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Effects of Juvenile Arrest on Immediate College Enrollment: The Role of Race/Ethnicity and Parental Education

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ABSTRACT

Youth with juvenile arrest records face significant barriers to higher education, yet their experiences remain underexamined in college access research. Guided by Sampson and Laub's life course theory of cumulative disadvantage and Perna's model of college choice, this study investigates how juvenile arrests affect immediate enrollment in 2-year and 4-year colleges among Black, Latine, and white youth. Using data from the National Longitudinal Survey of Youth 1997 (NLSY:97) and logistic regression analysis, findings reveal that arrests significantly hinder college enrollment, with effects moderated by race/ethnicity and mediated by parental education. A significant interaction indicates that Latine youth with arrest records are disproportionately less likely to enroll in 4-year colleges compared to their white peers. Additionally, racial/ethnic disparities in 4-year enrollment are substantially mediated by parents' educational attainment, with parental education fully offsetting the impact of arrest for Black youth. These findings highlight how juvenile legal involvement contributes to cumulative racialized disadvantage and signal the need for targeted policy and institutional reforms.

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Young people who have been involved with the criminal legal system are among the nation's most disenfranchised student groups in the United States, who face significant barriers to accessing higher education (Couloute, 2018). These young people contend with challenges that can derail their path to college — from social stigma, interrupted schooling, criminal history questions in college admissions, and limited federal financial aid access (Copenhaver et al., 2007; Custer, 2018). Addressing these barriers is not just a matter of individual opportunity, though policymakers often frame it that way, but rather a critical issue for advancing social and economic equity, particularly given the stark racial disparities in criminal legal system involvement (Johnson et al., 2021).

Consider that in 2020 alone, law enforcement agencies made an estimated 420,000 arrests of individuals under the age of 18 (Office of Juvenile Justice and Delinquency Prevention, 2022). While juvenile arrests have declined sharply — a 71% decrease since 2011—Black youth are still more than twice

as likely to be arrested as their white peers, and Latine youth face incarceration rates 16% higher than white youth (Office of Juvenile Justice and Delinquency Prevention, 2022; Rovner, 2023). These disparities reflect broader patterns of systemic racism that characterize social and economic systems in the U.S (Alexander, 2012).

Among the most prominent efforts to address these barriers is the “Ban the Box” (BTB) initiative, which urged institutions to remove criminal history questions from college admissions applications (Scott-Clayton, 2017). This movement gained significant traction when the Common Application eliminated its criminal history question in the 2019–20 application cycle, impacting over 1,000 member institutions (Steele, 2020). Research underscores the importance of such reforms, indicating that college applicants with felony convictions are rejected at 2.5 times the rate of those without records, with Black applicants experiencing the greatest disparities (Stewart & Uggen, 2020). However, while important, BTB reforms alone are insufficient. Young people with criminal records face a host of systemic challenges, including social stigma, informational gaps in college-going knowledge, and limited access to supportive resources, which reduce equitable access to higher education (Huerta et al., 2023; Johnson & Abreu, 2019).

Although there are well-documented links between juvenile arrests and negative educational outcomes, such as high school dropout (Bernburg & Krohn, 2003; Hirschfield, 2009), these findings do not fully explain how criminal legal involvement impacts postsecondary enrollment — an area that remains significantly under-examined. This gap in the literature is particularly significant given estimates that only 10% of students with arrest records graduate from high school (Hjalmarsson, 2008). Moreover, existing studies rarely explore how factors like parental educational attainment — a known predictor of college enrollment (Perna, 2006) — interact with criminal legal involvement or how race and ethnicity moderate these relationships.

This study addresses these gaps by drawing on Sampson and Laub’s (1997) life course theory of cumulative disadvantage (LCTCD) and Perna’s (2006) college choice model. LCTCD provides a framework for understanding how early-life disruptions, such as juvenile arrests, create cascading disadvantages that shape long-term trajectories (Sampson & Laub, 1997). Perna’s model complements this perspective by emphasizing the interplay of individual, familial, and structural factors in college decision-making, particularly for students from marginalized backgrounds (Perna, 2006).

By focusing on the critical transition between high school and college, this study examines how juvenile arrests influence immediate enrollment in 2-year and 4-year colleges among Black, Latine, and white youth. In doing so, this research highlights the systemic barriers that students with criminal records face and informs policies and practices that promote inclusive and equitable access to higher education. The following research questions guide this study:

- (1) Is there a significant relationship between juvenile arrests and immediate 2-year and 4-year college enrollment?
 - (a) Does this relationship vary by race/ethnicity?
- (2) Does the number of juvenile arrests predict immediate 2-year and 4-year college enrollment?
 - (a) Is this relationship moderated by race/ethnicity?
- (3) Does parents' level of education mediate the relationship between race/ethnicity and 4-year college enrollment for students with arrest records?

In the following section, we review relevant literature, synthesizing research on college access barriers for Black and Latine youth and what is known from research about the relationship between early contacts with the criminal legal system and postsecondary education outcomes. Next, we outline our conceptual framework, which guided our analysis. Following this, we describe our dataset and methodological approach and present the results of our study. We conclude with a discussion of our findings and their implications for future research and policy.

Review of literature

Barriers to college access for Black and Latine youth

Black and Latine youth encounter significant challenges and barriers that reduce their likelihood of college enrollment (Hurtado et al., 1997; Johnson, 2021). While data point to substantial college enrollment gains among these groups over the past 45 years, only about 36% of Black and 33% of Latine youth ages 18 to 24 were enrolled in college in 2020, compared to 41% of their white peers (National Center for Education Statistics, 2024). These disparities are shaped by systemic inequities, including economic and informational barriers (Charles et al., 2007), resource disparities in schools (Klugman, 2012), and racialized profiling that too often results in exclusionary and punitive disciplinary practices (Welch & Payne, 2018). Such practices increase the risk of contact with the criminal legal system.

Studies have consistently shown that Black and Latine youth are disproportionately concentrated in underfunded schools located in low-income neighborhoods (Morgan, 2022). These schools frequently lack advanced math and science coursework, adequate counseling services, effective teachers, and other resources that are important for preparing students for college (Dynarski et al., 2023). Without these supports, students are less likely to graduate high school college-ready (Conley, 2008). Informational barriers also hinder college-going decision-making, as many Black and Latine families lack access to sufficient guidance on the admissions and financial aid processes (Knight & Marciano, 2015). Concerns about paying for college create an additional barrier, with rising

tuition costs disproportionately affecting students from low-income and racially minoritized backgrounds (Goldrick-Rab, 2016).

Disciplinary disparities in school, often engaged in racialized profiling within schools, negatively affect Black and Latine youth, resulting in disproportionate suspensions, expulsions, and referrals to law enforcement. These disciplinary actions, often supported by zero-tolerance policies, disrupt students' academic trajectories and create pathways to criminal legal involvement (Allen & Noguera, 2023; Johnson & Davis, 2021; Shedd, 2015). Scholars have previously used the “school-to-prison pipeline” (STPP) metaphor to describe this phenomenon, highlighting how punitive disciplinary systems divert racially minoritized youth, particularly Black and Latine youth, away from education and toward the criminal legal system (Wald & Losen, 2003). However, scholars have increasingly critiqued the linearity of the (STTP) metaphor and argued that a “school-prison nexus” better captures the bi-directional relationship between educational and carceral institutions — where schools not only serve as sites of criminalization but are also shaped by carceral logics, practices, and partnerships that reinforce racialized surveillance, punishment, and exclusion (Johnson & Davis, 2021; Johnson & Dizon, 2021; Meiners, 2011). These institutional forces not only undermine students' academic engagement but also entrench systemic inequities, increasing the likelihood of legal system contact and foreclosing future educational opportunities.

