# Historic Lynching and Corporal Punishment in Contemporary Southern Schools

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#### ABSTRACT

This study examines how corporal punishment in contemporary public schools, a disciplinary practice concentrated in southeastern U.S. states, relates to histories of lynching in the region. Using school-level data from the U.S. Department of Education, we examine these relationships in a series of multi-level regression models. After controlling for numerous school- and county-level factors, we find an increased likelihood of corporal punishment for all students in counties where greater numbers of lynchings occurred, and that lynching is particularly predictive of corporal punishment for black students. Consistent with prior research associating historic lynching with contemporary violence, these results suggest general and race-specific legacies for violent school discipline. We consider potential mechanisms linking histories of lynching with school corporal punishment, and implications for research and policy.

KEYWORDS: race; school discipline; lynching; racial disparity; violence; reparations.

Corporal punishment involves the imposition of pain to control behavior (Straus 2001). Corporal punishments are generally assaultive acts, such as slapping, spanking, punching, kicking, shaking, shoving, and choking. Such punishments may use various objects (e.g., wooden paddles) or techniques (e.g., painful body postures) to create pain (Gershoff and Font 2016; Straus 2001). Historically and today, corporal punishment has been employed across an array of social control contexts, including parenting, courts, vigilantism, and schools.

The use and legality of school corporal punishment have steadily declined in the United States and globally (Anderson and Ritter 2015). The odds of corporal punishment being used on U.S. public school students decreased from 4 percent to .05 percent between 1978 and 2016, resulting in the practice becoming more concentrated in those places where cultural and political supports remain (Gershoff and Font 2016:4). Only fourteen percent of all U.S. school districts reported using corporal punishment in the 2011–2012 school year (Gershoff and Font 2016:19), yet for some state school systems and student populations, the risk is much higher. Continued legality and use of the practice

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are concentrated in southeastern states, and the punishment is disproportionately imposed on black students (Gershoff and Font 2016:10; Gershoff, Purtell, and Holas 2015).

The threat and use of violence as a control strategy are deeply rooted in U.S. racial history. Generations of black Americans have been subjected to intentional inflictions of pain as control measures, through whipping and other means, especially in the southeastern United States, where the violence of enslavement and subsequent Jim Crow era were concentrated. A growing body of empirical research on this history of racial violence—most notably lynching—finds that lynching remains predictive of contemporary violence and conflict (see Ward 2016).<sup>1</sup> Extending this research to the problem of racially disparate school discipline, we assess the relationship between historic lynching and contemporary corporal punishment in southeastern schools.

## LITERATURE REVIEW

Our analysis builds on three key insights from prior research. First, we consider how the national decline and geographic concentration of corporal punishment in schools relate to social-ecological conditions associated with continued support for this widely condemned practice. Second, while there is considerable evidence that black students are disproportionately subjected to a wide variety of school punishments, including corporal punishment, there is limited research on the sources of this racial disparity, especially at the school level. Finally, given evidence that contemporary violence such as homicide rates, as well as support for other forms of state-sanctioned violence (e.g., capital punishment), are predicted by histories of racialized violence, we suspect that contemporary spatial concentrations and racially disparate applications of corporal punishment may also relate to legacies of lynching.

## The Decline and Concentration of Corporal Punishment in U.S. Public Schools

Corporal punishment of children in schools and otherwise has been widely condemned by professional organizations and human rights groups. Since its adoption in 1989, the United Nations (UN) Convention on the Rights of the Child (CRC) has urged for a legal ban on corporal punishment of children, which it regards as a violation of human rights. The United States has not ratified the CRC and is one of the few UN member nations where school corporal punishment remains legal (Gershoff and Font 2016). Yet the majority of states have legally banned the practice, on grounds that it is an ineffective and inappropriate method of school discipline. In the majority of states where it remains legal, school officials report that corporal punishment is rarely used (Gershoff and Font 2016). Studies of corporal punishment administered in households cite numerous negative consequences, including higher rates of mental health problems, lower cognitive ability, poor academic achievement, and a greater likelihood of chronic physical abuse (Ferguson 2013). Prominent national professional organizations, including the American Psychological Association and American Academy of Pediatrics, have called for the abolition of school corporal punishment (Gershoff and Font 2016).

Despite the national and international movement toward abolishing the practice, nineteen states continue to allow public school personnel to corporally punish students. Across these predominantly Southern states, over 160,000 children were subjected to corporal punishment in the 2011–2012 school year (Gershoff and Font 2016:3). In these states where school corporal punishment continues, educational attainment and expenditures are lower, and children fare worse in terms of poverty and mortality rates, on average, than in states where corporal punishment is banned (Gershoff and Font 2016).

<sup>1</sup> In the 1940s, representatives from Tuskegee, the NAACP, and other organizations established a standard definition of lynching requiring evidence that (1) a person was killed, (2) the killing was illegal, (3) a group of at least 3 people were responsible for the killing, and (4) the group acted under the pretext of service to justice or tradition (see Waldrep 2000). The updated Beck-Tolnay inventory we use distinguishes between confirmed *lynchings* (according to evidentiary standards above); *probable lynchings* – or, likely lynchings; *possible lynchings* - potentially lynchings; *lynching-suicides* - where someone committed suicide to avoid lynching; and coincidental deaths.

In the first study to examine school-level disparities in corporal punishment, Gershoff and Font (2016) found that corporal punishment in the 2011–2012 school year was widespread in Alabama, Arkansas, and Mississippi, but rare and declining in the other sixteen states where it remains legal. Nearly sixty percent of all school districts in these states where such punishment is legal did not report using corporal punishment once in the 2011–2012 school year. In the three high-use states (Alabama, Arkansas, and Mississippi), by contrast, 85 to 88 percent of districts reported at least one school using the practice that same year (Gershoff and Font 2016).

# Racial Disparities in Corporal Punishment

Black students are at much greater risk of school corporal punishment than their white counterparts. In the 2011–2012 school year, black boys had the highest overall rate of school corporal punishment (16 percent) in the nineteen states where the practice is permitted, followed by white boys (9 percent), black girls (6 percent), and white girls (2 percent); this trend has been consistent since data collection began in the 1970s (Gershoff and Font 2016; Gershoff et al. 2015). Racially disparate corporal punishment is most pronounced in Alabama and Mississippi, but substantial in Arkansas, Florida, Georgia, Louisiana, and Tennessee schools as well (Gershoff and Font 2016).

Research in non-U.S. contexts identifies substantial harms associated with corporal punishment, finding that it affects not only individual well-being – including mental health, educational attainment, the potential for violent conduct, and economic opportunity – but also has implications for status group inequality (Gershoff 2017). Racial and other disparities in school corporal punishment appear likely to concentrate these harms, reinforcing aggregate and inter-generational group differences in social welfare and mobility (Badger et al. 2018).

It is important to understand and address the sources of racial disparity in school corporal punishment. Prior research suggests these disparities are not a function of black students being more likely to attend schools that use corporal punishment; rather, the opposite has been found (Gershoff and Font 2016). Being in the majority or minority of a school's student population also does not relate to black students' risk of corporal punishment (Gershoff and Font 2016). Finally, racial differences in school misconduct do not appear to account for disparities in corporal punishment (Skiba et al. 2014; Welsh and Little 2018). Mirroring research on racial disparity in other forms of school punishment (Balfanz, Byrnes, and Fox 2015), studies report black students are at greater risk of corporal punishment, despite committing a smaller share of serious student misconduct (McFadden et al. 1992), and more likely to face corporal punishment than are non-black children after controlling for the severity of student misconduct (Shaw and Braden 1990).

