2017

Deconstructing "Deviance" and "Disorder" as Systems of Domination: Chicago Public Schools as a Case Study of the Effects of Zero Tolerance Discipline Policies on Educational Outcomes in US Schools

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Philosophy, Politics, & Economics Senior Thesis
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21 April 2017

Dedication

This project is for Francisco—one of the seventh grade students I was fortunate to spend time with and learn from this past summer in East Palo Alto—and all of the students like him, who find themselves pushed through the cracks of the US education pipeline by forces far beyond their control.

Preface

The rise of "zero tolerance" discipline practices in US primary and secondary schools has become increasingly well documented by the media and empirical studies. Despite the extensive scholarship that has emerged from these conversations, many of these analyses are limited in their scope and do not connect the phenomena of zero tolerance in schools to the diverse, shifting forces at play within American politics and policy today. As such, the goal of this work is to synthesize ideas about zero tolerance across disciplines by integrating historical thought, philosophical frameworks of punishment, shifting policy goals within the US education system, the sociological constructions of "deviance" and "disorder" in the context of the US criminal justice system, and empirical data directly from a school district to develop particular policy recommendations accordingly. The primary research question of this analysis is: *What are the effects of zero tolerance discipline policies on educational outcomes?* To answer this question, Chicago Public Schools will be employed as a case study from which lessons for the nation at large will be drawn. Ultimately, this analysis ends up revealing the ways in which zero tolerance policies stem from much deeper forces at play between dominant and marginal groups, and what comes to be defined as "deviance" in relation to a socially constructed system of "order."

Acknowledgements

This thesis would not exist without the continual support and guidance of a number of people and communities I am tremendously grateful for:

First and foremost, this project would not have been possible without the relentless guidance of my two thesis readers—David Menefee-Libey and Eleanor Brown. Professor DML is a mentor in the truest form of the word, working tirelessly to support students inside and outside of the classroom in exploring their passions with integrity. His class, Education Politics and Policy, has also become foundational in framing the ways I think about the US education system and has profoundly influenced the direction of this thesis. Professor Brown has also been incredibly supportive through this whole process and has also made the Economics department a more inclusive space and a place where I feel comfortable sharing my voice, and for that I am very grateful.

There are also a number of other professors whose classes have fundamentally reoriented my way of thinking in some meaningful capacity: Susan McWilliams (Modern Political Theory; Politics and Literature), Pierre Englebert (Statistics for Politics/International Relations), Bo Cutter (Applied Econometrics), and Gilda Ochoa (Chicana/os and Latina/os in Contemporary Society). Professors Cutter and Englebert, in particular, have both been very generous with their time in helping me develop the econometrics piece of this project. I am also grateful for Professor John Clithero for his guidance in advising my first independent experimental research project in Behavioral Economics during the summer of 2015. That project gave me the space to teach myself statistics and apply it to a project I cared about, and inspired me to pursue more work using data analysis.

Thank you also to my high school debate coach, teacher, mentor, and friend—Tim Case—for first introducing me to criticisms of zero tolerance and for always pushing me to think critically about and advocate for the things I care the most about.

My perspectives on education have been tugged at and fundamentally reshaped by my family at the Draper Center for Community Partnerships. Thank you to everyone who I have been able to work with—especially Maria Tucker, Sergio Marín, José Ramirez, Gilda Ochoa, and Sefa Aina—for showing me what it looks like to strive towards mutually beneficial work that is genuinely inspired from a place of love and desire to connect communities. I am particularly grateful for the groups of high school students I have been able to learn so much from through my work with the Draper Center—our Friday afternoons together will remain some of the most memorable and impactful memories of my college experience.

And thank you, most especially, to my friends and to my family for supporting me unconditionally throughout my educational journey, and the thesis-writing process specifically. I am grateful to my family for the sacrifices they have made to afford me the independence to explore my academic interests at a place like Pomona. Thank you, in particular, to my mom, who has been encouraging me to share my voice through writing since I was in the 1st grade and the content of that writing was nothing more than a fictional story about a bird.

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Introduction

"Every man in my family has been locked up. Most days I feel like it doesn't matter what I do, how hard I try—that's my fate, too."

—11th-grade African American student, Berkeley, California (Rethinking Schools).

In 2009, a group of a couple dozen middle school students at Perspectives Charter School in Chicago took part in the age-old adolescent tradition of a lunchtime food fight. It was like any other food fight capable of being carried out by a group of 11 to 15 year olds, until the on-campus police officer at Perspectives decided to call in for additional backup to deal with the situation. Before long, there was a large police presence on campus to deal with the food fight. The police officers then identified the situation as "reckless conduct"—a misdemeanor in Chicago—and rounded up and arrested 25 of the students involved (Saulny). The students were then held at "[…] the Gresham District police station for over five hours before [their parents] were notified" (Bartosik). One parent of two of the eight-grade girls who had been involved in the food fight shares that her daughters "[…] were handcuffed, slammed in a wagon, had their mugshots taken and [were] treated like real criminals" (Saulny). Perhaps not surprisingly then, the same school responsible for the arrests features a video on their main website of students, teachers, and even Arne Duncan talking about the "warzone" of violence they claim plagues Chicago—all as a promotion for a weekly class the Perspectives offers called "A Disciplined Life" (Perspectives Charter School).

The story of Perspectives High School, and of the criminalization of what used to be considered nothing more than "kids being kids," is unfortunately not an anomaly, but instead a part of a much bigger story. Stories like the arrest of the students at Perspectives are among a series of popular news stories of K-12 students receiving disproportionate punishments

relative to their "misconduct." In many ways though, the focus on these extreme cases of punishment undermines and diverts attention away from the broader, more systemic, forces of hyper-criminalization in America today: entire communities' behaviors become coded as "deviant" or characteristic of "disorder" in relation to the "norm" of the dominant communities. Therefore, to understand the forces that led up to the arrests of the middle school students at Perspectives, it is critical to look more closely at the relation of what are called "zero tolerance" discipline policies in K-12 schools to the systems of inequality they work to (re)produce.

Ever since the 1983 publication, "A Nation At Risk: The Imperative for Educational Reform," there has been a pronounced culture of fear surrounding K-12 schools in the US. Published in the wake of supposed educational declines post-Sputnik in the US, the report reflects the anxieties that existed around the US losing its place as a world superpower and the subsequent displacement of those fears onto the expectations of American schools. The report claims, "[…] the educational foundations of our society are presently being eroded by a rising tide of mediocrity that threatens our very future as a Nation and a people" (NCEE). Though the focus of this piece was on the *educational outcomes* of the US on the national stage, this report has had lasting implications in a much broader sense: fostering a dismal narrative about the US education system as always being "at risk" and somehow under threat by some totalizing Other force. It does not take much to see the prevalence of this language across conversations regarding the US education system. It has become a popular quip for politicians to displace any and all problems that threaten US' position as a world superpower onto US schools. Accordingly, there is a way in which the public consensus on US schooling seems to be that schools *must be* failing. At the heart of all of these fears, though, lies the

heart of American competitiveness to optimize "educational outcomes" (i.e. test scores). This fear has generated a public protectiveness over the safety and achievement of US schools, such that anything seen as a threat to schools' well-being is quickly thrown under attack. Inherent in the narrative of US schools today, then, is a sense that we must protect ourselves from some ambiguous, and loosely-defined *Other*.

In the wake of increased school violence and threats to the educational outcomes of US' schools, this "Other" has become students who act in ways that are determined "deviant" by the state. To be a student who misbehaves within this system that is already "at risk" is to threaten the already very delicate project of the US education system. The "risk" has shifted from lying within the larger institutional forces driving US education to individual *students* who have seemingly become the risk itself. This risk is still, in many ways, intricately tied to the educational outcomes of the state. The narrative is that "deviant" behavior from the "at-risk" students takes away from the learning opportunities of the students who are "just at school to learn." The reality of the situation turns out to be much more complex, so these narratives help to explain the particular historical context that has given rise to what is now referred to as *"zero tolerance"* school discipline policies. Given that the majority of students targeted by such policies are often students of color, English Learners, migrants, etc., the construction of these students as the dangerous "Other" is a natural extension of more pervasive systems of power.

Understanding the rise of zero tolerance school discipline policies at the US gets at the heart of several, critical intersectional questions of this particular political moment: What is the role of dualism in the American political system, in particular with regards to constructions of race and "deviant behavior"? What is relationship between US schools and

the prison system, and how do school discipline policies reinforce this connection? What are the goals of education, and how do they intersect with managing and policing behaviors? How can philosophical theories of punishment be used to create models of school discipline that protect the socio-emotional well being of students? Studying the rise and impact of zero tolerance policies in schools, therefore, gets to the core of education policy's intersections with philosophical, pedagogical, and political thought.

In order to begin to answer these questions, this analysis seeks to perform a policy analysis of zero tolerance discipline models in the US. More specifically, the primary research question of this work is: *What are the effects of zero tolerance policies on educational outcomes (specifically, graduation outcomes) in US schools?* This analysis will, therefore, begin in the first chapter by providing a thorough background on zero tolerance historically, philosophically, etc. and provide a working definition of what such policies entail. The second chapter will then proceed to provide a literature review on the determinants of educational outcomes and the existing casual narratives regarding the effects of zero tolerance on educational outcomes. The third chapter will introduce the case study of Chicago Public Schools for the econometric analysis of this district's data in the fourth chapter. This will all conclude with a discussion of policy recommendations, based on the findings of this analysis and of research on alternatives to zero tolerance. All of this work will critically put into question the authority of the social constructions of "deviancy" and "disorder" that fuel hyper criminalization in schools, and the US criminal justice system at large.

Chapter 1
Historical Context and Framework of "Zero Tolerance"

To engage in any worthwhile discussion of the effects of zero tolerance policies on educational outcomes, it is critical to first establish a working definition of what "zero tolerance" means in the context of K-12 education policy and to understand the historical context that gave rise to these policies in the United States. As such, this chapter provides a history of the rise of zero tolerance discipline policies that is grounded in relation to other parallel, mutually reinforcing policy shifts. The first section of this chapter traces the origins of zero tolerance in the context of the media-driven hysteria of the War on Drugs. The following section attempts to contextualize these changes within the larger goals embraced within the US education system. From there, the analysis considers philosophical theories of punishment at play in school discipline, so as to locate zero tolerance policies within philosophical frameworks of punishment. The following section more closely identifies how zero tolerance policies manifest at a school level and settles on a working definition for "zero tolerance." Then, there is a brief policy overview of zero tolerance school discipline policies in the US, and the chapter closes with an introduction to the case study on Chicago Public Schools. The goal of this chapter is, therefore, is to synthesize the many moving parts of school discipline policies and to establish a multi-level framework for breaking down what zero tolerance discipline polices mean historically, philosophically, ideologically, and in terms of specific policies.

A. Historical Origins of "Zero Tolerance"

The political climate that fostered the rise of zero tolerance can be perhaps best understood by looking more closely at the "moral panic" rhetoric responsible for the inception of zero tolerance policing during the War on Drugs. In his theory on the role of presidential rhetoric in the construction of moral panic, James Hawdon uses the War on Drugs to demonstrate that there are three distinct phases of creating moral panic. The first phase, "Communitarianism and the Call to Action" involves the identification of a specific threat, a collective action that will eradicate that threat, and an enemy responsible for propagating the threat (427). The ultimate irony of such rhetoric is that it is through the focus on *community* that the construction and exclusion of an Other becomes possible in later phases of the moral panic construction. The second phase of creating moral panic, according to Hawdon, is "Adopting a Dualistic Model of Use" (430). He suggests that, in order for the energy of collective action to be sustained in ways that will become reflected in policy, presidential rhetoric (and really, all political rhetoric) must sustain the panic. In the context of the Reagan Administration and the War on Drugs, "proactive-punitive" and "proactive-rehabilitative" approaches were pitted against each other to sustain the moral panic; however, as the panic escalated, there were shifts to embrace more punitive measures in order to adequately address the seriousness of the "threat" (431). Finally, the third stage of Hawdon's model is "Implementation and the Ending of Moral Panics" (431). At this stage, ambiguously harsh policies may be introduced so as to satisfy the fears driving the moral panic and deal with public concern. It was at this point in the War on Drugs that zero tolerance first emerged in the American political consciousness:

> Expanding the enemy [of the War on Drugs] to include occasional users, the Reagan administration launched the Zero Tolerance Policy (ZTP). ZTP, being punitively

> oriented and based on a criminal model of use, called for the confiscation of all property on which any amount of a controlled substance was found. (432)

The term "zero tolerance" originated during this period as a loose "rhetorical device, used to signal uncompromising authoritative action by the State and its agencies, against an external and internal enemy" (Newburn and Jones 222-223). Therefore, integral to the narrative of a "moral panic" is the existence of some enemy whose differences to the dominant group are defined in largely dualistic terms. Understanding the nature of the moral panic generated in the US War on Drugs is critical to contextualizing the rise of zero tolerance policies in schools, because the latter largely grew out of the former.

One of the first policies to be specifically identified as "zero tolerance" was the "program developed in 1986 by Peter Nunez, the U.S. attorney in San Diego [that called for] impounding seagoing vessels carrying any amount of drugs" (Skiba and Knesting 18-19). The loose language of this policy quickly spread to policymakers who were constructing a broad range of other policies, ranging "from environmental pollution and trespassing to skateboarding, homelessness, and boom boxes" (19). The rhetoric of "zero tolerance"—inspired by the language of San Diego's policy—gained further prominence under the Reagan administration's oversight of the War on Drugs when the US Customs Commissioner, William Von Raab, adopted a zero tolerance approach for the Customs Department (Newburn and Jones 223). A similar logic was also at the heart of the proceeding presidential administration of George H. W. Bush, who, in his first television address to the nation, claimed: "Zero tolerance isn't just a policy, it's an attitude. My administration will be telling the [drug] dealers: whatever we have to do, we'll do, but your day is over, you're history" (Baum 244). These policies thrived under the veiled pragmatism of utilitarianism that manipulates a fear of some ambiguous enemy to justify the state's suspension of due

process for particular communities of people. As the harshness of the rhetoric of "zero tolerance" suggests, these policies oftentimes lack an upper limit, so to speak, on how far rights can be curtailed so as to protect "American society" from the moral threat. Moral panic-oriented policies, therefore, often depend on notions of *Good versus Bad* and *Self versus Other/Enemy*, that dichotomize groups into systematically opposing forces. The way that students' identities come to be constructed alongside the threat of violence in US schools ends up being no different.

To understand the transition of this logic of "zero tolerance" into school policies that followed the War on Drugs, it is helpful to put the specific rhetoric that has been employed to create this duality into the context of school discipline. Policymakers who have historically pushed for zero tolerance policies in schools have benefited from the public discourse—and in particular, the rhetoric being strategically employed by the media—that governs definitions of "crime" and "criminals." According to a study reported in 1998 by the Berkeley Media Studies Group that involved over 200 hours in observations of 26 local news stations in California, 77 percent of stories did not involve youth or violence, but of those involving violence, 68 percent involved youth (Woodruff 43-44). These media representations "linked 'teen super-predators', gang-violence and the crack cocaine 'epidemic,' and all were unmistakably characterized as issues of race" (Heitzeg 5). There are multiple potential readings of this phenomenon: either there are *internal* features of youth that dispose them to violence, or there are *external* factors unique to the climates these youth exist within, or it is a combination of both factors. From the former understanding, youth are presented in the media as being morally undeveloped and therefore the ultimate sources of violence. These representations have tremendous power and have become codified within the

juvenile justice system's formal definition of children as people with "less than fully developed moral and cognitive capacities" (Insley 1072). According to the latter explanation, there is a level of *disorder* in the climates "super-predators" exist within that is responsible for the violence. It follows from this understanding that, if this external "disorder" is controlled, then the violence will also be controlled.

This language of "disorder" can be incredibly dangerous as a policing strategy, as it tends to be heavily coded by nativist understandings of race, language, gender, sexuality, etc. One of the impacts of media's control over crime narratives is that they are given partial agency over the biases that become internalized in response to the moral panic. For example, another experimental study reported by the Berkeley Media Studies Group found that "A mere five-second exposure to a mug shot of Black and Latino youth offenders (in a 15-minute newscast) raises levels of fear among viewers, increases their support for 'get-tough' crime policies, and promotes racial stereotyping" (Gilliam, Jr. and Iyengar 46).[1] In part because of these same dualistic media representation, "disorder" has come to be a loose signifier for low-income, communities of color, and in particular, Black and Latino male youth. In his book *Punished*, sociologist Victor Rios proposes the phrase "youth control complex" to describe what he identifies as "a system in which schools, police, probation officers, families, community centers, the media, businesses, and other institutions systematically treat young people's everyday behaviors as criminal activity" (xiv). This phenomenon captures the ways in which "disorder" becomes a symbol that allows the media

[1] As more of a context on the study referenced, the specific objective of the study was to examine the impact of the "superpredator news frame" in all groups watched the same newscast and story, except the race of the youth varied between groups. The first group of participants watched a clip in which the alleged murderer was and African-American or Latino male, the second group's alleged murderer was either Asian or white, the third group's tape included no information on the race of the perpetrator, and a control group did not see any crime story in their newscast (Gilliam, Jr. and Iyenger 45).

to over-hype the effects of youth crime by hyper-criminalizing certain youth, disproportionately by race. This "disorder" is easily manipulated by those with the political capital to abuse it, particularly in a context where American media has already created a general culture of fear when it comes to crime.[2] This fear of crime, coupled with the youth control complex, fosters a political climate that is complacent with the harshness of zero tolerance policies.

Understanding the power of these media representations of crime helps provide the context for understanding the impact of the April 1999 Columbine High School massacre on school discipline policy nationally. The school shooting in Colorado—perpetrated by two male students in the high school—led to the death of 12 students, 1 teacher, and the shooters, and became the most closely watched news event of the year in the United States (Birkland and Lawrence 1405).[3] Columbine was certainly not the first school shooting of its sort, but it was significant because of the way the media used the story to construct moral panic: "The media framed Columbine as the prime indicator of a growing national problem of school violence—quite apart from the actual statistics on school violence, which showed no significant increase in such events (Muschetrt, 2007b)" (1407). Interestingly, Columbine did not cause the emergence of new federal policies to protect communities against school violence; instead, existing policies were just more rapidly and aggressively implemented at the school-level, post-Columbine (1412). While Columbine did not result in new federal policies, there were still very real consequences on the increased fear of violence at schools, as evidenced by the "beefing up [on] school security and cracking down on juvenile

[2] According to multiple studies, TV viewers who watch more than four hours of TV a day "overestimate the crime rate, the likelihood of crime victimization, and the extent of stranger related violence" (Heitzeg 6).
[3] More specifically, according to the Pew Research Center, 86% of the public paid close attention to the media stories on Columbine (Birkland and Lawrence 1405).

offenders" (1412). This increased security presence and the fear-driven understanding of K-12 students as a threat to safety are more difficult to measure than particular "policies" are, but so much of what "zero tolerance" has come to signify in practice is this very culture of hyper criminalization. The presence of such a culture is evidenced by the fact that "68% of students around the country between ages 12 and 15 reported the presence of security guards and/or assigned police officers in their schools (an increase from 54% in 1999" (Advancement Project 15). Therefore, while "zero tolerance" can be defined narrowly in terms of what it means for the *amount* and *severity* of formal systems of punishment (i.e. suspensions, expulsions, police notifications), these formal systems of discipline also have wider effects on more informal system of control like surveillance.

In addition to understanding the ways that media representations contributed to the highly dualistic depiction of youth preceding the rise of zero tolerance school policies, it is equally necessary to understand the special role that schools have historically played in the broader scheme of conservative government politics. In *The Abandoned Generation*, critical theorist Henry Giroux focuses in on the Bush Administration, and argues:

> […] public education has become a battleground and litmus test for conservatives and business leaders in their attempt to expand the ideology of the market and the control of capital over all aspects of society. […] Using the rhetoric of 'compassionate conservatism,' Bush claims that his educational reform package is aimed at addressing the needs of disadvantaged children, closing the gap between rich and poor kids, improving accountability, and offering schools more financial resources to improve their performance. (72)

This spreading market ideology is evidenced by the ways that schools have been increasingly commoditized into profit-making institutions. For example, at the start of the Bush administration, the chancellor of New York City schools proposed that schools begin fundraising through on-campus advertising (73). Though a perhaps seemingly innocuous

suggestion, this policy was just a representation of a more deeply-engrained mind shift in the political climate of America during the Bush administration: "The overt message here is clear: treat schools like a pseudo-marketplace, bribe superintendents into turning schools into testing factories, and punish them if they do not succeed in raising scores" (73). The problem here does not lie in the intrinsic dangers of corporatizing education alone, but also in the ways that the Bush administrations' political narrative caused a shift in the very goals of education, from schools being a place to foster *democratic ideals* to being *revenue-generating* institutions:

> No longer a space for relating the self to the obligations of public life, and social responsibility to the demands of critical and engaged citizenship, schools are viewed as an all-encompassing horizon for producing market identities, values, and those privatizing pedagogies that inflate the importance of individual competition. (80)

Moreover, this logic has had very real consequences on the ways that student behavior has become monitored and policed in classrooms. Certain funding has been distributed on the basis of schools' ability to "remove violent or persistently disruptive students from the classroom" and adopt a zero-tolerance policy for such students (95). The larger implications of this narrative is that it allowed for the Bush administration to displace the responsibility for the causes of this violence to *schools* themselves, suggesting that "guns, poverty, racism, the hyper-commercialism of corporate culture, and the brutal machismo of American society have nothing to do with the problems of violence that students sometime face in and out of schools" (95).

B. Contextualizing Zero Tolerance within Changings Goals of Education

This apparent shift from schools being seen as a space to cultivate democratic ideals to being a place that replicates the market dynamics of the neoliberal state reveals the

changing, underlying *goals* of the American education system. In his article, "Public Goods, Private Goods: The American Struggle over Educational Goals," David Labaree posits that the history of the American education system can be understood by the rise, and conflict, between the three goals of the system: *democratic equality*, *social efficiency*, and *social mobility* (41). Each of these goals arose from particular historical circumstances that reflect the broader political factors of their time: democratic equality can be traced to common schools in the mid-nineteenth century's emphasis on using schools to cultivate *citizens,* social efficiency grew out of the growing market-forces of the late nineteenth and early twentieth centuries and focus on vocationalism to prepare *workers*, and social mobility illuminates the shift to the view of education as private—rather than public—and as a means of fostering *consumers* (43-50). Labaree contends that coalitions can be formed along the lines of no more than two of these goals, because attempting to do any more than that fundamentally compromises one's ability to achieve any of goals effectively; as a result, conservatives often seek to progress social efficiency, whereas progressive coalitions advocate for a combination of democratic equality and social mobility (63). Labaree's argument relies on an understanding that "the central problems with American education are not pedagogical or organizational or social or cultural in nature but are fundamentally political" (40).

When Labaree's analysis was published in the late 1990s, he argued that the social mobility was winning this value battle in American politics and policy, but also that the US was trying and failing to implement all three goals concurrently because of the competing coalitions.[4] By applying his framework to the Bush administration's more market-orientated approach to schools, one can see the ways in which that shift represents a pivot back from

[4] This summary of Labaree's account was taken directly from my first paper I wrote for my Education Politics and Policy class with Professor Menefee-Libey, taken Spring 2017. That paper involved summarizing Labaree's article and then comparing it to another piece we had read that semester.

democratic equality goals to *social efficiency*, in which students are valued for their role as workers. This is all to suggest that the rise of zero tolerance has to be understood at the intersection of various dynamics—political dualism, social construction of "disorder," media representations of youth and crime, changing political coalitions, and the broader educational goals of the US. In this way, it is important to trace how political ideals have been mirrored and/or reproduced in the context of schools, because this reveals more about the political climate than can be gained from looking at strictly-defined "political institutions" alone. Schools can serve as a sort of "ground zero" for much broader political projects, such as addressing concerns related to social mobility, racial integration, and the policing of various marginalized identities.