Early encounters with the criminal legal system, such as juvenile arrests, often mark a turning point in the educational pathways of racially minoritized youth — compounding risk factors for school pushout and constraining access to higher education. In the next section, we synthesize existing research on this relationship, with particular attention to how early legal involvement shapes postsecondary enrollment patterns.

Relationship between juvenile arrest and college enrollment

A small but growing body of research explores the relationship between early contact with the criminal legal system and educational outcomes, though studies specifically examining college enrollment for students with criminal records remain limited. The weight of empirical evidence consistently points to a negative association between juvenile arrest and 4-year college enrollment, with findings highlighting disparities across racial and ethnic groups and variations in the mechanisms contributing to these outcomes (Johnson, 2015; Kirk & Sampson, 2013; Makarios et al., 2017; Widdowson et al., 2016).

One consistent finding across studies is the detrimental effect of juvenile arrest on 4-year college enrollment. Kirk and Sampson (2013) used propensity score matching to study the impact of juvenile arrest on 2-year and 4-year college enrollment among youth with high school

diplomas or GED certificates. Their findings, based on data from the Project on Human Development in Chicago Neighborhoods Longitudinal Cohort Study, revealed that youth with arrest records were 50% less likely to enroll in a 4-year university by ages 21 to 24 compared to their peers without arrest histories. Widdowson et al. (2016) found similar results using data from the National Longitudinal Study of Youth (NLSY:97), showing that youth with arrest records were 42% less likely to immediately enter 4-year colleges than those without records. Even a decade after high school, youth with arrest records remained less likely to have enrolled in 4-year colleges (41%) compared to their peers without arrest histories (50%).

Makarios et al. (2017) further extended these findings by examining the frequency of juvenile arrests. Using a logistic regression model, they found that each additional arrest decreased the likelihood of college enrollment by 33%. Johnson (2015), focusing on a subsample of Black male youth, revealed even starker disparities: only 2% of Black male youth with arrest records were enrolled in 4-year colleges, and their odds of enrolling were 79% lower than their peers without arrest records.

Despite the consistent evidence of a negative relationship between juvenile arrest and college enrollment, gaps remain in understanding how these effects vary by race and ethnicity. While most studies include race and ethnicity as a control variable, few explicitly analyze interactions to determine whether the consequences of justice involvement differ across groups. This omission is particularly striking given the well-documented disparities in involvement in the criminal legal system for Black and Latine youth (Puzzanchera, 2021).

Parental education also plays a potentially critical, yet underexplored, role in mediating the relationship between juvenile arrest and college enrollment. Parents with higher levels of education likely have greater access to resources and social networks (N. Lin, 1999) that may help reduce the challenges associated with justice involvement in college enrollment (Perna, 2006). Conversely, youth whose parents lack these resources may experience more pronounced barriers to college access and enrollment. Understanding the extent to which parental education moderates these outcomes is essential for addressing inequities in postsecondary pathways.

Finally, the timing of enrollment remains an important, yet understudied, factor. Only Widdowson et al. (2016) explicitly examined immediate 4-year college enrollment following high school, a pivotal transition point. Delayed enrollment is strongly associated with lower odds of eventual college attendance, particularly at 4-year institutions (Y. Lin & Liu, 2019). These findings underscore the need to better understand how juvenile arrest affects immediate enrollment and whether these effects vary across racial and ethnic groups. The current study addresses these limitations in existing research.

Theoretical framework

Given the purpose of this study, we brought together two distinct but complementary frameworks—Perna’s (2006) college choice model and Sampson and Laub’s (1997) life course theory of cumulative disadvantage (LCTCD) — as a lens to analyze how juvenile arrests shape immediate college enrollment.

Perna’s choice model

Perna’s (2006) college choice model combines perspectives from sociology and economics, arguing that an individual’s assessment of the costs and benefits of college enrollment is shaped by four contextual layers: (a) the individual’s habitus, (b) school and community context, (c) the higher education context, and (d) the broader social, economic, and policy context). Given the focus of our analysis, the habitus and school/community contexts are most pertinent.

The first contextual layer, habitus, encompasses demographic characteristics such as race/ethnicity, gender, and parental education, as well as social and cultural capital (Perna, 2006). For instance, higher levels of parental education are associated with increased college aspirations, improved academic performance, and reduced dropout rates (Perna, 2000; Zick et al., 2001). In this study, parental education serves as a mediating variable, capturing its role in mitigating the cumulative effects of justice involvement.

The second layer, school and community context, is informed by McDonough’s (1997) “organizational habitus” concept, which emphasizes the role of social structures and resources in college student choice. For instance, the nature and availability of resources within a student’s school or community can impact their college knowledge (Conley, 2008), referring to one’s awareness of the steps (e.g., requisite courses and exams, college application process, and seeking financial aid) necessary for graduating “college-ready.” Access to such information and resources may vary significantly by the geographic location of the school and type (e.g., public vs. private).

Life course theory of cumulative disadvantage

Life Course Theory of Cumulative Disadvantage (LCTCD) complements Perna’s model by focusing on the cascading effects of juvenile arrests as negative turning points in life trajectories. Drawing from labeling theory (Becker, 1963; Lemert, 1951) and social control theory (Hirschi, 1969), LCTCD posits that a juvenile arrest can operate as a negative turning point in one’s life course and lead to a series of detachment processes. In other words, “delinquent behavior has a systematic and attenuating effect on the social and institutional bonds linking adults to society” (Sampson & Laub, 1997, p. 12). For instance, if one is rejected by their “prosocial”

peers, they might disengage from school and/or turn to similarly labeled peers, which can lead to additional delinquency-related issues. Likewise, how teachers and school personnel respond to and subsequently engage with students following an experience with the criminal punishment system can weaken their school bonds, reify a deviant identity, and negatively impact their academic performance (e.g., Hoffmann et al., 2013; Siennick & Staff, 2008). Kirk and Sampson (2013) aptly note, “To the extent that the arrest of a student signals to teachers the difference between ‘normal’ delinquency and serious misconduct, it may trigger adverse reactions from school staff members and further [alienate them] from school, in turn leading to high school dropout through the weakening of social bonds” (p. 39).

Another way in which an arrest can derail college-going and preparation for students is through zero-tolerance disciplinary school policies as described earlier. Scholars have written extensively about the role that such policies have played in the development of “school-to-prison pipeline” (Skiba et al., 2014). Black students are disproportionately represented among those suspended, expelled, and arrested at school (American Civil Liberties Union, 2020). Time spent away from school due to these infractions can weaken a student’s relationships with their teachers, staff, and peers, and subsequently to their school. It may also exacerbate inequities in academic performance, as some students may fall behind in their courses or may be excluded from otherwise prosocial extracurricular activities (Widdowson et al., 2016).

Taken together, Perna’s (2006) model and LCTCD (Sampson & Laub, 1997) provide a firm theoretical foundation for examining how a juvenile arrest can influence immediate college enrollment. Perna’s framework emphasizes the structural and contextual factors shaping college choice (Perna, 2006), while LCTCD highlights the cumulative effects of juvenile arrests on one’s life and educational trajectory (Sampson & Laub, 1997).

Perna’s focus on habitus and school/community contexts guided the inclusion of variables like parental education and school-level supports, while LCTCD informed the examination of justice involvement as a key independent variable and its interaction with race/ethnicity. This integrated approach allows us to capture both the structural barriers and the compounding effects of systemic inequities in shaping college enrollment outcomes.

Methods

Research design

We conducted a secondary data analysis of publicly available data from the National Longitudinal Study of Youth (NLSY:97). This approach provided us with access to data from a large, national sample that would otherwise be

difficult for us alone to collect (Kiecolt & Nathan, 1985). In the following sections, we will describe the data, key measures, and several analysis procedures.