While actual group differences in misconduct may not account for the observed disparity in this disciplinary measure, it is clear that school officials disproportionately perceive black students as deserving of corporal punishment, and often act on this biased perception (Morris 2016). This is partly rooted in implicit racial biases. Studies of implicit association find black youth are routinely perceived as more culpable for wrongdoing than white counterparts, and that these biases and related attributions correspond with disparities in both attitudinal support for severe sanctions and actual sanctioning practices (Goff et al. 2014; Graham and Lowery 2004).

Though we lack measures of explicit and implicit biases of individual school personnel, levels of implicit racial bias are elevated among whites in the Southeastern states, as compared to white residents in other regions of the United States (Mooney 2014; Ungson and Dominic 2018). Further, there is growing recognition of the need to understand implicit bias as a marker of systemic or structural racism, shifting attention from individual actors to larger geographic units (Payne, Vuletich, and Lundberg 2017). Whereas correlations between individual implicit bias and discriminatory behavior have been significant but modest, "aggregate levels of implicit bias (i.e., countries, states, counties) are strongly associated with aggregate levels of disparities and discrimination" (Payne et al. 2017:233). Importantly, these associations link aggregated observations of implicit bias among one

subset of the area population to group-level behaviors of another subset of the area population, suggesting shared environments make racial bias broadly "accessible" for inhabitants of areas marked by systemic or structural racism. This "bias of crowds model" conceptualizes individual bias as a "psychological marker of systemic prejudice in the environment," and a mechanism for translating that structural racism into discriminatory behavior (Payne et al. 2017:239). From this perspective, state-level evidence of elevated implicit racial bias in the southeastern U.S. provides a relevant contextual backdrop for our investigation of social and historical factors shaping disparity in school discipline.

More proximate environmental measures (e.g., county histories) in the region should further clarify the ecological bases of this disparity. As area histories of racial violence offer enduring sources of socialization relevant to violence today (Petersen and Ward 2015), they may clarify patterns of general and racially disparate school corporal punishment.

## Legacies of Racialized Violence

We suspect that schools in counties with more pronounced histories of violent racialized social control, where physical pain has long been used to discipline and punish marginalized populations, are more likely to employ corporal punishment, and disproportionately impose this punishment on black students today. The southeastern United States has a distinct history of racialized violence for social control purposes, and whipping has been prominent there. The whipping of enslaved black Americans, young and old, was pervasive in the context of chattel slavery, a U.S. institution rooted in the South (Patterson 1982). Whipping was not merely a form of punishment in that context, but an explicitly racialized socialization strategy intended to "impress upon the slaves that they were slaves" (Patterson 1982:3).

In fact, nineteenth-century challenges to school corporal punishment stressed this racial meaning, with white reformers objecting to a practice they associated with the enslaved. Glenn (1984:57) identifies explicitly race- and class-based objections from the antebellum era, with "articles in major education journals ... condemn[ing] corporal punishment as a 'slavish' form of discipline, more befitting the 'negro plantation,' than the republican schoolhouse." Fearful that white students might develop "the character or temper of a slave" if subjected to "brutalizing and degrading" methods of discipline, reformers sought to limit but not abolish corporal punishment, considering it useful in disciplining the lower class and immigrant children entering public school systems (Glenn 1984:402–407).

Racialized legitimations and applications of corporal punishment persisted long after emancipation, suggesting how normative these rationalizations of violence had become in this region. In a 1901 Alabama constitutional debate over the legality of whipping prisoners, a Sumter County representative remarked that "everybody knows the character of a Negro and knows that there is no punishment in the world that can take the place of the lash with him" (Blackmon 2009:122). Juvenile court records from 1930s North Carolina reveal that court-ordered whippings were reserved almost exclusively for black boys and girls, given "widespread feelings among [white] county juvenile court judges that whipping is the most effective way of handling delinquent Negro[s]" (Ward 2012:114– 15). Another court official noted a common diversionary practice of "sending delinquent black boys downstairs with a big police officer [to] have them flogged" prior to release (Ward 2012:114– 15).

White supremacist vigilantes and racial terror groups routinely employed whippings to intimidate, punish, and displace blacks deemed to pose threats to white social, economic, and political dominance. In 1890, for example, "several negroes were whipped" to prevent them from renting property in Baton Rouge, Louisiana ("Object to Negro Renters," 1890). When black visitors declined to leave Calvert City, Kentucky, in 1900, "the citizens quietly whipped [them] and they left immediately" ("Five Negroes Whipped" 1900). Ku Klux Klan units in Georgia formed a tactical "whipping squad" to mete out this punishment across the state, including to police schools. In 1949, Klansmen whipped

three black boys in Columbus, Georgia, for refusing to disclose whether their school principal shook hands with a white integrationist speaker (Patterson 1952:63, 108).

Lynching represents the most extreme and systematically documented form of racialized interpersonal violence in the post-Emancipation South. Although not confined to the region, lynching was concentrated in Deep South states (Tolnay and Beck 1995). Southern lynching overwhelmingly targeted black victims, not only to punish transgressors but also to terrorize black communities, with the aim of maintaining white racial domination. Between the Civil War and WW II, nearly four thousand black Americans were lynched (Tolnay and Beck 1995).

Whipping and lynching were often inter-related, as whippings threatened more lethal violence, often preceded lynchings, and could become lynchings themselves (Roberts 2007). After White Caps in Troy, Alabama, posted a notice that any blacks failing to "leave the country [sic]" would be lynched, they "whipped two negroes nearly to death" ("Negroes Whipped by White Caps" 1894). In 1946, a black WW II veteran was whipped for attempting to register to vote in Brandon, Mississippi, and threatened with lynching if he attempted again. Another black man was "whipped to death" that same year by six white men in Lexington, Mississippi, who accused him of stealing a saddle (Patterson 1952; 64, 94).

Just as whippings socialized populations in the meaning of race and institutionalized inequality, lynchings left lasting impressions on group relations. In particular, the complicity of police, courts, and other state actors in lynchings, whether through participation or withholding legal protection and punishment, legitimized racialized violence and denials of equal protection among whites, while engendering a sense of vulnerability and distrust of legal institutions among blacks (Messner, Baller, and Zevenbergen 2005).

Numerous studies find that lynching predicts later conflict and violence in the same geographic areas. Lynching has been linked to subsequent patterns of racist violence (Owens, Cunningham, and Ward 2015), black victim homicide (Messner et al. 2005; Petersen and Ward 2015), capital punishment and incarceration (Jacobs, Carmichael, and Kent 2005; Jacobs, Malone, and Iles 2012), and many other outcomes. Mechanisms of these relationships are not well understood, yet several forces are theorized to be at work, including extreme racial socialization (Tolnay and Beck 1995), greater subcultural support for violent dispute resolution (Messner et al. 2005), legal estrangement (Bell 2016), and diminished collective efficacy (McVeigh and Cunningham 2012). Importantly, there is also evidence that legacies of lynching are attenuated by collective action impeding the intergenerational transfer of underlying racist schemas (Gabriel and Tolnay 2017).

