force), and female-headed households (ratio of single females with children under 18 to married couples with children under 18). Urbanicity is also a factor score and includes urban level (city-level type), urbanicity (the proportion of people living within an urban area), and population size (total population).

Analytic Strategy

The distributional characteristics of these measures were examined first. Urbanicity and poverty/disorganization were both trimmed to address three extreme outliers and resulting skewness. Due to the dichotomous nature of the dependent variables, three binary logistic regression models were estimated to test our first three hypotheses. For these models, each of the binary exclusionary discipline outcomes was regressed on percent black students and all control variables. Our next five hypotheses were then tested by estimating five additional logistic regression models; in these models, each of the binary zero tolerance outcomes was regressed on percent black students and all control variables. In all models, the Hosmer and Lemeshow’s $\chi^2$ test was used to examine the overall fit of the model; well-fitting models result in nonsignificant $\chi^2$, displaying that the predicted model does not differ significantly from the observed values. Additionally, the Wald $\chi^2$ test was used to determine the significance of individual parameter estimates. For all equations, tolerance values are greater than 0.1 and variance inflation factors (VIFs) are lower than 10, thus indicating that multicollinearity is not an apparent problem (Freund & Littell, 2000). Tests also indicate that there is no problem of heteroscedasticity. Because we predict a positive relationship in each of our eight hypotheses, one-tailed tests are used to determine statistical significance (Henkel, 1976; Mohr, 1990).

Results

The results of the binary logistic regression estimates for the three exclusionary discipline outcomes can be seen in Table 2. As predicted in Hypothesis 1, percent black students is significantly and positively related to expulsion ($b = .04, p < .05$), illustrating that for each 1% increase in the percentage of Black students, the log odds of a school expelling students as a response to misbehavior increases by .04. Examining the odds ratio of this parameter estimate shows that for each 1% increase in the percentage of Black students, the odds of a school using expulsion (vs. not using expulsion) increases by a factor of 1.04. Other significant predictors of expulsion are percent students receiving free/reduced lunch and percent Hispanic students, both of which increase the odds of a school using expulsion by a factor of 1.03. Also notable in this model is the lack of statistical significance of the student delinquency and drug use variable. The Hosmer and Lemeshow’s test suggests that the model provides a good fit to the data.

Table 2 also shows support for our second hypothesis: percent black students is also significantly and positively related to suspension ($b = .03, p < .05$), and the odds ratio of this parameter estimate
shows that this variable increases the odds of a school using suspension often in response to misbehavior (vs. not using suspension often) by a factor of 1.03. The only other significant predictor of suspension is principal supervision, such that more emphasis by principals on various forms of supervision is related to increased odds of a school using suspension often. As with expulsion, student delinquency, and drug use is nonsignificant and the Hosmer and Lemeshow’s test suggests that the model provides a good fit to the data.

Finally, as predicted in Hypothesis 3, percent black students is significantly and positively related to in-school suspension \( (b = .03, p < .05) \), and the odds ratio of this parameter estimate shows that the percentage of Black students increases the odds of a school using in-school suspension often in response to misbehavior (vs. not using in-school suspension often) by a factor of 1.03. The only other significant predictor of in-school suspension is perceptions of administration, such that more positive teacher views of the administration is related to a decreased odds of a school often excluding students from classes. Again, student delinquency and drug use is nonsignificant and the Hosmer and Lemeshow’s test suggests that the model provides a good fit to the data.

Next, we estimated a series of binary logistic equations to examine the influence of percent black students on each zero tolerance outcome. As shown in Table 3, this measure of racial composition had a statistically significant effect on some zero tolerance outcomes. Possession of tobacco, alcohol, or a gun did not display a significant relationship with percent black students, suggesting that the racial makeup of a school does not influence the odds of the school automatically expelling or suspending students for these crimes. On the other hand, percent black students was significantly and positively related to the possession of other drugs \( (b = .04, p < .05) \) and possession of a knife \( (b = .03, p < .05) \), and the odd ratios show that a 1% increase in the percentage of Black students in a school increases the odds of a school responding to these situations with automatic expulsion or suspension (vs. not automatically expelling or suspending) by a factor of 1.04
Table 3. Binary Logistic Regression Results for Zero Tolerance Responses (Expulsion or Suspension for Possession of Contraband)

