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Assessing the Impact of Individual-, School, and District-Level Factors on School-Based Arrests to the Department of Juvenile Justice

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Assessing the Impact of Individual-, School, and District-Level Factors on School-Based Arrests to the Department of Juvenile Justice

Purpose, Goals, and Objectives

The zero tolerance era of school discipline spread vigorously to school districts across the United States during the late 1990s and early 2000s due to a culmination of factors that began in the 1980s. School districts argue that zero tolerance era policies help ensure the safety and security of students, teachers, and staff by protecting against potential incidents of violence. However, these policies have generated a growing amount of criticism in recent years. Critics argue that these school discipline and punishment policies criminalize minor student misbehavior that teachers or school administrators would have otherwise handled informally (Hirschfield, 2008). As a result, critics argue these policies adversely affect students and schools in two ways. First, zero tolerance policies increase the likelihood of arrest in school, which thereby funnels students into the criminal justice system, creating a “school-to-prison pipeline.” School-based arrests may increase the risk of involvement in future delinquency and crime as well as have life-long impacts on youth due to the adverse effect of arrest on educational achievement. Second, critics argue schools may over-use zero tolerance policies to deal with problematic students that do not pose a threat to school safety. For example, critics argue schools use these policies to expel underperforming students to improve state test scores, which are a significant basis for school funding (Advancement Project, 2010).

However, research on school-based arrests is limited. Specifically, prior research has not explored the link between school-based arrests, relative to community-based arrests, and subsequent justice system involvement. Thus, it is unclear if arrests that originate on school grounds versus those that occur in the community differentially affect youths’ likelihood of

future involvement with the justice system as well their educational achievement. Furthermore, prior research does not examine if, and to what extent, schools may be “over-arresting” students. Critics cite anecdotal evidence that suggests that there are schools who over-arrest students; however, this evidence fails to specify the relative comparison that justifies the claim of “over-arrest.” That is, prior studies do not account for the surrounding community juvenile arrest rate or better yet, the arrest rate of a school’s student population in the community. Most public zoned schools are embedded within and serve residents of a particular community. If the surrounding community arrest rate is high, then we would likely expect that the school arrest rate will also be high. However, as critics argue, the opposite may occur—some schools may have disproportionately high arrest rates relative to surrounding community arrest rates. To determine the extent of schools over-arresting students, researchers need to consider the community arrest rate when examining which school-level characteristics are correlated with high in-school arrest rates.

The purpose of this report is to provide an empirical assessment of the use, variation, and consequences associated with school-based arrests versus community-based arrests—a practice that has not been readily explored in the research literature. This report compares the characteristics of students who receive school-based arrests relative to community-based arrests, examines the likelihood of future involvement in the juvenile justice by arrest location, assesses differences in student educational outcomes by arrest location, and examines the school and district predictors of school-based arrests.

This study examines a cohort of youth who were arrested for the first time between 2004 and 2009 using data from the Florida Department of Juvenile Justice’s (FDJJ) Juvenile Justice Information System (JJIS) and the Florida Department of Education (FDOE). The data provide

information about the youth (e.g., demographics), their school experiences including educational attainment, and the consequences of arrests for future offending. We also gathered school- and district-level data from FDOE for all active public Florida schools during the 2004 to 2013 school years.

Among youth who are arrested, an appreciable proportion is arrested at school, on the school bus, or at official school-sponsored events (e.g., sporting events and field trips). The decision whether to arrest the youth is contingent on each school districts' discipline policies, the availability of school-based disciplinary alternatives, and local law enforcement responses to student delinquency (Florida Department of Juvenile Justice, 2013).

The goals of this project are to (1) explore the differences in youth demographic characteristics, types of offenses, and risk levels between school-based arrests relative to community-based arrests; (2) explore the impact of school-based arrests relative to community based arrests on subsequent offending and educational attainment; and (3) determine whether certain schools are over-arresting students while controlling for the community arrest rate of students and if so, to examine their characteristics.

The following five research questions were addressed in this project:

1. What are the differences in youth demographic characteristics, types of offenses, and risk levels between school-based arrests relative to community-based arrests?
2. What is the effect of school-based arrests relative to community-based arrests on subsequent offending?
3. What is the effect of receiving school-based arrests relative to community-based arrests on the likelihood of graduating from high school?

4. Based on the overall arrest rates in mainstream (public neighborhood zoned) schools, while accounting for the community arrest rate of the school's student population, are individual schools "over-arresting" students?
5. What are the characteristics of students, schools, and school districts that predict different rates of school-based arrests?

Review of the Literature

The zero tolerance era of school discipline rapidly spread across school districts in the United States during the late 1990s and early 2000s due to a culmination of factors that began in the 1980s. Rising juvenile crime rates during the 1980s and the ensuing moral panic over youth violence, combined with an increasing punitive approach to crime, provided the initial catalyst for the zero tolerance era (Fabelo, Thomposon, Plotkin, Carmichael, Marchbanks, & Booth, 2011; Hirschfield & Celinksa, 2011; Wald & Losen, 2013). The moral panic regarding juvenile crime included fears of juvenile "superpredators" and violent gangs. Concerned parents and school districts across the country welcomed a zero tolerance approach to student misbehavior to prevent violent youth from jeopardizing school safety and security. Several federal school policies such as the Gun-Free School Act of 1994 and the Safe and Drug-Free Schools and Community Act of 1994 sought to address these concerns. For example, the Gun-Free School Act required schools to implement zero tolerance exclusionary discipline policies for students possessing a weapon at school. Additionally, these policies mandated that schools regularly report the frequency of certain criminal offenses such as possession of drugs, possession of weapons, and acts of violence. These policies forced school districts to adhere by tying the new reporting requirements to federal funding. School administrators had little choice but to change their approach to these behaviors given the new requirements and increased visibility. Finally, a

series of high-profile school shootings, including the Columbine High School massacre in 1999, further escalated concerns over school safety.

These factors culminated in a nation-wide push from policymakers, practitioners, and the public for stricter enforcement of both dangerous and disruptive behavior from students (Koch, 2000). To address this push, school districts added security technology (e.g., cameras, metal detectors) and established their own police force or developed partnerships with local law enforcement agencies to place more officers in schools. The presence of police in schools helped shift the response to student misbehavior from an informal, internal school matter to a formal, criminal justice response. Previously, administrators had the choice to punish the student with school discipline or call the police when confronted with juvenile delinquency in the school. Now, school resource officers (SROs) are typically the first to respond to delinquent acts within the school. These officers are (1) trained to respond to crime using formal mechanisms such as arrest and (2) usually do not have the authority to punish students with school discipline. The general outcome was that schools across the country were increasingly becoming a source of juvenile arrests for minor misbehavior; with arrests the only response available to some schools for student infractions (Fader, Lockwood, Scall, & Stokes, 2015; Hirshfield & Celinska, 2011; Krezmin, Leone, Zablocki, & Wells, 2010).

Krezmin et al., (2010: 274) argued that many school administrators have “interpreted the zero-tolerance policies more broadly than originally intended” and have used exclusionary disciplinary (e.g. expulsion and out-of-school suspensions) measures for a wide range of behaviors. In their study of school-based arrests in five states from 1995-2004, Krezmin and colleagues (2010) found considerable variation in the number of arrests to the juvenile justice system across the sample of states. However, consistent across the states was a large increase in

the number of school-based arrests from 1995 to 2004. The outcome of more suspensions, expulsions, and school-based arrests, as noted by Beger (2003: 340), has been the interruption of student learning and creation of “an adversarial relationship” between the school and student. In addition, high rates of suspension are associated with an increase in disruptive behavior, decreased academic performance, and higher rates of school dropout (Bowditch, 1993; Wald & Losen, 2003; Skiba & Rausch, 2006).

Racial and ethnic minority students have been particularly negatively affected by schools’ zero tolerance disciplinary practices and the criminalization of minor misbehavior (Costenbader & Markson, 1997; Fabelo, et al., 2011; Hirshfield, 2008; Nicholson-Crotty, Birchmeier, & Valentine, 2009; Skiba, Nardo, & Peterson, 2002; Verdugo, 2002). African American students are disproportionately represented in school-based arrests. The FDJJ (2013) found that while making up 21% of youth in Florida ages 10-17, African American males and females accounted for 47% of all school-based arrests. Racial differences were noted in case outcomes as well; black males were considerably more likely to receive commitment dispositions and to be transferred to adult court. Additionally, Fabelo and colleagues (2011) found that students with emotional disabilities are disproportionately likely to receive a suspension or expulsion. The authors found that almost 75% of the students in their study who received special education services were suspended or expelled at least once.

Discussions surrounding school-based offending have mostly relied on speculation and anecdotal evidence; there has been little systematic empirical research conducted to date. To provide a more comprehensive description of school-based delinquency in Florida, the FDJJ completed an eight-year study in Florida’s public schools. The report, which included years 2004 to 2011, found that school-based arrests accounted for 14% of all cases handled by FDJJ (Florida

Department of Juvenile Justice, 2013). In addition, it was reported that sixty-seven percent of all arrests originating in schools were for misdemeanors, which is consistent with prior research on zero tolerance policies and the school-to-prison pipeline. Moreover, the report found that students receiving their first arrest accounted for over half of all school-based arrests during the eight-year study period.

Despite much conjecture, little is empirically known about the differences in juvenile outcomes, contextual factors, and prevalence of school-based arrests relative to community-based arrests. In addition, research is limited on the school-level factors that may help to explain differences in juvenile arrest rates. In the sections that follow, the available research on the effects of arrests on future offending, educational attainment, and school-level explanations for variation in school arrest rates is presented.

The Impact of School Arrests

Impact on Future Offending. Scholars believe the increased use of zero tolerance disciplinary policies in schools unintentionally increased the likelihood of juvenile involvement in the justice system, thereby creating a “school-to-prison pipeline” (Christle, Jolivette, & Nelson, 2005; Gottfredson & Gottfredson, 1985). The “pipeline” removes students from the school system through exclusionary disciplinary practices (suspensions, expulsions) and school-based arrests and funnels them into the justice system, beginning a long-term career of crime and future arrests.

Exclusionary discipline is a key component of the school-to-prison pipeline (Kirk, 2009). Several studies have indicated that when a student is suspended or expelled, their likelihood of involvement in the juvenile justice system is significantly greater (Baker, Derrer, Davis, Dinklage-Travis, Linder, & Nicholson, 2001; Fabelo et al., 2011; Mowen & Brent, 2016). In

particular, suspended students are more likely to be arrested during the months they are suspended compared to the months they are not serving a suspension (Monahan, VanDerhei, Bechtold, & Cauffman, 2014). This association has been attributed to a routine activities approach—if students are not in school they have more unsupervised time to commit crime. Monahan and colleagues (2014) found that students with fewer prior incidents of delinquency were more negatively affected by suspensions and expulsions, in that they were more likely to have involvement with the juvenile justice system, than were students who had already begun more extensive delinquent careers at the time of their suspensions. Mowen and Brent (2016) found that with each suspension received, the student’s risk of being arrested significantly increased.

Studies tend to find a relationship between juvenile arrests, in general, and future offending (Johnson, Simons, & Conger, 2004; Liberman, Kirk, & Kim, 2014). McAra and McVie (2007) concluded that the more involvement a juvenile has with the justice system, the less likely they are to desist. Johnson and colleagues (2004) found a positive relationship between justice system involvement, later criminality, and deviant peer associations. Lopes and colleagues (2012) found police intervention in young adulthood to be related to drug use in later adulthood.

Liberman, Kirk, and Kim (2014) studied 1,249 youth and found that their first arrest increased the likelihood for future offending and future arrest. Wiley, Slocum, and Esbensen (2013) examined the mechanisms through which police contact may increase offending rates among juveniles. The authors used four waves of longitudinal data collected from 2,127 middle-school students in seven cities. The authors concluded that, compared with youth who had no contact with the police, juveniles who were either stopped by the police or arrested, reported

higher levels of future delinquency. Importantly, the authors found that social bonds, deviant identity formation, and delinquent peers partially mediated the relationship between police contact and later offending.

Much of the available research on juvenile involvement with the justice system is consistent with the major tenants of labeling theory in that a juvenile arrest is significantly associated with an increased risk for future involvement in delinquency and subsequent arrests. However, Morris and Piquero (2013) indicated that the association may not be the same for all juveniles. The authors found that juvenile arrests increased subsequent delinquency for youth already designated to be “high risk”, but not for lower risk youth. Morris and Piquero concluded that a juvenile arrest amplified delinquent involvement for some, but not all.