Data source

NLSY:97 collects extensive information about delinquent behavior, educational experiences, as well as their family and community background. It is administered by the Bureau of Labor Statistics and was designed to be a nationally representative sample of the civilian, non-institutional population of youth in the U.S. between the ages of 12 and 16 as of December 31, 1996 (Moore et al., 2000). The NLSY:97 cohort ($N = 8,984$) comprises two probability-based household samples: (a) a cross-sectional sample of 6,748 respondents and (b) a supplemental sample of 2,236 Black and Latine youths. Between 1997 and 2011, data were collected annually and biannually starting in 2013. To date, 20 waves of data are available, with a retention rate of 75% (National Longitudinal Surveys, 2025).

Analytic sample

The analytic sample was constructed by drawing on publicly available data from 1997 (Round 1) to 2004 (Round 8). Given the objectives of the study, we imposed several restrictions on our analytic samples to estimate the variables of interest. First, we limited the sample to youth who identified as Black, Latine, and white, dropping all other cases ($N = 8,901$)¹. Among these youth, we further narrowed the sample to those who reported earning a high school diploma ($N = 6,610$). Youth who earned General Educational Development (GED) were excluded, as research suggests that their educational performance and labor market outcomes tend to resemble those of high-school dropouts (Murnane et al., 1999; Widdowson et al., 2016). We also excluded respondents who obtained their high school diploma before the age of 18 or after the age of 20 so as to focus on traditional-aged students. This resulted in the removal of 390 observations. Respondents whose parents did not provide information about their educational attainment were also excluded, as we were interested in examining this variable as a potential moderator ($N = 6,220$). Finally, we only included respondents with complete residential information, as the geography of one's neighborhood plays a critical role in their access to educational opportunities (Koricich et al., 2018). As a result, 169 observations were lost. The final analytic sample consisted of 6,051 observations, including Black, Latine, and white youth.

In our analytic sample, 13% experienced at least one missing value in both independent and control variables, with missing values observed across three variables: levels of parents' education, parents' income, and

high school grades. Since the probability of missing observations is contingent on other independent and control variables in the regression, it implies that observations are missing at random. If data are missing at random, using an analytic sample without multiple imputations may result in a biased estimator (Royston, 2004; Royston & White, 2011). In addition, the complex sampling design of NLSY:97 may influence both the computation of the point estimates and the standard errors of regression estimates. To account for NLSY:97's complex survey design, we employed multiple imputations using chained equations with sampling weights. This allows us to mitigate the potential effect of missing data and appropriately address the complexities embedded in the data collection process (StataCorp, 2013, 2019)². Our imputation models incorporated only independent and control covariates, with 20 imputed datasets.³

Measures

Dependent variable

Drawing on data from Rounds 1 (1997) through 8 (2004), our study focused on the dependent variable of immediate enrollment in 2-year and 4-year colleges and universities. By “immediate” we are referring to youth who enrolled at a college and university directly following their high school graduation (within 1 year). Following past studies (Johnson, 2015), we also limited our analysis to individuals within the traditional college-going age range.

The original variable was based on a question asking respondents to indicate their college enrollment status using a 4-point scale: (1) not enrolled in college, (2) enrolled in a 2-year college, (3) enrolled in a 4-year college, and (4) enrolled in a graduate program. To align with our research questions, we recoded this variable by excluding graduate programs. The new variable was coded: 0 (not enrolled), 1 (enrolled at 2-year college), and 2 (enrolled at 4-year college). The coding of this variable is consistent with previous research (Kim et al., 2015).

Independent variables

The primary independent variable, which was derived from rounds 1–8 of the larger data set, measured whether a student in our sample had been arrested before graduating from high school. To construct this variable, we merged the student arrest data, which is collected on a month-by-month basis in each wave, with the annual school year calendar data (August to July). Subsequently, we examined the respondents' high school graduation year to create the arrest-related variables that only account for arrest history before college enrollment. For instance, if a student earned their high school diploma

in May 2000, the arrest variable reflected whether they were arrested until July 2000. Finally, we created a continuous variable indicating the number of times the youth had been arrested before completing their high school diploma.

To examine the moderating effects between arrest and race/ethnicity in predicting 2-year and 4-year immediate college enrollment, we created two interaction variables between the number of arrests and racial/ethnic groups (i.e., Black and Latine). As a mediating variable, we included parents' level of education, serving as a useful proxy of social and cultural capital (Perna, 2006), which could possibly buffer or mitigate the impact of an arrest on college enrollment. As recommended by methodologists (Thomas & Heck, 2001), we also tested for multicollinearity.⁴

The Variance Inflation Factors (VIFs) for our independent variables, excluding the interaction term, were all below 1.60. Although the VIFs for the interaction variable are around 10, the literature suggests that the VIFs for interaction terms may not be a severe concern (Allison, 2012). This indicated multicollinearity was not a concern.

Control variables

We also included another set of independent variables as controls in our analysis, namely: (a) high school grades, (b) parent's education level, (c) family income level, (d) biological sex, (e) prior delinquency, (f) racial/ethnic groups, and (g) urbanicity. The selection and conceptualization of these variables were informed by insights from prior research (Koricich et al., 2018; McLeod & Kaiser, 2004; Perna, 2006; Siennick & Staff, 2008).

First, high school grades were measured on an eight-point scale: 1 (mostly below Ds), 2 (mostly Ds), 3 (about half Cs and half Ds), 4 (mostly Cs), 5 (about half Bs and half Cs), 6 (mostly Bs), 7 (about half As and Bs), and 8 (mostly As). For parents' education level, it ranged from 1 (1st grade) to 20 (8th year of college or more). By comparing the number of years of education completed by a respondent's mother and father, we created a continuous variable by selecting the parent with the highest level of education (Byun et al., 2014). Family income was assessed using data from waves 1–6 (1997–2002) of the survey. Specifically, we computed inflation-adjusted annual income (based-year = 1997) for the respondent's family and used the average income. This approach was preferred over using income at a certain year, as longitudinal income measures have been found to be a more robust predictor of youth education outcomes, compared to single-year measures (Byun et al., 2014). Finally, we applied the natural logarithm to the average of parents' income.

Biological sex was also included as a control variable using a dichotomous measure: (0 = female; 1 = male). We acknowledge, however, the problematic nature of such a variable and the ways in which large surveys like NLSY conflate gender with sex. However, there are no gender

variables included in the survey. In our analysis, we used dummy-coded variables for Black and Latine, with white serving as the reference group. To capture prior experience with delinquency, we used an established index within NLSY:97. This composite variable was derived from 10 existing self-reported items associated with delinquent acts, ranging from 0 (no delinquent acts) to 10 (many delinquent acts). Lastly, geography may play a pivotal role in accessing college (Hirschl & Smith, 2020). We added urbanicity as a regional-level control variable, which indicated whether a youth lived in an urban or rural area at the age of 17.

Limitations

Prior to presenting our study results, it is important to consider several limitations when interpreting the results. First, we only included our sample of those who obtained a high school diploma, thus dropping high school dropouts and GED recipients. While our decision is well supported by prior research (Murnane et al., 1999; Widdowson et al., 2016) that highlights the distinct educational and labor outcomes of high school graduates in comparison to dropouts or GED recipients, it is important to acknowledge that our results do not generalize to all youth with arrest histories.

Second, like other large-scale secondary data analyses, missing data was a challenge in our study. For example, variables such as family income, high school grade, and levels of parents' education had the largest proportion of missing data. Roughly 13% of our respondents had at least one missing value for the control variables. To address this problem, we employed multiple imputations, which generate multiple sets of plausible values for observations of missing variables to alleviate the effect of missing data (Hirschl & Smith, 2020). To check the robustness, we ran several regressions, both with and without multiple imputations. Our results remained consistent across each model. Still, it is important to acknowledge the potential for bias introduced by the imputation procedures.