<table>
<thead>
<tr>
<th>Coefficients&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Tobacco&lt;sup&gt;b&lt;/sup&gt;</th>
<th>Alcohol&lt;sup&gt;b&lt;/sup&gt;</th>
<th>Other Drugs&lt;sup&gt;b&lt;/sup&gt;</th>
<th>Knife&lt;sup&gt;b&lt;/sup&gt;</th>
<th>Gun&lt;sup&gt;b&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>b</td>
<td>SE</td>
<td>Exp(b)</td>
<td>b</td>
<td>SE</td>
</tr>
<tr>
<td>Constant</td>
<td>3.69</td>
<td>3.55</td>
<td>39.83</td>
<td>-3.10</td>
<td>3.50</td>
</tr>
<tr>
<td>Percent Black students</td>
<td>.01</td>
<td>.01</td>
<td>1.01</td>
<td>.02</td>
<td>.01</td>
</tr>
<tr>
<td>Percent free/reduced Lunch</td>
<td>.01</td>
<td>.01</td>
<td>1.01</td>
<td>-.02*</td>
<td>.01</td>
</tr>
<tr>
<td>Percent Hispanic students</td>
<td>-.02</td>
<td>.02</td>
<td>.98</td>
<td>.01</td>
<td>.01</td>
</tr>
<tr>
<td>Percent male students</td>
<td>-.04</td>
<td>.03</td>
<td>.96</td>
<td>-.05*</td>
<td>.03</td>
</tr>
<tr>
<td>Principal supervision</td>
<td>-.61</td>
<td>.58</td>
<td>.55</td>
<td>.42</td>
<td>.60</td>
</tr>
<tr>
<td>Perceptions of administration</td>
<td>-1.86</td>
<td>1.54</td>
<td>.16</td>
<td>-.60</td>
<td>1.59</td>
</tr>
<tr>
<td>Discipline training</td>
<td>-.99*</td>
<td>.62</td>
<td>.37</td>
<td>-.13</td>
<td>.66</td>
</tr>
<tr>
<td>Student delinquency/drug use</td>
<td>-10.11*</td>
<td>5.01</td>
<td>.00</td>
<td>6.05</td>
<td>4.64</td>
</tr>
<tr>
<td>Perceived risk</td>
<td>-1.02</td>
<td>.89</td>
<td>.36</td>
<td>-1.86*</td>
<td>.93</td>
</tr>
<tr>
<td>Teacher victimization</td>
<td>4.53</td>
<td>4.70</td>
<td>92.39</td>
<td>5.37</td>
<td>4.56</td>
</tr>
<tr>
<td>Poverty/disorganization</td>
<td>-.15</td>
<td>.47</td>
<td>.86</td>
<td>.79</td>
<td>.56</td>
</tr>
<tr>
<td>Urbanicity</td>
<td>-.42*</td>
<td>.25</td>
<td>.66</td>
<td>.07</td>
<td>.25</td>
</tr>
</tbody>
</table>

Model summary

<table>
<thead>
<tr>
<th>Hosmer and Lemeshow χ²</th>
<th>df</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.66</td>
<td>8</td>
<td>.57</td>
</tr>
<tr>
<td>11.75</td>
<td>8</td>
<td>.16</td>
</tr>
<tr>
<td>12.49</td>
<td>8</td>
<td>.13</td>
</tr>
<tr>
<td>6.14</td>
<td>8</td>
<td>.63</td>
</tr>
<tr>
<td>8.04</td>
<td>8</td>
<td>.43</td>
</tr>
</tbody>
</table>

<sup>a</sup>One-tailed tests. <sup>b</sup>Dependent variable; reference category for all dependent variables is not automatic (=0).

*p < .05.
and 1.03, respectively. As with the previous models, the Hosmer and Lemeshow’s tests suggest that these models provide a good fit to the data.

**Discussion**

In this study, we tested whether racial threat contributes to the likelihood of schools using exclusionary school punishments, much in the same way that it has been found to intensify general approaches to student discipline as well as punishments for criminals. Because prior research has found that racial threat reduces the use of restorative discipline and increases the use of harsh discipline in schools, we are not surprised to have found here that schools with a greater proportion of Black students reportedly more often use expulsion, suspension, and in-school suspension as methods for dealing with student delinquency and misbehavior. Thus, this study’s first three hypotheses are tentatively confirmed. In addition, our hypotheses predicting that racial composition would influence the use of exclusionary discipline that results from zero tolerance policies are partially supported. Two of the five remaining hypotheses regarding specific zero tolerance policy exclusions are confirmed: Schools with a greater proportion of Black students are reported to more often automatically expel or suspend students for the possession of drugs and knives. This finding makes sense in light of the fact that student possession of alcohol and tobacco may be considered relatively minor offenses, thus not requiring automatic expulsion by any school, while possession of a gun is considered one of the most concerning student offenses, thereby resulting in very consistent automatic expulsion that is less subject to the influence of student racial distributions. Ultimately, there is likely minimal variation in how schools respond to those three violations, which would explain the lack of statistical significance of student body racial composition on the use of exclusion per zero tolerance policies for these forbidden items.