Overall, prior research indicates there is a link between juvenile involvement in the justice system, especially an arrest, and future offending and further justice system involvement. Notably, however, prior research has not addressed the impact of a school-based arrests relative to a community-based arrests on future offending. This research gap is surprisingly given the intense focus on and criticism of school-based arrests.

Impact on Educational Attainment. School failure, either grade-level retention or dropout, can be a significant negative turning point in the lives of adolescents (Bersani & Chapple, 2007). In general, prior research finds juvenile arrests are detrimental to student success and achievement, particularly high school completion (Bernberg & Krohn, 2003; De Li, 1999; Hirschfield, 2009; Hjalmarsson, 2008; Sweeten, 2006). Research suggests that these negative outcomes may be the result of teacher and peer responses to the arrest that further marginalize the student by blocking them from conventional opportunities. More tangibly, an arrest can result

in the student's temporary or permanent physical removal from school, which causes the student to miss classroom instruction and assignments, leading the student to fall behind.

Guided by labeling and deterrence frameworks, Sweeten (2006) explains the effects of first-time arrest and court involvement on the likelihood of graduating from high school. Using data from a nationally representative cohort of juveniles, the author found that, regardless of a juvenile's prior delinquent history, an arrest doubled the likelihood of high school dropout, and juveniles who appeared in court for the first time during high school were four times more likely to drop out than are students who did not appear in court.

A substantial amount of research consistently finds significant and positive associations between high school dropout and future criminal involvement (Drapela, 2005; Fabelo, et al., 2011; Henry, et al., 2012; Jarjoura, 1993, 1996; Kavish, Mullins, & Soto, 2014; Na, 2016; Sampson & Laub, 1993; Sweeten, et al., 2009). Hirschfield (2009), using a matched sample of arrested and not arrested inner-city Chicago students, found that youth who were arrested in the 9th or 10th grade were six to eight times more likely to drop out of high school than were students who were not arrested.

Consistent with research on labeling theory and juvenile arrests (see Bernburg & Krohn, 2003; Lemert, 1951; Liberman, Kirk, & Kim, 2014; Tannenbaum, 1938), Hirschfield (2009) suggests that dropping out was the result of the arrested student accepting the deviant label applied by their official involvement in the justice system. Matsueda (1992) argues that a juvenile arrest can act as a label and serves as the primary mechanism for redirecting or changing a youth's self-concept or identity towards that of a deviant. Kirk and Sampson (2013) also suggest that an official arrest record marks a juvenile as a "criminal" and has the capacity to fundamentally change the way schools treat the student. Furthermore, the authors found that

schools are more likely to use exclusionary disciplinary practices on juveniles with criminal records to remove them from their school and place them into special programs for problem youths. Overall, the available research has found that juvenile involvement in the justice system increases the likelihood of grade level retention and drop out. In turn, grade level retention and drop out likely increase the individual's likelihood of future offending and delinquency. The relationship between juvenile arrests and educational attainment appears to be reciprocal.

School Characteristics Associated with Juvenile Arrests

School culture and environment are important factors influencing dropout rates, delinquency rates, and arrest rates. Gottfredson, Gottfredson, Payne, and Gottfredson (2005) related school disciplinary incidents to various school-level factors and found that schools with the most discipline problems shared certain characteristics, including unclear, unfair, inconsistent, and ambiguous disciplinary rules. Moreover, the schools displayed a general lack of cooperation between teachers and administrators. Gottfredson and colleagues (2005) concluded that indicators of school climate explained a substantial amount of observed school disorder. The results held when the authors controlled for community characteristics and student demographic composition.

Birnbaum and colleagues (2003) examined the association between overall school functioning and the prevalence of violence among students. The authors created a School Functioning Index for 16 middle schools that included overall stability, performance, and demographics. Their results were consistent with prior research that found school characteristics are correlated with the violent behavior of students, even after controlling for individual-level factors. In general, poor academic quality has also been associated with increased violence in urban school settings (Hellman & Beaton, 1986).

Importantly, zero tolerance disciplinary practices have led to an increased police presence on school campuses, with many schools having a school resource officer (SRO) present at all times during school hours. The presence of SROs and exclusionary security measures are especially common in schools with a large proportion of low-income and racial and ethnic minority students (Kupchik & Ward, 2014; Verdugo, 2002). It has been hypothesized that the presence of SROs can lead to an increase in juvenile delinquency arrests at schools. Na and Gottfredson (2011) used data from the School Survey on Crime and Safety to explore whether police officers in schools were associated with changes in school crime or changes due to the school's response to crime. The authors found that as schools increased their use of police, they recorded more crimes involving weapon and drugs and reported a higher percentage of their non-serious violent crimes to law enforcement.

Theriot (2009) compared arrests rates between 15 demographically similar schools with SROs and 15 schools without. The author found that SRO presence did not predict more total arrests, but rather decreased the arrest rate for assault and weapons charges. SRO presence, did however, lead to an increase in arrests for disorderly conduct. These findings suggest that the presence of SROs on school campuses may help decrease rates of more serious offending while increasing the arrest rate of more minor forms of delinquency. A recent meta-analysis produced inconsistent results about the overall impact of SROs (Fisher & Hennessy, 2015). One model within the Fisher and Hennessy (2015) meta-analysis indicated that the presence of SROs was associated with a higher rate of exclusionary discipline, whereas a second model did not find a relationship between SRO presence and discipline practices. It is important to note that studies that seek to identify school-level predictors of delinquency and arrest rarely include measures

that control for community-level factors, which is an important factor for future research to consider given schools are imbedded within communities (Gottfredson, 2001).

Directions for Future Research

Prior research on school crime shows that a juvenile arrest negatively affects educational achievement and increases the likelihood for future involvement in delinquency, crime, and the justice system. However, studies have yet to consider whether youth who are arrested in school are differentially affected by the arrest than those who are arrested in the community. This represents a small but potentially important distinction. Most school crime studies examine only youth who were arrested in school and do not consider youth arrested out of school. Therefore, the question remains, is it the arrest itself that affects future outcomes, or is it because the arrest occurred in school. In addition, research must address the much-debated issue of whether some schools over-arrest students. To date, most studies do not consider the community or student population they serve when examining school arrest rates. In other words, to determine if a school is over-arresting youth, it is important for researchers to measure the community arrest rate for the student population the school serves.

Data and Sample

This project uses an accelerated cohort design to ensure all juveniles in the sample have enough time to age out of the FDJJ and the FDOE systems during the study period. The accelerated cohort includes multiple yearly cohorts of juveniles with first-time arrests who are progressively older at each year. That is, the first yearly cohort of first-time arrestees in the 2004-2005 school year includes youths as young as 11 years old. The second yearly cohort of first-time arrestees in the 2005-2006 school year includes youths as young as 12 years old. This one-year increase in age progresses through each yearly cohort so that the youngest juveniles in the

last yearly cohort of 2008-2009 are 15 years of age. Due to the uneven start and end dates of school years, our cohort also includes a small number of youths who are younger or older than the defined ages of each yearly cohort. This cohort design excluded juveniles who aged out of the jurisdiction of the FDJJ and those who were still in school at the time of the study's conclusion. In excluding these juveniles from the cohort design, we were able to examine subsequent delinquency arrests and graduation status. Table 1 shows the years in which a juvenile's first arrest had to occur along with their age to be included in our study cohort. Given the accelerated cohort design, the number of first-time juvenile arrest per year should not be interpreted as a trend since the cohort does not include all first-time arrests in certain years of the study period.

To answer the study's five research questions for our cohort, we obtained multiple datasets from FDJJ and FDOE. FDJJ provided full juvenile arrest histories and Community Positive Achievement Change Tool (C-PACT; hereafter, PACT) assessments from their Juvenile Justice Information System (JJIS) for the study's cohort of first-time youthful offenders from 2004-2009. The juvenile arrest history data includes a record for every offense that results in a referral¹ to FDJJ. Each record includes offense, adjudication, and disposition information as well as the youth's demographics (e.g., date of birth, race, ethnicity, sex).

A unique feature is that FDJJ records whether each offense occurred on school grounds, a school bus or bus stop, or at an official school-sponsored event (e.g., sporting event, field trip) as reported by law enforcement². This dichotomous indicator (1 = yes, occurred at school, 0 = no,

¹ Juveniles that are arrested are technically "referred" to the Florida Department of Juvenile Justice. For consistency and ease, we use the term "arrest" to represent a referral to FDJJ.

² We cannot determine with absolute certainty whether the offense occurred within the school the student was enrolled in at the time of the offense. FDJJ does not record school identifying factors when designating whether an offense occurred in school. Thus, we are only able to identify which school the juvenile was enrolled in at the time of offense or arrest date using data obtained from FDOE.

did not occur at school) is the basis for the study's comparison between school and community arrests. We defined any offense that did not occur in school as an offense that occurred in the community. Since each unique arrest event can contain multiple offenses with varying dates and locations, we created an overall arrest location. Specifically, we defined a school arrest as an arrest (1) where all offenses related to that arrest occurred in school or, (2) for arrests with mixed offense locations, if the arrest's earliest offense occurred in school. We defined a community arrest as an arrest (1) where all offenses related to that arrest occurred in the community (i.e., did not occur in school) or, (2) for arrests with mixed offense locations, if the arrest's earliest offense occurred in the community.

The FDJJ data also contains completed PACT pre-screen and full-assessments for the study cohort. FDJJ's PACT is a fourth-generation actuarial risk/needs assessment tool that assesses static, dynamic, and protective factors across a range of domains to predict a youth's likelihood of reoffending. Furthermore, FDJJ uses the tool to rank order criminogenic needs and dynamic risk factors for case planning. Not all first-time juvenile arrestees received a PACT during the cohort period for several reasons. First, FDJJ did not fully implement use of the PACT throughout the state until 2007. Second, youthful offenders may receive an "at-large arrest" in which they are not physically brought by the arresting law enforcement officer to an in-take facility where the assessment is administered. Third, some low-level youthful offenders may proceed directly to a diversion program and skip the assessment process.

FDOE provided extensive school-related information for the youths in our study cohort. This school data includes Florida public school attendance and enrollment records, demographics, and high school diploma information. Specifically, the attendance file includes details about the study cohort's entry and withdrawals from public schools during the school

year. The enrollment file includes the student's end-of-year enrollment status such as their grade level, grade promotion status, and withdrawal reason. Three different files provide varying demographic information including the student's (1) country of citizenship and birth, (2) free or reduced-price lunch and limited English proficiency (LEP) statuses, and (3) primary disability status. FDOE tracks each student's lunch, LEP, and disability status at multiple points during the school year. The high school diploma information includes a record for each diploma type awarded to a student and the award year. Table 2 includes descriptions of the youth demographic, education, offense, and FDJJ risk assessment measures used in this study.

Finally, we combined the FDOE-provided student data with a variety of school- and district-level characteristics from publicly available data on FDOE's website (see Table 3 for school and district measure descriptions). We matched students to schools and districts using unique school and district identifiers that are available across all FDOE datasets.

To address the study's research questions, we created a primary analytic sample by matching the study cohort's FDJJ juvenile arrest history to their FDOE student records. We use this primary analytic sample to examine all research questions except for questions that include measures from FDJJ's PACT assessment. To create the primary analytic sample, we identified youths who were enrolled in a Florida public school at the time of their first arrest's earliest offense date. We exclude youth who were enrolled in multiple Florida public schools at the time of their earliest offense date since we are unable to attribute the arrest to only one school. This primary analytic sample also excludes youth whose earliest offense date occurred prior to entering or after their last withdrawal from a Florida public school. Furthermore, this sample excludes youths whose earliest offense date occurred during a gap period between school enrollments of more than 30 days (i.e., the time between a withdrawal date and next entry date

exceeded 30 days)³. This restriction predominately excludes youth who offend during the summer months when schools are not in session. Such a restriction is necessary to create a comparable group of first-time arrestees who have approximately the same opportunity time to offend in either a school or a community location. If we included summer arrests, then these arrests would bias the school versus community estimates since school arrests are rare during summer months⁴. That is, including summer arrests would add more arrests to the community arrest count when it would be almost impossible to add arrests to the school arrest count. Finally, we exclude youths with missing grade level information.