Third, it is critical to acknowledge that laws and policies affecting the criminal punishment system can vary significantly across different states. However, the public version of NLSY:97 does not include any state-level variables that could serve as a control. Instead, we used urbanicity as a control, as research suggests that crime rates are significantly higher in urban areas versus rural ones (Koricich et al., 2018). While the inclusion of a state-level variable would have enhanced our analysis, it was not possible in the current dataset.

Finally, we limited our analysis to immediate enrollment at 2-year and 4-year colleges. We acknowledge, however, that this may not be consistent with the educational trajectories of some youth involved with the criminal legal system. For instance, some youth with criminal records, especially

those from economically disadvantaged backgrounds, may opt for employment immediately following high school graduation (Sweeten, 2006). However, the current study was primarily concerned with one's immediate enrollment.

Analyses

Data were analyzed in three phases. In the first phase, we utilized descriptive statistics to gain a better understanding of our sample (see Tables 1 and 2). Specifically, we computed frequencies, means, and standard deviations for each variable in our analysis. In the next phase, to answer our first research question, we conducted a Pearson Chi-square test, which allowed us to

Table 1. Unweighted descriptive statistics.

Variable	All Students <i>N</i> = 6,051	Arrested Students <i>N</i> = 838	Non-Arrested Students <i>N</i> = 5,213	Description
Immediate College/University Enrollment				
None	38.3%	57.1%	36.0%	1 if never attended a post-secondary institution, 0 otherwise
2-year institutions	24.7%	23.1%	24.9%	1 if ever attended 2-year institution, 0 otherwise
4-year institutions	37.0%	19.8%	39.1%	1 if ever attended 4-year institution, 0 otherwise
Race				
Black	23.3%	23.7%	23.2%	1 if Black, 0 otherwise
Latine	19.4%	18.5%	19.5%	1 if Latine, 0 otherwise
White	57.3%	57.8%	57.3%	1 if White, 0 otherwise
Parental Education	13.7	13.6	13.7	Levels of parental education ranging from one year to twenty years
Family Income	\$55,229	\$52,424	\$55,571	Inflation-adjusted average family income between 1997 and 2002 (Base year: 1997)
High School Grade	5.99	5.39	6.06	High school grades measuring on an eight-point scale: 1 to 8
Delinquency Index	0.84	2.34	0.65	$0 \leq \text{delinquency index} \leq 10$
Male	48.0%	67.3%	45.7%	1 if male, 0 if female
Type of High School				
Private School	7.7%	6.0%	7.9%	1 if attended private school at the age of 17, 0 otherwise
Public School	89.4%	90.4%	89.3%	1 if attended public school at the age of 17, 0 otherwise
Other Schools	2.9%	3.6%	2.8%	1 if attended other types of school at the age of 17, 0 otherwise
Living in Urban	74.1%	79.9%	73.4%	1 if living in urban at the age of 17, 0 otherwise

Table 2. Descriptive statistics for college enrollment for students with juvenile arrests by racial groups.

		University Enrollment		
		Black	Latine	white
Arrest	No Enrollment	121 (59.0%)	102 (68.0%)	250 (51.8%)
	2-year college	47 (22.9%)	33 (22.0%)	98 (20.3%)
	4-year college	37 (18.1%)	15 (10.0%)	135 (27.9%)
		205 (100%)	150 (100%)	483 (100%)

$\chi^2(4) = 24.92, p < 0.001$. Numbers in parentheses indicate column percentages.

examine significant differences in 2-year and 4-year college enrollment among youth with arrest records based on their racial/ethnic groups. Post hoc comparisons were conducted using the Scheffe test to further examine which racial/ethnic group(s) varied substantially from each other in college enrollment.

To assess the relationship between early contact with the criminal legal system and immediate enrollment at a 2-year and 4-year college or university, we conducted multi-nominal logistic regression analyses.⁵ Following Kim et al. (2015), this approach may be preferable over the separate binary-logistic regression analyses for each post-secondary institution type, as it enables us to conduct analyses of enrollment at both types of institutions (i.e., 2-year and 4-year universities). The multi-nominal logistic regression model is expressed as follows (Kim et al., 2015):

$$\ln \frac{pr(Y_i = m|x)}{pr(Y_i = b|x)} = \alpha_{m|b} + \beta_{m|b}X_i + \gamma_{m|b}Z_i + \varepsilon \text{ form } = 1 \text{ to } i$$

where m indexes the $i = 3$ outcome categories for the status of college enrollment; $pr(Y_i = b|x)$ is the probability that student i will choose the reference category (i.e., not attending any post-secondary institution right after completing high school); $pr(Y_i = m|x)$ denotes the likelihood of attending one of the post-secondary institutions (i.e., enrollment at a 2-year or 4-year college/university). The vector X_i represents the number of arrests before completing high school. The vector Z_i denotes a set of individual and family characteristics, including family income, race, urbanicity, gender, attending private school, and high school grade.

Results

Descriptive statistics

Presented in Table 1 are the unweighted descriptive statistics for each variable included in our analysis. Within the analytic sample ($N = 6,051$), white, Black, and Latine youth represent 57.3%, 23.3%, and 19.4% of the sample, respectively. Recall that NLSY:97 includes a supplementary sample that oversamples for Black and Latine youth, which explains their relatively larger representation in our sample in comparison to their actual representation in the population. Approximately 13.9% ($= 838/6,051$) of youth in our sample reported being arrested before entering college. Among those with arrest records, Black, Latine, and white youth represented 23.7%, 18.5%, and 57.8%, respectively.⁶ Enrollments in a 2-year and 4-year college/university were reported by roughly 24.7% and 37% of the respondents in the sample, respectively, with variations observed among racial/ethnic groups. Among youth with arrest

records, 19.8% immediately enrolled at 4-year institutions compared to about 23.1% for those with arrest histories.

The average year of parental education is 13.7, while the annual average family income is \$55,229 (1997 constant dollars). Among 8 scales of high school grades, the average high school grade is 5.99. The average high school grades for non-arrested students ($= 6.06$) are higher than those for arrested students ($= 5.39$). Most of the youth in the sample attended public school (89.4%), in comparison to private (7.7%) or other types of schools (e.g., vocational and home school; 2.9%). At the age of 17, 74.1% of respondents resided in an urban area, and 48% of the sample identified as male.

Research question one: examining the relationship between race/ethnicity and immediate college enrollment for students with juvenile arrest histories

To test the relationship between race/ethnicity and college enrollment (i.e., 2-year or 4-year college) among youth with juvenile arrest records, a Pearson Chi-square test was conducted. The results indicate significant differences in the expected and observed frequencies of 2-year and 4-year college enrollment for youth with juvenile arrest records by race/ethnicity: $\chi^2(N = 838, df = 4) = 24.92, p < .01$. In other words, 2-year and 4-year college enrollment among youth with juvenile arrest records varied significantly by race/ethnicity.

Follow-up post hoc comparisons using the Scheffe test revealed that white youth with juvenile arrest records were significantly more likely to enroll at a 4-year college than Black ($\Delta M = 0.12, SE = 0.04, p < .01$) and Latine peers ($\Delta M = 0.22, SE = 0.04, p < .01$) when compared to no college enrollment. Conversely, no significant differences were found in 2-year college enrollment between white youth and their Black ($\Delta M = 0.01, SE = 0.04, p = .96$) or Latine counterparts ($\Delta M = 0.04, SE = 0.05, p = .41$).

