Disproportionate Minority Contact and Cumulative Disadvantage: 
Does the Impact of Race and Ethnicity on Juvenile Court Outcomes Vary Across Macro-Social Context?

A dissertation presented

By

Steven N. Zane

to
The School of Criminology and Criminal Justice

In partial fulfillment of the requirements for the degree of
Doctor of Philosophy

In the field of
Criminology and Justice Policy

Northeastern University
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Abstract of Dissertation

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Abstract

It is well established that disproportionate minority contact (DMC) exists within the juvenile justice system, with minority youth accounting for a greater proportion of juvenile offenders processed every year than would be expected based on relative population size. But what causes DMC? One common answer is “discrimination.” Yet, this is more difficult to establish than may be expected. The causes of DMC remain elusive due to the complexity of the relationship between race/ethnicity and the juvenile justice system. Most research has focused only on whether race/ethnicity is positively associated with punitive (or formal) system outcomes, usually investigating one jurisdiction and one stage of processing at a time. Unfortunately, this allows for idiosyncratic findings that are not generalizable to other juvenile justice systems, along with insufficient focus on the entire sequence of juvenile justice processing from early contact to final dispositions. As such, it remains difficult to establish whether discrimination exists in the juvenile justice system as a whole (and to what extent this is direct or indirect), where it exists (of the various points of contact between juveniles and system actors), and how factors at different levels of analysis impact any such discrimination.

This dissertation seeks to contribute to this burgeoning literature by examining two such complex questions. First, the contextual discrimination hypothesis, which posits that DMC varies across jurisdictions according to differences in community context. Second, the cumulative disadvantage hypothesis, which posits that minority juvenile defendants experience increased (i.e., accumulating) punitive treatment from initial referral through judicial disposition. The motivation for this line of inquiry is twofold. To start with, there are multiple stages of juvenile justice processing where contextual discrimination could take place. Also, there is no one “juvenile justice system.” Instead, different states have distinct juvenile justice systems, and
counties within states have different macro-social conditions (legal and extralegal) that may influence the relationship between race/ethnicity and juvenile justice outcomes. To assess whether the impact of race/ethnicity varies across such contexts, it is thus necessary to examine multiple stages of juvenile justice processing *across* counties and states.

Using official juvenile court data obtained from the National Juvenile Court Data Archive for 478 counties from seven states—Alabama, Connecticut, Missouri, Oregon, South Carolina, Texas, and Utah—for the year 2010 (N=255,288 referrals), along with contextual data from 2010 Census and other sources, this dissertation explores these under-examined complexities of persistent DMC in the juvenile justice system for five major stages of juvenile justice processing: detention, petition, adjudication, waiver, and disposition. The dissertation is guided by two contextual theoretical frameworks: the sociopolitical perspective of “community threats” (i.e., conflict versus consensus) and the organizational perspective of the political economy of the juvenile court. To explore these contextual perspectives, 28 contextual variables are included in analytical models to capture a range of macro-social factors that may account for community-level variation: racial threat (4 measures), ethnic threat (4 measures), economic threat (4 measures), crime threat (4 measures), social disorganization (5 measures), and political economy (6 measures).

The first analytical phase estimates a series of multilevel models for each major decision point in the juvenile justice system. These analyses examine how the influence of race and ethnicity varies across different contexts, and whether variation is attributable to contextual factors for each stage. While the first phase of analytical strategy looks at each of five stages of juvenile justice processing independently (and comparatively), the second phase estimates cumulative disadvantage *across* the five stages of juvenile justice processing.
Findings indicate limited support for the contextual discrimination and cumulative disadvantage hypotheses. The direct effects of context are quite limited, with no relationship between community threats and juvenile court outcomes, and few direct effects of social disorganization and political economy. The two major exceptions are growing youth population (an indicator of social disorganization)—which is associated with lower odds of diversion and higher odds of secure placement and waiver to criminal court—and elected judges—which is associated with lower odds of diversion and greater odds of formal petition and adjudication of delinquency.

The moderating effects of community threats and political economy are also limited. Exceptions were the moderating impact of community threats on the relationship between race and waiver to criminal court, as well as the moderating impact of political economy on the relationship between race and preadjudication detention. Lastly, evidence of cumulative disadvantage was largely absent, with two decision points standing out instead: diversion (less likely for minority defendants) and waiver to criminal court (more likely for minority defendants). Arguably, these represent the outcomes most and least consistent with the traditional rehabilitative mission of the juvenile court, perhaps suggesting that minority defendants are viewed as less appropriate targets of this mission.

Several implications for theory, research, and policy stand out. First, variation in juvenile justice outcomes across courts is substantial, yet does not appear due to macro-social context as measured by the present study. One possibility is that macro-social context is not as important as court-specific context. Another possibility is that much of the contextual variation in juvenile court outcomes is attributable to state-level differences. Second, DMC does not appear to be influenced by macro-social context (i.e., no support for the contextual discrimination
hypothesis), nor does it appear as systemic as is sometimes imagined (i.e., no support for the cumulative disadvantage hypothesis). These conclusions are further supported by the finding that the racial and ethnic disparities observed for (some) juvenile court outcomes tended to be stable across different courts rather than varying substantially across context. This suggests that persistent racial and ethnic disparities in juvenile justice may be better explained by individual-level theories of differential treatment or differential group offending. There may be discrimination in some courts, at some stages, but not in any systematic fashion. This may suggest that the major policy response to racial and ethnic disparities in juvenile justice, the DMC mandate, is not based on a sound understanding of the true causes of DMC.
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Chapter 1: Introduction

Racial disparities in the juvenile and criminal justice systems represent one of the most pressing social issues in the United States. The continued and clearly observable overrepresentation of minority defendants in the criminal and juvenile justice systems is at odds with our founding ideals of freedom and equality, posing a direct threat to the perceived legitimacy and fairness of our legal system and society more generally (see Tonry, 2011). The majority of the literature indicates that compared to White defendants, Black and Hispanic defendants are significantly more likely to receive punitive sentencing outcomes in the criminal justice system (Spohn, 2011, 2015). The literature on racial disparities in the juvenile justice system is less well developed, but similarly indicates that Black and Hispanic defendants are more likely to receive punitive outcomes compared to White youth (Bishop and Leiber, 2012; Pope, Lovell, and Hsia, 2002).

A preliminary note on terminology is in order. As Mears, Cochran, and Lindsey (2016a) recently observe, there has been some conceptual confusion in the literature due to inconsistent (and perhaps uncritical) usage of terms such as “difference,” “disproportionality,” and “disparity” in the context of race/ethnicity and criminal justice. According to Mears and colleagues (2016a: 85, 87), the term “difference” refers to “unequal absolute amounts of racial or ethnic contacts with the criminal or juvenile justice system, while “disparity” seems to indicate “any disproportionality attributable to overt or covert, or intended or unintended, discrimination

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1 This leads some to go so far as to claim that racial disparities in criminal justice amount to a “New Jim Crow” system of racial oppression (Alexander, 2010; but see Forman [2012] for an empirical and historical critique of this analogy).
2 Two meta-analyses have been performed on the effects of race (but not ethnicity) on criminal sentencing. Reviewing studies from 1974–1996, Pratt (1998) found no significant average effect of race on sentencing length across 47 studies that also controlled for prior record and offense. Mitchell (2005) performed a systematic review that also included (binary) incarceration decisions (excluded by Pratt [1998]) and found a small but statistically significant effect of race on sentencing decisions across 71 studies. To date, only one systematic review has been performed on the effects of race and ethnicity on juvenile justice outcomes. Across 18 independent studies, Zane and colleagues (2016) found a positive but non-significant average effect of race on waiver to adult court.
3 Specifically, no meta-analysis of the impact of race/ethnicity on juvenile court outcomes has been completed.
against minorities” since disparity “connotes ‘unfairness.’” Elsewhere, in the context of health outcomes, Hebert and colleagues (2008: 374) similarly ask, “When does a difference become a disparity?” The authors answer that the term disparity can be defined along a continuum ranging from difference (with no connotation of unfairness) to overt discrimination: “there is little consensus on what constitutes a disparity, or when a difference between two groups should be given the more charged term of disparity. To many, disparity implies an inequity or an injustice rather than a simple inequality” (Hebert, Sisk, and Howell, 2008: 374).

The conceptual confusion here raises an important issue, since descriptive differences do not (alone) evidence discrimination, as may sometimes be inferred: “Observed differences in the numbers or rates of minorities arrested, convicted, or sentenced to prison frequently are taken as evidence of disparity” (Mears et al., 2016: 79; see also Wilbanks, 1987 for a classic and detailed discussion of this erroneous inference). Still, some authors use the term disparity just to mean difference, contrasting it with discrimination and even arguing that “the great disparities found in economic and other endeavors need not be due to . . . comparable disparities in the way people are treated by other people” (Sowell, 2018: 3). On this understanding, disparities need not involve discrimination. Nevertheless, since the majority of the literature refers to differences as disparities, this dissertation will continue the practice and use terms “differences” and “disparities” interchangeably, reserving the term “discrimination” for disparities that result from differential treatment (i.e., racial bias). That is, while the term “disparity” may connote unfair treatment to some readers, this is not my usage.5

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4 Mears and colleagues (2016a: 85) note that “disproportionality” involves “racial or ethnic differences that are greater than what would be expected given the group population sizes among those for whom a given outcome is possible.”

5 In one sense, disparities exist in the sense that, whatever their causes, differences or disproportionalities are harmful to perceptions of fairness of the criminal justice system (but these disparities, while harmful, are not necessarily due to discrimination).
In the juvenile justice system, persistent racial disparities at various points of contact are referred to as disproportionate minority contact (DMC). The relative rate index (RRI) is the measure of racial disproportionality used by the Office of Juvenile Justice and Delinquency Prevention (OJJDP), a ratio of the proportion of minority youth (relative to their population) to the proportion of White youth (relative to their population) at each stage of juvenile justice processing. A relative rate above 1 for Black (or minority) youth indicates DMC. As Figure 1.1 shows, the most recent national data (2015) evidences DMC between minority and White youth at every major point of the juvenile justice system except adjudication (Puzzanchera and Hockenberry, 2017). As can be seen, DMC is greatest at arrest/referral, detention, waiver to adult court, and secure placement. For Black youth, the greatest point of DMC is arrest/referral (RRI = 3.1), followed by secure placement (RRI = 1.4), detention (RRI = 1.3), and waiver to adult court (RRI = 1.3). For Hispanic youth, the greatest point of DMC is detention (RRI = 1.5) and secure placement (RRI = 1.4).

However, these differences offer only a descriptive account. They tell us that DMC exists—minority juveniles, especially Black juveniles, are overrepresented in the juvenile justice system relative to White juveniles—but they do not tell us why. As Mears and colleagues (2016a: 84, emphasis added) put it, “when studies identify racial or ethnic differences in a given criminal justice decision point, they typically provide little insight into the causes.” Several recent thoughtful reviews on the race and sentencing literature similarly conclude that future research must move beyond simple identification of direct effects of race on outcomes, turning instead toward more complex and nuanced questions regarding the impact of race and ethnicity on criminal and juvenile justice systems (Baumer, 2013; Frase, 2013; Spohn, 2015; Ulmer, 2012).

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6 RRI is measured separately for each stage of processing (i.e., relevant population only) and thus does not capture cumulative disadvantage from earlier stages.
As Spohn (2015: 230) recently observes,

Most researchers now acknowledge that it is overly simplistic to ask whether race and ethnicity matter at sentencing. The more interesting questions—and those that will help us understand the mechanisms underlying the harsher punishment imposed on Blacks and Hispanics—revolve around the contexts in which or the circumstances under which race and ethnicity influence sentencing, and the ways in which disparities accumulate over the life course of a criminal case.
In other words, while it is well established that race and ethnicity are significantly related to juvenile and criminal justice system outcomes, producing persistent racial and ethnic disparities, a deeper understanding of these disparities remains rather limited (see Bishop and Leiber, 2012).

We can imagine asking the traditional series of questions about DMC: what, where, when, why, and how? The “what” question has been answered rather convincingly with descriptive data, such as Figure 1.1 above: DMC is present in the juvenile justice system. Similarly, the “where” question—which asks whether DMC is more or less pronounced at different stages of processing—can be addressed with descriptive data: DMC is present at every stage of the juvenile justice system except for adjudication, and is most pronounced at arrest, detention, and waiver to criminal court.⁷ The “when” question can be answered by examining whether DMC has changed over time.⁸

This leaves “why” and “how.” These are the causal, rather than descriptive, questions about DMC—and hence the most important and most difficult to answer (see Mears et al., 2016a). These questions include: “What causes DMC?”; “Why is DMC more prevalent at certain stages than others?”; “Why has DMC increased or decreased over time (or stayed the same)?”; and “How does race interact with other characteristics of defendants, courts, and macro-social context?” These are the questions that need to be answered in order to find solutions to the persistent problem of DMC—and move toward a society that is not plagued by minority overrepresentation in the juvenile and criminal justice systems.

Others have suggested a framework to categorize the different possible answers to these “why” questions (Walker, Spohn, and DeLone, 2007; see also Freiburger and Jordan, 2016). On

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⁷ Of course, answers to this “where” question should be further refined, such as exploring racial disparities at a variety of sub-dispositions (see, e.g., Cochran and Mears, 2015).
⁸ Although not included in Figure 1.1, descriptive data suggests that DMC has decreased slightly from 1990 to 2000 and from 2000 to 2010 (OJJDP, 2016).
one end of the spectrum is “pure justice,” the idea that all defendants receive equal treatment that
is not conditioned by race or ethnicity at any point (i.e., no discrimination). On this
understanding, racial disparities would reflect differences outside the system (such as differential
involvement in crime) rather than disparities caused by the system. At the other end of the
spectrum is “systematic discrimination,” the idea that there is an all-pervasive discrimination
against minority juvenile defendants at every stage of the system, across all jurisdictions. Other
possible explanations include: individualized discrimination—discrimination at certain decision
points by certain actors, but not others; institutional discrimination—discrimination masked by
legal or organizational factors that are prima facie non-discriminatory (e.g., drug law
enforcement); and contextual discrimination—discrimination conditioned by contextual factors,
such as higher urbanism, poverty, or crime rates. While most research on the juvenile justice
system has focused on individual discrimination (see Bishop and Leiber, 2012), more recent
research efforts have begun to explore ways that race effects may interact with other case-level
variables (i.e., institutional discrimination) (see, e.g., Leiber and Peck, 2015; Leiber, Peck, Lugo,
and Bishop, 2017) as well as with contextual variables (i.e., contextual discrimination) (see,
e.g., Armstrong and Rodriguez, 2005; Leiber, Peck, and Rodriguez, 2016; Rodriguez, 2007,
2013).

Present Study

The main aim of this dissertation is to investigate the contextual discrimination thesis by
employing a macro-level approach to examining why and how DMC persists in the juvenile
justice system. Since juvenile justice actors have more discretion due to the parens patriae

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9 The indirect effects of race have been explored more fully in the criminal justice context (see, e.g., Spohn, 2009;
Spohn, Kim, Belenko, and Brennan, 2014; Wooldredge, Frank, Goulette, and Travis, 2015).
orientation of the juvenile justice system (see chapter 2), we might expect even greater variation across community contexts (compared to criminal justice) and thus even greater potential for contextual discrimination. Investigating the contextual discrimination thesis calls for addressing two important complexities of the juvenile justice system. First, there are multiple stages of juvenile justice processing where discrimination could take place, such that assessing only one decision point (such as out-of-home placement) provides an incomplete test. As Freiburger and Jordan (2016: 223) observe, “true effects cannot be assessed at one decision point.” Second, there is no one “juvenile justice system.” Instead, different states have distinct juvenile justice systems, and counties within states have different macro-social conditions (legal and extralegal) that may influence the relationship between race/ethnicity and juvenile justice outcomes. To assess whether the impact of race and ethnicity varies across such contexts, it is necessary to examine multiple stages of juvenile justice processing across counties and states. If the influence of race/ethnicity does vary significantly across jurisdictions for some decision points, it is important to investigate why: for instance, why does race/ethnicity play a larger or smaller role in some jurisdictions than others?

The analysis proceeds in two stages: an examination of contextual discrimination followed by an examination of cumulative disadvantage. The first stage tests a series of contextual influences (using multilevel modeling) for five major decision points in the juvenile justice system—detention, petition, adjudication, waiver, and out-of-home placement. The second stage estimates the cumulative disadvantage experienced by minority defendants across these five major stages of processing.

The dissertation is organized as follows. Chapter 2 provides background information on the juvenile justice system, including its history and mission, and describes the major stages of
juvenile justice processing. It also defines disproportionate minority contact and explains the chief policy attempt to reduce it, the DMC mandate. Chapter 3 presents the theoretical framework for the present study, drawing on sociopolitical as well as organizational perspectives for understanding juvenile justice outcomes and racial/ethnic disparities therein. Chapter 4 provides a comprehensive review of the literature on DMC in juvenile justice. Chapter 5 describes the data and methods used in the present study, which draws upon a multi-stage and multijurisdictional dataset as well as a multilevel analytical approach. Findings are presented in four chapters. Chapters 6 through 8 report on findings for the contextual discrimination thesis: chapter 6 reports findings for direct effects of context on juvenile court outcomes; chapter 7 reports findings for community threat hypotheses (i.e., cross-level analyses); and chapter 8 reports findings for political economy hypotheses (i.e., cross-level analyses). Chapter 9 reports on findings for the cumulative disadvantage hypotheses. Chapter 10 concludes the dissertation with a summary of findings and discussion of theoretical explanations and implications for future research and policy.
Chapter 2: Background

The Juvenile Justice System

In the most recent year for which data is available (2014), juvenile courts nationwide handled approximately 975,000 delinquency cases (Hockenberry and Puzzanchera, 2017: 6). This number has decreased from a peak of nearly 1.9 million cases processed in 1998, and steeply decreased in the past ten years from 1.6 million in 2008. Since 2005 alone, there has been a 42% reduction in delinquency cases, from 5.2% to 3.1% of juveniles aged 10 and above (Hockenberry and Puzzanchera, 2017: 8). Still, more than 31 million youth were under juvenile court jurisdiction in 2014, 79% of whom were between 10 and 15 years old.

History and mission of the juvenile court

The juvenile justice system has its origins in the 19th century, borne out of the Progressive Movement and its emphasis on treating juvenile offenders outside of the formal, punitive criminal justice system (Tanenhaus, 2004). The very beginnings of the juvenile court are best marked by the establishment of the House of Refuge in the 1820s. While not considered a punishment, this institution incarcerated children whose parents were deemed unfit to care for them, and was founded on the concept of parens patriae, as illustrated by the language in Ex Parte Crouse (4 Wharton 9, PA. 1838):

May not the natural parents, when unequal to the task of education, or unworthy of it, be superseded by the parens patriae, of common guardian of the community? It is to be remembered that the public has a paramount interest in the virtue and knowledge of its

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10 These break down as follows: 262,800 violent (person) offenses (26.9%), 333,500 non-violent property offenses (34.1%), 128,900 drug law violations (13.2%), and 249,700 public order offenses (25.6%). Status offense cases are not included.

11 Nationally only 21% of delinquency cases were aged 16 and 17, largely due to variation in upper age of jurisdiction across states, and transfer to adult court.
members, and that, of strict right, the business of education belongs to it. That parents are ordinarily entrusted with it, is because it can seldom be put into better hands; but where they are incompetent and corrupt, what is there to prevent the public from withdrawing their faculties, held as they obviously are, at its sufferance?

This *parens patriae* mission was central to the formation of a separate juvenile court, which Progressive reformers—often referred to as the “child savers”—succeeded in establishing in Cook County, Illinois (Chicago) in 1899 (Feld, 2017). As one contemporary observer recalled, the juvenile court took a completely different approach to adjudicating the delinquent child, focusing on his or her needs rather than issues of culpability and punishment: “the judge and all concerned were merely trying to find out what could be done on [the child’s] behalf. The element of conflict was absolutely eliminated and with it, all notion of punishment” (Tanenhaus, 2012: 422–423). As Tanenhaus (2012: 423) observes, “the needs of children mattered more than due process.” The early juvenile court proceeded on the assumption that juvenile delinquency could be treated like a medical disease—that delinquent youth could “be helped if a scientist could discover the causes of delinquency, much like Louis Pasteur had successfully isolated the germs that destroyed plant, animal, and human life” (Tanenhaus, 2004: 112).

The reality of the early juvenile court may also have been more complicated than the paternalistic, treatment-oriented vision of the Progressive reformers, however. Indeed, others have argued that the juvenile court was merely a mechanism for extending social control over the lower classes (see, e.g., Platt, 1969) or Black youth (see, e.g., Ward, 2012). And in fact, the children processed through the juvenile court in the first half of the 20th century came largely from poor, ethnic communities. At the time, this meant that “Poles and Italians were disproportionately represented in juvenile court,” as Black and Hispanic youth later would be
One important aspect of the paternalistic juvenile court related to this “social control” mechanism was its jurisdiction not only over violations of criminal law, but also status offenses—conduct that is only illegal because the status of the person is that of a minor (e.g., truancy, running away, incorrigibility). The complicated reality of the early juvenile court was that it was both an attempt to “save” children from a life of crime as well as a mechanism for increasing social control over certain populations of children who were perceived as most in need of saving—perhaps due to racial or ethnic biases (Feld, 1999, 2017).

Despite juvenile courts emerging in most states during the early 20th century (each with variations on the original charter in Illinois), the juvenile justice movement experienced decades of chaos (Tanenhaus, 2012). In part, this was due to the fact that the federal government did not treat juvenile delinquency cases differently from other criminal cases until federal juvenile justice laws were passed in 1932 and 1938, instructing federal district courts to function like juvenile courts when hearing delinquency cases (Manfredi, 1998). During the Supreme Court’s due process revolution of the 1960s, a trilogy of juvenile justice cases—Kent v. United States, 383 U.S. 541 (1966), In re Gault, 387 U.S. 1 (1967), and In re Winship, 397 U.S. 358 (1970)—forever changed the nature of the juvenile court (Manfredi, 1998). Specifically, by granting some procedural due process rights to juveniles (though not all, notably a right to jury trial and appellate review), as well as requiring the same “beyond a reasonable doubt” burden of proof as the criminal justice system, the juvenile court became more formal and adversarial—and moved away from its original, informal parens patriae orientation (see Feld, 1997). The federal government also became more involved in juvenile justice policymaking in the early 1970s, passing the 1974 Juvenile Justice and Delinquency Prevention Act which, among other things,

Soon after the due process revolution in juvenile justice, another major transformation occurred. Early opponents of the juvenile court believed that the new institution “coddled criminals” and was too “soft” on crime, and these arguments continued to challenge the court through the 20th century (Tanenhaus, 2000: 27; see also Tanenhaus, 2004). Rising juvenile crime in the 1980s and 1990s, however, gave new force to these arguments (Zimring and Rushin, 2013). Beginning in the late 1970s and lasting through the 1990s, a majority of states enacted legislation to make their juvenile justice systems more punitive and formalistic—a trend referred to as the “criminalizing” of the juvenile court (Feld, 2017). This includes, for example, blended sentencing statutes that allow juvenile courts to impose criminal punishments (see Redding and Howell, 2000). In addition to changes to the juvenile court itself, the punitive turn also involved sending more juvenile offenders to criminal court (Kupchik, 2006). As Bishop (2006) notes, a common view of the “get tough” movement was that harsher punishments, including transfer, would more effectively reduce crime via a deterrence strategy than the original rehabilitative mission of the court. Today, the juvenile court continues to exhibit an organizational tension in its overall mission: punishment and public safety, on the one hand, and treatment of the juvenile, on the other (Feld, 2017; see also Mears, 2012).

Stages of juvenile justice processing
**Intake**

Youth can be referred to juvenile court processing by a variety of means, including law enforcement, school referral, parent or guardian referral. The first point of contact with the juvenile court itself is the intake department, which screens referred cases and decides whether the case should be handled formally (i.e., petition of delinquency), informally (i.e., diversion), or dismissed (Hockenberry and Puzzanchera, 2017: 2). Historically, delinquency cases could be referred directly to the juvenile court judge by police or parents (Mears, 2012), but this created an enormous burden on the juvenile court due to the quantity of referrals each requiring an adjudicatory hearing before a judge (Tanenhaus, 2004). Most often, the probation department became the intake agent responsible for screening and assessing referred cases. Still, the specific intake agent can vary across jurisdictions and may involve the prosecutor, judge, or even special agency outside the court. The decision whether to formally or informally proceed with a case is one of the most important, and most open to discretion (see Mears, 2012).

**Detention**

After intake, the juvenile may be placed in a secure detention facility prior to adjudication. An intake department official (i.e., probation officer) will usually recommend that a juvenile is detained, and the juvenile court judge must decide whether detention is warranted (and issue the detention order). This decision is made based on considerations of community safety, the juvenile’s safety, to ensure appearance at future court hearing, or for evaluation of the juvenile

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12 Nationally, 82% of delinquency referrals were by law enforcement in 2014 (Hockenberry and Puzzanchera, 2017: 33).
13 Mears (2012) explains the five major arrangements for intake processing (from strongest to weakest role for intake agents, most often probation): (1) intake officers wield high discretionary power, and file petitions that prosecutors review; (2) the intake officer must seek prosecutor approval in order to dismiss or divert a referred case; (3) prosecutors must review all intake officer recommendations, for formal and informal processing; (4) serious charges bypass the intake officer and are sent directly to the prosecutor; and (5) the prosecutor reviews all cases and makes petition decisions.
Detention can occur before a formal petition of delinquency is filed, but most often it occurs after petition but before adjudication (Hockenberry and Puzzanchera, 2017: 2). Nationally, 22% of delinquency cases were detained prior to adjudication in 2014 (Hockenberry and Puzzanchera, 2017: 34).

**Petition**

If the intake department decides that a case should be handled formally, a petition of delinquency will be filed by the prosecutor and the case is placed on the juvenile court calendar for an adjudicatory hearing. This is the juvenile court equivalent of charges being filed against a suspect by the prosecutor following the suspect’s arrest. Most cases that are petitioned will make it to an adjudicatory hearing (i.e., diversion and dismissal most often occur prior to a petition being filed), but some cases are still dismissed or diverted after a petition is filed for various reasons (Hockenberry and Puzzanchera, 2017: 2). Nationally, 56% of delinquency cases were petitioned in 2014 (Hockenberry and Puzzanchera, 2017: 38).

**Waiver to criminal court**

The intake department may also recommend that a juvenile case be removed from the juvenile court’s jurisdiction and transferred to criminal court instead. This process is called “waiver” because the juvenile court waives its original jurisdiction over the case, allowing the juvenile to be processed as an adult in criminal court (Feld and Bishop, 2012). While transfer to adult court usually occurs before the adjudication stage of processing, it is often considered the “capital punishment of juvenile justice” since it places adolescent offenders in the formal, adult criminal court—and thus opens the doors to more severe punishments than are available in the juvenile court (Zimring, 1981: 193).
Traditionally, the prosecutor would need to formally file a petition of waiver, asking the juvenile court judge to waive jurisdiction. At a transfer hearing, the juvenile court judge would decide whether the juvenile case merits criminal prosecution based on the evidence presented by the prosecutor. Denial of judicial waiver usually results in an adjudication of delinquency (Hockenberry and Puzzanchera, 2017: 2). Nationally, fewer than 1% of petitioned delinquency cases were waived by juvenile court judges in 2014 (Hockenberry and Puzzanchera, 2017: 40).

Other mechanisms of waiver have also emerged in recent years. Prosecutorial direct-file (prosecutorial waiver) takes the decision out of the hands of the juvenile court judge and places it with the prosecutor, who has statutory authority to file charges in juvenile or adult court. No waiver hearing is required because the prosecutor has concurrent jurisdiction, and there is no constitutional right to juvenile court processing or waiver hearings. Statutory exclusion (legislative waiver) automatically sends juvenile cases to criminal court with certain characteristics (most often related to age and offense type) as decided by the state legislature (Feld, 2000). Prosecutorial and legislative waiver today account for the majority of juveniles in criminal court although precise estimates are not possible because only data on judicial waiver is collected nationally (see Griffin, Addie, Adams, and Firestine, 2011).

Adjudication

Once a petition of delinquency is filed by the prosecutor’s office, the case is placed on the juvenile court docket for an adjudicatory hearing. At the hearing, which functions as the juvenile court.

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14 Prosecutorial and legislative waiver statutes reflect a transformation of the practice of transfer from a decision guided by consideration of the best interests of youth and the juvenile justice system—the overarching mission of the juvenile court (Mears, 2003)—to one guided by the interests of the executive and legislative branches of state governments (Zimring, 2010). Zimring (2010: 4) argues that the expansion of transfer was largely “an attempt to expand prosecutorial power in juvenile justice” and wrestle decision-making away from juvenile court judges who are allocated more power in juvenile court relative to criminal court judges. Non-judicial forms of transfer thus emphasize characteristics of the offense rather than offender—and reflect “the retributive values of the criminal law” in contrast to the more treatment-oriented mission of the juvenile court (Feld, 2000: 84–85; see also Kupchik, 2006).
court equivalent of a criminal trial, the prosecutor presents evidence that the juvenile committed a criminal offense or status offense (and the juvenile is represented by a defense attorney). (Hockenberry and Puzzanchera, 2017: 31). The juvenile court judge, who functions also as the fact-finder (i.e., no jury), decides whether the juvenile committed the charged offense. The outcome is either an adjudication of delinquency—equivalent of guilty verdict—or dismissal or diversion of the case. Diversion at this stage usually involves a suspended or continued sentence, meaning that the juvenile must agree to some informal order for the case to be dismissed (but the juvenile avoids being adjudicated delinquent). This might involve volunteer work, paying restitution, or attending a treatment program such as drug counseling (Hockenberry and Puzzanchera, 2017: 2). Nationally, 54% of petitioned delinquency cases were adjudicated delinquent in 2014 (Hockenberry and Puzzanchera, 2017: 44).  

**Disposition**

For cases that are adjudicated delinquent, the juvenile court judge also determines the sanction to be applied to the delinquent juvenile. Most often, this involves a decision between out-of-home placement and community supervision (i.e., probation). Out-of-home placement may involve commitment to an institution (the juvenile court equivalent of incarceration) or placement in a group home or other residential facility (in some cases even foster care). Community supervision may involve intensive probation supervision, regular probation, or referral to treatment in a community setting (e.g., day treatment, mental health program), and other community sanctions such as restitution and community service. Nationally, 26% of cases that were adjudicated delinquent in 2014 (Hockenberry and Puzzanchera, 2017: 44).  

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15 This means that nationally (in 2014), only 30% of all referred delinquency cases were adjudicated delinquent.
delinquent in 2014 resulted in out-of-home placement (Hockenberry and Puzzanchera, 2017: 48–49).\(^{16}\)

Disproportionate Minority Contact

In the juvenile justice system, racial and ethnic disproportionality at the various points of contact described above are referred to as disproportionate minority contact (DMC).\(^ {17}\) The federal “DMC mandate” is the largest national response to the issue of DMC to date, attempting to incentivize states to identify, assess, and intervene to reduce DMC at the local level. The mandate was first introduced in 1988 as part of an amendment to the Juvenile Justice and Delinquency Prevention Act of 1974. At the time, DMC meant “disproportionate minority confinement” and the mandate required states to identify whether the proportion of minority youth in secure confinement exceeded their proportion in the population (see Puzzanchera and Hockenberry, 2017).\(^ {18}\) The 1992 reauthorization of the DMC mandate included five ongoing phases of compliance: identification, assessment of causes, interventions, evaluation, and monitoring (Leiber and Peck, 2013). A DMC Technical Assistance Manual was developed to provide implementation guidance to states and has been updated in four editions—the latest in 2009 (U.S. Department of Justice, 2009). This manual is organized in terms of the five phases of compliance above, each stage designed to build upon the last: “The identification stage, and the use of the Relative Rate Index in this stage, is designed to help narrow the field of inquiry for the assessment stage, which describes the process of identifying the likely mechanisms that create

\(^{16}\) This means that nationally (in 2014), only 7.7% of all referred delinquency cases resulted in out-of-home placement after a formal adjudicated of delinquency.

\(^{17}\) Notably, the history of the juvenile justice system for Black youth—“Jim Crow juvenile justice”—differs in important ways from the account described above (see Ward, 2012; see also Feld, 1999, 2017).

\(^{18}\) Initially five states were funded to examine disproportionate minority confinement at the state level.
differences in juvenile justice system contacts for minority youth and which, in turn, leads to the intervention stage” (U.S. Department of Justice, 2009, sec. 1–2).

The 1992 reauthorization also included a financial incentive: states risked losing 25% of their formula grant funding19 if they did not show a “good faith effort” to comply with the mandate (Leiber, 2002).20 The next reauthorization of the DMC mandate occurred in 2002. The term “confinement” was changed to “contact,” emphasizing nine major decision points in the juvenile justice system (Dillard, 2013). At this time the RRI metric (see footnote 9) was developed to replace more crude measures for identifying disproportionalities, and the penalty was reduced to 20% of formula grants funding. Some have hailed the DMC mandate as the most promising approach to reducing racial disparities in society since it does not rely on proving intentional discrimination (i.e., differential treatment), but only on identifying disproportionate minority contact and then addressing it (Johnson, 2007). However, while some states have had formula grants funding withheld for failure to comply with the mandate, this has largely been a rare occurrence (Leiber and Rodriguez, 2011), leading others to call the mandate nothing more than a “symbolic gesture” (Bell and Ridolfi, 2008: 14).

Strategies to reduce DMC

In the review of “best practices” of local DMC-reduction efforts, Cabaniss and colleagues (2007: 395) enumerated the following major strategies:

(a) decision-point mapping and data review; (b) cultural competency training; (c) adding more community-based prevention and intervention programs such as detention

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19 The formula grant program is administered by the OJJDP and provides financial assistance to states for local delinquency prevention and intervention efforts as well as juvenile justice system improvements. In 2015, the OJJDP distributed $39,033,194 to the states (OJJDP, 2018).

20 When states submit an annual formula grants application, they must include an annual plan and 3-year plan pertaining to the five stages, updated at least once every three years (Hanes, 2012).
alternatives; (d) removing decision-making subjectivity through standardized screenings and protocols; (e) reducing barriers to family involvement; and (f) cultivating state leadership to legislate system-level change.

Broadly, these various efforts can be grouped into three categories: direct services, education and training, and system changes.

Direct services often involve prevention and intervention programs that address factors associated with why youth commit crime (Leiber and Rodriguez, 2011: 110). Diversion programs focus on providing alternatives to formal processing, such as providing alternatives to secure detention (e.g., home confinement, intensive supervision, and day treatment programs) (Leiber and Peck, 2013). One promising example of this is the Juvenile Detention Alternative Initiative (JDAI) developed by the Annie E. Casey Foundation. While not specifically aimed at reducing DMC, its mission to provide alternatives to juvenile detention should, in theory, reduce racial disproportionality at the point in juvenile justice processing where disparities are highest (Maggard, 2015). While JDAI has now been implemented in over 150 sites and been heralded as a great success, these assessments are based mostly on evaluations by the Annie E. Casey Foundation, and mostly involve only descriptive data (see Mendel, 2009). In addition to such diversion programs, direct services can involve advocacy services that connect minority families with community services and legal representation.

Efforts to reduce DMC can also involve education and training. For example, cultural diversity training of juvenile justice officers attempts to reduce conscious as well unconscious

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21 In addition to the Annie E. Casey Foundation’s development and funding of JDAI, several other private organizations have provided support for DMC reduction strategies, including the W. Haywood Burns Institute and the John D. and Catherine T. MacArthur Foundation’s Models for Change Initiative, which has committed $100 million investment in nationwide juvenile justice reform. (Nellis and Richardson, 2010).

22 There are also several other detention alternative initiative launched in particular jurisdictions, such as the evidenced-based Detention Diversion Advocacy Project (DDAP) in San Francisco (Cabaniss et al., 2007).
racial bias for those who have direct contact with youth. Often this involves training in how to reduce racial and ethnic stereotypes and how biases can negatively influence juvenile justice processing (Leiber and Rodriguez, 2011). Examples include police officer training in Multnomah County, Oregon, to heighten awareness of DMC prior to contact with minority youth, cultural diversity and communication training in Cook County, Illinois, and a cultural audit survey performed in Sacramento County, California, to assess juvenile justice officials’ understanding of various racial and ethnic differences (Cabaniss et al., 2007: 396). Another education-based approach involves community education for dealing with police more effectively, including the possibility of racial discrimination by some police officers (Leiber and Peck, 2013: 364).

Finally, system change involves “legislative reform, administrative changes for diversification, and structural and procedural changes that affect decision making” (Leiber and Rodriguez, 2011: 112). While system-wide changes tend to be slow (Bishop and Leiber 2012; Leiber and Rodriguez, 2011; Leiber and Peck, 2013), some states have designed legislation to address racial disparities in the juvenile justice system. For example, the Minority Impact Law passed in Iowa in 2008 requires assessments of possible disproportionate impact of future legislation (Leiber and Peck, 2013: 366), and a series of laws passed in Washington state establish local juvenile justice advisory committees and create uniform guidelines for prosecuting juvenile cases (Leiber and Rodriguez, 2011).

A related issue is the under-representation of minority justice officials and lawmakers. Some have suggested that there may be a causal link between racial disparity and the lack of minority representation among criminal justice professionals (Tatum, 2003).

A more radical approach would involve confronting the tensions—even apparent contradictions—within the juvenile justice system (see Feld, 1997, 1999). Kempf-Leonard (2007: 84) argues that although the juvenile justice system should not be abolished (as argued by Feld, 1997), serious reform may be in order: “Benevolent protection and personal accountability objectives must both be retained but uncoupled and each made explicit aims of juvenile justice procedures.”

Some have been critical that these DMC efforts that this has created a cottage industry for talking about DMC without actually doing anything about it (see Bell and Ridolfi, 2008).
System change can also involve reducing subjectivity in juvenile justice processing by adopting race-neutral screening and risk assessment instruments (see Mallett and Stoddard-Dare, 2010). Often this involves addressing root causes of DMC beyond overt discrimination. One example of this occurred in Multnomah County, Oregon, where officials replaced criteria which might be biased against African-American youth, like “good family structure,” with more race-neutral criteria like responsible adult willing to ensure youth’s appearance in court. Similarly, “productive activity” was added to “school attendance” as a mitigating factor since part-time employment and skills-training can also be considered important indicators of the appropriateness of community placement for youth (Cabaniss et al., 2007: 398).26

State efforts to reduce DMC

As of 2012 (the latest available data), state efforts to comply with the DMC mandate are as follows. In terms of DMC state-level coordination, 41 states have DMC subcommittees, 37 states have some form of DMC coordinator, and 18 states have full-time DMC coordinators. At the identification stage, 42 states have data for at least six (of nine) decision points, 29 states have data for all decision points, and 27 states update data annually. At the assessment stage, 18 states have completed formal DMC assessments. At the intervention stage, 34 states have implemented DMC reduction strategies at local sites, and 30 states have funded nationally recognized models to reduce DMC. At the monitoring stage, 39 states have provided a timeline for monitoring RRI

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26 Complicating matters is that some of these social risk factors (e.g., good family structure, school attendance) may be relevant to juvenile justice decision-making under the parens patriae model. As Feld (1999) observes, there is a conflict between due process and equality before the law (including absence of racial discrimination) and the treatment philosophy of the juvenile court (where youth are not assumed equal but appraised on an individual basis in terms of their particular needs).
trends over time. As of 2012, only four states have conducted at least one formal evaluation of DMC interventions (Hanes, 2012).

Leiber (2002) examined state identification and assessment studies and found that of the 40 states that conducted some kind of study, 32 studies (in 27 states) found race effects while 12 states found no race effects after controlling for legal factors. About half of these studies used some form of regression analysis (Leiber, 2002; Pope and Leiber, 2005). Nevertheless, some states did not include many relevant factors as control variables, failed to use multivariate regression analysis, failed to use more than one stage of processing, or did not employ quantitative and qualitative techniques (Leiber, 2002: 15). Pope and Leiber (2005: 358) later observed:

States often failed to (1) differentiate among minority youth, often focusing only on African Americans; (2) include legal and extralegal considerations that might influence decision making; (3) examine decision making as a process that spans multiple stages; and (4) employ multivariate statistical procedures and tests for race interaction relationships.

These state assessments leave room for improvement. One of the most pressing limitations is that many states did not know “how to do an assessment study and/or were not in position to conduct the kind of research needed to identify the causes of DMC” (Leiber, 2002: 17). Reducing DMC involves much more than simply identifying it, yet most states are only in a position to accomplish the latter.
Evaluating the DMC mandate

There are several ways to assess the effectiveness of the DMC mandate to date. Descriptively, we can observe trends in DMC over time. Figure 2.1 shows the RRI each year from 2005 through 2015 for each major decision point.

Figure 2.1. Trends in RRI (Minority vs. White Youth), 2005–2015

While the overall counts and rates of juvenile court cases has fallen somewhat dramatically over the past decade (see Hockenberry and Puzzanchera, 2017), disproportionate minority contact is largely unchanged, and in some places actually increased: most notably,
increases in DMC at arrest/referral (for Black youth) and detention (for minority youth in general). Comparing historical levels, when the DMC mandate was reauthorized in 1992 the RRI for Black youth (data on Hispanic cases was not separately collected) was 2.2 for arrest/referral, 1.8 for detention, 1.2 for petition, 1.8 for waiver, 0.9 for adjudication, and 1.2 for secure placement. The only points of reduction in RRI from 1992 to 2014 are detention—from 1.8 to 1.4—and waiver—from 1.8 to 1.1.\textsuperscript{27} DMC actually increased for secure placement—from 1.2 in 1992 to 1.4 in 2015 (Hockenberry and Puzzanchera, 2017).\textsuperscript{28} At a minimum, this does not seem promising.

While these are only descriptive statistics, they tell the following story: in the three decades since the DMC mandate was formed, racial disproportionalities for minority youth have been notably reduced at only two decision points—detention and waiver to adult court.\textsuperscript{29} Notably, these do represent two of the three major points of disparity (disparities in arrest/referral have remain unchanged for minority youth overall and increased for Black youth). This may suggest some success for DMC reduction efforts since the inception of the DMC mandate,\textsuperscript{30} although others argue that the DMC mandate has largely failed to bring about substantial reductions in disparity and that serious disparities remain (Bell and Ridolfi, 2008). In any event, DMC levels for the past decade have remained largely the same. To move beyond these descriptive trends, several evaluations of DMC effectiveness have been performed to date.

\textsuperscript{27} This reduction in DMC for waiver is less dramatic than it appears. Likely because waiver is a rare outcome, it is the most volatile year-to-year in terms of RRI. In 2005, the RRI for waiver was 0.9, then back up to 1.6 in 2014, with a sudden drop to 1.1 in 2015.
\textsuperscript{28} For Black youth, the RRI for arrest/referral increased from 2.2 (1992) to 3.1 (2015).
\textsuperscript{29} These national statistics do not reflect that DMC reduction has occurred in some jurisdictions (for some points of contact), such as nine profiled by Spinney and colleagues (2014).
\textsuperscript{30} Davis and Sorenson (2013a) examined national confinement rates and found that when controlling for arrests, confinement ratios between Black and White youth decreased by 20% from 1997 to 2006. They interpreted this as promising evidence that the DMC mandate was having a positive effect (albeit a small one), but this was largely negated by rising arrest rates for minority youth.
One independent evaluation has been performed on JDAI, the detention alternative program that is seen as a promising approach to reducing DMC at the detention stage (Maggard, 2015). Comparing seven years pre- and post-implementation of JDAI in one Virginia juvenile court, Maggard (2015) found no significant changes in race effects on detention decisions (after controlling for age, gender, and legal factors). However, the effect of \textit{legal} factors on detention decisions increased significantly after JDAI implementation. The author suggested that race may still be operating through legal variables: “It could be that race loses its significance in the Post-JDAI analysis due to the increased emphasis on offense seriousness and prior history which was found primarily for non-Whites, indicating that while the direct effects of race may have diminished, race continues to operate through other variables” (Maggard, 2015: 590).

Donnelly (2015) carried out the first study to evaluate whether the DMC mandate has achieved its goals of reducing overall contact with minority youth within a state juvenile justice system. Looking at Pennsylvania, a state that has “embraced and implemented [the] DMC mandate as a system-level reform,” Donnelly (2015: 7) found that that DMC initiatives succeeded in reducing racial disparity in juvenile justice processing from 1997 to 2011. Comparing counties that had implemented DMC intervention strategies to non-intervention counties, Donnelly (2015) found that reductions in racial disparity across four decision points

\footnote{While the race effect did change from small and significant to non-significant, this change itself was not statistically significant. Interestingly, after controlling for legal factors there was not a large race effect on detention decisions before implementation, which may explain why no significant change occurred.}

\footnote{Even without a significant reduction in DMC, the finding that legal factors became stronger predictors of detention post-JDAI suggests that the program achieved its primary goal.

In addition to legal variables, age and gender both interacted significantly with race. Following implementation, age became a stronger predictor of detention outcomes for minority youth (older youth more likely to receive detention) but not for White youth. Similarly, gender became a significant predictor for minority youth (females less likely to receive detention) but not for White youth. This may evidence an indirect impact of race on detention decisions.

Donnelly (2015) provides additional details on the considerable efforts made by Pennsylvania officials to take the DMC problem seriously and reduce racial disparities at various contact points.
(petitioning, adjudication, placement, and confinement) were significantly greater for intervention counties compared to non-intervention counties for every decision point except petition.\textsuperscript{35} Consistent with prior assessments of the DMC mandate (Davis and Sorenson, 2013a; Leiber, Bishop, and Chamlin, 2011), this most recent assessment suggested that DMC interventions can successfully reduce (but not eliminate) disparities at later stages of processing, but may not be as effective at reducing disparities at the front end of the system: “Because petitioning decisions are largely based on arrests and charging decisions of police officers who are unaffected by the DMC mandate, it may be more difficult to legally divert youth out of the system at this point” (Donnelly, 2015: 17).

Leiber and colleagues (2011) asked a slightly different question: whether the mandate changed the influence of legal factors, extralegal considerations, and race on decision-making. Looking at Iowa—one of the five “model” states selected to address DMC immediately following the 1988 mandate\textsuperscript{36}—they examined two outcomes in juvenile court: intake decision (formal processing versus diversion) and disposition (community placement versus secure placement). They found that the DMC mandate had its largest effects at the placement stage, contributing to fewer out-of-home placements for Black youth (compared to White youth) in the years following the DMC mandate (Leiber et al., 2011). However, a major caveat was that White youth were actually more likely to receive out-of-home placement prior to the DMC mandate. After the mandate, this effect became even more pronounced (i.e., even greater odds for White placement). For intake, however, there was virtually no change in the effect of race on decision-making.

\textsuperscript{35} Counties were not randomly assigned, and intervention counties tended to have greater racial disparity prior to intervention. After 2004 DMC-reduction initiatives, DMC levels in intervention counties converged with non-intervention counties.

\textsuperscript{36} They also observed that “there is considerable evidence that in Iowa generally, and especially in the jurisdiction examined . . . a number of strategies that address delinquency prevention and system issues were implemented to reduce DMC, such that it seems reasonable to hypothesize movement toward greater equality in the processing of White and minority offenders” (Leiber et al., 2011: 466).
to divert or charge. The authors did observe some important interactions between race and extralegal factors,\textsuperscript{37} and suggested that after introduction of the mandate, “the effects of race became more covert and indirect, operating through family structure” (Leiber et al., 2011: 484). As with prior evaluations, the authors also pointed out an absence of attention to initial contact with the juvenile justice system,\textsuperscript{38} observing that there is “especially wide latitude for discretion at the front end of the system” and thus more opportunity for differential treatment to result in DMC (Leiber et al., 2011: 485).

As such, the few evaluations of local DMC-reduction strategies tend to corroborate the picture illustrated by descriptive trends, with a consensus that substantial DMC reduction has not yet occurred (see also Jones, 2016). Approximately one decade ago, Kempf-Leonard (2007: 82) observed:

After nearly 20 years of the federally supported DMC initiative in juvenile justice, levels of minority overrepresentation remain uncomfortably high in most states and at the national level. Although some progress is evidence, there are no agreed-upon reduction strategies nor even complete accord on how best to explain the inequities.

Today, thirty years following the inception of the 1988 DMC mandate, this appraisal remains generally accurate:

\textsuperscript{37} “Race also interacted in combination with property offending, gender, and family structure to impact intake decision-making. Despite the continuing influence of race . . . legal factors also explained decision-making and, for the most part, the relative impact of these variables was similar through both time frames. Of the extralegal factors, the influence of both family structure and attending school with problems grew in importance in the 1990s with the former also being conditioned by race” (Leiber et al., 2011: 478).

\textsuperscript{38} One example of a front-end DMC reduction strategy is the Effective Police Interactions with Youth training curriculum, designed to increase officer awareness of DMC and improve officer encounters with young people of racial minority groups. An evaluation of the program in Connecticut using a pretest-posttest experimental design found that relative to the control group, officers who participated increased their knowledge of DMC, adopted significantly more positive attitudes toward youth in general, and adopted more positive attitudes about helping to reduce unequal treatment of minority youth (LaMotte et al., 2010).
Further credence for the belief that the DMC mandate has been slow, if not ineffective, to bring about change can also be drawn from a look at the extent of minority youth overrepresentation in the juvenile justice system over the last 30 years. (Leiber and Rodriguez, 2011: 115–116)

Cumulative Disadvantage

In addition to addressing DMC at various points of contact in the juvenile justice system, another challenge is that youth at various stages may not be “similarly situated” due to decisions at prior stages (Kempf-Leonard, 2007: 80). One consequence of this is selection effects: that observed racial disparities at any one stage could be understated or overstated, causing us to be less confident in findings. As Kempf-Leonard (2007: 81) observes:

If attrition at an early stage is the result of differential treatment that makes it less likely for minority youths, then the total group of youths who proceed to the next stage are substantively different. They include only serious offenders and those with gravest needs from the majority group but youths from minority groups whose risks and needs are more varied; thus, the youths are otherwise not similarly situated. At later stages, if no direct relationship is observed for minority status, it may actually be expected given the different distributions of risks and needs. It would be inaccurate to conclude equity in treatment, however, if comparisons fail to consider the differential selection process.