C. Theories of Punishment

Zero tolerance policies also exist within a particular philosophical schism regarding theories of punishment, so it is helpful to locate them within this context, so as to better understand the logic behind such policies. To do so, the two leading theories of punishment—*retributivism* and *rehabilitation/restorative justice*—must first be defined. These theories are not necessarily mutually exclusive in the sense that most systems of punishment in the real world incorporate aspects of both frameworks in practice; however, they are often framed as diametrically opposed and irreconcilable with each other because they are grounded in opposing understandings on the malleability of human behavior. And, while these theories of punishment have been since paired with social scientific empirical studies regarding the *effectiveness* of different theories in *practice*, these theories of punishment ultimately grew out of philosophical frameworks concerning the meaning of justice. Therefore, to understand the role of these theories in relation to zero tolerance, it is

necessary to ground this analysis within its broader philosophical context. There are long and extensive intellectual histories for both theories of punishment, so this analysis will just provide a cursory glance at these theories to ground the rest of the analysis.

Retributive Justice

The underlying "eye for an eye" logic that drives retributive justice is perhaps as old as human society itself. The idea is that, if one causes some harm, one must be punished and held responsible for that harm (and even potentially have harm caused to oneself in return). Within justifications for retributive justice, there are multiple philosophical approaches taken. For one, there is often a utilitarian logic underlying retributive justice in practice—i.e. society punishes those who violate the law, in order to deter them from committing future harm. This utilitarian, retributive account is ultimately the logic behind zero tolerance discipline policies. The goal of punishment, according to such a utilitarian lens, is to minimize harm and/or optimize happiness (via the deterrence of future crimes). However, the logic of retributivism does not have to be understood through a utilitarian framework. And in fact, Immanuel Kant provides one of the most foundational philosophical justifications for retributivism through a strictly means-based, deontological account of morality. More specifically, Kant suggests that, as human beings, our wills are governed by a "categorical imperative"[5] to follow the principal: "I ought never to act except in such a way that I could also will that my maxim should become a universal law" (Kant xvii-xviii). According to Kant's logic, therefore,

[5] The notion of a categorical imperative, though critical to Kant's framework, is not necessary to go into further in this context. All that is important to understand at this point is that *categorical* imperatives, as contrasted to *hypothetical* imperatives, establish absolute moral rules. In further clarifying the difference between the two imperatives, Kant writes, "Now, if the action would be good merely as a means to *something else*, the imperative is *hypothetical*; if the action is represented as good in itself, hence as necessary in a will that in itself conforms to reason, as its principle, then it is *categorical*" (28).

punishing to reach some other end (such as deterrence) cannot be justified because it uses people as a means to ends; instead, punishment must be applied proportional to the harm caused in order to condemn some action (the crime) from becoming universal law.

While this is an extremely cursory overview of some of the arguments made within the literature on retributive justice, these positions are referenced in order to demonstrate how restorative justice models can make both *positive* and *negative* claims: "The positive desert claim holds that wrongdoers morally deserve punishment for their wrongful acts" and the negative claim holds that, "Those who have done no wrong may not be punished" (Walen). In other words, the backbone understanding of retributivism, regardless of whether one approaches it through deontological, utilitarian, or some other ethical framework, is designed to punish only those who carry the guilt of a particular action. If a system of punishment either does not punish the guilty, or wrongfully punishes the innocent, then it would be failing to respect the philosophical underpinnings for this theory of punishment. The logic of zero tolerance, therefore, does not always neatly fit within this Kantian account of retributivism, because it often justifies disproportionate punishment and using humans as ends to avoid more harm.

Restorative Justice/Rehabilitation

The restorative justice (RJ) approach to punishment is thought to have originated in the "premodern native cultures of the South Pacific and Americans" in which cultures "emphasized the offender's accountability for the harm they caused, along with a plan for repairing the hurt and restoring the offender to acceptance" (Fronius *et al.* 5). The model of restorative justice can be understood as a sort of meeting in between retribution and

rehabilitation models (Braithwaite 4). Inherent in this logic, therefore, is a focus on the *act*, rather than the *individual*, as the source of harm. This detachment of guilt represents a distinct shift away from dualistic understandings of children as either distinctly "criminal" or "good" and are incompatible with zero tolerance practices:

> RJ proponents argue that a strict focus on 'paying the offender back,' which is often the philosophy behind exclusionary punishment, can leave the victim without closure or fail to bring resolution to the harmful situation. […] Such a philosophy [of RJ], advocates state, can open the door for more communication and for resolutions to the situation that do not involve exclusionary punishments like suspension. (10)

In practice, that means that restorative justice models often entail a trade-off with punishments like suspensions, expulsions, and police notification and alternative practices like community peace circles. Instead of trying to eliminate students from their school communities to "protect" the safety of the rest of the school, this model views all students as integral to their school communities and values their well-beings accordingly. This model is not unique to the school-context, and has also been introduced at various levels of the US criminal justice system at large. Restorative models draw from the logic of rehabilitation—i.e. that all humans are subjects to particular conditions that cause their behavior and therefore they must be *treated* rather than *punished*—and incorporates this way of thinking into the context of community ties. In order to restore any harm caused by violating these community ties, restorative justice understands that the community itself must be treated, in a way similar to the individual is treated within a system of strict rehabilitation. It is important to understand the restorative justice model for the purpose of this analysis, so as to locate zero tolerance on the spectrum of philosophical frameworks of punishment.

D. Defining "Zero Tolerance" Policies in the Context of US Schools

Prior to settling on a particular definition of zero tolerance, it is necessary to distinguish between the various forms of punishment that schools traditionally employ in response to whatever they choose to label as behavioral misconduct, or "deviancy." Understanding the relative severity of these forms of punishment helps to understand the implications of schools opting for one punishment over another. Most schools identify various levels of seriousness in misconduct that result in three different sorts of punishment. The first—and typically understood as the least severe—form of punishment is *suspensions*. Important to note is that there is a difference between in-school suspensions (ISS) and out-of-school suspensions (OSS), where the first method typically involves "a student [being] removed from the classroom and compelled to stay in an ISS center for a variable length of time, ranging from part of a day to several days in a row" and the latter refers to removing a student from school premises, typically for no longer than for a period of ten days (Blomberg 2). Because OSS is typically understood as the more severe of the two forms of suspensions, observing the increase in the ratio of OSS to ISS in a given school district can be a helpful proxy for measuring and defining zero tolerance. Distinguishing between OSS and ISS in the context of this analysis is also critical, given that existing literature suggests that OSS in particular results in students' emotional and academic needs both not being met, particularly for students who are characterized as "at-risk" (4). The second level of punishment that traditionally follows a ten-day suspension is *expulsion*, or the removal of a student from their school for up to 80 days.[6] And finally, the third, and most extreme form of punishment a school could opt for, is *police notification.* This last measure is particularly important when contextualizing the relationship of zero tolerance policies to the trend referred to as the

[6] The possible length of an expulsion varies based on the individual school's policy.

"school-to-prison pipeline"—i.e. the growing connection between students' behavioral misconduct in schools and juvenile and adult criminal justice systems. All of these various forms of punishment are noted because understanding the relative severity of each of them allows one to build a more nuanced definition of zero tolerance. Because zero tolerance exists both through and beyond codified state and federal laws as a *culture*, one can measure and define the existence of zero tolerance by the relative increase of more severe forms of punishment, such as OSS, expulsion, and especially police notifications, as a representation of the broader nature of these policies.

Given this understanding, this analysis will embrace the definition of zero tolerance proposed in a publication produced by the the National Education Association (NEA):

> A zero tolerance policy assigns explicit, predetermined punishments to specific violations of school rules, regardless of the situation or context of the behavior. In many cases, punishment for a violation under the policy is severe, such as suspension or expulsion from school (Boccanfuso and Kuhfeld 1).

In other words, zero tolerance policies are those that do not always seek to factor in the situational factors behind an act of misconduct, and instead apply (oftentimes harsh) punishments for any minor infraction of a law. The nature of zero tolerance is, therefore, intricately tied to dualist understandings of youth in the context of crime—either one did or one did not violate a rule, and the punishment that follows is predetermined. In many cases, this has ended up with students receiving harsher punishments than they would have previously—i.e. more suspensions and expulsions—rather than non-punitive treatments, such as just having a conversation with students and having them reflect on their actions. According to this definition of zero tolerance, the scope of such policies is fairly large nationally; the National Center on Education Statistics (NCES) has found that "94 percent of all schools have zero-tolerance policies for weapons or firearms, 87 percent for alcohol, and

79 percent for violence or tobacco" (cited in Skiba and Knesting 20). To further understand the scope of zero tolerance school discipline policies and the ways they have become codified in the law, this analysis will proceed by providing a brief overview of the policies employed federally, across states, and in Chicago Public Schools (CPS).

E. Discipline Policy: A Legal Overview

Given the apparent difficulty in specifying a comprehensive definition of zero tolerance, a brief history of policies that have come to define zero tolerance will help to ground this analysis. The most notable law that set the tone for what zero tolerance has come to mean, and the only one that exists at the federal level to codify zero tolerance, is the Gun-Free Schools Act (GFSA) of 1994. The GFSA was passed in the wake of the Gun-Free School Zones Act (GFSZA) of 1990 being found unconstitutional by the Supreme Court Case, *United States v. Lopez* (Safra 637).[7] Both of these federal laws also followed individual school districts across the country adopting zero tolerance policies in late 1989.[8] The GFSA, passed under the Clinton administration, deviated in its specification of *schools* instead of more loosely defined *school zones*, and the specific requirements of the act were as follows:

> Each State receiving Federal funds under any title of this Act shall have in effect a State law requiring local educational agencies to expel from school for a period of not less than 1 year a student who is determined to have brought a firearm to a school, or to have possessed a firearm at a school, under the jurisdiction of local educational agencies in that State, except that such State law shall allow the chief administering officer of a local educational agency to modify such expulsion requirement for a

[7] The GFSZA, passed under the Bush administration, made it a federal offense "for any individual knowingly to possess a firearm at a place that the individual knows, or has reasonable cause to believe, is a school zone" (Cornell University Law School), but it was found unconstitutional on the grounds that it violated the Congress's Commerce Clause power (Safra 637).

[8] For example, during this year, "school districts in Orange County, California, and Louisville, Kentucky, promulgated zero tolerance policies that called for expulsion for possession of drugs or participation in gang-related activity" (Skiba and Peterson 373). The specifics of these policies were not consistent across states.

> student on a case-by-case basis if such modification is in writing. (US Department of Education)[9]

Though this initial wording of the bill clearly specified firearms as the primary source of concern, the bill has since been amended to include any instrument that could be used as a weapon as of concern. This broader definition of what a "dangerous weapon" entails, in combination with the relatively limited power students have in contesting behavioral disputes, has resulted in concern over the potential lack of due process available to students, especially as the punishments associated with misconduct have escalated. Furthermore, the degree of due process afforded to students varies on a state-by-state basis, based on state-based court cases: "Some [states] provide formal due process, such as a hearing with the right to cross-examine witnesses. Others provide for no due process at all" (Cerrone 164). The lack of specificity of this law largely contributes to the difficulty in nailing down a consistent definition of zero tolerance, because zero tolerance can mean vastly different things within different states, school districts, and even schools.

Given the range of zero tolerance policies and legal cases between states, it is worth highlighting some of the most prominent of such state-specific examples. To get a sense of the scope of zero tolerance policies, Skiba and Knesting find that, "at least one component of a zero-tolerance approach is currently [as of 2001] in place in over 80 percent of the nation's schools" (18). Furthermore, according to the University of Chicago Consortium on School Research, "over two million middle and high school students are suspended at least once during the school year. Nationally, suspension rates for high school students increased from 8 percent in 1875 to 11 percent in 2010" (7). There is a self-perpetuating nature to this increase in suspensions and expulsions. Inherent in the logic of zero tolerance is that each act of

[9] The inclusion of "case-by-case basis" in the language of the act was primarily included as a means to respect the legal requirements of the Individuals with Disabilities Education Act (IDEA) (Stader 62).

violence is capable of providing the fear necessary to increase state-sanctioned violence. Within the specific history of zero tolerance policies in the US education system, there are several key events in the American legal and political history that are is critical to be aware of:

1960s-1970s: The aging *in* of the baby-boom generation into K-12 schools led to a large growth in the number of students in school, at the same time when political unrest was growing around civil rights issues and the Vietnam War (Insley 1044). The result was that "school systems began to frequently use out-of-school suspensions and expulsions as a way to remove disruptive students from school" (1044-1045).

1970s: Nine students "instituted a 42 U.S.C. § 1983 action against the Columbus Board of Education and various administrators of the Columbus, Ohio, Public School System" on the grounds that they had not received a hearing before being suspended for up to ten days (Cerrone 139). The state court ultimately found that the students had a property interest in attending school that necessitated their rights for due process (140).

1975: In the case *Goss v. Lopez,* the Supreme Court held that there are minimum due process requirements for short-term suspensions because "suspension or expulsion deprives a student so completely of his or her property interest to attend school" (139).

1990s: Leading up the introduction of the GFSA, schools responded to increased fears about violence in American schools with "increased preventative security measures such as police guards, metal detector, and locker searches" (Insley 1045).

1994: Federal Gun-Free Schools Act of 1994

1999: Even after the introduction of the GFSA, some states continued to resist zero-tolerance policies at the level of court proceedings. For example, in the 1999 case, *Lyons v. Penn Hills School District*, the Pennsylvania Commonwealth Court did not uphold the decision of a school "to expel a seventh grader for filing his nails with a small pen-knife because the school refused to allow discretionary review of their decision by the school board and superintendent" (1054).

Though this is certainly not a complete political or legal history of zero tolerance, it helps to provide some additional context for the rise of zero tolerance policies. While there has been

legal resistance to individual instances of zero tolerance, there has yet to be any federal ruling to clarify the due process concerns for the GFSA.

F. Focusing in on Chicago Public Schools (CPS)

Given the scope of zero tolerance laws across states and schools, this analysis will focus in on the case of Chicago Public Schools (CPS). With over 600 schools that serve approximately 400,000 children annually, CPS acts as the third largest school district in the United States (CPS "CPS Stats and Facts"). Accordingly, CPS serves as a strong representative case of the larger culture of zero tolerance nationally for a number of reasons. At the level of demographic composition, CPS includes a high density of several of the most critical groups that are typically focused on in school discipline behavior research. Racially, CPS is composed of 37.7% "African American" students, 46.5% "Hispanic" students, and 9.9% "White" students (CPS).[10] Additionally, 80.22% of students are considered to be "Economically Disadvantaged,"[11] 17.17% of students are classified as "English Language Learners (ELL)," and 13.66% of the students have IEPs (i.e. Individualized Education Program's individualized learning plans) (CPS). As an urban school district with a high poverty rate and many of the most critical risk factors for misconduct in school, Chicago serves as a relevant case study for how zero tolerance policies affect educational outcomes in one of the nation's more strained school districts.

[10] For the purpose of consistency, I use the phrase "Black," instead of "African American," and "Latino," instead of "Hispanic" throughout the rest of this work. There is a lot more that can be said about the choice to use each phrase over the other; however, for the purposes of this thesis, I commit to the usage of each phrase, largely for consistency's sake.

[11] "Economically disadvantaged" is a term of art in the CPS data sets that refers to students from "families whose income is within 185 percent of the federal poverty line (Chicago Public Schools "School Data").

CPS also serves as a strong case study because it has undergone several key policy shifts away from zero tolerance policies. Three key policy changes in particular are often understood as being attempts to shift away from the growing zero tolerance culture that CPS has cultivated: the Culture of Calm Initiative of 2009-10 and 2010-11, the changes that the CPS Student Code of Conduct underwent in 2012-13 and the Suspensions and Expulsions Reduction Plan (SERP) of 2013-14 (Stevens *et al.* 8) Each of these policies, and their relevance to this particular analysis, will be examined further in depth in Chapter 3, prior to working through an empirical framework.

Chapter 2
Literature Review

Prior to analyzing the effects of zero tolerance policies on educational outcomes using the data available from Chicago Public Schools (CPS), it is necessary to first review the existing literature on both sides. The theories presented by existing literature—both at a national level, and specific to CPS—help provide a foundation for understanding the various causal channels that may influence the effects of these policies on educational outcomes. The primary research question of this analysis is: What are the effects of zero tolerance policies on educational outcomes? Therefore, this section will begin with a review of what existing literature has identified as the most critical determinants of *educational outcomes* and will then proceed by summarizing the "big picture" arguments about *how* zero tolerance policies affect educational outcomes. The educational outcome of primary interest for the purpose of this study is *dropout* rates, as this is the proxy for outcomes that will be employed in the forthcoming analysis. The review of determinants will serve as a basis for the econometric model build in Chapter 4, and these causal stories will be used to help break down the findings in the analysis that follows.

A. Determinants of Educational Outcomes

Race/Racial Segregation of School

One of the most reviewed factors of educational outcomes in existing literature is *race,* because it is associated with some of the most pronounced inequalities in educational

outcomes. In 2001, the US high school completion rates[12] ranged from 65.7 percent for Latina/o students, to 85.6 percent for Black students, 91.8 percent for White students, and 96.1 percent for Asians/Pacific Islanders (Kaufman and Chapman 19).[13] However, these statistics only begin to describe the full story. There is evidence that the actual differences in learning between races begin very early within the educational pipeline:

> At four years of age, between 18.8% and 28.3% of Black, Latino, and American Indian children—compared to between 36.8% and 49.4% of White and Asian children—are proficient in letter recognition (Aud *et al.*, 2011). (American Psychological Association 14)

These early inequalities follow students of color—and particularly, African American, Latino, Native American, and certain Asian American subgroups—throughout the education pipeline, as students from these groups have poorer educational outcomes through the twelfth grade (on average) "and are concomitantly underrepresented in high school graduation rates, placement in gifted and talented programs, and admission rates to postsecondary education, when compared to their White and other Asian American peer" (American Psychological Association 14). However, to look at the effect of race in isolation from other critical factors intimately associated with race today, such as socio-economic status, welfare policies, migration status, language status, etc. and to suggest that there is something intrinsic about this variance in educational achievement by race, would be to tread dangerously close to racist and classist cultural deficiency models of education.[14] Therefore, this review will not

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[12] According to Kaufman and Chapman, "Status completion rates represent the percentage of 18- through 24-year-olds who are not enrolled in school and have not completed high school by earning a diploma or obtaining a high school equivalency certificate," so the completion rate represents the inverse of that (19).

[13] This data is based on information collected through the Census Bureau's Current Population Surveys from 1972 to 2001, being cited by Kaufman and Chapman (19).

[14]The cultural deficit model, or "deficit model" 'is the perspective that minority group members are different because their culture is deficient in important ways from the dominant majority group" (Salkind). This model is often applied to the US education system as a means of suggesting that certain cultures value education and therefore work harder, while others don't, and that accounts for any differences in educational outcomes

focus too heavily on the effects of race alone, but will instead continue to explore race through the lens of *segregation* and race's interactive effects with other determinants of educational outcomes.

A more specified channel of influence—particularly given school-level data—is *racial segregation*/the relative density of particular racial groups. One of my key findings in my final Applied Econometrics paper on *suspension rates* (rather than *educational outcomes*), "Examining the Effects of Race on Suspension Rates between 'Low' and 'High' Quality Chicago Public Schools" was that, when looking at school-level data for a school district as segregated as CPS, examining the effects of a school's race by percentage values alone may not be too helpful at capturing the larger dynamics. Rather, my findings are consistent with the logic behind *Brown v. Board of Education* and that "there [may be] some particular effect of racial composition/diversity, rather than race alone, that matters in the case of suspension rates" (Kaul 20). The logic behind this suggestion is that the marginal effects of a school having one percentage more Black students might be radically different than the effects of that school being more segregated and/or having a Black majority compose its student body. And, given that "black and Hispanic adolescents [are] approximately 3 times and 2.5 times more likely than the average student to attend a highly segregated school," racial segregation disproportionately affects students differently by race. This is evidenced by findings that "desegregation plans of the 1970's reduced high school dropout rates of blacks by two to three percentage points during this decade. No significant change is observed among whites" (Guryan 919). According to a 2015 analysis presented by Stanford's Center for Education Policy Analysis (CEPA), the particular mechanism by which

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between the groups. The danger here lies in displacing guilt on structural inequality to the supposed complete autonomy of marginalized groups caught within larger systems of power.

racial segregation matters is *exposure to other poor classmates*, so reducing the race-based differences in this exposure[15] might "lead to meaningful reductions in racial achievement gaps" (Reardon 23).[16] Racial composition has also been found to have particular *teacher*-level effects on the quality of education provided in majority-Black or Latino schools:

> Approximately 2 out of every 3 teachers in majority White schools are certified in their assignment subjects, whereas only 1 out of 2 teachers were certified in schools in which either the proportion of African Americans or Latinos was greater that 50% of the population. (American Psychological Association 17)

In addition to these effects, racial segregation can have broader implications on school climate, such as "lower-between group understanding and empathy and increased prejudice," "damage[d] minority students' self-concept," and "degrade[d] students' ability to collaborate in diverse settings" (Reardon 22). In the context of school discipline, all of these factors that influence the *cohesion* of the school as a community are important to be aware of, because they may serve as indicators of discipline practices as well. There is literature that suggests, "black students benefit from having black peer networks at school" such that it is beneficial for them to have black peers, but not necessarily be placed within black-majority schools (Palardy *et al.* 10). All of this is to suggest that looking at race alone might be less indicative than racial composition/segregation, particularly when it comes to school-level data. And, given the close relationship between race (and racially segregated schools, in particular) and socioeconomic status (and school funding), racial segregation cannot be understood as separate from the segregation of students by socioeconomic status because the effects of both

[15] This language of "exposure" makes this read as though "poor classmates" contaminate their schools. I do not intend to affirm this particular framing of these dynamics, as I feel this linguistic framing of the issue of SES and race can be reproduced dangerously so as to justify the inferiority of poor students of color.

[16] Other studies have also found that desegregation can have positive effects on educational outcomes by race. For example, in Jonathan Guryna's 2003 paper, "Desegregation and Black Dropout Rates," he found: "Analysis of data from the 1970 and 1980 censuses suggests that desegregation plans of the 1970's reduced the high school dropout rates of blacks by two to three percentage points during this decade. Desegregation plans can account for about half of the decline in dropout rates of blacks between 1970 and 1980" (2).

often end up being one and the same. Segregation—and especially *racial* segregation, is therefore perhaps best understood as having a *multiplier effect* on all of the other variables: in highly racially segregated schools, it is likely for the effects of socioeconomic status, language status, etc. to be more pronounced, because those schools are more likely to be highly segregated along class and language lines as well.

Socioeconomic Status (SES)

Accordingly, one of the channels of influence that is perhaps an even larger driving force than race is socioeconomic status (or, SES):

> […] recent research suggests that socioeconomic achievement gaps are now larger than racial achievement gaps and that socioeconomic segregation has a stronger detrimental impact on student learning and attainment (high school graduation and college enrollment) than does racial segregation (Palardy, 2013; Reardon, 2011; Rumberger & Palardy, 2005a).” (Palardy *et al.*3).

Not surprisingly, divisions over who is most impacted by poverty are also largely drawn on racial lines: “While 10.1% and 11.1% of the White and Asian are living in poverty, 27.1%, 34.1%, and 32.7% of Latino, Black, and American Indian children are living in poverty (NAEP, 2010)” (American Psychological Association 17). The mechanisms of influence for SES on educational outcomes are not, however, only at the student level, but are largely tied to school funding. According to a 2002 review by the Center on Budget and Policy Priorities:

> A comprehensive review of over 60 statistical analyses that examine the link between school inputs, such as funding levels and student poverty rates, and school outcomes, such as test scores and graduation rates, indicates that school funding and student performance are strongly related. (Carey 1)

Another causal story that explains part of SES’s effects on educational outcomes is also the effect of SES on the internal organizational capacities of the school: “For example, McDonough (1997) found that high socioeconomic composition schools tend to have an

organizational habitus that promotes attendance at selective 4-year colleges above and beyond that predicted by the academic and family backgrounds of the students" (cited in Palardy *et al.* 4). There are also observed differences on the differences in discipline between low and high SES schools that may mediate the effects on educational outcomes:

> For example, schools serving low SES students tend to put a greater emphasis on obedience to authority and conforming to rules and procedures, whereas schools serving middle- and high SES students put a greater emphasis on student initiative and creativity, whereby promoting differential behavioral expectations that may have long-term consequences on future educational and career success prospects (Bowles & Gintis, 1976; Farkas, 2003). (Palardy *et al.* 5)

These differences in the fundamental school culture begin to help explain the harshness of schools like Perspectives, where a food fight might become labeled as criminal behavior. Because of the strong connection between SES and race, having lower-SES students be focused on obedience to authority often translates to cultures of obedience being stressed within working class, communities of color that are themselves coded as "deviant." This process of either placing the emphasis within school culture on *obedience* or *student initiative/creativity*, therefore, may have larger implications on which communities are understood to be a threat to "order" and which communities moderate that "order."