To examine the frequency of school and community arrests by FDJJ's PACT risk-to-reoffend levels as well as the likelihood of juvenile recidivism, we created a PACT analytic sample. The PACT analytic sample is a subset of the primary analytic sample with the following additional exclusions. First, we excluded youth who did not have a PACT assessment within 90 days of their first arrest date. Second, we excluded youth who were 17 years of age at the time of their first arrest since they would not have a full year of opportunity to recidivate within the juvenile justice system. Third, we excluded youths who received a juvenile residential placement or an adult court transfer disposition on their first arrest. Due to their confinement and case processing, these youths would not have the opportunity to recidivate within a year of their first arrest. Finally, we excluded youth who were not enrolled in a mainstream, neighborhood-zoned or magnet school at the time of their first arrest's earliest offense date.

³ We retained youths whose earliest offense date occurred during a gap period in school enrollment of less than 30 days if the last withdrawal and next entry were in the same school. These gaps are likely attributable to reporting errors in the youth's enrollment records.

⁴ A youth could be arrested at a school during the summer when the school is not open for crimes such as trespassing or vandalism but this is rare.

Methods

To examine differences between school and community arrests, we provide the frequencies and percentages of first-time arrests by location across a variety of factors (i.e., column and row frequencies/percentages). First, we provide the frequency of school and community arrests for all youths in the primary analytic sample. Second, we present the frequency of school and community arrests across each of the school years included in the accelerated cohort design. The *school year* reflects which academic year the youth committed their first arrest's earliest offense.

Third, we provide the frequency of first-time school and community arrests across school types. Using the publicly available FDOE data, we classified schools into several distinct types using school-level measures such as the school's service type and function. We also performed a visual inspection of the school's name and conducted searches on school district websites to ensure correct identification. We classified schools into several distinct *school types*. First, *mainstream, neighborhood-zoned* schools are traditional public schools that serve students within a defined geographic boundary near the school. These schools may have magnet or disability programs that serve a group of students but their main function is to provide the standard K-12 education curriculum. *Magnet* schools provide all enrolled students a special curriculum within a particular area such as International Baccalaureate, medical, performing arts, etc. *Alternative* schools are schools with an alternative education delivery system to a specially designed student population for academic or disciplinary reasons. *Charter* schools have a recognized charter school status approved by the district school board. The *disability and hospital/homebound* category includes schools that only serve students with a primary disability

status or students with a medically diagnosed physical or psychiatric condition that confines the student to home or hospital. *Delinquency prevention* schools serve students at-risk of dropping out of school or committing delinquency. *Career and technical* schools provide a special curriculum designed to assist the student in obtaining specific job skills. *Home and virtual* schools include schools where the student is in a home education or virtual instruction program. Finally, the *other* school type category includes schools that do not fit into the previously discussed categories such as adult education schools and district accounting cost centers.

Individual-Level Descriptive Methods

Fourth, we provide the frequency of school and community arrests by the youth's *age* and *grade level* at their first arrest's earliest offense date. Fifth, we provide frequencies of arrest locations by characteristics of the youth. We include several *demographic groups* based on the youth's sex (i.e., male or female), race (i.e., white, black, or other such as Asian, Native American, Pacific Islander, or mixed race), and ethnicity (i.e., Hispanic or non-Hispanic). We also include *native born*, which is a dichotomous indicator of whether the youth was born in the United States based (1 = yes, 0 = no).

Additionally, we include measures of three student statuses near the time of the youth's earliest offense date. *Limited English proficiency* is a dichotomous indicator of whether the youth had a FDOE-determined limited English proficiency (1 = yes, 0 = no). *Free/reduced lunch eligible* is a dichotomous indicator of whether the youth was designated by FDOE as eligible for free or reduced-price lunch or was enrolled in a USDA-approved Provision 2 school (1 = yes, 0 = no). Lunch status is a frequently used proxy for youths' socioeconomic status. Finally, *primary disability status* is a categorical measure of the youth's disability status. *Specific learning* includes youths with a specific learning disability such as dyslexia. *Behavioral* includes youths

who are severally emotionally disturbed or have an emotional or behavioral disability. *Intellectual* includes youths who are educable mentally handicapped, trainable mentally handicapped, profoundly mentally handicapped, developmentally delayed, or have intellectual disabilities or a traumatic brain injury. *Physical or other health* includes youths that are orthopedically impaired, are hospital/homebound, have established conditions, or have other health impairments. *Speech or language* includes youths who are speech or language impaired. *Sensory* includes youths that are deaf or hard of hearing, visually impaired, or dual-sensory impaired. *Autism spectrum* includes youths with an autistic spectrum disorder. *No disability or gifted* includes youths with no primary disability status. Gifted students are included with non-disabled students.

Sixth, we present frequencies of school and community arrests by offense. We grouped offenses by *violent, property, drug, and other* offenses and then sorted the offenses by decreasing severity within each offense group. Furthermore, we indicate whether the offense is a felony or misdemeanor. Seventh, we present frequencies of school and community arrests by FDJJ's PACT *risk-to-reoffend* classification for those youth in the PACT analytic sample. FDJJ determines the risk-to-reoffend classification based on criminal history as well as the youth's responses to the PACT domain questions. The PACT provides four ordinal levels of individualized risk—low, moderate, moderate-high, and high.

Recidivism Methods

To examine the effect of school arrests relative to community arrests on subsequent juvenile offending, we created two measures of juvenile recidivism. *Rearrest for any reason* indicates whether the youth had a subsequent referral for any reason (e.g., new law violation or technical violation) to FDJJ within 1 year (365 days) from the youth's first arrest date (1 = yes, 0

= no). *Rearrest for a new crime* indicates whether the youth had a subsequent referral for a new law violation to FDJJ within 1 year (365 days) from the youth's first arrest date (1 = yes, 0 = no).

Where youth first offend—in school or in the community—is potentially a non-random process that introduces concerns for selection bias. Specifically, youth who offend in school may be substantively different from youth who offend in the community. Any initial differences may be the cause of subsequent juvenile recidivism. Accordingly, we use propensity score matching to create equivalent groups of first-time school and community arrestees. By matching youth from the school and community groups on factors prior to their selection into the initial offending location, we ensure the treatment and control groups differ only in their experience of where the offense occurred.

Richness of the FDJJ and FDOE data allows us to match on factors from several domains: demographic and individual characteristics, school status, family history, delinquency risk factors, attitudes, mental health, and school context. We included variables from several domains to decrease potential biased estimates of the effect of arrest location on recidivism due to selection effects. That is, by matching on a number of factors, we seek to reduce the likelihood that our recidivism estimates are due to factors that cause individuals with different recidivism risks to offend in one location or the other. However, the possibility remains that the exclusion of particular factors may not completely resolve concerns of potential selection bias.

For matching purposes, the treatment group includes youth with first-time arrests for school offenses. We use the group of first-time community offenders as our pool of potential comparison matches for our treatment group. First, we generated propensity scores for our PACT analytic sample using the PSMATCH2 command in Stata 14, which uses a logistic regression model to predict the conditional probability of youth receiving a school-based referral (i.e.,

treatment). Second, we then match youths in the treatment group to youths in the comparison group using the generated propensity scores and 1-to-1 nearest neighbor matching without replacement at a .05 caliper. Third, after matching, we verified that we achieved appropriate balance between the treatment and comparison groups by post-matching means comparisons and a review of the standardized bias statistics for each matching variable.

Arrest and Graduation Methods

To examine how school and community arrests affect the likelihood of high school graduation we first identified if each youth in the study cohort had a recorded diploma type in the FDOE high school awards file. If the youth did not have a record in the awards file, then we identified their last FDOE enrollment record and withdrawal reason. With these two pieces of information, we constructed five *last enrollment status categories*.

The *graduated* last enrollment status category includes youth with any recorded diploma type in the FDOE high school awards file. Youths in the *did not graduate* status category had a withdrawal code that indicates the youth voluntarily left school with no intention of returning, withdrew from high school during their senior year without receiving a diploma, was expelled from school with no continuing educational services, or was withdrawn due to nonattendance. The *disappeared* category includes youth who are missing a withdrawal code on their last enrollment record or had a withdrawal code that indicates their FDOE school records should have continued. These withdrawal codes include did not enroll, withdrew to attend another Florida public school in or outside the same district, and withdrew to attend another school type such as home education or adult school. However, since these youths do not have a subsequent enrollment record or record in the high school awards file, we know these youths did not subsequently enroll in nor did they earn a diploma from a public Florida school. For both the

“did not graduate” and “disappeared” categories is it important to note that juveniles in Florida are legally required to attend school until the age of 16. Thus, a juvenile cannot file a formal declaration of intent to terminate their school enrollment with the school district (i.e., dropout) until they become 16 years of age. Juveniles who drop out of school before the age of 16 likely either provide a false withdrawal reason or simply stop attending school since they cannot formally report they are dropping out.

Youths in the *private or out-of-state* last enrollment status category had a withdrawal code that states the student withdrew to attend a non-public Florida school or another public school out-of-state or out-of-country. We have no way of verifying if the youth did indeed enroll in a non-Florida public school. Moreover, we do not have any subsequent school outcome information for these youths. The *medical or death* category includes youth with a withdrawal code that states the student withdrew due to medical reasons and was unable to receive educational services through the hospital or homebound program or withdrew due to death.

We further examined the *diploma type* for youths who graduated to assess whether arrest location affects the type of diploma earned. If a youth was awarded more than one diploma type, we retained the highest ranked diploma type awarded based on the following order: (1) standard high school diploma, (2) GED, (3) special diploma, and (4) certificate of completion. For example, a student may initially earn a certificate of completion because they did not obtain passing scores on the state approved graduation test (i.e., FCAT). However, they may later retake and pass the test, which results in a standard diploma award. In this example, we coded the youth as earning a standard diploma. *Standard high school (HS) diploma* includes three standard diplomas types: standard diploma, standard diploma with FCAT waiver, and standard diploma with an alternative assessment. *GED diploma* includes GED exit option diplomas or standard

GED diplomas. *Special diploma* and *certificate of completion* include two special diploma and certificate types, respectively.

School-level versus Community-level Arrest Rate Methods

To compare rates of first-time school and community arrests across schools, we aggregated the study cohort's juvenile arrests in the primary analytic sample up to the school-level. As previously discussed, we identified the school each youth was enrolled in at the time of the earliest offense on their first arrest. Next, due to the accelerated cohort design, we selected first-time juvenile arrests from the 2004-2005 school year that occurred in middle and high schools. Furthermore, we restricted the comparison to first-time juvenile arrests that occurred in a mainstream, neighborhood-zoned school. We excluded arrests in other school types for several reasons. First, discussions and prior research on school arrests almost exclusively focuses on traditional public schools that serve students from the surrounding community. Second and relatedly, to best estimate if certain schools over-arrest students relative to that same student population's arrest rate in the community, we examined schools with a local student population. Other school types such as alternative and charter schools serve youths who reside throughout the school district. These other school types serve youths who may not reflect the local student population. Finally, mainstream, neighborhood-zoned public schools annually and consistently report information to FDOE whereas other school types tend to have missing information on key school-level characteristics.

After applying these restrictions, we then aggregated school and community first-time arrests up separately to the school-level using the unique school identifier. This aggregation created separate counts of first-time school arrests and first-time community arrests for each school. We divided these counts by the school's total student enrollment to create a *school arrest*

rate and a *community arrest rate*. The school arrest rate is similar to school arrest rates used in prior research except our rate only includes first-time arrests. This study's calculated community arrest rate reflects the first-time arrest rate of the students that school serves, which is different from a juvenile arrest rate that may be obtainable from a local law enforcement agency or at the county-level. A local juvenile arrest rate reflects all the juveniles arrested by that local law enforcement agency whether or not that juvenile lives or attends school in the area. The use of a local juvenile arrest rate could bias comparisons with a school's arrest rate to the extent that police arrest juveniles who do not attend the local school. Therefore, this study's calculated first-time school and community arrest rates ensures an accurate comparison of arrest rates for the same student population.

Finally, we calculate a ratio of the school and community arrest rates for each school (i.e., we divide the school arrest rate by the community arrest rate). This *school-to-community arrest ratio* indicates whether the school has similar or different rates of school and community arrests. A ratio greater than 1.0 indicates the school has more school arrests than community arrests. Conversely, a ratio less than 1.0 indicates the school has more community arrests than school arrests. A ratio equal to 1.0 indicates the school has the same rate of first-time school and community arrests. The greater the ratio deviates from 1.0, the greater the imbalance between the two arrest rates.