The multiple decision points from referral to secure placement could also produce cumulative effects (Chen, 2008).39 A cumulative effect is a relationship between adverse

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39 And there is a relationship between selection effects and cumulative effects. For example, estimation of racial disparity at disposition is based on a subsample of juvenile offenders who have been adjudicated delinquent. If Black youth are more likely to be adjudicated delinquent than similarly situated White youth, we need to think about the true “disadvantage” of the disparity at disposition in terms of the pre-adjudication sample. Similarly, if Black
outcomes at different stages of processing, where earlier adverse outcomes increase the probability of later adverse outcomes (see Wooldredge et al., 2015). In the context of race and ethnicity, the idea is that “consideration of a defendant’s race at separate decision points might compound race effects on sentence severity,” where final dispositional outcomes (e.g., sentence severity in the criminal justice context) is the ultimate outcome of interest (Wooldredge et al., 2015: 189). Cumulative disadvantage thus refers to the possibility that DMC at early points of contact (e.g., arrest/referral, detention, and petition) may exacerbate the true disparities that are experienced at later stages (e.g., adjudication of delinquency, waiver to adult court, out-of-home placement).

In other contexts, cumulative disadvantage can be used to refer to the connected and compounding disadvantages that certain persons or groups experience over the life course, including but not limited to the criminal justice system (e.g., felon disenfranchisement or inability to find employment) (see Sampson and Lauritsen 1997; see also DiPrete and Eirich, 2006). In the present study, it has a more specific meaning: growing disparities. Chen (2008) elaborates on this more general sense of cumulative disadvantage as follows:

Cumulative disadvantage theory proposes that disparities between groups—such as those associated with education, class, gender, or race—do not remain constant, but rather increase as cohorts advance through a temporal process such as aging. The theory can apply not only to the life course, but also to successive stages of a system or process with multiple stages . . . . Moreover, the sum of successive experiences of disadvantage or discrimination may exceed the constituent parts. This may be due to “feedback effects”
such as diminished or enhanced expectations of success or failure that can lead to behavioral changes (such as not pursuing educational or employment opportunities) or perceptions (such as racial profiling by law enforcement officers or juries) and may generate self-fulfilling prophecies.

In the present context, the “cumulative disadvantage” hypothesis posits that Black and Hispanic youth are overrepresented at each stage of processing, so that the true disparity in final disposition outcomes is greater than exhibited in post-conviction samples (i.e., delinquent samples). That is, the sum of disparity is greater than its parts. Just focusing on individual stages may give the false impression that DMC is only marginally significant:

[S]ome scholars have abandoned overt and pervasive discrimination as an explanation for existing disproportionality. These scholars nevertheless assert that race plays an incrementally significant role in criminal justice processing decisions. These scholars maintain that at each stage of the juvenile justice process, decision-makers act in ways that slightly disadvantage racial minorities [citation omitted]. These “slight disadvantages” aggregate as children move through the system. The resulting cumulative disadvantage translates into substantial systemic discrimination against minorities, which manifests itself in disproportionately higher confinement rates [citations omitted].

(McGuire, 2002: 2).

While cumulative disadvantage presents a troubling possibility for policymakers concerned with addressing DMC, attempting to measure it can be daunting. One possibility is to think about indirect effects of race on later stages via earlier stages acting as mediators. For example, if Black youth are more likely to be detained prior to adjudication, and detained youth (who are disproportionally Black) are more likely to be petitioned, adjudicated delinquent,
waived, and placed in secure confinement, then the impact of race is larger than the direct effect at each of these later stages. (This is the motivation behind DMC-reduction programs such as JDAI.) Understood this way, however, cumulative disadvantage cannot refer to early stages of processing that determine whether the defendant remains in the system (e.g., petition of delinquency, adjudication of delinquency, or waiver to adult court). For these stages, only those youth who receive an adverse outcome will remain in the system and be eligible for future adverse outcomes. As a result, conceiving of cumulative disadvantage in terms of indirect effects must only focus on stages that do not alter the overall sample composition, such as preadjudication detention.

Another possibility is to consider cumulative disadvantage in terms of various possible outcomes for a randomly selected youth at initial point of contact. As Kutateladze and colleagues (2014: 520) observe, cumulative disadvantage exists where “minority defendants experience enhanced probabilities of certain combinations of less favorable case-processing outcomes.” As such, probabilities might be calculated for each member of the original sample of referred youth to provide predicted probabilities of each possible combination of outcomes. For example, instead of comparing outcomes among the disposition-stage sample (i.e., likelihood of secure placement for those youth who have been adjudicated delinquent), the probability that a referred Black juvenile ends up in secure placement could be assessed. The purpose of this is twofold: first, to gain a clearer picture of the actual extent of DMC within the juvenile justice system—from initial contact through disposition. Second, to assess which stages most contribute to this “cumulative effect” and where DMC reduction efforts should be focused.
Chapter 3: Theoretical Framework

The present research is guided by the following question: “Why does disproportionate minority contact persist in the juvenile justice system?” Any attempts to answer this complex and important question first must develop a theoretical model of how the juvenile justice system operates; that is, a theory of the juvenile justice system. If we think of the juvenile justice system (and larger criminal justice system) in terms of systems theory, as Mears (2017) rightly urges us to do, then we cannot just focus on one “true” theory of the juvenile court. As Mears (2017: 113) puts it, “if we want to understand the criminal justice systems, we need accounts that explain the whole and accounts that explain the various parts, as well as how they contribute to the whole... we cannot reasonably expect a single theory to explain all things.” Several definitions of the notion of “system” have been offered, but the core idea is that, “A system is an interconnected set of elements that is coherently organized in a way that achieves something” (Mears, 2017: 56). The present research takes the perspective that the juvenile justice system is a complex phenomenon, and efforts to understand this complexity begin with “simultaneously focusing on systems operations and impacts and using a diverse range of theories and empirical research... to understand the whole and its parts and how both can be improved” (Mears, 2017: 123).

Juvenile justice theory has not developed independently of criminal justice theory, and criminal justice theory will be employed to guide the inquiry. Nevertheless, it is important to note at the outset a major difference between the juvenile justice and criminal justice system that

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40 One major difference in how systems are defined in terms of whether the notion of “goals” is incorporated. A teleological understanding of systems includes goals (e.g., “the interaction of different units toward a common goal”) while a merely functional description does not (e.g. “A whole which functions as a whole by virtue of the interdependence of its parts”) (see Mears, 2017: 56–57). In thinking about systems in nature, there is some debate as to whether there is a biochemical basis for teleology (or at a minimum, teleology-speak), or whether this necessarily involves unhelpful anthropomorphism (see Dennett, 2013). However this semantic dispute is ultimately resolved, a goal-oriented understanding appears appropriate within the context of social systems (and specifically the criminal and juvenile justice system), although we may discover that social systems do not in fact function toward coherent goals (see Feeley, 1972).
complicates any analysis: the juvenile court’s unique mission as *parens patriae* (see chapter 2). Feeley (1972) notes that, “A system of the administration of justice, whether it is adversarial or inquisitorial, entails the key elements of organization: institutionalized interaction of a large number of actors whose roles are highly defined, who are required to follow highly defined rules and who share a responsibility in a common goal—that of processing arrests.” The goal of the juvenile justice system can likewise be described as the processing of arrests/referrals (or “people-processing”; see Hasenfeld and Cheung, 1985), but while the criminal justice system is constrained mainly by the goal of social control—including justice (e.g., retribution) and public safety (e.g., deterrence, incapacitation)—the juvenile justice system has, from its inception, aimed primarily at reforming wayward youth.

Since the juvenile court is premised on the notion of individualized consideration of delinquent youth for rehabilitative purposes, there is more room for discretion and thus more room for discrimination compared to the criminal justice system where legal considerations are more dominant (Bishop and Leiber, 2012). Others have suggested that this explains why greater racial disparity exists in the juvenile justice system compared to the criminal justice system (after controlling for legal factors):

Although differences across courts can also be found in the adult system, it is not surprising that it is even more prevalent in the juvenile court, as judges in the juvenile court have greater discretion than judges in the adult court. Unlike adult courts that are more focused on the punishment of the offense, juvenile courts are more concerned with the individual juvenile and the treatment needs of the juvenile. Focus, therefore, is not
placed on applying the same sanction to every offense regardless of the offender and the
offender’s needs” (Freiburger and Jordan, 2016: 124).

While clearly inappropriate in the due-process governed criminal justice system, it is not
clear that differential treatment in juvenile court always represents prejudicial discrimination. As
such, “it seems that the unique social welfare concerns of the juvenile court (based on real and
perceived family, school, and other problems) combine with traditional social control concerns
(focused on real and perceived culpability and danger to society) to produce greater minority
involvement in the juvenile justice system” (Bishop and Leiber, 2012: 474). With these caveats
in mind, we can turn to theoretical frameworks for the juvenile justice system.

Theoretical Frameworks for Criminal (and Juvenile) Justice

Despite important differences, the juvenile justice system is part of the larger criminal justice
system, and recent developments in criminal justice theory represent an appropriate starting
place. Others have noted that theory development involves, at its roots, four elements: what,
how, why, and who/where/when:

What refers to the factors that explain some phenomenon, the set of independent
variables. Scientists strive to make “what” comprehensive (including all relevant factors)
and parsimonious (excluding trivial factors). How refers to the causal relationship
between the set of independent variables and the outcome variable . . . . Why involves the

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41 Some research suggests that race effects are not significantly different between criminal and juvenile courts
(Kupchik and Harvey, 2007), and that legal factors predict sentencing similarly in both courts (Kupchik, 2006).
Using a qualitative approach, Kupchik and Harvey (2007) found that while there was more room for discretion (and
possibly discrimination) in juvenile courts compared to criminal courts, there was also a greater presence of
aggressive public defenders advocating for youth in juvenile court. Additionally, the authors suggested that
differences between juvenile and criminal court are larger prior to sentencing, and at the sentencing stage begin to
resemble each other.
process by which the independent variables influence the phenomenon being studied. . . .

The what, how, and why elements are sufficient for establishing the basic structure of a theory, but to make the theory more complete it is necessary to qualify it with who, where, and when limitations. To what extent will the theoretical propositions hold up with different types of people, different locations, and different time periods? In other words, to what extent is the theory generalizable? (Snipes and Maguire, 2007: 31).

If we are interested in answering basic questions about how juvenile justice outcomes are produced, we begin with three major questions: (a) what variables are related to juvenile justice outcomes? (e.g., case-level legal variables, case-level extralegal variables, contextual variables, etc.); (b) how are these variables related to juvenile justice outcomes? (positive or negative; linear or non-linear); and (c) why are these variables related to juvenile justice outcomes in the manner described in (a) and (b)? Answers to these questions will form the basis of a theory of the juvenile justice system.

Another way to characterize theories is by the level of explanation (Snipes and Maguire, 2007). Often criminal justice theories are described as either micro- or macro-level, with most theories having independent and dependent variables at the same level of analysis. Contextual theories, on the other hand, use independent variables from a higher level of explanation than the dependent variables (Snipes and Maguire, 2007). In the case of the juvenile justice system, this would involve predicting juvenile court outcomes (micro-level) based on higher level community characteristics (macro-level). Worden (2007) outlines three conceptual domains where contextual (community) characteristics might influence court process: court characteristics (consisting of local legal culture and courthouse structure), characteristics of community elites (consisting of court elite characteristics and community elite characteristics), and community
characteristics (consisting of socioeconomic/demographic characteristics, and missions and priorities of local community groups). The two dominant contextual perspectives within which such theories can be developed can thus be described as sociopolitical and organizational.\footnote{Mears (1998) emphasizes that the determinants of sentencing (which can be applied to other court outcomes) include: (1) goals of sentencing; (2) case-specific factors; (3) characteristics of court practitioners; (4) organizational context; and (5) cultural, political, and social context. The present dissertation focuses on the contextual determinants of juvenile court decisions represented in the latter two categories.}

*Sociopolitical perspectives*

Perhaps the most basic distinction in theoretical perspectives on the criminal and juvenile justice system involves two broad sociopolitical perspectives: consensus and conflict (see Snipes and Maguire, 2007: 38). According to a consensus approach, theories will tend to assume that the criminal and juvenile justice systems operate for the benefit of the entire community and are based on “broadly shared societal values in the punishment of criminal norm violations” (Hagan, 1989: 116). Here, the system fulfills the most basic functions of government: protecting the public from predatory crime and promoting the rule of law by punishing those who violate it (Freiburger and Jordan, 2016). This perspective is strongly influenced by Émile Durkheim’s view that crime is functional for society: it brings the common public together around the acts they collectively view as deviant (Snipes and Maguire, 2007; see Durkheim, 1969). On the consensus view, the variables that we would expect to be related to juvenile justice outcomes would be variables related to the (consensus) goals of the system to promote public safety, punish offenders for wrongdoing, and in the case of juvenile justice, rehabilitate young (malleable) offenders (Leiber, 2003). The most relevant variables would thus be case-level *legal* variables; most notably, severity of the alleged offense (related to culpability and dangerousness), age of the offender (related to culpability, dangerousness, and malleability), and
prior record (related to dangerousness and malleability) (Hagan, 1989). Case-level extralegal variables, such as race/ethnicity and gender, should not play a substantial role in explaining juvenile justice outcomes when controlling for these other factors.43

Alternatively, conflict theories posit that the criminal and juvenile justice systems are operating for the benefit of powerful elites and at the expense of the powerless. Here, the system seeks to maintain the status quo and exert social control over certain traditionally disadvantaged (non-elite) groups. That is, the criminal and juvenile justice systems are seen as exerting a social control function not to fulfill the basic functions of government (as in the consensus perspective), but to oppress certain populations with whom those in power are in perennial conflict. This perspective is strongly influenced by the Marxist view that society is largely characterized by class struggle between the haves and have-nots (Snipes and Maguire, 2007). On the conflict view, the case-level extralegal variables which do not influence juvenile court outcomes according to a consensus perspective—race, gender, and socioeconomic status—would be expected to play an important explanatory role, perhaps even greater than case-level legal variables (Hagan, 1989). Similarly, social context may condition juvenile court outcomes. Conflict theories—such as racial threat, ethnic threat, and economic (class) threat—posit that minorities (racial/ethnic threat) and the underclass poor (economic threat) are subjected to greater social control because they are perceived as a threat to those in power (see Liska, 1987, 1992; Liska and Tausig, 1979; Sampson and Laub, 1993).

43 This consensus approach is sometimes also referred to as legalism or rationalism. Rationalism-legalism is perhaps the least studied perspective because it is the most basic and intuitive: indeed, it is how the juvenile justice system is supposed to work. This model supposes that the juvenile justice system is aimed toward certain goals—public safety, rehabilitation of juvenile offenders, justice for victims, etc.—and that the system is rational to the extent that it efficiently achieves those goals (see Duffee and Allan, 2007: 19; see also Zalman, 2007).
While the consensus/conflict distinction provides a helpful starting point, others have lamented that it remains of limited utility in explaining the complexity of criminal justice system processes and outcomes. Almost three decades ago, Hagan (1989: 117) observed: “[C]onsensus and conflict theories do not provide sufficient attention to the structural relationships that emerge from a joining of organizational and political forces in the direct of criminal justice operations.”

As Myers and Talarico (1987: 14) emphasize, “criminologists must acknowledge the consensual and coercive characteristics of criminal punishment and recognize the complexity in any use of penal sanctions. It strikes us, then, as theoretically unsound to test the utility of either a conflict or consensus perspective because any such attempt is tantamount to setting up straw men for inevitable rejection.”

Even more basically, Bernard and Engel (2001: 3) objected to framing theory in terms of background sociopolitical perspectives at all:

Such a broad classification obscures difference among theories and research while adding little to increase clarity. Unlike other ‘pure’ academic disciplines, the field of criminal justice is multidisciplinary, apply the theoretical propositions from sociology, criminology, economics, political science, psychology, and anthropology. Describing theories on the basis of such general theoretical assumptions further limits theory that should consider the propositions and assumptions of many of these disciplines. Therefore we believe that classifying theories according to their underlying theoretical assumptions is not useful.

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44 In place of the consensus/conflict approach, Hagan (1989: 122) advocated a structural-contextual approach: “[T]here is a need to link the study of micro- and macro-level organizational and political forces to account more fully for criminal justice operations and to understand the important kinds of variations that can occur in these operations across contexts.” This observation is consistent with the theoretical approach of the present dissertation, although consensus and conflict theories are still utilized to generate hypotheses about juvenile justice outcomes and racial disparities therein.
Instead, Bernard and Engel (2001) propose that criminal (and juvenile) justice research be guided first by the dependent variable of interest (rather than some broader theoretical perspective that will *prima facie* apply to all criminal justice outcomes), and then by the independent variables thought to predict variation in the outcome of interest. In the context of predictors of criminal sentencing, Dixon (1995) suggests three theoretical frameworks by which such decisions could be understood: (1) political theory, where outcomes are driven primarily by socioeconomic factors such as race and class (similar to conflict theory, above); (2) legal theory, where outcomes are driven primarily by legal characteristics of each case (similar to consensus theory, above); and (3) organizational theory, where outcomes are driven primarily by organizational factors specific to each court considered as its own natural ecosystem.

Organizational perspectives

Organizational theory can thus contribute a third set of variables to understand decision-making that neither consensus nor conflict approaches clearly anticipate:

Repudiating the Weberian perception of the organization of sentencing as a technically rational machine, as well as the Marxian perception of it as a political machine, the organizational maintenance perspective depicts the organization of sentencing as a natural system . . . Because a complex network of ongoing informal relationships among

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45 Bernard and Engel (2001) identify three broad classes of dependent variables relevant to criminal justice research: (1) individual behavior of criminal justice agents; behavior of entire criminal justice organizations or subsystems; and (3) characteristics of the overall criminal justice system (e.g., incarceration rates).

46 More recently, Kraska (2006) identifies eight theoretical frameworks for understanding the criminal justice system: (1) rationalism-legalism, (2) systems theory, (3) crime control versus due process, (4) politics, (5) social construction of reality, (6) growth complex, (7) oppression, and (8) late modernity. Some of these would fit neatly under what Dixon (1995) calls “legal theory” (e.g., “rationalism-legalism”), “political theory” (e.g., “politics,” “oppression”) or “organizational theory” (e.g., “crime control versus due process”, “growth complex”), whereas others combine insights from legal, political, and organizational perspectives (e.g., “systems theory”, “social construction of reality”, “late modernity”). Nevertheless, Dixon’s (1995) framework is a useful way (if less precise) of dividing up the field, as most variables that influence juvenile court processes could be broadly considered legal, sociopolitical, or organizational.
court actors is formed, a cooperative effort to efficiently dispose of cases evolves, with effects not envisioned by the substantive political [i.e., conflict] or formal legal [i.e., consensus] models. (Dixon, 1995: 1162)

Still, an organizational perspective is not necessarily inconsistent with either sociopolitical perspectives. For instance, it could be that substantive “politics are institutionalized in organizational practices” (Dixon, 1995: 1163). Paying attention to organizational context can, however, help move beyond the more simplistic consensus/conflict framing and not be limited to sociopolitical factors when considering the full context of the juvenile justice system.

Rational goals, functional systems, and institutional approaches

Feeley (1972) presents one of the first systematic accounts of an organizational approach of the criminal justice system. Feeley (1972) argues that most early criminal justice system research assumed a “rational goal” model of decision-making. If one adopts this rational-goal model of criminal justice, the main focus becomes the formal rules of the system. Following Weber (1954), this focus sees the modern U.S. criminal justice system as a rational organization that is “de-personalized, rule-bound, and hierarchically structured” to produce “highly predictable, rationalized, and efficient results” (Feeley, 1971: 409–410). The movement to minimize discretion in criminal justice is a paradigmatic example of the influence of this rational goal model of the organization.

Analysis by rational-goal model theorists will tend to focus either on inter-relationships among formal rules or comparing the rules to empirical descriptions of the system in order to “identify and measure discrepancies between reality and ideal” (Feeley, 1972: 409). This tends to be the perspective taken by legal scholars—focusing on the formal rules of the system—as well
as social scientists—focusing on the empirical realities of the administration of justice and whether it is consistent with the formal rules. Such an approach may often adopt a consensus sociopolitical perspective—the goals of the system reflect widely shared social norms—although a rational goal approach could similarly adopt a conflict perspective (see Zalman, 2007). For example, according to the minority threat hypothesis (see below), criminal justice agents respond to a threatening minority population by increasing social control. Given their (purported) discriminatory goals, such enhanced social control would certainly reflect a rational approach.

Feeley (1972) finds fault in this analytical approach, however, due to the underlying narrowness of the “goal model” in contrast to what he calls the “functional systems” model:

The preoccupation with a set of formal goals and the observation of behavior primarily in terms of how it squares with these goals . . . is not conducive to theory building and the explanation of the observed patterns of behavior. It tends to produce a unidimensional picture of the process by placing undue emphasis on one set of goals and rules without adequately considering other factors which are, perhaps, equally as important in shaping the behavior of the actors in the system. (Feeley, 1972: 412)

With the functional-systems model, greater emphasis is placed on explaining the behavior of organizational actors rather than evaluating this behavior in light of organizational goals (i.e., ideal of rational behavior). In other words, formal rules are no longer the primary focus on analysis. The goals that organizational actors pursue are more likely to be personal or sub-group goals; informal ‘rules of the game’ rather than the formal, abstract organizational goals. Correspondingly, the roles assumed by organizational actors are “likely to be defined by the functional adaption” to their particular environments, workloads, and other goals of actors in the system (Feeley, 1972: 413). The upshot, Feeley (1972: 413–414) argues, is that while the
rational-goal model takes the perspective of “the *rational organization* pursuing its single set of goals,” functional-systems models take the perspective of “the set of *rational individuals* who comprise the system . . . pursuing their various individual goals.” As a result, the functional systems model posits that conflicts between formal organizational goals (e.g., reduce crime rates, achieve justice for community) and goals of individual rational actors (e.g., secure a promotion, achieve re-election, minimize risk to professional reputation) will occur in the mere presence of the formal rules. Rather, “A more complete system of incentives is required” (Feeley, 1972: 414).

While Feeley (1972) contrasts the rational-goal model of organizational behavior with the functional systems model—preferring the latter as more realistic—a third organizational approach is the institutional model. This most recent approach in organizational theory focuses on how “organizations interact with their social, political, and economic environments in producing outcomes” (Snipes and Maguire, 2007: 38). Like the functional systems approach, institutional theory posits that organizations will act in ways that are difficult to explain via the rational goal model, but unlike functional systems approach the focus is more on the greater institutional context (and its responses to environmental changes) than the relationships among individual system actors. The institution must act to further its own survival, sometimes in ways that are in conflict with the rational goals of the organization as well as the goals of individual system actors. As Crank and Bowman (2008: 570) observe, “the institutional theory of

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47 In this way, it bears similarity to the “public choice” economics ushered in by Nobel Laureate James Buchanan, whereby political behavior was no longer assumed to be the pursuit of publicly stated goals, but more short-term goals based on individual (economic and political) self-interest (see Buchanan and Tullock, 1962).

48 As Feeley (1972: 414) puts it, this is because “perfect coincidence of formal organizational goals with the goals of the individual actors within the system” cannot be assumed.

49 Feeley (1972) notes that the two incentives for such compliance to formal rules are the norm of professionalism (informal social control) and appellate procedure (formal social control), neither of which are powerful enough to ensure perfect unity of goals as envisioned by the rational-goal model.
organizations, popular in the study of police and correctional organizations, argues that the behavior and values carried by criminal justice organizations in the value structures of principal audiences, especially those in local communities, not in immanent notions of human behavior.” The organizational perspective—whether in terms of rational goals, functional systems, or institutional context—thus proposes a third set of variables related to the incentives of individual decision-makers within a specific context.

Applying sociopolitical and organizational frameworks to the juvenile justice context, we might reasonably expect that legal, sociopolitical, and organizational variables will be associated with juvenile justice outcomes, but different theories will tend to emphasize one class at the expense of the others. Dixon (1995: 1164) writes,

Taken alone, none of these sentencing theories can fully explain variations in sentencing across courts. Since each perspective begins with the assumption that courts operate with a unitary system of sentencing, some rationality of sentencing is stressed with the exclusion or diminution of others. An alternative and less-utilized approach to the study of sentencing, the contextual approach, provides an analytical tool for capturing variations in sentencing processes across courts. A contextual perspective on sentencing maintains that the sentencing of individuals in a given court is influenced by the political, social, and organizational context of the court.

When only individual-level (i.e., case-level) variables are under examination, their operationalization and interpretation may depend crucially on a theoretical lens (see Worden, 2007). A contextual approach to understanding the juvenile justice system can provide more understanding of the complex system by assessing legal, sociopolitical (i.e., extralegal), and organizational variables simultaneously—and at various levels of explanation. This vertical
expansion of our theoretical understanding of juvenile justice can also be accompanied by a horizontal expansion also inspired by organizational theory, focusing on distinct phases of the juvenile justice system.

Loose and tight coupling

An organizational and systems perspective on the criminal justice system suggests that certain stages may be more “loosely” or “tightly” coupled based on the relationships among various system actors. Hagan (1989: 119) first adapted this terminology from organizational theorists and applied it to the criminal justice system: “In connotative terms, loose coupling is meant to evoke the image of entities (e.g., court systems) that are responsive to one another, while still maintaining independent identities and some evidence of physical or logical separateness.” Loosely coupled systems can be characterized by sharing few predictive (independent) variables, substantial differences in the influence of shared predictive variables, and overall weak influence of shared variables compared to non-shared variables.  

Hagan (1989: 130) proposes that “[a]ttention to structure and context can increase our understanding of what too often seems to be a system in random disarray.”

This organizational perspective has been adopted in the context of racial disparities in criminal justice by Engen and colleagues (2002: 195), whose elaboration of a “structural-processal” theoretical orientation emphasizes that “the effects of race may be greater at some stages of the process than others.” More recently, Bishop, Leiber, and Johnson (2010; see also Bishop and Leiber, 2012) have taken this structural-processal perspective a step further by

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50 Hagan (1979: 129) argues that the criminal justice system is a loosely coupled (or even decoupled) system where subsystems are highly independent, “characterized by unexpected evidence of randomness and inconsistency in the influence of legal and extralegal variables” as well as “low levels of explained variance in outcomes across subsystems.” Singer (1996: 14) likewise argues that “the political and organizational concerns and interests that lead officials to legal reforms are built on a history of prior reforms that has produced loosely coupled systems of juvenile and criminal justice.”
presenting an organizational approach to explaining racial disparities in the juvenile justice system specifically. They argue that assessing the causes of DMC requires special attention to how stages of processing may differ. As Bishop and colleagues (2010: 216) observe, “From an organizational perspective, the juvenile justice system is a collection of bureaucracies whose representatives participate in decisions about appropriate responses to offenders.” This includes law enforcement (the source of most referrals), intake officers (usually part of the probation department), prosecutors, and juvenile court judges. Some stages are “loosely coupled” because they are less formal and discretion—and hence the potential for differential treatment—is greater (e.g., intake referral processing, judicial disposition), while “tightly coupled” stages are more formal and legalistic and involve less differential treatment (e.g., petition and adjudication).  

Elsewhere, Singer (1996: 19) elaborates on how this negotiated order of justice produces a loosely coupled (or perhaps uncoupled) system:

Various subsystems of juvenile justice were created to produce a diverse set of legal avenues for deciding the status of juveniles. But these subsystems in textbook descriptions of juvenile justice are too often portrayed as tightly organized around a singular juvenile justice system. Such descriptions mistakenly lead us to assume that juvenile justice decision making centers exclusively on what juvenile court judges do, when in reality other decision makers are just as important. It is not just the juvenile court judge that determines the ultimate legal status of delinquent or juvenile offender, but also school, mental health, the police, probation, division for youth, and criminal justice.

51 Bishop and colleagues (2010) found that legal factors were significantly associated with outcomes at all stages of the juvenile justice system, but extralegal considerations varied by outcome. Race, gender, family structure, school problems, and school dropout were all significantly related to intake outcomes, while only family structure and school problems were significantly related to petition outcomes. For adjudication, only legal factors were related to outcomes. And at disposition, race and school dropout were significantly related to placement (in addition to legal factors). In other words, every stage of the juvenile justice system was influenced by different factors in different ways, with extralegal factors most influential at the most loosely coupled stage: intake.
officials. And each set of officials involved in the legal decision making of juveniles is touched by its own particular agency's organizational concerns and interests in pursuit of the stated best interests of juveniles and justice. Thus the negotiated order of juvenile justice and its subsystems of juvenile justice like criminals may be viewed as producing loosely coupled systems of justice.

While Bishop and colleagues (2010) were largely guided by focal concerns theory and applied this organizational framework to case-level factors (i.e., assessing individual-level discrimination), it could also be employed to examine differential impact of contextual factors on different stages of juvenile court processing. The contextual theoretical frameworks outlined above—intended to answer the “why” and “how” questions of juvenile justice outcomes—can be applied to various stages of the juvenile justice system (the “where” question). As noted in chapter 2, there are a variety of important points of contact in the juvenile justice system before judicial disposition, including arrest, referral, detention, formal petition of delinquency, and waiver to adult court. Engen and colleagues (2002: 195) refer to the “structural-processal” perspective as a theoretical orientation emphasizing that “the effects of race may be greater at some stages of the process than others.” In the following section, the contextual theoretical perspectives above will be applied to the issue of disproportionate minority contact.

Theoretical Frameworks for Disproportionate Minority Context in Juvenile Justice

52 This general point is not unique to juvenile justice but applies to criminal justice research as well. As Mears and colleagues (2016: 83) observe, “by focusing on only one outcome, [studies] miss how decisions at each processing point interact with decisions at other processing points to affect such end outcomes as conviction or the likelihood of receiving the death penalty or a prison term. Estimates from studies that focus on one processing decision thus provide a distorted assessment of the prevalence of unfair decision making against minorities throughout the criminal justice system.”
As noted briefly in the introduction, Walker, Spohn, and DeLone (2007) put forward a “Discrimination-Disparity Continuum” to categorize the different possible explanations for racial disparities in the criminal justice system (applied to juvenile justice by Freiburger and Jordan, 2016). On one end of the spectrum is “pure justice,” the idea that all defendants receive equal treatment that is not conditioned by race or ethnicity at any point (i.e., no discrimination). This would represent the purest expression of consensus theory, the other dominant sociopolitical perspective. At the other end of the spectrum is “systematic discrimination,” the idea that there is an all-pervasive discrimination against minority juvenile defendants at every stage of the system, across all jurisdictions. This would represent the purest expression of conflict theory.

Between these extreme possibilities are less systematic forms of racial/ethnic discrimination informed by organizational insights about the complexity of criminal and juvenile justice: (1) individualized discrimination—discrimination at certain decision points by certain actors, but not others (e.g., discriminatory treatment by arresting police officers but purely legal treatment by prosecutors and judges)—(2) institutional discrimination—discrimination masked by legal or organizational factors that are prima facie non-discriminatory (e.g., drug law enforcement)—and (3) contextual discrimination (discrimination conditioned by contextual factors, such as higher urbanism, poverty, or crime rates). While most research in the juvenile justice system has focused on individual discrimination (see Bishop and Leiber, 2012), more recent research efforts have begun to explore ways that race effects may interact with other case-

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53 Just as theory is not as developed in criminal justice compared to criminology (see Kraska, 2006), Freiburger and Jordan (2016: 218) observe that theory is not as well developed for juvenile justice compared to juvenile delinquency: “Theory plays an important role in understanding how race and ethnicity are linked to juvenile justice decision-making. . . . [D]elinquency theories (i.e., why youth engage in crime) are well developed. We understand the context in which delinquency is more likely to occur, in terms of neighborhoods, delinquent friends, environment, school, and other factors. However, we understand very little about the decision-makers in the system, from police officers to judges. A heavy focus of research in this area is thus needed.”

54 Racial disparities would reflect differences outside the system (such as differential involvement in crime) rather than disparities caused by the system (see Mears et al., 2016a; Wilbanks, 1987).
level variables (i.e., institutional discrimination) as well as with contextual variables (i.e., contextual discrimination) (Freiburger and Jordan, 2016).  

Contextual discrimination hypotheses will involve complex interactions between case-level variables—race and ethnicity—and contextual variables involving sociopolitical and organizational context, the dominant theoretical perspectives discussed above. Notably, contextual discrimination may differ across decisions points in a loosely coupled system, so contextual or institutional discrimination may be present at some individual stages, but not be systematic. Moreover, since juvenile justice actors have more discretion due to the *parens patriae* orientation of the juvenile justice system, we might expect even greater variation across community contexts (compared to criminal justice) and thus even greater potential for contextual discrimination. Two guiding perspectives for investigating the contextual discrimination hypothesis are sociopolitical—community threat hypotheses—and organizational—the political economy of the juvenile court.

*Community threat hypotheses*

Community threat perspectives predict greater DMC in communities with larger minority populations, greater poverty, or other structural threats (see Tittle and Curran, 1988). Blalock (1967) is often credited with first suggesting a social conflict perspective known as the minority presence perspective.  

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55 Absent differential treatment by individual court actors (such as judges), the “disparate impact” perspective focuses on the racial disparities created by seemingly neutral policies or laws (e.g., disparate impact of drug laws; see Provine, 2007; Tonry, 1995, 2011; Tonry and Melewski, 2015). To the extent that these policies or laws are enacted in order to control threatening populations, this is consistent with a conflict theory explanation of DMC, although it would serve as an example of “institutional discrimination” rather than “contextual discrimination.”

56 Worden (2007) presents three dominant theoretical perspectives on courts and communities (each informed by a different academic discipline) as representational theory (informed by political science), conflict theory (informed by sociology), and local courtroom workgroup theory (informed by organizational scientists).

57 Conflict theory may also predict less social control in areas that are heavily populated by these disadvantaged groups, what Liska and Chamlin (1984: 384) call “benign neglect.” As a result, minority threat is often operationalized as a curvilinear relationship between minority presence and punitive outcomes, such that outcomes become more punitive as the minority presence increases up to a point, at which social control actually decreases.
threat hypothesis. This original formulation predicts that as a racial or ethnic minority group grows relative to the dominant group, those in power may begin to feel threatened and discriminate against the minority group (in order to maintain power). Specifically, Blalock (1967) suggested that a growing minority population might threaten the dominant group primarily as an economic threat or a political threat. While Blalock (1967) did not explicitly address discrimination within the criminal justice system, others have extended the hypothesis (see, e.g., Liska, 1992; Liska and Chamlin, 1984; Sampson and Laub, 1993; Tittle and Curran, 1988). In the criminal justice system context, Liska (1992: 165) posited a general social threat perspective—“the greater the number of acts and people threatening to the interests of the powerful, the greater the level of crime control”—that can include the symbolic threat of a growing minority population. In the juvenile justice context, Tittle and Curran (1988: 32) observed, “differential sanctioning of members of a minority or other group within a given political jurisdiction should reflect the degree of threat that particular minority or group constitutes for elites in that area.”

At their core, these different formulations of the minority threat perspective present a contextual explanation of racial discrimination firmly founded in the conflict theoretical tradition (in contrast to case-level explanations of discrimination based in labeling theory, such as causal attribution and focal concerns theory; see, e.g., Albonetti, 1991; Hawkins, 1981; Steffensmeier, 1980; Ulmer, 1997). In the context of juvenile justice, it is predicted that a larger minority population will cause juvenile justice system actors to exert greater social control in the form of more punitive treatment of defendants, especially minority defendants.

Minority threat has subsequently become one of the most frequently tested macro-social theories in criminal and juvenile justice, evaluating the prediction that minority percentage in the
population will be associated with more punitive treatment for minority defendants, which is most often tested in terms of more severe sentencing outcomes. Although the majority of this research tests the *racial* threat hypothesis (i.e., examining black population size), the same strategy has also been employed more recently to examine the *ethnic* threat hypothesis—examining Hispanic population size (see, e.g., Caravelis, Chiricos, and Bales, 2011, 2013; Feldmeyer and Ulmer, 2012; Feldmeyer et al., 2015; Wang and Mears, 2015).

While minority threat is the most often examined community threat explanation for racial disparities in juvenile justice, other community threats have also emerged in extant research. Most similar to minority threat is the “economic threat” perspective, which poses the same basic conflict hypothesis but for socioeconomic class rather than race/ethnicity. The economic threat hypothesis posits that economically disadvantaged communities are perceived as more threatening by court actors and that this translates into harsher sentencing as a form of social control (Britt, 2000; see also Rodriguez, 2010, 2013). For example, Sampson and Laub’s (1993: 306) contextual theory of urban inequality is influenced by the minority threat perspective described above, but adds specific focus on concentrated disadvantage: Their theory posits that “underclass Black males are viewed as a threatening group to middle-class populations and thus will be subjected to increased formal social control by the juvenile justice system.” A third community threat hypothesis is crime threat, which posits that community elites will perceive higher community crime rates as threatening to the status quo and respond with more punitive treatment of all defendants, or certain types of defendant assumed to be more involved in crime (i.e., racial/ethnic minority defendants) (see Britt, 2000).

There is some ambiguity with interpreting community threats, however. Findings of a positive relationship between more punitive court and community threats are all equally
compatible with a social disorganization perspective (see Chamlin and Cochran, 2000). Specifically, a larger minority presence is associated with increased social disorganization and greater need for formal social control. For this reason, the community threat should be associated with greater racial/ethnic disparities in outcomes (i.e., cross-level interaction effects), rather than only direct effects (see Zane, 2017). Further, controlling for social disorganization indicators—such as ethnic heterogeneity, residential mobility, and poverty—can help to further pinpoint the role of community threat versus social disorganization (see Sampson and Groves, 1989).

**The political economy of the juvenile court**

Racial disparities can also be examined from a contextual approach that takes a consensus or organizational perspective, rather than the conflict perspective assumed by community threat hypotheses. Organizational theorists tend to focus on variables specific to the local culture of the court, what Worden (2007) refers to as “workgroup theory.” Typically, such approaches involve organizational variables that involve either court structure—including staffing, caseload, resources, and role specialization or routinization (e.g., bureaucratic structure)—and local legal culture—including substantive (political or ideological) norms, procedural norms, case delay norms, and norms about criminal behavior (Worden, 2007: 207).

One such organizational theory of juvenile justice processing is proposed by Hasenfeld and Cheung (1985: 803), who apply a political economy organizational framework (originally from Wamsley and Zald, 1976) to the juvenile court: “a political economy perspective . . . is

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58 For example, some conflict theorists have argued that the juvenile court was created of an elite group of child-saving women who wanted to control the conduct of lower class youth and stave off potential revolutionary movement (i.e., Marxist revolution of the lower classes) (Singer, 1996). As Singer (1996: 16) argues, however, “the idea that juvenile justice was created exclusively on the grounds of class ignores other internal interests that are more often related to the concerns of those in existing child-care bureaucracies.” That is, conflict interpretations tend to ignore important organizational factors. A more realistic picture of the juvenile and criminal justice systems is as a “negotiated order of justice in which bureaucratic interests emerge to produce systems of justice that are not centered around any singular objective” (Singer, 1996: 17).
particularly suitable for the study of organizational determinants of people processing. It can be shown that patterns of people processing are shaped by the conditions that affect the mobilization of power, legitimation, and economic resources by the organization, as well as by their internal allocation.” Hasenfeld and Cheung (1985) focus specifically on the decision for judicial versus nonjudicial handling of a case (what they call regulation of input) and the judicial disposition (what they call regulation of output), but their framework can be applied to other decision points as well.59

According to this framework, the juvenile court is a “people-processing organization” that is influenced by four sets of structural variables: the external polity, the external economy, the internal polity, and the internal economy (Hasenfeld and Cheung, 1985: 805).60 The external polity “refers to the exchanges between the organization and external units ‘for control over legitimation, resource base, goal definitions, and the channels for exertion of influence’” (Hasenfeld and Cheung, 1985: 805). For the juvenile court, Hasenfeld and Cheung (1985) predict that juvenile court outcomes would vary according to the prestige and legitimation of the juvenile court (operationalized as whether cases are appealed to a higher trial court or directly to an appellate court), and whether judges are elected or appointed (i.e., how political context may...

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59 This approach is similar to general systems theory, which also focuses on the regulation of inputs and outputs of a given system (Bernard, Paoline, and Pare, 2005).

60 The authors predict that the external political economy will be more influential than the internal political economy of the court.
influence judges). Specifically, elected judges should be more likely to divert cases to informal processing as well as more likely to commit youth.

The second structural factor, external economy, “refers to conditions which affect the supply of resources to the court the demand for its services” (Hasenfeld and Cheung, 1985: 805). This involves the economic resources available to the court, which should be expected to influence how courts elect to process cases. The economic status of the surrounding community and the volume and seriousness of cases would both be expected to influence court outcomes. Specifically, the authors predicted that wealthier communities will have lower judicial handling rates and lower commitment rates due to having more court resources available for informal processing (i.e., diversion) and greater outside resources for treatment options (i.e., parents who can afford non-punitive treatment for referred youth).

The authors also propose that the internal political economy of the juvenile court will influences outcomes. The third structural factor, the internal polity, “refers to the internal

61 There is some historical evidence that elected state judiciaries acted differently than appointed judges, specifically exercising more power than judges appointed by the legislature (Stuntz, 2011: 301).
62 Hasenfeld and Cheung (1985: 807) state: “Clearly, when the judges are elected they must establish their legitimacy in the community both through responsiveness to diverse constituencies and by elevating the importance of the court in the local youth service network. Emphasis on nonjudicial handling enables elected judges to accomplish such an objective. It provides them with the needed organizational flexibility to attend to the multiple service demands made by various constituencies and to be responsive to the requests made by the various youth service agencies, without the restrictions associated with formal and judicial processing.”
63 Hasenfeld and Cheung (1985: 809) state: “Elected judges will be under greater pressure to demonstrate to the community that they indeed protect it from ‘dangerous’ youth. In contrast to appointed judges, they are more sensitive to the potential reaction of the community, particularly the media and the police, to permitting ‘high-risk’ youth to remain in the community, since they can ill afford to develop a negative reputation. Therefore, we expect that courts with elected judges will have a higher commitment rate than courts with appointed judges.”
64 Hasenfeld and Cheung (1985: 808) state: “[C]ourts in wealthier communities are likely to adopt a more lenient posture toward juvenile offenders. Several factors may account for such a pattern. First, since its inception, the juvenile court was intended to control the normative behavior of youth in accordance with dominant class values. Second, the mandate of the court tends to favor those youth who can mobilize resources reducing the need of the court to assume its parens patriae role.”
65 “Hasenfeld and Cheung (1985: 809) state: “The economic status of the community, as an indirect measure of the overall socioeconomic status of the youth, will affect the commitment rate for the same reasons that it should influence the rate of judicial handling. In particular, the fact that families with higher income can more readily mobilize treatment services for their children diminishes the pressure on the court to commit them to public institutions.”
structure of authority and the dominant elite values and goals” (Hasenfeld and Cheung, 1985: 805). This is the ideology of the juvenile court judge or court staff, including norms about criminal behavior and punishment. Some juvenile court judges can be expected to be more child-focused and rehabilitative (i.e., progressive), while others will be more focused on community safety and punitively oriented (i.e., conservative). The authors predicted that judges with more punitive orientations would have higher rates of judicial handling⁶⁶ as well as higher commitment rates.⁶⁷

Finally, the authors proposed that the internal economy of the juvenile court “refers to the ways the organizational tasks are accomplished and encompasses the production system, the rules governing it, and the resources allocated to it’” (Hasenfeld and Cheung, 1985: 805). This involves the internal structure of the court, including the level of bureaucratization and due process orientation, as well as the available resources. Urbanism can be used as a proxy for this bureaucratization. This echoes Weber’s observation that increasing bureaucratization will create a more rational, formal legal system where “whatever cannot be construed in legal terms is . . . legally irrelevant” (Weber, 1954: 64), but that this bureaucratization may only occur in urban courts. Others have suggested that due to lower informal social control (e.g., collective efficacy) in urban neighborhoods,⁶⁸ urban courts tend to be more tightly coupled, routinized, and due

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⁶⁶ Hasenfeld and Cheung (1985: 808) state: “Therefore, we, too, expect that the personal ideologies of juvenile court judges concerning delinquency and the role of the court should have considerable impact on its operative goals and processing technology. In particular, judges will vary in the extent to which they believe in the community protection or the social rehabilitation functions of the court. Judges upholding a punitive orientation are more likely to direct the court's processing technology to support it. Hence, the stronger the punishment ideology of the judges, the higher the rate of judicial handling.”

⁶⁷ Hasenfeld and Cheung (1985: 808) state: “[J]udges whose image of juvenile delinquency reinforces a punitive orientation will develop decision modalities that encourage commitment.”

⁶⁸ As Feld (1991: 206–207) observed, “Urban courts operate in communities with more disrupted families, more racially heterogeneous populations and less residential stability, all of which provide fewer mechanisms for informal social control.”
process oriented (Feld, 1991; Worden, 2007), especially in the post-*Gault* era. As such, the formal legalism and due process orientation of urban courts should be expected to produce less discretion and lower racial disparities.

A final aspect of the political economy of the court not mentioned in the organizational framework of Hasenfeld and Cheung (1985) is regional variation in punitiveness. Despite the popular conception that the United States is extremely punitive (see, e.g., Garland, 2001), others have found that U.S. criminal justice is not *uniformly* punitive. In a cross-sectional study of all 50 U.S. state criminal justice systems, Kutateladze (2010) found that the South is highly punitive, the Northeast is relatively non-punitive, and the West and Midwest are moderately punitive (Kutateladze, 2010). Differential crime rates and demographic characteristics may explain some of this variation. In his examination of 49 juvenile justice systems, Mears (2006: 482–83) found that “midwestern and western states are considerably more likely to use incarceration than southern states, net of symbolic threat levels and crime and adult incarceration rates. The possibility thus arises that perhaps southern states have been unfairly portrayed as adopting harsher responses toward juvenile offenders when, controlling for such factors as crime, they actually may employ less harsh sanctioning practices” (see also see Blackmon, Cain, and Livermore, 2015; Greenberg and West, 2001). Stuntz (2011) has traced these regional

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69 As Feld (1991, 1999) suggests, urbanization could be considered from an organizational perspective in light of *In Re Gault*, 387 U.S. 1 (1967), where the Supreme Court of the United States first extended some basic due process protections to defendants in juvenile court. It has been suggested that urban courts place more emphasis on due process rights (reflecting a “post-Gault” organizational approach) while rural courts place more emphasis on individualized consideration of the child’s needs (reflecting a “pre-Gault” organizational approach).

70 As Zimring (2014) observes, there may be important tradeoffs involved. While more formal treatment may lessen racial disparities, it may also increase the absolute number of juveniles (or all race and ethnicities) who are formally processed. If more minority youth are arrested in the first place, then more formal treatment may actually result in more minority youth in the system—while simultaneously reducing DMC at later stages of processing (i.e., lower RRI).

71 According to Kutateladze (2010), the most punitive state is Florida; the least punitive is Maine.

72 Kansas and Washington, D.C. were omitted due to incomplete data on juvenile incarceration.
differences to the 19th century, when the Northeast, South, and West had very different criminal justice systems and levels of violent crime (highest in the South and lowest in the Northeast).\textsuperscript{73}

\textsuperscript{73} Stuntz (2011) finds that in the late 19th century Northern cities were characterized by large police forces, low homicide rates, and low imprisonment rates, while Southern and Western cities were characterized by small police forces, high homicide rates, and medium-to-high imprisonment rates. These characteristics remained into the 20th century for the North and South, although changed in the West: there, police forces grew and crime rates dropped, while imprisonment rates remained relatively high.
Chapter 4: Literature Review

Most research on DMC within the juvenile justice system focuses on individual stages of processing, most often judicial dispositions. As we have seen, however, the juvenile justice system is made up of a complex, interrelated sequence of decision points with different decision makers “from different offices or agencies driven by different funding sources with varying organizational goals” (Kempf-Leonard, 2007: 80). In order of contact, this includes (with corresponding decision makers in parentheses): arrest and/or referral to juvenile court (police officers, school officials, parents); intake among juvenile referrals (intake officer, often probation); detention among referrals (intake officer, prosecutor, or judge); petition of delinquency among referrals (prosecutor); waiver to criminal court among referrals (prosecutor or judge); adjudication of delinquency among petitioned cases (judge); and final disposition among cases adjudicated delinquent (judge). As explained in chapter 3, we can think of these different stages as “tightly coupled”—driven by the same organizational goals, policies, and interests—or “loosely coupled”—driven by somewhat different (and even possibly conflicting) goals, policies, and interests (see Meyer and Rowam, 1978). Some have argued that we should expect that more formalistic, tightly coupled stages (e.g., adjudication of delinquency) will have less opportunity for discretion and, correspondingly, fewer racial disparities than loosely coupled stages (e.g., arrest, detention) (see Bishop et al., 2010). Moreover, juvenile courts vary across jurisdictions in a variety of important respects, corresponding to differences in state law, organizational structure and culture, and community context.