English (Language) Learner (EL/ELL) Status

Another channel of influence that is intricately tied with race is a student's English Learner Status (EL status). An EL student is a student whose primary language is not English and whose schools therefore often enroll them in remedial English classes. The language status of students is understood as a critical factor across the literature on educational inequality and it is of particular importance to CPS, given that "CPS has one of the largest ELL student populations of any district in the country" (Gwynne *et al.* 9). Like the other

channels of influence, EL/L status is highly associated with race and class factors; for example, 67 percent of ELLs in CPS high schools, as of the 2004-2005 school year, were Latino (10). Existing literature on EL status suggests that *school*-level effects account for the majority of the gap between EL students and their "long-term proficient" peers:

> Because new ELLs were more likely to attend academically weaker schools, they graduated at lower rates than long-term proficient students" and, when controlling for differences in school quality, the gap between the graduation rates of ELLs and their peers drops from 40 percent to 4 percent difference. (45)

There are, of course, relevant difference even within the group of students classified as EL/L between the groups considered "Long-Term ELL Students"[17] and those who are classified as "New ELLs"[18] (50). While Long-Term ELL students "had the worst course performance of any group [of ELL students],"[19] those who were New ELLs "did as well as long-term proficient students in their classes" (50). The CPS public data files unfortunately do not distinguish between these groups in what they label as "Bilingual" (their label for "EL") students, so this analysis will be unable to disaggregate by sub-groups to get a better understanding of the nuances of these differences. Therefore, it is critical to look more closely at the dynamics that account for the differing effects within the EL sub-group—perhaps the most critical of which being their migration status.

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[17] These students are classified as those who were "[…] identified as ELLs in the elementary grades and still had not achieved proficiency by ninth grade" (Gwynne *et al.* 50).

[18] These students are those "[…] who were new to CPS in the middle grades or high school and entered ninth grade as ELLs" (50).

[19] Gwynne *et al.* go so far as to quantify the particular effects of being a Long-Term ELL student in CPS, on average: "On average, Hispanic long-term ELLs failed nearly three classes; had a C- GPA; and missed an average of 18 days, or 3.5 weeks, of school during their first year of high school. […] After taking into account differences in attendance, long-term ELLs earned similar grades and failed the same number of classes as new ELLs; their GPAs and course failures were still significantly worse than long-term proficient students and students who were never ELLs, but the differences were small" (50).

Migration Status

The existing literature on migration status indicates that there are differing effects on education outcomes, in large part due to whether a student is first-, second-, or third-generation, and due to other factors associated with migration status (like SES and race). According to a 2-year study that incorporated data from both National Educational Longitudinal Study (NELS) and High School and Beyond (HSB), for example, "The best predictors of the trajectory of achievement are not those that are based on nativity per se, but those that reflect the social environment experienced in the United States (i.e. ethnicity and family's socioeconomic status)" (Glick and White 759). This is largely associated with findings that "compared with natives, immigrants (on average) exhibit lower levels of school attainment, lower personal income, higher levels of poverty, and so on" (759). Another study that also incorporated the NELS data set found that "parental immigrant status is more influential than the immigrant status of youth in determining scholastic performance" (Kao and Tienda 16). According to the results of that same study, there is "little difference between the educational performance of first and second generation youth. Yet, both groups tend to outperform their third generation or higher counterparts on various scholastic outcomes" (16). There are, not surprisingly, racial differences here as well: "[The] immigration status of youth and parents accounts for much more of the variation in educational outcomes among Asian students than other minority or white students" (16). Despite these differences, though, the differences in "scholastic performance" between Asian students and non-Latino, white students disappears when the Asian-American students are third generation or higher (17). This is all to suggest that the effects of migration status (in terms of generation), one's race and/or country of origin, EL status (and likely the language,

too), and SES, all affect educational outcomes in ways that feed off of and depend on each other. This may pose a challenge in terms of measuring the individual effects of each given variable. Unfortunately, data on migration status is not available in the data set used for this analysis; however, given the clear relatedness between migration status and race and EL status, there are other variables available in the data set that are able to catch at least some of these effects in the regressions.

Disability Status

Finally, existing literature also suggests there to be a relevant gap in educational outcomes between students classified as "special education" and those who are not. Today, the Individuals with Disabilities Education Act (IDEA) protects students with disabilities ranging from speech impediments, to emotional disturbances, to learning disabilities, and more (Pasternack 3). While the literature concludes that students with disabilities underperform their peers, much of the reason why this is the case is because of inadequate resources to best support students with disabilities, and not because these students are somehow incapable of the same level of academic performance. In terms of the effect of disabilities on education outcomes, the findings suggest that 35.1 percent of students with a disability are at or above state proficiency levels in math and 36.4 of students with a disability are performing at or above state proficiency levels in Reading (13-14). Even this channel of influence is critically tied to race:

> First, African American students are disproportionately referred to and placed in the high-incidence special education categories of mental retardation, emotional or behavioral disorders, and learning disabilities (Zhang & Katsiyannis, 2002). Second, once labeled as having disabilities and placed in special education, African American students make achievement gains and exit special education at rates considerably

> lower than those of White students identified as having disabilities (U.S. Department of Education, 2004). (Blanchett 24)

Therefore, some of the aforementioned race effects become compounded when they intersect with students having disabilities. Part of this is because of the ways that "deviancy" and/or "disorder" as oppositional to the dominant culture: "Educators tend to see Whiteness as the norm and consequently the academic skills, behavior, and social skills of African American and other students of color are constantly compared with those of their White peers" (27). These constructions of what is considered to be "deviant" are helpful in predicting which students are most likely to make it through the US educational pipeline, and are also critical in understanding the way that discipline policies police behavior. In other words, there is nothing inherent or biological about a student's race, SES, migration status, etc. that makes them less intelligent or able or perform well academically. It is the larger institutional forces in society dictating who *can* and *cannot* be included within the dominant culture that affect students of marginalized communities' ability to perform at the same academic level as their peers and not be pushed out of the system.

This survey of channels of influence is not exhaustive, as there are other relevant factors that existing research suggest may affect a student's educational outcomes. For example, one of the most common variables that was omitted from this analysis was *gender*. It was omitted because the effects variable, perhaps more than others, is much more difficult to capture at the school-level of analysis that this work operates at. The primary literature that exists around gender and educational outcomes is split between the individual-level effects of being some gender rather than another and the effects of single-gender education models at the school-level. Relatedly, a student's sexuality—especially as it relates to the dominant culture of their school and/or community may also impact their educational outcomes. This

data, however, is much more difficult to acquire for important privacy reasons, and it is therefore also more challenging to understand in the context of school-level data. All of this is to say that this literature review provides a survey of the most important channels of analysis when approaching school-level data, but it certainty does not include enough channels of influence to be a truly comprehensive model. To compensate for this, larger narrative arguments explaining the mechanisms by which zero tolerance policies may affect educational outcomes will be explored after reviewing two potential confounding variables in this analysis.

B. Confounding Variables

High-Stakes Testing Schedules[20]

The data available on educational outcomes is biased because of the particular dynamics of schools' moderation of behavior policies in the wake of high-stakes tests. David Figlio studied the effects of high-stakes testing on suspension rates on schools and—after controlling for the factors of a student being a first-time versus repeat offender, and identifying a set of month-of-year dummy variables—he found that "schools respond to high-stakes testing by selectively disciplining their students" (21). The reason for this is that schools are incentivized to optimize for highest aggregate test scores, and so they often try to remove low-performing students from schools during testing periods and raise their average scores. This is a critical variable to consider when looking at the months during which data

[20] This section of writing on "High-Stakes testing Schedules" is taken directly (with minor changes) from my final paper for Professor Cutter's Applied Econometrics class in Fall 2016. That paper, titled "Examining the Effects of Race on Suspension Rates between 'Low' and 'High' Quality Chicago Public Schools" worked with CPS data from the 2014-2015 school year to look specifically at the effects of School Quality—as quantified by CPS's SQRP ratings—on race's effects on suspension rates. That analysis serves as a sort of groundwork for this present analysis because the SQRP ratings are essentially a proxy for educational outcomes, as they are calculated using a series of test scores and factors such as the drop-out rate.

regarding suspension rates was collected, as these the amount of disciplinary punishment may unnaturally spike during testing period, according to Figlio's work, and perhaps skew the data. Though this measure is interesting to consider and is certainly worth further investigation, the data that this paper utilizes is *yearly* and does not include the timeline of these tests. Therefore, capturing the particular seasonal effects of testing schedules on suspension rates is difficult; however, this paper controls for some of these effects by only studying schools in the same district (with presumably more or less the same high-stakes testing schedule). This confounding variable has the potential to affect the documented educational outcomes in ways that are not feasible to fully control in the context of this study, however, given the limitations of the yearly, school-level panel data.

Chicago-Specific Policy Changes

In addition to all of the determinants discussed above, there are also several key changes in the way CPS policy measures "educational outcomes" to be aware of because they must be controlled as confounding variables to this analysis. The measures of "educational outcomes" in the context of the econometric analysis that follows are *dropout rate* and *freshman on-track rate*—both measures that depend on district-defined standards for what is required to meet each of those outcomes. Therefore, the measures themselves are in that sense not static. There are a few ways in which such level of policy change can impact the factor of dropout rate in particular. For one, the measure of dropout rate is fundamentally difficult to capture because "[i]t is often difficult for schools to determine what happened to their students who are no longer attending classes and to accurately record their reasons for leaving" (Allensworth *et al.* 83). This is a problem, given that there is existing evidence that

suggests that "students coded as transfer students have been increasingly lower achieving that students who remain in CPS to be counted in the graduation rates" (83). Therefore, there are challenges to the accuracy of record keeping that are not necessarily constant over time. Existing research also suggests the possibility that "schools [have] lowered their standards to get more students to graduate, encouraging teachers to pass students in their classes despite weak performance" (29). There is reason to believe, however, that CPS schools have not lowered their standards, but instead CPS "high schools […] [might be] enrolling better-qualified students, or students from more affluent neighborhoods" (34). None of this is to suggest that policy changes have a causal relationship to actual educational outcomes, but rather there may be inconsistencies in the ways that those educational outcomes are measured. Therefore, it is important to control for school fixed-effects and include a time trend in the econometric analysis, so as to control for these confounding variables as best as is possible.

While the primary channels of influence between zero tolerance discipline policies and educational outcomes have been surveyed, there is more to be said explaining the larger systems at play that moderate these channels of influence. Therefore, the following two sections will therefore provide further context by including the primary arguments made in the existing literature *for* and *against* zero tolerance policies (in relation to education outcomes, specifically). These "bigger picture" arguments synthesize the channels of influence by providing broader narratives under which to understand these determinants.

C. Big Picture Arguments for Zero Tolerance

Removing the "Bad Apples"

At the heart of the dualist theory of punitive philosophy lies an understanding of a particular sort of "disorder" as deviant from, and therefore a threat to, the norm of how a classroom ought to operate. Within the context of "moral panic" rhetoric over the threat of school violence and the corresponding sense of risk aversion articulated alongside the construction of such threat, any single student can challenge the fragility of this "order." Therefore, because of this understanding of such order/disorder as dualistically static, there is little room for rehabilitation or reconciliation, and students must instead be punished on the first strike. This logic is central to several national charter networks that have gained national attention for their educational outcomes, such as the Knowledge is Power Program (KIPP), Success Academy, and Uncommon Schools (Rizga). Charter schools such as these provide an interesting example of this logic because many of them are hugely focused on optimizing for test scores (and other similar measures of educational outcomes), so their adoption of zero tolerance policies may provide an interesting story of school discipline policy that fits into the narrative of this analysis. One example of this phenomenon is that of a charter school in Boston:

> A famous example of "no excuses" charter school is the Roxbury Preparatory Charter School near Boston that was founded by Secretary of Education John King Jr. in 1999. Roxbury Prep became the highest-performing urban public school in Massachusetts, according to NPR. It is these high test scores—more than any other measure—that charter school advocates cite as a strong argument for replacing traditional schools" (Rizga).

Though it is not possible to draw a causal story from this information alone, it is important to note also that Roxbury Prep had the highest suspension rate of any charter school in Massachusetts that year, with "40 percent of all students and 58 percent of its students

[being] suspended in 2014" (Rizga).[21] In such schools, teachers and administrators are often enforcing punishment for a lot more than carrying weapons. A student in the KIPP network notes that, because the school operates using a point system that determines students' abilities to do things like attend field trips and attend their graduation ceremony, they are capable of being informally "punished" (i.e. losing points) for infractions as minor as not tucking in one's shirt or not making eye contact with one's teacher (Rizga). There is no large-scale analysis to draw casual conclusions about the relationship between charter schools' zero tolerance policies and their educational outcomes, but such schools embody the logic of one of the primary arguments in support of zero tolerance in schools. It is necessary to contextualize this logic in what researchers have come to refer to as the "push-out phenomenon"—the tendency of schools to suspend a large number of students prior to a high-stakes test that was mentioned as a confounding variable in this study (Simson 513). This is concerning if one holds a view of proportional punishment and due process, and also illuminates the reality that schools eliminating the "bad apples" may not change the educational culture of the school at all, but simply artificially skew data.

"Broken Windows Theory:" Punishment as Deterrent

More central to theories of punishment and zero tolerance is the "broken windows theory"—a model of policing that originated in the early 1980s[22] and focused on the effect of perceived disorder on crime rates. At its core, this model argues that *disorder* (as manifested in something like a broken window in a neighborhood) is a key determinant of future crime, so the primary role of the police becomes to maintain order and "reinforce the informal

[21] This compares to rates of 10 percent and 18 percent, respectively, at a national level in 2011-12 (Rizga).
[22] More specifically, this model of policing first appeared in 1982 in Wilson and Kelling's article in the Atlantic, "Broken Windows: The police and neighborhood safety" (Center for Evidence-Based Crime Policy).

control mechanisms of the community itself" (Wilson and Kelling). Building on the work of the prominent psychologist, Philip Zimbardo, the theorists that pioneered this ideology focused on the dynamics of crime and order of *communities* over just *individuals*

> Just as physicians now recognize the importance of fostering health rather than simply treating illness, so the police—and the rest of us—ought to recognize the importance of maintaining, intact, communities without broken windows. (Wilson and Kelling)

This logic of policing through symbolic control offers another potential argument in support of zero tolerance's effect on educational outcomes. The crux of this argument is that discrete symbols of disorder can have significant ramifications on the functioning of the system as a whole. This argument for zero tolerance in school discipline is therefore that allowing for even the smallest exposures of disorder in the system has broader effects on school order, and potentially learning outcomes. By physically removing students from the learning environment of other students, however, the students who are not "misbehaving" will be better able to focus on learning the material in the classroom and will not get distracted by other students. They are also themselves less likely to commit behavioral infractions, according to this logic, but zero tolerance policies enforce strict control over the order of the school system.

D. Big Picture Arguments Against Zero Tolerance

Quantitative Data-Driven Accounts

The consensus of the data-driven, statistical analyses on the effects of zero tolerance on educational outcomes and continued behavioral infractions overwhelmingly is that zero tolerance policies are ineffective. Given that this literature employs a similar methodological approach as will be used in the following chapter of this paper, it is helpful to survey the

particulars of some of the existing regression analyses. In perhaps one of the most extensive studies on the subject, Myers *et al.* performed a regression analysis on the relationship between misbehavior in school and academic performance, using panel data from about 19,000 high school sophomores in over 1,100 schools in 1980 (21). Their analysis concluded that, for students who remained in high school for at least two years after their sophomore year, "those who report low grade point averages experience greater increases in misbehavior between the base-year survey than those who report high grade point averages" (Ibid. 30). Critical to note here is that, though this study is concerned with the same variables as this analysis of zero tolerance, it looks at the effect of educational outcomes on misbehavior (i.e. the inverse of what this analysis looks at). Myers *et al.* is still worth looking at because its large body of panel data is rare, and it is employed to reveal some relationship between educational outcomes and behavioral infractions.

A more recent, existing piece of research that is more directly parallel to this analysis is Linda Raffaele Mendez's 2003 article "Predictors of Suspension and Negative School Outcomes: A Longitudinal Investigation." Her longitudinal study follows a cohort of Florida students from their second grade year to their senior year of high school (projected to be 2002) to examine "students' demographic characteristics—race, gender, socioeconomic status, special education classification—and seeks to discover predictors of student suspension rates, as well as the effect of suspension on students' educational achievement and graduation" (18). Her study focuses in particular on the effects of *out-of-school suspension (OSS)* and finds that "frequent use of suspension has no measurable positive deterrent or academic benefit to either the students who are suspended or to nonsuspended students" (25). The study identifies schools' lack of follow-up to suspensions with problem-

solving procedures as one of the reasons strict discipline policies fail to address the root causes of student misbehavior. More specifically in the context of educational outcomes, the studies finds: "School suspension correlates significantly with a host of negative outcomes, including students' poor academic achievement, grade retention, delinquency, dropping out, disaffection and alienation, and drug use" (26). The underlying reason why zero tolerance policies have been empirically shown in this study to cause negative educational outcomes for students is that others students from their classes, and even schools, take away their chances away to be fully engaged in their coursework when they take out the "problem kids" from the classroom.

Punishment as Stigmatization and Isolation

The argument that underlies the majority of opposition towards zero tolerance is that zero tolerance comes with tremendous psychological costs that most often target the students who are considered to be "at-risk" to begin with. The logic of zero tolerance is that an individual who commits any behavioral infraction from a predetermined list will receive a predetermined punishment because this sets up a predictable system of punishment that will deter crime. This takes for granted, however, that all students who commit behavioral infractions will respond well to the same form of punishment (or punishment at all for that matter) and ignores the potential psychological costs. According to a 2014 report in the UCLA Law Review, this sort of trauma can have longer-term effects on student and community well being:

> Excessive punishment not only impedes learning and general childhood development but also subverts the relationship of students with, and their trust and their confidence in, authority figures, which intensifies conflicts rather than mediating them.51 Furthermore, students who are suspended or expelled from school for a significant

> amount of time often have no access to alternative education or the alternative education to which they have access is gravely deficient (Simson 516-17).

What this means is that the students who may already be in need of additional academic support are literally pushed out of school with no resources to help them catch up to their peers in the classroom. Given that the majority of out-of-school suspensions are used to punish more trivial acts (such as disrespecting authority) that may be stemming from "family problems, detachment from school, or learning disabilities," suspensions can be psychologically disorienting for students (Simson 515-516). Furthermore, the racial dynamics present in many school discipline cases only further compound these effects on the most vulnerable students. Standards of what is considered appropriate or inappropriate behavior are necessarily *value*-laden:

> […] normative baselines represent the fact that the dominant societal group—whites—will attach labels of appropriateness, even superiority, to its own customary behaviors" in a way that uses school discipline to reproduce and reify racial hierarchies. (Simson 550)

It is not all too surprising then that the Southern Poverty Law Center has found black students to be five times as likely to be suspended, as compared to their white peers (Brownstein). The factor of race in school discipline cannot be overstated and will be further explored in the context of Chicago, specially through the more specified lens of racial segregation, as was mentioned in the first section of the literature review. What is most important to be aware of at this stage of the analysis is that zero tolerance policies can cause psychological harm to already marginalized groups and reinforce systematic barriers for those students' access to the same experience and quality of education as their peers not as directly affected by zero tolerance policies and racial politics.

School-to-Prison Pipeline

One of the much broader effects of zero tolerance is that it affects the safety of entire communities through what has become known as the "school-to-prison pipeline." This phenomenon refers to two related, but distinct phenomena:

> [The "school-to-prison pipeline"] refer[s] to a journey through school that is increasingly punitive and isolating for its travelers—many of whom will be placed in restrictive special education programs, repeatedly suspended, held back a grade, and banished to alternative, "outplacements" before finally dropping [out] or getting "pushed out" of school altogether. The second half of the pipeline metaphor refers to parallel shifts that have taken place in public attitudes and public policies regarding juvenile misconduct over the past decade. Since 1992, 45 states have passed laws making it easier to try juveniles as adults, 31 have stiffened sanctions against youths for a variety of offenses and 47 loosened confidentiality provisions for juveniles. (Wald and Losen 3)

The school-to-prison pipeline thrives on the increased focus on punishment and the expanded police presence in schools that is made possible by zero tolerance policies. With the increase in punishment for behavioral infractions at schools running parallel to the shift in the criminal justice system at large trying juveniles as adults, there has developed a metaphorical "pipeline" between schools and prisons. Furthermore, this phenomenon captures the nature of the dualistic representations of children at its very heart: if students are either "good" or "bad," then what was previously understood as a *necessity* to respect the developmental differences between minors and adults becomes superfluous within school discipline. The question, for the purpose of this present analysis, then becomes: What is the effect of this pipeline on educational outcomes? As it turns out, this growing proximity between schools and prisons has particularly negative effects when it comes to educational outcomes, and not just recidivism. When students become entangled within the court system, often because of their school's decision to have the police more involved in moderating student behavior, "schools often refuse to accept students who are court-involved, leaving them without

educational services for months at a time and increasing the likelihood that they will have further run-ins with the law" (9). However, even when students are just suspended for long periods of time (and not directly involved with the prison system), most schools lack re-entry academic or counseling interventions to support these students and help them avoid dropping out from school (10). Furthermore, there are numerous "collateral consequences" of felony convictions in this pipeline, including, but not limited to: "voter disenfranchisement, denial of Federal welfare, medical, housing or educational benefits, accelerated time-lines for loss of parental rights and exclusion from any number of employment opportunities" (Heitzig 6). Therefore, when zero tolerance policies become coupled with the mass incarceration of the communities home to many of the students most affected by these same harsch discipline practices, there is a particular sort of violence perpetuated that places full blame for poor educational outcomes and "deviant" behavior on students who are trapped within a system largely beyond any of their real control.

Chapter 3
Introducing Chicago as a Case Study

In this chapter, the particular historical context of Chicago will be surveyed as a means of better understanding the dynamics of education policy reform in the CPS district. The first part of this analysis will trace three primary eras of school reform from 1988 to 2009 to set the groundwork for second part's focus on key changes in CPS's discipline policy. After establishing these general and discipline-specific policy histories of CPS, the third section will provide an empirical framework for the regressions that will be analyzed in the following chapter.

I. Chicago's Context

The current school discipline policies in Chicago Public Schools (CPS) grew out of the particular history of school reform in Chicago. In a September 2011 report put out by the Consortium on Chicago School Research (CCSR), *et al.* proposes three distinct eras in Chicago school reform: *Decentralization, Accountability*, and *Diversification* (6-10). This framing of CPS provides a helpful way of distinguishing the differing district leadership and central reform policies of each era. Analyzing the dynamics of school discipline in CPS would be haphazard without contextualizing that history within the larger ideological shifts that have taken place in CPS, so it is critical to further explore the specifics of each of these eras.

The era of *Decentralization*—lasting from 1988 to 1995—began with the passage of the Chicago School Reform Act of 1988 (9-10). The passage of this act represented a shift of power away from the central office to local schools through its establishment of Local School

Councils, (LSCs)—local governing bodies composed of the school principal, representatives of the faculty, parents, and community members (9).[23] Councils had a large amount of power, given that they were responsible for hiring the principal, allocating financial resources, and making curriculum-related decisions. During this era, reading scores stayed relatively stagnant and math scores made relative increases; however, the state was not satisfied with the academic performance of CPS by the end of this era (25-27).