Research question two: exploring the relationship between the number of juvenile arrests and immediate college enrollment, as moderated by race/ethnicity

The second research question was addressed using a multi-nominal logistic regression due to the nature of the dependent variable and our intention to control for confounding variables. Presented in [Table 3](#) is an overview of our results across each model. With multiple-imputation estimates of weighted multi-nominal logistic regression, our F-statistic ($F = 29.34, p < .001$) indicates that immediate college enrollment was significantly associated with the combination of factors in the model (Model 3) (Meng & Rubin, 1992; StataCorp, 2019).

Results from our first model, which included only our primary independent variable, indicate a negative and statistically significant relationship between

Table 3. Weighted multi-nominal logit model of 2-year and 4-year college enrollment: Arrest; NLSY 1997–2004.

	Model 1		Model 2		Model 3	
	2-year	4-year	2-year	4-year	2-year	4-year
The Number of Arrest	OR (SE) 0.78*** (0.05)	OR (SE) 0.58*** (0.04)	OR (SE) 0.83** (0.05)	OR (SE) 0.76*** (0.05)	OR (SE) 0.84* (0.06)	OR (SE) 0.81** (0.06)
Black			0.76** (0.08)	1.13 (0.12)	0.75** (0.08)	1.20 (0.13)
Latine			1.12 (0.12)	0.71** (0.08)	1.13 (0.13)	0.76* (0.10)
Black * The Number of Arrest					1.09 (0.12)	0.79 (0.14)
Latine * The Number of Arrest					0.89 (0.14)	0.56* (0.15)
Parents' Income (Log)			1.08* (0.04)	1.28*** (0.09)	1.08* (0.05)	1.29*** (0.08)
Parent Education			1.10*** (0.02)	1.29*** (0.02)	1.11*** (0.02)	1.30*** (0.02)
Male			0.74*** (0.06)	0.90 (0.07)	0.74*** (0.06)	0.91 (0.07)
Delinquency			0.95+ (0.03)	0.86*** (0.03)	0.95+ (0.03)	0.85*** (0.03)
Grade			1.20*** (0.03)	2.09*** (0.07)	1.20*** (0.04)	2.10*** (0.07)
Urbanicity			1.24* (0.11)	1.22* (0.10)	1.23* (0.11)	1.22* (0.10)
Private School			1.55** (0.26)	2.24*** (0.37)	1.57** (0.27)	2.23*** (0.37)
Vocational School			0.42** (0.13)	0.44* (0.13)	0.38** (0.13)	0.44** (0.14)
Constant			0.03*** (0.01)	0.01*** (0.01)	0.03*** (0.02)	0.01*** (0.01)
Age Fixed Effect	Not Included		Included		Included	
Analytic Sample	6,051		6,051		6,051	
F-Statistic	10.59		32.53		29.34	

+ $p < .10$ * $p < .05$. ** $p < .01$. *** $p < .001$.

– Public school serves as the reference group for private and vocational schools.

the number of arrests and immediate enrollment in 2-year ($OR = .78$, $SE = .05$, $p < .001$) and 4-year colleges ($OR = .58$, $SE = .04$, $p < .001$). This negative relationship remained significant after controlling for a battery of potentially confounding factors, as indicated in Model 2. In the final model, which incorporated all previous variables as well as our interaction effects, several important findings emerged.

First, despite previous studies suggesting that the effect of arrest was significantly mediated by academic performance (i.e., Widdowson et al. 2016), the negative effect of arrest remained unchanged and statistically significant even with other related variables. This implies that in Model 2, for each additional arrest, students are 17% ($OR = .83$, $SE = .05$, $p = .003$) and 24% ($OR = .76$, $SE = .05$, $p < .001$) less likely to immediately enroll in 2-year colleges and 4-year colleges, respectively.

Model 3 focuses on interpreting findings associated with the potential moderating effects of race/ethnicity on the relationship between the number of arrests and immediate college enrollment. When examining the interaction

variables for race/ethnicity and the number of arrests, we found that the interaction variable for Latine youth and the number of arrests is negative and statistically significant for immediate enrollment at a 4-year college. This suggests that for each additional arrest, Latine youth with juvenile records are 44% less likely ($OR = .56$, $SE = .15$, $p = .03$) to immediately enroll at 4-year colleges compared to white youth with records. Given the incorporation of the interaction variables in Model 3, it is inappropriate to directly compare the coefficients of the variables in this model to those featured in Models 1 and 2 (Ro et al., 2016). We utilized graphical representations to demonstrate these interaction effects in Figure 1. Although the gap in the probability of entering 4-year college enrollment between Latine and white students with juvenile records becomes smaller as the number of arrests increases, Latine justice-involved students remain less likely to enter 4-year colleges than their justice-involved white peers. However, this interaction variable for immediate enrollment at a 2-year college is no longer statistically significant ($OR = .89$, $SE = .14$, $p = .47$). On the other hand, neither of the interaction variables for Black youth and the number of arrests exhibit statistical significance for immediate enrollment at 2-year and 4-year colleges.

Now, let's briefly summarize the other significant predictors of immediate college enrollment. As a reminder, we included a range of potentially confounding factors in our model based on insights from research. In terms of race, Black youth without any arrest are 25% less likely ($OR = .75$, $SE = .08$, $p = .001$) to immediately enroll in a 2-year

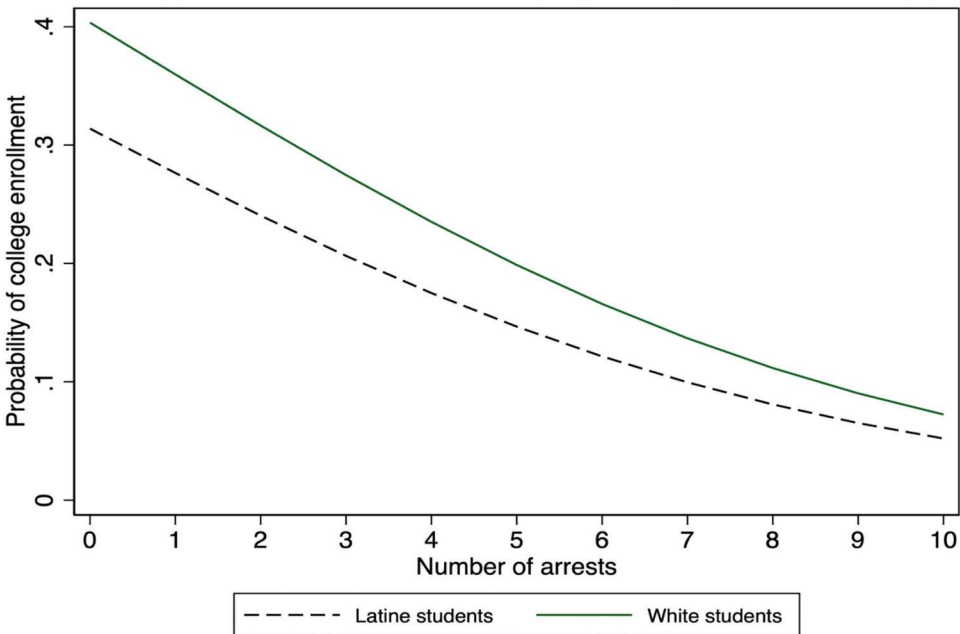


Figure 1. Interaction effect of Latine and the number of arrests on immediate college enrollment.

college compared to white youths. Although Black youth without any arrest are 1.20 times more likely ($OR = 1.20, SE = .13, p = .110$) to enter 4-year colleges than white students, this difference does not reach the conventional statistical significance. Conversely, Latine students without any arrest are 24% less likely ($OR = .76, SE = .10, p = .032$) to immediately enroll at 4-year colleges than white students, after accounting for other factors.