Given this complexity, research on DMC can employ a variety of strategies. The first (and most popular to date) is to focus on capturing racial and ethnic disparities at individual stages of juvenile court processing, after controlling for legal and extralegal confounding factors.
This may also involve comparison of racial and ethnic disparities at different stages of processing, although this is less common (see, e.g., Bishop et al., 2010). A second strategy is to examine the macro-social context of juvenile court processing at each of its major stages (again, possibly comparing different stages). Third, research can assess the cumulative effects of DMC across different stages of processing. The following sections review the extant literature corresponding to these three research strategies.

DMC at Major Stages of Juvenile Justice Processing

In an earlier review, Pope and colleagues (2002) reported that of 34 research studies (from 1989 to 2001) directly addressing DMC at various stages of juvenile justice processing, the vast majority (n=25) found direct or indirect race effects on juvenile court outcomes. Of the remaining 9 studies, 8 did not report outcomes and only one reported no race effects. They concluded:

Taken together, the research findings support the existence of disparities and potential biases in juvenile justice processing. However, the causes and mechanisms of these disparities are complex. Important contributing factors may include inherent system bias, effects of local policies and practices, and social conditions (such as inequality, family situation, or underemployment) that may place youth at risk. (Pope et al., 2002: 5)

Pope and colleagues (2002) also found no evidence of cumulative disadvantage across stages of processing since disparity actually decreased (rather than increased) from intake to judicial disposition. The following sections review the research on DMC for each major decision point.

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74 Of these 25, 8 studies reported direct or indirect effects while 17 reported mixed results (e.g., significant race effects at some stages but not others).
75 A prior review of 46 studies (before 1989) found a more even split between direct effects (n=18) and no direct effects (n=19), with mixed results (n=9) in smaller proportion (Pope and Feyerherm 1990a, 1990b).
Referral to juvenile court

The largest national disparity in the juvenile justice system is at the point of arrest/referral, where minority youth (especially Black youth) are more likely to be referred for almost all offense categories (Puzzanchera and Hockenberry, 2015).\textsuperscript{76} Consistent with this descriptive data, most studies have generally shown that the effect of race on arrest remains significant after controlling for legal factors (see, e.g., Sealock and Simpson, 1999),\textsuperscript{77} although more research has examined arrest disparities in the criminal than the juvenile justice system. A recent systematic review and meta-analysis concluded that Black and Hispanic individuals (not just juveniles) were more likely to be arrested compared to Whites, consistent across a series of moderators (Lytle, 2014). Race effects persisted even when studies controlled for offense seriousness, leading to the conclusion that “certain types of individuals, Black individuals, males, and Hispanic individuals, are more likely to be arrested all else being equal” (Lytle, 2014: 596).\textsuperscript{78}

Despite this conclusion, research on arrest differences between racial groups faces the unique obstacle of what direct race effects mean at this particular stage: while it could show biased decision-making by police officers, it could also evidence differential involvement in criminal behavior by minority groups. Prima facie, there is no obvious way to distinguish between these two possibilities. Lytle (2014: 596) notes the difficulty of studying arrest

\textsuperscript{76} Unlike the criminal justice system, arrest by police officer is not the only form of referral (school officials and parents, e.g., can also refer a youth to the juvenile court). As such, focusing only on police referrals may be incomplete. For example, D’Angelo, Brown, and Strozewski (2012) found that dispositional outcomes were related to the source of referral (school, social services, juvenile court personnel, family, and law enforcement). They found that race predicted the most severe disposition, out-of-home placement, for all referral types except law enforcement. In that study, law enforcement was responsible for 56.8\% of the referrals to the juvenile justice system, with social services responsible for the second most referrals (18 \%).

\textsuperscript{77} One exception is Pope and Snyder (2003), which found that offender race did not significantly predict arrest among a sample of violent juvenile offenders (but did find that victim race was significant in predicting arrests: non-White victims were significantly less likely to produce an arrest, especially for non-White offenders).

\textsuperscript{78} An added complexity is the relationship between racial disparity in arrests and the race of the arresting officer. Some research has found that White officers are more likely to make arrests than Black officers for both juvenile (Brown, Novak, and Frank, 2009) and adult suspects (Brown and Frank, 2006).
disparities since arrest could be “a proxy measure of criminal behavior generally.” At a minimum, showing that arrest disparities are due to differential offending requires comparing arrested and non-arrested suspects in police encounters. An early example of this approach found that police were more likely to divert or release White youth after initial contact (Wordes and Bynum, 1995). More recently, Ericson and Eckberg (2016) also found that non-White youth were significantly less likely to be diverted by police after initial contact.\(^7\)

Despite being the largest national point of disparity, juvenile arrest is also the most difficult to study. Others have observed that establishing whether arrest differentials are due to racial bias of police officers or differential offending behavior is nearly impossible without direct observation: “If minority youths are more often arrested in situations where similar White youths are released or handled informally, these differentials will be almost impossible to detect.” (Bishop and Leiber, 2012: 458).\(^8\) A related matter is that scholars disagree about whether arrest data, victimization data, or self-reported delinquency surveys most accurately measure true offending behaviors (for comparison to arrest disparities). Some have argued that since self-reports of offending evidence fewer disparities compared to arrest data, police decision-making must be racially biased (see, e.g., Walker, Spohn, and DeLone, 2007). Other research suggests that there is moderate agreement between self-reported offending and official arrests, and differences are not significantly related to race—suggesting instead that differential offending

\(^7\) Brown and colleagues (2009) also examined police encounters with juveniles and adults, finding that while Black adult suspects were significantly more likely to be arrested than non-Black suspects, this relationship did not hold for juveniles.

\(^8\) Others reach this same conclusion: “it is virtually impossible really to know whether youths’ behavior or police officers’ behavior have the greater effect on initial disparities. For both groups, behaviors are not always directly observable, and concerns about validity of offense measures exist for both self-report surveys and police data” (Kempf-Leonard, 2007: 80–81).
accounts for differential arrests (Piquero and Brame, 2008; Piquero, Schubert, and Brame, 2014).\textsuperscript{81}

The most promising approach using these data sources\textsuperscript{82} involves controlling for offending as measured by self-reports. In their study of racial disparities at arrest and referral at in Pittsburgh, PA, Rochester, NY, and Seattle, WA, Huizinga and colleagues (2007) found that Black youth were significantly more likely to be arrested in all three cities after controlling for self-reporting offending. They also found that a composite criminogenic risk factor (made up of socioeconomic, family structure, parenting, individual, and neighborhood deficits) was even more strongly related to arrest than race, explaining much of the race effect. They concluded that police contact was due to either racial bias or differential detection of at-risk groups, but not due to differential levels of offending. A more recent study also found that racial minority status, gang membership, and their interaction all significantly increased the rate of arrest, even after controlling for self-reported delinquency (Tapia, 2011a; see also Tapia, 2010, 2011b). Most recently, Andersen (2015) examined racial disparities in arrest net of self-reported delinquency, finding that Black youth were still significantly more likely to be arrested than White youth.\textsuperscript{83}

\textsuperscript{81} A recent examination of the Uniform Crime Reports (UCR) and National Crime Victimization Survey (NCVS) has also found that from 1973 to 2008 the two crime measures were converging (Ansari and He, 2015).

\textsuperscript{82} Another approach is to employ qualitative methods. In one recent example, Feinstein (2015) conducted interviews with male juvenile delinquent in correctional facilities and found that minority youth reported fewer chances being given to them, more brutal force used against them, and more repeated arrests by the same officer. Other research indicates that Black youth with a stronger sense of ethnic identity are more likely to perceive police discrimination compared to Black youth with reduced ethnic identity, suggesting that perceptions of bias vary considerably even among minority youth and may not indicate objective discrimination (Lee, Steinberg, and Piquero, 2010). Elsewhere research has demonstrated that when police officers are “racially primed” with subliminal message about race and ethnicity, they reported more negative traits, greater culpability, and endorsed harsher punishments for racially ambiguous juvenile delinquents compared to a neutral condition (Graham and Lowery, 2004). However, this was not moderated by conscious attitudes about Black youth, suggesting unconscious stereotypes.

\textsuperscript{83} Elsewhere, Beaver and colleagues (2013) found that race was not associated with self-reported arrests when controls for self-reported lifetime violence and verbal IQ were included. The authors concluded that arrests were an accurate proxy for offending and suggested that studies of racial disparities that did not include measures for self-reported offending and verbal IQ were likely miss-specified.
At intake, juvenile court officials (often probation officers) decide whether to refer youth to court processing, divert them to an informal alternative, or provide outright release. Early research suggested that Black youth were significantly more likely to be formally processed at intake (rather than diverted or dismissed) than White youth (Bishop and Frazier, 1988, 1996), and subsequent research has generally reported some direct race effect at this early stage (see, e.g., Bishop et al., 2010; Leiber and Fox, 2005; Leiber and Peck, 2015; Leiber et al., 2007).\textsuperscript{84} Research also suggests that race effects are stronger at intake than later stages of juvenile court processing (Leiber and Mack, 2003), consistent with the notion that intake is a “loosely coupled” stage with more informal decision-making.\textsuperscript{85}

One consistent finding is minority youth are less likely to receive diversion than outright release (Cochran and Mears, 2015; Leiber and Peck, 2013; Leiber, Peck, and Beaudry-Cyr, 2015; Mears et al., 2014). In fact, compared to diversion to informal alternatives (including treatment), Black youth appear more likely to be formally processed and more likely to be released, although not more likely to be referred than released (Leiber, Brubaker, and Fox, 2009; Leiber and Johnson, 2008; Mears et al., 2014). Leiber and colleagues (2007) similarly found that diversion was more likely for White youth than any other racial or ethnic group (Black, Native American, or Asian youth).\textsuperscript{86} A comparison between formal referral (or petition) and release may

\textsuperscript{84} Nevertheless, some research suggests otherwise. Using a sample of status offenders, Peck, Leiber, and Brubaker (2014) found that race was not significantly related to the intake decision.

\textsuperscript{85} Still, legal variables remain the strongest predictors of intake decisions, where first-time offenders and less serious offenses are most likely to be diverted or dropped regardless of race (Bishop and Leiber, 2012).

\textsuperscript{86} Another more nuanced finding is that Black youth did not receive the same ‘youth discount’ as White youth, where younger juveniles were less likely to be formally processed (Leiber and Johnson, 2008). Generally older offenders receive more formal treatment, with age as a consistent predictor of juvenile processing outcomes. The fact that this ‘youth discount’ may not apply to minorities suggests a “subtle racial bias” (Leiber and Peck, 2013: 351).
thus fail to capture race effects at this stage without also considering diversion (see Cochran and Mears, 2015; Mears et al., 2014).

Like arrest, racial and ethnic disparities at intake do not necessarily evidence overt discrimination. For one, whether parents can be successfully contacted about their child may predict diversion: in many jurisdictions youth are ineligible for diversion if parents cannot be located to retrieve their child (Leiber et al., 2011: 485). Some research indicates that minority families are less likely to comply with such policies due to socioeconomic deficits such as lack of telephone, transportation, and childcare, as well as inability to leave work (Bishop and Leiber, 2012). In addition to initial contact with parents, perception of family environment may play an important role in producing racial disparities. Unlike criminal court, it is considered well within the *parens patriae* mission of the juvenile court to assess the defendant’s family situation in determining the best course for the delinquent youth (Leiber and Peck, 2013). Research consistently shows that “intake decisions to handle cases formally were linked to broken homes, perceptions of inadequate parental supervision, and perceptions of parental unwillingness to work with court personnel. On all three dimensions, youth of color fared less well” (Bishop and Leiber, 2012: 464). Some research also suggests that juvenile justice officials perceive admission of guilt as a sign of remorse and receptivity to treatment, and White youth admit guilt more often than Black youth (perhaps due to historical differential treatment) (Bishop and Leiber, 2012). Since research indicates that Black youth are less trusting of juvenile justice

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87 Some view this as a means to “rationalize extensions of control over minorities and the poor,” but others point out that family dysfunction is a major risk factor for delinquency and proper concern of the juvenile court once a juvenile offender has engaged in delinquency (Bishop and Leiber, 2012: 464). If minority families are more likely to suffer from these dysfunctions, then minority juvenile defendants are more likely to be processed. It is no easy task to adjudicate between these conflicting interpretations.
officials, it is not clear that admission of guilt is a good proxy for amenability to treatment (Brick et al., 2009; Wu, Lake, and Cao, 2015).

**Pre-adjudication detention**

Pre-adjudication detention involves the decision, most often by the juvenile court judge (at a hearing within 24 hours of arrest) to confine a juvenile suspect prior to formal adjudication. Unlike adults, detention for juveniles is not just a matter of being a flight risk (or financial ability to pay bail), but also a preventative measure (e.g., unsafe home environment for the juvenile). The standards for “preventative detention” can be vague or informal, and the subjective decision-making at this loosely coupled stage appears to produce considerable racial disparity (Bishop and Leiber, 2012). Studies have consistently found that minority youth are more likely to be detained than White youth even after controlling for legal factors (see, e.g., Guevara, Herz, and Spohn, 2006; Guevara, Boyd, Taylor, and Brown, 2011; Leiber, 2013; Leiber et al., 2009; Leiber and Fox, 2005; McCoy, Walker, and Rodney, 2012; Thomas, Moak, and Walker, 2013; Wu, Cernkovich, and Dunn, 1997).

Still, the finding of direct race effect is not universal. Some studies have found that White youth are significantly more likely to be detained (Rodriguez, 2007), that there is no significant relationship between race and detention outcome (Maggard, Higgins, and Chappell, 2013), or that the effect of race on detention varies across jurisdictions (Leiber and Boggess, 2012). It has been suggested that these less common findings may present a “correction effect” whereby some juvenile justice officials compensate for discriminatory arrest policies (resulting in minority overrepresentation) by treating minority youth more leniently (Rodriguez, 2007).

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88 Maggard and colleagues (2013) found no race effects in a jurisdiction that had implemented DMC-reduction strategies for secure detention through a program called the Juvenile Detention Alternative Initiative (JDAI). As such, the absence of race effects could evidence that reduction efforts have been successful.
In addition to direct effects, there is also the possibility for indirect effects. Similar to the intake decision, decisions to detain can be linked to judgments about parental control and supervision, and can also target drug offenders and gang members (both of which are associated with minority status; Bishop and Leiber, 2012). Detention may also influence later dispositional outcomes, causing cumulative disadvantage (Leiber and Peck, 2013). Rodriguez (2010) found that in addition to differential treatment at the detention stage, youth who were detained pre-adjudication were more likely to have formal charges filed, less likely to have dismissals, and more likely to receive an out-of-placement at disposition. Similarly, Wu and Fuentes (1998) found that being detained made adjudication of delinquency and out-of-home placement more likely—a larger effect than offense severity or prior record.

In the criminal justice context, Wooldredge and colleagues (2015) recently decomposed race effects into direct effects—the relationship between race, pretrial detention, and sentencing outcomes, controlling for other variables—and indirect effects—the relationship between race and those outcomes via mediating variables associated with cumulative disadvantage: bond amount, pretrial detention, prior prison sentence, and type of attorney (Wooldredge et al., 2015). For pretrial detention, both direct and indirect effects were significant, but indirect effects contributed much more to the total effect of race, operating through hired private attorney (less likely for Black defendants) and prior record (more likely for Black defendants). Specifically, the authors concluded that the increased odds of pretrial detention for Black defendants was 75% due to indirect effects and 25% due to direct effects (Wooldredge et al., 2015: 215). Further, while there was a significant total effect on prison sentence, there was no significant direct effect of race on prison sentence. Instead, a significant indirect effect of race appeared to be operating through hired private counsel (less likely for Black defendants), prior record (more likely for
Black defendants), and pretrial detention (more likely for Black defendants). Disparities at the detention stage may thus create a cumulative disadvantage for minority youth (Rodriguez, 2010). It is likely that pretrial detention is associated with more severe dispositions for legitimate reasons not related to racial bias—a signal of dangerousness, for example—creating an indirect race effect at later stages (Kempf-Leonard, 2007: 81).

**Petition of delinquency**

Formal charging of youth and referral to court for adjudication by the prosecutor—the petition stage—represents a less studied decision point. While early research suggested that Black youth were more likely to be formally petitioned to court (Bishop and Frazier, 1988, 1996), subsequent research has been mixed on whether differential treatment occurs at the petition stage (see Bishop and Leiber, 2012). While some research has found that non-White youth are significantly more likely to be petitioned than White youth (see, e.g., MacDonald and Chesney-Lind, 2001), others have found that minorities are actually treated more leniently at the petition stage (Leiber and Jamieson, 1995), and others have found no significant relationship (Leiber, Brubaker, and Fox, 2009). Most recently, Freiburger and Jordan (2011) used multilevel analysis to assess the relationship between petition and race, finding no significant race effects on the decision to petition. Consistent with other research, they also found that legal factors had the strongest effect on likelihood of petition—suggesting a more legalistic decision-making stage.

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89 Spohn and colleagues (2014) also employed mediation models to estimate the indirect effects of drug use on sentence length through pretrial detention, including moderated mediation models to assess whether the indirect effects varied by type of drug or offense.

90 One study found that detention creates greater disadvantage at later stages for White youth who are detained compared to minority youth, contradicting the cumulative disadvantage hypothesis (Leiber and Fox, 2005).
**Adjudication of delinquency**

Early research on adjudication of delinquency—the juvenile court equivalent of a criminal trial—revealed an interesting finding: minority youth were significantly less likely to be adjudicated delinquent compared to White youth—even after controlling for legal factors (Wu et al., 1997). This finding has been replicated by subsequent research (see, e.g., Leiber and Peck, 2015; Secret and Johnson, 1997; Thomas et al., 2013; Wu and Fuentes, 1998). As Bishop and Leiber (2012: 466) observe: “Contrary to the results at virtually every other decision point, the most common finding is that, after controlling for offense and prior record, Whites are considerably more likely than minority youths to be adjudicated delinquent.”

While consistent with national descriptive data showing that black youth are less likely to be adjudicated delinquency (RRI = .9; Puzzanchera and Hockenberry, 2017), this remains an odd finding that scholars have struggled to explain. One possible explanation is a conscious “correction effect” by judges who see minority overrepresentation at earlier stages of processing such as arrest or petition (see Leiber, 2013; Leiber and Peck, 2013; Rodriguez, 2007). A related explanation is a selection effect: if the screening of White and Black youth prior to adjudication represents differential treatment such that Black youth are arrested or petitioned for less crimes (or with weaker evidence), then White youth at the adjudication stage may be systematically worse offenders. In either case, differential treatment at earlier stages would explain the unexpected adjudication effect.

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91 There are a few exceptions in the literature. MacDonald and Chesney-Lind (2001) found that native Hawaiians were more likely to be adjudicated delinquency than White youth, while Peck (2014) found that Hispanic (but not Black) youth were significantly more likely to be adjudicated delinquent than White youth. Others have found no significant relationship (Leiber et al., 2009; Leiber et al., 2007).
Judicial disposition

Early research focused mostly on the disposition stage because it is the juvenile court equivalent of criminal sentencing, the subject of a vast body of literature (see, e.g., Mitchell, 2005). These early studies suggested that Black youth were treated more punitively at disposition (Bishop and Frazier, 1988, 1996), but subsequent research has been more mixed. While some recent studies also show direct race effects at disposition (see, e.g., Leiber et al., 2015, Rodriguez, 2010, 2013, Rodriguez, Smith, and Zatz, 2009), others have failed to find a direct relationship between race and the most severe disposition, out-of-home placement (see, e.g., Cauffman et al., 2007, Guevara et al., 2011, Wu and Fuentes, 1998, Wu et al., 1997, Mears et al. 2014), and some have actually found that Black youth received more lenient dispositions compared to White youth (Bishop et al., 2010; Leiber, 2013; Leiber and Fox, 2005; Leiber et al., 2009). Additionally, legal factors remain the strongest and most consistent predictors of dispositional outcomes across studies, suggesting that judges care most about community protection and potential for treatment (Bishop and Leiber, 2012).

Even if minority youth do not systematically receive more punitive dispositions, another important finding is that minority youth are less likely to receive community dispositions such as probation. Similar to the lower likelihood of informal treatment at the intake stage (i.e.,

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92 On this note, a recent study used longitudinal methods to follow a cohort through up to six referrals over time (from N=8,325 to N=1,738). Findings indicated that extralegal factors such as race played a larger role at first referral than future referrals—which were almost completely determined by legal factors (Caudill et al., 2013). The authors suggested that race effects in cross-sectional research might be the result of legal factors (like prior referrals) that are not fully captured in non-longitudinal data.

93 Still, because it is the final stage of processing, “it is clear that much of the effect of race is indirect and hidden due to selection effects” (Bishop and Leiber, 2012: 472). As noted above, one of the clearest selection effects involves pretrial detention: “minority youths are considerably more likely than legally similar Whites to be detained, and detainees receive more intrusive dispositions” (Bishop and Leiber, 2012: 472).

94 Smith and colleagues (2009) found that Black youth were significantly more likely to have noncompliance with community supervision documented. Whether this was due to actual noncompliance or to racial bias by probation officers could not be determined, however.
diversion) for Black youth, recent studies have found outright dismissal was more likely than community disposition such as diversion or probation (Cochran and Mears, 2015; Mears et al., 2014). It may be that while minority youth do not always receive more punitive dispositions (because many are released), they do receive an exclusionary response—commitment—rather than an inclusionary, community response—probation. Similar findings indicate that among youth sent to treatment facilities, Black youth are more likely to be sent to physical regimens (such as boot camp or wilderness programs), while White youth are more likely to be sent to therapeutic programs (Fader, Kurlychek, and Morgan, 2014).

*Waiver to adult court*

National data illustrate that minority youth, and especially Black youth, are more likely to be transferred to criminal court than white juvenile defendants (Puzzanchera and Hockenberry, 2017). Some have gone so far as to claim that there is a “dual system of juvenile justice in which minority youths are punished . . . and majority youths are rehabilitated.” (Tatum, 2003: 163).

Support for this “dual system” hypothesis is lacking, however. Despite waiver being a point of large racial disparity in national data, scholarly research is mixed on whether race directly influences the transfer decision. While several studies have found that minority youth are more likely to be transferred to adult court after controlling for relevant legal variables (e.g., Brown and Sorenson, 2013; Moore and Padavic, 2010), more studies have found no significant effects (e.g., Cauffman et al., 2007; Cooper and Urban, 2012; Jordan and Myers, 2007; Mears

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95 This finding may not hold across gender. Using a sample of delinquent girls, Moore and Padavic (2010) found that Black girls were more likely than White girls to receive probation, commitment, and transfer compared to dismissal.

96 Similarly, Dalton and colleagues (2009) found that White youth had better access to mental health services in secure placement compared to Black youth, even after controlling for the fact that White youth also had more extensive mental health histories.
and Fields, 2000; Mears et al., 2014; Podkopacz and Feld, 1996; Poulos and Orchowsky, 1994). Most recently, a systematic review and meta-analysis found a small positive but nonsignificant effect of race on the transfer decision, due largely to heterogeneity in effects across the 20 included studies (Zane, Welsh, and Drakulich, 2016).

Macro-Social Context of the Juvenile Court

Almost 30 thirty years ago, Barry Feld (1991: 208) made an important observation about juvenile justice research:

Studies which analyze and interpret aggregated data without accounting for contextual and structural characteristics may systematically mislead and obscure, rather than clarify.

Both theoretically and operationally, it is necessary to refine the relationships between social structure and justice administration.

Others have referred to this as “justice by geography” since the same individual cases may be treated differently across different community contexts—due to legal or extralegal differences (Bray, Sample, and Kempf-Leonard, 2005). For decades scholars have emphasized the importance of considering macro-social context, but empirical tests of contextual effects have been limited. Specifically, the idea that juvenile justice outcomes vary across juvenile court jurisdictions has only been subject to empirical testing using multilevel modeling in the past decade or so (Bray et al., 2005). This statistical approach “allows a fuller understanding of the contextual issues that accompany DMC in a particular jurisdiction” by treating individual cases as nested within macro-social units such as courts or counties (Nellis and Richardson, 2010: 273).
While research has begun to address these important macro-social questions through increasingly sophisticated analyses that control for many extraneous influences, this research base is dwarfed by similar research in the criminal justice context (Bishop and Leiber, 2010). Moreover, juvenile court outcomes are more likely to be affected by social context due to the more informal nature of the juvenile court and the greater discretion of juvenile court actors (see Freiburger and Jordan, 2016; see also Sampson and Laub, 1993). The following subsections present a summary of extant multilevel research on juvenile justice outcomes and contextual factors that may influence variation in outcomes across macro-social units.

**Minority threat**

The earliest macro-level theory to be applied to racial disparity in juvenile justice processing is the minority threat hypothesis. Drawing on conflict theory, this hypothesis posits that minorities are subjected to greater social control because they are perceived as a threat to those in power. Minority threat has subsequently become one of the most frequently tested macro-social theories in criminology and criminal justice. Although the majority of extant minority threat literature has tested racial and ethnic threat in the context of criminal sentencing, it also represents the most tested contextual factor in juvenile court processing.

In an early macro-level study, Sampson and Laub (1993) found that measures of racial inequality and underclass poverty were significantly related to juvenile justice outcomes—especially secure detention and out-of-home placements—supporting their ‘symbolic threat’ hypothesis. Additionally, these contextual factors interacted significantly with race and gender, suggesting “that underclass Black males are viewed as a threatening group to middle-class populations and thus will be subjected to increased formal social control by the juvenile justice system” (Sampson and Laub, 1993: 306). Other early research also found significant
relationships between racial/ethnic contextual characteristics and juvenile justice outcomes (Leiber and Jamieson, 1995; Tittle and Curran, 1988; but see Frazier, Bishop, and Henretta, 1992). However, a major limitation of this research is that it did not employ multilevel modeling to capture the nested, hierarchical nature of the data (i.e., cases nested within courts).97

More recent multilevel research provides mixed support for the minority threat hypothesis. Thomas and colleagues (2013) found a significant and positive cross-level interaction between racial income inequality and race (in contrast to “percentage Black,” which was not significantly related to court outcomes). The authors concluded that this supported a symbolic threat perspective: race-based economic inequality “fosters the perpetuation of negative stereotypes and perceptions that Blacks are a threat to middle-class norms, attitudes, values, and standards” (Thomas et al., 2013: 257). Elsewhere, Armstrong and Rodriguez (2005) examined 65 counties in a Northeastern state and found that counties with higher percentage minority populations were more likely to detain juvenile delinquents (but racial income inequality was not related to outcomes). Despite finding no direct relationship between racial threat measures and likelihood of formal petition, Freiburger and Jordan (2011: 196) found a significant interaction between race and poverty, such that Black youth sentenced in counties with higher poverty rates

97 This is a substantial limitation since we should expect that regression models that do not control for the nested nature of multilevel data will underestimate standard errors as well as overestimate degrees of freedom and statistical power. As a result, they will likely commit Type I errors:

Because one of the assumptions of ordinary regression models is that residual errors are independent, such systematic clustering would violate this core model assumption. The consequence of this violation is that standard errors will be underestimated by the ordinary regression model. Statistical significance tests will therefore be too liberal, risking Type I inferential errors in which the null hypothesis is falsely rejected even when true in the population. Multilevel statistical models are needed to account for statistical dependencies that occur among clusters of hierarchically organized data. A related problem is that statistical significance tests in ordinary regression models utilize the wrong degrees of freedom for ecological predictors in the model. . . . The consequence is that the amount of statistical power available for testing [level-2] predictors will be exaggerated. The number of degrees of freedom for statistical significance tests needs to be adjusted for the number of aggregate units in the data—multilevel models provide these adjustments. (Johnson, 2010: 622–623).
had increased odds of formal petition. Taking a more aggregate approach, Davis and Sorenson (2013b) tested the racial threat hypothesis using state-level data. Using juvenile placement statistics across 38 states, they found that larger Black population (at the state level) was marginally associated with increased racial disparities in placement (but did not explain away variation in individual-level racial disparities).

Other research has found no significant relationship between measures of minority threat and various juvenile court outcomes, including intake (Leiber, Peck, and Rodriguez, 2016), petition (Frazier et al., 1992; Freiburger and Jordan, 2011; Maume, Toth, and Spears, 2006; Peck, 2014), detention (Leiber and Peck, 2014; Thomas et al., 2013), adjudication (Hayes-Smith and Hayes-Smith, 2009; Leiber et al., 2016; Peck, 2014), and placement (Bray et al., 2005; Frazier et al., 1992; Leiber et al., 2016; Peck, 2014).

**Economic threat**

Similar to minority threat, the economic threat hypothesis posits that economically disadvantaged communities are perceived as more threatening by court actors and that this translates into harsher sentencing as a form of social control (Britt, 2000). According to this perspective, higher economic threat—usually measured as poverty, unemployment, economic inequality, or concentrated disadvantage—should be positively associated with harsher juvenile court outcomes. As mentioned above, Sampson and Laub (1993) found that in addition to racial inequality, measures of “underclass” poverty were significantly related to detention and placement outcomes. Some other early research corroborated this association between economic measures and juvenile justice outcomes (e.g., Leiber and Jamieson, 1995), while others found no

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98 Leiber and Peck (2014) use the same sample and analytical models as Peck (2014), but with slightly different dependent variables. For example, Peck (2014) includes adjudication while Leiber and Peck (2014) does not; Leiber and Peck (2014) include detention while Peck (2014) does not.
significant relationship (Frazier et al., 1992). Even within this early research, findings differed across different stages of juvenile justice (see, e.g., Leiber and Jamieson, 1995).

More recent research has employed multilevel modeling to assess the economic threat hypothesis. Several studies have found a significant relationship between contextual economic threat measures and juvenile justice outcomes, such as detention (Rodriguez, 2010) or placement (Rodriguez, 2013). Other research has found no significant relationship between economic measures and juvenile court outcomes such as intake (Leiber et al., 2016; Rodriguez, 2010), petition (Peck, 2014), detention (Leiber and Peck, 2014; Thomas et al., 2013; Rodriguez, 2007, 2010), adjudication (Hayes-Smith and Hayes-Smith, 2009; Leiber et al., 2016; Rodriguez, 2010), and placement (Leiber et al., 2016; Peck, 2014; Rodriguez, 2010). One study found a significant but negative relationship between measures of concentrated disadvantage and petition to juvenile court (Freiburger and Jordan, 2011: 198), such that formal petition was less likely in communities where concentrated disadvantage was higher. The authors suggested “that prosecutors are either correcting for an overpolicing of these youth by not formally petitioning these cases or they are viewing offending as the ‘norm’ for these youth and not petitioning these cases to the juvenile court.”

As noted above, Freiburger and Jordan (2011) found a significant and positive interaction between defendant race and percent in poverty (in surrounding county) in predicting petition outcomes, indicating that the effect of race on petition outcome was moderated by economic threat. Similarly, Thomas and colleagues (2013) found a significant, positive interaction between race and unemployment rate in predicting detention, despite no significant direct relationship between detention and economic context. In each case, the findings suggested that Black defendants in poor neighborhoods were likely to receive more punitive juvenile court outcomes.
compared to White defendants in poor neighborhoods as well as Black defendants in less poor
neighborhoods. Others studies, however, have found no significant interaction between race and
economic threat (Peck, 2014; Rodríguez, 2007, 2013). Nevertheless, most of this research
has not tested cross-level interactions to evaluate what has been referred to as targeted versions
of the economic threat hypothesis (Wang and Mears, 2010a).

Urbanism

Commentators have long observed that courts may differ considerably from urban to suburban
and rural contexts (Feld 1991, 1999). Specifically, Feld (1991) found that racial disparities were
lower in urban courts, consistent with the hypothesis that urban courts are more tightly coupled
and due process oriented. Others, however, have found that Black youth were treated more
harshly in urban courts compared to rural courts, contrary to this hypothesis (see DeJong and
Jackson, 1998). More recently, Guevara and colleagues (2011) found positive and negative
influences on racial disparities. On the one hand, youth processed in urban counties were less
likely to receive probation and more likely to be detained prior to adjudication; on the other
hand, youth in urban courts were also more likely to have charges dismissed compared to youth
in rural courts. This may generally support the notion that urban courts are more formal (less
probation), more due process oriented (more dismissed cases), and act as agents of social control
(more use of detention).

More recent multilevel research has also been mixed. Some research has found a
significant relationship between higher population density (urbanism) and higher likelihood of

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99 Peck (2014) found no cross-level interactions between race/ethnicity and contextual measures, but did find
significant three-way interactions between race, drug offender, and poverty. Leiber and Peck (2014) reached similar
findings for detention outcomes.

100 In addition to finding no interactions between race and economic measures, Rodríguez (2007) did find a
significant but negative interaction between ethnicity (Hispanic defendants) and economic measures.
petition (Peck, 2014; Rodriguez, 2010), detention (Rodriguez, 2010), and placement (Peck, 2014; Rodriguez, 2010). Other research has found a significant association between lower population densities and higher likelihood of adjudication of delinquency (Peck, 2014), while some research has found no significant relationship between urbanism and juvenile court outcomes such as petition (Freiburger and Jordan, 2011), detention (Armstrong and Rodriguez, 2005; Leiber and Peck, 2009; Thomas et al., 2013), adjudication (Rodriguez, 2010), and out-of-home placement (Bray et al., 2005; Rodriguez, 2010).

Other contextual influences

While most macro-social research has focused on minority threat, economic threat, and urbanism, some research has also examined the relationship between juvenile court outcomes and several other contextual variables (occasionally used as control variables in the above analyses). This includes crime levels, region of country, youth population density, residential mobility, ethnic heterogeneity, and political context.

Crime rate has been used as a contextual control variable in many of the above studies examining community threats, with the expectation that higher crime rates would present a crime threat that would be associated with more punitive outcomes. Early research was mixed, with some indicating a significant positive relationship between crime and juvenile court outcomes (see, e.g., Leiber and Jamieson, 1995) and others indicating no relationship (Frazier et al., 1992). Perhaps surprisingly, most recent multilevel research has found no relationship between crime rates and juvenile court outcomes (Armstrong and Rodriguez, 2005; Hayes-Smith and Hayes-Smith, 2009; Leiber et al., 2016; Peck, 2014; Rodriguez, 2007; Thomas et al., 2013).

A few recent multilevel studies have examined additional contextual factors related to community measures of social disorganization, positing that greater social disorganization will
be associated with more punitive outcomes. Some recent research has found that youth population density (an indicator of social disorganization) is negatively associated with formal intake processing (Peck, 2014) and placement (Leiber and Peck, 2014; Peck, 2014), while positively associated with adjudication of delinquency (Leiber and Peck, 2014; Peck, 2014). Leiber and Peck (2014) found no significant relationship between youth population and formal intake processing, but did find a positive relationship between higher residential mobility (another marker of social disorganization) and likelihood of placement outcomes. Elsewhere, Maume and colleagues (2006) found a small but significant positive relationship between formal intake processing and community wealth (median county income), a proxy for juvenile justice system resources. That is, more affluent communities (with more resources) were slightly more likely to process juvenile referrals.

Region of country has also served as a control variable in two recent multilevel studies. In a survey of 172 counties across 17 states, Leiber and Peck (2014) found that petition was significantly less likely in Northeastern counties and more likely in Southern counties (compared to Midwestern counties). Detention, on the other hand, was significantly more likely in the Northeast, while placement was less likely in the South and West. Even more recently, in a study of 37 counties across three states, Leiber, Peck, and Rodriguez (2016) found that formal intake processing was least likely in the Northeast and most likely in the Midwest, adjudication of

\(^{101}\) Peck (2014), however, found no significant association between residential mobility and juvenile court outcomes. Others have suggested that sentencing practices may vary across states due to regional cultures that vary in punitive orientation (see Feld, 1991; Krisberg, Litsky, and Scwartz, 1984; Mears, 2006), including the suggestion that the Deep South in the United States is more punitive (Eason, 2010). Of course, this higher punitive orientation may not be due to a regional culture, but regional differences in poverty, crime, or other important predictors of incarceration.

\(^{102}\) Counties were grouped into Northeast, Midwest, South, and West (with Midwest as reference category).

\(^{103}\) The three states were referred to as Northeast, Midwest, and Southwest (with Southwest as reference category).
delinquency was most likely in the Northeast, and out-of-home placement was most likely in the Midwest.

Finally, several other contextual factors have been assessed in the criminal justice context but have not yet been evaluated with respect to juvenile justice outcomes. For present purposes, the most important are ethnic heterogeneity (e.g., Britt, 2000; Fearn, 2005), political context (e.g., Carmichael, 2010; Hagan, 2010; Jacobs and Carmichael, 2001; Jacobs and Helms, 1996), and judicial selection (e.g., Carmichael, 2010; Hasenfeld and Cheung, 1985). Like racial threat, Britt (2000) suggested that ethnic heterogeneity (an indicator of social disorganization) might be associated with increased social control via harsher court outcomes—although no significant findings emerged (see also Fearn, 2005). In an examination of sentencing outcomes for juveniles waived to adult court, Carmichael (2010) found that greater political conservatism (measured as percentage of Republicans in the state legislature) was associated with increased sentence length (see also Helms, 2009; but see Fearn, 2005, finding no relationship between percentage voting Republican and sentencing outcomes). Carmichael (2010) also found that judicial elections were associated with longer sentences compared to judges selected by appointment (see also Hall, 1992; Huber and Gordon, 2004).

Most of the above multilevel research has only examined individual stages of juvenile court processing independently of one another (but see Leiber and Peck, 2014; Leiber et al., 2016; Peck, 2014; Rodriguez, 2010). Indeed, the mixed findings may be due in part to analyses of different stages and different jurisdictions, making comparisons difficult. No studies to date have examined macro-social variation in the effects of race/ethnicity on all major juvenile justice system stages across counties and states.
Cumulative Disadvantage

In addition to examining outcomes at stages other than sentencing, scholars have called for more research that explores the “dynamic process that constitutes criminal punishment” (Kutateladze et al. 2014: 515). One way to do this is to assess cumulative effects (Baumer, 2013). As Spohn (2015: 230) observes:

Most researchers now acknowledge that it is overly simplistic to ask whether race and ethnicity matter at sentencing. The more interesting questions—and those that will help us understand the mechanisms underlying the harsher punishment imposed on Blacks and Hispanics—revolve around the contexts in which or the circumstances under which race and ethnicity influence sentencing, and the ways in which disparities accumulate over the life course of a criminal case.

While the importance of understanding cumulative effects of race have long been appreciated (e.g., Bishop and Frazier, 1988, 1996; Hagan, 1974; Spohn, 2000; Zatz, 1987, 2000), more recent reviews of the literature point out that estimates of cumulative effects are still quite uncommon (Baumer, 2013; Mears et al., 2016; Spohn, 2015). Partly, this is because there are various ways we might attempt to measure cumulative disadvantage.

Describing cumulative disadvantage

Most attempts to measure cumulative disadvantage have been largely descriptive, focused on relative proportions of minority defendants at various stages of processing (relative to White defendants). For example, Chen (2008) performed an aggregate-level analysis of cumulative disadvantage in the California criminal justice system by creating a “flow diagram” of the proportion of White, Black, and Hispanic defendants at each decision point relative to their proportion of the population. This approach evidenced cumulative disadvantage for Black
defendants (i.e., the proportions increased relative to population) but not for Hispanic defendants, for whom there was constant (rather than increasing) disadvantage relative to Whites.

McGuire (2002) represents the first attempt to measure cumulative disadvantage in the juvenile justice system, examining the influence of defendant race at four stages of juvenile justice processing in Missouri (in 1997). First, McGuire (2002) examined the percentage of Black youth in the general population (17.5%), and then compared this to the percentage of Black youth referred to juvenile court (27.91%), detained by the juvenile court (44.79%), adjudicated delinquent (31.17%), and committed to secure placement (34.78%). As these percentages show, the disproportionate representation of Black youth did not increase at each stage—as would be predicted by the cumulative disadvantage hypothesis—due to the largest disparity occurring at the detention stage (rather than later stages). McGuire (2002) also employed logistic regression techniques to assess the race effect at each stage, controlling for offense, prior record, age, and detention. While there was no strong evidence of a cumulative disadvantage through the stages of the juvenile justice system, there was an important indirect effect: race was a strong predictor of detention, and detention was the strongest predictor of adjudication and placement.105

More recently, Stolzenberg, D’Alessio, and Eitle (2013) employed a different (and unique) strategy to measure cumulative disadvantage: meta-analysis. Using a sample of felony criminal defendants across 65 of the 75 most populous counties in the United States from 1990 through 2004, the authors randomly selected a 10% subsample for each of the eight decision points. The authors then used meta-analysis to summarize the cumulative effect of race across eight stages of the criminal justice system—financial release, bail denial, bail amount, held on bail, pretrial incarceration, adjudicated as felony, sentenced to incarceration, and sentence length. The effect of defendant race was estimated for each of these outcomes, and race was significantly associated with greater odds of incarceration and longer sentences but not associated with the other five outcomes. However, when the eight effect sizes were summarized by meta-analytic techniques, the weighted summary effect was significant and positive—indicating that Black defendants were 42% more likely to receive (some) adverse outcome across the eight decision points.

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Estimating cumulative disadvantage

A more recent approach to measuring cumulative disadvantage is to estimate cumulative effects by calculating predicted outcome possibilities. Only two published papers have estimated cumulative effects of race using predicted probabilities (Kutateladze et al., 2014; Sutton, 2013).

Using multilevel analysis, Sutton (2013) assessed cumulative disadvantage in the criminal justice system across three stages: pretrial detention, trial or plea, and sentencing. In a sample of 11,505 male defendants across 40 counties, Black and Latino defendants had approximately 26% higher probability of ending up in prison compared to White defendants. To estimate cumulative disadvantage more precisely, Sutton (2013) computed conditional probabilities for the most severe sentence—prison—based on the two prior criminal justice outcomes. This produced four possible “paths” to prison: (1) no detention and guilty plea, (2) no detention and guilty verdict (trial), (3) detention and guilty plea, and (4) detention and guilty verdict (trial). The largest disparity involved defendants who were detained and received a guilty verdict at trial, where minority defendants were overrepresented by more than 200%. For the detention/plea path, Black and Latino defendants were 32% and 42% more likely to receive a prison sentence, respectively. For the two non-detention paths, however, racial and ethnic disparities largely disappeared. In other words, detention played a much larger role in creating disparities than did guilty pleas. Sutton (2013) concluded that while minority defendants were more likely to end up in prison, and pretrial detention appeared to have an important indirect effect on sentencing outcomes, cumulative disadvantage—defined as exacerbating disparities—was actually not present since the greatest disparity was present at detention rather than at sentencing (so DMC did not accumulate across decision points).
Most recently, Kutateladze and colleagues (2014) assessed cumulative disadvantage using a large sample from New York City collected in 2010–2011 (N=164,784 cases). The authors examined racial disparities at five different stages of criminal justice processing: case acceptance, pretrial detention, case dismissal, custodial plea offer, and incarceration outcome. First, the effects of race and ethnicity were estimated (using ordinary logistic regression) for each individual outcome, controlling for other individual-level legal and extralegal factors. Black defendants were more likely to receive pretrial detention, more likely to have cases dismissed, more likely to receive a custodial than noncustodial plea offer, and more likely to be sentenced to incarceration. Hispanic defendants were also more likely to receive pretrial detention, more likely to have cases dismissed, and more likely to receive a custodial plea offer.106

In the second stage of the analysis, Kutateladze and colleagues (2014) examined cumulative disadvantage by assessing predicted probabilities107 for six paths—ranging from detained, not dismissed, and incarcerated (most disadvantaged path) to not detained and dismissed (least disadvantaged path). The likelihood of the most disadvantaged path was highest for Black defendants (33%), followed by Hispanic (30%), White (28%), and Asian (15%). In contrast, the likelihood of the least disadvantaged path was highest for Asians (22%), followed by Latino (20%) and Black and White defendants (18%). Interestingly, the most disadvantaged path was the most likely combination of outcomes for Black, Hispanic, and White defendants (but not for Asian defendants).108 Kutateladze and colleagues (2014: 539) suggested that future

106 Asian defendants were less likely to receive pretrial detention, more likely to have cases dismissed, less likely to receive a custodial plea offer, and less likely to receive an incarceration sentence (compared to White defendants).
107 The authors used margins in Stata 12 with other variables held constant at their means. This procedure estimates conditional probabilities, setting all confounders at a fixed value (here, the mean). The results can be interpreted as “this is the probability of outcome X for the “mean” case.
108 This analysis also revealed some interesting differences in predicted probabilities for various combinations. For example, Black defendants had the highest probability for the fifth disadvantaged combination—being detained, dismissed, and not incarcerated—but lower probability of the third—detained, not dismissed, and not incarcerated—and fourth—detained, not dismissed, and not incarcerated—combinations (relative to White defendants). The
research should find increasingly sophisticated ways to model the complexity of the criminal justice process, including cumulative disadvantage for minority defendants:

An essential direction for future work in this area will be the development of more sophisticated statistical models, such as decision-tree models, that are specifically designed to account for the multiple and interrelated stages of criminal case processing. Ultimately, these types of approaches to cumulative disadvantage may be combined with other recent advances in statistical modeling of case-processing outcomes, such as the use of propensity score matching, hierarchical modeling approaches, and path analysis.

Kutateladze (2014) represents the only study to date to calculate ‘paths’ of outcome combinations and to estimate cumulative disadvantage using predicted probabilities for each path, and no study to date has done so with multiple jurisdictions (i.e., using multilevel modeling). Moreover, no research to date has attempted to measure cumulative disadvantage in the juvenile justice system by estimating predicted probabilities (by race/ethnicity) for different juvenile court outcomes.

second disadvantaged combination—not detained, not dismissed, and incarcerated—was the same for White, Black, and Hispanic defendants (4%), and higher (5%) for Asian defendants.
Chapter 5: Methods

Data and Sample

Data were obtained through the National Juvenile Court Data Archive (NJDCA), a research organization maintained by the National Center for Juvenile Justice in Pittsburgh, Pennsylvania, and supported by a grant from the Office of Juvenile Justice and Delinquency Prevention, U.S. Department of Justice.\textsuperscript{109} These data were originally collected by the following agencies: Administrative Office of the Courts, Alabama; Judicial Branch, Connecticut; Office of State Court Administrator, Missouri; Oregon Youth Authority; South Carolina Department of Juvenile Justice; Texas Juvenile Justice Department; and Administrative Office of the Courts, Utah.\textsuperscript{110}

This juvenile court data is restricted and in order to access the data, a written proposal was submitted to NJCDA and a processing fee was negotiated for facilitating data requests with the abovementioned seven individual states. Raw data was received in February 2017; cleaning and coding of the seven state datasets (combined into one multistate dataset) was performed in Stata 15, a process that was completed in approximately six months.\textsuperscript{111}

The final dataset consists of the entire population of juvenile case referrals disposed in 2010 across seven states. As such, the final sample consists of all juvenile court referrals in seven states—Alabama, Connecticut, Missouri, Oregon, South Carolina, Texas, and Utah—for which final disposition was entered in 2010. States were not selected randomly but based on data availability for the research questions. Specifically, states were selected if they collected data for each of five outcomes to serve as dependent variables: preadjudication detention, petition of

\textsuperscript{109} This project has been approved by the Northeastern University Human Research Protection Office, IRB # 16-06-07. I have also received approval letters from each of the seven states that provided the data.

\textsuperscript{110} These agencies and the National Center for Juvenile Justice bear no responsibility for the analyses or interpretations presented therein.

\textsuperscript{111} States varied in the number of individual variables to be cleaned and recoded: Alabama (n=88); Connecticut (n=171); Missouri (n=44); Oregon (n=28); South Carolina (n=101); Texas (n=134); Utah (n=122).
delinquency, adjudication of delinquency (among those petitioned), judicial disposition (among those adjudicated delinquent), and waiver to adult court. Only seven states collected data for each of these five outcomes. The year 2010 was selected as the most recent year for which accurate contextual measures (i.e., county-level) could be created by using the most recent decennial Census data. The selected states and year thus represent a convenience sample, not representative for all U.S. juvenile justice systems or generalizable across all time. The original dataset consists of 304,373 referral cases. Referrals could be duplicate persons in some cases, but due to anonymity of referrals this could not be determined with certainty. The original dataset contained 41,679 dependency referrals; dropping these cases resulted in a sample of 262,694 cases.

The final sample size varies based on the dependent variable, with fewer observations as the referral travels deeper into the juvenile justice system from preadjudication detention to petition of delinquency to adjudication of delinquency and finally to judicial disposition. This non-random reduction in sample size raises the possibility of selection bias. It has become common to use the Heckman two-step procedure to account for the inherent selection bias that is

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112 Admittedly, this sequence oversimplifies juvenile court processing. Most importantly, it ignores that informal processing at the front end of the system (i.e., no petition or no adjudication) can still result in dispositional outcomes (via diversion) rather than outright dismissal (see Mears, 2012; Mears et al., 2016b). At the petition stage, I was able to distinguish between dismissal, formal petition, and informal processing (i.e., diversion), but diverted cases are treated as missing from subsequent outcomes, even though they may have still received such outcomes (e.g., a case might be coded as diverted as well as receiving secure placement).

113 The state-level data consist of juvenile referrals that are formally processed. As such, arrest/referral and intake processing cannot be included as additional dependent variables.

114 This includes Alabama (N=54,357; 67 counties), Connecticut (N=14,400; 8 counties), Missouri (N=63,079; 115 counties), Oregon (N=32,901; 36 counties), South Carolina (N=21,326; 46 counties), Texas (N=84,035; 245 counties), and Utah (N=34,275; 29 counties). Some of these samples are reduced slightly for the final analyses (see Appendix A).