Legacies of lynching, including local cultures of violence, may increase the likelihood of violent school discipline for all youth, and black youth especially. White school officials may be more likely to corporally punish black students in these settings, given latent effects of lynching (e.g., cultures of violence), and the greater "accessibility" (Payne et al. 2017) of relevant explicit and implicit biases (i.e., racist rationalizations of whipping). Yet black families and officials in these places might also be more disposed to support the corporal punishment of black students, in part for fear of the potential costs of their transgression. In so far as "lynching represented ... 'lack of access to formal law,' which in turn fostered 'self-help' cultural adaptations [among black Southerners]" (Messner et al. 2005: 649), these adaptations may rationalize corporal punishment of black students, as a means of protecting them from worse fates beyond the school context.

It is well established that black population support for corporal punishment is rooted in concerns for survival in a hostile social environment. Ta-Nehisi Coates (2015:16–17) recalls his own father's mantra, "either I can beat him, or the police," which rationalized violent discipline, "administered in fear and love." He contends that "Black people love their children with a kind of obsession," as their children are all many have, and "come to [them] endangered" (82). Several studies affirm that histories of oppression inform black community notions that corporal punishment "affords protection [from] adverse consequences of violating social rules," whatever its actual merits (Bradley et al. 2001:1882; Simons et al. 2002). Not only then are anti-black biases rationalizing violent discipline

likely to be more accessible in places with pronounced histories of racist violence, so too are racial notions framing corporal punishment as a form of protection from threats in these distinctly hostile environments haunted by histories of lynching.

## Hypotheses

We arrive then at three hypotheses related to corporal punishment in southeastern schools. Considering theorized latent effects of lynching on local subcultural support for violent control strategies, we hypothesize that: *county histories of lynching positively relate to the general use of corporal punishment in public schools, irrespective of school and other county characteristics* (Hypothesis 1). Given racial histories of lynching and other forms of social control (e.g., whipping) in these places, specifically rationalizing and threatening violence towards black people, we further hypothesize that *the effects of historic lynching on corporal punishment are strongest for black students* (Hypothesis 2). Finally, *we expect racial disparities in corporal punishment to be greater in areas with more pronounced histories of lynching* (Hypothesis 3), given the accessibility of racialized rationales in these particular environments.

# DATA AND METHODS

We use multi-level models to investigate relationships between historic lynching and corporal punishment in contemporary southeastern public schools. We focus on ten southern states, all of which permit school corporal punishment in state law: Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, and Tennessee (Gershoff and Font 2016). As corporal punishment and historic lynching are concentrated in the South (Gershoff and Font 2016; Tolnay and Beck 1995), focusing on these states allows us to more precisely assess potential relationships between them.

We created a database of school (level 1) and county (level 2) characteristics drawn from multiple sources. Data on individual public schools (rather than school districts), including student populations by race and rates of school punishments, come from the U.S. Department of Education's Civil Rights Data Collection (CRDC). We merged the 2013–2014 public-use CRDC data with county-level data from the 2010 U.S. Census and other sources to add county-level demographic information described further below. Finally, we link contemporary school and county data to county-level lynching statistics (1865 to 1950).

Our units of analysis are K–12 public schools (level 1) and counties (level 2).<sup>2</sup> As CRDC data are available only at this level, we construct school-level measures of corporal punishment instead of focusing on whether a particular student was subject to corporal punishment. We use the county unit of analysis since school boards and other government offices are often organized as county entities, distinguishing local political cultures and municipal processes, especially in the South (Benton 2005). Counties are also the smallest geographic unit consistently available in lynching data and the standard unit of analysis in empirical studies of legacies of lynching.

## Dependent Variables

Our seven dependent variables measure corporal punishment practices using the 2013–2014 publicuse CRDC data. The CRDC defines corporal punishment as "paddling, spanking, or other forms of physical punishment imposed on a student" (U.S. Department of Education 2014:21). Following prior research, we consider both the prevalence and incidence of corporal punishment within K–12 schools during this period (McClure and May 2008; Owen and Wagner 2006). *Prevalence* measures whether a school corporally punished at least one student between 2013 and 2014 (1 = one or more students punished, 0 = no students). *Incidence* measures the total number of students corporally punished at least once in each school during this period.<sup>3</sup> Also, we calculate a *Corporal Punishment Disproportionality Index* (CPDI), a ratio of black/white corporal punishment incidence per 100 black/white students.<sup>4</sup> Higher values of the CPDI indicate that black students are corporally punished at a higher rate than white students.

We also analyze race-specific corporal punishment prevalence and incidence among black and white students.<sup>5</sup> Race-specific measures consider whether any students of a specific racial background (black or white) experienced corporal punishment (race-specific prevalence) and the number of students of each background corporally punished (race-specific incidence). As a result, we analyze seven dependent variables. There are three measures of *prevalence*: 1) any students corporally punished; 2) any black students corporally punished; and 3) any white students corporally punished. There are three measures of *incidence*: 4) total number of students corporally punished; 5) the number of black students corporally punished; and 6) the number of white students corporally punished. Finally, we use the *CPDI* to measure 7) black-white disparities in corporal punishment rates.

#### Independent Variables

*County-level variables.* Our key predictor of interest, historic lynching counts, captures the number of "confirmed"<sup>6</sup> lynchings for victims of any race in each county between 1865 and 1950. We use the total number of lynchings, irrespective of victim race, because all lynchings involved violent, extrajudicial social control.<sup>7</sup> We adjust for county boundary changes from 1865 to 1950 by applying a spatial proportional-allocation method similar to that used in prior research on legacies of lynching (Porter, Howell, and Hempel 2014) and enslavement (O'Connell 2012; Reece and O'Connell 2016). County boundary files from 1860 and 2010 were intersected using a geographical information system (GIS), and historic lynching counts were proportionally allocated based on the amount of overlap.<sup>8</sup>

We also control for county-level demographics derived from the 2010 decennial Census and Uniform Crime Report (UCR). Given the evidence that black parents may be more inclined than white parents to support and use corporal punishment (Owen and Wagner 2006), we control for the percentage of black residents in the county. School corporal punishment is higher in rural areas and places with lower levels of education and wealth (Gershoff et al. 2016), so we include the percentage of county residents living in urban areas, the percentage with college degrees, and the percentage living in poverty. As corporal punishment may vary in relation to area levels of juvenile deviance (Simons et al. 2002), we use data from the 2014 UCR (U.S. Federal Bureau of Investigation 2017) to control for county-level juvenile arrests per 1,000 residents as well as the overall (i.e., adult and juvenile) violent crime rate per 1,000 residents.

- 3 CRDC data track the number of students corporally punished in schools, not instances, so multiple instances of corporally punishing the same student are not captured in the data. In this regard, our estimates are likely conservative as some students may be corporally punished multiple times.
- 4 To avoid dividing by zero when constructing the CPDI, we add a one to both the number of black and white students corporally punished before calculating the ratio.
- 5 We expect the legacy of lynching to be more pronounced in the context of white-black race relations, given its role in suppressing black populations in the region (Tolnay and Beck 1995). Nearly 80 percent of students in our sample are identified as white or black.
- 6 By "confirmed" we mean those incidents listed as a "lynching" in Beck and Tolnay's updated inventory. Lynchings coded as "probable" and "possible" constitute 10 percent of events in the inventory, so our results are based on a more conservative measure of lynching. Analyses including all three categories yield substantively similar results (see Table S1 of the Supplementary Appendix).
- 7 Although most lynching victims were black, we include lynching victims of any race because all lynchings conveyed the cultural appropriateness of violent dispute resolution. Substantive results are similar when analyses are limited to black lynching victims (see Table S2 in Supplementary Appendix).
- 8 We use proportional-allocation, rather than aggregation approaches based on the "Horan-Hargis County Longitudinal Template," because it provides smaller and more socially meaningful units of analysis, and is less susceptible to multicollinearity (Porter et al. 2014; Reece and O'Connell 2016).