Parents' income and level of education are positively associated with immediate college enrollment at 2-year and 4-year colleges, with stronger effects observed for 4-year colleges. For example, youths with a 10% increase in parents' income are 1.025 times more likely ($OR = 1.29, SE = .08, p < .000$) to enter 4-year colleges. Similarly, youth whose parents obtained an additional year of education are 1.30 times more likely ($OR = 1.30, SE = .02, p < .000$) to enroll in 4-year colleges.

Prior experiences with delinquency serve as a negative predictor of immediate enrollment in both 2-year and 4-year colleges. Specifically, youth with one additional point on the delinquency score index experienced 5% ($OR = .95, SE = .03, p = .070$) and 15% ($OR = .85, SE = .03, p < .000$) less likely to immediately enroll in 2-year and 4-year colleges, respectively.

Additional positive and significant predictors in our model included attending a private school, living in an urban metropolitan area, and having high school grades. In the following section, we will analyze how arrest is associated with 2-year and 4-year college enrollment across racial groups.

Although we did not utilize an experimental design, it is still crucial to check the robustness of our empirical results. One approach to conducting this sensitivity analysis is to create hypothetical variables to serve as the role of an omitted or confounding variable, checking how much bias would be required to invalidate the inference in this study (Ro et al., 2016). We utilized the STATA command "Konfound"⁷ to quantify the proportion of estimates that would lead to invalidating the inference: the higher the values, the more robust the estimates in that inference (Xu et al., 2019). We conducted a sensitivity analysis employing this approach for the inferences made regarding our key findings (i.e., the number of arrests and the interaction effect between Latine and the number of arrests) in Model 1 and 3 (Beymer et al., 2018). For the effect of the number of arrests, 74.54% of the estimate in Model 1 and 42.17% of the estimate in Model 3 would have to be due to bias to invalidate the inference, respectively. Regarding the interaction effect between Latine and the number of arrests, 25.12% of cases needing replacement are those with the zero effect to invalidate the inference. The significant proportions derived from the sensitivity analyses suggest that these findings are likely robust against possible confounding variables (such as relevant covariates omitted in the multi-nominal analyses) and other potential sources of bias.

Table 4. Weighted multi-nominal logit model of 2-year and 4-Year university enrollment: Arrest; NLSY 1997–2004 for students with juvenile arrest records.

	Model 1		Model 2		Model 3	
	2-year OR/SE	4-year OR/SE	2-year OR/SE	4-year OR/SE	2-year OR/SE	4-year OR/SE
The Number of Arrests	0.87 (0.08)	0.81*** (0.07)	0.86+ (0.08)	0.79** (0.07)	0.83+ (0.08)	0.87+ (0.07)
Black	0.72 (0.18)	0.47** (0.12)	0.87 (0.22)	0.72 (0.19)	0.90 (0.25)	1.01 (0.31)
Latine	0.78 (0.21)	0.26*** (0.09)	1.12 (0.33)	0.46* (0.17)	0.99 (0.30)	0.47* (0.18)
Parental Education			1.24*** (0.05)	1.47*** (0.06)	1.21*** (0.06)	1.38*** (0.07)
Urbanicity					2.72*** (0.77)	1.14 (0.29)
Male					0.67+ (0.15)	0.77 (0.19)
Delinquency					1.05 (0.06)	0.90+ (0.05)
Private School					1.64 (0.73)	3.16*** (1.27)
Vocational School					0.63 (0.42)	0.59 (0.37)
Grade					1.10 (0.08)	1.81*** (0.16)
Income (Log)					1.15 (0.21)	1.35+ (0.23)
Constant	0.81 (0.12)	0.88 (0.22)	0.14 (0.09)	0.01*** (0.01)	0.01** (0.01)	0.01*** (0.01)
Analytic Sample		838		838		838
F-Statistics		F = 2.26		F = 4.30		F = 5.49

Note: + $p < .10$, * $p < .05$, ** $p < .01$, and *** $p < .001$.

– Public school serves as the reference group for private and vocational schools.

Research question three: investigating the mediating role of parents' education in the relationship between race/ethnicity and immediate college enrollment for students with juvenile records

To address the third research question, we conducted multi-nominal logistic regressions only for students with juvenile arrest records, as presented in Table 4. In Model 1, we included the number of arrests and racial/ethnic groups (i.e., Black and Latine) as predictors. While these factors were not statistically significant for 2-year immediate college enrollment, the number of arrests and racial/ethnic groups are negatively related to 4-year immediate college enrollment. For example, each additional arrest was associated with a reduced likelihood of immediate 4-year college enrollment ($OR = .81$, $SE = .07$, $p < .001$). Among racial groups, Black students with juvenile arrest records were 53% less likely ($OR = .47$, $SE = .12$, $p = .003$) and Latine students with juvenile arrest records were 74% less likely ($OR = .26$, $SE = .09$, $p < .001$) to immediately enroll in 4-year colleges compared to white students. This highlights significant disparities in 4-year college enrollment patterns across racial/ethnic groups for students with juvenile arrest records.

In Model 2, we introduced levels of parents' education as a mediating variable to measure the extent to which it mediates the relationship between the number of arrests and racial/ethnic groups, and immediate college enrollment. Youth with parents who completed an additional year of education were 1.24 times more likely ($OR = 1.24$, $SE = .05$, $p < .001$) to immediately enroll in a 2-year college and 1.47 times more likely ($OR = 1.47$, $SE = .06$, $p < .001$) to enroll in a 4-year college. The number of arrests remained negatively associated with 4-year enrollment ($OR = .79$, $SE = .07$, $p = .01$), even after accounting for parental education. However, parental education substantially

mediated the relationship between race/ethnicity and immediate 4-year college enrollment. For Black students with juvenile records, the likelihood of immediate 4-year college enrollment increased to 0.72 times that of their white peers ($OR = .72, SE = .19, p = .22$), but was no longer statistically significant. This suggests that parental education fully mediates the relationship between being Black and immediate 4-year college enrollment among students with juvenile records. For Latine students, the negative relationship persisted but was significantly mediated. Latine students with juvenile records were 54% less likely to enroll in 4-year colleges ($OR = .46, SE = .17, p = .04$) compared to their white peers, showing a partially mediated effect of parental education.

Lastly, we included a set of control variables to account for the potential effects of urbanicity, delinquency, type of school, high school grade, and parents' income on immediate college enrollment. Even after adding all control variables, the number of arrests is negatively related to immediate 2-year and 4-year college enrollment with marginal significance. Students with an extra arrest are 17% ($OR = .83, SE = .08, p = .06$) and 13% ($OR = .87, SE = .07, p = .07$) less likely to immediately enroll at 2-year and 4-year colleges, respectively, but they are only marginally significant.

Like Model 2, there is no difference in immediate college enrollment between Black and white students with juvenile arrests after including all control variables. However, Latine students with juvenile arrests are 53% ($OR = .47, SE = .18, p = .03$) less likely to enroll in 4-year colleges compared to white students with juvenile arrests. Interestingly, students with juvenile records attending private schools are 3.16 times more likely to enter 4-year colleges ($OR = 3.16, SE = 1.27, p = .03$) than those attending public schools. High school grades and parents' income are also positively associated with 4-year immediate college enrollments.

Discussion

The study examined the effects of juvenile arrest on immediate 2- and 4-year college enrollment for a nationally representative sample of Black, Latine, and white youth in the United States, with attention to the moderating role of race/ethnicity and the mediating role of parental level of education. Drawing on Sampson and Laub's (1997) life course theory of cumulative disadvantage (LCTCD) and Perna's (2006) contextual layers of college choice, the findings provide important insights into how early contact with the criminal legal system can influence one's educational trajectory. Specifically, this study advances the literature in three important ways: (1) by examining the immediate transition from high school to college following juvenile arrest — an underexplored inflection point; (2) by disaggregating outcomes by race/ethnicity to reveal the racialized dimensions of cumulative disadvantage; and (3) by integrating national longitudinal data to model both moderation (by race/

ethnicity) and mediation (via parental education), offering a more nuanced understanding of how legal involvement impacts college access.