115 In some states, certain cases receive a non-disposition that indicates the case is a duplicate (and is dropped from the analysis). This was the case for Connecticut. Since the focus of the analyses is on referred cases rather than individual persons, possible duplication in other states does not threaten the analyses. For example, if a youth was referred in 2009 and released, then referred again for a second (separate) offense in 2010, these would constitute two distinct referrals for the same individual defendant. If they were each disposed in 2010, they would be treated separately in the analyses. It is unlikely that this is common, but it remains possible.
associated with examining only those who are convicted from the original sample (see Heckman, 1979). As Bushway and colleagues (2007: 161–162) have observed, however, it is only appropriate to do so with a continuous outcome variable: “the Heckman two-step estimator is specifically a probit model followed by a linear regression, and there is no simple analog of the Heckman method for discrete choice models despite the logical appeal of the process.” Because the present research includes binary and multinomial outcome variables only, linear regression techniques are not employed and the Heckman correction is not appropriate. Moreover, Heckman procedures were not developed for multilevel models and may not work due to the inclusion of random intercepts and random slopes (see Johnson, 2010; Raudenbush and Bryk, 2002).

The original dataset includes 545 counties across seven states. In addition to case-level variables (i.e., level-1 variables), variables at the county level (i.e., level-2 variables) were created for all included counties using data from the following sources: decennial Census 2000 and 2010, and American Community Survey (ACS) five-year estimates for 2010 (American Fact Finder, 2017); Uniform Crime Reports (UCR) for years 1999 (ICPSR 3167), 2000 (ICPSR 3451), 2001 (ICPSR 3721), 2009 (ICPSR 30763), 2010 (ICPSR 33523), and 2011 (ICPSR 34582); Dave Leip’s Atlas of U.S. Presidents (Dave Leip’s, 2018), and Ballotpedia (Ballotpedia, 2018).

The decennial Census is a full population enumeration (not a sample) collected every 10 years, most recently in 2010. It asks basic demographic information including race and ethnicity (and is used to create racial/ethnic threat variables). The American Community Survey (ACS) replaced the long-form sample questionnaire from Census 2000 (and earlier). The ACS presents an even longer questionnaire than did the long-form Census questionnaire, but for a smaller
sample. For that reason, 1-year estimates, 3-years estimates, and 5-years estimates are available for each year, with a tradeoff of precision (with 1-year estimates being most precise) versus reliability (with 5-year estimates being more reliable). Five-year estimates were used to create several level-2 variables (see Measures section) because they are the most reliable (especially for smaller counties). Each estimate is accompanied by a margin of error (90% confidence interval) that was transformed into a coefficient of variation (CV) to determine whether a county should be dropped. The CV is the ratio of the standard error to the value of the estimate (Spielman, Folch, and Nagle, 2014). CV >.40 indicates a low-quality estimate, while CV <.12 indicates a high-quality estimate. The choice was made to drop counties with low-quality estimates. Dropping counties with low-quality estimates (CV >.40) from the final sample resulted in the exclusion of 60 (small) counties (see figure 5.1).

Several other sources were used to create level-2 variables. Uniform Crime Reports (UCR) contain aggregated official crime statistics that are representative of the entire U.S. population. Dave Leip’s Atlas of U.S. Presidents provides a reliable source of information on state and county election contests for U.S. president (from 1789 to 2016), U.S. senate (1990 to 2016), and state governors (1990 to 2016). Ballotpedia.com is a website that provides state and county information on judges, including judicial selection procedures.

Figure 5.1 depicts the formation of the final samples (for each stage of the analysis corresponding to juvenile court outcomes). Counties were dropped from the final samples based

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116 Another possibility would be to retain only high-quality estimates (CV <.12); this would have resulted in dropping 227 counties, however. Dropping so many counties is undesirable, so only counties with low quality estimates were dropped. Spielman and colleagues (2014) observe that compared to the long form Census sample questionnaire, ACS estimates (even 5-year estimates) are not often high quality. Even performing sensitivity analyses with only high quality estimates would provide no clear benefit, given that more than half of the level-2 units would be dropped. Further, these are mostly smaller and poorer counties, so they would not be missing at random and would represent a more urban sub-sample (see Spielman et al., 2014). This approach is still more conservative than most research using ACS data, which usually does not address the issue of estimate quality.
on the following characteristics: (1) missing data on case-level variables; (2) missing data on county-level variables (i.e., counties with low quality estimates, CV>.40); and (3) counties with only one referral (i.e., no variation).117

Figure 5.1. Final sample(s) flow diagram

<table>
<thead>
<tr>
<th>Original sample</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Level-1 N: 262,694</td>
<td>Level-2 N: 545</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cases with missing data dropped</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level-1 N: 257,894</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Counties with missing data dropped</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level-1 N: 255,623</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Detention sample (counties &lt;2 cases dropped)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level-1 N: 255,288</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Petition sample (counties &lt;2 cases dropped)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level-1 N: 249,846</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Waiver sample (counties &lt;2 cases dropped)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level-1 N: 103,183</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Adjudication sample (counties &lt;2 cases dropped)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level-1 N: 101,684</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Disposition sample (counties &lt;2 cases dropped)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level-1 N: 71,916</td>
</tr>
</tbody>
</table>

The sample started with 262,694 referrals across 545 counties. Dropping 4,800 referrals with missing case-level variables resulted in a level-1 sample size of 257,894 and did not alter

117 The number of level-1 observations is not as important as number of level-2 clusters for multilevel modeling, and even 1 observation per grouping may be acceptable (Johnson, 2010: 628). Counties with fewer than 2 cases (i.e., only one referral) were nonetheless dropped (McNeish and Stapleton, 2016, 2016b).
the number of counties. Dropping 66 counties with missing contextual variables (i.e., low quality estimates) resulted in a level-1 sample size of 255,623 and level-2 sample size of 479. Each dependent variable (explained below) requires a different sample size, as cases drop out from one stage to the next (including counties with <2 observations for each stage). As figure 5.1 illustrates, this resulted in level-1 sample sizes ranging from 255,288 (detention) to 71,916 (disposition), and level-2 sample sizes ranging from 479 (detention) to 451 (disposition).

Measures

*Dependent variables*

The dependent variables are juvenile justice outcomes at five stages: preadjudication detention, petition of delinquency, adjudication of delinquency, transfer to adult court (i.e., waiver), and judicial disposition (for referrals that are adjudicated delinquent). Preadjudication detention is coded as “1” for detention (prior to adjudication) and “0” for release pending adjudication. The sample available for the detention phase of the analysis includes 255,288 juvenile referrals across 478 counties. Overall, approximately 24% of these cases were detained prior to the petition decision. Petition is measured as a multinomial variable with three categories: (1) release, (2) diversion (informal processing), and (3) formal petition of

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118 Because states do not share the same exact types of outcomes, it is necessary to create broad categories that reflect similar outcomes across jurisdictions. A more nuanced approach would subdivide these outcomes further, such as different types of probation or placement (see, e.g., Cochran and Mears, 2015) and informal alternatives (see, e.g., Mears et al., 2016b). Ultimately, the present approach aims for generalizability and comparability across jurisdictions.

119 Because it is necessary to create exclusive categories (here and elsewhere), a juvenile defendant who is coded as being dismissed or diverted at the petition or adjudication stage is dropped from later stages (e.g., disposition). This reflects that the juvenile defendant exited the juvenile justice system prior to the dispositional stage. However, the practice of diversion (at the petition or, in some cases, adjudication stage) does allow for many non-petitioned or non-adjudicated juvenile defendants to receive dispositions such as probation or out-of-home placement (see Mears et al., 2016b). Since these are included as “0” in the earlier models, it would be misleading and conceptually confusing to include them in disposition models.

120 Across states, this ranged from a high of 45% in Texas to a low of 10% in Missouri (see Appendix A).
delinquency. The sample available for the petition phase of the analysis includes 249,846 juvenile referrals across 478 counties. Approximately 41.3% of these cases receive formal petition, while 36.8% were diverted and 21.9% were released. Adjudication is measured as binary, with “1” for delinquency and “0” for dismissal (including diversion at the adjudicatory hearing, e.g., a suspended sentence). The sample available for the adjudication phase of the analysis includes 101,684 juvenile referrals across 457 counties. Overall, approximately 71% of these cases were adjudicated delinquent. Waiver to adult court is also a binary measure, with “1” for judicial waiver and “0” for juvenile court processing. For states that utilize blended sentencing, an adult disposition by a juvenile court judge (at adjudication) will be treated as transfer to adult court. The sample available for the waiver phase of the analysis included 103,183 juvenile referrals across 457 counties, with approximately .95% of these cases waived to (adult) criminal court. Final disposition is measured as a multinomial variable with three categories: (1) release or diversion; (2) community supervision; or (3) secure placement. The sample available for the disposition phase of the analysis included 71,916 juvenile referrals

121 As Mears and colleagues (2016b: 956) observe, “Formal processing entails the filing of a petition with the court. . . . Informal processing bypasses this filing. That is, no petition is filed. Instead, informal processing consists of a youth admitting guilt and then voluntarily accepting a sanction or an intervention of some type, including probation or diversion to a program.” The subject of informal alternatives through diversion has recently been the subject to increased attention (see, e.g., Cochran and Mears, 2015; Mears, 2012; Mears et al., 2016b). Importantly, recent research that indicates that informal treatment may not be universally less punitive than formal treatment as is typically imagined (Mears et al., 2016b), although the present study nevertheless makes this assumption in treating petition as a more punitive outcome than diversion.

122 Across states, formal petition ranged from a high of 45% in Texas to a low of 10% in Missouri, diversion ranged from a high of 66% in Missouri to a low of 13% in Alabama, and release ranged from a high of 59% in Oregon to a low of 2% in Utah (see Appendix A). This seems to raise the possibility that release in Oregon includes some informally processed cases, since Oregon only has 17% diverted cases.

123 Across states, this ranged from a high of 94% in South Carolina to a low of 44% in Alabama (see Appendix A). This raises the possibility that cases were diverted at the adjudication stage in Alabama (as well as Connecticut, with 45% of petitioned cases adjudicated delinquent).

124 Since the datasets involved all cases disposed in 2010 (across seven juvenile justice systems), cases may have been transferred to adult court and later sent back to juvenile court (i.e., “reverse waiver”), but this was not indicated by the data.

125 Across states, this ranged from a high of 2.3% in Oregon to a low of 0.04% in Utah, where only 9 of 23,462 petitioned cases were transferred to criminal court (see Appendix A).
across 451 counties. Approximately 20.6% of these cases received secure placement, while 71.5% received community supervision and 7.9% were released. Table 5.1 summarizes the measurement of case-level variables used in the following analyses.

Table 5.1. Measurement of case-level variables

<table>
<thead>
<tr>
<th>Dependent variables</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Detention</td>
<td>Binary measure of detention (“1”) vs. release (“0”)</td>
</tr>
<tr>
<td>Petition</td>
<td>Three-category measure of petition (“3”) vs. informal processing (i.e., diversion) (“2”) vs. dismissal (“1”)</td>
</tr>
<tr>
<td>Adjudication</td>
<td>Binary measure of adjudication of delinquency (“1”) vs. dismissal or not guilty (“0”)</td>
</tr>
<tr>
<td>Waiver</td>
<td>Binary measure of waiver to adult court (“1”) vs. retain in juvenile court (“0”)</td>
</tr>
<tr>
<td>Disposition</td>
<td>Three-category measure of secure (out-of-home) placement (“3”) vs. community supervision (2) vs. release/diversion (“1”)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Race/ethnicity</td>
<td>Series of dummy measures for Black (1), Hispanic (1), Other (1), and White (1). Categories are mutually exclusive and White serves as reference category.</td>
</tr>
<tr>
<td>Sex</td>
<td>Binary measure for male (“1”) or female (“0”)</td>
</tr>
<tr>
<td>Age</td>
<td>Continuous measure by year, ranging from 5–25.</td>
</tr>
<tr>
<td>Offense type</td>
<td>Series of dummy measures for violent offense, property offense, drug/alcohol offense, other offense, probation violation, and status offense. Property offense serves as the reference category.</td>
</tr>
</tbody>
</table>

**Case-level (level-1) independent variables**

**Race/ethnicity**

The main independent variable of interest is the race/ethnicity of the defendant. This is a categorical measure of Black, Hispanic (non-White), Other, and White (reference category). Six of seven state juvenile justice systems reported race and ethnicity in mutually exclusive

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127 Across states, secure placement at judicial disposition ranged from a high of 30% in Missouri to a low of 9% in Oregon. Community supervision ranged from 79% in South Carolina to 63% in Oregon, and judicial release/diversion ranged from 28% in Oregon to 0.08% in South Carolina, where only 7 of 7,816 dispositions were released (see Appendix A).
categories that could be re-coded into these four binary variables. One jurisdiction, Utah, included separate racial and ethnic designations such that each of five racial categories (Black, White, Asian, American Indian, and Native Hawaii/Pacific Islander) had three possible ethnic values: Hispanic/Latino, Not Hispanic/Latino, or could not determine. This created 15 racial/ethnic categories (e.g., “American Indian/Alaska Native - Latino/Hispanic”). To create mutually exclusive racial/ethnic categories, bi-racial or bi-ethnic designations are not treated as separate classes, but rather are coded as one racial/ethnic value in the following hierarchy: Black, Hispanic, Other, and White. So, for example, a referral originally coded as “Black-Hispanic” is recoded as Black, a referral originally coded as “White-Hispanic” is coded as Hispanic, a referral originally coded as “American Indian – Not Hispanic” is coded as Other, etc. The designation “mixed race – cannot determine” (n=7) is also recoded as Other.

As a result of this protocol, referrals coded as “White” include only White cases (no bi-racial cases), while all bi-racial or bi-ethnic referrals that include “Black” will be coded as “Black.” This is done because the primary comparison for examining DMC, consistent with prior research, is between Black and White juvenile referrals (see Bishop and Leiber, 2012). In recent years, DMC involving Hispanic juvenile referrals has become an increasing concern, so it is treated as the second racial/ethnic category in the hierarchy. Moreover, this only applies to a small minority of the Utah sample (n=214; 0.6%) and a vanishingly small proportion of the overall sample (0.07%). Other race is treated as a control variable because it is too small (as well as missing in many counties) to serve as a main independent variable of interest. The final sample consists mostly of White youth (n=123,076), followed by Black youth (n=67,490), Hispanic youth (n=61,986) and Other race/ethnicity (n=7,599).128

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128 The racial/ethnic composition of referral samples varied across states (see Appendix A). Black referrals were highest (as a proportion) in South Carolina (57%) and lowest in Utah (3%), Hispanic referrals were highest in Texas.
Table 5.2. Descriptive statistics for case-level variables (N=255,288)

<table>
<thead>
<tr>
<th>Variable</th>
<th>%</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Detention</td>
<td>23.8%</td>
<td>60,838</td>
</tr>
<tr>
<td>Petition(^a)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Released</td>
<td>21.9%</td>
<td>54,697</td>
</tr>
<tr>
<td>Diverted</td>
<td>36.8%</td>
<td>91,951</td>
</tr>
<tr>
<td>Petition filed</td>
<td>41.3%</td>
<td>103,198</td>
</tr>
<tr>
<td>Adjudication(^b)</td>
<td>71.4%</td>
<td>72,625</td>
</tr>
<tr>
<td>Waiver(^c)</td>
<td>1%</td>
<td>965</td>
</tr>
<tr>
<td>Disposition(^d)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Released/diverted</td>
<td>7.9%</td>
<td>5,685</td>
</tr>
<tr>
<td>Community supervision</td>
<td>71.5%</td>
<td>51,410</td>
</tr>
<tr>
<td>Placement</td>
<td>20.6%</td>
<td>14,841</td>
</tr>
<tr>
<td>Race/ethnicity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>47.3%</td>
<td>120,824</td>
</tr>
<tr>
<td>Black</td>
<td>26%</td>
<td>66,450</td>
</tr>
<tr>
<td>Hispanic</td>
<td>23.8%</td>
<td>60,667</td>
</tr>
<tr>
<td>Other race/ethnicity</td>
<td>2.9%</td>
<td>7,347</td>
</tr>
<tr>
<td>Male</td>
<td>68.9%</td>
<td>175,840</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5–9</td>
<td>1.5%</td>
<td>3,732</td>
</tr>
<tr>
<td>10–11</td>
<td>2.9%</td>
<td>7,475</td>
</tr>
<tr>
<td>12</td>
<td>4.9%</td>
<td>12,403</td>
</tr>
<tr>
<td>13</td>
<td>9.3%</td>
<td>24,809</td>
</tr>
<tr>
<td>14</td>
<td>16.2%</td>
<td>41,439</td>
</tr>
<tr>
<td>15</td>
<td>23.7%</td>
<td>60,542</td>
</tr>
<tr>
<td>16</td>
<td>28.4%</td>
<td>72,536</td>
</tr>
<tr>
<td>17</td>
<td>11.6%</td>
<td>29,624</td>
</tr>
<tr>
<td>18–25</td>
<td>1.1%</td>
<td>2,726</td>
</tr>
<tr>
<td>Offense Type</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Violent offense</td>
<td>16.6%</td>
<td>42,327</td>
</tr>
<tr>
<td>Property offense</td>
<td>26.1%</td>
<td>66,735</td>
</tr>
<tr>
<td>Drug/alcohol offense</td>
<td>14.2%</td>
<td>36,322</td>
</tr>
<tr>
<td>Probation violation</td>
<td>5.7%</td>
<td>14,489</td>
</tr>
<tr>
<td>Status offense</td>
<td>16.7%</td>
<td>42,601</td>
</tr>
<tr>
<td>Other offense</td>
<td>20.6%</td>
<td>52,661</td>
</tr>
</tbody>
</table>

\(^a\) N=249,846
\(^b\) N=101,699
\(^c\) N=103,815
\(^d\) N=71,936

(50%) and lowest in Missouri (2%), Other race/ethnicity referrals were highest in Utah (9%) and lowest in Alabama (.7%), and White referrals were highest in Missouri (68%) and lowest in Texas (25%)
Table 5.2 provides descriptive statistics for case-level variables for the full sample.

Control variables
Case-level control variables include sex, age, offense type, and detention (for non-detention outcomes). Sex is measured as a binary variable, coded as “1” for male. Age is measured as a continuous variable ranging from 5 to 25, and is measured at time of referral rather than time of disposition. As such, while the majority of cases are referred during the same year as disposition (2010), some cases involve referrals from as early as 2000.

Offense type is measured as a series of six dummy variables for each type of offense: violent (against person), property (non-violent), drug/alcohol crimes, probation violation, status offense, and other (including public order and weapons crimes). To ensure the same measure is used in each of the models (where the dependent variable is a different stage of processing), initial charges are used rather than charges at petition, adjudication, or disposition. These categories were recoded based on lists of offense codes in each jurisdiction, ranging from 655 offense values (in South Carolina) to 4,197 offense values (in Texas). While myriad categories could have been created, six broad categories were ultimately selected since offense type serves as a control variable and is not of main interest in the analysis (see, e.g., Britt, 2000).

Prior juvenile record is not included because it is missing for three states—Missouri, Oregon, and Texas—that do not collect this information (or do not provide this information as

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129 As Mears et al. (2016a: 83) point out, “a study might control for severity of offense, but the measure of severity may well obscure more than it reveals. To illustrate, a study might statistically control for whether an offense involved ‘assault.’ However, ‘assault’ as a category can encompass a wide range of behavioral acts, from relatively minor violence that results in little physical or psychological harm to violence that severely injures or incapacitates a person. In addition, if the study includes multiple jurisdictions, it is likely that each agency defines ‘assault’ differently than the other jurisdictions included in the study.”

130 Some studies have also used fewer offense type controls, such as including only binary variables for whether the offense was a property crime or a personal crime (see, e.g., Leiber et al., 2016). To control also for less serious offenses, however, “drug”, “status”, and “other” (where “other” refers primarily to public order offenses) are included in the present analysis. Probation violations are also an important source of referrals in the juvenile justice system, and are grouped separately.
part of their official data collection).\textsuperscript{131} As such, approximately 60% of referrals—and, more importantly, 70% of counties—are missing prior record, leaving only 99,353 referrals in 139 counties. Dropping these observations is simply not desirable given that one of the chief strengths of the dataset is the large number of level-2 units (i.e., counties) to provide sufficient statistical power for multilevel analysis with 30 level-2 variables (see Britt and Weisburd, 2010).\textsuperscript{132} Given the standard rule of 10 level-2 units per level-2 variable (Johnson, 2010), this requires a minimum of 300 counties. Further, if multiple imputation were employed as a solution (or prior record were included as a conservative measure, with missing values coded as 0), it would introduce systematic bias into the analysis because the main aim of the project is to examine variation in race effects across jurisdiction. If prior record and race are strongly associated—which prior research suggests (see, e.g., Bishop and Frazier, 1996; Bishop et al., 2010; Frase, 2009; Leiber and Peck, 2013)—the effect of race across counties would likely vary according to whether prior record is missing. As such, this admittedly important control variable must be excluded from the main analyses. Finally, preadjudication detention serves as a dependent variable in the first analytical phase of study but will also serve as a control variable for subsequent outcomes (petition, adjudication, transfer, and disposition).

\textit{Contextual (level-2) variables}

The present study includes measures for 30 contextual-level variables for each of the included counties (see Table 5.3). These 30 variables are placed into four groups, each testing a particular aspect of context. The first group of 14 variables measures community threats: racial threat,

\textsuperscript{131} The main goal of this dissertation is to examine the relationship between context and all major juvenile court outcomes. As such, the sample consists of the 7 states whose juvenile justice systems provide this information. While many other states surely provide information on prior record, they would also be missing one or more outcome measures.

\textsuperscript{132} This consists of 24 contextual measures and 6 state dummy variables.
Table 5.3. Measurement of county-level variables

<table>
<thead>
<tr>
<th>Community threat</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Racial threat (static)</td>
<td>Percentage of county population that is Black in 2010</td>
</tr>
<tr>
<td>Racial threat (non-linear)</td>
<td>Squared racial threat (static)</td>
</tr>
<tr>
<td>Racial threat (dynamic)</td>
<td>Change in % Black from 2000 to 2010</td>
</tr>
<tr>
<td>Ethnic threat (static)</td>
<td>Percentage of county population that is Hispanic in 2010</td>
</tr>
<tr>
<td>Ethnic threat (non-linear)</td>
<td>Squared ethnic threat (static)</td>
</tr>
<tr>
<td>Ethnic threat (dynamic)</td>
<td>Change in % Hispanic from 2000 to 2010</td>
</tr>
<tr>
<td>Concentrated disadvantage (static)</td>
<td>Construct (score) based on % unemployed, % families using public assistance, % households below poverty, and % of female-headed households in 2010 (created using principal components analysis)</td>
</tr>
<tr>
<td>Concentrated disadvantage (dynamic)</td>
<td>Change in concentrated disadvantage construct (score) from 2000 to 2010</td>
</tr>
<tr>
<td>Economic inequality (static)</td>
<td>Gini index score for 2010</td>
</tr>
<tr>
<td>Economic inequality (dynamic)</td>
<td>Change in Gini index score from 2000 to 2010 (standardized)</td>
</tr>
<tr>
<td>Crime (static)</td>
<td>Average of county index crime rates (per 1000) for 2009–2011</td>
</tr>
<tr>
<td>Juvenile crime (static)</td>
<td>Average county juvenile arrest rates (per 1000) for 2009–2011</td>
</tr>
<tr>
<td>Juvenile crime (dynamic)</td>
<td>Change in average county juvenile arrest rates (per 1000) from 1999–2001 to 2009–2011</td>
</tr>
<tr>
<td>Social disorganization</td>
<td>Standardized score, calculated as the proportion of the population that identifies as White, Black, Hispanic, Asian American, or Native American in 2010</td>
</tr>
<tr>
<td>Ethnic heterogeneity (static)</td>
<td>Change in ethnic heterogeneity score from 2000 to 2010</td>
</tr>
<tr>
<td>Residential mobility (static)</td>
<td>Percentage of county residents that have moved in past 5 years (in 2010)</td>
</tr>
<tr>
<td>Youth density (static)</td>
<td>Percentage of county population aged 15–18 in 2010</td>
</tr>
<tr>
<td>Youth density (dynamic)</td>
<td>Change in % of county population aged 15–18 from 2000 to 2010</td>
</tr>
<tr>
<td>Political economy</td>
<td>Binary measure for whether county juvenile court judges are elected (“1”) or appointed (“0”)</td>
</tr>
<tr>
<td>Community wealth</td>
<td>Median household income (standardized)</td>
</tr>
<tr>
<td>Political ideology</td>
<td>Ratio of % Republican to % Democrat in most recent Gubernatorial election (standardized)</td>
</tr>
<tr>
<td>Urbanization (static)</td>
<td>County population density (per 1000)</td>
</tr>
<tr>
<td>Urbanization (dynamic)</td>
<td>Change in county population density (per 1000) from 2000–2010</td>
</tr>
<tr>
<td>State controls</td>
<td>Dummy variables for Alabama, Connecticut, Missouri, Oregon, South Carolina, Texas, Utah</td>
</tr>
</tbody>
</table>
ethnic threat, economic threat, and crime threat. The second group of 5 variables measures social disorganization due to ethnic heterogeneity, residential mobility, and youth population density. The third group of 5 variables measures the organizational context of the juvenile court in terms of its political economy (elections, court resources, politics, and urbanism). The final group of 6 variables represent the separate state juvenile justice systems in the sample (omitting the seventh state, Texas, as the reference category).

Community threats

Community threats to be tested include minority threat (racial and ethnic), economic threat, and crime threat. Racial and ethnic threat are measured as a series of six variables created from the decennial Census 2010. First, static racial threat is measured as the percentage of Black residents in the county population (the traditional measure of racial threat). A quadratic term is also included to test for non-linear effects. Additionally, while minority threat in juvenile justice has not yet been operationalized as a dynamic measure of change in minority composition over time, several studies have done so in the criminal justice context—and argued that it is a preferred measure of threat since change is more visible to members of the community and court (see, e.g., Caravelis, Chiricos, and Bales, 2011, 2013; Wang and Mears, 2010a). As such, dynamic racial threat is measured as change in racial composition (from 2000 to 2010). Static ethnic threat is measured as the percentage of Hispanic residents in the county, and dynamic ethnic threat is measured as the change in Hispanic composition (from 2000 to 2010). To

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133 As Feldmeyer and Ulmer (2011: 258) note, “Racial threat theory predicts a curvilinear relationship in which the punishment of minorities increases as the size and perceived threat of the minority population increases, and then levels off and possibly even decreases as minority groups become large enough to contest their discriminatory treatment by the criminal justice system.”

134 These measures were created based on American Fact Finder, QT-P4, Race, Combinations of Two Races, and Not Hispanic or Latino: 2010, 2010 Census Summary File 1. This includes racial categories by “Total” and “Not Hispanic”. I calculated percentage Black from the total and all other racial categories from “Not Hispanic” variables. This creates the desired hierarchy: Black, Hispanic, Asian, American Indian/Alaskan Native, Hawaiian/Pacific Islander, Other, and White (as such, each racial category includes “2 or more races” with races lower in the
examine non-linearity as well as linear effects, a quadratic term is also included for static ethnic threat. Others have also measured racial threat in terms of racial income inequality (see Armstrong and Rodriguez, 2005; Frazier, et al., 1992; Hayes-Smith and Hayes-Smith, 2009; Leiber et al., 2016; Leiber and Jamieson, 1995; Peck, 2014; Sampson and Laub, 1993; Thomas et al., 2013; Wang and Mears, 2010b), but these estimates proved too unreliable in the present study.

Economic threat is also measured as four variables, based on ACS 2010 five-year estimates. Principal components analysis was used to create a measure of concentrated disadvantage based on percent unemployed, percent families using supplemental nutrition assistance program (SNAP), percent households below poverty, and percent female-headed households (see Rodriguez, 2013; see also Sampson and Graif, 2009). A newly standardized measure of concentrated disadvantage is created for each sample (corresponding to different dependent variables; see above). Second, a dynamic measure of concentrated disadvantage consists of change in concentrated disadvantage from 2000 to 2010; this represents the extent to which a county has become more or less disadvantaged over time. Third, a measure of income hierarchy). For example, most Hispanics identify racially as “White” or “Other,” so this treats Hispanic as a racial category (categories should add up to 100) rather than some other (ethnic) dimension.

The non-linear relationship is predicted of the static versions of the minority threat hypothesis, whereby a larger minority population is associated with increased punitive treatment up to the point at which the minority population is so large that they exert political power (and becomes associated with lower punitive treatment). This curvilinear relationship is not expected for the dynamic threat hypotheses, where population growth itself predicts punitive treatment.

Estimates of racial income inequality in the ACS 5-year estimates tended to be lower quality than other estimates, according to the criterion of variation (CV). Including this variable would have resulted in dropping 68 counties where the estimates for racial inequality were of low quality—almost 15% of the level 2 sample. Since the present study includes several other methods of threat, racial income inequality was excluded.

Formerly referred to as “food stamps,” SNAP is the largest form of public assistance income supplement (i.e., welfare), a $75 billion program serving 15% of the population in 2012 (Schuck, 2017).

Unlike many operationalizations of concentrated disadvantage (e.g., Sampson, Sharkey, and Raudenbush, 2008), the present study does not include percent Black as this is a separate contextual measure. To separate economic threat from racial threat, the present paper follows Rodriguez (2013; see also Sampson and Graif, 2009) in operationalizing concentrated disadvantage without any racial/ethnic component.

The 2010 measure of concentrated disadvantage is based on the 2006–2010 ASC Selected Economic Characteristics, 5-year estimates (for % unemployed, % families receiving SNAP, and % families below poverty).
inequality is measured using the traditional Gini index (ACS 2010, five-year estimates). Fourth, a dynamic measure of income inequality consists of change in Gini index score; this represents how much inequality has increased over time.\footnote{The 2010 measure is based on 2006–2010 ASC, Households, Gini Index of Income Inequality. The 2000 measure was calculated based on an excel file downloaded from the Current Population Survey (CPS), based on Census 2000. It consists of the same components except for “% families receiving SNAP” which was not included in the 2000 data. Instead, “% receiving cash public assistance income” was used for 2000 (due to welfare reforms, cash public assistance was quite uncommon by 2010; see Schuck, 2017). Both measure variance in unemployment rate, poverty rate, and female-headed households.}

While crime levels are often used as a contextual control variable, it may be reasonably expected that higher crime will directly translate into more punitive treatment of juvenile offenders—indeently of community threat, social disorganization, or the political economy of the court (see Myers and Talarico, 1987: 76). This potential crime threat is measured in four ways. First, total crime is measured as an average for total index crime rates for the years 2009–2011, to provide an estimate of perceived crime level in 2010 (per 1000 residents). Second, a measure of the change in total crime rates from 2000 to 2010 will be included to assess community perception of the direction of the crime problem (i.e., dynamic crime threat). (The 2000 total crime rate will be measured as an average for total crime rates for the years 1999–2001, to provide an estimate of perceived crime level in 2000.) Third, juvenile crime rate is measured as the number of juvenile arrests (per 1000 residents).\footnote{Total juvenile arrests are used instead of juvenile index arrests as there are fewer juvenile crimes than total crimes, and many counties would have zero juvenile arrests if so measured. In addition to the total serious crime measure (which measures threat of serious crime in the community), this variable is intended to add whether there is a perceived juvenile crime problem in the surrounding community, even if this is largely status or public order offenses (i.e., not index crimes).} To provide an estimate of perceived crime level in 2010, this likewise involves the average juvenile crime rate for the years 2009–2011. Fourth, a measure of the change in juvenile crime rates from 2000 to 2010 will be included to assess community perception of the direction of the crime problem (dynamic juvenile
crime threat). The 2000 juvenile crime rate will be measured as an average for crime rates for the years 1999–2001, to provide an estimate of perceived crime level in 2000. These measures are constructed based on Uniform Crime Reporting Data: County-Level Detailed Arrest and Offense Data, 1999 (ICSPR 3167), 2000 (ICSPR 3451), 2001 (ICSPR 3721), 2009 (ICSPR 30763), 2010 (ICSPR 33523), and 2011 (ICSPR 34582).

Political economy

Four contextual variables measure the political economy of the juvenile court. First, the “external polity” of the court is operationalized as a binary variable indicating whether juvenile court judges are elected or appointed, where election is coded as “1” (Ballotpedia, 2018). This includes partisan and nonpartisan elections (where voters select judges), while appointment includes executive appointment as well as legislative election (since voters do not directly select judges). A slight majority of states select juvenile court judges by election rather than appointment.

Judges are appointed in Connecticut, South Carolina, and Utah, as well as the cities of St. Louis and Springfield, Missouri, and Jackson county, Missouri. Other Missouri counties, along with Alabama, Texas, and Oregon counties, use judicial elections (Ballotpedia, 2018). Second, the

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142 Alabama juvenile courts are part of Alabama district courts, and all Alabama courts have elections: “Both circuit and district courts share jurisdiction over juvenile cases in a separate court. These courts are concerned with juvenile delinquency, child abuse, and children in need of supervision. Circuit, district courts, and probate courts deal with adoptions. Juvenile Court is called Family Court in some municipalities.”

Connecticut juvenile courts are a subdivision of the Superior Court system, where judges are appointed by governor and commission (called “assisted appointment”).

Missouri juvenile courts are a subdivision of the Circuit Court, which has partisan elections. However, “The cities of Springfield, St. Louis and Kansas City have opted instead to employ the same merit selection process that the appellate courts use. Under the Missouri Constitution, circuit courts may adopt the merit selection process if a majority of local voters approve.” As such, 3 of 111 Missouri counties appoint rather than elect judges.

Oregon juvenile courts are part of “county courts,” in which judges are “referees” that do not have to be attorneys (and decisions can be appealed to circuit courts, where judges must be attorneys). All courts involve nonpartisan judicial elections.

South Carolina juvenile courts are called family courts, and judges are elected by legislature to six-year terms (treated here as “appointment” since not elected by local community).
external economy of the court is operationalized using the proxy of county median income (reflecting community resources as well as local income tax base), based on ACS 2010 five-year estimates. For ease of interpretation of coefficients, median income is divided by 1000 so that coefficient unit-change represents an additional $1000 in median income (as opposed to an additional $1 in income). Third, the “internal polity” of the court is measured using the political ideology of the county as a proxy (unlike “external polity,” which measures court relationship to external politics, internal polity takes county voting as a proxy for the political ideology of the court itself). This is a standardized measure of the difference in percentage voting Republican versus Democrat in the most recent Gubernatorial election (Dave Leip’s, 2018). Following Greenberg and West (2001), gubernatorial voting is used rather than presidential or senatorial voting (i.e., national elections) because it is the state executive (Governor) rather than nationally elected representatives who determine state crime policy. Finally, “internal economy” is

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*Texas* juvenile courts are not specialized courts; rather, district or county courts can hear juvenile matters: “Except in the most populous counties, Texas has no separate system of juvenile courts. Rather, one or more of the regular district or county judges in each county is designated to hear juvenile cases. However, it is sometimes the custom to refer to a court which is hearing juvenile cases as the ‘Juvenile Court.’” All Texas courts are subject to local partisan elections.

*Utah* juvenile court judges are appointed by governor: “Like the appellate and district courts, juvenile court judges are appointed by the governor from a list of names provided by a nominating commission. After an initial three-year term, all judges must run in yes-no retention elections. Subsequent terms last six years.” (Ballotpedia, 2018).

143 Judge ideology is most directly measured by direct report, which can only be accomplished via survey. In the present research, this was not possible. Judicial ideology for large samples can be difficult to obtain, and others have used proxies such as age and sex (assuming that older and male judges are more likely to be conservative) (see Myers and Talarico, 1987). County politics is a strong proxy for court politics, especially in counties where judges are elected. For this reason, a cross-level interaction between election and conservative will also be used in the political economy models (see chapter 8).

144 The 2010 Gubernatorial election was used for all states, although Utah had a special election in 2010 (regular election in 2008).

145 Of course, senatorial voting may better track political ideology since national elections are less tied to local- and state-level idiosyncratic voting patterns (e.g., moderate Republican governor winning in a largely “blue” state where Republican senators are nonexistent). Nevertheless, gubernatorial voting presents a more appropriate—albeit imperfect—measure of county-level politics than national elections.
operationalized using the proxy of urbanization.\textsuperscript{146} Urbanization is measured as population density and change in population density from 2000 to 2010.\textsuperscript{147} Rather than create a binary category for urban/rural based on Census designation, this is operationalized as a continuous measure ranging from low (i.e., rural) to high (i.e., urban) population density for each county. For ease of interpretation of coefficients, population density is divided by 1000 so that unit-change in coefficients represents 1000 persons per square mile (instead of one additional person per square mile). Change of population density from 2000 to 2010 is measured as percent change.

Social disorganization

Social disorganization is measured in terms of ethnic heterogeneity, residential mobility, and youth population density (a socioeconomic measure is not used due to collinearity with measures of economic threat). Ethnic heterogeneity\textsuperscript{148} is calculated as the proportion of the population that identifies as White, Black, Hispanic, Asian American, Native American, Hawaiian/Pacific Islander, Other, or Mixed Race.\textsuperscript{149} Following Britt (2000), a variable was created with a minimum value (0) reflecting no heterogeneity and a maximum value (1) reflecting equal proportions of all racial/ethnic groups in the county population.\textsuperscript{150} Second, a dynamic measure of

\textsuperscript{146} As noted in chapter 4, urbanization is sometimes used as a contextual predictor of sentencing, but not necessarily as a proxy of political economy. This is not unique, however, as most contextual measures could be interpreted as meaning several different things (e.g., is percentage Black a measure of racial threat, or a proxy for social disorganization?). Here, urbanism is used as a proxy for bureaucratization and routinization of the court (see Singer, 1996). Myers and Talarico (1987: 94–95) further observe that even bureaucratization may involve conflicting interpretations: on the one hand, increased bureaucratization might predict reduced role for extralegal factors in criminal sentencing under a Weberian consensus perspective whereby a more tightly coupled (i.e., better functioning) court will focus less on non-legal factors; on the other hand, increased bureaucratization might predict increased influence of extralegal factors under a conflict perspective whereby court efficiency must be maintained by focusing on “offenders who lack the ability to resist harsh treatment.”

\textsuperscript{147} This is based on Decennial Census data (2010, 2000), Summary File 1.

\textsuperscript{148} Ethnic heterogeneity was not positively correlated with percent Black or percent Hispanic.

\textsuperscript{149} Based on same Census data as the racial threat and ethnic threat measures.

\textsuperscript{150} Specifically, the following equation was used (see Britt, 2000): Heterogeneity = 1 – ((proportion White)^2 + (proportion Black)^2 + (proportion Hispanic)^2 + (proportion American Indian)^2 + (proportion Asian)^2 + ...
Table 5.4. Descriptive statistics for county-level variables, full (detention) sample (N=478)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Community threat</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent Black</td>
<td>11.89</td>
<td>15.98</td>
<td>.10–83.20</td>
</tr>
<tr>
<td>Percent black (squared)</td>
<td>313.93</td>
<td>637.27</td>
<td>.10–6922.24</td>
</tr>
<tr>
<td>Change in percent Black</td>
<td>.10</td>
<td>1.40</td>
<td>-6.40–6.40</td>
</tr>
<tr>
<td>Percent Hispanic</td>
<td>15.54</td>
<td>20.33</td>
<td>.51–95.74</td>
</tr>
<tr>
<td>Percent Hispanic (squared)</td>
<td>770.09</td>
<td>1709.69</td>
<td>.26–9167.1</td>
</tr>
<tr>
<td>Change in percent Hispanic</td>
<td>2.92</td>
<td>2.52</td>
<td>-2.84–11.82</td>
</tr>
<tr>
<td>Concentrated disadvantage (CD)(^b)</td>
<td>0</td>
<td>1</td>
<td>-1.84–4.17</td>
</tr>
<tr>
<td>Change in CD(^b)</td>
<td>0</td>
<td>1</td>
<td>-4.49–3.44</td>
</tr>
<tr>
<td>Gini index (0–1)(^b)</td>
<td>0</td>
<td>1</td>
<td>-2.85–4.07</td>
</tr>
<tr>
<td>Change in Gini index(^b)</td>
<td>0</td>
<td>1</td>
<td>-4.85–3.77</td>
</tr>
<tr>
<td>Crime rate (per 1000)</td>
<td>28.4</td>
<td>13.7</td>
<td>4.04–104.33</td>
</tr>
<tr>
<td>Change in crime rate</td>
<td>-3.98</td>
<td>11.46</td>
<td>-92.43–33.56</td>
</tr>
<tr>
<td>Juvenile crime rate (per 1000)</td>
<td>4.31</td>
<td>3.14</td>
<td>0.2–21.34</td>
</tr>
<tr>
<td>Change in juvenile crime rate</td>
<td>-2.66</td>
<td>3.71</td>
<td>-21.24–8.49</td>
</tr>
<tr>
<td><strong>Social disorganization</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnic heterogeneity (0–1)(^b)</td>
<td>0</td>
<td>1</td>
<td>-1.85–2.2</td>
</tr>
<tr>
<td>Change in ethnic heterogeneity(^b)</td>
<td>0</td>
<td>1</td>
<td>-4.69–3.41</td>
</tr>
<tr>
<td>Residential mobility (% moved)</td>
<td>15.46</td>
<td>4.62</td>
<td>4.08–41.34</td>
</tr>
<tr>
<td>Youth population percentage</td>
<td>24.40</td>
<td>3.35</td>
<td>14.5–37.4</td>
</tr>
<tr>
<td>Change in youth population percentage</td>
<td>-1.87</td>
<td>1.25</td>
<td>-6.9–1.7</td>
</tr>
<tr>
<td><strong>Political economy</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Judicial elections</td>
<td>.84</td>
<td>.37</td>
<td>0–1</td>
</tr>
<tr>
<td>Median income (x1000)</td>
<td>41.88</td>
<td>10.21</td>
<td>20.08–81.27</td>
</tr>
<tr>
<td>Conservative voting majority</td>
<td>14.6</td>
<td>25.61</td>
<td>-75.62–72.73</td>
</tr>
<tr>
<td>Population density (per sq/mi) (x1000)</td>
<td>1.4</td>
<td>3.73</td>
<td>.01–51.58</td>
</tr>
<tr>
<td>Percent change in population density</td>
<td>8.37</td>
<td>13.7</td>
<td>-16.67–84.36</td>
</tr>
<tr>
<td><strong>Geographic</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alabama</td>
<td>.14</td>
<td>.34</td>
<td>0–1</td>
</tr>
<tr>
<td>Connecticut</td>
<td>.02</td>
<td>.13</td>
<td>0–1</td>
</tr>
<tr>
<td>Missouri</td>
<td>.23</td>
<td>.42</td>
<td>0–1</td>
</tr>
<tr>
<td>Oregon</td>
<td>.07</td>
<td>.25</td>
<td>0–1</td>
</tr>
<tr>
<td>South Carolina</td>
<td>.10</td>
<td>.30</td>
<td>0–1</td>
</tr>
<tr>
<td>Texas</td>
<td>.41</td>
<td>.49</td>
<td>0–1</td>
</tr>
<tr>
<td>Utah</td>
<td>.04</td>
<td>.20</td>
<td>0–1</td>
</tr>
</tbody>
</table>

\(^a\) For level-2 variables, descriptive statistics are at the county-level rather than case-level
\(^b\) Standardized variables

(proportion Hawaiian/Pacific Islander)^2 + (proportion Other)^2 + (proportion Mixed Race)^2. (This exhausts the census categories for race/ethnicity.)
ethnic heterogeneity is included, indicating the extent to which heterogeneity changed from 2000 to 2010. Third, residential mobility is measured as percentage of county that has moved in the past five years (see Peck, 2014). Fourth, youth population density is measured as proportion of the county population that is aged 15–18 (see, e.g., Leiber and Peck, 2014; Sampson and Laub, 1993). Fifth, a dynamic measure consists of the change in youth density from 2000 to 2010.

Finally, to control for state-level influences a series of dummy variables are created for each state juvenile justice system. Table 5.4 provides descriptive statistics for the full (detention) sample.

Current Study Hypotheses

The present study is oriented around the following five research questions:

1. Do racial/ethnic disparities at major juvenile justice stages vary significantly across jurisdictions?
2. Do contextual factors directly influence juvenile justice outcomes (across multiple stages)?
3. Are racial/ethnic disparities in juvenile justice outcomes (across multiple stages) moderated by community threats and social disorganization?
4. Are racial/ethnic disparities in juvenile justice outcomes (across multiple stages) moderated by the political economy of the juvenile court?

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151 This is based on ACS five-year estimates of “same residence” for past year. There is no comparable measure in the 2000 SF3 long form data, so no dynamic measure is included for residential mobility.

152 Appendix A contains descriptive statistics for all variables for individual states.
5. Do racial/ethnic disparities from early to later stages of juvenile justice processing result in cumulative disadvantage for minority defendants?

Research question 1

The first set of hypotheses seek to answer the first research question, and reflect a preliminary, benchmark assessment of racial and ethnic disparities at all major stages of juvenile justice processing (post-referral)—and whether these disparities vary across jurisdictions. The directions of the hypotheses are based on prior findings in the literature (see chapter 4).

\( H_{1A} \): Controlling for other relevant case-level variables, Black and Hispanic juvenile defendants will be significantly more likely than White defendants to receive preadjudication detention than release. This effect is predicted to vary across counties.

\( H_{1B} \): Controlling for other relevant case-level variables, Black and Hispanic juvenile defendants will be significantly more likely than White defendants to receive formal petition of delinquency than diversion or dismissal. It is further predicted that Black and Hispanic juvenile defendants will be less likely to receive diversion than dismissal.\(^{153}\) These effects is predicted to vary across counties.

\( H_{1C} \): Controlling for other relevant case-level variables, Black and Hispanic juvenile defendants will be significantly more likely than White defendants to be adjudicated delinquent. This effect is predicted to vary across counties.

\( H_{1D} \): Controlling for other relevant case-level variables, Black and Hispanic juvenile defendants will be significantly more likely than White defendants to receive secure placement than community supervision (e.g., probation, informal adjustment) or

\(^{153}\) Dismissal serves as the reference category, so it is predicted that Black and Hispanic defendants will be both more likely to receive petition and less likely to receive diversion compared to dismissal.
release/diversion (e.g., suspended sentence). Further, it is predicted that Black and Hispanic juvenile defendants will be more likely to receive community supervision than dismissal.\textsuperscript{154} This effect is predicted to vary across counties.

\textbf{H\textsuperscript{1E}:} Controlling for other relevant case-level variables, Black and Hispanic juvenile defendants will be significantly more likely than White defendants to be transferred to criminal court than retained in juvenile court. This effect is predicted to vary across counties.

Findings for the above hypotheses will be included in chapter 6.

\textit{Research question 2}

The second research question will be investigated through a series of hypotheses that predict that contextual factors will directly influence juvenile justice outcomes. Contextual factors have been selected based on extant research on macro-social context and juvenile and criminal court processing, and the direction of the expected findings is based on prior findings (see chapter 4) and theory (see chapter 3).

\textbf{H\textsuperscript{2A}:} \textbf{Detention} will be more likely than release in the presence of greater community threats and greater social disorganization. Detention will also be more likely in the presence of elected judges (external polity) and greater political conservatism (internal polity), and less likely in the presence of higher community wealth (external economy) and greater urbanism (internal economy).

\textbf{H\textsuperscript{2B}:} \textbf{Formal petition} will be more likely than diversion or dismissal in the presence of greater community threats and greater social disorganization. Petition will also be more

\textsuperscript{154} Community supervision serves as the reference category, so it is predicted that Black and Hispanic defendants will be both more likely to receive placement and less likely to receive release compared to community supervision.
likely in the presence of elected judges (external polity) and greater political conservatism (internal polity), and less likely in the presence of higher community wealth (external economy) and greater urbanism (internal economy). It is further predicted that diversion will be less likely than dismissal in the presence of greater community threats and greater social disorganization (i.e., the juvenile court will function more like criminal court in these contexts). Further, it is predicted that diversion will be more likely than dismissal in the presence of elected judges (external polity), higher community wealth (external economy), and greater urbanism (internal economy), and less likely in the presence of greater political conservatism (internal polity).

\textbf{H}_{2c}: \textbf{Waiver} to criminal court will be more likely in the presence of greater community threats and greater social disorganization. Waiver will also be more likely in the presence of elected judges (external polity) and greater political conservatism (internal polity), and less likely in the presence of higher community wealth (external economy) and greater urbanism (internal economy).

\textbf{H}_{2d}: \textbf{Adjudication of delinquency} will be more likely in the presence of greater community threats and greater social disorganization. Adjudication of delinquency will also be more likely in the presence of elected judges (external polity) and greater political conservatism (internal polity), and less likely in the presence of higher community wealth (external economy) and greater urbanism (internal economy).

\textbf{H}_{2e}: \textbf{Secure placement} will be more likely than community supervision or dismissal in the presence of greater community threats and greater social disorganization. Placement

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\textsuperscript{155} Diversion is a unique outcome since it is more punitive than dismissal, but also reflects a less punitive, more treatment-oriented alternative that better reflects the original mission of the juvenile. For this reason, the direction of hypotheses differs somewhat from other outcomes.
will also be more likely in the presence of elected judges (external polity) and greater political conservatism (internal polity), and less likely in the presence of higher community wealth (external economy) and greater urbanism (internal economy). Community supervision will likewise be more likely than dismissal in the presence of greater community threats and greater social disorganization. Placement will also be more likely in the presence of elected judges (external polity) and greater political conservatism (internal polity), and less likely in the presence of higher community wealth (external economy) and greater urbanism (internal economy).