Several studies point to religious conservatism and levels of social capital as predictors of corporal punishment (Ellison and Sherkat 1993; Hyman 1995; Owen and Wagner 2006). The link between religiosity and corporal punishment is attributed to a greater tendency for religious conservatives to interpret biblical texts literally and to stress control and punishment (Ellison and Sherkat 1993). Hyman (1995:125) attributes support for corporal punishment in schools to a "culture of punitiveness, driven by a large minority in the religious and political right, who are obsessed by sin and punishment." To account for religiosity at the county level, we include Evangelical Protestant adherent rates per 1,000 residents, using the 2010 religious census (Association of Religion Data Archives n.d.).<sup>9</sup>

In addition, we include Rupasingha et al.'s (2006) Social Capital Index, which combines countylevel rates (per 10,000 residents) of 2008 voter turnout, 2010 census participation, and the number of non-profit organizations in 2009.<sup>10</sup> In contrast to single-indicator measures of social capital, Rupasingha, Goetz, and Freshwater's (2006) index taps into multiple and varied sources of social capital that interactively enable communities to solve problems through collective action. We use this as a proxy for collective efficacy, which may mediate links between historical racist violence and contemporary outcomes.

School-level variables. Our models include characteristics of each school, its student body, and teacher population, available in the public-use CRDC and the Department of Education's Common Core of Data. Prior research finds that black youth, low-income youth, and disabled students are subject to punitive school discipline at higher rates than other students, and that schools with larger percentages of youth of color tend to use more punitive discipline and security measures (Kupchik and Ward 2014; Skiba, et al. 2014). We, therefore, control for the percentage of black and disabled students in each school. We log-transformed the percentage of disabled students to account for its skewed distribution. Because CRDC data do not include a measure of student socioeconomic status, as a proxy we include the percentage of students eligible for free or reduced lunch, using data from the Common Core of Data "Free Lunch" file (National Center for Education Statistics 2018a). We control for gender because boys are more likely to receive any school discipline than girls (e.g., Skiba et al. 2014). As most schools have roughly half boys and half girls, we dichotomously measure whether the school is majority male (i.e., more than 50 percent male), to capture schools where males are overrepresented.

As corporal punishment is an immediate response to student behavior, and high rates of misbehavior may be associated with more frequent and severe punishment (Hyman 1995), we also include CRDC data related to behavioral and academic problems. Specifically, we measure the number of students referred to law enforcement, suspended, and expelled, as well as instances of mechanical restraint, physical restraint, or seclusion. As a measure of poor academic performance, which has also been associated with our outcome (Pinheiro 2006), we include the number of students retained in each school. Because differences in school size may help account for differences in student behavior and achievement across schools, we convert all of these measures into rates per 100 students.

We also measure a host of school and teacher characteristics potentially related to corporal punishment. We include a series of variables indicating school types, distinguishing charter, alternative, magnet, special education, and conventional public schools (reference group). We also control for grade levels, using dummy variables to represent the categories: preschool–6, grades 7–8, and grades 9–12. We include all three of these dummy variables, allowing a school to be represented in multiple categories, given numerous combined schools (e.g., a school for grades K–8 is coded affirmatively for both preschool–6 and grades 7–8). Since a school's financial health may shape available options for

<sup>9</sup> Adherents are defined as "all members, including full members, their children and the estimated number of other participants who are not considered members" (Association of Religion Data Archives n.d.).

<sup>10</sup> These data are downloaded from http://aese.psu.edu/nercrd/community/social-capital-resources.

responding to student misbehavior, and its resort to corporal punishment (Hager 2015), we include total school expenditures by \$10,000 per 100 students, which is log-transformed to capture its skewed distribution.

Finally, school discipline has been associated with levels of teacher stress, frustration, and experience (Hager 2015; Hyman 1995; Kupchik 2010). Our models include three school-level measures of teacher characteristics: the percentage of early career teachers (i.e., first or second-year teachers); the ratio of students per teacher; and the percentage of teachers chronically absent from school (missing over 10 days per year). We log-transform percentages of early career and chronically absent teachers given their skewed distributions.

# Analysis Strategy

The data are hierarchically organized with schools at level 1 nested in counties at level 2.<sup>11</sup> Given this hierarchical data structure, we estimate three types of random intercept models in STATA: (1) logistic regression predicting odds of corporal punishment presence/absence (prevalence); (2) negative binomial regression predicting the number of students who receive corporal punishment (incidence); and (3) OLS regression predicting disparities in black versus white rates of corporal punishment (CPDI).<sup>12</sup> Negative binomial models include overall or race-specific student populations as an offset term, transforming the dependent variable into an incident rate ratio of corporal punishment where  $\lambda = (number of events) / (population).^{13}$  For the CPDI, which is continuous, we use OLS regression to predict corporal punishment disproportionality among black students compare to white students.<sup>14</sup>

All models have the same predictors, except for the total student population and percent black students. Each school's total student population was log-transformed and included in logistic regression models predicting corporal punishment prevalence; however, we do not include this measure in our count models as the population is already included in the offset term. Since race-specific negative binomial models include race-specific student populations as an offset term, percent black students was not included in race-specific models for both prevalence and incidence to avoid redundancy in the models. Finally, to account for potential state differences we include state fixed-effects, with Florida as the reference group. We use state fixed-effects, rather than including states as another level in our model, since multi-level models generally require 30 or more units at level 2 and above (Bickel 2012; Maas and Hox 2005).

# RESULTS

# Summary Statistics

School corporal punishment is concentrated in the southeastern United States (Gershoff and Font 2016), yet only 14.8 percent of K–12 schools in the region had at least one incident in 2013–14

- 11 We adjust for small amounts missing data on select variables (social capital index, percentage free lunch, teacher absences, students per teacher) using chained multiple imputation (average missingness for imputed variables was 2 percent and 0.21 percent for all variables). Ten multiply-imputed datasets were constructed using the following predictors: overall and race-specific corporal punishment prevalence and incidence, school characteristics (e.g., magnet, elementary), student demographics (e.g., total student population, percent black students), county demographics (e.g., percent black, percent urban), and state fixed-effects. In contrast, schools missing a level 2 identifier (i.e., county FIPS code) were not multiply-imputed because multi-level models with imputed level 2 identifiers cannot be easily estimated. Given that less than 3 percent of schools in our data could not be linked to counties due to incomplete county identifiers, they were handled via list-wise deletion.
- 12 Because we are interested in the weighted average of between-county and within-county variation, instead of within-county variation, we do not mean-center our independent variables.
- 13 Consistent with prior research on race-specific rates, we exclude schools with no black or white students because they have no students at risk of experiencing race-specific punishment (Messner et al. 2005). Excluding these schools also precludes us from taking the log of zero for the exposure term in our count models.
- 14 Variance inflation factors (VIFs) from non-imputed single-level OLS versions of our models were below 5, indicating that multicollinearity is not an issue.

(Table 1). There is considerable school variation in the incidence of corporal punishment, as indicated by a mean of 4.6 students experiencing corporal punishment, and a standard deviation of 19. At the school level, white prevalence (13.0 percent) and incidence rates (2.2) are slightly higher than black prevalence (10.5 percent) and incidence rates (2.1) in our study states. The average Corporal Punishment Disproportionality Index is 23.9, meaning that on average the population adjusted risk of corporal punishment is 24 times greater for black students than for white students.