The findings affirm the central tenets of LCTCD, demonstrating that the negative consequences of early contact with the criminal legal system extend beyond secondary schooling to postsecondary access. Each additional arrest significantly reduces the likelihood of immediate college enrollment: students with higher numbers of arrests were 17% less likely to immediately enroll in 2-year colleges and 24% less likely to enroll in 4-year colleges. These effects remain even after controlling for socioeconomic and academic variables, underscoring the independent and enduring impact of arrest histories. Importantly, these disadvantages do not accumulate evenly across populations. Indeed, cumulative disadvantage is not race-neutral — it operates through racialized structures that shape who is more likely to experience criminal legal contact, and whose futures are more deeply constrained by it. This analysis offers one of the first nationally representative assessments to disaggregate both racial and educational mechanisms in post-arrest enrollment trajectories, directly addressing a critical gap in college access research.

The findings also contribute to the literature by contrasting with Widdowson et al. (2016), who reported no significant relationship between juvenile arrests and 2-year college enrollment. While 2-year colleges are often framed as more accessible, our findings reveal that these entry points are significantly compromised for youth with arrest records. These findings complicate the narrative of community colleges as open-access institutions, revealing how legal system contact can foreclose even the most nominally accessible pathways to higher education. This challenges assumptions that community colleges serve as default access points and reveals how criminal legal involvement can undermine educational opportunity across the postsecondary spectrum.

A key contribution of this study is the focus on racial/ethnic variations in the relationship between juvenile arrests and college enrollment. White students with juvenile records were significantly more likely to enroll in 4-year colleges than their Latine peers, even after controlling for parents' education and income and high school grade. The negative effect of each additional arrest on 4-year enrollment was more severe for Latine youth (OR = 0.56). These findings underscore the compounded barriers faced by Latine youth, including intersectional stigma, cultural factors, and systemic inequities. For example, aversion to student loans among some Latine families may exacerbate financial barriers to 4-year college enrollment (McDonough et al., 2015). These results highlight the importance of targeted interventions, such as culturally relevant mentoring and community-based programs, to broaden access to higher education for Latine youth with juvenile records.

Our results also show that parental education emerged as a critical mediating factor. Students whose parents had higher levels of educational

attainment were more likely to enroll in 4-year colleges, suggesting that parental education can offset some of the disadvantages associated with juvenile arrests. For instance, parents with higher education may provide greater access to resources, higher expectations, and stronger academic networks, which facilitate their children's postsecondary enrollment (Charles et al., 2007; Perna & Titus, 2005), aligning with Perna's model.

However, the mediating effect of parental education varies by race/ethnicity. For Black students, parental education fully mediates the relationship between juvenile arrests and 4-year enrollment, reducing disparities with white students. For Latine students, however, the negative impact of arrests persists even after accounting for parental education, reflecting additional structural inequities and cultural factors that familial support alone cannot address. These results point to the need for system-level reforms, such as financial aid reform, legal protections, and culturally relevant support systems that go beyond parental involvement.

Although our data reflect youth from the early 2000s, the mechanisms of exclusion persist in today's educational landscape. Recent reforms — like the Ban the Box (BTB) movement and the reinstatement of Pell Grant eligibility for incarcerated students — signal shifting societal attitudes. Yet, access disparities remain, particularly for Black and Latine youth. Our findings suggest that structural disadvantage accrues long before college entry and becomes more entrenched with legal system contact. The racialized stratification of postsecondary opportunity cannot be understood apart from the criminal legal system's role in reproducing educational inequities — even among youth who were never convicted of a crime. Without upstream interventions in school discipline, juvenile justice, and college admissions practices, racial equity in postsecondary opportunity will remain elusive.

Together, these findings underscore the value of integrating LCTCD and Perna's model to explain how and why youth with criminal legal records struggle to access college. LCTCD offers insight into the long-term accumulation of racialized disadvantage following arrest, while Perna's model sheds light on how contextual resources — like parental education — mediate access. This dual framework offers a useful foundation for designing institutional and policy interventions — an area we explore in the following section.

Implications for higher education policy and future research

This study has important implications for both higher education policy and practice. First, the findings reinforce the urgency of federal and state efforts to reduce Disproportionate Minority Contact (DMC) in the juvenile legal system (Armour & Hammond, 2009; Rovner, 2014). The disproportionate arrest of Black and Latine youth not only reflects entrenched racial inequities but also contributes to long-term educational consequences, including reduced college

access. Policies such as diversion programs, restorative justice initiatives, and community-based alternatives to policing are essential to disrupting the cumulative disadvantages associated with early legal system involvement.

Second, institutions of higher education should expand culturally relevant mentoring programs and establish stronger partnerships with community-based organizations to support college access for youth with arrest records. These interventions can mitigate informational barriers, foster a sense of belonging, and reduce the stigma associated with legal system involvement (Johnson & Abreu, 2019). Given that youth with juvenile records often lack access to navigational capital, especially those from low-income or first-generation backgrounds, these programs should be tailored to meet the needs of racially minoritized students and grounded in asset-based frameworks.

Third, our findings underscore the intersecting role of race and parental education in shaping postsecondary outcomes. The fact that parental education mediated 4-year enrollment only for some groups points to the need for targeted family engagement strategies. Outreach efforts that support parents — particularly in Black and Latine communities — in understanding college application processes, financial aid systems, and postsecondary options can help bridge structural knowledge gaps (Hurtado et al., 1997; Wells & Lynch, 2012) and promote more equitable access to higher education (Charles et al., 2007).

Finally, future research should also examine how school-level factors mediate the relationship between juvenile arrests and college enrollment. Characteristics such as school type (e.g., public vs. private), the presence of a college-going culture, and disciplinary practices may either mitigate or exacerbate the effects of juvenile arrests on postsecondary access. Understanding how these characteristics influence outcomes is critical for designing school-level interventions that address systemic inequities. For instance, schools with strong college-going cultures and inclusive disciplinary practices may buffer students from some of the negative consequences of juvenile arrests, whereas schools with punitive policies may compound these disadvantages. Further investigation into these dynamics could inform strategies to foster supportive school environments and improve educational outcomes for students with juvenile records.

Conclusion

In conclusion, this study advances our understanding of how juvenile arrests and systemic inequities intersect to influence college enrollment, particularly for racially and ethnically marginalized youth. The findings emphasize the importance of targeted interventions and structural reforms, including efforts to reduce DMC, to dismantle barriers and promote equitable access to postsecondary education for students with

juvenile records. By addressing these inequities, policymakers, educators, and researchers can create pathways for historically excluded students to access higher education.