The following era of *Accountability*—beginning in 1996 and lasting through 2001—brought back control to the mayor of Chicago to manage the school system (9-10). While the local and state government maintained a more "hands off" approach to schools in the previous era, this era was the opposite. Perhaps most characteristic of this era was the fact that the former budget director, Paul Vallas, assumed the newly instated position of CEO, an unprecedented role within CPS (9). There were a number of accountability measures designed to improve student educational achievement introduced, such as test-based promotional requirements based on standardized test performance, increased probation and interventions for low-scoring students, the occasional firing of principals for low test scores, and other measures of the sort (9). This era of Chicago school reform, therefore, reflected the larger shifts occurring in the US educational landscape towards increased test-based accountability. By the end of this era, No Child Left Behind had been introduced federally, expanding "state-mandated standardized testing as means of assessing school performance" (Alcocer).

The *Diversification* era was the final era accounted for in Luppescu *et al.*'s analysis and covers the time span of 2002 to 2009. The key change that transitioned CPS into this era

[23] More specifically, as of August 2012, each LSC is composed of 6 parents, 2 community members, 2 teachers, 1 non-teaching staff member, 1 principal, and 1 student from a high-school (CPS "CPS Stats and Facts").

was the resignation of Paul Vallas and Arne Duncan's assumption of his position as CEO. Duncan built on the shift towards accountability and took it one step further by experimenting heavily with school type:

> The Duncan administration was characterized by opening many new charter and contract schools, focusing on transforming high schools, closing poorly performing schools, instituting new instructional programs, and working to improve professional development. […] From 2001 to 2009, Chicago saw 155 new schools open and 82 schools close (10).

The shift towards diversifying schools relied heavily on the use of data, and it was during this period that the city came up with mechanisms to measure student's progress in ninth grade and college outcomes (10). This era also coincided with the introduction of No Child Left Behind (NCLB) at the federal level, and preceded Duncan leaving CPS to assume the position of the US Secretary of Education (10). Duncan's background in CPS, in many ways, drew more national attention to the failures and successes of CPS.

This rise of high-stakes testing is critical in contextualizing the rise of zero tolerance—both at a federal level and in the case of CPS—because both phenomena grew from the same dualistic understandings of youth. In a 2012 report, the Chicago Teachers Union argues: "in most CPS schools, particularly struggling ones, teachers meetings are dominated by looking at data, analyzing data and talking about how to 'improve (data) outcomes,' when it should also be a time for professional collaboration and/or learning" (14). Teachers are also increasingly placed on the receiving end of this data collection, as their students' test scores are the primary determinant of their "effectiveness" (14). Given the existing literature that finds that "schools respond to high-stakes testing by selectively disciplining their students," it is not difficult to understand the increased pressure a standardized testing-dominated regime may have within the classroom (Figlio 21). There is a

way in which zero-tolerance school discipline and high-stakes become mutually-reinforcing: districts that have the poorest test results are under the most pressure to perform higher, which often is reflected in increasingly punitive measures and "zero tolerance becomes the tool used to address the inevitable student backlash from the daily grind of filling in test-booklet bubbles and being subjected to a narrowed, lackluster curriculum" (Advancement Project 28). It is not too surprising then that, by the third era of Chicago school reform in the 2009-2010 school year, suspensions were at their peak, with approximately one in every four high school students receiving an out-of-school (OSS) suspension (Stevens *et al.* 1). In fact, the zero tolerance approach to school discipline was championed under Arne Duncan: during his six years of leadership, the number of OSS suspensions district-wide quadrupled (Advancement Project 5).

The CPS school district today therefore serves as a useful case study of the national story of zero tolerance because it isolates the national shifts that occurred in education politics and policy within a more localized context. As the third largest school district in the US, its size and diversity reflect the conditions existing literature suggests are breeding grounds for harsh school discipline policies. CPS today includes 652 schools, with 480 elementary schools and 172 high schools (CPS "CPS Stats and Facts"). Because of the literature focus on the effects of zero tolerance at the *high school*-level, this analysis will only focus on the data from these high schools. Of these schools, 516 of them are district-run, 125 of them are charter, 9 are contract, and 2 are SAFE schools (CPS). In terms of the student body, there are 381,349 students in the district, as of 2016-2017 school year's 20th Day Enrollment measures (CPS). Of these students, there are 109,053 students at the high school level (this analysis's focus) (CPS). 80.22 percent of the total CPS student body is considered

to be “Economically Disadvantaged,” 17.17 percent are considered to be English Language Learners (ELL), and 13.66 percent of the students have an IEP (CPS). These demographics are not consistent between schools, or over years, though, as will be further explored in the Data Analysis section of Chapter 4. In terms of the racial composition of the student body, the largest group is Latinos at 46.5 percent, followed by Blacks at 37.7 percent, and Whites at 9.9 percent (CPS). These racial demographics do not map onto the racial breakdowns of teachers, as is often the case with US schools, particularly in schools with larger percentages of students of color. More specifically, White teachers comprise the largest racial demographic at 50.1 percent, followed by Black staff at 22.2 percent, and Latino staff at 20.4 percent (CPS). Interestingly, the largest racial group composing principals in CPS are Black principals at 43.1 percent, followed by White principals at 36.3 percent, and Latino principals at 15.5 percent (CPS). The differences in these racial demographics between students, principals, and teachers are important to be aware of in the context of school discipline, given that they may affect what sorts of behavior that school comes to define as “deviant” in light of potentially varying cultural and/or racially coded expectations of behavior.

II. Chicago Public School Policy Changes

Even prior to CPS reached its peak suspensions during the 2009-2010 school year, leaders of the district were aware of the impact of these harsh discipline policies and were setting the groundwork to respond accordingly through policy change. In particular, CPS introduced three key discipline policy changes that have been responsible for a noticeable shift away from zero tolerance policies and towards a restorative justice model in the past

several years: the Culture of Calm Initiative, changes to the CPS Student Code of Conduct, and the Suspensions and Expulsions Reduction Plan (SERP).

The Culture of Calm Initiative (CoC) was introduced first during the 2009-2010 school year with the goal of improving school climate by focusing on "leadership and staff commitment; behavior frameworks; staff development; student development; community engagement; and performance management" (Levenstein *et al.* n.p.). More specifically, six high schools in the 2009-2010 school year, and nearly 40 high schools during the 2010-2011 school year, were provided funds to implement targeted behavioral programs, including programs such as "peer juries, restorative justice, counseling, and other alternative practices to help students develop better practices to help students develop better relationships with peer and adults and to improve overall school climate" (Stevens *et al.* 8). This first initiative shifted the district's treatment of discipline towards restorative justice models. Such models rely on an understanding of child development that is, in many ways, in direct opposition to the dualistic understandings that had driven zero tolerance policies nationally and in CPS. It was limited in its reach, though, as it was adopted in fewer than 50 schools district-wide, and was only introduced at the high-school level.

During the 2012-2013 school year, CPS modified its Student Code of Conduct (SCC) in a way that targeted existing suspension practices in CPS. More specifically, these changes "eliminated automatic 10-day suspensions and required principals to seek district approval to suspend students for more than five days" (8). Following in the path of the CoC initiative, these changes also pushed for schools to continue to adopt of non-exclusionary practices, such as peace circles and mentoring (8). Upon the Chicago Board of Education's approval of these changes, the CPS CEO at the time, Jean-Claude Brizard, proclaimed, "I am a strong

believer in limiting mandatory disciplinary actions that remove a child from their classroom and school, which, in many cases, ultimately causes more harm than good for those students" (Chicago Public Schools 2012). These SCC changes were wide-ranging in their scope and represented a direct attempt to shift away from zero tolerance practices. For example, the changes further reduced the maximum OSS suspension days to three days maximum (down from the 5-day limit) (CPS). It also involved a diversity of other changes, including a push to use ISS over (or in combination with) OSS, an expansion of the Anti-Bullying Policy, a modification of the restorative justice approaches, and more (CPS). Therefore, this policy change grew out of the work of the CoC initiative, but introduced district-wide change[24] in ways that the CoC initiative never attempted to do.

Finally, during the 2013-2014 school year, CPS made additional changes to the SCC and introduced the Suspensions and Expulsions Reduction Plan (SERP)— "a plan to explicitly reduce the use of exclusionary disciplinary practices in schools" and to "try to address the high rates of exclusionary disciplinary practices" (Stevens *et al.* 8). This effort, in combination with the previous policy changes, is responsible for suspension and expulsion rates in CPS reaching a record low in 2016 (CPS 2016). According to a publication produced by CPS in September of 2016, these efforts drew out an intentional effort to target zero tolerance policies and to dismantle the school-to-prison pipeline:

> These improvements also follow a series of concerted efforts by the District to swap out the punitive, zero tolerance disciplinary approach frequently applied in the past with a holistic approach that works to address the root cause of student misconduct and reduce the school-to-prison pipeline. To accomplish this paradigm shift, CPS will continue to support and seek out programs that specifically support African American male students. (CPS 2016)

[24] For example, according to a presentation produced by Chicago Public Schools, there were a total of 217 schools that were trained to implement school-wide positive behavior support systems during the 2012-2013 school year (Office of College and Career Success, Chicago Public Schools).

These policies grew out of the growing body of research literature about the negative effects of zero tolerance in CPS. Given that these policy changes have been identified as direct pivots away from zero tolerance policies, they provide a useful starting point to study the effects of zero tolerance versus more restorative justice-oriented models through data. The particular mechanisms for exploring the effects of these policies through data will be detailed more extensively in Chapter 3. Given this background on CPS policies, this analysis will shift gears and develop the empirical framework with which the econometric analysis will be completed.

III. Empirical Framework

This analysis will use school-level panel data from high schools in CPS, from the 2011-2012 school year through the 2015-2016 school year. Therefore, the effects of zero tolerance on educational outcomes will be measured at the *school*-level, rather than *student*-level. The focus on high schools in particular is important because these years of education are viewed as most critical in the literature in terms of discipline's effect on the school-to-prison pipeline. In a 2015 report published by The University of Chicago Consortium on Chicago School Research titled "Discipline Practices in Chicago Schools," Stevens *et al.* claim, "very high suspension rates in high schools account for 56 percent of out-of-school suspensions districtwide. If the district is to reduce the use of suspensions and disciplinary disparities substantially, it will require changes in high school practices" (3). Furthermore, the channels of influence on educational outcome will therefore have to do largely with changes in the culture and climate of any given school and the effects this may have on the school's outcomes at large, rather than providing the context to understand student-level

effects of discipline.[25] Before involving all of the controls in the regression model, this analysis will first evaluate the model that isolates the effect of *Disciplinary Punishment* on educational outcomes. The most basic form of this regression can be expressed as follows:

$$\textit{Educational Outcomes} = \beta_1 \textit{Disciplinary Punishment} + \mu$$

In order to better understand the practicalities of this model, it is important to understand the way both of these variables, and the controls, are defined and represented by the available data.

Dependent Variable: Educational Outcomes

Educational Outcomes, the dependent variable, will be accounted for with two separate measures: Freshman-on-Track (*FOT*)[26] rate and Dropout rate (*Dropout*). The FOT is defined as: "a measure of how many first-time freshmen are, by the end of their first year, 'on track' to graduate from high school within four years," determined on the basis of credit accumulation and course failures. (Network for College Success 1).[27] The FOT rate has been found to be highly related to the Dropout rate, as "CCSR research shows that freshmen who finish their first year of high school on-track are more than three times as likely as those off-track to graduate from high school within four year" (1). The CPS Data Guides do not specify if students who are expelled are counted within this dropout measure. If they are counted as such, then any relationship between expulsion and dropout rates that is discerned

[25] While student-level panel data would have been ideal here, it was not publicly available in the context of CPS and for discipline cases. Given the extensive personal information often included in such data sets, most of this data is inaccessible in an effort to protect student, teacher, and school privacy.

[26] The italicized words in parentheses are all the variable names on the regression tables that can be found at the end of this document in the Tables section.

[27] More specifically, a first-year freshman is considered to be "on-track" by the end of the year if they have "(i) earned at least five course credits; (ii) failed *no more than* one semester of a *core* course—otherwise, s/she is off track." Students who dropout in their Freshman year are included in the metric as "off-track." Additionally, students who attend charter schools, jail schools, alternative schools, and/or special education schools are not included in the FOT metrics (Network for College Success 1).

in this analysis will be biased; however, the fact that this is a school-level analysis will help control for some of that collinearity. Both the dropout rate and the FOT are arguably better proxies of educational outcomes than measures like test scores, given that the literature that reveals the pattern of schools selectively disciplining students with poorer academic performance right before high-takes testing (Figlio 21). Also, given the ways that zero tolerance policies are thought to put "at risk"[28] students on a pipeline to prison, dropout rates are a particularly revealing indicator for student's academic performance.

In order to properly capture the effects of school discipline on educational outcomes, my model will include regressions with both *FOT* and *Dropout* and a one-year lag on both of the educational outcomes measures (*LagFOT* and *LagDropout*). This is critical to the model because, without a lag, the model would report the *instantaneous* effects of discipline on educational outcomes. This model assumes that the effects of school discipline on educational outcomes are moderated by *school culture* as the mechanism for change, which is not as volatile as individual effects might be. The *LagFOT* measures the effect of discipline on the educational outcomes (FOT) of students who enter the school a year after said discipline happens. This is because the model assumes that discipline affects school culture in ways independent from individual student-level effects alone. Therefore, including both the lagged and non-lagged versions of these measures of educational outcomes will help determine if the effects on school culture are immediate, or if they might take time to go into

[28] I put this in parentheses because much of the literature about "at risk" students has served to construct them as the risk itself, which is antithetical to the goals of this work. Another way of distinguishing such students as being completely autonomous over their conditions would be to refer to the dropout rate as the "push out rate," because this places the focus on the forces that cause students to not graduate (rather than placing the blame entirely on them).

effect—perhaps because the specific groups of students affected by the discipline are more uniquely affected by the punishment.

Because of the potential ways in which FOT and Dropout rates may be correlated with one and other, the empirical model of this analysis employs *simultaneous equations*, and therefore runs the regressions for FOT alongside those for Dropout Rate. Additionally, all of the regressions include *fixed-effects*, so as to control for school-level differences that may exist, and a *time trend* to capture the effects by year, across all schools. All of these measures are introduced in an effort to read through the large amount of noise inevitable with school-level data.

Independent Variable(s): Discipline Ratios

Given the difficulty in directly defining zero tolerance in the data, *Disciplinary Punishment* will be defined in a variety of ways. The first measure, the number of students expelled per school (*# Expulsions*), comes straight from the data set and is very self-explanatory. The second set of measures is ratios that incorporate the severity of student misconduct (by number of misconduct) and the type of punishment (by number of total punishments). The basic form of these ratios is as follows:

Discipline Ratio: Total Misconduct (#)/Total Punishments (#)

This will be further specified both at the level of misconduct and punishment. By incorporating the severity of misconduct into the model, this measure is designed to capture the particular dynamics of zero tolerance as involving *an increasing level of punishment for lower-level offenses*. Therefore, this ratio is able to serve as a proxy for the relative harshness of punishment schools assign, given the amount and the severity of the misconduct they are

dealing with. Low-level misconduct with high-level punishment, for example, might indicate a school that is particularly "harsh" when it comes to school discipline, and vice versa.

The severity of misconduct is based on the classifications of behaviors provided by the CPS. They classify misconduct within any one of six groups, with Group 1-level offenses being the least severe and Group 6-level offenses being the most severe. One of the key challenges of this analysis lies in the inability to know how well the school classifications of level of misconduct match the actual severity of the misconduct. Some of the most "harsh" schools in the data may therefore not be apparent, if they are more generous in how they classify the severity of student misconduct.

Because their data pairs up these groups, this analysis marks *Low Severity Misconduct* as Group 1 and 2 behavior, where Group 1 behaviors are those that are "inappropriate" and Group 2 behaviors are those that "disrupt" (CPS "Student Code of Conduct"). Examples provided by CPS of Group 1 behaviors are "Running and/or making excessive noise in the hall or building," "Leaving the classroom without permission," "Engaging in any behavior that is disruptive to the orderly process of classroom instruction,"[29] and others (18). Group 2 behaviors include things such as "Interfering with school authorities and programs through walkouts or sit-ins,"[30] ""Exhibiting or publishing any profane obscene, indecent, immoral, libelous, or offensive materials, or using such language or gestures,"[31] "Failing to provide proper identification,"[32] and others (20).[33] The

[29] It should be clear here that even the language of the CPS Student Code of Conduct is extremely ambiguous, and therefore open to the discretion of individual schools and teachers (depending on the nature of their school). The language of "any behavior that is disruptive to the orderly process of classroom instruction" in particular raises some red flags and is reminiscent of the criticisms of language of "disorder" as extremely coded (in terms of race, language, disability status, etc.).

[30] It is telling of the overall school climate that likely peaceful expressions of student resistance, such as walkouts or sit-ins, are marked as second degree disciplinary behaviors.

[31] Again, the language of "immoral" or "libelous" or "indecent" is openly ambiguous to a concerning degree. This language seems as though it would make it much easier for teachers and schools to become increasingly

Student Code also lists "Available Interventions and Consequences" for each group of behavior and it is worth noting that "Skill-building in-school suspension up to three days" is not present for Group 1 behaviors, but it is introduced for Group 2 behaviors (20). All levels of misconduct recommend "instructive, corrective, or restorative response" (18-30).

This analysis defines *Mid Severity Misconduct* as Group 3 and 4 behaviors, where they are each defined as characterizing behavior that "seriously disrupt[s]" and "very seriously disrupt[s]" respectively (14). Example of Group 3 behaviors include, but are not limited to: "Fighting" (without injury), "Forgery," "Plagiarizing," "Overt display of gang affiliation," "Bullying behaviors," and "Any behavior not otherwise listen in Group 1 through 3 of this SCC that seriously disrupt the educational process"[34] (22). At this level of behaviors, out-of-school suspensions up to three days are interventions available to schools (22). Group 4 behaviors include "Extortion," "Assault," "Vandalism," "Battery," "Possession of any dangerous object as defined by this SCC, direct documented behavior," "Any behavior not otherwise listed in Groups 1 through 4 of this SCC that very seriously disrupts the educational process," and several others (24-25). Both of these levels of behavior list both "Skill-building in-school suspension, out-of-school suspension, or combination in-school and out-of-school suspension up to three days" as available methods for intervention (22).

And finally, *High Severity Misconduct* is defined by Group 5 and Group 6 behaviors, which are used to classify behaviors that "most seriously disrupt" and that are "illegal" AND "most seriously disrupt," respectively. Group 5 behaviors include, but are not limited to,

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harsher with their punishments of lower-level offenses, while working within the same framework that was supposedly experiencing shifts away from harsh discipline measures.

[32] It is unclear what sort of identification is necessary here, but one would assume students would need nothing more than a school-issued ID.

[34] It is not made clear in the student code which behaviors might "seriously disrupt the educational process," or what that even really means (22).

"Aggravated assault,' "Burglary," "Engaging in or attempting any illegal behavior which interferes with the school's educational process," "Persistent or severe acts of sexual harassment," and "Second or repeated violation of Behavior 4-13, possession of any dangerous object as defined by this SCC" (26-27). At the Group 5 level of behaviors, the "request for expulsion hearing" and "Request for assignment to an intervention program by the Chief Executive Officer or designee" (26-30). For the Group 6 level behaviors, the Student Code notes the ability for principals of students in fifth grade and below to hold an expulsion hearing for those students as well (31).

Given these definitions for *Low, Mid, and High Severity Misconduct*, it is possible to define the *Punishment Ratios* that will be employed in this analysis. To capture the particular dynamics of zero tolerance as increasing punishment to low-level offenses, the following three basic ratios will be included in the regression model:

Low Severity Ratio: *Low Severity Misconduct* (Groups 1 and 2)/ Total Punishment

Mid Severity Ratio: *Mid Severity Misconduct* (Groups 3 and 4)/ Total Punishment

High Severity Ratio: *High Severity Misconduct* (Groups 5 and 6)/ Total Punishment

All of these ratios will be included in the same regressions, so as to differentiate the impact of each of these ratios on educational outcomes. "Total Punishment" is measured by using the sum of misconduct resulting in OSS, ISS, Police Notification, and Expulsions. Therefore, in order to catch the independent effects of each of the forms of punishment, the regressions will be performed using *Total Punishment*, *Number Suspensions*, and *Number of Police Notifications*[35] to generate ratios. Using these ratios, there will be 9 separate sets of

[35] Expulsions are measured as a separate variable in the regression and not included as a ratio, given that they are fundamentally different from other forms of punishment in that they result in the removal of a student from that school (and that school's data).

simultaneous equations run with *Dropout Rate* and *FOT*. To help better understand the forthcoming regression tables, each of those ratios is defined as follows:

Figure 3.1 Definitions of Punishment Ratios in Regression Model [36]

Variable Name	**Definition**
Total Punishment Ratio	*Total # of Reported Misconduct* (# Groups 1-2 + #Groups 3-4 + #Group 4-5) /*Total Discipline* (# ISS + #OSS + #Police Notifications + #Expulsions)
Low Punish Ratio	*Total # of Low-Level Misconduct* (# Groups 1-2)/*Total Discipline*
Mid Punish Ratio	*Total # of Mid-Level Misconduct* (# Groups 3-4)/*Total Discipline*
High Punish Ratio	*Total # of High-Level Misconduct* (# Groups 5-6)/*Total Discipline*
Suspension Ratio	*Total # of Reported Misconduct/Total Suspensions* (#ISS + #OSS)
Low Suspension Ratio	*Total # of Low-Level Misconduct* (# Groups 1-2)/*Total Suspensions*
Mid Suspension Ratio	*Total # of Mid-Level Misconduct* (# Groups 3-4)/*Total Suspensions*
High Suspension Ratio	*Total # of High-Level Misconduct* (# Groups 5-6)/*Total Suspensions*
Police Notif. Ratio	*Total # of Reported Misconduct/Total Police Notif.* (# Police Notifications)
Low Police Ratio	*Total # of Low-Level Misconduct* (# Groups 1-2)/*Total Police Notif.*
Mid Police Ratio	*Total # of Mid-Level Misconduct* (# Groups 3-4)/*Total Police Notif.*
High Police Ratio	*Total # of High-Level Misconduct* (# Groups 5-6)/*Total Police Notif.*

Independent Variable(s): Race

Another one of the difficulties of using school-level panel data, rather than student-level panel data, is that the data on race that is available is just a percentage composition of schools by each race. The marginal effects of each percentage change in any given race in a

[36]All of these variable names in Figures 1 and 2 map on directly to the variables in the regression tables, so it may be useful to read those tables with these definitions handy.

school might not capture the effects of race on educational outcomes as much as an individual student's race might have on their individual educational outcomes. It is also critical to note that CPS is composed of a majority of students of color, and much of the literature on the effects of race on educational outcomes frames students of color as the minorities in their schools; therefore, there are grounds to investigate more specific indicators for race in the context of this analysis. In response to these challenges and the dynamics of race addressed in the Literature Review in Chapter 2, this analysis will not use the Race data directly in the regressions, but instead utilizes a proxy for *Racial Density.*

Racial Density is an indicator that has been adapted from the Herfindahl-Hirchman Index (HHI) typically associated in housing markets to indicate market concentration. The basic goal of this [0-1] indicator is to designate whether a market (or in this case, a school) is concentrated in any one firm (in this case, racial group). The HHI used for the *Racial Density* index was therefore calculated by taking the three largest Racial groups in the data apart from the White group[37] (Black, Latino, and Asian) and scaling the percentage values for each of these groups per school to a 0-1 scale (i.e. such that 35 percent becomes 0.35). For each school, the scaled percentage values for each racial group is then squared and added up to create the index. Therefore, a value closer to 0 would indicate that there is no racial group with a strong majority over the others, whereas the values closest to 1 indicate that the racial composition of a school is inclined towards one racial group.