As shown in Table 1, there is considerable variation in our county-level measures. Our key predictor, the number of confirmed lynchings between 1865 and 1950, has a mean of 5.12, with a standard deviation of 6.28. Over three-fourths of the counties in our dataset had at least one lynching between 1865 and 1950. Figures 1 and 2 display lynching and corporal punishment counts at the county-level by quantile. The figures illustrate that lynchings, and, to a greater extent, reported uses of corporal punishment, are concentrated in the Deep South, especially in Alabama, Arkansas, and Mississippi. Corporal punishment is less geographically dispersed in these three high-use states, with a sizable number of counties in the upper quantile for the corporal punishment count. Of the counties that reported one or more incidents of corporal punishment, 88 percent had at least one historic lynching and the average number of lynching incidents in these counties is 7.07.

## Model Estimates

Regression estimates offer substantial support for our hypotheses about overall and race-specific effects of lynching on contemporary corporal punishment (Table 2). Consistent with our first hypothesis, the number of lynchings in each county has a positive effect on corporal punishment prevalence across all racial groups. This effect is statistically significant for overall prevalence and incidence of corporal punishment. Each additional lynching is associated with a 5.7 percent increase in the overall prevalence of corporal punishment (Model 1) and an 8 percent increase in the overall rate of students experiencing corporal punishment (Model 4), net of other factors.

Consistent with our second hypothesis regarding race-specific effects of lynching on school corporal punishment, we find a larger effect for black students than for white students. Specifically, each additional lynching is associated with a 6.4 percent increase in the odds of black corporal punishment prevalence (Model 2), versus a 4.2 percent increase in the odds of white corporal punishment prevalence (Model 3). Further, each additional lynching is associated with a 7.5 percent increase in the rate of black corporal punishment incidence (Model 5) compared to a 4.8 percent increase in the rate of white corporal punishment incidence (Model 6). Not only are the lynching effects larger for black students, but they are also statistically stronger.

We do not find support for hypothesis 3. In Model 7, estimating our disparity index, historic lynching is non-significant. Although black students are corporally punished at higher rates relative to their population size, and the effect of historic lynching on corporal punishment is strongest for black students, racial disparities in corporal punishment do not concentrate in areas with more pronounced histories of lynching.

Several contemporary socio-cultural and demographic factors are associated with overall and racespecific corporal punishment practices as well. Overall and race-specific corporal punishment prevalence and incidence are higher in counties where Evangelical Protestantism thrives, but lower in those with greater levels of social capital, where the capacity for collective action is more generally pronounced (Models 1–6). Socioeconomic characteristics of counties are also relevant in our models. Counties with larger college-educated populations have a lower prevalence and incidence of corporal punishment overall and in race-specific models (Models 1–6), while counties with higher poverty rates have a higher corporal punishment prevalence, incidence, and black-white disparity (Models 1-2, 4-7). Moreover, juvenile arrest rates are positively related to overall and race-specific incidents of corporal punishment (Models 4-6).

utcome variables: evalence CP usage (yes/no) Black CP usage (yes/no) White CP usage(yes/no)	14.80 (35.51) 10.50 (30.66)
CP usage (yes/no) Black CP usage (yes/no) White CP usage(yes/no)	10.50 (30.66)
Black CP usage (yes/no) White CP usage(yes/no)	10.50 (30.66)
White CP usage(yes/no)	
	12.07(22.60)
- 1	12.97 (33.60)
sidence	
Total CP incidents	4.58 (19.17)
Black CP incidents	2.12 (12.77)
White CP incidents	2.23 (9.75)
rporal Punishment Disproportionality Index (CPDI)	
Ratio of Black vs White corporal punishment rate	23.86 (152.06)
ounty correlates:	
ynchings	5.12 (6.28)
black	21.69 (15.82)
urban	67.35 (29.43)
college degree	17.33 (7.33)
poverty	12.45 (4.42)
angelical Protestant adherent rate	296.90 (132.38)
cial capital index	-0.70(0.71)
venile arrest rate per 1000 residents	0.70 (0.76)
olent crime rate per 1000 residents	4.09 (2.36)
udent demographics:	
Black students	30.38 (28.45)
free or reduced lunch students	64.47 (31.37)
disabled students	12.73 (11.27)
ajority male student population	71.22 (45.28)
hool population	628.66 (434.50)
ack student population	176.76 (207.74)
hite student population	321.42 (296.85)
oblem student behaviors:	
rest rate per 100 students	0.15 (1.24)
spension rate per 100 students	7.74 (11.56)
pulsion rate per 100 students	0.11 (1.35)
umber of restraints/seclusions per 100 students	0.97 (31.04)
tention rate per 100 students	4.45 (8.74)
hool characteristics:	
narter school	0.06 (0.23)
ternative school	0.04 (0.19)
agnet school	0.06 (0.25)
ecial education school	0.02 (0.14)
ades preschool and kindergarten	0.56 (0.50)
ades 1-6	0.77 (0.42)
ades 7-8	0.31 (0.46)
ades 9-12	0.26 (0.44)
0000 expenditure rate per 100 students	52.93 (96.13)

(continued)

	Mean (St. Deviation)
% early teachers	12.64 (16.03)
% chronically absent teachers	31.96 (23.99)
Students per teacher	15.79 (9.89)

# Table 1. Summary Statistics for Southern Schools and Counties (continued)

Notes: First multiply-imputed sample, excluding schools with zero Black/White students.

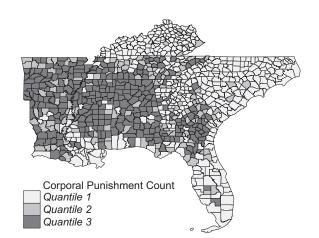
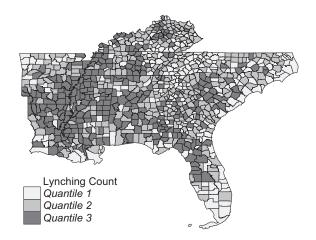
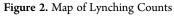


Figure 1. Map of Corporal Punishment Counts





Schools in more urbanized counties have a lower prevalence and incidence of corporal punishment overall and in race-specific models, suggesting stronger cultural and political support for the practice in more rural areas (Models 1–6). Indeed, several large urban school districts (e.g., Atlanta, Memphis, and Houston) have banned corporal punishment, effectively shielding students in these jurisdictions from permissive state laws (Human Rights Watch 2008). The county black population has a positive effect on the prevalence of black and white corporal punishment (Models 2–3), but is non-significant in other models (Models 4–6) and negatively predicts black-white disparities in corporal punishment rates (Model 7).