Findings for the above hypotheses will be reported in chapter 6.

Research question 3

The third research question will be investigated through a series of hypotheses that predict that the effects of race/ethnicity on each juvenile justice outcome \((H_{1A} - H_{1E})\) are conditional upon contextual factors that measure community threats and social disorganization. The direction of the expected findings is based on prior findings (see chapter 4) and theory (see chapter 3).

\(H_{3A}\): The direct effect of race and ethnicity on likelihood of detention will be moderated by community threats and social disorganization. It is hypothesized that community threats and social disorganization will positively condition the influence of race and ethnicity on detention (i.e., exacerbating racial/ethnic disparities).

\(H_{3B}\): The direct effect of race and ethnicity on likelihood of formal petition will be moderated by community threats and social disorganization. It is hypothesized that community threats and social disorganization will positively condition the influence of race and ethnicity on formal petition, and negatively condition the influence of race/ethnicity on diversion (i.e., exacerbating racial/ethnic disparities),
H$_{3C}$: The direct effect of race and ethnicity on likelihood of **waiver to adult court** will be *moderated* by community threats and social disorganization. It is hypothesized that community threats and social disorganization will positively condition the influence of race and ethnicity on waiver (i.e., exacerbating racial/ethnic disparities).

H$_{3D}$: The direct effect of race and ethnicity on likelihood of **adjudication of delinquency** will be *moderated* by community threats and social disorganization. It is hypothesized that community threats and social disorganization will positively condition the influence of race and ethnicity on adjudication (i.e., exacerbating racial/ethnic disparities).

H$_{3E}$: The direct effect of race and ethnicity on likelihood of **secure placement** will be *moderated* by community threats and social disorganization. It is hypothesized that community threats and social disorganization will positively condition the influence of race and ethnicity on placement, and negatively condition the influence of dismissal (i.e., exacerbating racial/ethnic disparities).

Findings for the above hypotheses will be reported in chapter 7.

*Research question 4*

The fourth research question will be investigated through a series of hypotheses that predict that the effects of race/ethnicity on each juvenile justice outcome ($H_{1A}$–$H_{1E}$) are *conditional* upon contextual factors that measure the political economy of the juvenile court. The direction of the expected findings is based on prior findings (see chapter 4) and theory (see chapter 3).

H$_{3A}$: The direct effect of race and ethnicity on likelihood of **detention** will be *moderated* by political economy. It is hypothesized that elected judges (external polity) and political conservatism (internal polity) will positively condition the influence of race and ethnicity
on detention, while community wealth (external economy) and urbanization (internal economy) will negatively condition the influence of race and ethnicity on detention.

H$_{3B}$: The direct effect of race and ethnicity on likelihood of formal petition will be moderated by political economy. It is hypothesized that elected judges (external polity) and political conservatism (internal polity) will positively condition the influence of race and ethnicity on petition, while community wealth (external economy) and urbanization (internal economy) will negatively condition the influence of race and ethnicity on petition. For diversion, it is expected that elected judges (external polity) and political conservatism (internal polity) will negatively condition the influence of race and ethnicity on petition, while community wealth (external economy) and urbanization (internal economy) will positively condition the influence of race and ethnicity on petition.

H$_{3c}$: The direct effect of race and ethnicity on likelihood of waiver to adult court will be moderated by political economy. It is hypothesized that elected judges (external polity) and political conservatism (internal polity) will positively condition the influence of race and ethnicity on waiver, while community wealth (external economy) and urbanization (internal economy) will negatively condition the influence of race and ethnicity on waiver.

H$_{3d}$: The direct effect of race and ethnicity on likelihood of adjudication of delinquency will be moderated by political economy. It is hypothesized that elected judges (external polity) and political conservatism (internal polity) will positively condition the influence of race and ethnicity on adjudication, while community wealth (external economy) and urbanization (internal economy) will negatively condition the influence of race and ethnicity on adjudication.
H$_{3E}$: The direct effect of race and ethnicity on likelihood of secure placement will be moderated by political economy. It is hypothesized that elected judges (external polity) and political conservatism (internal polity) will positively condition the influence of race and ethnicity on placement, while community wealth (external economy) and urbanization (internal economy) will negatively condition the influence of race and ethnicity on placement. For judicial release/diversion, it is expected that elected judges (external polity) and political conservatism (internal polity) will negatively condition the influence of race and ethnicity on release, while community wealth (external economy) and urbanization (internal economy) will positively condition the influence of race and ethnicity on release.

Findings for the above hypotheses will be reported in chapter 8.

Research question 5

The fifth research question asks whether cumulative disadvantage is present for Black and Hispanic defendants relative to White defendants. Following Kutateladze and colleagues (2014), cumulative disadvantage will be calculated using predicted probabilities for various “paths” through the juvenile justice system. For the five juvenile court outcomes, the following 14 paths to final outcomes are possible, listed from least to most disadvantaged:$^{156}$

1. No detention, no formal petition of delinquency, release
2. Detention, no petition of delinquency, release
3. No detention, no petition of delinquency, diverted

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$^{156}$ Ranking the outcomes from least to most disadvantaged is, of course, imperfect. It assumes that, ceteris paribus, it is worse to be detained (prior to adjudication) than released, it is worse to be petitioned than diverted, it is worse to receive secure placement than community supervision, and it is worse to be waived to criminal court than any juvenile court outcomes (including secure placement). (This last assumption is based on the observation that transfer to adult court is the “capital punishment of juvenile justice”; see Zimring, 1981: 193) While these appear quite defensible assumptions, they may not hold in every particular case.
4. Detention, no petition of delinquency, diverted
5. No detention, petition of delinquency, not adjudicated delinquent
6. Detention, petition of delinquency, not adjudicated delinquent
7. No detention, petition of delinquency, adjudicated delinquent, released
8. Detention, petition of delinquency, adjudicated delinquent, released
9. No detention, petition of delinquency, adjudicated delinquent, community supervision
10. Detention, petition of delinquency, adjudicated delinquent, community supervision
11. No detention, petition of delinquency, adjudicated delinquent, secure placement
12. Detention, petition of delinquency, adjudicated delinquent, secure placement
13. No detention, petition of delinquency, waiver to adult court
14. Detention, petition of delinquency, waiver to adult court

Hypotheses are based on prior findings (see chapter 4) and theory (see chapter 3). The following hypotheses will be tested:

**H3A**: Compared to White defendants, Black defendants will have an increased probability of experiencing “more disadvantaged” outcomes and a decreased probability of experiencing “less disadvantaged” outcomes (e.g., “outcome 14” should be more likely for Black defendants while “outcome 1” should be more likely for White defendants). As outcomes exhibit greater disadvantage (i.e., as one moves from outcome 1 to outcome 14), the differential probability should *increase* for Black defendants relative to White defendants.

**H3B**: Compared to White defendants, Hispanic defendants will have an increased probability of experiencing “more disadvantaged” outcomes and a decreased probability of experiencing “less disadvantaged” outcomes (e.g., “outcome 14” should be more likely...
for Hispanic defendants while “outcome 1” should be more likely for White defendants). As outcomes exhibit greater disadvantage (i.e., as one moves from outcome 1 to outcome 14), the differential probability should increase for Hispanic defendants relative to White defendants.

$H_3C$: Compared to Hispanic defendants, Black defendants will have an increased probability of experiencing “more disadvantaged” outcomes and a decreased probability of experiencing “less disadvantaged” outcomes (e.g., “outcome 14” should be more likely for Black defendants while “outcome 1” should be more likely for Hispanic defendants). As outcomes exhibit greater disadvantage (i.e., as one moves from outcome 1 to outcome 14), the differential probability should increase for Black defendants relative to Hispanic defendants.

Findings for the above hypotheses will be reported in chapter 9.

Analytical Strategy

The analytic strategy proceeds as follows. The first stage corresponds to research questions 1 and 2, estimating racial/ethnic disparities at multiple stages of processing, variation in the effects of race/ethnicity across jurisdictions, and direct effects of contextual factors on juvenile justice outcomes (findings presented in chapter 6, Findings for Macro-Social Context). After estimating the direct effects of context, cross-level interactions will be estimated between race/ethnicity and community threats (findings presented in chapter 7, Findings for Community Threat Hypotheses) and political economy (findings presented in chapter 8, Findings for Political Economy Hypotheses). The final stage of analysis involves estimating cumulative disadvantage across
stages of the juvenile justice system (findings presented in chapter 9, Findings for Cumulative Disadvantage).

**Macro-social context of DMC**

The first stage of the project involves estimation of a series of multilevel models (see Johnson, 2010; Raudenbush and Bryk, 2002) for each major decision point in juvenile court. For binary outcomes (i.e., detention, adjudication, waiver), hierarchical logistic regression is used. For categorical outcomes (i.e., petition, disposition), hierarchical multinomial logistical regression is employed. Race and ethnicity will be treated as random coefficients (i.e., random effects), so their estimated effects will be allowed to vary across level-2 units (counties).\(^{157}\) The analysis will proceed in stages, beginning with variance components (i.e., unconditional) models, followed by random intercept (i.e., fixed effects) models, and finally random coefficients models where race and ethnicity are designated as random (allowing variation across level-2 units).\(^{158}\)

First, effects of race/ethnicity, variation in the effects of race/ethnicity, and direct contextual variables on juvenile court outcomes will be assessed in a series of multilevel models for each of five juvenile court outcomes, testing H\(_{1A}\)– H\(_{1E}\) and H\(_{2A}\)– H\(_{2E}\). Significant positive coefficients for race/ethnicity will indicate that Black and Hispanic juvenile defendants are more likely to receive the relevant outcome (i.e., evidence of DMC), significant random slopes for race and ethnicity will indicate that the impact of race/ethnicity varies significantly across counties, and significant coefficients for contextual variables will indicate that context influences juvenile court outcomes. Findings are reported in chapter 6.

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\(^{157}\) The sample size for the variance components for random effects is smaller, based on the number of level-2 units with sufficient variation in the designated random coefficient for computation.

\(^{158}\) Hierarchical linear modeling software (HLM 6.1) will be used for this stage of the analysis.
Once the direct effects of race/ethnicity and context have been investigated (including variation in these effects across counties), the next phase of the analysis will assess whether the effects of race/ethnicity on outcomes are \textit{conditional} upon contextual factors.\textsuperscript{159} First, the moderating role of community threats will be examined (H\textsubscript{3A}–H\textsubscript{3E}). Specifically, cross-level interactions will be estimated between community threat and social disorganization (level-2) variables, on the one hand, and race and ethnicity (level-1) variables, on the other. Significant coefficients for these cross-level interactions will indicate that the influence of race/ethnicity (which varies across counties) is moderated by some aspect of community threat or social disorganization. In other words, this would provide evidence that the influence of race/ethnicity varies across counties \textit{according to} variations in community threats and social disorganization (as predicted by conflict theory). Findings will be reported in chapter 7.

Second, the moderating role of the political economy of the juvenile court will be examined (H\textsubscript{4A}–H\textsubscript{4E}). Specifically, cross-level interactions will be estimated between political economy (level-2) variables, on the one hand, and race and ethnicity (level-1) variables, on the other. Significant coefficients for these cross-level interactions will indicate that the influence of race/ethnicity (which varies across counties) is moderated by some aspect of political economy of the juvenile court. In other words, this would provide evidence that the influence of race/ethnicity varies across counties \textit{according to} variations in the political economy of the juvenile court (as predicted by organizational theory).

\textsuperscript{159} As such, for each contextual variable there will be two relevant estimates for each juvenile court outcomes: first, does the contextual variable (e.g., racial threat) directly influence outcomes (e.g., likelihood of detention); and second, does the contextual variable (e.g., racial threat) moderate the relationship between race/ethnicity and the outcome (e.g., likelihood of detention), such that racial/ethnic disparities in said outcomes are greater in the presence of the contextual variable. The first question is investigated in chapter 6; the second question is investigated in chapters 7 and 8.
Cumulative disadvantage

While the first phase of analytical strategy (above) looks at each of five stages of juvenile justice processing independently, the second phase examines them in combination. First, this will involve the precise calculation of cumulative disadvantage and estimation of models to assess indirect effects of race/ethnicity on juvenile court outcomes. Following Kutateladze and colleagues (2014), cumulative disadvantage will be calculated using predicted probabilities for various “paths” through the juvenile justice system.\textsuperscript{160} For the five binary juvenile court outcomes, the following fourteen paths to final outcomes are possible, listed from least to most disadvantaged:

1. No detention, no formal petition of delinquency, release
2. Detention, no petition of delinquency, release
3. No detention, no petition of delinquency, diverted
4. Detention, no petition of delinquency, diverted
5. No detention, petition of delinquency, not adjudicated delinquent
6. Detention, petition of delinquency, not adjudicated delinquent
7. No detention, petition of delinquency, adjudicated delinquent, released
8. Detention, petition of delinquency, adjudicated delinquent, released
9. No detention, petition of delinquency, adjudicated delinquent, community supervision
10. Detention, petition of delinquency, adjudicated delinquent, community supervision
11. No detention, petition of delinquency, adjudicated delinquent, secure placement
12. Detention, petition of delinquency, adjudicated delinquent, secure placement

\textsuperscript{160} Predicted or conditional probabilities represent the standard approach for estimating cumulative disadvantage, although others have used alternative methods such as conducting meta-analysis on random subsections of a sample at each decision point (see Stolzenberg et al., 2013).
13. No detention, petition of delinquency, waiver to adult court

14. Detention, petition of delinquency, waiver to adult court

For each “path,” predicted probabilities will be generated following multilevel regression models where the binary outcome is a different path. The multilevel models will only contain case-level (level-1) variables and state control variables. Other contextual variables are excluded for parsimony because some of the 14 path outcomes have a small number of observations and sensitivity analyses revealed that models with too many level-2 variables produced different (and less reliable) results.

Predicted probabilities can be calculated using the *margins* command in Stata 15, calculating the probability for a certain combination of binary outcomes (each “path”), separately for Black, Hispanic, and White defendants. One approach, followed by Kutateladze and colleagues (2014), is to estimate conditional probabilities, setting all confounders at a fixed value (e.g., the mean). Results can be interpreted as “this is the probability of outcome X for the average case where every measured variable is at the mean.” As Muller and MacLehose (2014: 967) point out, however, this does not make sense for categorical (or binary) confounder variables because it “estimates predicted probabilities for a non-existent target population” (e.g., there is no such thing as a defendant who is 65% male, 24% Black, 20% violent offender, etc.). As a result, conditional probabilities that set confounders to the mean will produce different probabilities than marginal standardization (i.e., predicted probabilities based on a regression

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Dependent variables are coded into exclusive categories for purpose of comparison. For example, a juvenile defendant who is not petitioned is eliminated from consideration for paths 5–14. This does not capture the possibility that a juvenile may be diverted from formal processing (including petition and adjudication) and still receive a disposition rather than outright dismissal (see Mears, 2012; Mears, 2016b). As Mears and colleagues (2016b: 959) rightly note, “One of the central problems in studies of diversion is that the concept is unclear . . . diversion might be viewed as dismissing a case outright from juvenile court. It might be viewed as an effort to intervene with youth whose minor offenses might otherwise go unaddressed by the juvenile system. It might be viewed as an alternative to formal court processing. Or it might be viewed as a lesser sanction than otherwise might be imposed.”

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equation including said confounders). Only when all confounders are continuous will these two methods produce the same results (given that means are meaningful for continuous variables). As Muller and MacLehose (2014) conclude, “In the presence of dichotomous confounders, [marginal standardization] is the appropriate choice when the goal is to model the average association in the overall study population.” This approach is called “average adjusted predictions” in contrast to “adjusted prediction at the means”: it is the average of predictions rather than the prediction of the average across covariates and will be followed here.

This represents an important first step in assessing whether cumulative disadvantage is present; that is, whether Black and Hispanic defendants have increased probabilities of the “worst” paths through the juvenile justice system.¹⁶²

¹⁶² Sutton (2013) was the first to calculate conditional probabilities for various outcomes (combinations of detention, adjudication, and sentence) using Bayesian probabilities. Following Kutateladze et al. (2014), the present dissertation research does not employ Bayesian models, however.
Chapter 6: Findings for Macro-Social Context

In this chapter, a series of multilevel models explore whether major juvenile court outcomes—preadjudication detention, petition of delinquency, adjudication of delinquency, judicial disposition, and waiver to criminal court\textsuperscript{163}—vary across different contexts, and whether such variation is conditioned by contextual factors at the county level. Broadly, these contextual effects test the role of community threats, social disorganization, and the political economy of the juvenile court in shaping court outcomes.

First, it is possible that juvenile court outcomes vary according to sociopolitical characteristics of the surrounding community; specifically, community threats. Community threats are measured as follows: (1) racial threat (measured by percent Black and change in percent Black from 2000 to 2010); (2) ethnic threat (measured by percent Hispanic and change in percent Hispanic from 2000 to 2010); (3) economic threat (measured by concentrated disadvantage, change in concentrated disadvantage from 2000 to 2010, income inequality measured by the Gini coefficient, and change in income inequality from 2000 to 2010); and (3) crime threat (measured by index crime rates, change in crime rates from 2000 to 2010, juvenile arrest rates, and change in juvenile arrest rate from 2000 to 2010). Second, it is possible that juvenile court outcomes vary according to the social disorganization of the surrounding community. While this is related to and can be confounded with community threat hypotheses (see Chamlin and Cochran, 2000), here it is measured as three additional community characteristics: (1) ethnic heterogeneity and change in ethnic heterogeneity (from 2000 to 2010); (2) residential mobility (from 2005 to 2010); and (3) youth population density and change in youth population density (from 2000 to 2010). Finally, it is possible that juvenile court outcomes

\textsuperscript{163} For each of the five outcomes (dependent variables), cases are dropped from the sample if data are missing on any variables. Counties are thus dropped if all cases are systematically missing data on some variable(s).
vary according to differences in the political economy of the juvenile court. Following Hasenfeld and Cheung (1985), this is measured as follows: (1) judicial elections; (2) political ideology (measured as percent Republican voting majority); (3) urbanism (measured as population density and change in population density from 2000 to 2010); and (4) juvenile court (and community) resources (measured as median income).

Variation in Juvenile Court Outcomes

The first research question is whether juvenile court outcomes vary across counties in the sample, and a series of empty hierarchical logit models (i.e., variance component models) were estimated for each outcome. Results (not shown) indicate that all juvenile court outcomes vary significantly across counties.

For detention, the level-2 variance component ($\psi$) is 1.90 and intraclass correlation ($\rho$) is .37, indicating that before any predictors are added approximately 37% of the variation in preadjudication detention outcomes is attributable to between-county differences. For formal petition (versus release), $\psi = 1.86$ and $\rho = .36$, indicating that approximately 36% of the variation in formal petition is attributable to between-county differences. There is also significant variation in diversion (relative to release) across counties, with $\psi = 2.85$ and $\rho = .46$, indicating that approximately 46% of the variation in diversion is attributable to between-county differences. For adjudication of delinquency, $\psi = 2.27$ and $\rho = .41$, indicating that approximately 41% of the variation in adjudication outcomes is attributable to between-county differences. For secure placement (versus community supervision), $\psi = .60$ and $\rho = .15$, indicating that approximately

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164 Since multilevel logit models do not include a level-1 variance term, intraclass correlation can be estimated as follows: $\rho = \psi^2 / (\psi^2 + \pi^2 / 3)$. This assumes that the level-1 variance follows the logistic distribution (see Johnson, 2010: 640).
15% of the variation in secure placement is attributable to between-county differences. There is also significant variation in release/diversion (relative to community supervision) across counties, with $\psi = 2.89$ and $\rho = .47$, indicating that approximately 47% of the variation in dismissal is attributable to between-county differences. Finally, for waiver to adult court, $\psi = 2.11$ and $\rho = .39$, indicating that approximately 39% of the variation in preadjudication detention outcomes is attributable to between-county differences.

In sum, juvenile court outcomes vary significantly across counties, and approximately 36–47% of the variation in these outcomes is attributable to county-level differences. The one exception is secure placement, where only approximately 15% of the variation in placement (versus release) is attributable to county-level differences. As expected, the multilevel strategy for examining juvenile court outcomes is justified.

Variation in Race/Ethnicity Effects on Juvenile Court Outcomes

Having established that juvenile court outcomes vary significantly across different contexts, the second phase of the analysis assesses the relationship between race/ethnicity and juvenile court outcomes, and whether this relationship (i.e., the effects of race/ethnicity) also varies across contexts. A series of hierarchical models were estimated with case-level variables only and race/ethnicity designated as a random effect.²⁶⁵ Findings show that race and ethnicity are significantly associated with several—but not all—juvenile court outcomes (see table 6.1).

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²⁶⁵ For all multilevel analyses with binary outcomes (i.e., logistic regression), unit-specific estimates are used to assess the effects of race and context within each jurisdiction (rather than population average estimates), following most work on racial disparities in sentencing (see, e.g., Ulmer and Johnson, 2004). This can be interpreted as
Table 6.1. Multilevel models for juvenile court outcomes, case-level variables only

<table>
<thead>
<tr>
<th></th>
<th>Detention</th>
<th>Petition</th>
<th>Adjudication</th>
<th>Disposition</th>
<th>Waiver</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(N= 478; 255,288)</td>
<td>(N=478; 249,846)</td>
<td>(N=457; 101,684)</td>
<td>(N = 451; 71,916)</td>
<td>(N=457; 103,183)</td>
</tr>
<tr>
<td>Fixed effects</td>
<td>OR (95% CI)</td>
<td>OR (95% CI)</td>
<td>OR (95% CI)</td>
<td>OR (95% CI)</td>
<td>OR (95% CI)</td>
</tr>
<tr>
<td>Intercept</td>
<td>.41* (.17, .98)</td>
<td>.98 (.23, 4.20)</td>
<td>.28** (.11, .68)</td>
<td>1.08 (.38, 3.07)</td>
<td>.02*** (.00, .15)</td>
</tr>
<tr>
<td>Race/ethnicity (ref: White)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>1.35*** (1.27, 1.43)</td>
<td>.77*** (.74, .84)</td>
<td>.94† (.90, 1.02)</td>
<td>.97 (.90, 1.05)</td>
<td>.82** (.85, 1.16)</td>
</tr>
<tr>
<td>Hispanic</td>
<td>1.31*** 1.00</td>
<td>1.15*** (.95, 1.10)</td>
<td>.98 (.107, 1.23)</td>
<td>.91 (.90, 1.06)</td>
<td>.82*** (.60, .78)</td>
</tr>
<tr>
<td>Other race/ethnicity</td>
<td>1.07 (.97, 1.18)</td>
<td>.90† (.80, 1.01)</td>
<td>.96 (.85, 1.09)</td>
<td>.97 (.87, 1.07)</td>
<td>1.02 (.89, 1.18)</td>
</tr>
<tr>
<td>Male</td>
<td>1.52*** (.44, 1.61)</td>
<td>.79*** (.74, .85)</td>
<td>1.37*** (.127, 1.47)</td>
<td>1.31*** (.119, 1.44)</td>
<td>.94† (.1.88, 1.18)</td>
</tr>
<tr>
<td>Age</td>
<td>1.13*** (.1.10, 1.15)</td>
<td>.95*** (.93, .97)</td>
<td>1.09*** (.1.06, 1.12)</td>
<td>1.04 (.1.00, 1.08)</td>
<td>.107 (.1.05, 1.10)</td>
</tr>
<tr>
<td>Offense type</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Violent offense</td>
<td>2.25*** (1.98, 2.54)</td>
<td>.50*** (.41, .61)</td>
<td>.79*** (.69, .91)</td>
<td>.81*** (.74, .89)</td>
<td>.97 (.89, 1.06)</td>
</tr>
<tr>
<td>Drug/alcohol offense</td>
<td>.76*** (.69, .84)</td>
<td>.96 (.79, 1.16)</td>
<td>1.05 (.86, 1.28)</td>
<td>.84** (.74, .95)</td>
<td>.77* (.70, .84)</td>
</tr>
<tr>
<td>Probation violation</td>
<td>4.39*** (.34, 5.67)</td>
<td>.62 (.35, 1.51)</td>
<td>1.35 (.82, 2.20)</td>
<td>1.07 (.80, 1.42)</td>
<td>.79 (.51, 1.21)</td>
</tr>
<tr>
<td>Status offense</td>
<td>.33*** (.26, .42)</td>
<td>.26*** (.18, .37)</td>
<td>.15*** (.10, .22)</td>
<td>.40*** (.31, .51)</td>
<td>.99 (.84, 1.18)</td>
</tr>
<tr>
<td>Other offense</td>
<td>.114 (.90, 1.44)</td>
<td>.63*** (.46, .85)</td>
<td>.70*** (.57, .85)</td>
<td>.65*** (.54, .77)</td>
<td>1.27*** (.1,71, 1.38)</td>
</tr>
<tr>
<td>Detention</td>
<td>- .45*** (.26, .37)</td>
<td>3.83*** (.30, .48)</td>
<td>2.36*** (.20, .27)</td>
<td>1.15 (.203, 2.75)</td>
<td>1.15 (.74, 1.77)</td>
</tr>
<tr>
<td>Random effects</td>
<td></td>
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<td>3.04*** (1.74)</td>
<td>2.41*** (1.55)</td>
<td>1.13*** (1.06)</td>
<td>2.70*** (1.64)</td>
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<td>.12***</td>
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<td>(.32)</td>
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Reference category: release
Reference: community supervision
† <.10 * <.05 ** <.01 *** <.001
At the detention stage, both race and ethnicity are associated with detention outcomes in the expected direction. Odds of detention are 35% greater for Black defendants compared to White defendants (OR = 1.35), and 31% greater for Hispanic defendants compared to White defendants (OR = 1.31), while no significant differences emerged for White defendants compared to Other race/ethnicity defendants. These effects of defendant race and ethnicity on detention were also found to vary significantly across counties, with approximately 4% of the total variation attributable to between-county differences.

The relationship between race/ethnicity and petition outcomes is more mixed. Hispanic defendants are more likely to receive a formal petition compared to release (OR = 1.15), with odds of formal petition 15% higher than for White defendants, while Black defendants are marginally less likely to receive formal petition compared to release (OR = .94, $p = .06$) On the other hand, Black (but not Hispanic) defendants are less likely to receive diversion than release (OR = .77), indicating that the odds of diversion are 23% lower than for White defendants. The relationship between Other race/ethnicity defendants and diversion also approaches significance (OR = .90, $p = .06$), indicating that Other race/ethnicity defendants are also less likely to receive diversion. These effects of defendant race and ethnicity on petition outcomes vary

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166 Other case-level variables were also significantly associated with detention. Male defendants are more likely to receive detention (OR = 1.52), as are older defendants (OR = 1.13). Relative to property offense referrals, violent offense referrals (OR = 2.25) and probation violations (OR = 4.38) are more likely to experience detention, while drug and alcohol offense referrals (OR = .76) and status offenses (OR = .33) are less likely to receive detention.

167 Other case-level variables were also significantly associated with petition outcomes. Male defendants are more likely to receive detention (OR = 1.37) and less likely to receive diversion (OR = .79). Older defendants follow the same pattern: more likely to receive petition (OR = 1.09) and less likely to receive diversion (OR = .95). Relative to property offense referrals, violent offense referrals are less likely to result in diversion (OR = .50) or petition (OR = .79) compared to release. Status offenses are also less likely to result in diversion (OR = .26) or formal petition (OR = .15), as are other offenses (diversion: OR = .63; petition: OR = .70). Probation violations and drug/alcohol offense referrals, on the other hand, are not significantly associated with petition outcomes (relative to property offenses). Interestingly, then, it would appear that property offenses are most likely to receive formal petition as well as diversion, while both more serious (i.e., violent) and less serious (i.e., status, public order) offenses are most likely to result in release. Finally, preadjudication detention is significantly associated with lower odds of diversion (OR = .45) and higher odds of formal petition (OR = 3.83).
significantly across counties. For diversion outcomes, approximately 2% (for Black) and 3% (for Hispanic) of the total variation in effects is attributable to between-county differences; for petition outcomes, it is approximately 4% (for Black) and 3% (for Hispanic).

Race and ethnicity are not associated with likelihood of adjudication, however. The effects of defendant race and ethnicity still vary significantly across counties, with approximately 4% of the total variation in the effects of race and 2% of the total variation in the effects of ethnicity on adjudication outcomes attributable to between-county difference.

At judicial disposition, Black and Hispanic defendants are less likely to be released (or diverted) than to receive community supervision compared to White defendants. For Black defendants, odds of judicial release are 18% lower than for White defendants (OR = .82), while for Hispanic defendants odds are 32% lower (OR = .68). Black (but not Hispanic) defendants are also more likely to receive secure placement (OR = 1.15) than community supervision—15% greater odds than for White defendants. Other race/ethnicity defendants are less likely to receive placement than White defendants (OR = .86), while no relationship is detected for odds of release/diversion. The effects of defendant race and ethnicity vary significantly across counties for secure placement, with approximately 5% (for Black) and 3% (for Hispanic) of variation

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168 Interestingly, most other case-level variables are associated with likelihood of adjudication. Male defendants are more likely to be adjudicated delinquent (OR = 1.31), as are older defendants (albeit with marginal significance; OR = 1.07, p = .08). Relative to property offense referrals, violent offense referrals (OR = .81), drug and alcohol offense referrals (OR = .84), status offenses (OR = .40), and other offenses (OR = .65) are less likely to be adjudicated delinquent. Finally, referrals that received preadjudication detention were more likely to be adjudicated delinquent (OR = 2.37).

169 Other case-level variables were also significantly associated with dispositional outcomes. Male defendants are more likely to receive placement (OR = 1.44). Older defendants are both more likely to receive placement (OR = 1.21) and dismissal (OR = 1.08) relative to community supervision. Relative to property offense referrals, violent offense referrals are more likely to result in placement (OR = 1.18), as are probation violations (OR = 3.16) and other offenses (OR = 1.66). Drug and alcohol offenses, on the other hand, are less likely to result in placement (OR = .70). Drug/alcohol offense referrals are also less likely to receive dismissal relative to community supervision, while other offenses are more likely to receive dismissal (OR = 1.27). Finally, preadjudication detention is significantly associated with higher odds of placement (OR = 3.05).
attributable to between-county differences. For judicial release outcomes, however, race and ethnicity effects do not vary significantly across counties.

Lastly, Black defendants were more likely to be waived to adult court (OR=1.68), with 68% greater odds than White defendants. There is no significant difference in odds of waiver for Hispanic or Other race/ethnicity defendants, however. Unlike other juvenile court outcomes, the effects of defendant race and ethnicity on waiver outcomes do not vary significantly across context.

Contextual Effects
Having determined that juvenile court outcomes vary across contexts, are influenced by race and ethnicity, and that race and ethnicity also vary across contexts, the next stage of the analysis explores why this variation takes place. First, multilevel models with contextual variables only (i.e., no case-level variables) were estimated to assess the reduced/explained contextual variation in juvenile court outcomes (i.e., intraclass correlation). Table 6.2 compares the variance components and intraclass correlation for each outcome for three models: unconditional (i.e., null); contextual variables only; and contextual variables plus states. The reduction in contextual variation can be interpreted as amount of contextual variation that is explained by the addition of county-level characteristics and states.

For detention, of the 37% variation in outcomes attributable to macro-level variation in the null model, approximately 19% is explained by contextual characteristics and states. For

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170 Other case-level variables were also significantly associated with waiver outcomes. Male defendants are more likely to be waived to criminal court (OR = 1.99), as are older defendants (OR = 1.77). Relative to property offense referrals, violent offense referrals (OR = 3.82) are more likely to be waived to criminal court, while drug/alcohol offense referrals (OR = .55) and probation violation referrals (OR = .24) are less likely to be waived. Finally, referrals that are assigned prejudication detention are more likely to be waived to criminal court (OR = 2.10).

171 The two juvenile court outcomes that do not vary across counties—release at disposition and waiver—are also the rarest outcomes.
<table>
<thead>
<tr>
<th>Outcome</th>
<th>Unconditional model</th>
<th>+ Contextual variables</th>
<th>+ States</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Variance components ($\psi$)</td>
<td>Intraclass correlation ($\rho$)</td>
<td>Variance components ($\psi$)</td>
</tr>
<tr>
<td>Detention</td>
<td>1.90*** (1.38)</td>
<td>.37</td>
<td>1.04*** (1.02)</td>
</tr>
<tr>
<td>Diversion</td>
<td>2.85*** (1.69)</td>
<td>.46</td>
<td>2.21*** (1.49)</td>
</tr>
<tr>
<td>Petition</td>
<td>1.86*** (1.36)</td>
<td>.36</td>
<td>1.48*** (1.22)</td>
</tr>
<tr>
<td>Adjudication</td>
<td>2.27*** (1.51)</td>
<td>.41</td>
<td>1.74*** (1.32)</td>
</tr>
<tr>
<td>Judicial release</td>
<td>2.89*** (1.70)</td>
<td>.47</td>
<td>2.07*** (1.44)</td>
</tr>
<tr>
<td>Judicial placement</td>
<td>.60*** (.77)</td>
<td>.15</td>
<td>.49*** (.70)</td>
</tr>
<tr>
<td>Waiver</td>
<td>2.11*** (1.45)</td>
<td>.39</td>
<td>1.46*** (1.21)</td>
</tr>
</tbody>
</table>

† <.10 * <.05 ** <.01 *** <.001
diversion, of the 46% variation in outcomes attributable to macro-level variation in the null model, approximately 15% is explained by the included contextual characteristics and states. For petition, of the 36% variation in outcomes attributable to macro-level variation in the null model, approximately 10% is explained by the included contextual characteristics and states. For adjudication, of the 41% variation in outcomes attributable to macro-level variation in the null model, approximately 16% is explained by the included contextual characteristics and states. For judicial release, of the 47% variation in outcomes attributable to macro-level variation in the null model, approximately 20% is explained by the included contextual characteristics and states. For judicial placement, of the 15% variation in outcomes attributable to macro-level variation in the null model, approximately 5% is explained by the included contextual characteristics and states. Lastly, of the 39% variation in waiver outcomes attributable to macro-level variation in the null model, approximately 9% is explained by the included contextual characteristics and states.

As such, while the addition of contextual characteristics and states (especially the latter) explain some of the contextual variation in juvenile justice outcomes, there remains some unexplained variation at the macro-level (ranging from 10% to 30%).

Having examined the contribution of contextual characteristics to explaining variation in juvenile court outcomes across counties, a series of multilevel models with robust standard errors were next employed to assess the relationship between juvenile court outcomes and contextual characteristics.

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172 Interestingly, adding states only (without contextual variables) reduced variation to the same extent as adding contextual variables and states as shown in column 3 of table 6.2 (that is, the intraclass correlations in the states only models were virtually identical to the intraclass correlations in the full models). This seems to indicate that contextual variables explained very little county-level variation in outcomes that cannot ultimately be attributed to states. In other words, the reduction in variation attributable to adding contextual variables only (see table 6.2, column 2) appears due to state-level variation (such that the contextual variables add little to no additional explanatory power). This is consistent with findings (from sensitivity analyses) that many more contextual variables were associated with juvenile court outcomes before state controls were added to the models. It thus appears that states differ in terms of the included contextual characteristics. *Infra* note 185.
Table 6.3. Multilevel models for juvenile court outcomes, contextual variables only

<table>
<thead>
<tr>
<th>Fixed effects</th>
<th>Detention (N= 478; 249, 924)</th>
<th>Petition (N=478; 249,846)</th>
<th>Adjudication (N=457; 101, 684)</th>
<th>Disposition (N = 451; 71,916)</th>
<th>Waiver (N=457; 103, 183)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Diversion(^a)</td>
<td>Petition(^a)</td>
<td>OR (95% CI)</td>
<td>Release/ Diversion</td>
<td>Placement(^b)</td>
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<tr>
<td><strong>Contextual Variables</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community threats</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent Black</td>
<td>1.01 (96, 1.05)</td>
<td>1.01 (99, 1.04)</td>
<td>0.99 (94, 1.06)</td>
<td>0.97 (91, 1.03)</td>
<td>0.96 (88, 1.04)</td>
</tr>
<tr>
<td>Percent Black (squared)</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Change in percent Black</td>
<td>0.94 (0.87, 1.00)</td>
<td>1.05 (1.00, 1.00)</td>
<td>1.02 (1.00, 1.00)</td>
<td>1.10 (1.00, 1.00)</td>
<td>0.99 (1.00, 1.00)</td>
</tr>
<tr>
<td>Percent Hispanic</td>
<td>1.03 (0.98, 1.07)</td>
<td>1.00 (0.98, 1.01)</td>
<td>0.96 (0.90, 1.02)</td>
<td>0.96 (0.89, 1.03)</td>
<td>0.88 (0.88, 1.08)</td>
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<tr>
<td>Percent Hispanic (squared)</td>
<td>0.99 (0.98, 1.00)</td>
<td>1.00 (1.00, 1.00)</td>
<td>1.00 (1.00, 1.00)</td>
<td>1.00 (1.00, 1.00)</td>
<td>1.00 (1.00, 1.00)</td>
</tr>
<tr>
<td>Change in percent Hispanic</td>
<td>0.95 (0.90, 1.00)</td>
<td>1.03 (1.00, 1.00)</td>
<td>1.05 (1.00, 1.00)</td>
<td>1.06 (1.00, 1.00)</td>
<td>1.00 (1.00, 1.00)</td>
</tr>
<tr>
<td>Concentrated Hispanic</td>
<td>0.98 (0.80, 1.05)</td>
<td>1.06 (0.79, 1.10)</td>
<td>1.34 (0.82, 1.14)</td>
<td>0.92 (0.77, 1.13)</td>
<td>(1.21, 1.44)</td>
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<tr>
<td>Concentrated disadvantage (CD)(^c)</td>
<td>0.92</td>
<td>0.92 (0.80, 1.05)</td>
<td>0.93 (0.79, 1.10)</td>
<td>0.93 (0.79, 1.10)</td>
<td>0.93 (0.79, 1.13)</td>
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<tr>
<td>Change in CD(^c)</td>
<td>0.91</td>
<td>0.90 (0.87, 1.00)</td>
<td>1.05 (0.90, 1.16)</td>
<td>0.96 (0.90, 1.16)</td>
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<tr>
<td>Gini index (0-1)(^c)</td>
<td>0.97</td>
<td>0.97 (0.87, 1.00)</td>
<td>0.96 (0.87, 1.05)</td>
<td>0.99 (0.90, 1.06)</td>
<td>0.94 (0.86, 1.04)</td>
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<td>Change in Gini index(^c)</td>
<td>0.87</td>
<td>0.87 (0.78, 0.97)</td>
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<td>0.94 (0.85, 1.05)</td>
<td>0.94 (0.85, 1.05)</td>
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<td>Crime rate (per 1000)</td>
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<td>Change in crime rate</td>
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<td>Juvenile crime rate (per 1000)</td>
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<td>Change in juvenile crime rate</td>
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### Social disorganization

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<td>1.01</td>
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<td>.99</td>
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<td>.95</td>
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**Political economy**

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<td>4.77**</td>
<td>3.54**</td>
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<td>.99</td>
<td>1.01</td>
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<td>(.94, .99)</td>
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<td>.98†</td>
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<td>(per sq/mi) (x1000)</td>
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<td>(.97, 1.04)</td>
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**State controls (ref: Texas)**

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<td>.65**</td>
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<td>Connecticut</td>
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<td>(.150, 6.57)</td>
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<td>(.34, 3.40)</td>
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<td>.07***</td>
<td>.56</td>
<td>2.14</td>
<td>16.88***</td>
<td>.63*</td>
<td>3.25</td>
<td>.33</td>
</tr>
<tr>
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<td>(.04, .13)</td>
<td>(.32, 1.00)</td>
<td>(.112, 4.07)</td>
<td>(.692, 41.18)</td>
<td>(.46, 1.05)</td>
<td>(1.20, 8.37)</td>
<td>.75</td>
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<td>8.16†</td>
<td>.51†</td>
<td>.01***</td>
<td>.05</td>
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<td>(8.95, 73.45)</td>
<td>(.00, .43)</td>
<td>(.29, .90)</td>
<td>(.04, .75)</td>
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**Random effects**

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<td>.34</td>
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<td>(.28)</td>
<td>(.35)</td>
<td>(.38)</td>
<td>(.59)</td>
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<td>.14***</td>
<td>.35</td>
<td>.16***</td>
<td>.94</td>
</tr>
<tr>
<td><strong>Intraclss correlation</strong></td>
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<td>(.28)</td>
<td>(.35)</td>
<td>(.38)</td>
<td>(.59)</td>
<td>(.40)</td>
<td>(.97)</td>
</tr>
<tr>
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<td>.10***</td>
<td>.11***</td>
<td>.07***</td>
<td>.19</td>
<td>.08***</td>
<td>1.08</td>
</tr>
<tr>
<td><strong>Intraclss correlation</strong></td>
<td>(.36)</td>
<td>(.31)</td>
<td>(.34)</td>
<td>(.26)</td>
<td>(.44)</td>
<td>(.28)</td>
<td>(1.04)</td>
</tr>
</tbody>
</table>

*a* Reference category: release

*b* Reference: community supervision

*c* Standardized variable

† <.10 * <.05 ** <.01 *** <.001
factors (see table 6.2). For each juvenile court outcome (and its corresponding sample), there was modest collinearity among some county-level predictors, with variance inflation factor (VIF) of several variables exceeding 5 (mean VIF = 3.30). These variables\textsuperscript{173} were removed in sensitivity analyses and did not alter the main findings. Table 6.3 reports the results of these analyses (significant associations in bold).

Preadjudication detention is significantly associated with only one contextual variable: change in population density (OR = 1.01). Specifically, a 1% increase in population density (from 2000 to 2010) at the county level is associated with 1% increased odds of detention. Petition outcomes are associated with four contextual variables: increase in ethnic heterogeneity, youth population density, increase in youth population density, and judicial elections. Findings show that diversion is 19\% less likely in counties where ethnic heterogeneity has increased from 2000 to 2010 (OR = .81), indicating that odds of diversion are 19\% lower where ethnic heterogeneity is one standard deviation higher. Diversion is also less likely in counties with higher youth population density (OR = .93), but more likely in counties where the youth population density has increased (OR = 1.19).\textsuperscript{174} Some elements of political economy are also associated with petition outcomes. Judicial elections are strongly associated with higher odds of diversion (OR = 9.83) as well as higher odds of petition (OR = 4.77) compared to release. This indicates that diversion is almost 10 times as likely as release in counties with judicial elections, while petition is almost 5 times as likely in such counties (after controlling for states).

\textsuperscript{173} For detention (full sample), this included concentrated disadvantage (VIF = 11.65), percent Hispanic (VIF = 11.12), percent Black (VIF = 8.63), median income (VIF = 7.27), and ethnic heterogeneity (VIF = 6.79).

\textsuperscript{174} Increased ethnic heterogeneity is also marginally associated with lower odds of petition (OR = .84, \( p = .06 \)).
Interestingly, it would appear that release is highly unlikely in juvenile justice systems with elected judges.\footnote{Conservative voting majority is marginally associated with likelihood of diversion (OR = 1.01, \(p = .08\)), indicating that a 1% greater conservative majority is associated with 1% greater odds of diversion compared to release.}

At adjudication of delinquency, two contextual variables are associated with outcomes (both political economy). Likelihood of adjudication is positively related to judicial elections (OR = 3.31), indicating that odds of adjudication are more than 3 times greater in counties with judicial elections. Additionally, median income is negatively associated with adjudication of delinquency, indicating that odds of adjudication are 4% lower in counties with 1% greater community wealth (OR = .96).\footnote{Two contextual effects approach significance. Increase in percent Black from 2000 to 2010 (i.e., dynamic racial threat) is marginally associated with likelihood of adjudication (OR = 1.10, \(p = .06\)), indicating that odds of adjudication are 11% greater in counties where the Black population has increased one percent. Also, approaching significance is the relationship between adjudication and increased population density from 2000 to 2010 (OR = .99, \(p = .07\)), suggesting that adjudication is less likely in contexts where urbanization has increased.}

Judicial disposition outcomes are significantly associated with two contextual variables. First, increase in youth population density from 2000 to 2010 is positively associated with secure placement (OR = 1.12), indicating that odds of placement are 12% greater where youth population density is 1% greater. Second, judicial release is negatively associated with residential mobility (OR = .92), indicating that odds of release are 8% lower in counties with 1% greater mobility.\footnote{Several contextual variables also approach significance. Juvenile crime rates are negatively associated with placement (OR = .97, \(p = .06\)), indicating that odds of placement are 3% lower where juvenile crime is 1% higher. Urbanism (OR = .99, \(p = .08\)) and change in urbanism (OR = .98, \(p = .09\)) are also associated with placement. Also, before adding quadratic terms, percent Black is associated with secure placement (OR = 1.01), indicating that odds of placement are 1% greater in counties where the percent Black is 1% higher.}
Waiver to criminal court is associated with only one contextual variable: change in youth population (OR = 1.25). Specifically, a 1% increase in youth population (from 2000 to 2010) is associated with 25% increased odds of waiver.\textsuperscript{178}

In sum, few contextual variables are significantly associated with likelihood of juvenile court outcomes.

State Variation in Juvenile Court Outcomes

Likelihood of juvenile court outcomes is, however, strongly related to states. Compared to Texas, odds of detention were lower in all other states: Alabama (OR = .14), Connecticut (OR = .16), Missouri (OR = .10), Oregon (OR = .16), South Carolina (OR = .22), and Utah (OR = .27).\textsuperscript{179} To test whether these state differences are driven solely by the frequent usage of detention in Texas, a series of hierarchical logit models were estimated with only level-1 predictors and state dummy variables, rotating the reference category. The results (not shown) confirm that, after controlling for case-level characteristics, detention is least likely in Alabama, Missouri, and Oregon (no significant differences among them), and most likely in Texas.

Likelihood of petition outcomes is also associated with state. Relative to Texas, odds of diversion were lower in Alabama (OR = .12) and Oregon (OR = .07), while higher in Connecticut (OR = 7.51), Missouri (OR = 3.34), and Utah (OR = 40.07). Rotating the state reference category confirmed that diversion is most likely in Utah and least likely in Alabama and Oregon. Compared to Texas, formal petition was more likely in Alabama (OR = 7.38), Connecticut (OR = 25.07), Missouri (OR = 1.86, \( p = .06 \)), South Carolina (OR = 3.89), and Utah.

\textsuperscript{178} Waiver is also marginally associated with judicial elections (OR = .30, \( p = .06 \)), indicating that waiver is less likely in juvenile courts with elected judges.

\textsuperscript{179} This is consistent with descriptive statistics, showing a range in use of preadjudication detention across states from a high of 45% in Texas to a low of 11% in Missouri and Oregon.
(OR = 178.56), while odds of formal petition were lowest in Oregon (OR = .56). Rotating the state reference category confirmed that formal petition of delinquency is most likely in Utah and least likely in Oregon.¹⁸⁰

Adjudication of delinquency was less likely in Alabama (OR = .25) relative to Texas, and higher in Missouri (OR = 3.14), Oregon (OR = 2.14), and South Carolina (OR = 25.64). Rotating the state reference category confirmed that adjudication of delinquency (among petitioned cases) is most likely in South Carolina and least likely in Alabama.¹⁸¹

Judicial disposition was also strongly associated with state. Compared to Texas, odds of dismissal/diversion at this stage were much higher in Alabama (OR = 6.10), Connecticut (OR = 14.38), Oregon (OR = 16.88), and Utah (OR = 8.16, p = .06), and much lower in South Carolina (OR = .04). Rotating the state reference category confirmed that judicial release/diversion is most likely in Oregon and least likely in South Carolina.¹⁸² Compared to Texas, secure placement was more likely in Missouri (OR = 2.14) and less likely in Alabama (OR = .61), Connecticut (OR = .41), Oregon (OR = .69, p = .09), and South Carolina (OR = .51). Rotating the state reference category confirmed that placement is most likely in Missouri and least likely in Connecticut.¹⁸³

¹⁸⁰ The large effect size for Utah indicates that release is quite uncommon in that state. This was confirmed by descriptive statistics showing that only 1.7% of referred cases are released in Utah (n=580) rather than petitioned or diverted, compared to 21.9% of cases in other states. Other anomalous states include Oregon, where 59.1% of cases are released following referral, and Missouri, where 66.2% of cases are diverted. Clearly there are important state-level differences in how these juvenile court outcomes are distributed (see Appendix A).

¹⁸¹ In South Carolina, 93.7% of petitioned cases are adjudicated delinquent. In contrast, in Alabama only 43.6% of petitioned cases are adjudicated delinquent, and in Connecticut only 45.4% are adjudicated delinquent. This likely suggests that certain states more aggressively utilize diversion at the adjudicatory stage, while others do not use judicial diversion but divert prior to formal petition (see Appendix A).

¹⁸² In Oregon, 27.8% of judicial dispositions result in release/diversion, as do 13.5% in Alabama. On the other hand, only .1% of judicial dispositions in South Carolina result in release/diversion, and only 2.4% in Texas (see Appendix A).

¹⁸³ In Missouri, 29.8% of delinquent cases resulted in secure placement, while in Connecticut it is only 11.7%, and in Oregon only 9.4% (see Appendix A).
Finally, likelihood of waiver was associated with state as well. Specifically, relative to Texas, odds of waiver were higher in Oregon (OR = 3.35), while lower in South Carolina (OR = .16) and Utah (OR = .01). Rotating the state reference category confirmed that waiver is most likely in Oregon and least likely in Utah. Table 6.3 illustrates the odds of juvenile court outcomes by state.