In addition to this *Racial Density* index, this analysis seeks to parse out whether there are different effects by which racial group dominates the student composition, or if it is the relative densities alone that have an effect on educational outcomes. Therefore, there are

[37] Whites are intentionally excluded from this index to isolate the effects of concentrated Black and Latino populations.

(0,1) dummies coded for *Black Majority* and *Latino Majority*, such that if a schools largest racial group is Black or Latino, then they are coded as "1." To capture the interactive effects of a school being both a *Black* or *Latino Majority* and having a high *Racial Density* index, this model also includes both of those interactive effects: *Racial Density*Black (Majority)* and *Racial Density*Latino (Majority).* This is different from the *Black Majority* and *Latino Majority* indexes alone because it factors in the extent to which either group dominates the overall composition of any given school; a school might have a racial group that is considered a "majority" if it is 30 percent of the total school demographics, but the effects of such a majority might be qualitatively different than a school that has 100 percent *Black* or *Latino* students. To help better understand the forthcoming regression tables, each of those ratios is defined as follows:

Figure 3.2 Definitions of Racial Density Measures

Variable Name	**Definition**
Racial Density	This is a 0-1 Herfindahl-Hirchman Index (HHI) for race. Accordingly, it was calculated as follows: (Percentage Black)^2 + (Percentage Latino)^2 + (Percentage Asian)^2
Black Majority	This is a (0,1) dummy where "1" indicates that the greatest percentage of students in that school are Black. This is therefore more of a plurality, than majority, per se.
Latino Majority	This is a (0, 1) dummy where "1" indicates that the greatest percentage of students in that school are Latino.
*Racial Density*Black*	Interaction Term: *Racial Density* x *Black Majority*
*Racial Density*Latino*	Interaction Term: *Racial Density* x *Latino Majority*

Independent Variable(s): Demographic Controls

For the three other primary demographic controls incorporated in the model—*IEP*, *Bilingual*, *EconDisad*--the variables will be taken directly from the data set and not

reconfigured in any ways with the exception of an interaction term between *IEP* and *Black*, but it is still worth clarifying what each variable means in the context of this data set.

IEP—or Individualized Education Program—denotes the percentage of students who have reported disabilities and therefore receive special education services. An IEP itself is a legal document that is designed to help teachers better adapt to the particular learning goals and needs of those students (Stansberry). While students with an IEP have more protections than other students in terms of due process because of the Individuals with Disabilities Act (IDEA), students with an IEP can and do still experience zero tolerance practices. In the CPS Student Code of Conduct, it specifies that students with an IEP can receive less punishment than other students might for committing a single infraction; however, they are also eligible for extensive punishments. The Code of Contact more specifically notes, "School officials may suspend students with disabilities/impairments and cease educational services for a total of up to 10 consecutive or 10 cumulative school days in one school year without providing procedural safeguards" (CPS "Code of Conduct").

*IEP*PercentageBlack* is an interaction term that was generated in response to the surveyed literature suggesting that there are particular effects for students who are both *Black* and have an *IEP*. This variable was generated by interacting the *IEP* and *Black* variables straight from the data set. It should be noted that this *Black* variable was the percentage of Black students in a given school, rather than the *Black Majority* or *Racial Density*Black* variables developed above.

Bilingual is the district data's name for students who are English Learners (ELs). How such students are classified in districts can be a political question, so it is worth clarifying how CPS, specifically, defines students as ELs. More specifically, when a student

is enrolled in any school in CPS, they legal guardian is asked to complete a Home Language Survey, which includes two questions: "Is a language other than English spoken in your home? Does the student speak a language other than language?" (CPS "Language and Cultural Education"). Based on the results to that questionnaire, prospective EL students are screened on the basis of listening, speaking, reading and writing, and placed in age and grade levels and potentially placed in the EL program, if they qualify: "If, based on the test score, the student is considered and EL, the student will then be placed into a Transitional Bilingual Education Program or a transitional Program of Instruction" (CPS). The "Bilingual" group in CPS data is therefore distinct from students enrolled in the district's Dual Language Program, which EL and non-EL students alike can opt into (CPS).

EconDisad is the best proxy for the socioeconomic composition that was available in the data. A student is considered to be "economically disadvantaged" if they "[…] come from families whose income is within 185 percent of the federal poverty line" (CPS "School Data"). These are ultimately the same students that the district defines as "Free or Reduced Lunch Eligible Students" (CPS). Therefore, this measure has nothing to do directly about school funding or the resources available at a given school. Given the close relationship between students' socioeconomic status and the resources available to their school, though, these are very interrelated concepts.

While the definition for each of the demographic control variables is fairly straight forward, they will be summarized by the following definitions as a more accessible reference point for understanding the regression tables. The variable names listed for each variables map on directly to the variable names on the regression tables (Table 2; Table 3; Table 4; Table 5). These definitions are as follows:

Figure 3.3 Definitions of Demographic Control Measures

Variable Name	Definition
IEP	Percentage of students in a school with part of the Individualized Education Program; proxy for special education/students with a disability
Bilingual	Percentage of students in a school for whom English is not their primary language
EconDisad	Percentage of students in a school who are considered "economically disadvantaged"
*IEP*PercentageBlack*	Interaction term between the Percentage of Students with an IEP and the Percentage of Black students in a school

Setting up Regression Model

From these definitions, it is possible to build up the regression model. The first regression will be as follows:

(1) $Educational\ Outcomes\ (Dropout,\ FOT) = \beta_1 Total\ Punishment\ Ratio + \beta_2 \#\ Expelled + \beta_2 Time\ Trend + \mu$

This sets a baseline for the model by excluding all of the various controls and looking first to see if there is any relationship between *Disciplinary Punishment* and *Educational Outcomes*, all other controls withstanding, except for the *Time Trend* and the fixed effects. It is important to note here that, in building up the full regression model, I only use the *Total Punishment Ratio,* and do not disaggregate it by level of misconduct or level of punishment (i.e. any of the other ratios included in Figure 3.1). Only after that full model is build up will be applied to each of the different punishment ratios (for the sake of not including an excessive number of tables). The predicted results of these models are explored more in depth in the following section.

Given this initial regression, it is possible to build the model up. There are two sets of controls – *Race* and *Demographics* (i.e. *Bilingual, IEP,* and *Economically Disadvantaged*).

These sets of controls will be introduced separately in the regression model before both being included in the complete model. *Black* students have been found to be three times as likely to be suspended than their white peers, so they are a critical group to consider in questions of race and suspension rates (Morris and Perry 70). Furthermore, a study performed by The Civil Rights Project at UCLA found that 10.8 percent of *Latino* students are suspended, compared to only 6.7 percent of *White* students and 2.5 percent of Asian students (Losen *et al.* 4). Therefore, these racial categories are the most represented in the data and existing data suggests they are either highly represented (i.e. in the case of Blacks and Latinos) in the pool of suspended students, or not represented that much (i.e. in the case of Whites).[38] The second set of regressions will accordingly be as follows:

$$(2)\ Educational\ Outcomes\ (Dropout,\ FOT) = \beta_1 Total\ Punishment\ Ratio + + \beta_2 \#\ Expelled + \beta_3 \#\ Time\ Trend + \beta_4 Black + \beta_5\ Latino + \mu$$

Based on existing literature, I expect both racial categories will have a negative relationship with educational outcomes. The *Black* and *Latino* variables both reflect the percentage of students in a school of that respective racial identity. Therefore, I expect an increase in either of these variables to be associated with a negative change in *FOT* and a positive change in *Dropout*. Given the problems with using these straight percentage values, rather than the *Racial Density* indexes though, I expect the race-effects at this level of the model will not be as pronounced as they might be one the *Racial Density* measure is incorporated.

After testing these racial variables directly, the *Racial Density* measures will be introduced. So as to avoid collinearity, the original measures of Race (by percentage) will be taken out from the regressions.

[38] The majority of this paragraph (i.e. the references to existing literature) are taken from my Applied Econometrics paper, "Examining the Effects of Race on Suspension Rate between 'Low' and 'High' Quality Chicago Public Schools."

(3) *Educational Outcomes (Dropout, FOT)* = β_1*Total Punishment Ratio*+ β_2*# Expelled*+ β_3*Time Trend* + β_4*Racial Density* + β_5*BlackMaj* + β_6*LatinoMaj* + β_7*Racial Density*BlackMaj*+ β_8*Racial Density*LatinoMaj* + μ

Based on existing literature, I expect *Racial Density*BlackMaj* and *Racial Density*LatinoMaj* to both have negative relationships with Educational Outcomes (i.e. a negative relationship with *FOT* and positive relationship with *Dropout*). I predict that these values are more economically significant than either of the straight race measures, *Black* or *Latino*, because they capture the more specific dynamics that might affect educational outcomes at a school-level. It is unclear how *Racial Density* might affect educational outcomes by itself; however, given that the overall make-up of CPS is primarily students of color, a high *Racial Density* is likely to be relatively correlated with either *BlackMaj* or *LatinoMaj*, so it seems likely that the *Racial Density* index is also associated with negative educational outcomes.

The next regression will also build off of the initial regression, this time by including the *Demographic Controls—Economically Disadvantaged*, *IEP*, and *Bilingual*. Like the *Race* controls, each of these controls captures the percentage of each school composed of students who are economically disadvantaged, have an IEP, and are bilingual (respectively). The model for this set of regressions is as follows.

(4) *Educational Outcomes (Dropout, FOT)* = β_1*Total Punishment Ratio*+ β_2*# Expelled* + β_3*Time Trend* + β_4*IEP*+ β_5*Bilingual* + β_6*EconDisad*+ μ

These measures are introduced without the *Race* variables at first, so as to first evaluate their independent effects on *Educational Outcomes*. Based on existing literature, I would expect schools with higher percentages of *Economically Disadvantaged* students, students with *IEP*s, and *Bilingual* students to have poorer educational outcomes. In the case of these demographic controls, the causal mechanisms that might mediate these effects on educational

outcomes is the access to educational resources and/or school quality. Something worth noting is that many of the students with an *IEP* potentially classify for protections under the Individuals for Disabilities Education Act (IDEA)—depending on their particular learning and/or developmental needs—which would affect the level of due process they receive in disciplinary cases. Therefore, the *IEP* variable may affect *Educational Outcomes* in ways that are less mediated through discipline than other variables, such as race.

After having identified the independent effects of both sets of controls, the following regression model will include all controls:

(5) *Educational Outcomes (Dropout, FOT)* = β_1*Total Punishment Ratio* + β_2*# Expelled* + β_3*Time Trend* + β_4*Racial Density* + β_5*BlackMaj* + β_6*IEP* + β_7*Bilingual* + β_8*EconDisad*+ + β_9*EconDisad* + β_{10}*Racial Density*BlackMaj* + β_{11}*IEP*PercentageBlack* + μ

All of these regressions will be performed using cross-sectional data controlling for fixed-effects, so the model attempts to control for any potential school-level constants. *LatinoMaj* and its interaction term with *Racial Density* are both removed from this fifth regression in order to control for multi-collinearity. The *Latino* variable and *Bilingual* are highly positively correlated, with a correlational coefficient of 0.7285, so removing the *Latino* variables serves as an attempt to control for this problem. It does over-simplify the model in not including these variables in some ways, but *Bilingual* was more relevant to the model (i.e. more economically and statistically significant in the regressions), so it was more critical to include that channel of influence.

Finally, the last regression of the foundational model for this analysis is the fifth regression, except using a 1-year lag for both *Educational Outcome* measures:

(6) *1-Year Lagged Educational Outcomes (LagDropout, LagFOT)* = β_1*Total Punishment Ratio* + β_2*# Expelled* + β_3*Time Trend* + β_4*Racial Density* + β_5*BlackMaj*

$+ \beta_6 IEP + \beta_7 Bilingual + \beta_8 EconDisad+ + \beta_9 EconDisad + \beta_{10} Racial\ Density*BlackMaj + IEP*PercentageBlack + \mu$

This regression is included in order to account for the effects of discipline on educational outcomes that might be the instantaneous results of changes in school culture. For example, if a large number of students are notified to the police in one year, this lag would capture the longer-term effects of that punishment on the overall school's dropout rate and Freshman On-Track rate.

Given this full model, I will then apply the final regressions—Regressions 5 and 6—with each of the various punishment levels defined in Figure 3.1. In other words, the punishment ratios for Total Punishment, Suspension, and Police Notification will each be regressed using the ratios that include total misconduct, as well as the disaggregated levels of misconduct. The basic forms of non-lagged and lagged regressions that are disaggregated by punishment ratios are as follows:

(7) $Educational\ Outcomes\ (Dropout, FOT) = \beta_1 LowPunishRatio + \beta_2 MidPunishRatio + \beta_3 HighPunishRatio + \beta_4 \#\ Expelled + \beta_5 Time\ Trend + \beta_6 Racial\ Density + \beta_7 BlackMaj + \beta_8 IEP + \beta_9 Bilingual + \beta_{10} EconDisad+ \beta_{11} EconDisad + \beta_{12} Racial\ Density*BlackMaj + \beta_{13} IEP*PercentageBlack + \mu$

(8) $1\text{-}Year\ Lagged\ Educational\ Outcomes\ (LagDropout, LagFOT) = \beta_1 LowPunishRatio + \beta_2 MidPunishRatio + \beta_3 HighPunishRatio + \beta_4 \#\ Expelled + \beta_5 Time\ Trend + \beta_6 Racial\ Density + \beta_7 BlackMaj + \beta_8 IEP + \beta_9 Bilingual + \beta_{10} EconDisad+ \beta_{11} EconDisad + \beta_{12} Racial\ Density*BlackMaj + \beta_{13} IEP*PercentageBlack + \mu$

Therefore, for each form of punishment, there will be 8 total regressions: total misconduct ratios un-lagged and lagged and disaggregated misconduct ratios un-lagged and lagged, for both Dropout and FOT. These numbered regressions correspond directly to the basic form used for the numbered regressions on the regression tables; the only difference is that *Total Punish Ratio* is replaced with *Suspension Ratio* and *Police Notif. Ratio*, and their

disaggregated correlates, in the other regressions (Table 4; Table 5). The full regressions for *Total Punishment* are not included in Table 1 with the rest of the build-up for the model, and are instead included in Table 2 with the rest of the full regressions for *Total Punishment.* The full breakdown of regressions performed for this analysis will become clearer in the regression tables.

Given these models, I expect the findings using the lagged educational outcomes to be more significant than the non-lagged outcomes because they will better capture the aggregated student effects and the more ambiguous measure of instantaneous "changes in school culture." The literature review also provides context to believe that race will be significant (*Black; Latino; BlackMaj; LatinoMaj*), but that the proxy for racial segregation (*Racial Density*) will be more significant when it is interacted with these same race variables *(Racial Density*BlackMaj*). It is difficult to make predictions regarding whether dropout rates or the FOT will be better accounted for by the model; however, given that FOT is an index that is created whereas dropout rates are a more binary indicator for which marginal changes have more profound impacts on a school, I predict dropout rates to be a better indicator of educational outcomes in this model. I also expect all findings regarding the demographic controls to be in line with the conclusions of existing literature—that is, having a higher density of students with an IEP, who are ELs, and who are economically disadvantaged will be associated with worse educational outcomes for a school. Finally, the key question of this analysis whether or not zero tolerance policies (measured by the punishment ratios) will have a negative or positive effect on educational outcomes. I predict that the "harsher" a school is, the less effective their punishment will be. In other words, if a school has a low level of misconducts but still opts for a high level of punishment, then that

school is employing harsher discipline policies and I expect there to reach a point in the disaggregated punishment ratios (i.e. low, mid, high) where punishment begins to be associated with negative, rather than positive, education outcomes. This is to suggest that punishment is not categorically bad (for educational outcomes, and otherwise), but disproportionately harsh punishments are.

Chapter 4
Findings from Chicago Public Schools

Given this background on Chicago and the existing literature, it is possible to look more closely at the data available from Chicago Public Schools. This chapter will begin with an analysis of the data in question to pick up any initial trends and make predictions on the potential findings of the model. The second section will detail the findings from the regression, and will be followed by the third section, which discusses some of the potential shortfalls of this particular data set. Finally, this chapter will conclude with potential take-away lessons for the US education system at large. The following chapter will draw conclusions for the nation and large and suggest policy recommendations accordingly.

I. Data Analysis

This analysis will employ data from the Chicago Public School (CPS) District's public school data files from the 2011-2012 through 2015-2016 school years. More specifically, this analysis pulls data from the "Limited English Proficiency, Special Ed, Low Income, IEP," "Dropout and Graduation," "Freshman On-Track," and "Suspensions and Expulsions" sub-reports for each school year. The information in these data sets was collected through the forms CPS requires all students' guardians fill out at the start of every school year. Each observation within these data sets represents one school (K-12); accordingly, the demographic-based variables (e.g. bilingual status, special education status, economic status, and racial categories) are all represented with a *percentage* value that

represents the percentage of students with that particular demographic feature at that particular school.[39]

The central research question of this analysis is: *What is the impact of zero tolerance policies on two specific educational outcomes (dropout rates and Freshman On-track rate) in K-12 schools in the United States?* Given the scope of this data, this case study will be necessarily limited to Chicago Public Schools. Furthermore, because the educational outcomes that are of most interest in the context of the school-to-prison pipeline are dropout rates and the Freshman On-Track rates, this naturally reduces the scope of this case study to be focused on high schools in CPS. Given that the literature on zero tolerance and the school-to-prison pipeline in particular are focused on the impact of punishment at these later outcomes in K-12 education, this focus fits naturally into the existing literature's causal story. Therefore, this case study will ask a slightly more refined research question, that is: What is the impact of zero tolerance policies on dropout rates and the Freshman On-track rate in high schools in the Chicago Public Schools district, and what do these findings reveal about the larger national story of zero tolerance and educational outcomes? Therefore, following the specific analysis of high schools in CPS, this analysis will seek to draw connections to the national context of the US education system.

A first take at analyzing the summary statistics of this data by school year, reveals a few things of note. For one, the mean percentage of misconduct that resulted in OSS (43.339 %) vastly exceeded the percentage of misconduct that resulted in ISS in the 2011-2012 school year (29.2%) (Table 1). This is significant, given that OSS is typically understood as the harsher form of suspension, given that it forces students physically outside of their school

[39] Some of the wording of this paragraph was borrowed from the Applied Econometrics paper I wrote in Fall 2016, "Examining the Effects of Race on Suspension Rates between 'Low' and 'High' Quality Public Schools."

communities. However, when these rates are graphed over time, it is interesting to see them to change fairly proportionate to one and other, despite discipline policy changes during this time in CPS (Figure 4.1). Perhaps this reveals the impacts of such changes were more realized among other forms of punishment.

Figure 4.1 Mean OSS and ISS Rates Over Time[40]

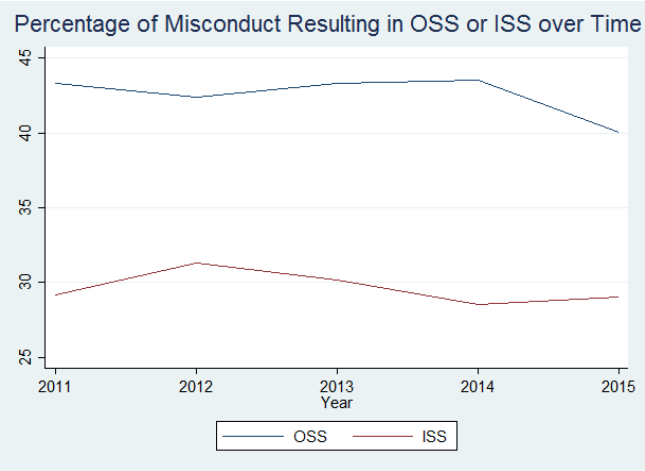
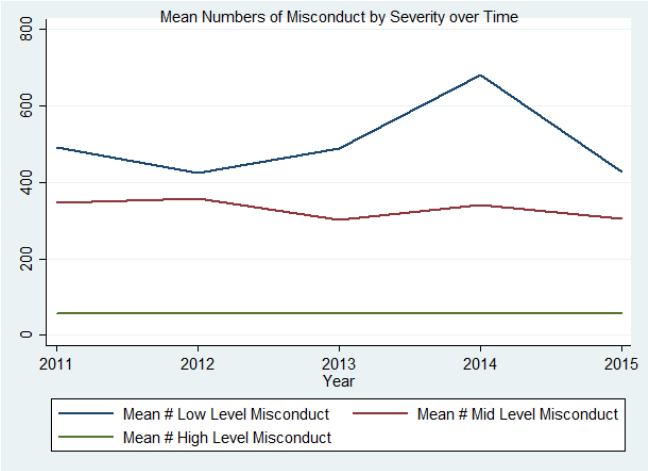


Figure 4.2 Mean Numbers of Misconduct by Severity over Time



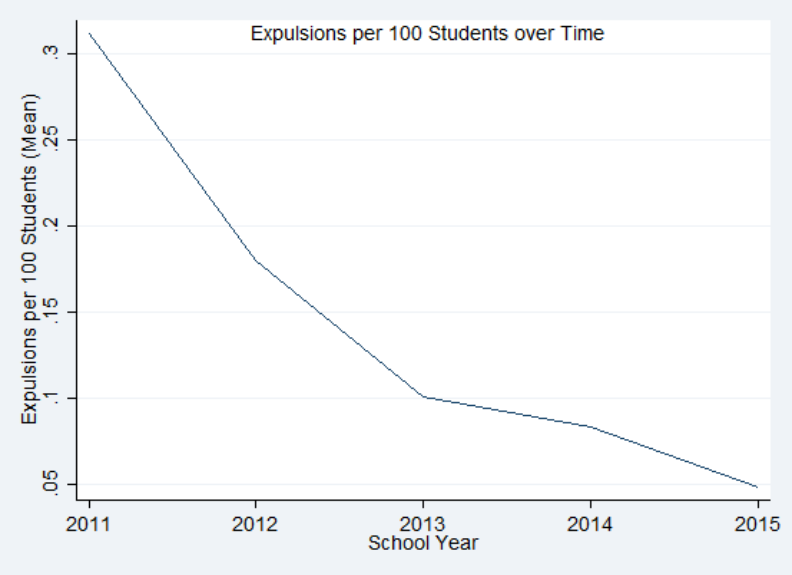
It is worth noting, also, that the amount of misconduct being reported in CPS during the time period of interest in this analysis remained fairly constant for Mid- and High-level of misconduct; however, there was a spike in Low-level misconduct (Figure 4.2). This may be due to genuine changes in the behavior of students, or perhaps due to increased policing of low-level misconduct during this time. It is not possible to discern that causal story from this figure alone though.

Another interesting trend to note that is consistent with what one would expect from the policy changes and existing literature on CPS is that the average number of Expulsions per one hundred students has consistently decreased over time (Figure 4.3). This measure is

[40] While the graph designates each school year with only one year, it should be noted that "2011" indicates "2011-2012 school year," "2012" indicates "2012-2013 school year," and so on. Therefore, the full range of data being represented is 2011-2016, and not 2011-2015, as may seem more intuitive, given the graph.

on a different scale than the "PerISS" and "PerOSS" measurements, as the latter measurements are percentages and the Expulsion measure is an average. All of these measurements may also have overlap in the students receiving any given form of punishment as well—i.e. none of these measurements attempt to capture the number of *unique* students who receive any of the given forms of punishment.

Figure 4.3 Mean Numbers of Expulsions per 100 Students[41] Over Time (2011-2016)



This graphically represents the changes in one of the strictest forms of disciplinary punishment available to schools. It helps to contextualize the Suspensions and Expulsions Reduction Plan (SERP), in particular. Introduced in February 2013, this policy that focused on targeted reductions in the suspension and expulsion rates. Reading Figures 4.1 and 4.2 in relation to one and other might reveal that SERP was indeed successful at reducing suspensions, even though that is not apparent in Figure 4.1 alone; if there was an increase in misconduct (as Figure 4.2 suggests) alongside relatively constant suspension practices (as Figure 4.1 suggests), then it is entirely possible that schools were in fact becoming less strict

[41] The regression work of this analysis uses a slightly different measure of expulsions: the *total number of expulsions per school*; however this measure of average expulsions per 100 students provides a better picture of the scaled changes across the district over time.

with punishment during this time and there were simply increases in behavioral misconduct. None of these observed trends in the data are too surprising, but it is helpful to see the particular effects of CPS's policy changes manifested in their actual suspension and expulsion numbers.