	Γοξ	Logistic regression (prevalence)	ence)	Negu	Negative binomial regression (incidence)	incidence)	OLS regression (CPDI)
Model #	I	2	ω	4	s	6	
		Black	White	Total CP	Black CP	White CP	Ratio of Black vs White corporal
Outcome	CP usage exp B(SE)	CP usage exp B(SE)	CP usage exp B(SE)	incidents exp B(SE)	incidents exp B(SE)	incidents exp B(SE)	punishment rate B(SE)
County correlates:							
# lynchings	$1.057^{**}$ (0.019)	$1.064^{***} (0.018)$	$1.042^{*}$ (0.018)	$1.080^{***} (0.018)$	$1.075^{***}$ (0.018)	$1.048^{**} (0.018)$	$0.749\ (0.416)$
% black	$1.007\ (0.010)$	$1.027^{**}$ (0.010)	$1.021^{*}$ (0.010)	1.012(0.010)	0.991 (0.010)	1.008(0.009)	$-0.504^{*}$ (0.202)
% urban	$0.963^{***}$ (0.004)	$0.968^{***}$ (0.004)	0.965*** (0.004)	0.957*** (0.004)	0.957*** (0.005)	$0.961^{***}$ (0.004)	$-0.199^{*}(0.099)$
% college degree	$0.904^{***}$ (0.021)	_	$0.903^{***}$ (0.021)	$0.906^{***}$ (0.021)	0.907*** (0.022)	$0.922^{***}$ (0.020)	$0.255\ (0.403)$
% poverty	$1.099^{***} (0.030)$		$1.056^{*} (0.028)$	$1.131^{***} (0.030)$	$1.135^{***}$ (0.032)	$1.106^{***} (0.028)$	2.697*** (0.602)
Juvenile arrest rate		1.153(0.117)	1.218(0.126)	$1.295^{**}$ (0.127)	$1.288^{**}$ (0.126)	$1.264^{*}$ (0.121)	1.862(3.063)
Violent crime rate	1.012(0.051)	0.990(0.049)	0.989~(0.049)	0.997 (0.047)	0.990 (0.047)	$0.996\ (0.048)$	2.180(1.311)
Evangelical	$1.004^{***}$ (0.001)	$1.004^{***}$ (0.001)	$1.004^{***}$ (0.001)	$1.005^{***}$ (0.001)	$1.005^{***}$ (0.001)	$1.004^{***}$ (0.001)	-0.0166(0.020)
Protestant rate							
Social capital index 0.666 (0.138)	0.666(0.138)	0.695(0.144)	$0.689\ (0.141)$	$0.525^{**}$ (0.106)	$0.581^{*}$ $(0.125)$	$0.521^{***}$ (0.102)	-1.418 (2.689)
Student demographics:	hics:						
% Black students	$0.986^{***}$ (0.002)	1.003(0.002)	0.965*** (0.003)	$0.991^{***}$ (0.002)			
% free or reduced	$1.007^{***}$ (0.002)	$1.005^{**}$ (0.002)	$1.008^{***} (0.002)$	$1.012^{***}$ (0.002)	$1.005^{*}$ (0.002)	$1.010^{***}$ (0.002)	$-0.101^{*}$ (0.039)
lunch students							
Log % disabled students	$1.208^{***}$ (0.037)	$1.208^{***} (0.037)  1.170^{***} (0.039)$	$1.194^{***} (0.040)$	$1.080^{**} (0.029)$	$1.083^{*} (0.034)$	$1.095^{**} (0.031)$	$1.206\ (0.814)$

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	Log	Logistic regression (prevalence)	ence)	Nega	Negative binomial regression (incidence)	ncidence)	OLS regression (CPDI)
Model #	1	2	Э	4	S	6	7 1 July
		Black	White	Total CP	Black CP	White CP	Katio of Black vs White corporal
Outcome	CP usage exp B(SE)	CP usage exp B(SE)	CP usage exp B(SE)	incidents exp B(SE)	incidents exp B(SE)	incidents exp B(SE)	punishment rate B(SE)
Majority male stu- dent population	1.001 (0.001)	1.000 (0.001)	1.001 (0.001)	$1.002^{*}(0.001)$	1.001 (0.001)	1.002* (0.001)	-0.0238 (0.025)
Problem student behaviors:	behaviors:						
Arrest rate	$1.070^{*}$ (0.034)	$1.085^{*} (0.036)$	$1.101^{**} (0.034)$	$1.098^{*} (0.041)$	$1.087^{*}\ (0.046)$	$1.104^{**}$ (0.038)	-0.347~(0.929)
Suspension rate	$1.008^{*} (0.004)$	$1.015^{***}$ (0.004)	1.007(0.004)	$1.017^{***}$ (0.003)	$1.016^{***}$ (0.004)	$1.011^{***}(0.003)$	$0.349^{**}$ (0.118)
Expulsion rate	$0.944\ (0.047)$	$0.856^{*}$ (0.062)	$0.975\ (0.033)$	$0.952\ (0.033)$	$0.859^{*}$ $(0.059)$	0.974 (0.032)	$0.000847\ (0.831)$
Restraints/seclu-	0.993(0.012)	(0.008)	0.978 (0.016)	0.997 (0.010)	0.991 (0.015)	(600.0) 766.0	0.000142 (0.035)
sions rate							
Retention rate	$1.018^{**} (0.007)$	1.009(0.007)	$1.015^{*}$ (0.007)	1.010(0.008)	1.006(0.007)	$1.017^{*}$ (0.008)	$0.00291 \ (0.150)$
School characteristics:	stics:						
Charter school	$0.328^{**}$ (0.142)	$0.324^{*}$ $(0.160)$	$0.285^{**}$ (0.136)	0.515 (0.207)	$0.351^{*}$ $(0.161)$	0.519 (0.227)	1.163(5.615)
Alternative school	$0.165^{***}$ (0.072)	$0.160^{***} (0.079)$	$0.159^{***}$ (0.076)	$0.381^{**}$ (0.143)	$0.377^{*}$ (0.162)	$0.296^{**}$ (0.116)	-10.30 $(7.179)$
Magnet school	$0.605^{*}$ (0.154)	1.133(0.273)	$0.739\ (0.209)$	$0.505^{**}$ (0.106)	$0.592^{*}(0.131)$	$0.346^{***}$ (0.078)	-8.395(4.826)
Special education	0.0714*** (0.044) 0.118*** (0.076)	$0.118^{***}$ (0.076)	0.0720*** (0.050)	0.0635*** (0.033)	$0.0853^{***}$ (0.052)	$0.101^{***}$ (0.059)	-5.660(8.703)
school							
Grades	2.742*** (0.430) 2.145*** (0.348)	$2.145^{***}$ (0.348)	$3.276^{***}$ (0.540)	$2.296^{***}$ (0.334)	$2.249^{***}$ (0.372)	2.725*** (0.383)	$-20.94^{***}$ (4.842)
preschool-6							
Grades 7-8	1.051 (0.089)	0.913 (0.083)	1.047~(0.092)	1.111(0.088)	$1.222^{*}$ (0.112)	1.110(0.083)	3.172 (2.689)
Grades 9-12	0.798(0.118)	$0.660^{**}$ $(0.100)$	0.985(0.152)	0.924(0.128)	$0.869\ (0.135)$	1.199(0.159)	$-21.72^{***}$ (4.604)

Table 2. Multi-Level Regressions Predicting Corboral Punishment (CP) Prevalence. Incidence. and Corboral Punishment Disproportionality Index (CPDI)