The strong associations between states and juvenile court outcomes motivated an examination of level-3 variance components models to explore state-level variation in juvenile court outcomes in addition to county-level variation. Findings (not shown) indicate significant state-level variation in all juvenile court outcomes (p < .001), suggesting that a substantial portion of the significant variation in juvenile court outcomes across counties (as measured by intraclass correlation) is actually attributable to variation in outcomes across states. This may help explain why so few contextual effects were associated with juvenile court outcomes, despite the significant variation in juvenile court outcomes across context.

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184 In Oregon, 2.3% of petitioned cases were waived to criminal court (n=183), while in Utah it is only .04% (n=9), and in South Carolina only .3% (n=30). Elsewhere, it is typically closer to 1% (see Appendix A).

185 Due to the small sample size at level-3 (N=7), these models did not include any predictors.

186 For detention, the level-3 variance component is .59 (ρ = .15) and the level-2 variance component is reduced to .72 (from 1.90) (ρ = .18, reduced from ρ = .37). For petition versus release, the level-3 variance component is 1.41 (ρ = .30) and the level-2 variance component is reduced from 1.86 to 1.16 (ρ = .26). For diversion, the level-3 variance component is 1.74 (ρ = .35) and the level-2 variance component is reduced from 2.85 to 1.38 (ρ = .30). For adjudication, the level-3 variance component is 1.45 (ρ = .31) and the level-2 variance component is reduced from 2.27 to 1.11 (ρ = .25). For judicial disposition, the level-3 variance component for release is 3.18 (ρ = .49), and the level-2 variance component is reduced from 2.89 to 1.20 (ρ = .27). For secure placement, the level-3 variance component is .23 (ρ = .07), and the level-2 variance component is reduced from .60 to .38 (ρ = .10). Finally, the level-3 variance component for waiver is 1.45 (ρ = .31), and the level-2 variance component is reduced from 2.11 to 1.54 (ρ = .32). The level-3 variance components for null models are identical (or nearly identical) to the level-2 variance components for models with state controls, suggesting that most (if not all) explained variation at the county level is attributable to state-level differences. Supra note 171.
Table 6.4. Juvenile court outcome likelihood, by state

<table>
<thead>
<tr>
<th>Juvenile Court Outcome</th>
<th>Likelihood by State</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preadjudication</td>
<td>Texas &gt; Utah &gt; South Carolina &gt; Connecticut &gt; Alabama/Missouri/Oregon</td>
</tr>
<tr>
<td></td>
<td>Detention</td>
</tr>
<tr>
<td>Diversion (i.e., informal processing)</td>
<td>Utah &gt; Connecticut &gt; Missouri &gt; South Carolina/Texas &gt; Alabama/Oregon</td>
</tr>
<tr>
<td>Formal petition of delinquency</td>
<td>Utah &gt; Connecticut &gt; Alabama &gt; South Carolina &gt; Missouri &gt; Texas &gt; Oregon</td>
</tr>
<tr>
<td>Adjudication of delinquency</td>
<td>South Carolina &gt; Missouri &gt; Oregon &gt; Connecticut/Texas/Utah &gt; Alabama</td>
</tr>
<tr>
<td>Judicial release/diversion</td>
<td>Oregon &gt; Connecticut &gt; Utah &gt; Alabama &gt; Missouri/Texas &gt; South Carolina</td>
</tr>
<tr>
<td>Secure placement</td>
<td>Missouri &gt; Texas/Utah &gt; Alabama/Oregon &gt; South Carolina &gt; Connecticut</td>
</tr>
<tr>
<td>Waiver to criminal court</td>
<td>Oregon &gt; Alabama/Connecticut/Missouri/Texas &gt; South Carolina &gt; Utah</td>
</tr>
</tbody>
</table>

Key: > indicates greater likelihood (p < .05); / indicates no significance difference in likelihood

Summary of Findings

Research hypotheses that race and ethnicity will be significantly associated with punitive outcomes are supported for some decision points and not others. Specifically, Black defendants are more likely (than White defendants) to be detained preadjudication, to receive secure placement at judicial disposition, and to be waived to criminal court. Black defendants are also less likely to be diverted from formal processing at the petition stage. Notably, the most pronounced racial disparity is present at judicial waiver, the “capital punishment of juvenile justice” (Zimring, 1981: 193). Contrary to research hypotheses, however, Black juvenile
defendants are not more likely to receive a formal petition of delinquency or be adjudicated delinquent. This is consistent with the organizational hypothesis that more tightly coupled stages (e.g., petition, adjudication) have less room for discretion (see Bishop et al. 2010).

Also consistent with research hypotheses, Hispanic defendants are more likely (than White defendants) to be detained preadjudication, more likely to receive a formal petition of delinquency, and less likely to be released at judicial disposition. Of these, the most pronounced ethnic disparity is present at preadjudication detention. Contrary to research hypotheses, Hispanic defendants are not more likely to be adjudicated delinquent, receive secure placement, or be waived to criminal court, and are not less likely to be diverted, than White defendants. Findings also indicated that the effects of race and ethnicity on juvenile court outcomes varied significantly across counties, with the exception of waiver to criminal court.

Findings provide limited support for the research hypotheses regarding contextual influences on juvenile court outcomes (controlling also for state influence). At the detention stage, only increasing urbanism was associated with increased likelihood of detention (support for internal economy hypothesis). At the petition stage, both formal petition of delinquency and diversion were much more likely in counties with judicial elections (support for external polity hypothesis). Diversion was also more likely in counties with increased youth population from 2000 to 2010 (i.e., social disorganization), and less likely in counties with increased ethnic heterogeneity (i.e., social disorganization). These findings tell a mixed story about the influence

187 Further, racial disparities are present at the more discretionary aspect of petition stage: the decision to divert youth from formal processing. This is also consistent with prior research (see Leiber et al., 2009; Leiber and Johnson, 2008; Mears et al., 2014).

188 Sensitivity analyses revealed that more contextual variables were significantly associated with juvenile court outcomes before state controls were added. This seems to suggest state-level variation in contextual measures (e.g., minority population, concentrated disadvantage) may be associated with juvenile court outcomes. Still, it is impossible to discern whether these contextual effects are merely correlated with other state-level differences (i.e., system-wide differences in juvenile justice processing across states), which is why it is necessary to control for state influence in the main analyses.
of social disorganization on diversion: first, they indicate that release is more likely than diversion or petition where ethnic heterogeneity (social disorganization) is higher; second, they also indicate that diversion is less likely where youth population density (also a measure of social disorganization) is greater, but more likely where youth population density has increased over time.

Adjudication of delinquency was more likely in counties with judicial elections (support for external polity hypothesis) and less likely in counties with higher median income (support for the external economy hypothesis). At the judicial disposition stage, secure placement was more likely in counties with increased youth population density (i.e., social disorganization) (and marginally less likely in counties with higher juvenile crime rates, contrary to crime threat hypothesis). Dismissal was also less likely than community supervision in counties with higher residential mobility (i.e. social disorganization), while waiver to adult court was also more likely in counties with an increased youth population (i.e., social disorganization).

The only contextual variables that influenced multiple juvenile court outcomes were increased youth population density (i.e., social disorganization) from 2000 to 2010 (higher odds of diversion, secure placement, and waiver) and judicial elections (higher odds of petition and diversion than release; higher odds of adjudication of delinquency). This provides some support for the role of social disorganization and political economy at the community level in explaining variation in juvenile court outcomes, but no support for the community threat hypotheses. Still, support is limited due to the lack of significant associations with other variables. A major takeaway from the above analyses is that juvenile court outcomes varied significantly across state juvenile justice systems, and it may be that state-level variation is as important, if not more important, than county-level variation in juvenile court outcomes (see Mears, 2006).
Chapter 7: Findings for Community Threat Hypotheses

Chapter 6 investigated why juvenile court outcomes vary significantly across context, finding limited support for the influence of direct contextual effects at the county level. Chapter 6 also established that the effects of race and ethnicity on juvenile court outcomes vary across context for most juvenile court outcomes. But why? This dissertation examines two major hypotheses: community threats (based on the conflict perspective) and political economy (based on the consensus/organizational perspective). In this chapter, findings are presented from a series of multilevel models that test the community threat hypothesis; specifically, are racial and ethnic disparities in juvenile court outcomes moderated by community threats?

Three community threats are assessed in separate models for race and ethnicity, each measured by two variables: a static measure of threat and a dynamic measure of each community threat. The models include the following variables to test for community threat: (1) racial/ethnic threat—measured by percent Black/Hispanic and change in percent Black/Hispanic (from 2000 to 2010); (2) economic threat—measured by concentrated disadvantage and change in concentrated disadvantage (from 2000 to 2010); and (3) crime threat—measured by juvenile arrest rates and change in juvenile arrest rate (from 2000 to 2010). As Chamlin and Cochran

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189 Separate models are employed for race and ethnicity because cross-level interactions are estimated between all contextual variables and the case-level variable of interest. Models with cross-level effects for Black and Hispanic variables (in same model) could not be estimated.

190 This distinction has been applied in the context of minority threat, where the static operationalization of threat has been challenged (see Zane, 2018). Liska (1992: 186) proposed that “changes in the absolute or relative size of certain classes and distributions of people and of certain acts may be as or even more threatening than their absolute or relative size.” That is, dynamic measures of threat—relative growth of the minority population—may be more valid than static measures of threat—minority percentage of the population at a given point in time (see Caravelis et al., 2011, 2013). This is because relative population growth can present a visible threat to those in power (including decision-makers in the criminal justice system), whereas a large minority population that has remained the same (or even decreased) may not present any symbolic threat to the dominant group. As Wang and Mears (2015: 907) recently observed, however, it is worthwhile to explore both measures of threat: “A focus on change involves examining whether an increase in threat results in an increase in tougher sanctioning. That focus is important, but it also is distinct from the question of whether levels of threat are associated with punitive sentencing.”
(2000) have observed, measures of community threat (like minority threat) can be confounded with measures of social disorganization—although this is rarely controlled for in research on community threat hypotheses. Here, five measures of social disorganization are also included in the analyses: ethnic heterogeneity, change in ethnic heterogeneity (from 2000 to 2010), residential mobility (from 2005 to 2010), youth population density, and change in youth population density (from 2000 to 2010). In addition to acting as controls, cross-level interactions are estimated to determine whether racial/ethnic disparities are exacerbated in the presence of social disorganization (in addition to community threats).

Direct effects of contextual variables on juvenile court outcomes were reported in chapter 6, so they are omitted from the reported findings below. Instead, the focus in this chapter is entirely on cross-level effects of community threats. In the context of the minority threat hypothesis, these have been referred to as “targeted threats” in contrast to “diffuse threats,” since cross-level effects estimate the extent to which racial disparities in outcomes are associated with contextual variables (rather than the direct effects of contextual variables on outcomes) (see Zane, 2018). Targeted threats posit that minority defendants will be treated more harshly where the surrounding community context presents a threat to those in power, resulting in greater racial disparities in those contexts. This understanding of minority threat is more consistent with notions of social control of the minority population—and closer to Blalock’s (1967) original theory of racial discrimination as well as subsequent applications to crime threats and criminal justice (e.g., Tittle and Curran, 1988). Primarily, this is because community threat hypotheses do not just present a theory of social control through punitive sanctions but of social control through differential treatment (see Mitchell, 2005: 443). As such, community threats should not only predict more punitive treatment for all defendants (i.e., a direct effect), as examined in chapter 6,
but greater racial disparities in sanctions (i.e., a conditional effect). Feldmeyer and colleagues (2015: 81, emphasis in original) recently observed that, “the key question for racial/ethnic and immigrant threat is not whether racial, ethnic, and immigrant context shapes overall sentencing patterns for all defendants (as in the main effects) but whether it specifically increases punishment for racial and ethnic minorities.”

Targeted Community Threats: Explaining Black/White Disparities

The first set of analyses investigate whether the influence of race (i.e., Black versus White defendants) is moderated by contextual factors. As indicated by the random effects in table 7.1, the influence of race on juvenile court outcomes varies significantly across counties (i.e., level-2 variance component is statistically significant) for every outcome except for dismissal/diversion (at judicial disposition) and waiver to criminal court. The intraclass correlation \( \rho \) for the random effect of race ranges from \( \rho = .02 \) to \( \rho = .04 \), indicating that 2–4% of the variation in the effect of race on juvenile court outcomes is attributable to between-county differences. As such, a small but significant amount of variation in the effect of race on juvenile court outcomes is attributable to county-level variance. To investigate whether this variation in race effects across counties is due to the influence of community threats, cross-level hierarchical logit models were estimated.

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191 Since multilevel logit models do not include a level-1 variance term, intraclass correlation can be estimated as follows: \( \rho = \psi / (\psi + \pi^2/3) \). This assumes that the level-1 variance follows the logistic distribution (see Johnson, 2010: 640).

192 The intraclass correlation for the random effect of race on each outcome is as follows: for detention, \( \psi = .07 \) and \( \rho = .02 \), indicating that approximately 2% of the variation in the effect of race on detention outcomes is attributable to between-county differences; for diversion, \( \psi = .06 \) and \( \rho = .02 \), indicating that approximately 2% of the variation in the effect of race on diversion outcomes is attributable to between-county differences; for petition, \( \psi = .08 \) and \( \rho = .02 \), indicating that approximately 2% of the variation in the effect of race on formal petition outcomes is attributable to between-county differences; for adjudication, \( \psi = .08 \) and \( \rho = .02 \), indicating that approximately 2% of the variation in the effect of race on adjudication outcomes is attributable to between-county differences; and for secure placement, \( \psi = .15 \) and \( \rho = .04 \), indicating that approximately 4% of the variation in the effect of race on placement outcomes is attributable to between-county differences.
for each juvenile court outcome. Table 7.1 provides the findings for the effects of race/ethnicity as well as cross-level effects with contextual factors.¹⁹³

Overall, the relationship between race and juvenile court outcomes was not moderated by community threats and/or social disorganization for most outcomes. The major outcome with moderating influences was waiver to adult court, where Black defendants are significantly more likely than White defendants to be waived (OR = 2.79). Specifically, the odds of waiver for Black defendants (relative to White defendants) increased in the presence of dynamic racial threat (OR = 1.34), static economic threat (OR = 1.64), and static juvenile crime threat (OR = 1.11), while the odds of waiver actually diminished in the presence of dynamic economic threat and social disorganization. Specifically, these moderator effects indicate that odds of waiver for Black defendants were 34% greater in counties where the Black population had increased by 1% in the prior decade, 64% greater in counties where the concentrated disadvantage was one standard deviation higher, and 11% greater where the juvenile crime rate was 1% higher. Contrary to the community threat hypotheses, however, dynamic economic threat was associated with lower odds of waiver for Black defendants (OR = .67); specifically, odds of waiver for Black defendants were 33% lower in counties where concentrated disadvantaged had increased one standard deviation in the prior decade (2000–2010). Only one indicator of social disorganization moderated the relationship between race and waiver: odds of detention for Black defendants were 8% lower in counties with greater residential mobility (OR = .92). Overall, these findings provide strong evidence of the community threat hypotheses operating on the relationship between race and waiver to criminal court.

¹⁹³ Direct effects of contextual factors are omitted from table 7.1 for parsimony (see chapter 6 for findings of direct contextual effects).
Table 7.1. Cross-level multilevel logit models for community threat (random effect = Black)

<table>
<thead>
<tr>
<th>Detention</th>
<th>Petition</th>
<th>Adjudication</th>
<th>Disposition</th>
<th>Waiver</th>
</tr>
</thead>
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<td>(N= 478; 255,288)</td>
<td>(N=478; 249,846)</td>
<td>(N=457; 101,684)</td>
<td>(N = 451; 71,916)</td>
<td>(N=457; 103,183)</td>
</tr>
<tr>
<td>Diversion(^a)</td>
<td>Petition(^a)</td>
<td>Release/Diver(^b)</td>
<td>Placement(^b)</td>
<td></td>
</tr>
<tr>
<td>Fixed effects</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>OR (95% CI)</td>
<td>OR (95% CI)</td>
<td>OR (95% CI)</td>
<td>OR (95% CI)</td>
</tr>
<tr>
<td></td>
<td>.44*** (.36, .54)</td>
<td>10.02*** (.74, 13.41)</td>
<td>1.26 (.95, 1.68)</td>
<td>3.15*** (2.34, 4.26)</td>
</tr>
<tr>
<td>Case-level</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>1.08 (1.10, 1.35)</td>
<td>.87 (.71, 1.07)</td>
<td>.98 (.77, 1.25)</td>
<td>1.07 (.70, 1.64)</td>
</tr>
<tr>
<td>Hispanic</td>
<td>1.27*** (.86, 1.35)</td>
<td>.98 (.86, 1.12)</td>
<td>1.21*** (.94, 1.31)</td>
<td>1.33** (.85, 1.06)</td>
</tr>
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<td>Other race/ethnicity</td>
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<td>.97 (.86, 1.09)</td>
<td>1.03 (.82, 1.29)</td>
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<td>1.00 (.96, 1.04)</td>
<td>1.00 (.98, 1.03)</td>
<td>1.01 (.98, 1.04)</td>
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<td>1.21(^*) (.59, 1.18)</td>
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\(^a\) Petition\(^a\) = Release/Divers\(^b\) = Placement\(^b\)
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<td>1.57***</td>
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*a Reference category: release

*b Reference: community supervision

*c Standardized variable

† <.10 * <.05 ** <.01 *** <.001
Table 7.1 shows that the relationship between race and all other juvenile court outcomes was no longer significant when cross-level interactions were included in the models, perhaps indicating that much of the race effect for other outcomes—detention, diversion, and placement (petition, adjudication, and judicial release were not significantly associated with race)—are compositional effects based on many interacting contextual factors (including state differences in the effects of race) (see Johnson, 2010). Only one contextual factor moderated the relationship between race and detention, static ethnic heterogeneity (OR = 1.19). This indicates that odds of detention are 19% higher for Black defendants in the presence of greater ethnic heterogeneity (an indicator of social disorganization). For petition outcomes, community threats and other measures social disorganization did not moderate the influence of race (which was not significantly associated with diversion or petition).

While there was no significant relationship between race and adjudication of delinquency, dynamic economic threat and social disorganization did appear to moderate the relationship. Specifically, odds of being adjudicated delinquent for Black defendants were 21% higher in counties with increased concentrated disadvantage over the past decade (OR = 1.21), 3% higher in counties with greater residential mobility (OR = 1.03), and 7% higher in counties with 1% higher youth population density (OR = 1.07). Lastly, the relationship between race and judicial disposition outcomes was also moderated by community threat. Odds of judicial release/diversion were 3% lower for Black defendants in counties with 1% higher percentage Black population (OR = .97), while odds of secure placement were 9% lower for Black defendants in counties with 1% increased Black population (OR = .91).
Targeted Community Threats: Explaining Hispanic/White Disparities

The second set of analyses investigate whether the influence of ethnicity (i.e., Hispanic versus White defendants) is moderated by contextual factors. As indicated by the random effects in table 7.2, the influence of Hispanic ethnicity on juvenile court outcomes varies significantly across counties (i.e., level-2 variance component is statistically significant) for every outcome except for dismissal/diversion (at judicial disposition) and waiver to criminal court (similar to race; see table 7.1). The intraclass correlation for the random effect of Hispanic ethnicity ranges from $\rho = .01$ to $\rho = .03$, indicating that 1–3% of the variation in the effect of ethnicity on juvenile court outcomes is attributable to between-county differences. As such, a small but significant amount of variation in the effect of race on juvenile court outcomes is attributable to county-level variance. To investigate whether the variation in Hispanic ethnicity effects on juvenile court outcomes across counties is due to the influence of community threats, cross-level hierarchical logit models were estimated for each juvenile court outcome. The findings are presented in table 7.2.

Overall, the relationship between Hispanic ethnicity and juvenile court outcomes was not moderated by community threats and/or social disorganization. Unlike race, no single juvenile court outcome presented significant cross-level interactions between Hispanic ethnicity and

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194 The level-2 variance component ($\psi$) and intraclass correlation for the random effect of Hispanic ethnicity on each outcome is as follows: for detention, $\psi = .10$ and $\rho = .03$, indicating that approximately 3% of the variation in the effect of Hispanic ethnicity on detention outcomes is attributable to between-county differences; for diversion, $\psi = .06$ and $\rho = .02$, indicating that approximately 2% of the variation in the effect of Hispanic ethnicity on diversion outcomes is attributable to between-county differences; for petition, $\psi = .10$ and $\rho = .03$, indicating that approximately 3% of the variation in the effect of Hispanic ethnicity on formal petition outcomes is attributable to between-county differences; for adjudication, $\psi = .04$ and $\rho = .01$, indicating that approximately 1% of the variation in the effect of Hispanic ethnicity on adjudication outcomes is attributable to between-county differences; and for secure placement, $\psi = .08$ and $\rho = .02$, indicating that approximately 2% of the variation in the effect of Hispanic ethnicity on placement outcomes is attributable to between-county differences.
**Table 7.2. Cross-level multilevel logit models for community threat (random effect = Hispanic)**

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| Hispanic * Ethnic heterogeneity (0–1)
  + standard error       | 1.02     | (.91, 1.15) | (.85, 1.10) | (.90, 1.12) | (.68, 1.01) | (.85, 1.20) | (.45, 1.14) |
| Hispanic x Change in ethnic heterogeneity
  + standard error       | .98      | (.86, 1.11) | (.85, 1.04) | (.97, 1.17) | (.74, 1.16) | (.90, 1.15) | (.70, 1.47) |
| Hispanic x Residential mobility (% moved)
  + standard error       | 1.00     | (.98, 1.02) | (.98, 1.02) | (.94, 1.02) | (.98, 1.04) | (.103, 1.24) |
| Hispanic x Youth population %
  + standard error       | .99      | (.96, 1.03) | (.98, 1.02) | (.95, 1.02) | (.89, .99) | (1.01, 1.41) |
| Hispanic x Change in youth population %
  + standard error       | .95      | (.88, 1.02) | (.92, 1.10) | (.97, 1.15) | (.99, 1.32) | (.89, 1.08) | (.53, 1.25) |
| State controls (ref: Texas)
  Hispanic x Alabama
  + standard error       | .94      | (.66, 1.35) | (.44, .88) | (.62, 1.30) | (.28, 1.69) | (.27, 1.48) | (.23, 6.19) |
| Hispanic x Connecticut
  + standard error       | .13      | (.86, 1.48) | (.58, 1.10) | (.70, 1.22) | (.38, 1.23) | (.68, 1.70) | (.72, 10.15) |
| Hispanic x Missouri
  + standard error       | .86      | (.58, 1.27) | (.66, 1.66) | (.33, 1.52) | (.00, .00) | (.71, 2.41) | (.04, 4.93) |
| Hispanic x Oregon
  + standard error       | .96      | (.77, 1.20) | (.78, 1.41) | (.50, 1.32) | (.43, 1.24) | (.67, 1.43) | (.48, 4.57) |
| Hispanic x South Carolina
  + standard error       | 1.35     | (.92, 1.97) | (.70, 1.55) | (.67, 2.17) | (.00, .00) | (.67, 3.30) | (.47, 45.58) |
| Hispanic x Utah
  + standard error       | 1.00     | (.68, 1.48) | (.67, 1.60) | (.69, 1.30) | (2.32, 12.11) | (.95, 2.65) | (.10, 9.30) |
| Random intercept variance component
  + standard error       | .74***   | (.86) | (1.21*** | (1.19*** | (1.21*** | (.43*** | (1.49*** |
| Intraclass correlation (ρ)
  Random slope
  (Hispanic)
  + standard error       | .10***   | (.32) | (.10*** | (.10*** | (.04*** | (.32) | (.02) |
| Intraclass correlation (ρ)
  Random slope
  (Hispanic)
  + standard error       | .03      | (.02) | (.03) | (.03) | (.04) | (.02) | (.21) |

* Reference category: release
b Reference: community supervision
Standardized variable
† <.10 * <.05 ** <.01 *** <.001
multiple community threat measures (for Black defendants, this occurred for waiver to criminal court). Like race, however, the juvenile court outcomes moderated by community threat and/or social disorganization were adjudication of delinquency, judicial disposition, and waiver to criminal court. Two community threat measures conditioned the influence of ethnicity on juvenile court outcomes. First, static ethnic threat moderated the relationship between ethnicity and adjudication of delinquency; specifically, odds of being adjudicated delinquency were 3% higher for Hispanic defendants (relative to White defendants) in counties with 1% higher Hispanic population (OR = 1.03). Second, dynamic ethnic threat moderated the relationship between ethnicity and secure placement; specifically, odds of placement were 8% higher for Hispanic defendants (relative to White defendants) in counties with 1% increase in Hispanic population over the prior decade (OR = 1.08). Greater social disorganization also moderated ethnicity effects for judicial disposition and waiver to criminal court. Odds of judicial release/diversion at disposition were 6% lower for Hispanic defendants in counties with 1% higher youth population density (i.e., greater social disorganization). Odds of waiver to criminal court for Hispanic defendants were 13% higher in counties with 1% higher residential mobility (OR = 1.13), and 19% higher in counties with 1% greater youth population (OR = 1.19).\footnote{195 Approaching significance was the moderating impact of dynamic juvenile crime threat on the relationship between ethnicity and waiver (OR = 1.12, \( p = .08 \)}

Racial and Ethnic Disparities by State

Tables 7.1 and 7.2 also include cross-level interactions between race/ethnicity and state (see bottom of table). Findings suggest that the relationship between race/ethnicity and some juvenile court outcomes was moderated by state juvenile justice system, such that racial and ethnic disparities in outcomes were greater in some states than others.
Racial disparities were not moderated by state for judicial disposition, but state differences in effects of race did emerge for all other stages (see table 7.2). Relative to Texas, odds of detention for Black defendants are 57% higher in Connecticut (OR = 1.57), 71% higher in Missouri (OR = 1.71), 53% higher in Oregon (OR = 1.53), and 45% higher in Utah (OR = 1.45). Odds of diversion for Black defendants are 65% lower in Utah (OR = .35), and 23% lower in Missouri (OR = .77, p = .08). Odds of formal petition for Black defendants are 57% higher in Connecticut (OR = 1.57) and 46% higher in Oregon (OR = 1.46). Odds of adjudication of delinquency for Black defendants are 57% higher in Connecticut (OR = 1.57) and 38% lower in Utah (OR = .62) than in Texas. Finally, odds of waiver to criminal court for Black defendants are 66% lower in Alabama (OR = .34) and 64% lower in Connecticut (OR = .36) than in Texas. Two patterns emerge from these findings. First, the state with the greatest relative racial disparities across multiple juvenile court outcomes is Connecticut: odds of detention, formal petition, and adjudication delinquency are higher for Black defendants (than White defendants) relative to other states (although odds of waiver are lower). Second, the outcome with the most state-level variation in racial disparities is preadjudication detention, which is significantly greater in some states—Connecticut, Missouri, Oregon, and Utah—than others—Alabama, South Carolina, and Texas.

Unlike the variation in effects of race across states, ethnic disparities were not moderated by state for detention, adjudication of delinquency, judicial disposition, or waiver to criminal court (see table 7.2). At the petition stage, odds of diversion for Hispanic defendants are 38% lower in Connecticut (OR = .62) and odds of formal petition are 38% lower in Alabama (OR = .62), both relative to Texas.

196 Cross-level interactions between Hispanic and Missouri (OR = 0) and South Carolina (OR = 0) for release/diversion at judicial disposition indicate the absence of any Hispanic judicial releases in those states.
Summary of Findings

For most juvenile court outcomes, the effects of race (Black/White) and ethnicity (Hispanic/White) varied significantly across counties (exceptions are no significant variation in the rarest outcomes, judicial release/diversion and judicial waiver). This variation was significant but small, with 1–4% of the variation in the effects of race and ethnicity on juvenile court outcomes attributable to between-county differences. This chapter explored one possible explanation for this variation: moderation of race/ethnicity by community threats.

The findings above provide partial support for the racial community threat hypotheses for adjudication of delinquency, judicial disposition, and waiver to criminal court, but no support for the community threat perspective as a means of explaining variation in racial disparities at the front end of the juvenile justice system (detention or petition). Cross-level interactions between race and community threats proved significant for adjudication of delinquency (support for dynamic economic threat), judicial disposition (support for static racial threat for judicial release/diversion), and unexpected negative moderation of secure placement by dynamic racial threat), and waiver to criminal court (support for dynamic racial threat, static racial threat, and static crime threat, as well as unexpected negative moderation by dynamic economic threat).

Specifically, Black defendants are more likely than White defendants to be adjudicated delinquent in the presence of increased concentrated disadvantage, less likely to be released/diverted at judicial disposition in the presence of a larger Black population, and more likely to be transferred to criminal court in the presence of an increasing Black population, greater concentrated disadvantage, and higher juvenile crime. Contrary to the hypotheses, however, Black defendants are also less likely to receive secure placement in the presence of an
increasing Black population and less likely to be transferred to criminal court in the presence of increasing concentrated disadvantage. Also, social disorganization moderated the effect of race on adjudication of delinquency (higher odds in presence of greater residential mobility and higher youth population density) and waiver to criminal court (lower odds in the presence of greater residential mobility). States also moderated racial disparities in detention, petition, adjudication, and waiver (but not judicial disposition).

On the other hand, the findings provide more limited support for the ethnic community threat hypotheses. Across juvenile court outcomes, there was only two statistically significant cross-level interaction between community threat and Hispanic ethnicity: static ethnic threat for adjudication of delinquency, and dynamic ethnic threat for secure placement. Specifically, odds of being adjudicated delinquent were higher for Hispanic defendants in counties with greater Hispanic population, and odds of secure placement were higher for Hispanic defendants in counties with an increasing Hispanic population. Social disorganization also moderated the effect of Hispanic ethnicity on adjudication of delinquency (lower odds in the presence of higher youth population density) and waiver to criminal court (higher odds in presence of greater residential mobility and higher youth population density). Unlike race, states did not moderate the influence of Hispanic ethnicity for most outcomes (only petition).

In sum, there was partial support for the hypotheses that variation in the effects of race on some juvenile court outcomes were moderated by community threats, but not others. Further, there was virtually no support for the hypotheses that variation in the effects of Hispanic ethnicity on some juvenile court outcomes were moderated by community threats.
Chapter 8: Findings for Political Economy Hypotheses

Chapter 7 investigated whether the effects of race and ethnicity on juvenile court outcomes are moderated by community threats—a theoretical framework that explains contextual variation in the influence of race and ethnicity on the juvenile court in terms of sociopolitical forces (i.e., conflict theory). The present chapter investigates whether the effects of race and ethnicity on juvenile court outcomes are moderated by the political economy of the juvenile court, a theoretical framework that explains contextual variation in the influence of race and ethnicity on the juvenile court in terms of organizational factors. Findings are presented from a series of multilevel models that test the political economy hypothesis; specifically, are racial and ethnic disparities in juvenile court outcomes moderated by the political economy of the juvenile court?

Four aspects of the juvenile court’s political economy are assessed in separate models for race and ethnicity.\textsuperscript{197} External polity is measured by whether the juvenile court judge is elected or appointed (a measure of responsiveness to political context). External economy is measured by the median income of the county, a proxy for juvenile court resources and community resources (e.g., informal alternatives for delinquent youth). Internal polity is measured by the conservative voting majority, a proxy for the ideology of the juvenile court actors such as probation officers, prosecutors, and judges (e.g., punitive or rehabilitative). Finally, internal economy is measured by the population density of the county (and change in population density over the past decade), a proxy for level of bureaucratization and routinization as well as the due process orientation within the court. Direct effects of contextual variables on juvenile court outcomes were reported in chapter 6, so they are omitted from the reporting below. Instead, the focus in this chapter is entirely on cross-level effects of political economy.

\textsuperscript{197} Separate models are employed for race and ethnicity because cross-level interactions are estimated between all contextual variables and the case-level variable of interest.
Explaining Black/White Disparities in Terms of Political Economy

The first set of analyses investigate whether the influence of race (i.e., Black versus White defendants) is moderated by contextual factors. As indicated by the random coefficient variance components in Table 8.1, the influence of race on juvenile court outcomes varies significantly across counties (i.e., level-2 variance component is statistically significant) for every outcome except for dismissal/diversion (at judicial disposition) and waiver to criminal court. The intraclass correlation for the random effect of race ranges from $\rho = .02$ to $\rho = .04$, indicating that 2–4% of the variation in the effect of race on juvenile court outcomes is attributable to between-county differences. As such, a small but significant amount of variation in the effect of race on juvenile court outcomes is attributable to county-level variance. To investigate whether this variation in race effects across counties is due to the influence of the political economy of the juvenile court, cross-level hierarchical logit models were estimated for each juvenile court outcome.

Table 8.1 provides the findings for the effects of race/ethnicity as well as cross-level effects with contextual factors.

---

198 Since multilevel logit models do not include a level-1 variance term, intraclass correlation can be estimated as follows: $\rho = \psi / (\psi + \pi^2/3)$. This assumes that the level-1 variance follows the logistic distribution (see Johnson, 2010: 640).

199 The intraclass correlation for the random effect of race on each outcome is as follows: for detention, $\psi = .05$ and $\rho = .02$, indicating that approximately 2% of the variation in the effect of race on detention outcomes is attributable to between-county differences; for diversion, $\psi = .07$ and $\rho = .02$, indicating that approximately 2% of the variation in the effect of race on diversion outcomes is attributable to between-county differences; for petition, $\psi = .10$ and $\rho = .03$, indicating that approximately 2% of the variation in the effect of race on formal petition outcomes is attributable to between-county differences; for adjudication, $\psi = .13$ and $\rho = .04$, indicating that approximately 2% of the variation in the effect of race on adjudication outcomes is attributable to between-county differences; and for secure placement, $\psi = .13$ and $\rho = .04$, indicating that approximately 4% of the variation in the effect of race on placement outcomes is attributable to between-county differences.

200 Direct effects of contextual factors are omitted from Table 8.1 for parsimony (see Chapter 6 for findings of direct contextual effects). States are also omitted, as effects are identical to those reported in Chapter 7 (see tables 7.1). Cross-level interactions with states were not performed for the political economy models due to collinearity concerns (election), and cross-level interactions with states were reported in Chapter 7.
Table 8.1. Cross-level multilevel logit models for political economy (random effect = Black)

<table>
<thead>
<tr>
<th>Detention</th>
<th>Petition</th>
<th>Adjudication</th>
<th>Disposition</th>
<th>Waiver</th>
</tr>
</thead>
<tbody>
<tr>
<td>Detention</td>
<td>Petition</td>
<td>Adjudication</td>
<td>Disposition</td>
<td>Waiver</td>
</tr>
<tr>
<td>(N= 478; 255,288)</td>
<td>(N=478; 249,846)</td>
<td>(N=457; 101, 684)</td>
<td>(N = 451; 71,916)</td>
<td>(N=457; 103, 183)</td>
</tr>
</tbody>
</table>

### Fixed effects

<table>
<thead>
<tr>
<th></th>
<th>OR (95% CI)</th>
<th>OR (95% CI)</th>
<th>OR (95% CI)</th>
<th>OR (95% CI)</th>
<th>OR (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>.58 (.24, 1.43)</td>
<td>1.16 (.36, 3.78)</td>
<td>.35 (.15, .81)</td>
<td>.79 (.30, 2.07)</td>
<td>.02*** (.00, .09)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.16*** (.09, .30)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.00*** (.00, .01)</td>
<td></td>
</tr>
</tbody>
</table>

### Case-level

<table>
<thead>
<tr>
<th></th>
<th>OR (95% CI)</th>
<th>OR (95% CI)</th>
<th>OR (95% CI)</th>
<th>OR (95% CI)</th>
<th>OR (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>1.16** (.105, 1.29)</td>
<td>.74*** (.66, .84)</td>
<td>.80 (.70, .92)</td>
<td>.92 (.75, 1.14)</td>
<td>1.00 (.63, 1.60)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.31** (.110, 1.55)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.74 (.96, 1.57)</td>
<td></td>
</tr>
<tr>
<td>Hispanic</td>
<td>1.27*** (1.20, 1.35)</td>
<td>.98 (.86, 1.12)</td>
<td>1.21*** (1.12, 1.31)</td>
<td>1.13** (1.04, 1.23)</td>
<td>.93 (.84, 1.04)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.06 (.97, 1.16)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.96 (.91, 1.81)</td>
</tr>
<tr>
<td>Other race/ethnicity</td>
<td>1.07 (.97, 1.18)</td>
<td>.90* (.81, 1.01)</td>
<td>.97 (.86, 1.09)</td>
<td>.97 (.88, 1.08)</td>
<td>1.02 (.82, 1.27)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.84* (.73, .97)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.43 (.43, 1.63)</td>
</tr>
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</table>

### Contextual Variables

<table>
<thead>
<tr>
<th></th>
<th>OR (95% CI)</th>
<th>OR (95% CI)</th>
<th>OR (95% CI)</th>
<th>OR (95% CI)</th>
<th>OR (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black x Judicial elections</td>
<td>1.14* (1.00, 1.29)</td>
<td>1.11 (.97, 1.27)</td>
<td>1.22* (1.04, 1.43)</td>
<td>1.22 (.96, 1.54)</td>
<td>.98 (.61, 1.58)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.00 (.82, 1.23)</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.50 (.99, 1.89)</td>
</tr>
<tr>
<td>Black x Median income (x1000)</td>
<td>1.01** (1.00, 1.02)</td>
<td>1.00 (.100, 1.01)</td>
<td>1.01** (1.00, 1.01)</td>
<td>1.01 (.98, 1.02)</td>
<td>1.00 (.99, 1.01)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.99 (.99, 1.5)</td>
</tr>
<tr>
<td>Black x Conservative voting majority</td>
<td>1.01* (1.00, 1.01)</td>
<td>1.00 (.99, 1.00)</td>
<td>1.01 (.99, 1.01)</td>
<td>1.00 (.99, 1.01)</td>
<td>1.00 (.99, 1.01)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.99 (.99, 1.5)</td>
</tr>
<tr>
<td>Black x Conservative x elections</td>
<td>.99*** (1.00, 1.00)</td>
<td>.99 (.99, 1.01)</td>
<td>.99 (1.99, 1.01)</td>
<td>.99 (1.99, 1.01)</td>
<td>1.00 (.99, 1.00)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.95 (.95, 1.02)</td>
</tr>
<tr>
<td>Black x Population density (per sq/mi) (x1000)</td>
<td>1.01*** (1.00, 1.02)</td>
<td>1.01 (.99, 1.00)</td>
<td>1.00 (.100, 1.02)</td>
<td>1.00 (.98, 1.02)</td>
<td>.99** (.97, .99)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.99 (.99, 1.05)</td>
</tr>
<tr>
<td>Black x Percent change in population density</td>
<td>.99*** (1.00, 1.00)</td>
<td>.99 (.99, 1.01)</td>
<td>.99 (1.99, 1.01)</td>
<td>.99 (1.99, 1.01)</td>
<td>1.00 (.99, 1.00)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.99 (.99, 1.0)</td>
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### Random effects
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<thead>
<tr>
<th></th>
<th>.75***</th>
<th>1.46***</th>
<th>1.26***</th>
<th>1.14***</th>
<th>1.21***</th>
<th>.49***</th>
<th>1.48***</th>
</tr>
</thead>
<tbody>
<tr>
<td>Random intercept variance component</td>
<td>(.87)</td>
<td>(1.21)</td>
<td>(1.12)</td>
<td>(1.07)</td>
<td>(1.10)</td>
<td>(.70)</td>
<td>(1.22)</td>
</tr>
<tr>
<td>Intraclass correlation (p)</td>
<td>.19</td>
<td>.31</td>
<td>.28</td>
<td>.26</td>
<td>.27</td>
<td>.13</td>
<td>.31</td>
</tr>
<tr>
<td>Random slope (Black)</td>
<td>.05***</td>
<td>.07***</td>
<td>.10***</td>
<td>.13***</td>
<td>.27</td>
<td>.13***</td>
<td>.71</td>
</tr>
<tr>
<td>Intraclass correlation (p)</td>
<td>.02</td>
<td>.02</td>
<td>.03</td>
<td>.04</td>
<td>.08</td>
<td>.04</td>
<td>.18</td>
</tr>
</tbody>
</table>

* Reference category: release
b Reference: community supervision
c Standardized variable
† <.10 * <.05 ** <.01 *** <.001
The relationship between race and juvenile court outcomes was moderated by political economy context for some outcomes but not others. Specifically, the relationship between race and preadjudication detention was moderated by all measures of political economy, while petition was moderated by external polity and external economy and judicial disposition was moderated by internal economy only. The effects of race on diversion, adjudication of delinquency, judicial release, and waiver to criminal court were not moderated by political economy.

Preadjudication detention stands out as the juvenile court outcome for which political economy most interacted with race. First, external polity (measured by judicial elections) moderated positively the effect of race (OR = 1.14), such that odds of detention for Black defendants were 14% greater than White defendants in counties with an elected judge. Second, external economy (measured by median income) also moderated positively the effect of race (OR = 1.01), such that odds of detention for Black defendants were 1% greater than White defendants for each additional $1000 in median county income. Third, internal polity (measured by conservative voting majority) moderated negatively the effect of race (OR = .99), such that odds of detention for Black defendants were 1% lower than White defendants in counties with 1% higher conservative majority. Finally, internal economy (measured by urbanism and change in urbanism over time) also moderated the influence of race. Specifically, odds of detention for Black defendants were 1% greater than White defendants in counties with greater population density (by 1000 persons/square mile; OR = .99). Conversely, odds of detention for Black defendants were 1% lower in counties where population density has increased over the prior decade (from 2000 to 2010; OR = .99).

The relationship between formal petition and race is also moderated by (external) political economy of the juvenile court. Odds of petition are 22% greater in counties with judicial
elections (external polity; OR = 1.22), and 1% greater in counties with $1000 higher median income (external economy; OR = 1.01). The influence of race on judicial disposition, on the other hand, was moderated *negatively* by internal polity only. Specifically, odds of secure placement for Black defendants (relative to White defendants) were 1% lower in counties with greater urbanism (OR = .99) and increased urbanism over the prior decade (OR = .99).

Explaining Hispanic/White Disparities in Terms of Political Economy

The second set of analyses investigated whether the influence of ethnicity (i.e., Hispanic versus White defendants) is moderated by contextual factors. As indicated by the random coefficient variance components in table 8.2, the influence of Hispanic ethnicity on juvenile court outcomes varies significantly across counties (i.e., level-2 variance component is statistically significant) for every outcome except for dismissal/diversion (at judicial disposition) and waiver to criminal court (similar to race; see table 8.1). The intraclass correlation for the random effect of Hispanic ethnicity ranges from ρ = .02 to ρ = .03, indicating that 2–3% of the variation in the effect of ethnicity on juvenile court outcomes is attributable to between-county differences.\(^{201}\) As such, a small but significant amount of variation in the effect of race on juvenile court outcomes is attributable to county-level variance. To investigate whether the variation in Hispanic ethnicity effects on juvenile court outcomes across counties is due to the influence of political economy,

\(^{201}\) The level-2 variance component (ψ) and intraclass correlation for the random effect of Hispanic ethnicity on each outcome is as follows: for detention, ψ = .09 and ρ = .03, indicating that approximately 3% of the variation in the effect of Hispanic ethnicity on detention outcomes is attributable to between-county differences; for diversion, ψ = .08 and ρ = .02, indicating that approximately 2% of the variation in the effect of Hispanic ethnicity on diversion outcomes is attributable to between-county differences; for petition, ψ = .11 and ρ = .03, indicating that approximately 3% of the variation in the effect of Hispanic ethnicity on formal petition outcomes is attributable to between-county differences; for adjudication, ψ = .05 and ρ = .02, indicating that approximately 2% of the variation in the effect of Hispanic ethnicity on adjudication outcomes is attributable to between-county differences; and for secure placement, ψ = .06 and ρ = .02, indicating that approximately 2% of the variation in the effect of Hispanic ethnicity on placement outcomes is attributable to between-county differences.
cross-level hierarchical logit models were estimated for each juvenile court outcome. The findings are presented in table 8.2.

Overall, the relationship between Hispanic ethnicity and juvenile court outcomes was not strongly moderated by political economy. Unlike race, no single juvenile court outcome presented significant cross-level interactions between Hispanic ethnicity and all political economy measures (for Black defendants, this occurred for preadjudication detention). The influence of Hispanic ethnicity was moderated by aspects of political economy for preadjudication detention, adjudication of delinquency, and secure placement (at disposition).

First, the influence of Hispanic ethnicity on detention outcomes was moderated by external and internal polity. For external polity, detention was less likely for Hispanic defendants (OR = .72), such that odds of detention were 28% lower for Hispanic defendants than White defendants in counties with an elected juvenile court judge. For internal polity, detention was also less likely for Hispanic defendants; specifically, odds of detention for Hispanic defendants were 1% lower (than White defendants) in counties with a 1% conservative voting majority (OR = .99). There was also a positive three-way interaction among Hispanic ethnicity, judicial elections, and conservative politics, indicating that odds of detention were higher for Hispanic defendants in conservative counties with elected judges (OR = 1.01). The other significant moderating influence on ethnicity and juvenile court outcomes occurred for secure placement at judicial disposition; specifically, odds of secure placement for Hispanic defendants were 2% higher in more urban counties (i.e., counties with greater population density by 1000 persons/square mile; OR = 1.02). Additionally, the moderating effects of internal economy approached significance for adjudication of delinquency: odds of being adjudicated delinquent were 1% higher for Hispanic defendants (than White defendants) in counties with greater
Table 8.2. Cross-level multilevel logit models for political economy (random effect = Hispanic)

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Diversion^a</td>
<td>Petition^a</td>
<td>Release/Divers ion</td>
<td>Placement^b</td>
<td></td>
</tr>
<tr>
<td>Fixed effects</td>
<td>OR (95% CI)</td>
<td>OR (95% CI)</td>
<td>OR (95% CI)</td>
<td>OR (95% CI)</td>
</tr>
<tr>
<td>Intercept</td>
<td>.55 (.21, 1.44)</td>
<td>.71 (.18, 2.90)</td>
<td>.21*** (.09, .49)</td>
<td>.02*** (.00, .13)</td>
</tr>
<tr>
<td>Case-level</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>1.39*** (1.28, 1.50)</td>
<td>.75*** (.68, .83)</td>
<td>1.02 (.96, 1.09)</td>
<td>1.13** (.91, 1.24)</td>
</tr>
<tr>
<td>Hispanic</td>
<td>1.72*** (.40, 2.10)</td>
<td>.89 1.41* (.69, 1.14)</td>
<td>1.13 (.08, 1.82)</td>
<td>.87 (.57, 1.26)</td>
</tr>
<tr>
<td>Other race/ethnicity</td>
<td>1.06 (.96, 1.17)</td>
<td>.89* (.80, 1.00)</td>
<td>.95 (.84, 1.07)</td>
<td>.97 (.80, 1.08)</td>
</tr>
<tr>
<td>Contextual Variables</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic x Judicial elections</td>
<td>.72** (.58, .89)</td>
<td>1.18 (.90, 1.53)</td>
<td>.82 (.63, 1.08)</td>
<td>.85 (.60, 1.19)</td>
</tr>
<tr>
<td>Hispanic x Median income (x1000)</td>
<td>1.00 (1.00)</td>
<td>1.00 (.99, 1.01)</td>
<td>1.00 (.99, 1.01)</td>
<td>1.00 (.98, 1.01)</td>
</tr>
<tr>
<td>Hispanic x Conservative voting majority</td>
<td>.99 (.99, 1.00)</td>
<td>1.00 (.99, 1.01)</td>
<td>1.00 (.99, 1.01)</td>
<td>1.00 (.99, 1.00)</td>
</tr>
<tr>
<td>Hispanic x Conservative x elections</td>
<td>1.01* (1.00, 1.01)</td>
<td>1.00 (.99, 1.01)</td>
<td>1.00 (.100, 1.01)</td>
<td>1.01 (.99, 1.01)</td>
</tr>
<tr>
<td>Hispanic x Population density (per sq/mi) x1000</td>
<td>.99 (1.00)</td>
<td>1.00 (.99, 1.01)</td>
<td>1.00 (.001, 1.01)</td>
<td>1.01* (.99, 1.01)</td>
</tr>
<tr>
<td>Hispanic x Percent change in population density</td>
<td>1.00 (1.00)</td>
<td>1.00 (.99, 1.01)</td>
<td>1.00 (.100, 1.01)</td>
<td>1.01* (.99, 1.01)</td>
</tr>
<tr>
<td>Random effects</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Random intercept variance component</td>
<td>.74*** (.86)</td>
<td>1.46*** (1.21)</td>
<td>1.18*** (1.09)</td>
<td>1.18*** (1.09)</td>
</tr>
<tr>
<td>Intraclass correlation (ρ)</td>
<td>.18</td>
<td>.31</td>
<td>.26</td>
<td>.26</td>
</tr>
<tr>
<td>---------------------------</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>Random slope (Hispanic)</td>
<td>.09***</td>
<td>.08***</td>
<td>.11***</td>
<td>.05***</td>
</tr>
<tr>
<td></td>
<td>(.30)</td>
<td>(.28)</td>
<td>(.33)</td>
<td>(.22)</td>
</tr>
<tr>
<td>Intraclass correlation (ρ)</td>
<td>.03</td>
<td>.02</td>
<td>.03</td>
<td>.02</td>
</tr>
</tbody>
</table>

*a Reference category: release  
*b Reference: community supervision  
*c Standardized variable  
† <.10 * <.05 ** <.01 *** <.001
urbanism (OR = 1.01, \( p = .06 \)) as well as increased urbanism over the prior decade (OR = 1.01, \( p = .06 \)).