We identified middle and high schools in the top and bottom quartiles (i.e., top 75% and bottom 25%, respectively) of school arrest rates as well as schools in the top and bottom quartiles of the school-to-community arrest ratio. Any school with a school arrest rate that is higher than their community arrest rate could be considered as “over-arresting” their student population. However, for this study, we classify schools as “over-arresting” their student

population when the school is in the top quartile of the school-to-community arrest ratio. These top quartile schools have appreciable differences between their school and community arrest rates. Schools in the bottom quartile of the school-to-community arrest ratio, on the other hand, “under-arrest” their student population given the community arrest rate. Even so, schools may not truly be “over-arresting” or “under-arresting” their student population. Certain schools may have student populations that are inherently more likely to offend in school or in the community, and thus, the school’s reaction to delinquency within the school may be justified. Without detailed information on every arrest or each youth’s complete offending behavior, we are unable to determine the extent to which arrest rates are justifiable. To address the question of whether schools “over-arrest” students, we use the top quartile of the school-to-community arrest ratio as the cutoff. We calculated the means and standard deviations for the school and district characteristics described in Table 3 for these four quartiles separately for middle and high school. To examine whether these characteristics vary across schools once we account for the community arrest rate, we compared variable means for schools in the top quartile of school arrest rates to schools in the top quartile of the school-to-community arrest ratio. Additionally, we examine which school and district characteristics vary across schools in the top and bottom quartiles of the school-to-community arrest ratio. Comparing characteristics of schools across varying levels of the school-to-community arrest ratio is a more accurate initial appraisal of which characteristics relate to “over-arrests” in middle and high schools.

Results

Research Question 1: What are the differences in youth demographic characteristics, types of offenses, and risk levels between school-based arrests relative to community arrests?

Among first-time juvenile arrestees in our primary analytic sample, arrests were more likely to occur in the community than in schools. Sixty-five percent of arrests occurred in the community whereas 35% occurred in schools. Students attending mainstream, neighborhood zone schools were arrested in-school 35% of the time and 65% of the time in the community. Students attending mainstream schools account for 87% of all first-time arrests. Students attending charter, delinquency prevention, career/technical, home/virtual, and other school types were more likely to be arrested in the community than they were at school; however, their overall arrest percentages, regardless of location, were far lower than those for students who attend mainstream schools. Table 4 contains complete information on arrests by school type.

Fifteen year olds had the highest in-school arrest percentage (29%) followed by 14 year olds (25%) and 16 year olds (22%). Sixteen year olds had the highest community-based arrest percentage (32%), followed by 15 year olds (31%). Arrests were more common in the community than in school for all ages; however, the likelihood of a community-based arrest was greater for older students. For example, 17 year olds were arrested in the community 78% of the time and in school 22% of the time and 67% of 15 year olds were arrested in the community compared with 33% in school. Students enrolled in ninth grade had the highest percentage of in-school arrests (27%). The percent of in-school arrests declined with each year among high school students (27% for 9th graders, 17% for 10th graders, 6% for 11th graders, and less than 1% for 12th graders). These age and grade level arrest patterns are likely a function of our accelerated cohort design as well as the fact that youths typically begin turning 18 in 12th grade and are therefore outside of the age jurisdiction of the juvenile justice system. Table 5 shows complete age and grade level arrest information.

Consistent with prior research, racial minorities were more likely to be arrested in school. Students born in the United States were more likely than those not born in the United States to be arrested both in school and in the community; 93% of arrests were among native-born students. Native-born students had a higher community-based arrest rate (65%) than school-based arrest (35%). Non-native born students were arrested in the community 67% of the time and 33% in school. The same pattern is true for students without a Limited English Proficiency (LEP) designation by the FDOE. Most arrests, regardless of location, were of students with no LEP (96% for in-school arrests and 97% for community-based arrests). Students with an LEP designation were more likely to be arrested in the community than in school (60% and 40%, respectively). However, these findings are consistent with the general population make-up of Florida public schools; native-born and non-LEP students are more prevalent in the FDOE system.

Students eligible for free or reduced-price lunch accounted for 64% of the in-school arrests and 56% of the community-based arrests. In-school and community-based arrests were most common among students without learning or behavioral disabilities as determined by the FDOE. However, among the students who had a diagnosed disability, those with “specific learning disabilities” made up the greatest percentage of arrests in school (14%) and in the community (12%). Students with specific learning disabilities were more likely to be arrested in the community (62%) than they were in school (38%). Table 5 contains complete demographic information by arrest location.

Arrests for simple assault and/or battery accounted for most of the in-school arrests (22%) followed closely by disorderly conduct (21%). Eighty-two percent of arrests for disorderly conduct occurred in school whereas 18% occurred in the community. Conversely, sixty-two

percent of arrests for simple assault and/or battery occurred in the community and 38% occurred in school. A higher percentage of felony drug arrests (59%) occurred in school than in the community (41%). Felony weapon or firearm offenses were also more likely to occur in school than in the community (84% and 15%, respectively). Arrests that occur most frequently in the school tend to be for offenses that the school is actively policing against such as weapons and drugs. Schools subject students to random locker and backpack searches and some schools require students to enter through metal detectors, which increases the likelihood that these illicit items will be found. Arrests for simple assault and disorderly conduct are also more likely to be detected in school settings. These types of crime threaten the overall order and daily operations of the school. Typically, victims in the community of minor crimes such as simple assaults are generally less likely to contact police relative to victims of more serious and violent crimes. However, arrests for simple assaults may be higher in schools for several reasons. First, the routine activities of school may make it more likely that an assault is witnessed or detected and therefore, reported. Second, the types of victim-offender dyads in school-based simple assaults may also lead to a higher likelihood that the police will be contacted. For example, if a student strikes a teacher, then this offense is probably more likely to be reported than a juvenile who strikes an adult in the community given the context of the offense. Third, school disciplinary policies may require schools to contact police for incidents involving any type of physical contact.

Among the violent, property, drug, and other offense categories, property crimes occurred more frequently in the community, making up 86% of all property arrests. Similarly, arrests for violent offenses were more likely to occur in the community (60%) than in school (40%). Offenses labeled as “other” had a higher in-school arrest percentage (64%) than

community arrest percentage (36%). Arrests for felony weapon/firearm offenses and disorderly conduct are included in the “other” category and drive the higher in-school arrest percentage for this group. Table 6 contains all arrest percentages by offense type and location.

Finally, we compared risk-to-reoffend by arrest locations for youth in the PACT analytic sample. Juveniles with the lowest risk to reoffend as determined by the PACT assessment were the most likely group to be arrested either in the community or in school (see Table 8). This is not unexpected because a significant predictor of an elevated risk for future offending is prior offense history (e.g., number of prior offenses by type and number of prior detention stays) and current offense seriousness. Our cohort consists entirely of first time-arrested juveniles and thus, do not have prior offense histories that could increase their risk-to-reoffend likelihoods. In addition, most of the first-time arrests in our cohort were for minor offenses that tend to result in a lower risk score.

Research Question 2: What is the effect of school-based arrests relative to community-based arrests on subsequent offending?

Propensity Score Matching (PSM) was used to match similar juveniles arrested in school with those arrested in the community. When conducting PSM, a general concern is finding appropriate matches and balance between the treatment and comparison groups. To address this concern, we matched youth with first-time school-based arrests to youth with first-time community-based arrests on an extensive number of variables from FDJJ and FDOE data Table 9 presents the descriptive statistics for the variables used in the matching analyses. Table 10 presents the balancing statistics and shows that after matching, there were no significant differences on any of the matching variables between the treatment (school arrest) and comparison (community arrest) groups, meaning that any bias has been reduced.

Table 11 presents the estimated average treatment of school arrests on two measures of rearrest compared to community arrests using PSM. First-time juvenile arrestees for school-based offenses are less likely to be rearrested for any reason or for a new law violation within a year of their first referral than first-time community-based offenders. Youth with first-time school arrests are rearrested for any reason at a 3.5% lower rate than youth with first-time community arrests. Youth with school-based arrests were rearrested for a new law violation at a 3.3% lower rate than youth in the comparison group. Table 12 presents the logistic regression estimates predicting whether the juvenile’s first arrest occurred in the school versus the community.

Research Question 3: What is the effect of receiving school-based arrests relative to community-based arrests on the likelihood of graduating from high school?

Among our primary analytic sample, as shown in Table 13, a greater percentage of juveniles who were arrested in the community graduated from high school than did those who were arrested in school (approximately 68% and 31%, respectively). Receiving a standard high school diploma was also more likely among the juveniles who were arrested in the community; approximately 71% of this group received a diploma compared with 28% of the juveniles who were arrested in school. A relatively low percent of youths from either arrest location were found to have left Florida public schools to attend schools out-of-state or to attend private schools. These findings are likely because changes in the student population mirror the overall population trends in Florida (i.e., more students move into the state than move out) and because this population (i.e., youths with arrests) is less likely to attend private schools.

For both categories of juveniles, high school graduation was the largest “last enrollment category” the FDOE had on record. The second largest was a “disappeared” category. We were

unable to locate a final enrollment status for these juveniles. Thirty-three percent of the in-school arrested juveniles were in this category and 28% of the community-based arrested juveniles were classified as “disappeared”. Due to data limitations, we do not have an accurate measure of dropout because the student would have to report to their school that they are withdrawing. Only youths who are at least 16 years of age can legally dropout of school in Florida. The students who are included in the “disappeared” category have stopped attending public school in Florida and have likely dropped out of the educational system (though, they did not formally report that they had dropped out). Table 13 shows the frequency of last enrollment status and diploma type for our sample of first-time arrested juveniles by location.

Research Question 4: Based on the overall arrest rates in mainstream (public neighborhood zoned) schools, while controlling for the community arrest rate of the school’s student population, are individual schools “over-arresting” students?

Prior research on school-based delinquency assumes that there are certain schools that “over-arrest” their students. Yet, prior studies do not account for the community-arrest rate even though these same studies demonstrate that public schools reflect the socio-political context of the community that they serve. We find that identifying schools with high arrest rates without accounting for the community arrest rate can be misleading. Misleading or inaccurate conclusions about which schools “over-arrest” students are more common among middle schools than high schools. Table 14 shows the comparative middle and high school first-time arrest patterns.

Specifically, approximately 11% of middle schools were misidentified as having a substantively high in-school arrest rate. That is, these middle schools are in the highest quartile for in-school arrests, which suggests that the school is “over-arresting” students. However, when

we consider the community arrest rate, 11% of these middle schools are not “over-arresting” their students relative to the amount of arrests their student body is receiving in the community. Additionally, an opposite pattern also emerges. Approximately 11% of middle schools do not appear to be “over-arresting” students; yet, when the community arrest rate is considered, they do have a disproportionately high school arrest rate.

Approximately 12% of high schools are misidentified in one direction or another. Half of these misidentified high schools appear to have high in-school arrest rates until we take into account that school’s first-time community arrest rate. The other half of these misidentified high schools do not present as high arrest schools initially. Yet, when we account for the community arrest rate of their student population, these schools “over-arrest” relative to their students’ community arrest experiences. Again, it is worth reiterating that schools may not truly be “over-arresting” their students given their students’ behavior. However, we have found that schools in the top quartile of the school-to-community arrest ratio have a higher in-school arrest rate than community arrest rate for the same population of students.

Research Question 5: What are the characteristics of students, school, and school districts that predict different rates of school-based arrests?

Tables 15 and 16 show the means and standard deviations for a series of student, school, and district characteristics for middle and high schools in both the top and bottom quartiles of school arrest rates and school-to-community arrest ratios. Furthermore, we compared schools in the top quartile of school arrests to schools in the top quartile of the school-to-community arrest ratio using difference of means t-tests. Overall, visual comparisons of variable means between the top and bottom quartiles of school arrest rates suggests middle and high schools in these quartiles

different from each other. However, different patterns emerge for middle and high schools once we account for the school-to-community arrest ratio.