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Table 2.	
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	Log	Logistic regression (prevalence)	nce)	Negatiı	Negative binomial regression (incidence)	idence)	OLS regression (CPDI)
Model #	1	2	ω	4	S	6	7
		Black	White	Total CP	Black CP	White CP	Ratio of Black vs White corporal
Outcome	CP usage exp B(SE)	CP usage exp B(SE)	CP usage exp B(SE)	incidents exp B(SE)	incidents exp B(SE)	incidents exp B(SE)	punishment rate B(SE)
\$10000	0.998*** (0.001) 0.998** (0.001)	$0.998^{**}$ (0.001)	$0.999^{**}$ (0.001)	(000.0) **666.0	$0.998^{**}$ (0.001)	(0000) * 6660	$-0.00770\ (0.012)$
expenditure rate 1.مو % early	1.014 (0.016)	1.006 (0.017)	1.02.2 (0.017)	0.992 (0.015)	0.976 (0.017)	0.993 (0.014)	0.103 (0.467)
teachers							
Log % chronically	Log % chronically 1.136*** (0.043) 1.140** (0.047)	$1.140^{**} (0.047)$	$1.120^{**}$ (0.044)	$1.005\ (0.036)$	$1.050\ (0.044)$	0.996 (0.034)	$-0.00755\ (1.152)$
absent teachers							
Students per	0.999 (0.005)	1.002 (0.003)	1.002(0.004)	0.999 $(0.003)$	1.001(0.003)	1.001(0.003)	0.00313 (0.113)
teacher							
Constant	0.0315*** (0.023)	$0.0164^{***}$ (0.012)	0.0337*** (0.025)	$0.0315^{***} (0.023)  0.0164^{***} (0.012)  0.0337^{***} (0.025)  0.0000317^{***} (0.000)  0.000242^{***} (0.000)  0.0000403^{***} (0.0000403^{****} (0.000040$	0.000242*** (0.000)	$0.0000403^{***}(0.000)$	22.96 (15.918)
Observations	16237	16237	16237	16237	16237	16237	16237
Offset term				School	Black student	White student	
				population	population	population	

Notes: Exponentiated coefficients for Models 1-6, raw coefficients for Model 7; Standard errors in parentheses. Logistic regression models estimate the odds of at least one student being corporally punished in each school (1 = yes/0 = no) by student race and overall. Negative binomial models estimate the number of corporal punishment incidents overall and by race. OLS model estimates the ratio of the Black CP rate to the White CP rate. All models adjust for the nesting of schools within counties and include state fixed-effects. \*p<0.001, \*\*\*p<0.001 (two-tailed tests).

Several school-level measures predict corporal punishment practices. Schools with larger black student populations are significantly less likely to use corporal punishment (Model 1) and have lower rates of corporal punishment (Model 4), but these effects are small.<sup>15</sup> Schools with a higher percentage of disabled students have a higher prevalence and incidence of corporal punishment (Models 1-6). Schools with a larger number of chronically absent teachers have a higher prevalence of corporal punishment use for all racial groups (Models 1–3), suggesting that staff instability increases reliance on this sanction, but student-to-teacher ratio and percentage of early career teachers are unrelated to corporal punishment. School expenditures per students are negatively associated with corporal punishment prevalence and incidence overall and across groups (Models 1–6), consistent with anecdotal evidence of reliance on corporal punishment in under-resourced schools (Hager 2015).

Patterns of corporal punishment relate to other school disciplinary practices. The rate of restraints/seclusions are not significantly associated with corporal punishment, but school suspensions (Models 1–2, 4–6) and arrests (Models 1–4, 6) positively relate to both prevalence and incidence. Schools employing corporal punishment tend to employ a wider array of severe disciplinary measures, yet the effect of lynching remains significant with these measures in our models, illustrating its independent and specific effect on corporal punishment practices.

Our disaggregation of school types reveals two important patterns of corporal punishment in Southeastern public schools. First, while the percentage of disabled students in a school is associated with a greater likelihood of corporal punishment use (Models 1-6), special education schools (as well as magnet and alternative schools) are less likely to use corporal punishment than conventional public schools (Models 1-6). Our models cannot isolate corporal punishment of special education students but results suggest these students are more likely to be corporally punished in conventional public schools than other types of schools.

Finally, corporal punishment is significantly more common at elementary grade levels than in middle or high schools (Models 1–6). Numerous factors may contribute to the vulnerability of younger students, including the difficulty of communication, the perceived inability to appeal to reason in disciplining younger children, and the sense that younger children are more impressionable or malleable than youth and adolescents. Parents may also be more likely to permit corporal punishment of younger children, and school officials more willing to impose it in their case, given these factors, as well as adverse impacts and other challenges for older children, such as relative physical difficulties, the likelihood of protest, and potential for violent resistance.

Given that many of our control variables were significant, we conducted additional stepwise analyses to assess whether and to what extent these predictors attenuate the relationship between lynching and corporal punishment (see Tables S1–S5 in Supplemental Appendix). After estimating the bivariate effect of historic lynching, we separately introduced controls at the county (level 2) and school levels (level 1). Stepwise analyses indicate that the relationship between lynching and corporal punishment was most attenuated (but still statistically significant) when adding county-level demographics, rather than school-level characteristics. County measures highly correlated with historic lynching rates, including urbanicity, socioeconomic status, religiosity, social capital, and poverty, appear to drive these patterns, with poverty being especially important for black-white disparities in corporal punishment. These patterns support our theoretical expectations that historic lynching works in tandem with other social contextual factors to distinguish environments more supportive of this violent disciplinary practice.

<sup>15</sup> Since black youth are concentrated in urban schools we examined the interactive effects of percent black students and percent urban. The interaction is positive and significant in Model 1 (overall use), but non-significant in Model 4 (overall incidence). Inclusion of these interaction terms does not alter substantive findings regarding legacies of lynching, so we omit them here, but they are available upon request.

## DISCUSSION

Despite expressed concerns from the federal government to address racial disparity in school discipline (Kupchik 2016; U.S. Department of Education 2016), insight into the sources of these disparities has been lacking. A key contribution of this study is its indication that historical racial violence is an environmental factor related to racially disparate school discipline. We find that rates of corporal punishment use overall, and the likelihood and rate of use for black students in particular, are significantly related to county histories of lynching.

Our analysis reaffirms several key relationships observed in prior research. Consistent with prior research linking historical racial violence to conflict, violence, and inequality today, we find that violent school discipline is among these contemporary legacies. Our analysis does not identify causal mechanisms of this legacy effect, but we highlight several theoretical interpretations in extant literature which are plausible here. Our findings are generally consistent with the understanding that spatially concentrated latent effects of lynching, including the promotion of violent subcultures, extreme racial socialization, and legal estrangement and cynicism, sustain conflict, violence, and inequality in the same areas today (Ward 2016).

Drawing on the environmental turn in implicit bias research (Payne et al., 2017), we suspect the greater accessibility of salient racial sensibilities is also relevant to our findings. Elaborating on theorized latent effects on racial socialization and legal cynicism, we suggest that two inter-related racial logics may contribute to overall and greater black youth exposure to corporal punishment in school communities distinguished by historic lynching: long-standing racist rationalizations of whipping black transgressors and parental notions that corporal punishment protects black youth from greater threats in hostile environments. These logics likely combine to shape punishment practices, which accordingly blend state-sanctioned and private household violence in communities distinctly impacted by legacies of lynching.

Patterns of civic engagement appear to either intensify or dampen this exposure. Our findings reaffirm the relationship between religious conservatism and support for corporal punishment, highlighting the importance of this cultural support base (Ellison and Sherkat 1993; Hyman 1995; Owen and Wagner 2006). Yet, in counties where residents are more broadly engaged in civic and associational life, cultivating and leveraging local stocks of "community capacity" (Rupasingha et al. 2006), school officials may be less inclined or supported in corporally punishing students, though legally permitted to do so. The relative and co-related influence of historic lynching, religious conservatism, and social capital on corporal punishment practices warrants further research and policy attention.