Summary of Findings

For most juvenile court outcomes, the effects of race (Black/White) and ethnicity (Hispanic/White) varied significantly across counties (exceptions are no significant variation in the rarest outcomes: judicial release/diversion and judicial waiver). This variation was significant but small, with 1–4% of the variation in the effects of race and ethnicity on juvenile court outcomes attributable to between-county differences. While chapter 7 explored a prominent explanation for this variation—community threat hypotheses—this chapter explored a second plausible (but less prominent) explanation for this variation: moderation of race/ethnicity by political economy of the juvenile court.

The effects of race and ethnicity were moderated by political economy for some juvenile court outcomes, but not for others. The strongest support for the research hypotheses occurred for detention, where all six measures of political economy—external polity (i.e., judicial elections), external economy (i.e., median income), internal polity (i.e., conservative politics), and internal economy (i.e., urbanism)—moderated the influence of race on juvenile court outcomes, several in expected directions. Consistent with research hypotheses, odds of detention for Black defendants were higher in counties with judicial elections (i.e., external polity), higher in counties with a conservative voting majority (i.e., internal polity), and lower in counties with increased urbanism (i.e., internal economy). Contrary to the research hypotheses, however, the influence of race on detention was also moderated positively by higher median income (i.e., external economy) and negatively by urbanism (i.e., internal economy) and conservative voting
majorities within counties with elected judges; specifically, odds of detention are higher for Black defendants in counties with higher median income and lower for Black defendants in counties where urbanism has increased by over the prior decade as well as counties with both elected judges and conservative voting majorities. This last finding is especially noteworthy, as it combines the external and internal polity hypotheses. It stands to reason that political orientation of the surrounding community (used as a proxy for internal polity, the ideological orientation of the court itself) would be most influential in counties where the juvenile court judge is elected by that community. Yet while judicial elections and community conservatism are each associated with higher odds of detention for Black defendants on their own (as predicted), conservatism within counties with elected judges is actually associated with lower odds of detention for Black defendants (contrary to predictions).

The only other support for moderating effects of political economy on the relationship between race and juvenile court outcomes occurred at formal petition of delinquency. Here there is support for the influence of the external polity of the juvenile court. Specifically, odds of formal petition are greater for Black defendants in counties with elected judges. Contrary to research hypotheses, odds of formal petition are also greater for Black defendants in counties with higher median income (i.e., external economy). Finally, internal economy of the court received support for judicial placement decisions. That is, urbanism and increased urbanism (both measures of internal economy) moderate negatively the relationship, such that odds of secure placement are lower for Black defendants in counties with greater urbanism and increased urbanism over the prior decade. This suggests racial disparities are lower in more bureaucratized courts, as predicted.
The moderating effects of political economy is more attenuated for Hispanic ethnicity than for race. For detention, external polity (i.e., judicial elections) and internal polity (i.e., conservativism) moderates negatively the relationship, such that odds of detention are lower for Hispanic defendants in counties with elected judges and conservative counties (both contrary to research hypotheses). On the other hand, odds of detention are higher in conservative counties with elected judges (the reverse of the findings for race). This suggests some support for the research hypotheses, indicating that conservativism in the surrounding community influences the likelihood of detention for Hispanic defendants only in counties with elected judges (who are more responsive to community politics), while elected judges are otherwise associated with lower odds of detention for Hispanic defendants.

Also contrary to research hypotheses are moderating effects of internal economy (i.e., urbanism) on secure placement, indicating that odds of placement are higher for Hispanic defendants in more urban courts. Internal economy also approached positive significance for adjudication of delinquency, indicating that odds of being adjudicated delinquent are higher for Hispanic defendants in counties with greater urbanism and increased urbanism over the prior decade. The only measure of political economy that does not show any moderating influence for Hispanic defendants and juvenile court outcomes (in either direction) is external economy (i.e., median income)—a measure of court and community resources that did moderate positively the relationship between race and detention and adjudication of delinquency (contrary to research hypotheses).

In sum, there was partial support for the hypotheses that variation in the effects of race on some juvenile court outcomes were moderated by political economy, but not others. Similar to
the findings for community threats in chapter 7, the moderating influences of context were
greater in the case of race (i.e., Black defendants) than ethnicity (i.e. Hispanic defendants).
Chapter 9: Findings for Cumulative Disadvantage

The present chapter examines combinations of juvenile court outcomes as a means of assessing cumulative disadvantage in the juvenile justice system. There are five decision-points with specific outcomes (in order): (a) detained or not detained; (b) petitioned, diverted, or released; (c) waived to criminal court or retained in juvenile court (among those petitioned); (d) adjudicated delinquent or not adjudicated delinquent (among those petitioned); and (e) placed in a secure facility (i.e., commitment), placed on community supervision (e.g., probation), or released/diverted by judge (among those adjudicated delinquent).

To examine cumulative disadvantage across these stages of processing, mutually exclusive and jointly exhaustive outcome combinations were created. Specifically, there are 14 possible combinations of the above juvenile court outcomes, each representing a “pathway” through the juvenile justice system that can be ranked from least to most disadvantaged. Table 9.1 describes each pathway from least disadvantaged (pathway 1, no detention and release) to most disadvantaged (pathway 14, detained and waived to criminal court). For each decision point (e.g., formal petition vs. diversion vs. release), more punitive outcomes contribute to increased disadvantage. In order to rank in terms of level of disadvantage, paths that involve multiple punitive outcomes are considered more disadvantaged (see Kutateladze et al., 2014). So, for example, to be detained and receive secure placement (path 12) is considered more disadvantaged than to receive secure placement without preadjudication detention (path 11). As can be seen in table 9.1, most juvenile defendants do not experience the most punitive (i.e., disadvantaged) paths, with only 6.3% receiving secure commitment or waiver to adult court as final outcomes (paths 11–14). The most common specific pathways through the system are diversion without preadjudication detention (pathway 3)—about one-third of the sample.
<table>
<thead>
<tr>
<th>Path</th>
<th>Combination of Outcomes (&quot;Pathway&quot;)</th>
<th>N (%)</th>
<th>Detention</th>
<th>Petition</th>
<th>Adjudication</th>
<th>Disposition</th>
<th>Waiver</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>No detention, release</td>
<td>48,961 (19.2%)</td>
<td>0</td>
<td>0</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>2</td>
<td>Detention, release</td>
<td>7,475 (2.9%)</td>
<td>1</td>
<td>0</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>3</td>
<td>No detention, diverted</td>
<td>82,100 (32.2%)</td>
<td>0</td>
<td>1</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>4</td>
<td>Detention, diverted</td>
<td>12,598 (4.9%)</td>
<td>1</td>
<td>1</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>5</td>
<td>No detention, petitioned, not adjudicated delinquent</td>
<td>23,387 (9.2%)</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>6</td>
<td>Detention, petitioned, not adjudicated delinquent</td>
<td>6,901 (2.7%)</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>7</td>
<td>No detention, petitioned, adjudicated delinquent, released</td>
<td>4,056 (1.6%)</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>–</td>
</tr>
<tr>
<td>8</td>
<td>Detention, petitioned, adjudicated delinquent, released</td>
<td>1,842 (0.7%)</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>–</td>
</tr>
<tr>
<td>9</td>
<td>No detention, petitioned, adjudicated delinquent, community supervision</td>
<td>31,753 (12.4%)</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>–</td>
</tr>
<tr>
<td>10</td>
<td>Detention, petitioned, adjudicated delinquent, community supervision</td>
<td>20,292 (8%)</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>–</td>
</tr>
<tr>
<td>11</td>
<td>No detention, petitioned, adjudicated delinquent, secure placement</td>
<td>5,077 (2%)</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>–</td>
</tr>
<tr>
<td>12</td>
<td>Detention, petitioned, adjudicated delinquent, secure placement</td>
<td>9,931 (3.9%)</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>–</td>
</tr>
<tr>
<td>13</td>
<td>No detention, petitioned, waived to adult court</td>
<td>500 (0.2%)</td>
<td>0</td>
<td>2</td>
<td>–</td>
<td>–</td>
<td>1</td>
</tr>
<tr>
<td>14</td>
<td>Detention, petitioned, waived to adult court</td>
<td>496 (0.2%)</td>
<td>1</td>
<td>2</td>
<td>–</td>
<td>–</td>
<td>1</td>
</tr>
</tbody>
</table>

Notes: – (en dash) indicates not applicable. **Preadjudication detention**, 0 = released, 1 = detained in secure facility; **petition of delinquency**, 0 = released, 1 = informal processing (i.e., diversion), 2 = formal petition; **adjudication of delinquency**, 0 = not delinquent, 1 = delinquent; **judicial disposition**, 0 = release, 1 = community supervision (i.e., probation), 2 = secure placement (i.e., commitment); **waiver to adult court**, 0 = not waived, 1 = waived.
Odds of Pathway by Race/Ethnicity

To examine cumulative disadvantage by race/ethnic group using these pathways, the next stage of the analysis estimates a series of logistic regression analyses with each unique pathway as the dependent variable of interest, controlling for case-level characteristics and state juvenile justice system. While some paths have quite small proportions (e.g., <1% for pathways 8, 13, 14; see table 9.1), the analyses are still possible due to the large sample size. Thus, even the least common pathway, detention and waiver to adult court (pathway 14; .2%), includes sufficient observations for analysis (n=496). Table 9.2 presents the results of regressing race/ethnicity and control variables on each of the pathways.

Relative to White defendants, Black juvenile defendants are significantly more likely to experience more disadvantaged pathways through the juvenile justice system. This includes pathways 6 through 14 (with the exception of pathway 13). The largest significant racial difference is for the most disadvantaged pathway, preadjudication detention followed by waiver to criminal court (pathway 14; OR = 2.91). Black defendants are also more likely to experience the least disadvantaged outcomes compared to White defendants; specifically, they are more likely to experience release at the petition stage, both without preadjudication detention (pathway 1; OR = 1.06) and with detention (pathway 2; OR = 1.27). Black defendants are less likely to experience diversion without detention compared to White defendants (OR = .69), and no significant differences emerged for diversion with detention (pathway 4), which is much less common. Black defendants are also less likely to experience no adjudication of delinquency (following petition) with no preadjudication detention (pathway 5; OR = .95).
Table 9.2. Multilevel logistic regression analysis for 14 pathways

<table>
<thead>
<tr>
<th>Path 1</th>
<th>Path 2</th>
<th>Path 3</th>
<th>Path 4</th>
<th>Path 5</th>
<th>Path 6</th>
<th>Path 7</th>
<th>Path 8</th>
<th>Path 9</th>
<th>Path 10</th>
<th>Path 11</th>
<th>Path 12</th>
<th>Path 13</th>
<th>Path 14</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed Effects</td>
<td>OR (95 % CI)</td>
<td>OR (95 % CI)</td>
<td>OR (95 % CI)</td>
<td>OR (95 % CI)</td>
<td>OR (95 % CI)</td>
<td>OR (95 % CI)</td>
<td>OR (95 % CI)</td>
<td>OR (95 % CI)</td>
<td>OR (95 % CI)</td>
<td>OR (95 % CI)</td>
<td>OR (95 % CI)</td>
<td>OR (95 % CI)</td>
<td>OR (95 % CI)</td>
</tr>
<tr>
<td>Intercept</td>
<td>.11***</td>
<td>.00***</td>
<td>5.96***</td>
<td>.09***</td>
<td>.01***</td>
<td>.00***</td>
<td>.00***</td>
<td>.03***</td>
<td>.03***</td>
<td>.00***</td>
<td>.00***</td>
<td>.00***</td>
<td>.00***</td>
</tr>
<tr>
<td>Age</td>
<td>(.09, .00)</td>
<td>(5.06, .06)</td>
<td>(.01, .00)</td>
<td>(0.0, .00)</td>
<td>(0.0, .02)</td>
<td>(0.0, .02)</td>
<td>(0.0, .00)</td>
<td>(0.0, .00)</td>
<td>(0.0, .00)</td>
<td>(0.0, .00)</td>
<td>(0.0, .00)</td>
<td>(0.0, .00)</td>
<td>(0.0, .00)</td>
</tr>
<tr>
<td>Race/Ethnicity (ref: White)</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>1.06*** (1.02, 1.09)</td>
<td>1.02*** (1.00, 1.04)</td>
<td>1.27*** (1.20, 1.34)</td>
<td>1.14*** (1.08, 1.21)</td>
<td>1.07*** (1.00, 1.14)</td>
<td>1.05*** (1.00, 1.11)</td>
<td>1.03*** (1.00, 1.07)</td>
<td>1.00*** (0.95, 1.05)</td>
<td>1.01*** (0.97, 1.06)</td>
<td>1.03*** (1.00, 1.06)</td>
<td>1.00*** (0.97, 1.04)</td>
<td>1.00*** (0.97, 1.04)</td>
<td>1.00*** (0.97, 1.04)</td>
</tr>
<tr>
<td>Hispanic</td>
<td>.90*** (.87, .94)</td>
<td>.91*** (.87, .96)</td>
<td>.98*** (.93, .99)</td>
<td>1.01*** (.96, 1.07)</td>
<td>1.00*** (.96, 1.07)</td>
<td>1.00*** (.96, 1.07)</td>
<td>1.00*** (.96, 1.07)</td>
<td>1.00*** (.96, 1.07)</td>
<td>1.00*** (.96, 1.07)</td>
<td>1.00*** (.96, 1.07)</td>
<td>1.00*** (.96, 1.07)</td>
<td>1.00*** (.96, 1.07)</td>
<td>1.00*** (.96, 1.07)</td>
</tr>
<tr>
<td>Other</td>
<td>1.07*** (1.03, 1.11)</td>
<td>1.08*** (1.04, 1.13)</td>
<td>1.07*** (1.03, 1.12)</td>
<td>1.07*** (1.03, 1.12)</td>
<td>1.07*** (1.03, 1.12)</td>
<td>1.07*** (1.03, 1.12)</td>
<td>1.07*** (1.03, 1.12)</td>
<td>1.07*** (1.03, 1.12)</td>
<td>1.07*** (1.03, 1.12)</td>
<td>1.07*** (1.03, 1.12)</td>
<td>1.07*** (1.03, 1.12)</td>
<td>1.07*** (1.03, 1.12)</td>
<td>1.07*** (1.03, 1.12)</td>
</tr>
<tr>
<td>Race/Ethnicity (ref: White)</td>
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</tr>
<tr>
<td>Violent offense</td>
<td>1.06*** (1.02, 1.09)</td>
<td>1.02*** (1.00, 1.04)</td>
<td>1.27*** (1.20, 1.34)</td>
<td>1.14*** (1.08, 1.21)</td>
<td>1.07*** (1.00, 1.14)</td>
<td>1.05*** (1.00, 1.11)</td>
<td>1.03*** (1.00, 1.07)</td>
<td>1.00*** (0.95, 1.05)</td>
<td>1.01*** (0.97, 1.06)</td>
<td>1.03*** (1.00, 1.06)</td>
<td>1.00*** (0.97, 1.04)</td>
<td>1.00*** (0.97, 1.04)</td>
<td>1.00*** (0.97, 1.04)</td>
</tr>
<tr>
<td>Drug/alcohol offense</td>
<td>.89*** (.87, .91)</td>
<td>.91*** (.89, .93)</td>
<td>.98*** (.95, .99)</td>
<td>1.01*** (.98, 1.04)</td>
<td>1.00*** (.97, 1.03)</td>
<td>1.00*** (.97, 1.03)</td>
<td>1.00*** (.97, 1.03)</td>
<td>1.00*** (.97, 1.03)</td>
<td>1.00*** (.97, 1.03)</td>
<td>1.00*** (.97, 1.03)</td>
<td>1.00*** (.97, 1.03)</td>
<td>1.00*** (.97, 1.03)</td>
<td>1.00*** (.97, 1.03)</td>
</tr>
<tr>
<td>Probation violation</td>
<td>.49*** (.45, .54)</td>
<td>.50*** (.45, .54)</td>
<td>.52*** (.47, .57)</td>
<td>1.02*** (.96, .54)</td>
<td>1.00*** (.95, .51)</td>
<td>1.00*** (.95, .51)</td>
<td>1.00*** (.95, .51)</td>
<td>1.00*** (.95, .51)</td>
<td>1.00*** (.95, .51)</td>
<td>1.00*** (.95, .51)</td>
<td>1.00*** (.95, .51)</td>
<td>1.00*** (.95, .51)</td>
<td>1.00*** (.95, .51)</td>
</tr>
<tr>
<td>Status offense</td>
<td>5.31*** (5.11, 5.51)</td>
<td>5.41*** (5.21, 5.61)</td>
<td>5.31*** (5.11, 5.51)</td>
<td>5.21*** (5.01, 5.41)</td>
<td>5.11*** (4.91, 5.31)</td>
<td>5.01*** (4.81, 5.21)</td>
<td>4.91*** (4.71, 5.11)</td>
<td>4.81*** (4.61, 5.01)</td>
<td>4.71*** (4.51, 4.91)</td>
<td>4.61*** (4.41, 4.81)</td>
<td>4.51*** (4.31, 4.71)</td>
<td>4.41*** (4.21, 4.61)</td>
<td>4.31*** (4.11, 4.51)</td>
</tr>
<tr>
<td>Other offense</td>
<td>1.43*** (1.37, 1.49)</td>
<td>1.42*** (1.36, 1.48)</td>
<td>1.43*** (1.37, 1.50)</td>
<td>1.37*** (1.32, 1.42)</td>
<td>1.36*** (1.31, 1.41)</td>
<td>1.35*** (1.30, 1.40)</td>
<td>1.34*** (1.29, 1.39)</td>
<td>1.31*** (1.25, 1.37)</td>
<td>1.29*** (1.23, 1.35)</td>
<td>1.27*** (1.21, 1.33)</td>
<td>1.25*** (1.19, 1.31)</td>
<td>1.23*** (1.17, 1.29)</td>
<td>1.21*** (1.15, 1.27)</td>
</tr>
<tr>
<td>State controls (ref: Texas)</td>
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</tr>
<tr>
<td>Alabama</td>
<td>1.34 (.94, 1.37)</td>
<td>1.32 (.90, 1.16)</td>
<td>1.34 (.92, 1.17)</td>
<td>1.33 (.91, 1.16)</td>
<td>1.32 (.89, 1.17)</td>
<td>1.31 (.88, 1.16)</td>
<td>1.30 (.87, 1.16)</td>
<td>1.29 (.85, 1.15)</td>
<td>1.28 (.84, 1.14)</td>
<td>1.27 (.83, 1.13)</td>
<td>1.26 (.82, 1.12)</td>
<td>1.25 (.81, 1.11)</td>
<td>1.24 (.79, 1.10)</td>
</tr>
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<td>Connecticut</td>
<td>2.07 (.14, 2.14)</td>
<td>2.13 (.00, 2.09)</td>
<td>2.13 (.00, 2.09)</td>
<td>2.13 (.00, 2.09)</td>
<td>2.13 (.00, 2.09)</td>
<td>2.13 (.00, 2.09)</td>
<td>2.13 (.00, 2.09)</td>
<td>2.13 (.00, 2.09)</td>
<td>2.13 (.00, 2.09)</td>
<td>2.13 (.00, 2.09)</td>
<td>2.13 (.00, 2.09)</td>
<td>2.13 (.00, 2.09)</td>
<td>2.13 (.00, 2.09)</td>
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<tr>
<td></td>
<td>Missouri</td>
<td>Oregon</td>
<td>South Carolina</td>
<td>Utah</td>
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</tr>
<tr>
<td>Missouri</td>
<td>3.26</td>
<td>.042</td>
<td>.026</td>
<td>3.16</td>
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<tr>
<td>Oregon</td>
<td>9.88</td>
<td>.096</td>
<td>.016</td>
<td>5.84</td>
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<td></td>
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<tr>
<td>South Carolina</td>
<td>4.87</td>
<td>.048</td>
<td>.008</td>
<td>1.99</td>
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<tr>
<td>Utah</td>
<td>5.11</td>
<td>.003</td>
<td>.013</td>
<td>1.94</td>
<td></td>
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</tbody>
</table>

**Random Effects**

<table>
<thead>
<tr>
<th></th>
<th>Intercept</th>
<th>Intraclasse (rho)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1.37</td>
<td>.29</td>
</tr>
</tbody>
</table>

**Note:** Level-1 N = 250,787; Level-2 N = 545

† <.10 * <.05 ** <.01 *** <.0
Hispanic defendants, compared to White defendants, are similarly more likely to experience more disadvantaged pathways through the juvenile justice system. This includes pathways 6 through 14 (with the exceptions of pathways 7 and 13). As with Black defendants, the largest significant ethnic difference is for the most disadvantaged pathway, preadjudication detention followed by waiver to criminal court (pathway 14; OR = 2.32). Consistent with the cumulative disadvantage hypothesis (and contrary to Black defendants), Hispanic defendants are also less likely to experience the least disadvantaged outcome, release without preadjudication detention (pathway 1; OR = .90). Like Black defendants, Hispanic defendants are less likely to experience diversion without detention compared to White defendants (OR = .84). No significant differences emerged for release following detention (pathway 2), diversion with detention (pathway 4), or petition but no adjudication of delinquency following no preadjudication detention (pathway 5).

For most pathways, there were no significant differences between Other race defendants and White defendants. The only significant difference emerged for pathway 3. Like Black and Hispanic defendants, Other race defendants were less likely to receive diversion without detention compared to White defendants (OR = .89). Also approaching significance were Other race defendants being more likely to experience release without detention (pathway 1; OR = 1.07, p = .09) and community supervision following adjudication of delinquency and preadjudication detention (pathway 10; OR = 1.09, p = .06).

Overall, while Black and Hispanic youth are more likely to experience the more disadvantaged pathways, these racial/ethnic differences do not themselves increase as we move from less to more disadvantaged paths. That is, there is not a clear pattern of cumulative disadvantage, whereby racial and ethnic differences in juvenile court outcomes accumulate and
result in larger effects (i.e., larger ORs). Rather, Black and Hispanic defendants appear somewhat more likely to experience most pathways (especially Black defendants), including the most disadvantaged pathways but also the least disadvantaged pathways. The only large racial/ethnic difference that stands out is detention followed by waiver to criminal court (pathway 14), a pathway that is much more likely to be experienced by Black (OR = 2.91) and Hispanic (OR = 2.32) than White defendants. Notably, this was considered the most disadvantaged pathway. Minority defendants (including other races) are also less likely to receive pathway 3—diversion without detention—compared to White defendants, and this appears to be driving much of the other findings (i.e., as a logical matter it is not possible that minority defendants could be more likely to receive every pathway). Diversion without detention appears to be the pathway that is much more likely for White defendants than all other defendants.

Control variables are also significantly associated with many of the pathways. Male defendants were more likely than female defendants to experience pathways 6 through 14—the most disadvantaged—as well as pathway 2, while males were significantly less likely to experience pathway 1 and pathways 3–4 (with no significant differences emerging for pathway 5). Older defendants were also more likely to experience more disadvantaged pathways (pathways 5 through 14), as well as detention followed by release (pathway 2). Younger defendants were more likely to experience no detention and release (pathway 1) as well as diversion with no detention (pathway 3). For offense type, the patterns are less clear. Relative to property offenders, violent offenders were more likely to experience pathways 1–2, 4–6, 8, 10, and 12–14, and less likely to experience pathways 3, 7, and 9 (all of which involve no detention). As a general matter, drug and alcohol offenses were more likely than property offenses to
experience some less disadvantaged pathways (1, 4–5), and less likely to experience more disadvantage pathways (7–8, 10–14). Probation violations were less likely to receive the most disadvantaged pathways involving waiver (13–14), but otherwise more likely to receive more disadvantaged pathways (10–12) and less likely to receive the least disadvantaged pathways (1, 3, 5). Status offenses present one of the clearest patterns: more likely than property offenses to be released (pathways 1–2), and less likely to experience all other pathways (3–14). Finally, other offenses present no discernable pattern: more likely to result in pathways 1–2, 4–6, 7, and 11–13, and less likely to result in all others.

Predicted Probabilities of Pathway by Race/Ethnicity

To gain a clearer picture of what is going on with these different pathways through the juvenile justice system, the next stage of the analysis estimates predicted probabilities of pathway by racial/ethnic group membership. Table 9.3 compares predicted probabilities of each pathway across different racial/ethnic groups, providing not only the relative odds (see table 9.2) but the overall probability of experiencing each combination of outcomes. The first major column

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202 Not fitting with this general pattern, drug and alcohol offenders were also more likely to experience pathway 9 and less likely to experience pathways 2–3.

203 Not fitting with this general pattern, probation violation offenders were also more likely to experience pathway 2 and 4, and less likely to experience 7 and 9.

204 Different pathways are also significantly associated with different states. Pathway 1 is most likely in Oregon and least likely in Utah; pathway 2 is most likely in Texas and least likely in Utah; pathway 3 is most likely in Missouri and least likely in Alabama; pathway 4 is most likely in Texas and least likely in Alabama, Connecticut, and Utah; pathway 5 is most likely in Alabama and least likely in Missouri; pathway 6 is most likely in Texas and least likely in Missouri and South Carolina; pathway 7 is most likely in Connecticut and least likely in South Carolina; pathway 8 is most likely in Oregon and Utah, and least likely in South Carolina; pathway 9 is most likely in Utah and least likely in Texas and Missouri; pathway 10 is most likely in Texas and least likely in Missouri; pathway 11 is most likely in South Carolina and Utah and least likely in Connecticut, Texas, and Oregon; pathway 12 is most likely in Texas and least likely in Alabama, Connecticut, and Oregon; pathway 13 is most likely in Alabama and least likely in Utah; and pathway 14 is most likely in Connecticut and least likely in Utah.

205 Predicted probabilities were calculated using the margins post-estimation command following the multilevel logistic regression analyses in Table 2. Rather than estimate conditional probabilities with fixed values for other covariates (see Kutateladze et al., 2014), the approach used was “average adjusted predictions” (in contrast to “adjusted prediction at the means”) (see Muller and MacLehose, 2014).
Table 9.3. Cumulative disadvantage based on predicted probabilities for paths by racial/ethnic group

<table>
<thead>
<tr>
<th>Path</th>
<th>Combination of Outcomes (“Pathway”)</th>
<th>Marginal Predicted Mean (95 % CI)</th>
<th>Difference between means (ref: White) (95 % CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>White (.16, .17)</td>
<td>Black (.15, .18), Hispanic (.14, .16), Other (.15, .18)</td>
</tr>
<tr>
<td>1</td>
<td>No detention, release</td>
<td>.16</td>
<td>.16, Hispanic .15, Other .17, Black .01***, Hispanic -.01***, Other .01†</td>
</tr>
<tr>
<td>2</td>
<td>Detention, release</td>
<td>.03, .03</td>
<td>Black .00, Hispanic -.01***, Other -.01, .00, -.01, -.01</td>
</tr>
<tr>
<td>3</td>
<td>No detention, diverted</td>
<td>.34, .33</td>
<td>Black -.06***, Hispanic -.03***, Other -.02***</td>
</tr>
<tr>
<td>4</td>
<td>Detention, diverted</td>
<td>.05, .05</td>
<td>Black -.00, Hispanic -.00, Other -.00, .01</td>
</tr>
<tr>
<td>5</td>
<td>No detention, petitioned, not adjudicated delinquent</td>
<td>.10, .08</td>
<td>Black -.00, Hispanic -.00, Other -.00, .00</td>
</tr>
<tr>
<td>6</td>
<td>Detention, petitioned, not adjudicated delinquent</td>
<td>.02, .02</td>
<td>Black -.00, Hispanic -.00, Other -.00, .00</td>
</tr>
<tr>
<td>7</td>
<td>No detention, petitioned, adjudicated delinquent, released</td>
<td>.02, .02</td>
<td>Black -.00, Hispanic -.00, Other -.00, .00</td>
</tr>
<tr>
<td>8</td>
<td>Detention, petitioned, adjudicated delinquent, released</td>
<td>.01, .01</td>
<td>Black -.00, Hispanic -.00, Other -.00, .00</td>
</tr>
<tr>
<td>9</td>
<td>No detention, petitioned, adjudicated delinquent, community supervision</td>
<td>.15, .14, .16, .16, .15</td>
<td>Black .01***, Hispanic .01***, Other .00, .00</td>
</tr>
<tr>
<td>10</td>
<td>Detention, petitioned, adjudicated delinquent, community supervision</td>
<td>.07, .07</td>
<td>Black .02***, .01***, .01†</td>
</tr>
<tr>
<td>11</td>
<td>No detention, petitioned, adjudicated delinquent, secure placement</td>
<td>.02, .02</td>
<td>Black -.00, .00, -.00, -.00</td>
</tr>
<tr>
<td>12</td>
<td>Detention, petitioned, adjudicated delinquent, secure placement</td>
<td>.04, .04</td>
<td>Black -.00, .00, -.00, .00</td>
</tr>
<tr>
<td>13</td>
<td>No detention, petitioned, waived to adult court</td>
<td>.00, .00</td>
<td>Black -.00, .00, -.00, .00</td>
</tr>
<tr>
<td>14</td>
<td>Detention, petitioned, waived to adult court</td>
<td>.00, .00</td>
<td>Black -.00, .00, -.00, .00</td>
</tr>
</tbody>
</table>

† <.10 * <.05 ** <.01 *** <.001
Black versus White

As shown in table 9.3, mean differences between Black and White defendants are significant for almost every pathway through the juvenile justice system. Relative to White juvenile defendants, Black juvenile defendants are significantly more likely to experience the most disadvantaged pathways 6 (detention, petition, then no adjudication of delinquency) through 14 (detention, petition, then waived to adult court). The only exception is no significant difference for pathway 13, waived to criminal court without preadjudication detention. These results show that Black defendants are more likely to experience every combination of outcomes that involves adjudication of delinquency (pathways 7 through 12). The largest absolute difference in predicted probabilities is for pathway 10—detention, petition, adjudication of delinquency, and community supervision. The probability of a White defendant receiving this outcome was 6.9%, compared to 8.5% for a Black defendant (20.8% difference, \( p < .001 \)). Still, smaller probabilities may have larger relative differences. For instance, the predicted probabilities for pathway 14—detention and waiver—are .27 percent for Black defendants and .10 percent for White defendants, a very rare pathway regardless of race (in table 9.3, each probability is recorded as .00). However, the statistically significant percent difference here—91.9%—is much larger (this is consistent with its being the largest effect in table 9.2).

Consistent with findings in table 2, Black defendants are also more likely to experience the two least disadvantaged outcomes: release prior to petition with detention (pathway 2)—3.7% compared to 3.0%—and without detention (pathway 1)—16.4% compared to 15.9%. The only two pathways that are less likely for Black defendants are diversion with no preadjudication detention (pathway 3) and adjudicated non-delinquent (following petition) with no preadjudication detention (pathway 5). The pathway that most stands out here is pathway 3:
while the probability of a White defendant receiving diversion without detention is 34.3%, it is only 28.6% for Black defendants—an 18.1% difference ($p < .001$). As noted above, this is the most common pathway for all racial/ethnic groups—but is much more likely for White than Black defendants (there is no significant difference in pathway 4, detention followed by diversion.

*Hispanic versus White*

For Hispanic juvenile defendants relative to Whites, more disadvantaged pathways (i.e., pathways 6 through 14) are similarly more likely, with a few exceptions. Unlike Black defendants, Hispanic defendants are less likely to receive the least disadvantaged outcome, no detention and release (pathway 1). Like Black defendants, they are also less likely to receive no detention and diversion, with 31.5% probability compared to 34.3% probability for White defendants (Hispanic defendants are still more likely to receive no detention and diversion than Black defendants). Relative to White juvenile defendants, Hispanic juvenile defendants are more likely to experience the most disadvantaged pathways, from detention and petition with no adjudication of delinquency (pathway 6) through detention, petition, and waiver to adult court (pathway 14). Like Black defendants, there is no significant difference for pathway 13, waived to criminal court without preadjudication detention. There is also no significant difference between probability of pathway 7 (not detained, petitioned, adjudicated delinquent, and released). Similar to the results for Black defendants, overall Hispanic defendants are more likely to experience every combination of outcomes that involves adjudication of delinquency (pathways 8 through 12), evidence of their cumulative disadvantage at the back-end of processing.
Other race/ethnicity versus White

Few significant differences in probability of pathway emerged between White defendants and juvenile defendants designated Other race/ethnicity (including Asian American, Hawaiian/Pacific Islander, and Native American). There were three exceptions. The only statistically significant difference was diversion without detention (pathway 3), 32.5% vs. 34.3%. Like Hispanic (31.5%) and Black (28.6%) defendants, pathway 3 was the only pathway more likely for White defendants than all other defendants. Approaching significance were greater probability of pathway 1—no detention and release (16.5% compared to 15.9%; \( p = .09 \))—and pathway 9—detention, petition, adjudication, and community supervision (7.4% vs. 6.9%; \( p = .07 \)).

Cumulative Disadvantage

Since the reference groups in the above analysis is White defendants, direct comparisons between all racial/ethnic groups are not made in the findings reported above (e.g., comparing Black and Hispanic defendant outcomes). Further analyses rotated the reference category for racial/ethnic group so that all four groups could be compared in terms of probability of each pathway (results not shown). Table 9.4 lists the results for each pathway in terms of likelihood by racial/ethnic group, and whether the findings support the research hypotheses. Only three pathways fully support the research hypotheses predicting that disadvantage would be most experienced by Black defendants, followed by Hispanic defendants, and finally White defendants. As expected, White defendants are more likely to experience no detention and diversion (pathway 3) compared to Black and Hispanic defendants, and Hispanic defendants are
Table 9.4. Cumulative disadvantage research hypotheses

<table>
<thead>
<tr>
<th>Path</th>
<th>Combination of Outcomes (“Pathway”)</th>
<th>Likelihood by Group</th>
<th>Support for Research Hypothesis?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>No detention, release</td>
<td>Black/Other &gt; White &gt; Hispanic</td>
<td>No</td>
</tr>
<tr>
<td>2</td>
<td>Detention, release</td>
<td>Black &gt; White/Hispanic/Other</td>
<td>No</td>
</tr>
<tr>
<td>3</td>
<td>No detention, diverted</td>
<td>White &gt; Other &gt; Hispanic &gt; Black</td>
<td>Yes</td>
</tr>
<tr>
<td>4</td>
<td>Detention, diverted</td>
<td>White/Black/Hispanic/Other</td>
<td>No</td>
</tr>
<tr>
<td>5</td>
<td>No detention, petitioned, not adjudicated delinquent</td>
<td>White/Other &gt; Black</td>
<td>Partial</td>
</tr>
<tr>
<td>6</td>
<td>Detention, petitioned, not adjudicated delinquent</td>
<td>Black &gt; Hispanic &gt; White</td>
<td>Yes</td>
</tr>
<tr>
<td>7</td>
<td>No detention, petitioned, adjudicated delinquent, released</td>
<td>Black &gt; White/Hispanic/Other</td>
<td>Partial</td>
</tr>
<tr>
<td>8</td>
<td>Detention, petitioned, adjudicated delinquent, released</td>
<td>Black &gt; White/Hispanic/Other</td>
<td>Partial</td>
</tr>
<tr>
<td>9</td>
<td>No detention, petitioned, adjudicated delinquent, community supervision</td>
<td>Black/Hispanic &gt; White/Other</td>
<td>Partial</td>
</tr>
<tr>
<td>10</td>
<td>Detention, petitioned, adjudicated delinquent, community supervision</td>
<td>Black/Hispanic &gt; Other &gt; White</td>
<td>Partial</td>
</tr>
<tr>
<td>11</td>
<td>No detention, petitioned, adjudicated delinquent, secure placement</td>
<td>Black/Hispanic &gt; White/Other</td>
<td>Partial</td>
</tr>
<tr>
<td>12</td>
<td>Detention, petitioned, adjudicated delinquent, secure placement</td>
<td>Black/Hispanic &gt; White/Other</td>
<td>Partial</td>
</tr>
<tr>
<td>13</td>
<td>No detention, petitioned, waived to adult court</td>
<td>White/Black/Hispanic/Other</td>
<td>No</td>
</tr>
<tr>
<td>14</td>
<td>Detention, petitioned, waived to adult court</td>
<td>Black &gt; Hispanic &gt; White/Other</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Note: > indicates significant difference; / indicates no significant difference; omission of group indicates no significant relationships

more likely than Black defendants to experience this pathway. Also as expected, Black defendants are more likely to receive detention, petition, and then no adjudication of delinquency (pathway 6)—a moderately disadvantageous pathway. The most disadvantaged pathway—detention and waiver to criminal court (pathway 14)—also supported hypotheses: Black
defendants were more likely than Hispanic defendants, and Hispanic defendants more likely than White defendants, to receive this combination of outcomes.

Contrary to the hypotheses, White defendants were not more likely to experience the least disadvantageous pathways (1–2) than other groups (although White defendants were more likely than Hispanic defendants to experience pathway 1). There were also no significant differences in pathway 4—detention and diversion—or pathway 13—no detention and waiver to criminal court—across racial/ethnic groups.

Other pathways presented partial support for the research hypotheses. White and Other race defendants were more likely than Black defendants to receive no detention, then petitioned and adjudicated non-delinquent (pathway 5, a moderately disadvantageous pathway)—while no differences with Hispanic defendants emerged. Black defendants were also more likely to experience release following adjudication of delinquency—both with detention (pathway 8) and without detention (pathway 7)—compared to White and Hispanic defendants, but no differences between these latter groups emerged. Finally, pathways 9 through 12—adjudications of delinquency resulting in community supervision (with and without detention) and secure placement (with and without detention)—supported the hypotheses that Black and Hispanic defendants would experience more disadvantaged pathways than White defendants, but contrary to expectations Black defendants were not more likely to experience these pathways compared to Hispanic defendants.

Summary of Findings

The predicted probabilities for different pathways (observed in table 3) are not as different across racial/ethnic groups as anticipated by the research hypotheses. For most pathways, the predicted
probability of group membership differs less than 1% among racial/ethnic groups (in absolute terms). That is, the proportion of juvenile defendants experiencing each unique pathway is surprisingly uniform. The only exception to this (i.e., the largest absolute mean probability difference) is pathway 3: diversion with detention. In part this may be due to the fine-grained categorization into 14 combinations. If more broad “final outcomes” (i.e., release, diversion, community supervision, secure placement, and waiver to criminal court) are compared, larger discrepancies may emerge. The present approach allows for a more nuanced illustration of the different possibilities for a juvenile court referral, and the probability of each potential pathway. Surprisingly, they do not differ dramatically across racial/ethnic groups.

Finally, and contrary to the cumulative disadvantage hypothesis, there does not appear to be any increasing disparity between White and minority defendants as pathways become more punitive (see tables 9.2 and 9.3). The findings instead suggest that Black and Hispanic defendants are more likely to experience most pathways, ranging from least to most punitive. The predicted probabilities presented in table 9.3 show relatively similar path probabilities for all racial/ethnic groups—with the following important exceptions: (1) White defendants appear much more likely to be diverted without first being detained—a relatively non-punitive juvenile justice outcome that appears consistent with its rehabilitative mission—than Black and Hispanic defendants, and (2) Black and Hispanic defendants are much more likely than White defendants to be detained and waived to criminal court, the most punitive outcome (and most contrary to the rehabilitative mission).

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206 Also, the largest absolute difference may occur for pathway 3 because it is the most common pathway, experienced by 32.2% of the total sample. Indeed, the largest relative difference occurs for pathway 14—detention and waiver to criminal court—although the predicted probability is less .3% for each racial/ethnic group—the most disadvantaged pathway is also the rarest.

207 The exception is diversion without detention (pathway 3), where White defendants are overrepresented.
Chapter 10: Discussion and Conclusions

The present study of juvenile justice processing and DMC was motivated by an appreciation of the complexity of the relationship between race/ethnicity and the series of potential outcomes for a juvenile court referral. This required expanding the focus on racial and ethnic disparities both horizontally and vertically: horizontally to capture all major juvenile justice outcomes, including comparisons of DMC at different decision points and cumulative effects across stages of processing; vertically to capture the role of context in jurisdictional variation across juvenile courts (i.e., counties) as well state juvenile justice systems.

Several research questions were examined. First, is DMC present at each stage of juvenile justice processing (detention, petition, adjudication, disposition, and waiver) in a multistate sample? Do identified racial/ethnic disparities vary significantly across different juvenile courts (i.e., counties)? Second, does context—either community threats, social disorganization, or political economy—directly influence juvenile court outcomes? Third, are racial/ethnic disparities in juvenile justice outcomes conditioned by community threats and social disorganization (i.e., sociopolitical context)? Fourth, are racial/ethnic disparities in juvenile justice outcomes conditioned by the political economy of the juvenile court (i.e., organizational context)? Last, do racial/ethnic disparities from early to later stages of juvenile justice processing result in cumulative disadvantage for minority defendants?

Discussion of Findings

Research question 1

The first set of hypotheses ($H_{1A}$–$H_{1E}$) posited that Black and Hispanic juvenile defendants would be more likely to receive more punitive juvenile court outcomes compared to White defendants,
and that these effects would vary across courts. These hypotheses were supported for some juvenile court stages and not others. Racial disparities were present at preadjudication detention, petition (diversion), judicial disposition (secure placement), and waiver to adult court, but were not present for formal petition or adjudication of delinquency. This is consistent with the organizational hypothesis that more tightly coupled stages (e.g., petition, adjudication) have less room for discretion (see Bishop et al., 2010; Ericson and Eckberg, 2016). Moreover, diversion—the most discretionary aspect of the petition stage—was less likely for Black defendants, consistent with prior research (see Leiber et al., 2009; Leiber and Johnson, 2008; Mears et al., 2014).

Support for ethnic disparities was similarly mixed: present at preadjudication detention, formal petition, and judicial disposition (release), but not present at diversion, adjudication, secure placement, or waiver to criminal court. Racial and ethnic disparities in juvenile court outcomes also varied significantly across counties, with the exception of judicial release/diversion and waiver to criminal court. While significant, this variation was relatively small; variation in the effects of race (i.e., Black/White) ranged from 2% (for diversion) to 5% (for placement) and variation in the effects of ethnicity (i.e., Hispanic/White) ranged from 2% (for adjudication) to 4% (for detention).

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208 Other extralegal variables, namely age and sex, were predictive of every stage of juvenile justice processing (with older and male defendants treated more punitively across all stages). Detention was also strongly predictive of more punitive outcomes, while offense type was predictive in expected and unexpected directions (e.g., violent offenders were more likely to be detained, securely placed, and waived to criminal court, but also less likely to be petitioned and adjudicate delinquent, compared to property offenders).

209 Specifically, Black defendants were 32% more likely (than White defendants) to be detained preadjudication (OR = 1.32), 19% to receive secure placement at judicial disposition, and to be waived to criminal court (largest difference at waiver). Black defendants are also less likely to be diverted from formal processing (at the petition stage). Of these, the most pronounced racial disparity was present at waiver.

210 Specifically, Hispanic defendants were more likely (than White defendants) to be detained preadjudication, more likely to receive a formal petition of delinquency, and less likely to be dismissed at judicial disposition. Of these, the most pronounced ethnic disparity was at preadjudication detention.

211 Judicial release and waiver to adult court were the rarest outcomes, hence the smallest number of observations, which might explain the lack of significance here.
Research question 2

The second set of hypotheses (H_{2A}–H_{2E}) posited that juvenile court outcomes would be more punitive and less treatment-oriented (for all defendants) in the presence of certain contextual factors: (1) greater community threats, (2) greater social disorganization, and (3) aspects of political economy (specifically: elected judges, lower community wealth/resources, greater conservatism, and lower urbanism).\textsuperscript{212} These hypotheses were partially supported for some juvenile court stages and not others. As expected, juvenile court outcomes did vary across courts, ranging from 12% (for secure placement) to 34% (for waiver to adult court), a relatively substantial amount of outcome variation that is attributable to context. However, most contextual variables did not influence juvenile court outcomes. Table 10.1 summarizes research support for the contextual factors in research question 2, as well as moderating impact of context in research questions 3 and 4 (the latter two are discussed below).

Findings provide limited support for the role of community threat, social disorganization, and political economy at the community level in explaining variation in juvenile court outcomes. As shown in table 10.1, there are also few discernible patterns in the influence of context on juvenile court outcomes. A few associations stand out. External polity (i.e., elected judges) is the most supported aspect of political economy, where the hypothesis that elected judges will exhibit more punitive outcomes is supported for petition, diversion, and adjudication outcomes (but not associated with judicial disposition or judicial waiver, both judicial decisions). Dynamic internal economy (i.e., increased urbanism) is also associated with detention, but in an unexpected

\textsuperscript{212} Elected judges (i.e., external polity) are expected to be more responsive to (punitive) community demands and thus more punitive and less aligned with the original, treatment-oriented vision of the juvenile court. Community wealth (i.e., external economy) is expected to be negatively associated with punitive treatment, as greater resources within and outside the court support the original mission of the juvenile court. Political conservatism (i.e., internal polity) is expected to be positively associated with punitive treatment. And urbanism acts as a proxy for bureaucratization (i.e., internal economy), which is expected to be negatively associated with punitive treatment as a more tightly coupled, routinized court is expected to follow the Weberian rational legal model.
<table>
<thead>
<tr>
<th>Research Hypothesis</th>
<th>Detention</th>
<th>Diversion</th>
<th>Petition</th>
<th>Adjudication</th>
<th>Judicial Release</th>
<th>Placement</th>
<th>Waiver</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Research Question 2:</strong></td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td><strong>Direct Contextual Effects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Community Threats</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Racial threat (static)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Racial threat (non-linear)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Racial threat (dynamic)</td>
<td>-</td>
<td>-</td>
<td>-</td>
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Table 10.1. Support for contextual research hypotheses
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**Political economy**

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**Research Question 3**

**Community Threats**

**Community Threats**

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**Social Disorganization**
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| Ethnic heterogeneity (dynamic) | - | - | - | - | - | - | - | - |
| Residential mobility (static) | - | - | - | R | - | - | U(R), E |
| Youth density (static) | - | - | - | R | U(E) | - | E |
| Youth density (dynamic) | - | - | - | - | - | - | - | - |

**Research Question 4 (Political Economy)**

| External polity (election) | R, U(E) | - | R | - | - | - | - |
| External economy (wealth) | U(R) | - | U(R) | - | - | - | - |
| Internal polity (conservative) | R, U(E) | - | - | - | - | - | - |
| Internal polity (conservative x election) | U(R), E |
| Internal economy (urban) (static) | U(R) | - | - | - | - | R, U(E) | - |
| Internal economy (urban) (dynamic) | R | - | - | - | - | - | R | - |

Key: S = support (p<.05); R = support for moderating impact on race (p<.05); E = support for moderating impact on ethnicity (p<.05); U = significant effect in unexpected direction (p<.05); - = not supported (i.e., null effect)
direction: outcomes are more punitive in counties where urbanism (i.e., bureaucratism) has increased, contrary to H$_{2A}$.

The other contextual variable to receive support at multiple outcomes is social disorganization as measured by dynamic youth density: increased youth population density is associated with more punitive outcomes at diversion, judicial placement, and judicial waiver. Measures of social disorganization were also associated with petition (increased ethnic heterogeneity) and judicial release (residential mobility), but in unexpected directions (i.e., less punitive outcomes associated with higher social disorganization).

Most contextual measures, however, were not associated with juvenile court outcomes in the expected directions. This is most salient in the case of community threats, which did not predict more punitive juvenile court outcomes at any point. Among measures of social disorganization, ethnic heterogeneity, residential mobility, and static youth population density also did not predict more punitive outcomes. And among measures of political economy, community wealth (i.e., external economy), political conservatism (i.e., internal polity), and static urbanism (i.e., internal economy) were not directly related to any juvenile court outcomes.$^{213}$

As mentioned in chapter 6, despite this limited support for the role of macro-social context, one major takeaway is that juvenile court outcomes did vary significantly across state juvenile justice systems.$^{214}$ In some cases, this may just reflect differences in how state juvenile

$^{213}$ Moreover, no single contextual measure was associated with every juvenile court outcome. Thus, neither the community threat perspective nor the political economy perspective (in any operationalization) applied systematically across all juvenile court outcomes, as might be predicted by the strongest versions of those theories. For example, if juvenile court actors are influenced by perception of social disorganization (that warrants a more punitive social control response), we might expect that this threat operates at every level of the juvenile court— influencing intake officers, prosecutors, judges, and so on—rather than applying at some outcomes and not others (without any discernable pattern).

$^{214}$ After controlling for case- and county-level variables, detention was most likely in Texas and least likely in Alabama, Missouri, and Oregon; diversion was most likely in Utah and least likely in Alabama and Oregon; formal
justice systems operate. For example, Texas detains 45% of referrals, compared to 21% detained in Utah (the state with the next most detained). Oregon has the highest release rate at the petition stage, along with a low diversion rate, high adjudication of delinquency rate, and the highest odds of judicial release/diversion. These findings suggest that in the Oregon juvenile justice system only the most serious cases are formally petitioned (explaining the high delinquency rate) and that diversion in Oregon differs fundamentally from the other six states and is more likely to occur later in the juvenile justice process. And in Missouri, 66% of referrals are diverted to informal processing (the second highest diversion rate is 45% in Texas), while among petitioned cases there are high rates of adjudication of delinquency (87%) and secure placement at disposition (30%). This suggests that the Missouri juvenile justice system performs efficient screening at the petition stage, sending more serious delinquents into formal processing but diverting many non-serious cases (see Appendix A).