Mean comparisons of middle schools in the top quartile of school arrest rates to middle schools in the top quartile of school-to-community arrest rates shows several significant differences between these groups of schools. Middle schools in the top quartile of school arrests have significantly different student demographics, student behavior, and certain teacher/staff factors than schools in the top quartile of the school-to-community arrest ratio. Alternatively, middle schools in the top quartile of the school-to-community arrest ratio have some significantly different characteristics relative to middle schools in the top quartile of school arrests. These t-test results though, should be interpreted with caution because schools can be in the top quartiles for in school arrests and the school-to-community arrest rate.

The comparison of schools in the top and bottom quartiles of the school-to-community arrest ratio is a more accurate representation of what student, school, and district factors differ between schools that “over-arrest” and “under-arrest” their student population. Middle schools that “over-arrest” students are not as notably different than middle schools that “under-arrest” their students. Among schools in these top and bottom ratio quartiles, significant differences include the percentage of students who receive free/reduced price lunch, the percentage of truant students, and the percentage of in-school suspensions. Receiving an “A” on the Florida Comprehensive Assessment Test (FCAT) also emerged as a significant difference for these schools at both the school-level and district-level.

As mentioned above, comparisons between high schools exhibit different patterns. First, high schools with high in-school arrest rates (as evidenced by being in the top quartile of school arrest rates) are not significantly different than high schools with high school-to-community

arrest ratios on a range of student, school, and district characteristics. However, high schools that “over-arrest” students (as evidenced by being in the bottom quartile of the school-to-community arrest ratio), are significantly different than high schools that under-arrest their students on a range of characteristics, shown in Table 16. Among these schools, significant differences include a higher percentage of disabled students, a higher rate of exclusionary disciplinary policies (e.g., alternative placements/expulsions, out-of-school suspensions), a higher percent of classes that are taught by out-of-field teachers, and the size of the school. These findings are consistent with much of the research on zero-tolerance policies and the school-to-prison pipeline. Even so, the results provided from these school-level descriptive and mean difference comparisons should be explored further with more rigorous statistical tests.

Discussion

Limitations

Our study includes several limitations that future research should seek to address. First, we do not have any information on school use of school resource officers (SROs) or other security measures. Some prior research indicates that the presence of SROs on school grounds may increase the arrest rate for certain offenses. Because we did not have this information, we are unable to discern whether and to what degree the in-school arrest rate, relative to the community arrest rate, can be attributed to the presence of an SRO. We also do not have information on the specific discipline policies of schools or school districts. Although zero-tolerance policies were broadly used throughout the timeframe of our study, we have no way of measuring the variation of implementation and severity of these policies.

Second, our cohort only includes first-time juvenile arrestees who were enrolled in a Florida public school at the time of their arrest. Therefore, we do not have information on

students who attend private schools or students whose school records, due to incompleteness or inaccuracies, do not allow us to match the child to a school at the time of their arrest.

Third, first-time juvenile arrest rates are only one way to measure how student behavior in schools and/or school reactions to such behavior results in contact with the justice system. We cannot determine the extent of other types of contact with the justice system that may originate in school such as civil citations or adult arrests. For example, several large school districts in Florida aggressively use alternatives to arrest such as a juvenile civil citation program and therefore, may have lower school arrest rates. To the extent that schools have higher or lower “alternative” justice contact rates, our conclusions about the broader concept of the “school-to-prison pipeline” may be misguided. Even if a school does not have high arrest rates does not mean their disciplinary policies and reactions to student behavior do not cause contact with the justice system.

Implications

This study adds to our current understanding of the impact of juvenile arrests on subsequent involvement in the justice system and educational attainment. A unique and important contribution is that we account for differences in the juvenile’s arrest location (i.e., in school or in the community). There has been much discussion about the school-to-prison pipeline in recent years, however, only a limited amount of research considers the extent and implications that school arrests have on juveniles relative to the effects of community arrests. In addition, our study includes a unique way of understanding school arrest rates by measuring the community arrest rate of a school’s student population. A comparison of a school’s in-school arrest rate to their community arrest rate better determines if schools are over-arresting students.

Several findings emerged that are important for researchers, policymakers, and practitioners regarding juvenile and school-based arrests. Consistent with prior research, we found that black males and females more likely to be arrested in school than their white or Hispanic counterparts. In addition, students with learning and behavioral disabilities have an increased likelihood of being arrested in school. These factors are important and may present areas for training from school officials and police officers in responding to schools and interacting with students who have disabilities. We also found that in-school arrests are commonly for minor offenses (e.g., disorderly conduct and simple assault). Florida has been increasingly relying on ways to divert juveniles from the justice system, especially those who commit minor forms of delinquency. The use of civil citation may be an area for the FDJJ and local agencies to consider expanding within schools.

Several important areas for future research have emerged from our study. First, our measures only included arrests. It is important to explore any adjudication differences among juveniles arrested in school versus in the community to have a more clear understanding of the school-to-prison pipeline. For example, are judges less likely to adjudicate and dispose children arrested for minor offenses in school, and are the juveniles progressing through the system to the same degree as those arrested in the community?

The impact of an arrest may differentially impact educational attainment depending on where the arrest occurs. Future research should consider what, if any, impacts a school-based arrest, relative to a community-based arrest has on high school graduation and dropout. An arrest may interrupt a juvenile's educational trajectory and result in the failure to complete high school. An in-school arrest may also differentially label a student, making it less likely that they will complete school. For example, a school may be more likely to impose exclusionary disciplinary

policies on juveniles who are arrested on their campuses. Schools may not be made aware of when their students receive a community-based arrest. Further, an arrest that occurs on school grounds is likely to be seen by more of the juveniles' peers and teachers than a community-based arrest, which may create a labeling effect.

In addition, because districts are synonymous with counties in Florida, this presents a unique opportunity to incorporate county-level factors that may tap into the social and political context of the area and approaches to crime. This information may help to explain some of the variation in arrest rates between schools.

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Table 1. Accelerated Cohort Design

BEGINNING SCHOOL YEAR	AGE AT FIRST ARREST	ENDING SCHOOL YEAR	NUMBER OF FOLLOW-UP YEARS IN SCHOOL
2004-2005	11-16	2012-2013	7-9
2005-2006	12-16	2012-2013	6-8
2006-2007	13-16	2012-2013	5-7
2007-2008	14-16	2012-2013	4-6
2008-2009	15-16	2012-2013	3-5

Table 2. Description of Individual-level Measures

MEASURE	DESCRIPTION
<i>Youth Recidivism</i>	
Rearrest for any reason	If youth was rearrested by FDJJ for any reason within one year of their first referral date (1 = yes, 0 = no)
Rearrest for new crime	If youth was rearrested by FDJJ for a new crime within one year of their first referral date (1 = yes, 0 = no)
<i>Youth Demographics</i>	
Male	Youth is male (1 = yes, 0 = no)
Young	Youth was younger than 13 at the time of their first referral (1 = yes, 0 = no)
Black	Youth is black (1 = yes, 0 = no)
Hispanic	Youth is Hispanic (1 = yes, 0 = no)
Native born	Youth was born in the United States (1 = yes, 0 = no)
Limited English proficiency	Youth had a DOE determined limited English proficiency near first offense date (1 = yes, 0 = no)
Free or reduced lunch eligible	Youth was eligible/automatically approved for free or reduced-price lunch near first offense date (1 = yes, 0 = no)
ESE disabled	Youth had a DOE determined primary disability status near first offense date (1 = yes, 0 = no)
<i>Youth School Status</i>	
School academics*	Youth's reported academic performance in most recent school term (1 = honor student, 2 = above 3.0 GPA, 3 = 2.0-3.0 GPA, 4 = 1.0-2.0 GPA, 5 = below 1.0 GPA)
School conduct*	Youth's reported school conduct in most recent term (1 = recognition for good behavior, 2 = no problems with conduct, 3 = problems reported by teachers, 4 = problem calls to parents, 5 = calls to police)
Over grade age	Youth was over the typical age range for their grade level at time of first offense date (1 = yes, 0 = no)
Grade level at offense	Youth's grade level at the time of first offense date (4 th – 12 th grade)
<i>Youth Family History</i>	
Family problems*	Youth reported that parents currently involved with the household have a problem history with alcohol, drugs, physical health, mental health, and/or employment (1 = yes, 0 = no)
Parental incarceration*	Youth reported that parents/caretakers currently or has a history of incarceration in jail or prison (1 = yes, 0 = no)
Sibling incarceration*	Youth reported that older/younger sibling(s) currently or has a history of incarceration in jail or prison (1 = yes, 0 = no)
Out-of-home placements*	Youth's reported number of court-ordered or DCF voluntary out-of-home and shelter care placements exceeding 30 days (0 = none, 1 = one, 2 = two, 3 = three or more)
Runaway*	Youth's reported number of instances where they ran away or were kicked out of their home (0 = none, 1 = one, 2 = two to three, 3 = four to five, 4 = more than 5)
Parental control*	Youth's reported frequency of obeying parental rules (1 = usually, 2 = sometimes, 3 = consistently disobeys, and/or is hostile)

* indicates measures obtained from FDJJ's C-PACT assessment

Table 2 continued. Description of Individual-level Measures

MEASURE	DESCRIPTION
<i>Youth Delinquency Risk Factors</i>	
Negative peers*	Youth's consistent report of anti-social friends and/or gang associates (1 = yes, 0 = no)
Past drug use*	Youth's reported history of drug use (1 = yes, 0 = no)
Current drug use*	Youth reports current drug use (1 = yes, 0 = no)
Past alcohol use*	Youth's reported history of alcohol use (1 = yes, 0 = no)
Current alcohol use*	Youth reports current alcohol use (1 = yes, 0 = no)
<i>Youth Attitudes</i>	
Attitude*	Youth's reported attitude toward responsible law abiding behavior (1 = abides, 2 = believes conventions/values sometimes apply to them, 3 = does not believe conventions/values apply to them, 4 = resents or is hostile toward responsible behavior)
Responsibility*	Youth's reported acceptance of responsibility for law abiding behavior (1 = accepts responsibility, 2 = minimizes, denies, justifies, excuses, blames others, 3 = accepts anti-social behavior as okay, 4 = proud of anti-social behavior)
Verbal aggression*	Youth's reported belief in yelling and verbal aggression to resolve a disagreement or conflict (1 = rarely appropriate, 2 = sometimes appropriate, 3 = often appropriate)
Physical aggression*	Youth's reported belief in fighting and physical aggression to resolve a disagreement or conflict (1 = never appropriate, 2 = rarely appropriate, 3 = sometimes appropriate, 4 = often appropriate)
<i>Youth Mental Health</i>	
Mental health*	Youth's reported history of mental health problems (1 = none, 2 = past history/current diagnosis, 3 = medication prescribed, 4 = treatment prescribed, 5 = medication and treatment prescribed)
Suicidal thoughts/no hope*	Youth's reported history of serious suicidal thoughts or feels life is not worth living/no hope for future (1 = yes, 0 = no)
Suicidal attempts/self-harm*	Youth's reported history of suicidal attempts or self-harm (1 = yes, 0 = no)
Anger*	Youth's reported history of anger or irritability (1 = none, 2 = occasional, 3 = consistent, 4 = aggressive reactions to feelings of anger/irritability)
Depression*	Youth's reported history of depression/anxiety (1 = none, 2 = occasional, 3 = consistent, 4 = impairment in every day tasks due to depression/anxiety)
Somatic*	Youth's reported history of somatic complaints (1 = none, 2 = one to two, 3 = three to four, 4 = five or more)
Thought disturbance*	Youth's reported history of thought disturbance (1 = none, 2 = presence of auditory or visual hallucinations, 3 = beliefs that youth is controlled by others)
Trauma experience*	Youth's reported history of traumatic experience (1 = none, 2 = presence of traumatic event, 3 = flashbacks to traumatic event)
Violent abuse*	Youth's reported history of experiencing violence/physical abuse (1 = yes, 0 = no)
Witnessed violence*	Youth's reported history of witnessing violence (1 = yes, 0 = no)
Sexual abuse*	Youth's reported history of experiencing sexual abuse/rape (1 = yes, 0 = no)
Neglect*	Youth's reported history of being a victim of neglect (1 = yes, 0 = no)