Another important trend that becomes apparent through a graphical analysis of the data set is the relative changes in the educational outcomes—FOT rates and dropout rates—over time. The FOT rates and Dropout rates are measuring opposite ends of educational outcomes—i.e. the higher the FOT, the better the educational outcomes of first year high school students (whereas the inverse is true for the dropout rate).

Figure 4.4 Mean FOT Rates Over Time

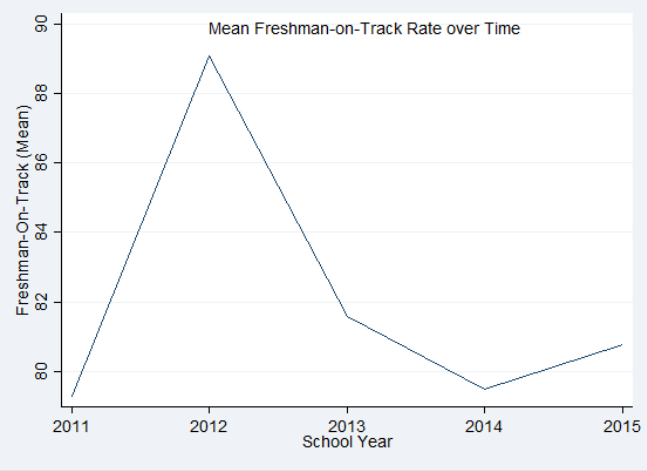
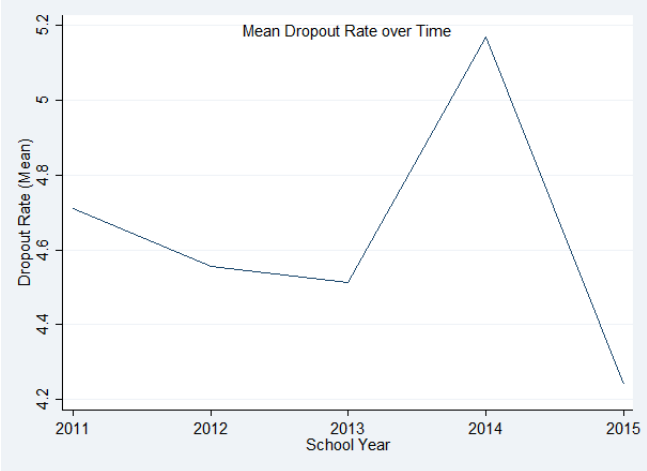


Figure 4.5 Mean Dropout Rates Over Time

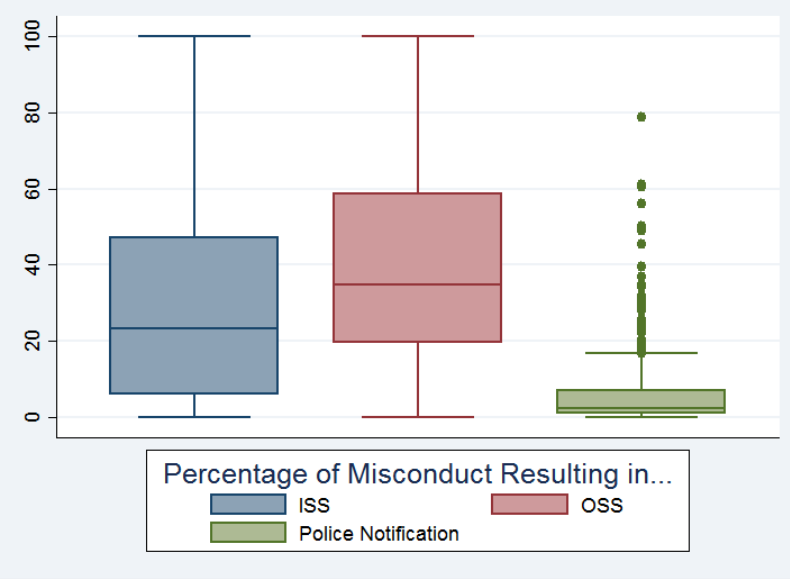


Though it is not possible to establish any causal story based on these descriptive stats, there is reason to further investigate the relationship between FOT rates and dropout rates, given that they are also strongly negatively correlated with a correlational coefficient of -0.5940. It is notable that the FOT rate drops in the same year that the dropout rate is at its peak. It seems plausible that the decreases in the FOT rate and increases in the dropout rate may have similar causal mechanisms—i.e. similar changing conditions in schools may be responsible

for both changes. It is perhaps relevant to note that the 2014-2015 school year is the same one where there was an observed flip between the percentages of misconduct that result in an OSS versus an ISS.

Furthermore, it is worth investigating the spread of the distribution for the use of various punishments across schools to better contextualize the data because the preceding time trends concerned with changes in discipline police (Figure 4.1; Figure 4.3) rely on yearly means across all schools. This aggregated view of the data provides a better scope of the range of disciplinary practice used across the district and the relative distributions of each form of punishment being employed by schools.

Figure 4.6 Distributions of Percentage of Misconducts Resulting in ISS, OSS, and Police Notification[42]



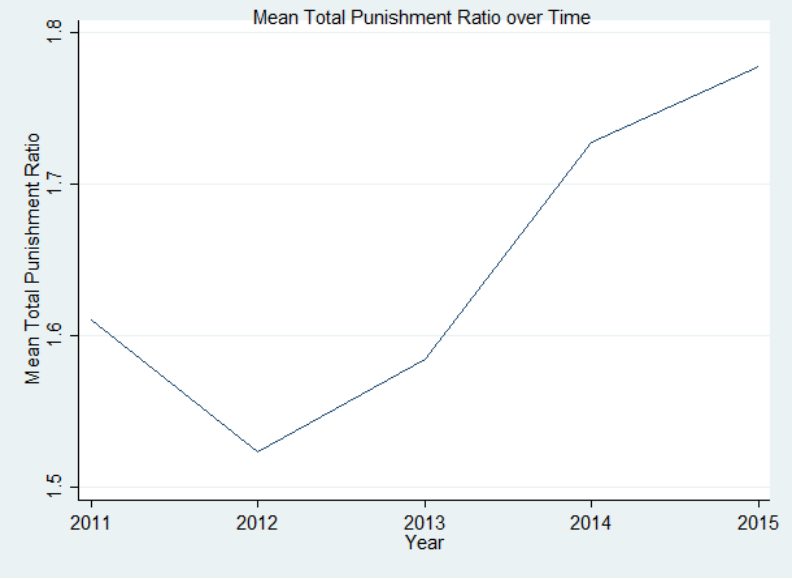
While the most limited form of punishment employed by schools in the data set is police notification, there appear to be a number of outlier schools with very high levels of police notification of misconduct (Figure 4.6). This distribution is helpful in visualizing the spread

[42] Expulsions were excluded from this box plot because, while all three of these measures were calculated in terms of the percentage of misconduct that resulted in each form of punishment, the expulsion measurement in the data set is the number of expulsions per 100 students. These are fundamentally non-analogous measures, so it did not make sense to have them plotted using the same y-axis.

of data; however, looking at the distribution of such punishments in relation to particular levels of punishment would be even more helpful. This level of data is unfortunately not disaggregated in the data set though.

To better understand the relation between punishment and actual behavioral misconduct, it is helpful to look more closely at the ratios of misconduct over punishment. Again, these measures were created in an effort to capture the degree to which a school is "zero tolerance"—i.e. a value of "1" would indicate that a school administers a suspension, expulsion, or police notification for every behavioral misconduct. A higher ratio, therefore, indicates that a higher number of behavioral misconduct/infractions are not resulting in ISS, OSS, expulsion, or police notification. It is possible that this gap between total misconduct and total punishment is being addressed through less punitive measures (perhaps restorative justice models), but it is not possible to be sure, given this particular graphical representation of the data and what is available in the data set.

Figure 4.7 Mean Total Punishment Ratio over Time



It is interesting to note that the mean *Total Punishment* Ratio goes up after 2013, the year the Student Code of Conduct was modified (Figure 4.7). Given that these changes were designed to minimize the use of punitive measures used by schools and to shift more towards alternative methods of treatment like peace circles, this might explain the fact that there was a higher amount of misconduct that was not resulting in ISS, OSS, expulsion, or police notification after 2013. The change the in the mean *Total Punishment* ratio, however, is not particularly large though, which may have to do with the fact that such changes in the Code of Conduct may have affected different schools to different degrees (i.e. schools who previously used harsher methods of punishment would be forced to change their practices more than a school that did not) (Table 1).

In terms of changes in the composition of the student body, there are also several interesting things to note. The three features of the student body that analysis will control for (beyond racial measures) are the percentages of students who are bilingual, with an IEP, and who are economically disadvantaged, as these may affect the educational outcomes at the school-level. Changes in each of these demographic groups over time may, therefore, help understand the regression analysis, in relation to policy changes in CPS. In order to understand any potential trends that may exist, over time or across schools, for each of these three demographic controls, it is useful to look at their distributions and mean values (across the district) over time. These figures will provide a better context for demographic shifts within the city of Chicago itself.

Figure 4.8 Mean Percentage of Students with an IEP over Time

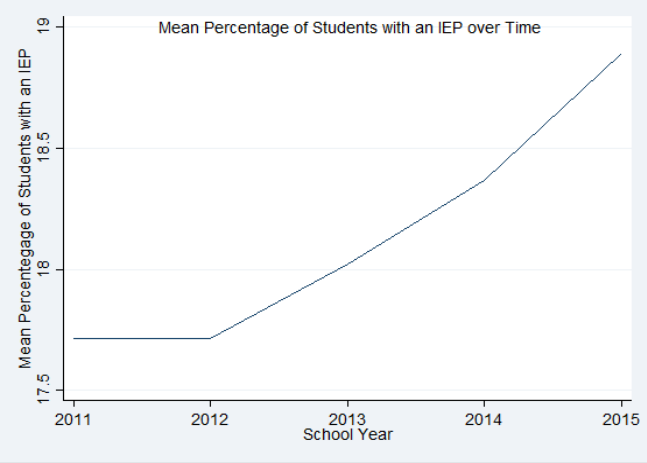
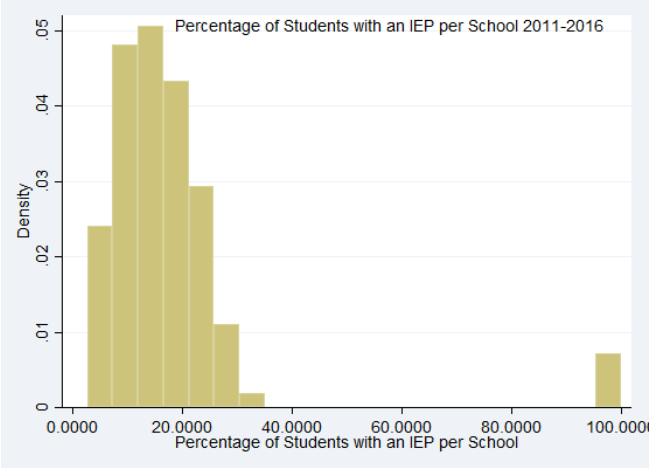


Figure 4.9 Histogram of Percentage Students with an IEP per School



Firstly, the mean percentage of students who have an IEP across CPS has increased by over a percentage point between the 2011-2012 and 2015-2016 school years (Figure 4.8). While this is not a tremendous increase, it is worth noting as a potential consequence of the policy changes shifting away from zero tolerance—i.e. it is conceivable that more students become diagnosed with a behavioral or learning disability when the culture of their school shifts to being more restorative. Inherent in the dualism of zero tolerance is an understanding of students as either "good" or "bad" so it may make sense for schools with harsh zero tolerance policies to pay less attention to picking up on disabilities with students who are misbehaving or not performing optimally, so this increase in IEPs would be interesting to further investigate. Furthermore, the data is fairly skewed, with a number of outliers who have 100 percent of their student body with IEPs (Figure 4.9). These outliers are most likely schools with a special instructional focus on students with disabilities. Some of these schools may have more specialized discipline plans, so it may be worth further investigating the other aspects of those schools to see if they should be excluded from this particular analysis.

Figure 4.10 Mean Percentage of Bilingual Students over Time

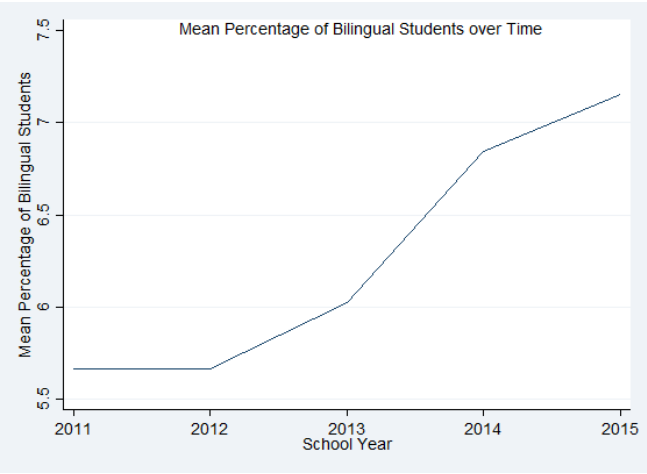
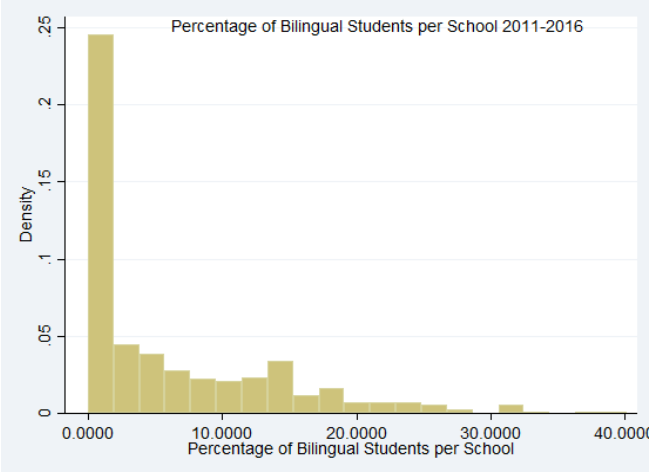


Figure 4.11 Histogram of Percentage Bilingual Students per School



Secondly, there is a parallel increase in the average percentage of bilingual students per school of almost two percent (Figure 4.10). This demographic change could either indicate that the schools in CPS were failing to provide English education for students with limited English proficiency, or that there were new students entering the CPS school district during this time with limited English proficiency. Again though, this is a relatively small change, so it is a possible that this slight increase is natural, and not due to either of the aforementioned causes. It is interesting though, that the highest percentage of schools have a mean percentage of bilingual students of 0 percent (Figure 4.10). Furthermore, the district reports that 17.17 percent of their students are considered English Language Learners (ELL),[43] as of the 2016-2017 school year across grade levels, so the lower percentage of such students reported in Figure 4.11 suggests that most of these EL/Bilingual students must be concentrated in lower grade-levels (CPS "CPS Stats and Facts"). That makes sense, given that many of those students must learn English at lower grade levels, prior to high school.

[43] The CPS website and data sources seem to use ELL and Bilingual interchangeably, referring to the same groups of students.

Figure 4.12 Mean Percentage of Economically Disadvantaged Students over

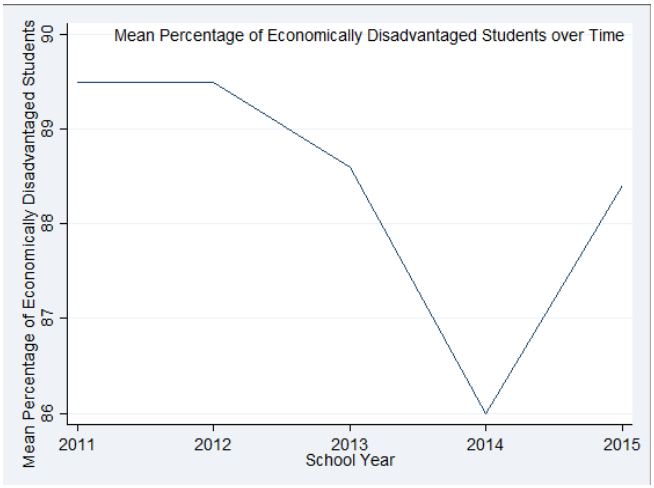
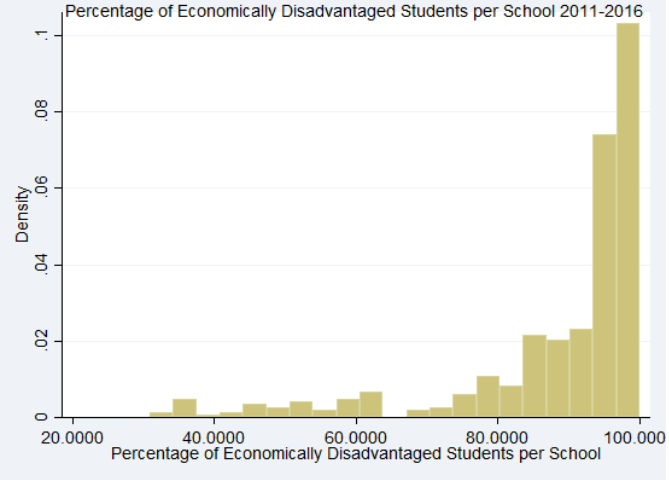


Figure 4.13 Histogram of Disadvantaged Students per School



Thirdly, the data on the percentage of economically disadvantaged students per school over time also revel some interesting trends. There was a several percentage point drop in the 2014-2015 school year before the number went back up in the 2015-2016 school year (Figure 4.12). This change likely is just reflective of changes in economic growth in CPS during this time period. While this analysis will not integrate any data about the city of Chicago itself, rather than just the school district, it may be helpful to compare these changes in the percentages of economically disadvantaged students with some proxy of socioeconomic status for the city at large. It is also interesting that the distribution of the percentage of economically disadvantaged students over time is most concentrated at and around 100 percent (Figure 4.13). This variable, in particular, is revealing about the larger overall climate of Chicago, beyond the school district alone, because it captures the changing demographics of the students' families as well as themselves. Because Figure 4.13 is not disaggregated by *school year*, this may be overly concentrating schools around 100 percent, when in reality, some schools may fluctuate more than is possible to discern than from either of these figures.

Figure 4.14 **Scatterplot Black and White *White* Students in School by Racial Density Index**

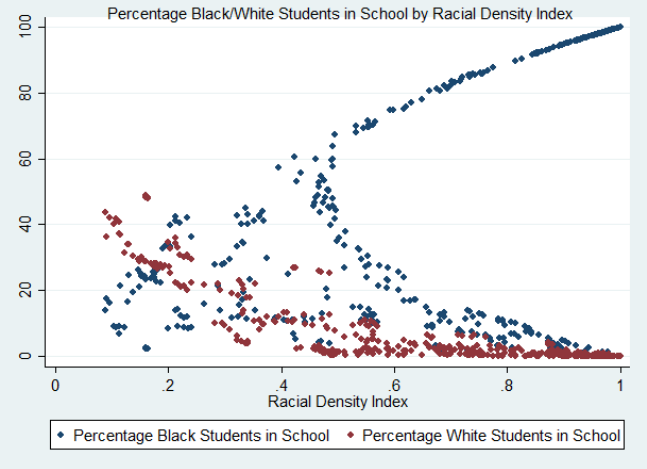
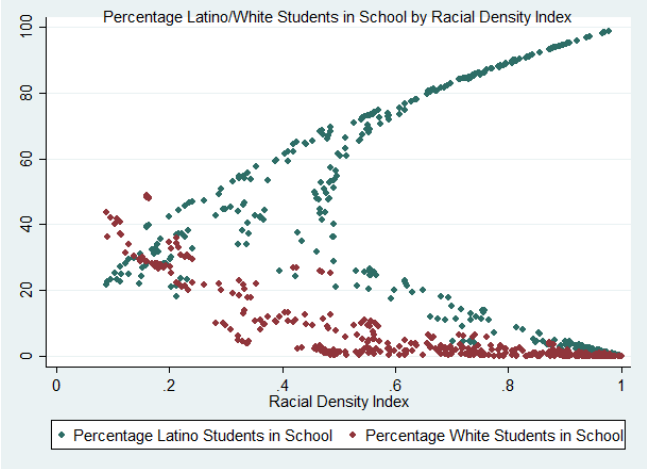


Figure 4.15 Scatterplot of Latino and **Students in School by Racial Density Index**



Finally, it is helpful to look more closely at the Racial Density index data to learn more about the nature of segregation in CPS. While the parabolic nature of this scatterplot distribution is *not* surprising, because it reflects the ways in which the *Racial Density* index was calculated (i.e. using the squared values of non-White racial groups that made up the largest portion of CPS high schools), Figures 4.14 and 4.15 are very revealing about the nature of racial segregation that CPS experiences. More specifically, as schools become more racially segregated in the case of CPS high schools, they become less white. The *Racial Density* index therefore is highly associated with increases in the percentage of students of color who compose a school. The correlational coefficient of *Black* and *Racial Density* is 0.578, which is fairly strongly positive. Strangely though, the correlational coefficient of *Latino* and *Density* is -0.260, perhaps suggesting that the highly segregated schools traditionally have a Black majority in CPS high schools. The interactive effects of *Black Majority* schools with *Racial Density* will, therefore, be further explored to discern any unique effects of highly segregated Black schools on educational outcomes.

II. Results

The findings involving the misconduct-punishment ratios were the most interesting, and informative, in the context of the primary research question of this econometric analysis, that is: *What are the effects of zero tolerance discipline policies on educational outcomes in Chicago public schools?* Across all punishment ratios (i.e. the *Total Punishment Ratio*, *Suspension Ratio*, and *Police Notif. Ratio*), the ratios of mid-severity misconduct over punishment were associated with *negative* educational outcomes, whereas the ratios of high-severity misconduct over punishment were associated with *positive educational outcomes* (Table 3; Table 4; Table 5). In other words, when there was a higher ratio of high-severity misconduct associated with the punishment a school was employing, those schools had lower dropout rates and higher a FOT rate. Whereas, when the ratio of mid-severity misconduct increased in relation to the punishment a school was employing, those schools had higher dropout rates and a lower FOT rate. For example, for each point increase in the *High Suspension Ratio* (i.e. the ratio of the number Groups 5 and 6 misconduct in a school over their total number of suspensions), the dropout rate is expected to be 2.4 percentage points lower and the FOT rate is expected to be 8.1 percentage points higher (statistically significant at 10 and 5 percent levels, respectively) (Table 4). For the *Mid Suspension Ratio*, a one-point increase in the ratio is associated with a 2 percent decrease in the FOT rate (statistically significant at the 10 percent levels) (Table 4). It is worth clarifying what this means more specifically, given the difficulty in translating these ratios to real terms. This indicates that when there is a higher concentration of the most severe forms of misconduct—such as the use of drugs and/or physically attacking another member at school—in relation to the amount a school is punishing their students (through suspensions, expulsions, and police

notification), then the school is expected to have more positive educational outcomes. On the contrary, when a school has a higher concentration of the mid-severity forms of misconduct (and the lowest-severity punishment, in the case of the *Police Notif. Ratios*) in relation to punishment, that school is expected to experience more negative educational outcomes (Table 3; Table 4; Table 5).[44] There were no significant differences found between the various punishment ratios (i.e. *Total Punishment, Suspensions, and Police Notif.)* at this level of analysis.