In addition to these operational differences, however, it also is possible that state-level differences in context and culture produce the variation in juvenile court outcomes (see, e.g., Mears, 2006; Wang and Mears, 2015). In either case, it may be that state-level variation is as important, if not more important, than county-level variation in juvenile court outcomes (see Mears, 2006). An important implication of such variation is that studies of single jurisdictions may not be generalizable to other juvenile justice systems.

**Research question 3**

petition was most likely in Utah and least likely in Oregon; adjudication of delinquency was most likely in South Carolina and least likely in Alabama; release at judicial disposition was most likely in Oregon and least likely in South Carolina; secure placement at judicial disposition was most likely in Missouri and least likely in Connecticut; and judicial waiver was most likely in Oregon and least likely in Utah. These results bear similarly to descriptive differences in outcomes across states (see Appendix A), but are not identical.

215 It is also possible that some informal processing in Oregon is mis-coded as release.
The third set of hypotheses (H3A–H3E) draws both on DMC (research question 1) and context (research question 2), positing that racial and ethnic disparities will be conditioned by contextual factors, specifically, community threats and social disorganization. It was expected that racial and ethnic disparities would be exacerbated in the presence of greater community threats and social disorganization. For the moderating impact on race, these hypotheses were partially supported for some juvenile justice stages and not others. For the moderating impact on ethnicity, they were largely unsupported.

The effects of race (Black/White) and ethnicity (Hispanic/White) varied significantly across counties for all juvenile court outcomes except judicial release/diversion and judicial waiver (the rarest outcomes). This variation was significant but small, with only 1–5% of the variation in the effects of race and ethnicity on juvenile court outcomes attributable to between-county differences. The next question was whether this was attributable to variation in community threats or social disorganization in the social context.

For the moderating impact on race, community threats received partial support for adjudication of delinquency, judicial release, and waiver to criminal court, but no support for the front end of the juvenile justice system (detention or petition) or judicial placement decisions. Specifically, Black defendants were more likely than White defendants to be adjudicated delinquent in the presence of increased concentrated disadvantage (support for dynamic economic threat), less likely to be released/diverted at judicial disposition in the presence of larger Black population (support for static racial threat), more likely to be transferred to criminal court in the presence of an increasing Black population (support for dynamic racial threat), greater concentrated disadvantage (support for static economic threat), and higher

\footnote{Because the effect of race on judicial release/diversion was not significant, caution should be exercised in interpreting this cross-level effect.}
juvenile crime (support for static crime threat). Contrary to the hypotheses, however, Black defendants are also less likely to receive secure placement in the presence of an increasing Black population (dynamic racial threat) and to be transferred to criminal court in the presence of increasing concentrated disadvantage (dynamic economic threat).\textsuperscript{217}

Social disorganization also moderated the effect of race on detention and adjudication of delinquency in the expected direction, such that racial disparities were greater in the presence of social disorganization. Specifically, odds of detention were higher for Black defendants in the presence of greater ethnic heterogeneity, while odds of adjudication were higher in the presence of greater residential mobility and youth population density. Social disorganization also moderated the impact of race on waiver to criminal court, but in the unexpected direction such that waiver was less likely for Black defendants in the presence of greater residential mobility.

On the other hand, the findings provide almost no support for the ethnic community threat hypotheses. Across juvenile court outcomes, there were only two statistically significant cross-level interaction between community threat and Hispanic ethnicity: static ethnic threat for adjudication of delinquency, and dynamic ethnic threat for judicial disposition. Specifically, odds of being adjudicated delinquent were higher for Hispanic defendants in counties with larger Hispanic population, while odds of secure placement were higher for Hispanic defendants in counties with an increased Hispanic population over the past decade. The effect of Hispanic ethnicity on waiver to criminal court was also moderated by social disorganization (as measured by residential mobility and youth population density).

\textsuperscript{217} Some have referred to significant findings in the wrong direction for community threat hypotheses (specifically minority threat) as supporting the “benign neglect hypothesis,” where a larger minority population is associated with less punitive sentencing outcomes (or reduced disparities) because there is less risk of white victimization; as such, social control weakens due to the lack of threat (see, e.g., Liska and Chamlin, 1984; Parker, Stults, and Rice, 2005).
Research question 4

The fourth set of hypotheses (H$_{4A}$–H$_{4E}$) also posits that racial and ethnic disparities will be conditioned by contextual factors, specifically, the political economy of the juvenile court. It was expected that racial and ethnic disparities would be exacerbated in the presence of certain organizational features: namely, elected judges, lower community wealth (i.e., fewer resources), greater political conservatism, and lower urbanism (i.e., less tightly coupled legal-rational bureaucracy). These hypotheses were partially supported for some juvenile court stages and not others.

The strongest support for moderation of race effects occurred for detention, where all four measures of political economy—external polity (i.e., judicial elections), external economy (i.e., community wealth), internal polity (i.e., conservative politics), and dynamic internal economy (i.e., increased urbanism)—moderated the influence of race on juvenile court outcomes. While some moderating effects were in the expected directions—external polity, internal polity, and dynamic internal economy—others were in unexpected directions. Specifically, the influence of race on detention was positively moderated by external economy, static internal economy, and internal polity as measured by conservative voting majorities within counties with elected judges. This last finding may be especially noteworthy, as it combines the external and internal polity hypotheses; it stands to reason that political orientation of the surrounding community (used as a proxy for internal polity, the ideological orientation of the court itself) would be most influential in counties where the juvenile court judge is elected by that community. Yet, while judicial elections and community conservatism are each associated with higher odds of detention for Black defendants on their own, conservatism within counties with elected judges is actually associated with lower odds of detention for Black defendants.
The only other support for the moderating effect of political economy on the relationship between race and juvenile court outcomes occurred at formal petition of delinquency. Here there is support for the influence of the external polity in the expected direction (petition more likely for Black defendants in counties with elected judges), while external economy once again moderates the effect of race in the unexpected direction: petition is more likely for Black defendants in counties with greater resources (as was detention).

Finally, there are moderating influences of political economy on judicial placement in the expected direction. Specifically, urbanism and increased urbanism (both measures of internal economy) negatively moderate the relationship such that odds of secure placement are lower for Black defendants in counties with greater urbanism and increased urbanism over the prior decade. This indicates that more bureaucratized courts have lower racial disparities in judicial placement, as predicted.

The moderating effects of political economy was more attenuated for Hispanic ethnicity than for race. For detention, external polity (i.e., judicial elections) and internal polity (i.e., conservatism) negatively moderates the relationship, such that odds of detention are lower for Hispanic defendants in counties with elected judges and conservative counties (contrary to the research hypotheses). Also in the unexpected direction is the effect of static internal economy (i.e., urbanism) on judicial placement: placement odds are higher for Hispanic defendants in more bureaucratized (i.e., urban) counties. The only moderating effect in the expected direction is for the interactive measure of internal polity: odds of detention are higher in conservative counties with elected judges (the reverse of the findings for race). This suggests that conservatism in the surrounding community influences the likelihood of detention for Hispanic defendants only in counties with elected judges (who are more responsive to community
politics), while elected judges (and conservative counties) are otherwise associated with lower odds of detention for Hispanic defendants.

In sum, there was partial support for the hypotheses that variation in the effects of race on some juvenile court outcomes were moderated by political economy, but not others. No measure of political economy moderated the effects of race or ethnicity for all juvenile outcomes, and only the relationship between detention and race was moderated by all measures of political economy (including some unexpected directions). Similar to the findings for community threats, the moderating influences of context were greater in the case of race (i.e., Black defendants) than ethnicity (i.e. Hispanic defendants).

The general conclusion that can be drawn from the above (research questions 2–4) is that context did not play as large a role as expected—either directly on likelihood of juvenile court outcomes (see chapter 6) or moderating the effects of race/ethnicity on juvenile court outcomes (see chapters 7 and 8). This was especially true of the direct and moderating influence of community threats on racial and ethnic disparities, where there was virtually no support for the major research hypotheses that attempt to explain DMC in terms of contextual discrimination based on community threats (i.e., conflict perspective).

Research question 5
The final research question examined the five juvenile court stages as a cumulative process with 14 possible paths, ranging from least disadvantaged (referred without detention and released without petition of delinquency) to most disadvantaged (detained upon referral and waived to criminal court). The fifth set of hypotheses (H5A–H5E) posited that Black and Hispanic juvenile defendants would be more likely to experience the more disadvantaged pathways and less likely to experience the less disadvantaged pathways than White defendants. It also posited that the
disadvantage experienced by minority defendants should accumulate (i.e., become more pronounced) over the course of juvenile justice processing, such that the greatest differentials are present at the most disadvantaged outcomes.

These hypotheses received limited support. Only three pathways fully support the research hypotheses predicting that disadvantage would be most experienced by Black defendants, followed by Hispanic defendants, and finally White defendants. As expected, White defendants are more likely to experience no detention and diversion (pathway 3) compared to Black and Hispanic defendants, and Hispanic defendants are more likely than Black defendants to experience this pathway. The most disadvantaged pathway—detention and waiver to criminal court (pathway 14)—also supported the research hypotheses: Black defendants were more likely than Hispanic defendants, who were in turn more likely than White defendants, to receive this combination of outcomes. Contrary to the hypotheses, White defendants were not more likely to experience the least disadvantageous pathways (1–2) than other groups (although White defendants were more likely than Hispanic defendants to experience pathway 1). Other pathways presented partial support for the research hypotheses.

Most importantly, however, cumulative disadvantage was not observed. For most pathways, the predicted probability of group membership differed less than 1% among racial/ethnic groups (in absolute terms). That is, the proportion of juvenile defendants experiencing each unique pathway was surprisingly uniform, and no clear patterns of increasing disadvantage for certain groups emerged. This means that there did not appear to be any increasing disparity between White and minority defendants as pathways become more punitive, consistent with prior findings on cumulative disadvantage in the criminal justice system (see Kutateladze et al., 2014; Sutton, 2013). The findings instead suggest that Black and Hispanic
defendants are more likely to experience most pathways than White defendants, ranging from least to most punitive. This finding is the product of one pathway where White defendants were greatly overrepresented: diversion. The picture that emerges is thus not one of cumulative disadvantage (whereby disproportionate contact with minority defendants increases as one moves deeper into the system), but one where two outcomes stand out: diversion from formal processing is applied disproportionately less often, while waiver to criminal court is applied disproportionately more often, in the case of Black and Hispanic defendants.

Study Limitations

Several limitations confronted the present research. First, the present study utilizes a large, multijurisdictional sample in order to possess sufficient statistical power to test myriad contextual factors that may influence juvenile court processing. However, a multijurisdictional sample poses the concern that different state juvenile justice systems are simply not comparable. For example, Myers and Talarico (1987: 16) argue, “We consider it appropriate, if not essential, to focus on the sentencing process within a single state.” (The same argument could be made in favor of studying only one court at a time, as even differences within state juvenile justice systems may complicate interpretation of findings.)

A large sample size also poses increased risk of Type I error, that standard errors will be so small that all variables will reach statistical significance despite a lack of analytical significance (see Bushway, Sweeten, and Wilson, 2006). As Lantz (2013: 487) puts it, “The results of studies based on large samples are often characterized by extreme statistical significance despite small or even trivial effect sizes.” In other words, some large samples are “too big to fail” (Lin, Lucas, and Shmueli, 2013: 906). In the present study, however, the multilevel approach largely mitigates this concern because the relevant sample size is at level-2 rather than level-1 for the purpose of computing standard errors (see Johnson, 2010; Snijders, 2005). Sensitivity analyses did confirm that almost all included variables reached statistical significance in traditional logistic regression (i.e., not multilevel) models. For more general critiques of statistical significance (as measured by p-values) in research, see, e.g., Freedman (1991), Ioannidis (2005), and Maltz (2006).
There are tradeoffs here between precision and generalizability. Research on a single jurisdiction may be better positioned to interpret its findings—but less well positioned to make conclusions about juvenile justice more generally than the particular jurisdiction under examination. Since there are 51 juvenile justice systems in the United States, limiting focus to single jurisdictions means never moving beyond 51 different, possibly conflicting, conclusions about DMC. On the other hand, multijurisdictional research runs the risk of being overbroad, losing the forest for the trees. As such, both research strategies are appropriate and should complement each other in trying to discover patterns in juvenile justice outcomes and DMC. Indeed, the ideal research strategy will include different levels of analysis, from court-specific qualitative inquiry to quantitative analyses of “big data” that combines multiple jurisdictions. The present research takes the latter, more generalizable, approach, but this is not necessarily superior to less generalizable, more in-depth research (e.g., qualitative research).

A second limitation is that while this study aimed at a comprehensive exploration of the role of macro-social context for juvenile court processing, it remains the case that the analytical models do not include every relevant case- or county-level predictor. At the case-level, this is particularly apparent. In addition to unmeasured case characteristics such as developmental maturity, substance abuse, family situation, attitudinal factors (e.g., remorse), victim characteristics, and strength of evidence (see, e.g., van Wingerden, Wilsem, and Johnson, 2016; Wilbanks, 1987)\(^{219}\)—variables that are rarely included in criminal justice system research—the present study also could not include a measure of prior juvenile record as a control variable. This

\(^{219}\) For example, the prospects of returning to a safe home environment is a major factor in predjudication detention decisions in juvenile court. For example, a recent qualitative study reports on a judge’s observation that her detention decision for a minority defendant was motivated by extralegal concerns: “I am thinking if I let this kid go back into the community, the kid’s coming back in a body bag” (Clair and Winter, 2016: 342–43). Is this racial discrimination, or a juvenile court judge properly exercising her judgement in the traditional role of parens patriae? The line between proper and improper paternalism here is dangerously thin.
is because it is missing for three states (Missouri, Oregon, and Texas) that do not collect this information. Research shows that prior record is an important predictor of juvenile court outcomes (see, e.g., Leiber and Peck, 2013; see also Farrell and Swigert, 1978), and may interact with race to produce disparities. As Tonry (2011: 23) observes for the criminal justice system more generally,

The United States is unique among Western countries in giving very great weight to prior convictions in setting sentences for new crimes. . . . Because black offenders are arrested more often and at younger ages than whites, they are more often affected by prior record increments.

If Black defendants are more likely to have prior records, then prior record may present an indirect means by which race influences juvenile justice outcomes. On the one hand, this means that including prior record as a control variable may mask direct race effects. On the other

Approximately 60% of referrals—and, more importantly, 70% of counties—are missing prior record, and dropping these observations is simply not desirable given that one of the chief strengths of the dataset is the large number of level-2 units (i.e., counties) to provide sufficient statistical power for multilevel analysis with 28 level-2 variables.

Differences in prior record could be due to differential treatment by police, differential offending, or (most likely), some combination. One reason for the difference in prior record (and differential offending more generally) may involve the disproportionate effect of the “drug war” on disadvantaged minority neighborhoods. Self-reported drug offending is higher among white youth compared to black youth, but arrests are significantly higher among blacks. Bishop et al. (2010) found that black youth were significantly more likely to be charged with drug offenses compared to white youth, possibly due to racial stereotypes about black drug offenders. This has been observed in the criminal justice context as well. Mitchell and Caudy (2015) found that racial disparities in drug arrests could not be explained by differences in drug offending, nondrug offending, or residing in neighborhoods with increased police attention to drugs. This leads on criminologist to conclude that while most racial disparities at arrest are not due to racial bias—drug arrests present the glaring exception: “Thus the answer to the question, ‘Is racial bias in the criminal justice system the principal reason that proportionately so many more blacks than whites are in prison?’ is no, with one important caveat . . . concerning drugs” (Tonry 2011: 17).

If race and prior record are highly correlated, the racial disparity could be due to emphasis on prior record, along with the greater likelihood of early detection of delinquency among black youth. Some have suggested that judges may also view prior record differently for white and black youth. Even though they reported no direct race effects at the adjudication stage, Bishop and colleagues (2010) reported a significant interaction between race and prior record—indicating that prior record disadvantaged black youth more than white youth. This could be explained by racial stereotyping on the part of judges who are more likely to perceive a prior record as an indication of blameworthiness or danger for black youth especially. In the adult context, Frase (2009) found that two-thirds of the race differentials in prison sentences between black and white prisoners resulted from racial differences in prior records (rather than different severity of crime).
hand, failing to include prior record—as in the present study—may produce biased overestimates of race effects. Specifically, if Black defendants are more likely to have a prior record, then the effects of both race and prior record on juvenile court outcomes might be captured in estimates of race (thus inflating true race effects). Future research should attempt to tease out these effects, for example through mediation analysis (see, e.g., Wooldredge et al., 2015).

The possibility of omitted variable bias is not limited to the case level, although the comprehensive catalogue of contextual variables mitigates the concern that many important contextual variables were excluded. A related issue, however, is whether context is properly measured by variables created at the county level using Census data. Quantitative research is limited by what can be quantified (see, e.g., Michell, 1997; Schedler, 2012).223 It is quite possible that the most important contributors to juvenile court outcomes, including the influence of context, cannot be measured with county-level Census data. For political economy of the juvenile court especially, most of the measures were proxies that sought a quantitative measure of a concept that may be more elusive. For example, internal polity (i.e., judicial conservatism) was measured using the proxy of conservative voting majority in the county, which may not align with judicial ideology (i.e., judges may be more or less conservative than the surrounding community). Judges within a particular court may also differ in their ideological orientations from one another, and only a direct survey of individual judges would capture such differences in judicial philosophy. Even then, linking individual referrals to individual judges may not be possible (i.e., not recorded in official data). Similarly, external economy (i.e., community wealth

223 Two decades ago, Mears (1998: 695) observed as follows: “Existing research on sentencing decisions rarely involves a systemic or comprehensive analysis of more than a few causally relevant variables. . . . This trend may stem from the pragmatic desire among researchers to include only those variables that are amenable to empirical analysis. However, an equally pragmatic view . . . assumes that it is critical first to know what should be modeled before an adequate theoretical or statistical model of sentencing can be developed and, as important, before we can collect the data necessary for such modeling.”
and resources) is measured by county median income, but many nuances of community wealth
distribution and resource allocation are not included in this measure. Internal economy (i.e.,
bureaucratization) is measured by urbanism, but may be more accurately captured by direct
observation (e.g., perhaps some urban courts are highly bureaucratized, while others are not). In
each case, the present study uses general proxy measures that sacrifice some precision for
quantitative measurement.\textsuperscript{224}

A final limitation is that the contextual measures do not allow for variation within
counties. Britt (2000: 729–30) observes that research examining the context of criminal and
juvenile justice decision-making “assumes that judges within the same court jurisdiction will
respond in the same way to broader contextual issues such as racial and ethnic composition,” and
yet, “it is difficult to see how judges would perceive social and economic conditions similarly
and then punish offenders in the same way.” That is, focusing on the demographics of the
surrounding community may not capture the relevant court context (judges may even be unaware
of such community factors). For example, Johnson (2005) found limited support for community
threats but strong evidence that court characteristics (size, trial rate, and guideline departure rate)
were significantly related to sentencing guideline departures—including interactive race effects
(see also Johnson, 2006; Johnson, Ulmer, and Kramer, 2008). While the present study included
measures of political economy, these too were based on community measures (i.e., county-level
data) rather than court-specific measures. Moreover, the focus on community context may fail to
capture factors that distinguish courts, or that distinguish judges, prosecutors, and probation

\textsuperscript{224} Further, as Mears (1998: 703) notes, “organizational context typically is described with reference to court
caseload or by using rural versus urban, tightly coupled versus loosely coupled, or bureaucratic versus
nonbureaucratic distinctions[]. Such distinctions do not, however, in and of themselves identify how sentencing is
affected.” (703). In other words, a tightly coupled system could either be consistently discriminatory or consistently
nondiscriminatory, whereas a loosely coupled system is expected to be less consistent.
officers within courts (Kim, Spohn, and Hedberg, 2015). This variation could be due to judicial and prosecutorial characteristics such as political affiliation (see, e.g., Schanzenbach, 2015), race (see, e.g., Farrell, Ward, and Rousseau, 2009), or others. Others, for instance, have found that racial disparities in sentencing attenuate as the number of minority attorneys in a court increases (King, Johnson, and McGeeever, 2010), suggesting that a more racially diverse workforce may lessen differential treatment (see also Farrell et al., 2009). It is thus possible that the county-level is too diffuse for community threat and social disorganization, and court-level measures may be more appropriate.

The above measurement issues (i.e., omitted variable bias and measurement validity) plague most research of criminal and juvenile justice processing (Baumer, 2013). A related point relevant in the present context is that observational research is especially limited in attempting to detect racial bias, whether implicit or explicit (Baumer, 2013). As Ulmer (2012: 33–34, emphasis in original) observes,

> [A]lmost all the theoretical frameworks applied to sentencing, such as focal concerns, uncertainty avoidance/causal attribution, rational choice, and racial threat ideas directly or indirectly rest on depictions of individual social psychological processes. None of these processes can be directly observed with sentencing or even earlier case processing outcome data.

In other words, even the most robust quantitative and qualitative research—in terms of data, methods, and analysis—cannot “directly tell us what was going on in courtroom workgroup members’ heads, or the content of their interactions with each other” (Ulmer, 2012: 34). The

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225 For example, an earlier study of the social context of criminal sentencing concludes: “Every scientific enterprise suffers from some methodological shortcomings, and ours is no exception. Of central importance were the unavailability of potentially critical variables and the questionable validity of others” (Myers and Talarico, 1987: 176).
possibility of unmeasured (or unmeasurable) variables serves as an important global limitation to observational research, encouraging caution and humility in formulating conclusions based on imperfect evidence.

Conclusions

Due to the complexity of juvenile justice system processing, the present study was not motivated by any one “intellectual tradition” and did not seek to test any one theory (see Mears, 2017; Myers and Talarico, 1987). Instead, broad theoretical frameworks were employed to explore the influence of sociopolitical and organizational context on juvenile court outcomes, racial and ethnic disparities in those outcomes, and possible cumulative effects across major stages of juvenile court processing. The following outlines key conclusions.

Theoretical explanations

In terms of the sociopolitical theoretical framework, community threats received little support, indicating that conflict theory does not appear to explain how the juvenile justice system operates or why racial and ethnic disparities vary across context. That is, juvenile courts outcomes did not appear to vary across counties according to variation in sociopolitical context (i.e., community threats and social disorganization), nor were racial and ethnic disparities conditioned by sociopolitical context. The only possible exception to this was waiver to adult court, the outcome with the largest Black/White disparity. Here, racial threat, economic threat, and crime threat all exacerbated racial disparities as predicted by conflict theory. As such, it appears that while most of juvenile justice system processing is not influenced by sociopolitical context, the most severe (and rarest) outcome may be so influenced. This suggests that special attention should be paid to
the decision to waive juvenile offenders to adult court, especially in courts serving disadvantaged communities.\textsuperscript{226}

Why do community threats not condition racial and ethnic disparities in juvenile court outcomes more broadly? Regarding similar findings almost two decades ago, Britt (2000: 729) observed:

Although social context is clearly important for the assessment of racial disparities in punishment, the links between social context and racial disparities remain unclear. I find significant variation in punishment severity by race across Pennsylvania counties, but no statistically significant contextual effects. The inability of the contextual measures to affect racial disparities in punishment decisions is puzzling in light of prior theory and research on race and punishment.

A more recent study of minority threat for juveniles transferred to criminal court also found no support for the moderating influence of social context, and offered the following interpretation:

While minority threat may still present a valid depiction of some macro-level processes of social control, it does not appear to explain racial disparities for transferred juvenile defendants in the criminal justice system. Since the minority threat hypothesis assumes a conflict theory of criminal justice processing, it is worth asking whether this is how the criminal justice system actually operates. Indeed, others have long suggested that conflict theory predicts considerably greater racial disparities than can be found in empirical research” (Zane, 2017: 16).\textsuperscript{227}

\textsuperscript{226} Of course, it is also possible that the most serious offenders are more likely to be minority youth (i.e., unmeasured case characteristics), and that disadvantaged communities produce more serious juvenile crime. One problem for conflict theory is that while it posits plausible causal mechanisms, empirical support is limited to correlations subject to competing causal explanations (see Chamlin and Cochran, 2000).

\textsuperscript{227} Many others have similarly found no support for community threat hypotheses, usually the minority threat hypothesis (see, e.g., Albonetti and Baller, 2010; Bontrager Ryon, 2013; Bontrager, Bales, and Chiricos, 2005; Britt, 2000; Caravelis et al., 2011, 2013; Fearn, 2005; Johnson, 2005, 2006; Johnson et al., 2008; Jordan and Maroun,
The present research findings corroborate this conclusion, further calling into question community threats and conflict theory more generally as a valid theory of juvenile or criminal justice decision-making.

In terms of an organizational theoretical framework, the political economy of the juvenile court also did not appear to influence outcomes as predicted. One exception was judicial elections, which was strongly associated with likelihood of petition, diversion, and adjudication outcomes (but not with judicial disposition of waiver to adult court). While the measure of election was mostly a state-level measure (so it may reflect confounding state-level differences), states were controlled for, lending support to judicial election as the causal mechanism at play. This indicates that elected judges may be more punitive than their appointed colleagues. Why would this be so? One possibility is that elected judges are more responsive to community demands and more sensitive to being perceived as “soft on crime,” similar to other political actors (see Welsh and Pfeffer, 2013: 543). Complicating this interpretation, however, is the fact that judicial disposition itself was not associated with judicial selection. Why would elected judges be more likely to find juvenile defendants guilty, but not more likely to render more punitive dispositions? Placement decisions varied the least of all juvenile court outcomes across counties (15%), so one possibility is that judicial disposition is a highly legalistic decision with little room for discretion (although the same might be said for adjudication, because adjudication outcomes did vary more than dispositional outcomes). Moreover, petition and diversion are decisions made by the prosecutor (although the judge may be involved), and it is not clear why this would be influenced by judicial selection mechanism—perhaps implicating system differences associated with judicial selection rather than the mode of selection itself.

2016; Kautt, 2002; Keen and Jacobs, 2009; King et al., 2010; Leiber et al., 2016; Thomas et al., 2013; Ulmer and Bradley, 2006; Ulmer and Johnson, 2004; Wang and Mears, 2010a, b; Weidner, Frase, and Pardoe, 2004).
For conditioning of racial disparities, political economy likewise did not moderate the impact of race and ethnicity on juvenile court outcomes—with one exception. All five measures of political economy interacted with race for detention outcomes, albeit sometimes in unexpected directions. Consistent with research hypotheses, racial disparities at detention were greater in counties with elected judges, greater in counties with conservative voting majorities, and lower in counties with increased bureaucratization (i.e., urbanism) over time. This suggests that more conservative courts are more likely to detain Black than White defendants, possibly due to the interaction of a punitive ideological orientation and racial stereotyping as envisaged by focal concerns theory (see Bishop et al., 2010; Harris, 2009). For similar reasons, counties with elected judges are also more likely to detain Black defendants (since judges must usually sign off on the preadjudication detention decisions). Also, courts that have become more bureaucratized are less likely to do so; according to theoretical expectations, this is due to the diminishing role of extralegal factors in more rational-legal bureaucratized courts.

Not consistent with hypotheses, however, racial disparities at detention were higher in counties with higher community wealth, lower in conservative counties with elected judges, and higher in more bureaucratized (i.e., urban) courts. Contrary to expectations, higher community wealth moderated several race effects positively, so it may be that more affluent communities are more likely to exercise social control over minority youth (as opposed to higher resource courts being less likely to do so). Similarly, while urbanism is expected to be associated with lower racial disparities according to the Weberian theory that more bureaucratized courts will be more legal-rational in orientation, conflict theory suggests that such courts may be more discriminatory as a matter of increased efficiency (see Myers and Talarico, 1987). The
complicated interaction between judicial election (i.e., external polity) and conservatism (i.e., internal polity) is harder to explain.

In any case, why are these moderating effects only present at detention, the only outcome prior to formal petition? Perhaps because detention is a loosely coupled stage of processing and subject to greater discretion than later stages of processing (see, e.g., Griggs, 2014; Oleson et al., 2014; Wooldredge, 2012). Others have suggested that detention acts as a signal of dangerousness for later processing (Steiner, 2009), and even that these decisions “determine mostly everything” in later stages of the criminal justice system (Sacks and Ackerman, 2014: 72)—a troubling possibility given that there may be increased risk of differential treatment based on race at this early stage (Free, 2004).

Nevertheless, despite the above findings in support of some role for political context at some stages, why does the influence of context appear so limited? For racial and ethnic disparities in juvenile court processing, the amount of variation across courts was significant but quite small (1–5%). This suggests that the racial and ethnic disparities observed at (some) juvenile court outcomes tend to be stable across different courts—evidence not of contextual discrimination (i.e., discrimination in some contexts but not others), but instead of something consistent at the individual (case) level for certain outcomes (but not others).

This same explanation—small amount of variation—cannot be used to explain the lack of direct contextual effects on juvenile justice outcomes, however. The variation in juvenile court outcomes across counties was more substantial (12–34%; see table 6.2), but does not appear

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228 Since not all outcomes evidence disparities, there is also no support for the thesis of systematic discrimination. Under the discrimination-disparity continuum (see Walker et al., 2012; see also Freiburger and Jordan, 2016), this leaves individual discrimination (differential treatment at certain decision points but not others), institutional discrimination (indirect effects of race through legal variables), or no discrimination (e.g., differential group offending responsible for disparities at certain decision points, not captured by included variables). This is discussed in the text below.
attributable to sociopolitical or organizational context. As noted in the limitations above, it may be that unmeasured court attributes are responsible for this variation. On this understanding, the present study includes contextual variables that are too “macro” and that “meso-level” court-specific differences (such as characteristics of court actors) would explain more of this variation. On the other hand, state was significantly associated with most juvenile court outcomes. As each state has its own unique juvenile justice system, it may be that most contextual variation in juvenile court outcomes is merely a product of statewide differences in how juvenile justice systems operate.\(^{229}\) This would also suggest that comparisons across state are really not feasible, and that states should be studied independently (see Myers and Talarico, 1987).

Finally, evidence of cumulative disadvantage was also more limited than expected. It appears that minority youth are more likely to experience most non-diversion outcomes than White youth, but there was no evidence of accumulating disparity throughout the system; rather, the disproportionate number of minority defendants in the juvenile justice system appears largely a function of differential referrals (due to differential treatment by police and schools or differential offending). Once in the system, only two decision points stand out: diversion and waiver. Large differentials at these two decision points may reflect that minority defendants are more likely to be perceived as “adult” in their culpability and thus less deserving of non-punitive treatment in the juvenile court (see Leiber and Johnson, 2008). Still, the absence of cumulative disadvantage provides little support for systematic racial/ethnic discrimination in juvenile justice, just as the findings discussed above provide little support for contextual discrimination.

\(^{229}\) Three-level hierarchical models were estimated to explore state and county-level variation in juvenile justice outcomes (see chapter 6), and indicated that up to half of the contextual variation at the county level might be attributed to state-level variation. As such, there would still appear to be some contextual variation within states in need of explanation, but not explained by the characteristics included in the present analyses.
Implications for research

Given these findings, what possibilities remain for explaining racial and ethnic disparities? One possibility is that other contextual factors are responsible for variation in juvenile court outcomes more generally, as well as for variation in racial and ethnic disparities. As noted in the limitations above, the focus on community context may fail to capture factors that distinguish courts, or that distinguish judges, prosecutors, and probation officers within courts (Kim, Spohn, and Hedberg, 2015). This variation could be due to judicial and prosecutorial characteristics such as political affiliation (see, e.g., Schanzenbach, 2015), race (see, e.g., Farrell, Ward, and Rousseau, 2009), or others. Others, for instance, have found that racial disparities in sentencing attenuate as the number of minority attorneys in a court increases (King, Johnson, and McGeeever, 2010), suggesting that a more racially diverse workforce may lessen differential treatment (see also Farrell et al., 2009). It is thus possible that the county-level is too diffuse for community threat and social disorganization, and court-level measures may be more appropriate.

Still, the inconsistency in contextual effects in published literature may suggest that the influence of context in these studies is not representative. Specifically, there are no contextual effects consistent across all prior research, perhaps suggesting that there are no aspects of context that are invariably associated with court outcomes. Indeed, a deeper point to be made here is that context may influence some courts but not others. The complex social world may not admit of clean regularities, a challenge for social scientists who desire to explain it (see Hayek 1955, 1967). For example, there are more than 3,000 counties in the United States (Census 2010), each with its own particular court system (or multiple court systems) and culture. Perhaps community threats influence the decision-making in some small fraction of these courts. What would we make of this? One the one hand, it would disconfirm conflict theory as a general theory of court
processing; on the other hand, conflict theory could still explain how some courts operate. The same observation could be made for all possible contextual influences (not just conflict theory).

Case studies that focus on a single jurisdiction may be better positioned to interpret findings in terms of underlying causal mechanisms for that specific court—but less well positioned to make conclusions about juvenile justice generally. As mentioned in the limitations above, there are tradeoffs between precision and generalizability: single jurisdictions may entail conflicting, idiosyncratic conclusions (each valid for a particular court), while multijurisdictional research runs the risk of aggregating heterogenous effects across contexts where different processes are operating. As such, both research strategies are appropriate and should complement each other in trying to discover patterns in juvenile justice outcomes and DMC. Indeed, the ideal research strategy will include different levels of analysis, from court-specific qualitative inquiry to quantitative analyses that combines multiple jurisdictions as in the present dissertation.

Where no uniform regularities in contextual effects have been discovered to date, racial and ethnic differences in case-level outcomes appear more uniform. Prior research does find consistent race and ethnic differences in juvenile justice outcomes at some stages and not at others (see Bishop and Leiber, 2012). Specifically, racial/ethnic disparities are more consistently observed at detention and judicial disposition while less consistently observed at petition, adjudication, and waiver to adult court. This was partially supported by the present research, where Black defendants were significantly more likely to be detained, committed at disposition, and waived to adult court, while less likely to be diverted—but not more likely to be petitioned or adjudicated delinquent.230 Importantly, less than 5% of variation in these race and ethnicity

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230 Hispanic defendants, on the other hand, were significantly more likely to be detained and petitioned but not more likely to be adjudicated delinquent, committed at disposition, or waived to adult court, and not less likely to be diverted.
effects was attributable to county-level. This might suggest that case-level race/ethnicity effects are in fact more uniform across jurisdictions.

What, then, might explain these consistent case-level findings? One possibility is that differential treatment occurs at some stages but not others, largely the result of case-level pressures in most courts (but not all). In the present study, race exerted average effects (across jurisdictions) on detention (32% greater odds for Black than White defendants), diversion (21% lower odds), secure placement (19% greater odds), and waiver (54% greater odds), but no effects on petition or adjudication (see table 6.1). These results are exactly as predicted by the structural-processual perspective put forward by Bishop and colleagues (2010), which posits that focal concerns will influence outcomes at loosely coupled stages (intake, detention, disposition), but not at tightly coupled stages (petition, adjudication).

If differential treatment is responsible for persistent racial disparities, such treatment may be best explained by individual-level theories such as focal concerns and causal attribution theory (see, e.g., Albonetti, 1991, Harris, 2009) rather than by conflict theory (i.e., contextual, institutional, or systematic discrimination). That is, some judges, prosecutors, or probation officers may perceive Black and Hispanic defendants as more blameworthy or dangerous than similarly situated White defendants, but without any overarching macro-social dimension. Most research on this topic has just focused on racial disparities at the individual level (see chapter 4), and this may indeed be the proper level of analysis. This is especially plausible given that the race effects were not significant for all outcomes—and were not especially large when significant.

Similarly, ethnicity exerted effects on detention (24% greater odds) and judicial disposition (release 13% less likely), but not on diversion, secure placement, or waiver. Hispanic defendants were also 19% more likely to be petitioned, so the effects of ethnicity are less consistent with the “loose versus tight coupling” perspective. Also, for each outcome with significant race effects, the effects of offense type, sex, and age were larger than race/ethnicity effects (see table 6.1).
racial bias would produce considerably greater racial disparities than can be found in the research
(see, e.g., Weitzer, 1996), and the present findings support this observation. Instead, there may
be discrimination in some courts, at some stages, but not in any systematic fashion.

It is also possible that racial and ethnic disparities in criminal and juvenile justice
processing do not reflect differential treatment at all, but rather differential group offending.233 In
the present research, case-level control variables were few, prompting some concerns with
omitted variable bias (see discussion of limitations above). Missing variables like prior record,
offense severity (in addition to offense type), family situation, attitudinal characteristics, and so

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233 Some early assessments of minority overrepresentation in the juvenile and criminal justice system failed to find
evidence of racial bias, supporting the differential offending explanation for racial disparities (see Blumstein, 1982,
1993; Hindelang, 1978; Tittle and Curran 1988). Criticisms of this research focused on the reliance on official
statistics, suggesting that official statistics may be biased and that survey data (victimization or self-report) would be
a more accurate measure of true offending behaviors. In the context of criminal justice system, Blumstein (1982,
1993, 2009) has argued persuasively that differential treatment (i.e., racial bias) cannot account for the majority of
racial disparity in system outcomes, and that differential offending behaviors in the population must be a large part
of the explanation. In concluding a special issue of studies on race and crime, Blumstein (2009: 186) thus concluded
that “the major contributor to the racial differences [in the criminal justice system] can be explained by differences
in involvement in crime.” One review of all three measures of crime—arrest data, victimization data, and self-report
survey data—found convergence across data sources in telling the same general story. First, there are significant
differences in offending between racial and ethnic groups for violent crime, where minority (especially Black) youth
engage in more violent offending (Lauritsen 2005: 101). Black youth are also disproportionately involved in weapons
offenses. Only drug offenses were not consistent across data sources (Lauritsen 2005: 100). Self-report data
consistently show higher levels of illicit drug use among white youth yet higher arrests among black youth (Johnston
et al., 2015). Drug arrests for black youth are about twice as high as expected from self-report data, but it is not clear
whether this is due to “biased policing or enforcement, discriminatory laws, or inadequate data” (Lauritsen 2005:
100). Over the years, studies using victimization and self-report data consistently show that black youth are
significantly more likely to engage in criminal or delinquent behavior compared to white youth—especially for
violent offending (see, e.g., Sampson, Morenoff, and Raudenbush 2005). In their multilevel study, Sampson and
colleagues (2005) found an initial race effect where the odds of black individuals being engaged in violent crime
were 84% higher than for whites. After adding socioeconomic, family, neighborhood, and individual differences, the
odds of black individuals being involved in violent crime reduced to 28% greater (but remained statistical
significant). Sampson and Lauritsen (1997: 330) observed: “offenders and victims share a similar demographic
profile—especially for violence. Both violent offenders and victims of violent offending tend to be young, male,
black, and live in urban areas.” This general conclusion has been confirmed by reviews of the literature. A recent
meta-analysis by Piquero and colleagues (2015) showed that black offenders were more likely to engage in violent
recidivism compared to white offenders. In a systematic review of studies assessing family and community
influences on delinquency and violence among adolescents, Fix and Burkhart (2015) found that Black youth more
likely than other ethnic groups to engage in delinquent acts and be involved in community violence. The study noted
that insufficient attention has been given to the interaction between race/ethnicity and family and community
variables, such that the moderator analysis of race/ethnicity on family and community influences was inconclusive.
The authors concluded: “the relationship between race/ethnicity and violence should be a key task for research” (Fix
and Burkhart, 2015: 21).
on, might explain the observed race effects if groups differ systematically across these unmeasured confounders.

While the causes of such racial differences are multi-dimensional, they are likely largely rooted in the radically different—and substantially more disadvantaged—contexts in which many racial minorities live (see, e.g., McNulty and Bellair, 2003; Sampson and Lauritsen, 1997), the strains caused by historical and contemporary mistreatment (see, e.g., Unnever and Gabbidon, 2011), and cultural adaptations to this differential social structure and mistreatment (see, e.g., Anderson, 1999).

Identifying the causes of racial and ethnic disparities in the juvenile justice system is challenging, and no consensus has yet emerged (see Piquero, 2008, 2015; Zane, Welsh, and Drakulich, 2016). Promising avenues for future research include utilizing quasi-experiential techniques to achieve more reliable estimates of differential treatment (see, e.g., Bales and Piquero, 2012; Franklin, 2015), addressing the omitted variable problem discussed above with data collection that includes additional measures such as psychological attributes of individual juvenile offenders (e.g., Cauffman et al., 2007), estimating the joint effects of race and other defendant characteristics (see, e.g., Doerner and Demuth, 2010), and exploring the indirect effects of race on outcomes, such as through prior record, pretrial detention (i.e., bail decisions), or attorney type (see, e.g., Spohn, 2009; Spohn et al., 2014; Wooldredge et al., 2015). In short,

\[234\] Bales and Piquero (2012) utilized precision matching to create a comparison between White, Black, and Hispanic defendants that was less subject to selection threats than traditional regression models with control variables. They still found that Black offenders were more likely than White offenders to be incarcerated—with an 8.5% greater likelihood of incarceration after matching across all covariates—although this was considerably lower that the disparity that existed before matching. Similarly, Franklin (2015) used propensity-score matching to compare federal sentencing outcomes for black, white, and Hispanic defendants. While the findings were significant, Franklin (2015) observed interesting differences from the findings in traditional-regression based analyses: specifically, the effect of race on the incarceration decision was smaller, but the effect of race on sentence length was larger, compared to traditional regression.
greater investment in research at the court, county, and state levels is needed in order to provide proper guidance to policymakers about the persistent problem of DMC.

**Implications for policy**

Persistent racial and ethnic disparities in juvenile justice processing are not only a stubborn research problem; they also threaten the legitimacy of our criminal justice system, which is perceived as unfair by a large segment of the U.S. population (see, e.g., Anderson, 2014; Newport, 2013; Hurwitz and Peffley, 2005; Peffley and Hurwitz, 2010). Given the findings above, what can be said about practical implications for reducing DMC in the near future? The proper policy response to DMC depends on its causes, of course, and different theoretical accounts recommend different approaches. Under the discrimination-disparity continuum discussed earlier (Walker et al., 2015), DMC could be the result of systemic discrimination, contextual discrimination, institutional discrimination, individual discrimination, or no discrimination. A systemic discrimination account might justify large-scale changes to the juvenile justice system (or society more generally), overhauling the system to rid it of deeply rooted biases and produce fairer outcomes. A contextual discrimination account might justify a less systematic approach, instead placing increased attention on certain courts and communities based on sociopolitical and organizational characteristics.

Neither of these accounts is supported by the present research findings, however. What about the others? An individual discrimination account might focus on the specific jurisdictions and contact points where disparities are greatest (including differentiating among actors *within*

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235 Perception of the criminal justice system is largely stratified along racial lines, with the majority of Black Americans perceiving the system as unfair and racially biased and the majority of White Americans perceiving the system as fair and “colorblind.” Various polls typically show that at least two-third of Blacks consider the system biased, compared to only about one quarter of Whites (see, e.g., Anderson, 2014; Newport, 2013).
jurisdictions). Research indicates that DMC is greatest at the arrest/referral stage, without any close runner-up among later stages (see Donnelly, 2015; Shannon and Hauer, 2018). An institutional discrimination account might focus on ways in which legally neutral laws and policies might cause disparities, such as more punitive treatment for defendants with prior records (see, e.g., Frase, 2009, Leiber and Peck, 2013; Tonry, 2011; see also Farrell and Swigert, 1978), or who were initially detained (see, e.g., Griggs, 2014; Oleson et al., 2014; Sacks and Ackerman, 2014, Wooldredge, 2012; Wooldrege et al., 2015). Finally, an account that does not attribute DMC to discrimination would seek policy solutions outside the juvenile justice system—in reforming the structural and cultural conditions that give rise to minority overrepresentation in criminal offending and justice system involvement (see, e.g., Anderson, 1999; Massey and Sampson, 2009; Mears, Stewart, Warren, and Simons, 2017; Piquero, 2015; Sampson, 2009; Sampson and Lauritsen, 1997; Sampson and Wilson, 1995; Wilson, 2009).

Whatever approach is best supported by theory and research, the only major solution to date is the federal DMC mandate (see chapter 2). This federal directive has been in place for three decades, yet racial and ethnic disparities in juvenile justice outcomes have only decreased slightly (see figure 2.1). If there were any “silver bullet” solutions to the problem (see Mears, 2007), it stands to reason that they would have emerged by now. In keeping with the contextual focus of the present research, one important suggestion is that reduction efforts must look beyond decision-making within the juvenile justice system: “To be sure, there are some improvements that can be made within the system, but these are ancillary to the social and

236 Donnelly (2015) is critical of the DMC mandate for focusing almost exclusively on post-referral processing: “Because petitioning decisions are largely based on arrests and charging decisions of police officers who are unaffected by the DMC mandate, it may be more difficult to legally divert youth out of the system at this point” (Donnelly, 2015: 17). Others have provided convincing accounts for why bias may be greatest at the arrest stage (see, e.g., Mears, Craig, Stewart, and Warren, 2017).

237 Particularly group-level differences in violence offending (see, e.g., Felson and Kreager, 2015; Felson, Deane, and Armstrong, 2008).
economic restructuring that will be required to produce lasting change” (Bishop and Leiber 2012: 475).

In other words, the chief response to the problem of racial and ethnic disparities in juvenile justice appears largely rooted within a differential treatment perspective (and may even wrongly assume systematic racial bias; see Tracy, 2002, 2005). This is at odds with many of the observations above, and with honest recognition of the complexity of DMC and its persistence despite decades of resources aimed at its abolition. That is, DMC definitions may assume that disparities in processing are caused by differential treatment, but racial and ethnic differences in juvenile justice outcomes are still largely unexplained.

Leading scholars are now generally in agreement that the path forward involves looking also at community issues outside the juvenile justice system, such as concentrated disadvantage, differential opportunities, and cultures of violence (see Anderson, 1999; Massey and Sampson, 2009; Wilson, 2009):

Of course every effort should be made to eliminate bias and stereotyping, but even their diminution will not significantly reduce racial disparities or the absolute number of black people in prisons. (Tonry 2011: 17)

Racial variations in offending demand solutions that are beyond those the juvenile justice system can provide; they call for efforts to alter the social and structural conditions that are the root causes of delinquency. (Leiber et al. 2011: 462)

Prevention programs, such as those focusing on risk factors involving the family and school (see, e.g., Welsh and Farrington, 2012), are most clearly motivated by this macro-social perspective

---

238 The DMC mandate also focuses on post-arrest processing, although the largest disparities are present at arrest/referral (see Donnelly, 2015)
and by the reality of differential offending by minority youth. More resources should be dedicated to prevention efforts, especially developmental prevention aimed at early risk factors for minority children and adolescents.\textsuperscript{239} In addition to direct prevention services, there is a need to address greater social issues of structural disadvantage and subcultures of violence that plague urban minority communities (Kempf-Leonard 2007: 83). While this may be a slow process with no easy solutions, it is ultimately necessary to reduce DMC (Leiber and Rodriguez 2011: 118).\textsuperscript{240} Especially important is that such efforts must also be guided by sound research into the causes of DMC, exploring every aspect of DMC so that we can develop realistic solutions to this pressing social problem. As long as research does not provide guidance to practitioner and policymakers about the root causes of DMC, they will continue to operate in the dark.

\textsuperscript{239} Recognizing the role of structural disadvantage in producing individual differences linked to offending behaviors, McNulty and colleagues (2013: 516) recently concluded: “[I]nterventions to improve conditions in poor neighborhoods may reduce the race difference in verbal ability and adolescent violence by helping to support stable families, reducing exposure to antisocial learning, and by enhancing attachment and commitment to school among children. Strengthening families and early childhood learning in distressed neighborhoods may help reduce the substantial risk for violence associated with frustration and in some cases failure in school. In particular, targeting early childhood development may help reduce the racial gap in verbal ability that appears early in life and contributes to differences in social outcomes, including success in school and susceptibility to violent behavior.”

\textsuperscript{240} Others have suggested that there may be an important relationship between racial discrimination in society (rather than within the justice system) and differential offending by minorities (see, e.g., Maggard, 2015).
References


Dillard, Dorothy. 2013. Limited disproportionate minority contact discourse may explain limited progress in reducing minority over-representation in the US juvenile justice system. *Youth Justice* 13:207–217.


Maltz, Michael D. 2006. Some p-baked thoughts (p > 0.5) on experiments and statistical significance. *Journal of Experimental Criminology* 2:211–226.


van Wingerden, Sigrid, Johan van Wilsem, and Brian D. Johnson. 2016. Offender’s personal circumstances and punishment: Toward a more refined model for the explanation of sentencing disparities. *Justice Quarterly* 33:100–133.


Cases:

*Ex Parte Crouse* (4 Wharton 9, PA. 1838)


*In re Gault*, 387 U.S. 1 (1967)

### Appendix A. Descriptive statistics for full (i.e., detention) state samples

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**Social disorganization**

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<td>(2.63)</td>
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<td><strong>Change in youth population %</strong></td>
<td>-1.51</td>
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**Political economy**

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<td>67.82</td>
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<td>(7.10)</td>
<td>(11.24)</td>
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<td><strong>Conservative majority (%)</strong></td>
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<td>-1.15</td>
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<td>4.91</td>
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<td>(5.74)</td>
<td>(.22)</td>
<td>(25.13)</td>
<td>(20.40)</td>
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<td>19.47</td>
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<td>-0.9</td>
<td>3.47</td>
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<td>7.08</td>
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<tr>
<td></td>
<td>(22.15)</td>
<td>(0)</td>
<td>(.16)</td>
<td>(25.13)</td>
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<td>(25.91)</td>
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<tr>
<td><strong>Population density (per sq/mi) (x1000)</strong></td>
<td>2.03</td>
<td>10.81</td>
<td>8.22</td>
<td>4.16</td>
<td>2.53</td>
<td>10.24</td>
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<td>10.40</td>
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*a Reduced sample size for calculation of descriptive statistics (based on sample size with non-missing data for each outcome)*