* indicates measures obtained from FDJJ's C-PACT assessment

Table 3. Description of School- and District-level Measures

MEASURE	DESCRIPTION
<i>School Arrest Rates</i>	
School arrest rate	Rate of school first-time juvenile arrests of students enrolled in the school at offense date
School-to-community arrest ratio	Ratio of the rate of school first-time juvenile arrests to the rate of community first-time juvenile arrests of students enrolled in the school at offense date
<i>School Student Demographics</i>	
Black	Percentage of Black students from the total student enrollment
Hispanic	Percentage of Hispanic students from the total student enrollment
Disabled	Percentage of students from the fall student membership count who have a primary disability
Free or reduced-price lunch	Percentage of students eligible for free or reduced-price lunch
<i>School Student Behavior</i>	
Absent 21+ days	Percentage of students from the total student enrollment who were absent 21 or more days during the 180-day school year
Stability	Percentage of students in the fall student membership count who are still present in the spring student membership count
In-school suspensions	Percentage of students from the total student enrollment who received an in-school suspension
Out-of-school suspensions	Percentage of students from the total student enrollment who received an out-of-school suspension
Alt. placements/expulsion rate	Rate of alternative placement or expulsion disciplinary events per 1,000 students
School crime rate	Rate of reported incidents of crime and violence occurring on school grounds, transportation, or at school-sponsored events
Dropout (HS only)	Percentage of students with a dropout withdrawal reason at the end of the school year (only available for high schools)
Grads continuing ed (HS only)	Percentage of followed-up graduates from previous school year who reported continuing their education in current school year (only available for high schools)
<i>School Academics</i>	
'A' FCAT grade	Dichotomous indicator of whether the school's letter grade based on student performance on the Florida Comprehensive Assessment Test (FCAT) was an 'A'
Graduation rate (HS only)	Rate of applicable students receiving standard, special, and GED diplomas (only available for high schools)
SAT test takers (HS only)	Percentage of 12th graders who took the Scholastic Assessment Test (ACT) (only available for high schools)
ACT test takers (HS only)	Percentage of 12th graders who took the American College Test (ACT) (only available for high schools)

Table 3 continued. Description of School and District Measures

MEASURE	DESCRIPTION
<i>School Teacher/Staff Information</i>	
Teachers' avg yrs of experience	Average number of years teaching experience for teachers, includes in- and out-of-state experience
Teachers with advanced degrees	Percentage of instructional staff with a master's degree, a doctorate, or a specialist's degree
Classes taught out-of-field	Percentage of classes being taught by teachers teaching out-of-field for core academic courses
Staff-to-student ratio	Ratio of the number of full-time school staff to the total student enrollment
<i>School Characteristics</i>	
Size	Total student enrollment per 1,000 students
Per-pupil regular expenditures	Per-pupil regular expenditures per \$1,000 dollars
<i>District Student Demographics</i>	
Black	Percentage of Black students in the total student enrollment
Hispanic	Percentage of Hispanic students in the total student enrollment
<i>District Academics</i>	
'A' FCAT grade	Indicator of whether the district's letter grade based on student performance on the Florida Comprehensive Assessment Test (FCAT) was an 'A'
Graduation rate (HS only)	Rate of applicable students receiving standard, special, and GED diplomas
<i>District Characteristics</i>	
Size	Total student enrollment, reported per 1,000 students
Per-pupil regular expenditures	Per-pupil regular expenditures, reported per \$1,000 dollars

Table 4. Frequency of First-Time Juvenile Arrests by School Year, School Type and Arrest Location (n=94,708)

	SCHOOL ARRESTS			COMMUNITY ARRESTS			ALL ARRESTS	
	Frequency	Percent of Column Arrests	Percent of Row Arrests	Frequency	Percent of Column Arrests	Percent of Row Arrests	Frequency	Percent of All Arrests
<i>First-Time Juvenile Arrests</i>	32,686	100.0%	34.5%	62,022	100.0%	65.5%	94,708	100.0%
<i>School Year</i>								
2004-2005	9,146	28.0%	37.4%	15,336	24.7%	62.6%	24,482	25.8%
2005-2006	8,432	25.8%	36.8%	14,464	23.3%	63.2%	22,896	24.2%
2006-2007	7,012	21.5%	34.7%	13,224	21.3%	65.4%	20,236	21.4%
2007-2008	5,146	15.7%	31.5%	11,183	18.0%	68.5%	16,329	17.2%
2008-2009	2,950	9.0%	27.4%	7,815	12.6%	72.6%	10,765	11.4%
<i>School Type</i>								
Mainstream, neighborhood zoned	28,688	87.8%	34.7%	54,059	87.2%	65.3%	82,747	87.4%
Magnet	1,540	4.7%	34.6%	2,906	4.7%	65.4%	4,446	4.7%
Alternative	1,463	4.5%	37.6%	2,431	3.9%	62.4%	3,894	4.1%
Charter	615	1.9%	27.4%	1,633	2.6%	72.6%	2,248	2.4%
Disability, hospital/homebound	258	0.8%	39.3%	398	0.6%	60.7%	656	0.7%
Delinquency prevention	48	0.1%	13.5%	307	0.5%	86.5%	355	0.4%
Career and technical	48	0.1%	20.9%	182	0.3%	79.1%	230	0.2%
Home and virtual	0	0.0%	0.0%	14	0.0%	100.0%	14	0.0%
Other	26	0.1%	22.0%	92	0.1%	78.0%	118	0.1%

Table 5. Frequency of First-Time Juvenile Arrests by Age, Grade and Arrest Location (n=94,708)

	SCHOOL ARRESTS			COMMUNITY ARRESTS			ALL ARRESTS	
	Frequency	Percent of Column Arrests	Percent of Row Arrests	Frequency	Percent of Column Arrests	Percent of Row Arrests	Frequency	Percent of All Arrests
<i>Age at Offense</i>								
10 years old	13	0.0%	37.1%	22	0.0%	62.9%	35	0.0%
11 years old	469	1.4%	39.3%	724	1.2%	60.7%	1,193	1.3%
12 years old	2,177	6.7%	45.8%	2,576	4.2%	54.2%	4,753	5.0%
13 years old	5,162	15.8%	44.0%	6,571	10.6%	56.0%	11,733	12.4%
14 years old	8,046	24.6%	38.7%	12,761	20.6%	61.3%	20,807	22.0%
15 years old	9,545	29.2%	33.1%	19,282	31.1%	66.9%	28,827	30.4%
16 years old	7,235	22.1%	26.6%	19,949	32.2%	73.4%	27,184	28.7%
17 years old	39	0.1%	22.2%	137	0.2%	77.8%	176	0.2%
<i>Grade Level at Offense</i>								
Below 6 th grade	416	1.3%	31.3%	912	1.5%	68.7%	1,328	1.4%
6 th grade	2,727	8.3%	46.2%	3,182	5.1%	53.9%	5,909	6.2%
7 th grade	5,505	16.8%	46.1%	6,450	10.4%	54.0%	11,955	12.6%
8 th grade	7,384	22.6%	40.7%	10,778	17.4%	59.3%	18,162	19.2%
9 th grade	8,865	27.1%	32.9%	18,049	29.1%	67.1%	26,914	28.4%
10 th grade	5,628	17.2%	27.4%	14,927	24.1%	72.6%	20,555	21.7%
11 th grade	2,103	6.4%	22.0%	7,451	12.0%	78.0%	9,554	10.1%
12 th grade	58	0.2%	17.5%	273	0.4%	82.5%	331	0.3%

Table 6. Frequency of First-Time Juvenile Arrests by Youth Characteristics and Arrest Location (n=94,708)

	SCHOOL ARRESTS			COMMUNITY ARRESTS			ALL ARRESTS	
	Frequency	Percent of Column Arrests	Percent of Row Arrests	Frequency	Percent of Column Arrests	Percent of Row Arrests	Frequency	Percent of All Arrests
<i>Demographic Group</i>								
White male	9,267	28.4%	33.5%	18,410	29.7%	66.5%	27,677	29.2%
White female	4,173	12.8%	23.9%	13,314	21.5%	76.1%	17,487	18.5%
Black male	7,709	23.6%	40.0%	11,546	18.6%	60.0%	19,255	20.3%
Black female	5,029	15.4%	40.1%	7,499	12.1%	59.9%	12,528	13.2%
Hispanic white male	3,820	11.7%	38.8%	6,036	9.7%	61.2%	9,856	10.4%
Hispanic white female	1,482	4.5%	34.0%	2,874	4.6%	66.0%	4,356	4.6%
Hispanic black male	680	2.1%	36.0%	1,209	1.9%	64.0%	1,889	2.0%
Hispanic black female	265	0.8%	31.6%	575	0.9%	68.5%	840	0.9%
Other male	175	0.5%	38.0%	286	0.5%	62.0%	461	0.5%
Other female	49	0.1%	18.9%	211	0.3%	81.2%	260	0.3%
Hispanic other male	28	0.1%	42.4%	38	0.1%	57.6%	66	0.1%
Hispanic other female	9	0.0%	27.3%	24	0.0%	72.7%	33	0.0%
<i>Native Born</i>								
Yes	30,475	93.2%	34.6%	57,603	92.9%	65.4%	88,078	93.0%
No	2,211	6.8%	33.4%	4,419	7.1%	66.7%	6,630	7.0%
<i>Limited English Proficiency</i>								
Yes	1,369	4.2%	39.7%	2,080	3.4%	60.3%	3,449	3.6%
No	31,317	95.8%	34.3%	59,942	96.6%	65.7%	91,259	96.4%
<i>Free/Reduced Lunch Eligible</i>								
Yes	20,773	63.6%	37.5%	34,595	55.8%	62.5%	55,368	58.5%
No	11,913	36.4%	30.3%	27,472	44.3%	69.7%	39,385	41.6%
<i>Primary Disability Status</i>								
Specific learning	4,687	14.3%	38.3%	7,541	12.2%	61.7%	12,228	12.9%
Behavioral	1,892	5.8%	44.7%	2,344	3.8%	55.3%	4,236	4.5%
Intellectual	671	2.1%	42.3%	917	1.5%	57.8%	1,588	1.7%
Physical or other health	511	1.6%	36.8%	878	1.4%	63.2%	1,389	1.5%
Speech or language	475	1.5%	35.9%	848	1.4%	64.1%	1,323	1.4%
Sensory	42	0.1%	36.2%	74	0.1%	63.8%	116	0.1%
Autism spectrum	21	0.1%	61.8%	13	0.0%	38.2%	34	0.0%
No disability	24,387	74.6%	33.1%	49,407	79.7%	67.0%	73,794	77.9%

Table 7. Frequency of First-Time Juvenile Arrests by Offense and Arrest Location (n=94,708)

	SCHOOL ARRESTS			COMMUNITY ARRESTS			ALL ARRESTS	
	Frequency	Percent of Column Arrests	Percent of Row Arrests	Frequency	Percent of Column Arrests	Percent of Row Arrests	Frequency	Percent of All Arrests
<i>All Violent Offenses</i>	10,488	32.1%	40.1%	15,669	25.3%	59.9%	26,157	27.6%
Murder manslaughter (F)	1	0.0%	4.0%	24	0.0%	96.0%	25	0.0%
Attempted murder manslaughter (F)	0	0.0%	0.0%	14	0.0%	100.0%	14	0.0%
Sexual battery (F)	49	0.1%	8.3%	539	0.9%	91.7%	588	0.6%
Kidnapping (F)	31	0.1%	32.3%	65	0.1%	67.7%	96	0.1%
Other felony sex offense (F)	329	1.0%	46.7%	376	0.6%	53.3%	705	0.7%
Armed robbery (F)	11	0.0%	6.7%	154	0.2%	93.3%	165	0.2%
Aggravated assault and/or battery (F)	2,504	7.7%	51.7%	2,336	3.8%	48.3%	4,840	5.1%
Other robbery (F)	173	0.5%	32.3%	363	0.6%	67.7%	536	0.6%
Violent obstruction of justice (F)	109	0.3%	38.4%	175	0.3%	61.6%	284	0.3%
Simple assault and/or battery (M)	7,203	22.0%	38.5%	11,532	18.6%	61.6%	18,735	19.8%
Misdemeanor sex offenses (M)	78	0.2%	46.2%	91	0.1%	53.9%	169	0.2%
<i>All Property Offenses</i>	5,662	17.3%	14.2%	34,104	55.0%	85.8%	39,766	42.0%
Arson (F)	83	0.3%	34.7%	156	0.3%	65.3%	239	0.3%
Burglary (F)	950	2.9%	14.2%	5,747	9.3%	85.8%	6,697	7.1%
Auto theft (F)	37	0.1%	4.0%	890	1.4%	96.0%	927	1.0%
Grand larceny (F)	519	1.6%	19.5%	2,149	3.5%	80.6%	2,668	2.8%
Fraud, forgery, counterfeiting (F)	71	0.2%	29.1%	173	0.3%	70.9%	244	0.3%
Felony vandalism (F)	189	0.6%	23.3%	621	1.0%	76.7%	810	0.9%
Receiving stolen property (F)	76	0.2%	40.9%	110	0.2%	59.1%	186	0.2%
Petit larceny (M)	1,263	3.9%	5.8%	20,399	32.9%	94.2%	21,662	22.9%
Misdemeanor vandalism (M)	653	2.0%	24.8%	1,984	3.2%	75.2%	2,637	2.8%
Trespassing (M)	1,821	5.6%	49.3%	1,875	3.0%	50.7%	3,696	3.9%
<i>All Drug Offenses</i>	5,712	17.5%	48.3%	6,105	9.8%	51.7%	11,817	12.5%
Felony drug offenses (F)	1,448	4.4%	58.7%	1,020	1.6%	41.3%	2,468	2.6%
Misdemeanor drug offenses (M)	3,953	12.1%	49.1%	4,094	6.6%	50.9%	8,047	8.5%
Alcohol Offenses (M)	311	1.0%	23.9%	991	1.6%	76.1%	1,302	1.4%