While it is not possible to draw any causal stories from the level of analysis performed in this study, this does raise some interesting questions in the context of zero tolerance policies. It is possible to read the high *Low Ratios* values for all punishment types as a proxy for a school that is particularly harsh, and perhaps adopting zero tolerance policies, because they have high levels of punishment associated with lower-level misconduct.[45] Therefore, the findings that such schools are associated with poorer educational outcomes might reveal the beginning of a story about the effect of harsh discipline policies on such outcomes. The nuance of this analysis' story, however, lies in the fact that it does not find discipline to be universally associated with negative educational outcomes. Rather, when a school experiences a higher density of the most severe cases of misconduct, those schools' punishment ratios are associated with more positive educational outcomes. This, at the very least, provides grounds for further investigating the effects of the *harshness of punishment relative the severity of misconduct* on educational outcomes. This is

[44] The number of expulsions a school issues is also found to have negative effects on dropout rates, which is not all-too-surprising given the association between the two variables. It was not possible to discern in the CPS data sets if expulsions were included in the dropout rates, so this finding is not necessarily anything more than collinearity.

[45] This ratio is, of course, a rough proxy for what it is attempting to capture, because the punishment included in this ratio is not necessarily all in response to the misconduct being accounted for.

essentially the question of the effectiveness of zero tolerance policies, and this analysis provides some fascinating leads to begin answering this question.

In addition to the effects of discipline patterns on educational outcomes, this analysis's findings related to the other school-level factors supports the cited existing literature in the context of CPS. One surprising finding that strays from existing literature is that, across all of the regression models, *Black Majority* schools were strongly associated with more positive FOT rates. More specifically, all regressions found that schools with a *Black Majority* were associated with an increase in FOT of at least 14 percent, significant at 1 percent (Table 3; Table 4; Table 5). While at first glance, this finding may seem to directly contradict the existing literature that suggests that Black students typically experience poorer educational outcomes than their peers, this finding is necessary to contextualize in the particular composition of CPS. While *Latino* variables were not included in the full regressions in an effort to control for collinearity with *Bilingual*, a school with marginally more *Latino* and being a *Latino Majority* was negatively associated with educational outcomes (Table 2).[46] The *Black Majority* measure is designed to capture which racial group makes is most prevalent in a school, but this is possible through a plurality (i.e. less than 50 percent). In a school district whose largest racial group is Black students (compromising 37.7 percent of the district), this plurality is not as instructive as it might be as school-level data (CPS "Stats and Facts"). However, when one considers the interactive effects of the *Racial Density* measure and *Black Majority*, the findings are much more aligned with existing literature. This interaction term is highest when Black students both compose the largest racial group in a school, and that school is also highly segregated. For this variable, all

[46]These findings are not explored at length because they are only included in the partial regressions. The *Latino* variable and its interactions were not significant, economically or statistically, in any of the full models.

models found there to be incredibly large, negative effects of a school having a *Black Majority* and a higher *Racial Density* value: each model found such schools to be associated with at least a 31 percent lower FOT rate, significant at 1 percent (Table 3; Table 4; Table 5). This suggests that, for a school district with as many students of color as CPS, racial composition alone is insufficient in capturing the full dynamics of race at the school-level; instead, racial *segregation* provides the fuller picture.

In terms of the demographic controls in question—*IEP, Economically Disadvantaged, and Bilingual* —almost all of the findings in this analysis support the predictions that were made based on the existing literature that all of these controls would *negatively* impact educational outcomes. More specifically, across all statistically significant findings, an increase in the percentage of students with an *IEP* in a school was associated with an increase in dropout rates and a decrease in the FOT. The most significant of such findings were in the disaggregated lagged *Police Notif. Ratio* regressions (Regression 8), which found that a one percent increase in the amount of students with an IEP was associated with a .216 percent increase in the dropout rate and a .827 percent decrease in the FOT rate (Table 5). Though these changes are not hugely economically significant, it does make sense that a 1 percent change in any given demographic would not change the entire culture of a school. Though some of the findings for *IEP*Percentage Black* were statistically significant, their economic significance was so small that it seems this model was unable to pick up on the strength of the interactive effects of being both *Black* and having an *IEP* that the literature was able to pick up on (Table 3; Table 4; Table 5).

While there were findings for *EconDisad*, they were not as large as expected and they were not statistically significant across the regressions. Most of these findings concluded

there to be a negative relationship between *EconDisad* and FOT—i.e. the higher the percentage of students who were economically disadvantaged in a school, the lower the expected FOT; however, two of the regressions also found there to be a negative relationship between dropout rates and FOT (Table 3; Table 4; Table 5). For example, in the *Total Punishment Ratio* regression 5 (with the disaggregated punishment ratios and all controls), a one percent increase in the amount of economically disadvantaged students in a school was associated with a 0.04 percent decrease in dropout rates (significant at 10 percent) (Table 3). Given the extremely marginal nature of this economic significance, this finding likely just indicates that the model was not picking up on any significant effects of *EconDisad* on educational outcomes. Perhaps one reason for this was because 80.22 percent of the district is classified as "economically disadvantaged," so this measure was not precise enough to capture strong effects in a one percent change in the concentration of economically disadvantages students in any given school (CPS "CPS Stats and Facts"). Perhaps an SES segregation index, or a dummy to designate schools with very *high* and very *low* levels of economically disadvantaged students (i.e. 95 percent and above, and 5 percent and below, respectively), would have captured more significant effects along socioeconomic lines.

The findings for *Bilingual*, however, were more significant, perhaps in part because of the decision to exclude *Hispanic* from the regressions to control for the collinearity between the two variables. In any case, all statistically significant findings demonstrated that schools with higher percentages of students classified as *Bilingual* (i.e. EL learners), the higher the associated dropout rates and the lower the associated FOT rate (Table 3; Table 4; Table 5). This is consistent with existing literature's findings, except for the fact that this analysis was unable to disentangle the effects of being an EL based on one's migration status.

Given the literature's suggestion that the number of generations one is removed from migration affects one's educational outcomes to be either positive or negative, this would be an important distinction to make, given access to better data.

Finally, across the regressions, the *Time Trend* variable indicates that educational outcomes marginally improved over time. For example, for the first regression in the *Total Punishment Ration* regression, each year increase (between 2011 and 2016) was associated with a -.278 percent change in the dropout rate (significant at 10 percent) (Table 3). Given the focus on the three policy changes CPS made in order to reduce zero tolerance disciplining, it is possible that the time trend might indicate the effectiveness of this policy change by the improvement in dropout rates over time. However, given that the *Time Trend* variable may also have been picking up on any other number of trends over time in CPS (not being already controlled for with the fixed-effects), it is hard to parse out the specific policy effects from these observations. In order to better understand the policy effects of the three aforementioned CPS policy changes, therefore, it would be best to test the treatment effects through a differences-in-differences approach. This was not possible within this present analysis because there were not distinct "treatment" and "non-treatment" groups because all schools were affected by certain district-wide policy changes, such as the changes made to the Student Code of Conduct.

III. Caveats to Analysis

Before it is possible to draw national conclusions from this case study of discipline policy in CPS, it is necessary to point out several caveats about the data set that have implications for the findings. The most significant thing to note is that this analysis is only

capable of really picking up on *school*-based effects, rather than *student*-level effects. In other words, this analysis looks at the impact of changes in discipline on overall school climate and the impact of that all on school-level educational outcomes. However, given the number of other indicators that may affect school climate, apart from the controls this study was able to take account of, this is a somewhat haphazard approach. The more ideal data set would therefore be student-level panel data that tracks students over some set of years, and even between schools. This is because there are grounds to believe that much of the data analyzed in the context of this study did not contain a constant group of students. A 2009 report published by the Consortium on Chicago School Research (CCSR) has found that student mobility in CPS has decreased since 1995 and the mobility rates are typically lower among high school students than elementary school students (de la Torre and Gwynne 3). However, mobility between schools is still a relevant concern, in particular because the CCSR findings indicate that, at the high school-level, Black students are disproportionately mobile, when compared to their peers (4). Because the sort of students that compose CPS, and particularly black males—are typically the focus of the literature on zero tolerance, these changes in the demographics of each school are not negligible. If the primary students affected by school discipline policies are moving from schools before the treatment effects of policy changes can be measured, then the "educational outcomes" this study captures will not even be those of the students in question. This complicates the notion of finding school-level effects because it is questionable if it is changes in "school climate" that are truly being captured over time if the composition of the school is dramatically changing. Furthermore, there is also a great level of inconsistency in terms of which schools are open in CPS: "Since 1994, 143 schools have opened and 60 have closed" (Sebring *et al.* 5). This problem is

manifested in the fact that there is not a completely consistent sample of schools across the years of data used for this study. The rapid closure and opening of schools also compounds the likelihood of students being mobile between schools. All of this is to say that these findings must be taken with a grain of salt and that further studies should seek to use panel data, when available. The challenge is, of course, the privacy concerns in having publicly accessible, detailed panel data for minors (especially when it comes to discipline and crime-related data), so any such study might also have to involve original data collection.

A second problem with this analysis lies in the fallibility of data associated with the reported number and the severity of "misconduct." As it became very apparent in working through the CPS Student Code of Conduct's definition for different "Groups" of misconduct, there is a great level of subjectivity in terms of what is considered any given level of misconduct. And, within a context in which certain types of students are arguably racially coded as part of the "disorder" of schools, it is not difficult to imagine the ways such students may be misattributed as being guilty, particularly when they are in group settings where it is more difficult for teachers or administrators to efficiently discern who is responsible in that context. In a longitudinal study of an urban high school in the Midwest that employed classroom observations, videotaped lessons, and interviews, Vavrus and Cole found that "suspensions frequently occur in the absence of any physical violence or blatant verbal abuse. Rather suspensions are often preceded by a complex series of nonviolent events when one disruptive act among many is singled out for action by the teacher" (87). In other words, Vavrus and Cole found that situations where there might be "disorder" in the classroom, but no "obvious breach of disciplinary policy," can result in suspensions when the teacher singles out certain students as being responsible for that disorder (who may or may not have been

directly implicated in said behavior) (88). The students who are singled out in this way are most often female, and either Black or Latina, which supports the notion that these trends might be racially coded in some ways (88). There is a lot more that could be looked in here regarding the role of zero tolerance within this sort of misconduct "grey area"; however, the purpose of introducing this literature to this analysis is to just highlight the extent to which \ misconduct gets marked as being more or less severe has the room to be inconsistent by teacher and/or school. The punishment ratios employed in this analysis are the best proxy, given the available data, for school harshness and zero tolerance.

A third limitation of this analysis is that it is entirely a top-down analysis, so it misses the knowledge that can be gained from individual student experiences. The seriousness of this limitation became apparent to me when I was discussing my thesis with a classmate who grew up attending schools in the CPS district. I mentioned my research to her, with a clear bent against zero tolerance and support for restorative justice models. She recounted that her younger brother had been badly beaten up at school after the very anti-zero tolerance reforms this analysis looks at were implemented, and the person who beat him up was only given a two-day suspension. She suggested that this level of punishment in that context was basically meaningless, and demeaned the seriousness of the violent act against her brother. When I asked her about other students' and the broader community's perceptions of restorative justice peace circles and other such measures, she suggested that students consider them more or less a "joke" and, therefore, do not treat them with the seriousness that much of the literature in support of them says they are. This insight is just one personal narrative from a student for whom CPS' discipline policy was a daily, lived reality, and it challenged the understanding of zero tolerance that this analysis has come to. It is hard to know how this

analysis would further shift if additional individual narratives were centered throughout. As someone with no personal experience within CPS, within public schools, or within larger urban schools, there are serious limitations that my personal experiences present. As much as I can attempt to deconstruct the various narratives about CPS that emerge in the literature and in common language, those deconstructions can only go so far. My own positionality is therefore inextricably tied to the way I have processed this research. This is all to say that any cohesive analysis of CPS discipline policy, or zero tolerance in general, *must* center student voices, community voices, administrator voices, parent voices, etc. This analysis provides a remotely detached view of such policies, which is helpful as far as big-picture analyses go. However, if one were to develop this analysis further, integrating interviews and community feedback in some more intentional way would improve both the integrity of this project and its ability to serve the communities it is about.[47]

IV. Possible Improvement to the Model

While this analysis did reveal some critical findings about the nature of discipline and school demographics on educational outcomes, there are ways in which the econometric model itself has room to grow. For one, it would be useful to use the data set to estimate a line of best fit using the multiple years worth of panel data, and then compare the predicted values with the actual values to predict the level of punishment one would expect given a certain degree of misconduct. The differences between the actual and predicted values here

[47] One such work is Victor Rios's book *Punished*—a work that he composed after following the lives of approximately forty Black and Latino boys in Oakland for three years. The differences between that book and this present analysis are grounded in their differing research methodologies—this analysis focuses more on the analysis of quantities data and academic publications, whereas his work is grounded in personal narrative. Much of the differences therefore ultimately come down to the particular training of the author, which is just to say that reading this analysis alongside work like Rios' book is critical to getting a more complete understanding of school discipline policies and the school-to-prison pipeline.

could provide an even stronger proxy for a sort of irregular level of "harshness" in the discipline policies of a school because those residuals would be a rough measure of any deviation from traditional punishment over time.

A second improvement to the existing analysis would be to specify and/or sophisticate the current variables more. The current regression models have R-squared values no higher than 0.32, suggesting the majority of the determinants of the model are not being controlled for yet. For example, the existing literature suggests that there are a number of interaction effects that are not captured in these models, such as those between SES and Race, Language Status and Migration Status, Language Status and Race, Racial Segregation and Language, etc. Part of the reason all of these interaction terms were not simply generated using the existing variables was because of the nature of the data being *school*-level. With student-level data, creating interaction terms between those variables would actually create an interaction that finds the effects of having that particular intersectional identity; however, with school-level data, that interaction term is a haphazard approximation for the size of the student population with the two given identities and is, therefore, much less precise and much less useful. Another way of better specifying the data would be to come up with better proxies of *segregation* for variables other than the race-based ones. For example, one could create a dummy variable to designate schools with very high percentages of economically disadvantaged students, bilingual students, students with an IEP, etc. and use those as the tested variables, rather than simply plugging in the variables straight from the data set, in the regressions. This might provide stronger findings—particularly given the nature of CPS being composed of 80.22 percent economically disadvantaged students, 17.17 percent ELs, and 13.66 percent students with IEPs (CPS "Stats and Facts"). In other words, the marginal

effects of a high school having one more percentage points of economically disadvantaged students might be fairly negligible, whereas the effects of a school having at least 95 percent of their students economically disadvantaged might be more significant.

And finally, this analysis could have done a more serious job to control for collinearity. While the decision was made to remove *Latino* variables from the data set because of their correlation to *Bilingual*, there were a number of other variables that were correlated (albeit, to a lesser degree) that likely caused a certain degree of collinearity in the model. For example, *Black* and *Econ Disad* have a correlational coefficient of 0.23, *Econ Disad* and *IEP* has a correlational coefficient of 0.412, and—more concerning—the disaggregated punishment ratios also were positively correlated to similar, or greater,[48] degrees. This is all to say that, given more time to work to work with the data, a less collinear and more well-developed proxy for "zero tolerance"/"harshness" needs to be developed. There is a challenge inherent to dealing with collinearity with this sort of data, given the strong connections between race variables with others like SES, punishment trends, etc., so interaction terms might be one way to accommodate to these dynamics. So much of the literature on school discipline provides reason to believe that all of the same determinants identified in this study for *educational outcomes* are also determinants of *punishment* itself.[49] Because punishment was treated as another independent variable in this study, this posses immediate concerns for collinearity.

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[48] One particularly concerning finding was that the disaggregated *Suspension Ratios* had correlational coefficients all 0.94 or greater with one and other.

[49] For example, according to the literature review I completed for my Applied Econometrics final paper, I found that existing literature suggests there to be some relationship between school discipline and *race, gender, disability status, EL status, high-stakes testing schedules* (which was identified as a confounding variable in this analysis), and *school quality measures*.

Chapter 5
Policy Recommendations

Given these findings regarding the effects of zero tolerance school discipline policies on educational outcomes in the context of Chicago Public Schools, there are larger lessons that can be drawn about the role of zero tolerance policies at the national level. Because "zero tolerance" has come to mean different things across states, school districts, and even schools, surveying the levels of possible change will help provide a useful background on how to target school discipline change at various levels of policy. This chapter will begin by drawing on the conclusions from the case study of Chicago Public Schools to the national context and will then survey the possible levels of change in the system of school discipline, before making general policy recommendations.

A. Conclusions and Lessons for Nation at Large

It would be haphazard—at this level of analysis—to make sweeping conclusions for discipline policies nationally based on the results from the case study on Chicago Public Schools alone; however, there are a few interesting findings that might inform future research about the application of these findings to a national context. For one, this study indicates that *race matters* to educational outcomes; however, the effects of race are largely moderated by *racial segregation*. Segregation seems to have a sort of multiplier effect in that, when many students from disadvantaged groups (either racially, or possible also socioeconomically, in terms of their language status, etc.) are concentrated within a school, then the other stressors that negatively effect educational outcomes become more pronounced. For example, high-stakes testing is critically important for school funding, especially for public schools with

high concentrations of working class students. Such schools are also likely to have larger communities of color, immigrant students, EL students, etc. because of the strong relationship between these variables. Chicago is a typical case of the sort of district most directly affected by zero tolerance policies: as a large urban school district with high concentrations of students of color who come from working class families and a rate of school closures, schools in Chicago are under a large deal of stress to ensure their own positive educational outcomes. Such conditions place teachers and administrators in a unique position where policing to ensure "order" at their school is sometimes viewed as a necessary step in order to make sure that they keep their schools, and community, afloat. Therefore, this analysis is not intended to assign guilt onto those who run highly-segregated schools like many of those in Chicago, but instead it seeks to push for more critical conversation about the larger systems at play that lead to teachers and administrators in schools across the country resorting to zero tolerance policies in the first place. Given the findings in this analysis that the relative harshness of discipline matters to the educational outcomes of a school, these findings about segregation and discipline carry particular importance, even outside of Chicago's context. Also given that Arne Duncan went on to lead the US Department of Education on the platform of scaling the same sort of test-based accountability systems and harsher discipline he developed in Chicago to the national context, this case study of CPS schools is particularly critical in thinking about the dynamics of testing, funding, and discipline across the nation. This is not to say the conditions of CPS are exactly the same as those at all other schools in the nation, but rather that the case study of CPS validates existing findings regarding the dangers of zero tolerance, particularly in the current system of test-based accountability and funding.

B. Surveying Levels of Change

Federal-Level Policy Change: Focusing in on GFSA and Due Process

Given the lack of a cohesive national policy that defines the practice of zero tolerance across all US schools, there are a number of levels at which discipline policy changes might be addressed. The first possibility of change at the federal level would be to repeal or amend the existing federal Gun-Free Schools Act in response to its very loose definition of what a "dangerous weapon" is. This could take the form of repealing the GFSA and introducing an entirely new bill with clearer due process protections for all students, introducing amendment to the existing law to narrow the definition of "dangerous weapons," or implementing a more secure enforcement mechanism to ensure that schools are actually being held responsible for their protection (or lack thereof) of students' due process rights. Alternatively at the federal level, the Supreme Court could rule against the constitutionality of the GFSA because of its systematic neglect of the due process protections required under the 14th Amendment. Given the current political climate with the Republican control of Washington and the conservative majority on the Supreme Court, this level of change is likely to be politically unfeasible, at least for the next four years, if not much longer. This level of change also would not necessarily cause the dynamics of moral panic around "deviancy" and "disorder" in schools to be eliminated in any ways; it seems more likely that this level of policy change would happen only once those broader shifts in the culture around juvenile crime and school discipline occur within American society. Without these shifts, then there is always a risk that the systems in place governing school discipline will fail to actually ensure due process protections for all students. Therefore, it is critical to consider other, more bottom-up methods for catalyzing change in the space of school discipline.

State-Level Politics: Minimizing Sentencing Rules

The next possible level of change would be state-level reform. This is the status quo condition means of responding to zero tolerance policies; however, there is no uniform way in which states respond to zero tolerance. For example, Illinois has attempted to tackle zero tolerance by setting standards for discipline data:

> Illinois passed legislation in 2014 that requires all publicly-funded schools to report data on the issuance of out-of-school suspensions, expulsions, and removals to alternative settings in lieu of another disciplinary action. (Advocacy & Communication Solutions)[50]

The Michigan State Board of Education adopted the "Model Code of Student Conduct 2014," which strongly urged school districts against the use of zero tolerance disciple and "articulat[ed] the importance of integrating proactive steps of evidence-based, pro-social development practices into the school culture and sustaining them as vital elements of school operations" (8). Other states, such as Oklahoma, have shifted their focus to increased "mental health counseling and social services" (8). Another alternative policy route that is being employed by some states is utilizing *positive* reinforcement mechanisms (rather than negative ones) to motivate positive behavior by students. For example, Louisiana has passed state legislation "requiring that the school master plans in various localities prepare and include provisions for staff and administrator training on positive school behavioral supports and practices" (8). According to existing literature's findings on the effects of such "School-Wide Behavioral Interventions," such positive-reinforcement methods are associated with "improved academic performance, better social behavior, and reductions in referrals to the principal's office for discipline polices" at the elementary school-level (Boccanfuso and Kuhfeld 8). Therefore, there are a number of approaches for state governments to take in

[50] This is the same sort of data that was employed for this analysis.

dealing with school discipline—including new legislation, increased funding for social services and positive behavioral interventions (perhaps in collaboration with non-profit organizations), and more. There are a multitude possibilities at this level of governance to make wide-sweeping changes in the dynamics of school discipline, so each state seeking to make such changes should tailor whatever policy changes they pursue to the particular circumstances within their state. Given the potentially significant variance between districts, even within the same state, it may be preferable to pursue district-level changes for some of these policy changes.

District and School-Level Changes

Another possible level of change would be at the school district or school level, as can be seen in the case of CPS' reforms. In terms of district change, policies could introduce and enforce some regularized means of ensuring due process protections for students, or even just work to eliminate the heavy presence of police on elementary and high school campuses. When one considers the role of zero tolerance in normalizing the *school-to-prison pipeline*, the presence of police surveillance within schools—labeling a food fight as a misdemeanor—cannot be overstated. Accordingly, one of the most popular alternatives to zero tolerance is the introduction of restorative justice models, either by the school district, or through private organizations or non-profits. These programs target the underlying sources of conflict that are responsible for school misconduct and have been found to be critical in improving school safety and educational outcomes for schools that have adopted the model. If these programs are successful at this level of change, it is possible to work them up through the system to the state and federal levels.

For example, there is research that suggests that the restorative justice (RJ) model is better equipped to address the underlying dynamics of power that might be responsible for students acting out in school in the first place:

> Tyler (2006) argues that by giving people, particularly students, a voice in the decision-making and procedural justice process, they will view institutional power as more legitimate and fair. Tyler also makes the case that empowering youth may lead to better self-regulation without the need for formal discipline. Zehr (2002) and other argue that RJ results in a shift in how discipline is applied, which increases student perception about fairness of educator actions, thereby leading to a greater compliance as they see the school order as having legitimacy. (Fronius *et al*.5)

This literature all captures the role of perceived *legitimacy* from the perspective of the individual committing the "crime" because the model depends on the understanding that "the key to motivating compliance based on internal social values is to maintain the legitimacy of the law and of legal authorities" (Tyler 317). The restorative justice model is therefore responsive to concerns that harsher, zero tolerance approaches are unjust in their unequal application of punishment to students of color, students with disabilities, etc. Such practices often diminish the trust the most vulnerable students have for authority and can make them feel even more excluded from the traditional "social order" of their schools. Inherent in the dualist zero tolerance framework is an understanding of *Us vs. Them*—those whose behavior is socially acceptable, and those whose behavior is "deviant." With more rigid systems of punishment that frame students who commit such behavioral infractions as inherently "violent," "deviant," or "at risk," there is a strong potential to reinforce the original social controls that may have cause the students to act out in the first place. There are a multitude of schools and districts employing effective models of restorative justice that might be worth investigating more closely, should a district be seeking to tailor a model of restorative justice to their own community. Many of these programs involve things like peer juries, which allow

students to have a voice in discipline proceedings and to see themselves as a critical member of their community. The power of models like the peer jury is that they reverse many of the hierarchies that emerge within schools that have a harsh focus on "discipline" as a part of their school culture.