Our findings are notable because they show that schools’ reported use of the very harshest forms of student punishment seems to be an effect of the racial makeup of the students at those schools. Because we controlled for crime-related influences, including reported school delinquency, drug use, teacher victimization, and perceived school risk, our results suggest that exclusionary punishments may be issued for reasons beyond student misbehavior. While this is troubling, it is even more disturbing when the potential impact on individual students is considered. Students who are expelled and suspended are at an educational disadvantage, since their peers are continuing to learn in class while they are being punished (Fabelo et al., 2011; Schiraldi & Zeidenberg, 2001).

Further, students who are excluded from class activities are more likely to not progress to the next grade, fail out of school, and drop out of school (Fabelo et al., 2011; Foney & Cunningham, 2002). They are also more likely to become involved in illegal activity, both inside and outside of school grounds, than others not receiving these punishments (Schiraldi & Zeidenberg, 2001). These experiences have the strong potential to affect students’ prospects of future employment, as well as future involvement in crime and the criminal justice system (Fabelo et al., 2011; Gregory & Weinstein, 2008). There is a distressing irony to this: by schools using exclusionary punishments that mirror many of those sanctioned in the criminal justice system, certain students may, in fact, ultimately be punished by this system in the future. And, although our research did not measure effects of exclusionary punishment on individual students in tests for racial discrimination or bias, it seems likely that these negative outcomes would be most pronounced for Black students since they are disproportionately expelled and suspended.

**Study Limitations and Directions for Future Research**

One important limitation of this study relates to the use of cross-sectional data, which makes it impossible to establish the causal direction of the associations found here. For instance, it is possible
that the positive association between the percentage of Black students in a school and exclusionary discipline is due to a shift in the student composition after these discipline policies were created, rather than supporting the effects of racial threat as found here. Longitudinal data could also show how changes in student misconduct could affect discipline policy. However, since previous time-series research supports the minority threat perspective in relation to the severity of criminal policy (Kent & Jacobs, 2004), the use of longitudinal school data would likely support and add to our findings.

Other notable limitations include the low school response rate overall, the relationship between survey participation and community characteristics, and missing data. Schools in areas with more female-headed households, a greater proportion of urban population, and more households that receive public assistance were significantly less likely to have participated in the original study. The basic conclusions of our study would most likely remain unchanged had these schools been included, however. We conducted exploratory analyses that investigated the potential response rate, nonrandom attrition, and missing data biases by examining schools located in communities similar to the nonparticipating schools and found that these schools were more likely to use exclusionary discipline and to have a greater percentage of Black students than other schools. Therefore, the findings reported here would have most likely intensified if we were able to include the nonparticipating schools. This suggests that our results may represent a conservative estimate of the racial threat hypotheses tested herein. Nevertheless, future research should replicate our study with more representative samples.

Another limitation of our research derives from the fact that our only available indicators of exclusionary school discipline are self-reported by school administrators, rather than being measured by more concrete, quantitative records relating to the use of expulsion, suspension, and in-school suspension. Therefore, it is possible that our dependent measures indicate perceptions of the use of these disciplinary tactics, what the administrators wished was true, or even what the administrators thought the researchers wanted to hear. Thus, the validity of the dependent measures may be questioned and could possibly explain the surprising nonsignificance of several control variables. Our findings must be considered in light of this potential shortcoming.

Finally, we could benefit from future research that examines specifically why there appears to be greater use of exclusionary punishments in schools with more Black students in some circumstances. Based on the consistent findings of previous studies showing that individual student race is associated with harsher school punishments (Brown & Beckett, 2006; Ferguson, 2000; Giroux, 2003; Noguera, 2003; Skiba et al., 2002; Watts & Erevelles, 2004), it would be worth investigating whether individual bias, stereotypes, discrimination, or racism by teachers and other school officials mediate the relationships established here. In addition, because of the potential limitations associated with the use of compositional measures of racial threat, it may be worthwhile to assess the influence of perceptual indicators of it, as some tests in criminal justice contexts have done. Although these kinds of analyses are not necessary for school-level tests of the effects of racial threat, it could certainly add an illuminating dimension to the findings produced in this study.