F = Felony; M = Misdemeanor

Table 7 continued. Frequency of First-Time Juvenile Arrests by Offense and Arrest Location (n=94,708)

	SCHOOL ARRESTS			COMMUNITY ARRESTS			ALL ARRESTS	
	Frequency	Percent of Column Arrests	Percent of Row Arrests	Frequency	Percent of Column Arrests	Percent of Row Arrests	Frequency	Percent of All Arrests
<i>All Other Offenses</i>	10,824	33.1%	63.8%	6,144	9.9%	36.2%	16,968	17.9%
Felony weapon/firearm offenses (F)	3,136	9.6%	84.3%	583	0.9%	15.7%	3,719	3.9%
Non-violent obstruction of justice (F)	58	0.2%	18.9%	249	0.4%	81.1%	307	0.3%
Other felony offenses (F)	174	0.5%	30.6%	394	0.6%	69.4%	568	0.6%
Misdemeanor weapon/firearm offenses (M)	131	0.4%	25.5%	383	0.6%	74.5%	514	0.5%
Misdemeanor obstruction of justice (M)	288	0.9%	15.5%	1,575	2.5%	84.5%	1,863	2.0%
Disorderly conduct (M)	6,892	21.1%	81.8%	1,530	2.5%	18.2%	8,422	8.9%
Loitering and prowling (M)	15	0.0%	1.5%	956	1.5%	98.5%	971	1.0%
Violation of game-fish-boat laws (M)	1	0.0%	1.1%	91	0.1%	98.9%	92	0.1%
Other misdemeanor offenses (M)	123	0.4%	30.5%	281	0.5%	69.6%	404	0.4%
Traffic offenses (M)	0	0.0%	0.0%	12	0.0%	100.0%	12	0.0%
Violation of county/municipal ordinances	6	0.0%	6.3%	90	0.1%	93.8%	96	0.1%

F = Felony; M = Misdemeanor

Table 8. Frequency of First-Time Juvenile Arrests by FDJJ C-PACT Risk-to-Reoffend and Arrest Location (n=36,976)

	SCHOOL ARRESTS			COMMUNITY ARRESTS			ALL ARRESTS	
	Frequency	Percent of Column Arrests	Percent of Row Arrests	Frequency	Percent of Column Arrests	Percent of Row Arrests	Frequency	Percent of All Arrests
<i>Risk-to-Reoffend</i>								
Low	11,056	96.5%	30.8%	24,819	97.3%	69.2%	35,875	37.9%
Moderate	380	3.3%	37.2%	643	2.5%	62.9%	1,023	1.1%
Moderate-High	22	0.2%	30.6%	50	0.2%	69.4%	72	0.1%
High	2	0.0%	33.3%	4	0.0%	66.7%	6	0.0%

Table 9. Descriptive Statistics for Study Variables in Propensity Score Matching Analyses

	Mean	SD	Minimum	Maximum
Rearrest for any reason	0.24	0.43	0	1
Rearrest for a new crime	0.22	0.41	0	1
First-time arrest location (1 = school)	0.31	0.46	0	1
Male	0.63	0.48	0	1
Young	0.01	0.10	0	1
Black	0.34	0.47	0	1
Hispanic	0.17	0.38	0	1
Native born	0.93	0.26	0	1
Limited English proficiency	0.04	0.19	0	1
Free or reduced lunch eligible	0.57	0.49	0	1
ESE disabled	0.21	0.41	0	1
School academics	3.19	0.93	1	5
School conduct	2.70	1.16	1	5
Over grade age	0.21	0.41	0	1
Grade level at offense	9.03	1.29	4	12
Family problems	0.09	0.29	0	1
Parental incarceration	0.20	0.40	0	1
Sibling incarceration	0.08	0.26	0	1
Out-of-home placements	1.06	0.30	1	4
Runaway	1.17	0.59	1	5
Parental control	1.40	0.56	1	3
Negative peers	0.55	0.50	0	1
Past drug use	0.23	0.42	0	1
Current drug use	0.19	0.39	0	1
Past alcohol use	0.16	0.37	0	1
Current alcohol use	0.08	0.27	0	1
Attitude	1.34	0.52	1	4
Responsibility	1.26	0.49	1	4
Verbal aggression	1.35	0.54	1	3
Physical aggression	1.57	0.78	1	4
Mental health	1.14	0.59	1	5
Suicidal thoughts/no hope	0.03	0.18	0	1
Suicidal attempts/self-harm	0.03	0.16	0	1
Anger	1.54	0.74	1	4
Depression	1.25	0.55	1	4
Somatic	1.13	0.39	1	4
Thought disturbance	1.01	0.12	1	3
Trauma experience	1.10	0.36	1	3
Violent abuse	0.07	0.25	0	1
Witnessed violence	0.35	0.48	0	1
Sexual abuse	0.03	0.17	0	1
Neglect	1.02	0.14	1	2
School disabled (%)	0.14	0.04	0.00	0.39
School free/reduced lunch (%)	0.45	0.20	0.02	1
School absent (%)	0.14	0.07	0	0.49
School teacher avg yrs exp.	12.27	3.08	1.90	29.80
School teacher advanced degrees (%)	0.36	0.09	0	1
School classes taught out-of-field (%)	0.08	0.08	0	0.69
School in-school suspensions (%)	0.18	0.13	0	1.26
School out-of-school suspensions (%)	0.14	0.13	0	3.16
N	30,723			

Table 10. Adjustment Balance Statistics for Matched Samples

	Mean		% B	% BR	<i>t</i>
	Treated	Control			
Male	0.663	0.665	-0.6	96.4	-0.35
Young	0.011	0.012	-1.1	74.6	-0.63
Black	0.379	0.385	-1.1	93.2	-0.65
Hispanic	0.183	0.178	1.2	85.0	0.69
Native born	0.927	0.925	0.5	39.5	0.28
Limited English proficiency	0.041	0.040	0.4	92.1	0.25
Free or reduced lunch eligible	0.606	0.605	0.2	98.9	0.10
ESE disabled	0.229	0.226	0.5	95.7	0.32
School academics	3.305	3.281	2.6	86.2	1.62
School conduct	2.888	2.894	-0.5	99.4	-0.33
Over grade age	0.244	0.240	0.8	94.9	0.48
Grade level at offense	8.836	8.825	0.9	97.4	0.52
Family problems	0.084	0.083	0.2	96.4	0.12
Parental incarceration	0.206	0.207	-0.3	77.7	-0.18
Sibling incarceration	0.077	0.078	-0.4	-38.1	-0.25
Out-of-home placements	1.054	1.054	0.1	97.3	0.06
Runaway	1.152	1.147	0.8	94.1	0.48
Parental control	1.408	1.397	2.0	76.7	1.20
Negative peers	0.553	0.544	1.8	-6.1	1.10
Past drug use	0.242	0.241	0.2	62.8	0.10
Current drug use	0.180	0.178	0.5	95.0	0.32
Past alcohol use	0.175	0.175	0.1	97.6	0.07
Current alcohol use	0.074	0.072	0.9	90.3	0.57
Attitude	1.349	1.343	1.2	36.2	0.72
Responsibility	1.285	1.278	1.4	79.0	0.83
Verbal aggression	1.369	1.357	2.3	70.7	1.35
Physical aggression	1.621	1.614	0.9	95.0	0.54
Mental health	1.132	1.128	0.7	49.0	0.46
Suicidal thoughts/no hope	0.032	0.031	0.2	93.4	0.14
Suicidal attempts/self-harm	0.024	0.026	-0.8	36.1	-0.48
Anger	1.560	1.559	0.1	98.4	0.07
Depression	1.247	1.242	0.9	82.2	0.57
Somatic	1.115	1.114	0.2	96.3	0.14
Thought disturbance	1.013	1.012	1.1	-335.6	0.69
Trauma experience	1.097	1.098	-0.2	93.5	-0.09
Violent abuse	0.063	0.062	0.2	96.8	0.10
Witnessed violence	0.350	0.348	0.4	86.2	0.23
Sexual abuse	0.026	0.026	0.1	97.7	0.05
Neglect	1.019	1.017	1.6	17.2	1.01
School disabled (%)	0.142	0.143	-2.9	85.4	-1.73
School free/reduced lunch (%)	0.465	0.467	-1.5	92.7	-0.88
School absent (%)	0.142	0.143	-0.4	88.5	-0.25
School teacher avg yrs exp.	12.115	12.183	-2.2	67.5	-1.33
School teacher advanced degrees (%)	0.354	0.355	-0.6	92.5	-0.39
School classes taught out-of-field (%)	0.083	0.084	-1.2	87.3	-0.69
School in-school suspensions (%)	0.185	0.186	-0.5	93.1	-0.31
School out-of-school suspensions (%)	0.147	0.146	0.5	94.1	0.28
N	7,294	21,199			

%B = percent bias; % BR = percent bias reduction

Table 11. Estimated Average Treatment of School Arrests (ATT) on Rearrest Compared to Community Arrests using Propensity Score Matching

	Treated	Controls	Difference	SE	t
<i>Rearrest for Any Reason</i>					
Unmatched	.244	.242	.002	.005	0.29
ATT	.244	.279	-.035	.007	-4.79
<i>Rearrest for a New Crime</i>					
Unmatched	.222	.221	.001	.005	0.25
ATT	.220	.253	-.033	.007	-4.70

Table 12. Logistic Estimates Predicting Whether First Arrest Occurred in School (versus in the Community)

	b	SE	95% CI	
Male	0.164***	0.031	0.104	0.224
Young	-0.366**	0.138	-0.637	-0.095
Black	0.244***	0.034	0.178	0.310
Hispanic	0.264***	0.042	0.183	0.345
Native born	0.001	0.056	-0.110	0.111
Limited English proficiency	0.087	0.075	-0.060	0.235
Free or reduced lunch eligible	0.020	0.031	-0.042	0.081
ESE disabled	0.068*	0.034	0.000	0.135
School academics	0.002	0.017	-0.031	0.034
School conduct	0.774***	0.013	0.748	0.800
Over grade age	-0.146***	0.039	-0.222	-0.070
Grade level at offense	-0.225***	0.015	-0.254	-0.197
Family problems	-0.172***	0.052	-0.275	-0.070
Parental incarceration	-0.125***	0.036	-0.196	-0.054
Sibling incarceration	-0.091	0.052	-0.193	0.012
Out-of-home placements	-0.140**	0.053	-0.244	-0.036
Runaway	-0.201***	0.028	-0.255	-0.146
Parental control	-0.424***	0.030	-0.482	-0.365
Negative peers	-0.250***	0.029	-0.308	-0.192
Past drug use	0.089	0.048	-0.005	0.182
Current drug use	-0.096*	0.047	-0.189	-0.004
Past alcohol use	0.231***	0.052	0.129	0.332
Current alcohol use	-0.318***	0.065	-0.446	-0.191
Attitude	-0.151***	0.033	-0.215	-0.087
Responsibility	0.012	0.033	-0.052	0.077
Verbal aggression	0.001	0.034	-0.065	0.068
Physical aggression	0.114***	0.023	0.069	0.159
Mental health	-0.020	0.025	-0.069	0.029
Suicidal thoughts/no hope	-0.025	0.085	-0.192	0.141
Suicidal attempts/self-harm	0.203*	0.096	0.014	0.391
Anger	-0.006	0.023	-0.052	0.040
Depression	-0.026	0.031	-0.088	0.035
Somatic	-0.195***	0.040	-0.273	-0.117
Thought disturbance	0.002	0.116	-0.226	0.229
Trauma experience	0.056	0.043	-0.028	0.140
Violent abuse	-0.105	0.064	-0.230	0.020
Witnessed violence	-0.106***	0.032	-0.170	-0.043
Sexual abuse	0.078	0.094	-0.106	0.263
Neglect	0.001	0.112	-0.219	0.221
School disabled (%)	1.886***	0.413	1.077	2.694
School free/reduced lunch (%)	-0.178	0.098	-0.370	0.015
School absent (%)	1.160	0.220	0.729	1.591
School teacher avg yrs experience	0.002**	0.005	-0.008	0.012
School teacher advanced degrees (%)	0.540	0.172	0.202	0.877
School classes taught out-of-field (%)	0.070	0.183	-0.289	0.429
School in-school suspensions (%)	-0.078	0.118	-0.309	0.154
School out-of-school suspensions (%)	0.146	0.109	-0.069	0.360