C. Policy Recommendations

Given these various policy options, it is hard to suggest that there is any singular combination of changes that would be the most effective. What is more of a factor in the case of making changes in the US education system is the presence of political coalitions willing and able to fight for those changes. Also given the particular political order at the moment in the US with the Republican majority at multiple levels of politics, it seems like the methods of change that would be most likely to work are more grass-roots, or district-level changes, rather than federal policy change. In particular, an overhaul of federal school policies or the GFSA on the grounds of civil rights and due process protections seems particularly unlikely, given Jeff Sessions' position as Attorney General and Besty DeVos' as the Secretary of Education. The system of "school choice" is one that heavily incentivizes the same test-based accountability systems that have contributed to the rise of zero tolerance policies in the first place.

There are a number of examples of approaches to shifting away from zero tolerance that have been suggested in the preceding section, any of which could serve as models for future change. The main recommendation that I would make to any policymakers engaged with work in school discipline is that it is necessary to be aware of the multiplier effects of *segregation* on other determinants of educational outcomes. Discipline policies do not exist

within a vacuum, but are rather in constant conversation with other systemic forces at play—including, but not limited to racial, socioeconomic, and linguistic segregation. Making real changes in the current systems of zero tolerance policies will therefore require the same sort of multi-disciplinary approach employed in this analysis. That is, understanding the ways in which zero tolerance is deeply rooted in dualistic, media-driven representations of youth, for example, reveals that any successful alternative to zero tolerance must be doing work to deconstruct such representations. Given the complexity of the historical, political, and ideological forces at play when it comes to zero tolerance policies, it is therefore necessary to engage in whatever positive changes to discipline are possible within those present contexts.

Concluding Thoughts

The story of zero tolerance policies in US schools reveals a profound deal about the dynamics of the American education system in the past several decades; however, it also provides significant insight into bigger questions on how certain communities become defined, by their very nature of existence, as somehow "deviant" from "traditional" social order. Implicit in harsh discipline models that treat different groups disproportionately is a value judgment about *which types of people* and *which behaviors* are considered to be "productive," "moral," or otherwise conforming to the dominant social order of American society. Therefore, the ways in which particular identities become policed at the level of schools has tremendous implications on American political order as a whole. David Labaree aptly reflects, "Schools, it seems, occupy an awkward position at the intersection between what we hope society will become and what we think it really is, between political ideals and economic realities" (41). Schools serve as both the *origin* and *sites of reproduction* for many of the inequalities one can observe more broadly within American society, so the necessity to critically engage with what is happening within our schools today cannot be overstated. Ultimately, the public narrative over who is a "good" or "hardworking" student is moderated by the discourse around discipline. The increasingly dualistic representations of children in the context of US schools reflects a pervasive fixed mindset about the possibilities of learning and behavior by students, but also of entire marginalized communities. These same notions of "deviancy" and "disorder" seep into other aspects of the American consciousness, subliminally affecting how the political order comes to define itself.

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Tables

Table 1. **Summary Statistics by School Year (2011-2016)**

	Obs.	Mean	S.D.	Min	Max
		2011-2012			
Educational Outcomes:					
Freshman On-track Rate	85	78.614	16.007	0	98.6
Dropout Rate	87	4.884	5.732	.1	32.8
Race (by %):					
White	87	6.123	6.123	10.620	48.9
Black	87	51.710	51.710	38.883	99.8
Latino	87	37.613	37.613	34.297	98.5
Racial Density Index	87	0.678	0.276	0.114	0.996
Demographic Controls (by %):					
Bilingual	87	5.128	6.121	0	26
IEP	87	14.876	5.983	4.05	29.74
Economically Disadvantaged	87	89.610	14.421	34.35	100
% Misconduct Resulting in a…					
ISS	87	29.2	25.733	0	87.9
OSS	87	43.339	27.089	4.8	98.1
Police Notification	87	6.355	10.518	0	60.4
Number of Students Expelled	87	1.241	2.449	0	12
Number of Misconduct by Level:					
Low Level	87	491.920	727.970	1	4416
Mid Level	87	346.195	524.727	3	3753
High Level	87	56.644	51.418	1	225
Total Punishment Ratio	87	1.610	1.202	0.603	7.950
Low Punishment Ratio	87	0.839	0.965	0.020	6.766
Mid Punishment Ratio	87	0.631	0.432	0.150	2.833
High Punishment Ratio	87	0.140	0.105	.007	0.515
Suspension Ratio	87	1.809	1.600	0.832	12.286
Low Suspension Ratio	87	0.931	1.597	0.031	7.230
Mid Suspension Ratio	87	0.715	1.158	0.151	4.857
High Suspension Ratio	87	0.162	0.137	0.007	0.6
Police Notif. Ratio	80	101.638	204.353	1.657	1175.5
Low Police Ratio	80	64.875	156.657	0.179	990.5

Mid Police Ratio	80	30.716	46.911	0.714	229.5
High Police Ratio	80	6.046	11.081	0.118	72.5
2012-2013					
Educational Outcomes:					
Freshman On-track Rate	82	79.552	14.657	7.3	99.3
Dropout Rate	85	4.64	4.924	0	23.7
Race (by %):					
White	86	6.349	10.859	0	48.2
Black	86	51.457	39.112	1	99.5
Latino	86	37.570	34.175	0	97.1
Racial Density Index	86	0.676	0.275	0.107	0.990
Demographic Controls (by %):					
Bilingual	86	5.019	6.071	0	26
IEP	86	14.844	6.010	4.05	29.74
Economically Disadvantaged	86	89.503	14.470	34.35	100
% Misconduct Resulting in a…					
ISS	86	31.272	24.910	0	78
OSS	86	42.353	26.332	1.5	100
Police Notification	86	7.472	11.265	0	50
Number of Students Expelled	86	1.116	1.818	0	7
Number of Misconduct by Level:					
Low Level	86	424.767	467.309	0	1959
Mid Level	86	358.105	402.365	0	2266
High Level	86	56.291	53.515	0	270
Total Punishment Ratio	86	1.523	1.090	0.667	7.408
Low Punishment Ratio	86	0.759	0.814	0	5.469
Mid Punishment Ratio	86	0.619	0.407	0	2.167
High Punishment Ratio	86	0.145	0.132	0	0.667
Suspension Ratio	86	1.703	1.207	0.940	7.615
Low Suspension Ratio	86	0.833	0.872	0	5.469
Mid Suspension Ratio	86	0.698	0.481	0	2.753
High Suspension Ratio	86	0.172	0.173	0	1
Police Notif. Ratio	80	100.994	213.408	2	1305
Low Police Ratio	80	55.847	144.501	0	970
Mid Police Ratio	80	39.481	85.613	0	533
High Police Ratio	8	5.666	14.281	0	92

2013-2014					
Educational Outcomes:					
Freshman On-track Rate	85	81.005	13.248	46	100
Dropout Rate	87	4.662	5.032	0	24
Race (by %):					
White	87	6.270	10.751	10.752	24
Black	87	51.071	38.785	38.785	48
Latino	87	38.039	33.938	33.939	98.4
Racial Density Index	87	0.671	0.272	0.272	1
Demographic Controls (by %):					
Bilingual	87	5.334	6.435	6.435	27.34
IEP	87	15.193	6.117	6.117	34.2
Economically Disadvantaged	87	88.606	14.685	14.685	100
% Misconduct Resulting in a…					
ISS	87	30.157	26.345	0	100
OSS	87	43.294	25.412	0	98.5
Police Notification	87	5.120	8.065	0	61
Number of Students Expelled	87	0.966	1.9979	0	11
Number of Misconduct by Level:					
Low Level	87	489.460	655.131	0	3305
Mid Level	87	302.828	296.812	0	1223
High Level	87	57.425	52.544	0	240
Total Punishment Ratio	87	1.585	1.109	0.709	7.103
Low Punishment Ratio	87	0.811	0.856	0	5.955
Mid Punishment Ratio	87	0.627	0.394	0	2.162
High Punishment Ratio	87	0.147	0.120	0	0.526
Suspension Ratio	87	1.733	1.265	0.748	7.914
Low Suspension Ratio	87	0.879	0.955	0	6.638
Mid Suspension Ratio	87	0.691	0.470	0	2.718
High Suspension Ratio	87	0.164	0.138	0	0.6
Police Notif. Ratio	79	85.339	113.773	1.639	553
Low Police Ratio	79	50.693	77.334	0	298
Mid Police Ratio	79	28.177	38.065	0.893	196
High Police Ratio	79	6.470	10.167	0.378	70

2014-2015					
Educational Outcomes:					
Freshman On-track Rate	91	81.008	13.160	43.9	100
Dropout Rate	91	4.543	4.969	0.2	25.4
Race (by %):					
White	94	6.643	11.056	0	48.2
Black	94	49.548	38.085	1.1	99.7
Latino	94	38.986	33.231	0	98.9
Racial Density Index	94	0.654	0.269	0.096	0.994
Demographic Controls (by %):					
Bilingual	94	5.907	7.003	0	24.818
IEP	94	15.227	6.807	2.685	30.605
Economically Disadvantaged	94	85.671	16.140	30.891	99.462
% Misconduct Resulting in a…					
ISS	94	28.536	25.562	0	97.5
OSS	94	43.530	27.649	0.5	100
Police Notification	94	6.599	8.850	0	36.9
Number of Students Expelled	94	1.127	2.241	0	11
Number of Misconduct by Level:					
Low Level	94	680.596	1053.897	1	5667
Mid Level	94	339.957	392.683	6	2254
High Level	94	60.202	58.330	0	390
Total Punishment Ratio	94	1.728	1.623	0.707	12.729
Low Punishment Ratio	94	0.976	1.389	0.018	10.486
Mid Punishment Ratio	94	0.611	0.423	0.012	2.941
High Punishment Ratio	94	0.140	0.117	0	0.605
Suspension Ratio	94	1.883	1.840	0.833	14.237
Low Suspension Ratio	94	1.053	1.534	0.021	11.728
Mid Suspension Ratio	94	0.674	0.503	0.013	3.846
High Suspension Ratio	94	0.156	0.135	0	0.667
Police Notif. Ratio	89	122.287	380.900	2.711	3430
Low Police Ratio	89	88.413	365.257	0.1	3378
Mid Police Ratio	89	28.092	51.102	0.994	350
High Police Ratio	89	5.782	9.380	0	50.5

2015-2016					
Educational Outcomes:					
Freshman On-track Rate	81	80.101	14.430	5.9	98.9
Dropout Rate	82	4.227	3.912	0	21.4
Race (by %):					
White	85	6.52	11.226	0	48.4
Black	85	49.819	38.438	0.6	99.7
Latino	85	38.974	33.720	0	98.3
Racial Density Index	85	0.662	0.269	0.089	0.994
Demographic Controls (by %):					
Bilingual	85	6.474	7.600	9	30.84
IEP	85	16.029	7.151	3.85	33.83
Economically Disadvantaged	85	88.479	15.358	34.3	100
% Misconduct Resulting in a…					
ISS	85	29.034	26.504	0	95.2
OSS	85	40.053	27.605	0.5	100
Police Notification	85	7.06	11.234	0	78.8
Number of Students Expelled	85	0.8	1.771	0	11
Number of Misconduct by Level:					
Low Level	85	427.353	587.783	1	2792
Mid Level	85	303.906	465.032	5	2783
High Level	85	57.965	64.138	0	387
Total Punishment Ratio	85	1.778	1.595	0.655	13
Low Punishment Ratio	85	0.906	0.957	0.019	5.571
Mid Punishment Ratio	85	0.703	0.756	0.026	6.286
High Punishment Ratio	85	0.169	0.172	0	1.143
Suspension Ratio	85	3.971	19.578	0.739	182
Low Suspension Ratio	85	1.857	8.413	0.021	78
Mid Suspension Ratio	85	1.745	9.480	0.026	88
High Suspension Ratio	85	0.369	1.724	0	16
Police Notif. Ratio	78	68.811	102.543	1.269	533.5
Low Police Ratio	78	40.611	73.108	0.0770	444.333
Mid Police Ratio	78	22.807	32.548	0.567	201.667
High Police Ratio	78	5.392	8.499	0	56

Table 2. Preliminary Step-wise Regressions for Misconduct-Total Punishment Ratio

VARIABLES	(1) Dropout	(1) FOT	(2) Dropout	(2) FOT	(3) Dropout	(3) FOT	(4) Dropout	(4) FOT
Total Punishment Ratio	-0.208	1.184**	-0.0578	0.716	-0.0186	0.424	0.0668	0.353
	(0.169)	(0.500)	(0.166)	(0.491)	(0.166)	(0.479)	(0.150)	(0.461)
# Expelled	0.478***	-1.217***	0.375***	-0.933***	0.346***	-0.744**	0.258***	-0.626**
	(0.110)	(0.324)	(0.107)	(0.317)	(0.107)	(0.309)	(0.0979)	(0.300)
Time Trend	-0.0708	0.323	-0.0686	0.318	-0.0625	0.275	-0.215	0.534
	(0.163)	(0.482)	(0.157)	(0.465)	(0.156)	(0.450)	(0.144)	(0.442)
Black			0.0538***	-0.180***				
			(0.0139)	(0.0412)				
Latino			0.0261*	-0.116**				
			(0.0158)	(0.0468)				
Racial Density					6.261	-0.711		
					(11.32)	(32.68)		
Black Majority					1.014	3.723		
					(2.363)	(6.818)		
Latino Majority					3.032	-12.22*		
					(2.272)	(6.557)		
Racial Density*Black					-1.224	-22.74		
					(11.47)	(33.10)		
Racial Density*Latino					-6.271	2.746		
					(11.47)	(33.12)		
IEP							0.373***	-0.726***
							(0.0354)	(0.109)
Bilingual							-0.0141	-0.00184
							(0.0318)	(0.0974)
Econ Disad							0.00302	-0.169***
							(0.0153)	(0.0468)
Constant	4.556***	78.43***	0.705	92.44***	0.460	91.69***	-1.062	104.4***
	(0.621)	(1.831)	(1.443)	(4.269)	(2.148)	(6.198)	(1.361)	(4.171)
Observations	422	422	422	422	422	422	422	422
R-squared	0.050	0.051	0.121	0.117	0.134	0.173	0.279	0.223

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 3. Regressions for Misconduct-Total Punishment Ratio

VARIABLES	(5) Dropout	(5) FOT	(6) LagDropout	(6) LagFOT	(7) Dropout	(7) FOT	(8) LagDropout	(8) LagFOT
Total Punishment Ratio	0.115	0.154	0.287*	-0.159				
	(0.147)	(0.446)	(0.170)	(0.458)				
Low Punish Ratio					0.0823	0.798	0.108	0.449
					(0.205)	(0.620)	(0.237)	(0.637)
Mid Punish Ratio					0.548	-2.718*	1.124**	-2.771*
					(0.468)	(1.414)	(0.544)	(1.467)
High Punish Ratio					-2.531	8.365	-2.273	6.687
					(1.703)	(5.143)	(2.018)	(5.438)
# Expulsions	0.175*	-0.322	0.00827	0.0520	0.165*	-0.299	0.00220	0.0658
	(0.0970)	(0.294)	(0.112)	(0.303)	(0.0970)	(0.293)	(0.112)	(0.302)
Time Trend	-0.277**	0.639	-0.202	0.453	-0.279**	0.643	-0.202	0.454
	(0.141)	(0.427)	(0.162)	(0.437)	(0.140)	(0.424)	(0.162)	(0.435)
Racial Density	0.978	12.22**	-2.363	11.40**	1.305	10.77**	-1.934	10.13**
	(1.657)	(5.019)	(1.906)	(5.141)	(1.666)	(5.032)	(1.916)	(5.162)
Black Majority	-0.698	16.43***	-2.359	14.86***	-0.772	16.73***	-2.443	15.09***
	(1.298)	(3.933)	(1.497)	(4.038)	(1.295)	(3.911)	(1.493)	(4.023)
IEP	0.117	-0.611**	0.168*	-0.704***	0.117	-0.639***	0.178*	-0.739***
	(0.0817)	(0.247)	(0.0946)	(0.255)	(0.0818)	(0.247)	(0.0946)	(0.255)
Bilingual	0.175***	-0.562***	0.0760	-0.396**	0.181***	-0.581***	0.0789	-0.404**
	(0.0504)	(0.153)	(0.0592)	(0.160)	(0.0504)	(0.152)	(0.0590)	(0.159)
Econ Disad	-0.0330	-0.129**	0.0416*	-0.147**	-0.0414*	-0.104	0.0340	-0.127*
	(0.0216)	(0.0654)	(0.0248)	(0.0669)	(0.0222)	(0.0671)	(0.0255)	(0.0687)
Racial Density*Black Maj	-0.273	-34.71***	1.938	-31.43***	-0.347	-34.59***	1.924	-31.41***
	(2.686)	(8.137)	(3.093)	(8.342)	(2.679)	(8.089)	(3.082)	(8.305)
IEP*Percentage Black	0.00313***	0.00101	0.00220*	0.00224	0.00318***	0.00109	0.00214*	0.00245
	(0.00107)	(0.00323)	(0.00123)	(0.00333)	(0.00107)	(0.00322)	(0.00123)	(0.00332)
Constant	2.271	98.50***	-1.756	100.3***	2.944*	97.58***	-1.457	99.82***
	(1.536)	(4.651)	(1.786)	(4.816)	(1.640)	(4.953)	(1.905)	(5.133)
Observations	422	422	420	420	422	422	420	420
R-squared	0.319	0.283	0.230	0.225	0.323	0.291	0.236	0.232

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 4. Regressions for Misconduct-Suspensions Ratio

VARIABLES	(5) Dropout	(5) FOT	(6) LagDropout	(6) LagFOT	(7) Dropout	(7) FOT	(8) LagDropout	(8) LagFOT
Suspension Ratio	0.0101	0.0234	0.00914	0.00410				
$	(0.0222)	(0.0673)	(0.0257)	(0.0691)				
Low Suspension Ratio					0.0560	0.718	0.0791	0.407
					(0.186)	(0.562)	(0.215)	(0.579)
Mid Suspension Ratio					0.403	-2.069**	0.443	-1.498
					(0.298)	(0.901)	(0.351)	(0.944)
High Suspension Ratio					-2.403*	8.129**	-2.753*	6.307
					(1.338)	(4.042)	(1.591)	(4.279)
# Expulsions	0.172*	-0.325	-6.12e-05	0.0572	0.162*	-0.290	-0.00986	0.0812
	(0.0970)	(0.294)	(0.113)	(0.303)	(0.0967)	(0.292)	(0.112)	(0.302)
Time Trend	-0.276*	0.636	-0.190	0.442	-0.281**	0.631	-0.193	0.435
	(0.141)	(0.427)	(0.163)	(0.438)	(0.141)	(0.425)	(0.162)	(0.437)
Racial Density	0.960	12.23**	-2.469	11.48**	1.246	11.13**	-2.161	10.69**
	(1.658)	(5.020)	(1.912)	(5.142)	(1.660)	(5.013)	(1.914)	(5.151)
Black Majority	-0.611	16.56***	-2.182	14.77***	-0.762	16.87***	-2.362	15.04***
	(1.296)	(3.925)	(1.500)	(4.033)	(1.294)	(3.909)	(1.498)	(4.030)
IEP	0.118	-0.608**	0.165*	-0.700***	0.116	-0.619**	0.167*	-0.715***
	(0.0819)	(0.248)	(0.0951)	(0.256)	(0.0817)	(0.247)	(0.0948)	(0.255)
Bilingual	0.175***	-0.562***	0.0748	-0.396**	0.181***	-0.582***	0.0786	-0.403**
	(0.0505)	(0.153)	(0.0594)	(0.160)	(0.0504)	(0.152)	(0.0592)	(0.159)
Econ Disad	-0.0333	-0.129**	0.0406	-0.146**	-0.0416*	-0.102	0.0313	-0.125*
	(0.0216)	(0.0654)	(0.0249)	(0.0669)	(0.0220)	(0.0664)	(0.0253)	(0.0682)
Racial Density*Black Maj	-0.344	-34.80***	1.780	-31.34***	-0.364	-34.58***	1.811	-31.31***
	(2.686)	(8.132)	(3.101)	(8.339)	(2.676)	(8.080)	(3.090)	(8.314)
IEP*Percentage Black	0.00310***	0.000944	0.00215*	0.00225	0.00320***	0.000876	0.00221*	0.00227
	(0.00107)	(0.00324)	(0.00124)	(0.00333)	(0.00107)	(0.00322)	(0.00124)	(0.00333)
Constant	2.479*	98.71***	-1.113	99.91***	3.123**	96.57***	-0.412	98.31***
	(1.503)	(4.549)	(1.751)	(4.708)	(1.539)	(4.647)	(1.791)	(4.818)
Observations	422	422	420	420	422	422	420	420
R-squared	0.318	0.283	0.225	0.225	0.323	0.292	0.231	0.229

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 5. Regressions for Misconduct-Police Notification Ratio

VARIABLES	(5) Dropout	(5) FOT	(6) LagDropout	(6) LagFOT	(7) Dropout	(7) FOT	(8) LagDropout	(8) LagFOT
Police Notif Ratio	0.00198**	-0.00469*	-0.00186*	0.00238				
	(0.000946)	(0.00285)	(0.00111)	(0.00299)				
Low Police Ratio					0.00337***	-0.00605*	-0.00194	-0.00202
					(0.00112)	(0.00341)	(0.00133)	(0.00357)
Mid Police Ratio					0.000923	-0.00687	0.00244	0.0138
					(0.00485)	(0.0147)	(0.00564)	(0.0151)
High Police Ratio					-0.0538**	0.0708	-0.0262	0.120
					(0.0259)	(0.0784)	(0.0301)	(0.0806)
# Expulsions	0.187*	-0.369	-0.0412	0.111	0.163	-0.341	-0.0441	0.172
	(0.101)	(0.304)	(0.117)	(0.315)	(0.101)	(0.305)	(0.117)	(0.314)
Time Trend	-0.283*	0.700	-0.156	0.451	-0.283*	0.694	-0.149	0.484
	(0.151)	(0.454)	(0.173)	(0.467)	(0.150)	(0.454)	(0.174)	(0.464)
Racial Density	0.701	13.18**	-2.418	11.13**	0.979	12.72**	-2.180	10.73*
	(1.795)	(5.401)	(2.069)	(5.567)	(1.792)	(5.434)	(2.083)	(5.573)
Black Majority	-1.092	17.87***	-2.290	15.16***	-0.747	17.54***	-2.315	14.13***
	(1.392)	(4.188)	(1.608)	(4.327)	(1.388)	(4.210)	(1.616)	(4.323)
IEP	0.133	-0.740***	0.221**	-0.818***	0.128	-0.731***	0.216**	-0.827***
	(0.0909)	(0.274)	(0.105)	(0.283)	(0.0903)	(0.274)	(0.105)	(0.282)
Bilingual	0.173***	-0.547***	0.0482	-0.357**	0.168***	-0.546***	0.0528	-0.331*
	(0.0539)	(0.162)	(0.0635)	(0.171)	(0.0538)	(0.163)	(0.0638)	(0.171)
EconDisad	-0.0373	-0.122*	0.0416	-0.132*	-0.0364	-0.122*	0.0391	-0.139*
	(0.0239)	(0.0718)	(0.0274)	(0.0738)	(0.0238)	(0.0722)	(0.0276)	(0.0739)
Racial Density*Black Maj	0.290	-37.34***	2.098	-33.69***	-0.140	-36.87***	2.062	-32.69***
	(2.920)	(8.787)	(3.365)	(9.056)	(2.898)	(8.789)	(3.365)	(9.003)
IEP*Percentage Black	0.00301***	0.00220	0.00168	0.00406	0.00302***	0.00214	0.00172	0.00426
	(0.00117)	(0.00351)	(0.00135)	(0.00363)	(0.00116)	(0.00351)	(0.00135)	(0.00361)
Constant	2.716	98.99***	-1.399	99.04***	2.823*	98.80***	-1.297	98.96***
	(1.697)	(5.108)	(1.972)	(5.308)	(1.685)	(5.110)	(1.974)	(5.280)
Observations	390	390	389	389	390	390	389	389
R-squared	0.321	0.276	0.226	0.203	0.333	0.278	0.227	0.214

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1