Conclusion

This research has contributed additional support for the racial threat explanation for harsher school punishment by demonstrating that the black composition of students in schools is very likely related to greater use of expulsion, suspension, and in-school suspension, as well as the use of these exclusionary disciplinary methods as required by certain zero tolerance policies. These relationships appear to exist regardless of other important influences of aggregate student body characteristics, including economic disadvantage, Hispanic ethnicity, and gender distribution. Moreover, these relationships were apparent, regardless of school characteristics, including teacher and administrator
leadership and training, reported crime and crime salience, and the poverty, disorganization, and urbanicity of school communities. In summary, this study has shown that the most severe forms of student punishment seem to be influenced by race in ways that prior research on the effects of race at the individual student level have not: Racial composition has some influence on the degree to which schools use suspension and expulsion as well as the degree to which schools implement some policies facilitating these punishments. The negative consequences of the disparate use of exclusionary discipline would demand that this disturbing phenomenon be addressed. As government proposals to reform education and school policy are promoted, it would be useful to be mindful of the findings of this research.

**Declaration of Conflicting Interests**
The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

**Funding**
The author(s) received no financial support for the research, authorship, and/or publication of this article.

**Notes**
2. Please see Eitle and Eitle (2004) for an examination of the resegregation hypothesis, rather than racial threat, which found that school racial composition did not influence the likelihood that Black students would be suspended.
3. The general types of disciplinary approach used by schools in prior racial threat research included the following ranges of punishment practices: punitive disciplinary responses included after-school detention, short-term withdrawal of a privilege, long-term withdrawal of a privilege, in-school suspension, and suspension from school; extreme punitive disciplinary responses included court action against a student or parent, expulsion from school, calling or notifying the police, and charging a student with a crime; restitutive disciplinary responses included requiring the student pay restitution, requiring community service, and assigning work duties, chores, or tasks; mild disciplinary responses included sending a student to a school counselor, having conferences with parents, giving an oral reprimand; notifying parents about a student’s behavior, and having a conference with the student.
4. As noted, with the exception of gun possession, the majority of zero tolerance policies are not federally mandated, but rather, are chosen and developed by individual schools. These locally generated policies typically require the automatic expulsion or suspension of students who are found in possession of contraband, such as tobacco, alcohol, drugs, and knives, or for committing other offenses. Additionally, although all schools are required to automatically exclude students for gun possession, not all implement this policy equally.
5. Previous research documents the reliability and validity of self-reported measures of delinquency, victimization, and discipline (Gottfredson et al., 2000; Krohn et al., 2010; Thornberry & Krohn, 2000).
6. While all schools are supposed to have enacted zero tolerance policies, particularly relating to gun possession per the 1994 Gun-Free Schools Act, the frequency distribution of this measure indicates that schools may not actually implement this policy consistently. Therefore, these zero tolerance measures in this research do not represent a constant.
7. Characteristics of communities in which schools are located have more impact on school crime and disorder than characteristics of the communities in which the schools’ students live (Welsh et al., 2000).
8. These variables were trimmed by capping the values of the three outliers to three standard deviations above the variable mean (Wilcox, 2004).
9. Some research suggests the possibility of a curvilinear effect of racial threat, in which racial composition is positively related to punitiveness up to a certain point and then negatively related to punitiveness after this point is reached (Hagan, Shedd, & Payne, 2004). To examine this idea, a squared percent black students variable was added to each model while retaining the regular percent black students variable. The squared percent black students variable was not significant for any of the disciplinary response outcomes, thus not supporting the idea of a curvilinear effect of racial threat. We also tested for a potential nonlinear relationship of racial threat, whereby the effects of threat would diminish after a tipping point of Black school composition is reached. No nonlinear effects were present in these analyses.

10. Again, the possibility of curvilinear and nonlinear effects were tested and not found.

11. One-tailed tests are used because the independent predictors all have hypothesized directions, thereby limiting the critical area to one side. However, in our analyses, we verify that when our primary independent variable is significant according to one-tailed tests, it also would have remained significant had two-tailed tests been used.

12. It is possible that the relationships examined here are not linear in the distribution region of the nonparticipating schools; however, the linear relationship between community characteristics and nonparticipation, student racial composition, and exclusionary discipline suggest otherwise.

References


Bios

Kelly Welch is an associate professor in the Department of Sociology and Criminal Justice at Villanova University. Her research interests include race and crime, sociology of punishment, criminological theory, and social justice.

Allison Ann Payne is an associate professor in the Department of Sociology and Criminal Justice at Villanova University. Her research interests include juvenile delinquency, school-based delinquency prevention, criminological theory, and program evaluation.