SE = standard error; 95% CI = 95 percent confidence interval; * p < .05; ** p < .01; *** p < .001

Table 13. Frequency of Last Enrollment Status and Diploma Type for First-Time Juvenile Arrestees by Arrest Location (n=94,708)

	SCHOOL ARRESTS			COMMUNITY ARRESTS			ALL ARRESTS	
	Frequency	Percent of Column Arrests	Percent of Row Arrests	Frequency	Percent of Column Arrests	Percent of Row Arrests	Frequency	Percent of All Arrests
<i>Last Enrollment Status</i>								
Graduated	15,964	48.8%	31.3%	35,024	56.5%	68.7%	50,988	53.8%
Did not graduate	2,641	8.1%	39.3%	4,075	6.6%	60.7%	6,716	7.1%
Disappeared	10,876	33.3%	38.2%	17,626	28.4%	61.8%	28,502	30.1%
Private/out-of-state	3,103	9.5%	37.6%	5,142	8.3%	62.4%	8,245	8.7%
Medical/death	102	0.3%	39.7%	155	0.3%	60.3%	247	0.3%
<i>Diploma Type for Graduated Youth</i>								
Standard HS diploma	8,884	55.7%	28.8%	21,945	62.7%	71.2%	30,829	60.5%
GED	5,393	33.8%	33.7%	10,636	30.4%	66.4%	16,029	31.4%
Special diploma	856	5.4%	44.2%	1,080	3.1%	55.8%	1,936	3.8%
Certificate of Completion	831	5.2%	37.9%	1,363	3.9%	62.1%	2,194	4.3%

Table 14. Comparison of Middle and High School First-Time Juvenile Arrest Patterns

School	Pattern	Top School Arrest Rate Quartile	Top School-to-Community Arrest Ratio Quartile	Frequency	Percent
Middle Schools (n=429)	A	No	No	272	63.4%
	B	Yes	No	46	10.7%
	C	No	Yes	49	11.4%
	D	Yes	Yes	62	14.5%
High Schools (n=338)	A	No	No	232	68.6%
	B	Yes	No	21	6.2%
	C	No	Yes	21	6.2%
	D	Yes	Yes	64	18.9%

Table 15. Comparison of Middle Schools in Top and Bottom Quartiles of School Arrest Rates and School-to-Community Arrest Ratios

	SCHOOL ARREST RATES				SCHOOL-TO-COMMUNITY ARREST RATIO				Comparison of Top Quartile Mean Columns (A & B)	Comparison of Top/Bottom Quartile Ratio Mean Columns (B & C)
	Top Quartile (n=108) Column A		Bottom Quartile (n=108)		Top Quartile (n=111) Column B		Bottom Quartile (n=109) Column C			
	Mean	SD	Mean	SD	Mean	SD	Mean	SD		
<i>School Student Demographics</i>										
Black (%)	0.32	0.24	0.16	0.15	0.24	0.23	0.24	0.22	*	
Hispanic (%)	0.16	0.17	0.26	0.25	0.20	0.25	0.18	0.18		
Disabled (%)	0.18	0.03	0.15	0.09	0.16	0.04	0.15	0.04	**	
Free/reduced lunch (%)	0.60	0.18	0.42	0.22	0.54	0.22	0.47	0.21	*	*
<i>School Student Behavior</i>										
Absent 21+ days (%)	0.15	0.09	0.09	0.06	0.12	0.08	0.11	0.06	*	*
Stability (%)	0.92	0.03	0.95	0.02	0.93	0.03	0.94	0.02	***	
In-school suspension (%)	0.23	0.13	0.15	0.11	0.21	0.12	0.15	0.11		***
Out-of-school suspension (%)	0.21	0.11	0.11	0.07	0.16	0.10	0.15	0.09	**	
Alt. place./expulsions rate (per 1,000)	1.40	4.04	0.20	0.65	0.89	2.80	0.70	2.74		
School crime rate	0.10	0.08	0.06	0.05	0.08	0.07	0.07	0.08	*	
<i>School Academics</i>										
'A' FCAT grade (yes=1, no=0)	0.15	0.36	0.58	0.50	0.30	0.46	0.47	0.50	**	**
<i>School Teacher and Staff Information</i>										
Teachers avg yrs experience	11.29	3.24	12.30	2.98	11.78	3.05	12.08	2.76		
Teachers with advanced degrees (%)	0.30	0.10	0.34	0.08	0.34	0.10	0.32	0.09	**	
Classes taught out-of-field (%)	0.09	0.08	0.04	0.05	0.07	0.08	0.05	0.07	*	
Staff-to-student ratio	0.10	0.02	0.09	0.02	0.09	0.02	0.09	0.02	*	
<i>School Characteristics</i>										
Size (per 1,000)	0.98	0.30	1.29	0.41	1.09	0.38	1.17	0.39	*	
Per-pupil reg. expenditures (per \$1K)	4.94	0.77	4.82	0.57	4.90	0.79	4.94	0.68		
<i>District Student Demographics</i>										
Black (%)	0.25	0.13	0.22	0.10	0.22	0.12	0.23	0.11		
Hispanic (%)	0.16	0.13	0.25	0.19	0.20	0.19	0.19	0.15	*	

* p < .05; ** p < .01; *** p < .001

Table 15 continued. Comparison of Middle Schools in Top and Bottom Quartiles of School Arrest Rates and School-to-Community Arrest Ratios

	SCHOOL ARREST RATES				SCHOOL-TO-COMMUNITY ARREST RATIO				Comparison of Top Quartile Mean Columns (A & B)	Comparison of Top/Bottom Quartile Ratio Mean Columns (B & C)
	Top Quartile (n=108) Column A		Bottom Quartile (n=108)		Top Quartile (n=111) Column B		Bottom Quartile (n=109) Column C			
	Mean	SD	Mean	SD	Mean	SD	Mean	SD		
<i>District Academics</i>										
'A' FCAT grade (yes=1, no=0)	0.09	0.29	0.33	0.47	0.14	0.34	0.39	0.49		***
Graduation rate	0.58	0.06	0.60	0.06	0.59	0.06	0.60	0.06		
<i>District Characteristics</i>										
Size (per 1,000)	93.44	82.04	161.63	122.42	118.54	121.05	127.34	102.85		
Per-pupil reg. expenditures (per \$1K)	5.00	0.35	5.26	0.37	5.11	0.46	5.18	0.39		

* p < .05; ** p < .01; *** p < .001

Table 16. Comparison of High Schools in the Top and Bottom Quartiles of School Arrest Rates and School-to-Community Arrest Ratios

	SCHOOL ARREST RATES				SCHOOL-TO-COMMUNITY ARREST RATIO				Comparison of Top Quartile Mean Columns (A & B)	Comparison of Top/Bottom Quartile Ratio Mean Columns (B & C)
	Top Quartile (n=85) Column A		Bottom Quartile (n=85)		Top Quartile (n=85) Column B		Bottom Quartile (n=91) Column C			
	Mean	SD	Mean	SD	Mean	SD	Mean	SD		
<i>School Student Demographics</i>										
Black (%)	0.27	0.23	0.19	0.20	0.27	0.24	0.20	0.20		
Hispanic (%)	0.12	0.12	0.25	0.27	0.12	0.15	0.18	0.19		*
Disabled (%)	0.16	0.04	0.12	0.04	0.15	0.05	0.13	0.04		***
Free/reduced lunch (%)	0.43	0.16	0.34	0.20	0.42	0.17	0.33	0.19		**
<i>School Student Behavior</i>										
Absent 21+ days (%)	0.16	0.09	0.13	0.08	0.16	0.09	0.14	0.08		
Stability (%)	0.91	0.03	0.92	0.03	0.91	0.03	0.92	0.03		**
In-school suspension (%)	0.18	0.14	0.14	0.11	0.18	0.13	0.16	0.13		
Out-of-school suspension (%)	0.15	0.08	0.11	0.05	0.15	0.08	0.12	0.07		*
Alt. place./expulsions rate (per 1,000)	1.02	1.92	0.21	0.80	1.58	3.22	0.34	0.94		***
School crime rate	0.07	0.04	0.05	0.04	0.07	0.04	0.05	0.04		***
Dropout (%)	0.04	0.02	0.02	0.02	0.03	0.03	0.02	0.02		**
Grads continuing education (%)	0.53	0.09	0.61	0.09	0.54	0.09	0.59	0.10		**
<i>School Academics</i>										
'A' FCAT grade (yes=1, no=0)	0.05	0.21	0.22	0.42	0.09	0.29	0.22	0.42		*
Graduation rate	0.71	0.13	0.74	0.15	0.73	0.14	0.75	0.14		
SAT test takers (%)	0.36	0.19	0.52	0.23	0.35	0.20	0.50	0.22		***
ACT test takers (%)	0.37	0.14	0.35	0.15	0.39	0.14	0.36	0.13		
<i>School Teacher and Staff Information</i>										
Teachers avg yrs experience	12.53	3.19	13.62	2.66	12.76	3.35	13.80	2.86		*
Teachers with advanced degrees (%)	0.36	0.09	0.40	0.09	0.36	0.09	0.38	0.09		
Classes taught out-of-field (%)	0.08	0.09	0.03	0.04	0.08	0.09	0.04	0.05		***
Staff-to-student ratio	0.09	0.02	0.08	0.02	0.09	0.02	0.08	0.02		**
<i>School Characteristics</i>										
Size (per 1,000)	1.57	0.71	2.25	1.08	1.51	0.74	2.04	0.91		***
Per-pupil reg. expenditures (per \$1K)	5.38	1.00	5.24	0.85	5.45	1.16	5.29	0.82		

* p < .05; ** p < .01; *** p < .001

Table 16 continued. Comparison of High Schools in the Top and Bottom Quartiles of School Arrest Rates and School-to-Community Arrest Ratios

	SCHOOL ARREST RATES				SCHOOL-TO-COMMUNITY ARREST RATIO				Comparison of Top Quartile Mean Columns (A & B)	Comparison of Top/Bottom Quartile Ratio Mean Columns (B & C)
	Top Quartile (n=85) Column A		Bottom Quartile (n=85)		Top Quartile (n=85) Column B		Bottom Quartile (n=91) Column C			
	Mean	SD	Mean	SD	Mean	SD	Mean	SD		
<i>District Student Demographics</i>										
Black (%)	0.23	0.12	0.23	0.10	0.23	0.13	0.21	0.11		
Hispanic (%)	0.13	0.13	0.25	0.21	0.14	0.15	0.19	0.16		*
<i>District Academics</i>										
'A' FCAT grade (yes=1, no=0)	0.12	0.32	0.35	0.48	0.13	0.34	0.35	0.48		***
Graduation rate	0.58	0.05	0.60	0.06	0.58	0.06	0.61	0.07		***
<i>District Characteristics</i>										
Size (per 1,000)	72.09	80.29	166.26	132.84	71.45	92.86	119.93	109.44		**
Per-pupil reg. expenditures (per \$1K)	5.10	0.48	5.34	0.44	5.12	0.50	5.26	0.48		

* p < .05; ** p < .01; *** p < .001