Given the significance of collective efficacy to community violence (Sampson, Raudenbush, and Earls 1997), it seems likely to prove a key connective thread in relationships observed here. Owen and Wagner (2006:495) argue that religious conservatism "undermines the development of social capital," perhaps because of the insularity and dogmatism of these conservative groups, which often shun engagement with outsiders. This narrowing of collective identification and related divestment in some areas of civic and associational life (Owen and Wagner 2006) may limit community capacity to mobilize shared bonds to protect one another (i.e., collective efficacy). Alongside extreme racial socialization (Tolnay and Beck 1995) and tears in the social fabric associated with histories of racist violence (McVeigh and Cunningham 2012), this weakening of collective efficacy and its protective benefits might increase the exposure of all youth, and black youth in particular, to violent school discipline. Further, the accessibility of race-based rationales of corporal punishment (assaultive and protectionist), whether explicit or implicit, likely interacts with the presence of other bases of justification, such as rigid religious beliefs, and the absence of meaningful and trusting relationships with outgroup families and community institutions.

Our findings regarding spatially concentrated and racially disparate corporal punishment also suggest that adverse impacts of this discipline will help to sustain broader cycles of violence and inequality in particular places. Prior research finds corporal punishment to be detrimental to educational success (Gershoff, 2017; Hyman 1995), and resulting physical and psychological traumas are associated with chronic disease, behaviors that risk health, and with premature death (Felitti et al. 1998). Disproportionate corporal punishment of black youth concentrates these harms among black students, and in communities long subject to violently maintained racial subordination (e.g., racial terror), likely sustains broader patterns of racial stratification, poorer physical and mental health, criminal legal system involvement, and lack of mobility. Black youth likely perceive that they or their peers face discrimination in this heightened exposure to violent school discipline, and perceptions of discrimination are associated with reduced self-esteem, depression, and anxiety (Schmitt et al. 2014), all of which are associated with school failure, withdrawal, and association with delinquent peers (Smalls et al. 2007; Unnever, Cullen, and Barnes 2016).

A century after the peak of racial terror lynchings in the U.S. South, communities marked by these atrocities remain distinguished by their contemporary remnants, including elevated homicide, incarceration, and capital punishment rates (Ward 2016; Petersen and Ward 2015). Our research identifies corporal punishment in contemporary public schools as another part of this cycle of racialized violence, conflict, and inequality. Given potential harms of this disparate use of corporal punishment, including civic disengagement and interpersonal violence, the persistence of this discredited practice in these particular places seems both a symptom and source of weakened bonds, racialized rationales (assaultive and protectionist) of corporal punishment, and sustained violence and inequality over time. Clearly, there is a need for further research clarifying these relationships. Yet the basic injustice, and adverse present and future implications of this relationship, are sufficiently clear to warrant immediate intervention.

## Limitations and Future Directions

The CRDC database offers the most representative data sources on school-based corporal punishment in the American South but it is limited in several ways. Most important, this archive provides an incomplete picture of the practice of school corporal punishment. Approximately ten percent of all elementary and secondary school students attend private schools, yet these schools and their millions of students are excluded from CRDC data (National Center for Education Statistics 2018b). Incidents of corporal punishment are also underreported. A superintendent of a major Mississippi school district speculates that corporal punishment was used twice as often as reported in that district. He explained that school personnel circumvent formal policy procedures by hitting a student themselves without referring them to the central office, thus avoiding reporting protocols which are the basis of CRDC data (Human Rights Watch 2008:46). We have no reason to believe such omissions are patterned in ways that bias our results, yet they lessen protections of students and the accountability of schools.

School-based CRDC data also lack important student-level information, such as intersecting status group memberships, behavior and academic problems, and actual experiences and consequences of corporal punishment. Prior research at the student-level indicates that racial disparity in this punishment cannot be explained by differences in behavior (McFadden et al. 1992; Shaw and Braden 1990), and our findings are consistent with this, but more detail on behaviors resulting in corporal punishment would inform research and policy intervention.

There are many remaining uncertainties over how widespread these punishments are among students, how they vary in terms of severity and other qualitative characteristics, and their impacts. While we focus on corporal punishment prevalence and incidence (i.e., any use and rate of use), the data do not enable identification of students subjected to repeated corporal punishment. Nor do they address the severity of corporal punishment, including the pain and any injuries inflicted, or other qualitative experiences of students (e.g., humiliation), their relationship to social contextual factors (e.g., historic lynching), all of which have implications for individual and collective well-being (Hyman 1995). While our multi-level models reveal legacy effects that are consistent with prior research and deepen our understanding of school-level bases of disparity in school discipline, questions remain about mechanisms linking historic lynching and contemporary corporal punishment. We theorize that historic lynching influences corporal punishment practices through numerous processes, including extreme racial socialization, diminished collective efficacy, and legal cynicism in these particular environments. We suspect that both anti-black (assaultive) biases and more responsive (protective) racial logics rationalizing corporal punishment as a form of protection are more likely to be accessible in places with more extensive histories of racial violence, but cannot assess these intervening processes directly. Our findings are generally consistent with these theoretical propositions and encourage further research to clarify intermediary mechanisms. Moreover, considering evidence that legacies of lynching may be attenuated by collective action that impedes the inter-generational transmission of underlying racist schemas (Gabriel and Tolnay 2017), future research should attend to local developments which have either sustained (Ward 2016) or diminished this legacy effect over ensuing years.

Finally, future research should examine racial and other disparities in corporal punishment more extensively, in terms of comprehensiveness and complexity. We focus specifically on corporal punishment for black and white students, as is appropriate given our hypotheses and the fact that lynchings were most commonly directed at black Americans, and because it mirrors the prior research upon which we build. Yet prior work shows that other marginalized groups are also at heightened risk of school punishment, including Native American and Latinx students, immigrants, LGBTQ students, and those with disabilities, and there is clearly need to engage the complex intersections of these categories of difference (Kupchik 2016; Morris 2016).

## CONCLUSION

Notwithstanding study limitations, our findings raise pressing concerns about the social structural foundations of corporal punishment in public school systems across the southeastern United States, linking its overall and racially disparate use to histories of racial violence in the region. After controlling for a host of school- and county-level factors, we find that corporal punishment is more common for all students in areas with histories of lynching, and especially more likely for black students in these area schools.

Efforts to abolish school corporal punishment, which have stressed its ineffectiveness and harmfulness (Gershoff and Font 2016; Human Rights Watch, 2008), should also note its role in sustaining long histories of racialized violence. Researchers and child-welfare advocates have stressed that corporal punishment not only fails to promote educational achievement or prevent misbehavior within or outside of schools, but is harmful to youth and communities. Our study suggests that in Southeastern public schools, the practice embodies and likely perpetuates histories of racialized violence, socioeconomic marginalization, and race-based exclusion.

While our research reinforces the call for the abolition of corporal punishment in schools, several other steps might be taken to reduce its occurrence and weaken its relationship to historic lynching. Enforcement of policies requiring documentation of corporal punishment, increasing accountability of school personnel, and supporting positive disciplinary programs and strategies (Human Rights Watch 2008) would reduce reliance on this practice. The pervasiveness and disparity of corporal punishment might also be reduced by the collective repudiation of area histories of racist violence. Public acknowledgments and disavowals of lynching and other violence, through apologies and other commemorative measures, may diminish inter-generational transmission of both racist cultural schemas (Gabriel and Tolnay 2017), and the fear and distrust underlying black community support of corporal punishment. Through these efforts, and otherwise, building stronger civil society organizations, and deeper stocks of social capital, also appears likely to reduce reliance on this disciplinary practice. Yet the case for abolition is clear and raises a larger question of reparation. Given the observed ties to historic lynching, and its likely role in reproducing racialized conflict, violence, and inequality, the abolition of school corporal punishment would help dismantle systemic racism, promoting youth and community well-being in a region still haunted by histories of racial terror.

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