Notes

1. While the total available sample in NLSY:97 is 8,984, there are only 83 observations available for mixed-race non-Hispanic respondents. It does not provide a separate section for Asian or Native American categories.
2. We also employed the STATA survey prefix command “mi svyset” to mitigate the potential effect of missing data and appropriately address the complexities embedded in the data collection process (StataCorp, 2013). To check the sensitivity of our results, we conducted the following multivariate analyses: 1) without survey weights and multiple imputations, 2) with multiple imputations but no survey weight, and 3) with survey weights but no multiple imputations. We found that the results were consistent across all models.
3. We implemented 20 multiple imputations using chained equations to minimize sampling errors resulting from the imputation process (Pike et al., 2014; StataCorp, 2019).
4. Since our dependent variable is categorical, OLS regression may not be appropriate. However, the main issue of multicollinearity is the strong association among independent variables (Menard, 2002). A significant portion of the diagnostic information regarding multicollinearity can be calculated by utilizing an OLS regression model with the same dependent and independent variables used in multi-nominal regression (Williams, 2015).
5. Although previous literature utilized propensity score matching (PSM) to estimate the effect of arrest on college enrollment (Kirk & Sampson, 2013; Widdowson et al., 2016), this study focused on the moderating effect between the number of arrests and racial/ethnic groups and the mediating effect of levels of parents on racial difference for students with juvenile records. Consequently, while PSM is a useful method to estimate treatment effects, it may not be as suitable for measuring racial/ethnic effects on outcomes.
6. There is no significant difference among racial/ethnic groups when comparing arrested students to non-arrested students. One reason is that we excluded respondents who did not complete a high school diploma. With the entire sample of students with juvenile records, Black, Latine, and white youth represented 29.8%, 22.0%, and 48.2% of the respondents in the sample, respectively.
7. The “Konfound” command is not suitable for multi-nominal analysis, thus we conducted the logistic regression with the reference group set as non-college enrollment.

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References

- Alexander, M. (2012). *The new Jim Crow: Mass incarceration in the age of colorblindness*. New Press.
- Allen, T., & Noguera, P. (2023). A web of punishment: Examining Black student interactions with school police in Los Angeles. *Educational Researcher*, 0013189X2210955. <https://doi.org/10.3102/0013189X221095547>
- Allison, P. (2012, September 10). *When can you safely ignore multicollinearity?* Statistical Horizons. <https://statisticalhorizons.com/multicollinearity/>
- American Civil Liberties Union. (2020). *School-to-prison pipeline*. <https://www.aclu.org/issues/juvenile-justice/school-prison-pipeline/school-prison-pipeline-infographic>
- Armour, J., & Hammond, S. (2009). *Minority youth in the juvenile justice system*. National Conference of State Legislatures. https://www.modelsforchange.net/publications/183/Minority_Youth_in_the_Juvenile_Justice_System_Disproportionate_Minority_Contact.pdf
- Becker, H. S. (1963). *Outsiders: Studies in the sociology of deviance*. Free Press.
- Bernburg, J. G., & Krohn, M. D. (2003). Labeling, life chances, and adult crime: The direct and indirect effects of official intervention in adolescence on crime in early adulthood. *Criminology*, 41(4), 1287–1318. <https://doi.org/10.1111/j.1745-9125.2003.tb01020.x>
- Beymer, P. N., Rosenberg, J. M., Schmidt, J. A., & Naftzger, N. J. (2018). Examining relationships among choice, affect, and engagement in summer STEM programs. *Journal of Youth and Adolescence*, 47(6), 1178–1191. <https://doi.org/10.1007/s10964-018-0814-9>
- Byun, S., Henck, A., & Post, D. (2014). Cross-national variations in student employment and academic performance: The roles of national context and international law. *Comparative Education Review*, 58(4), 621–652. <https://doi.org/10.1086/677143>
- Charles, C. Z., Roscigno, V. J., & Torres, K. C. (2007). Racial inequality and college attendance: The mediating role of parental investments. *Social Science Research*, 36(1), 329–352. <https://doi.org/10.1016/j.ssresearch.2006.02.004>
- Conley, D. T. (2008). Rethinking college readiness. *New Directions for Higher Education*, 2008(144), 3–13. <https://doi.org/10.1002/he.321>
- Copenhaver, A., Edwards-Willey, T. L., & Byers, B. D. (2007). Journeys in social stigma: The lives of formerly incarcerated felons in higher education. *Journal of Correctional Education*, 268–283. <https://www.jstor.org/stable/23282578>
- Couloute, L. (2018, October). *Getting back on course: Educational exclusion and attainment among formerly incarcerated people*. Prison Policy Initiative. <https://www.prisonpolicy.org/reports/education.html>
- Custer, B. D. (2018). Applying to university with criminal convictions: A comparative study of admissions policies in the United States and United Kingdom. *Journal of Higher Education Policy and Management*, 40(3), 239–255. <https://doi.org/10.1080/1360080X.2018.1462436>
- Dynarski, S., Nurshatayeva, A., Page, L. C., & Scott-Clayton, J. (2023). Addressing nonfinancial barriers to college access and success: Evidence and policy implications. In E. A. Hanushek,

- S. Machin, & L. Woessmann (Eds.), *Handbook of the economics of education* (Vol. 6, pp. 319–403). Elsevier. <https://doi.org/10.1016/bs.hesedu.2022.11.007>
- Goldrick-Rab, S. (2016). *Paying the price: College costs, financial aid, and the betrayal of the American dream*. University of Chicago Press.
- Hirschfield, P. (2009). Another way out: The impact of juvenile arrests on high school dropout. *Sociology of Education*, 82(4), 368–393. <https://doi.org/10.1177/003804070908200404>
- Hirschi, T. (1969). *Causes of delinquency*. University of California Press.
- Hirschl, N., & Smith, C. M. (2020). Well-placed: The geography of opportunity and high school effects on college attendance. *Research in Higher Education*, 61(5), 567–587. <https://doi.org/10.1007/s1162-020-09599-4>
- Hjalmarsson, R. (2008). Criminal justice involvement and high school completion. *Journal of Urban Economics*, 63(2), 613–630. <https://doi.org/10.1016/j.jue.2007.04.003>
- Hoffmann, J. P., Erickson, L. D., & Spence, K. R. (2013). Modeling the association between academic achievement and delinquency: An application of interactional theory. *Criminology*, 51(3), 629–660. <https://doi.org/10.1111/1745-9125.12014>
- Huerta, A. H., McDonough, P. M., Venegas, K. M., & Allen, W. R. (2023). College is . . . : Focusing on the college knowledge of gang-associated Latino young men. *Urban Education*, 58(9), 1943–1972. <https://doi.org/10.1177/0042085920934854>
- Hurtado, S., Inkelas, K. K., Briggs, C., & Rhee, B.-S. (1997). Differences in college access and choice among racial/ethnic groups: Identifying continuing barriers. *Research in Higher Education*, 38(1), 43–75. <https://doi.org/10.1023/A:1024948728792>
- Johnson, R. (2021). *Black youth in foster care and the school-prison nexus*. Office of Community College Research and Leadership. <https://doi.org/10.13140/RG.2.2.16430.43843/2>
- Johnson, R. M. (2015). Measuring the influence of juvenile arrest on the odds of four-year college enrollment for black males: An NLSY analysis. *Spectrum: A Journal on Black Men*, 4(1), 49. <https://doi.org/10.2979/spectrum.4.1.04>
- Johnson, R. M., & Abreu, J. (2019). Engaging justice-involved students. In S. R. Harper & S. J. Quaye (Eds.), *Student engagement in higher education: Theoretical perspectives and practical approaches for diverse populations* (pp. 273–286). Routledge. https://www.researchgate.net/profile/Royel-Johnson/publication/338046789_Engaging_Justice-Involved_Students/links/5e03b646299bf10bc379657c/Engaging-Justice-Involved-Students.pdf
- Johnson, R. M., Alvarado, R. E., & Rosinger, K. O. (2021). What’s the “problem” of considering criminal history in college admissions? A critical analysis of “ban the box” policies in Louisiana and Maryland. *The Journal of Higher Education*, 92(5), 704–734. <https://doi.org/10.1080/00221546.2020.1870849>
- Johnson, R. M., & Davis, J. E. (2021). Advancing racial equity in education in the carceral state. *Peabody Journal of Education*, 96(5), 491–493. <https://doi.org/10.1080/0161956X.2021.2016101>
- Johnson, R. M., & Dizon, J. P. M. (2021). Toward a conceptualization of the college–prison nexus: A racial equity framework for higher education policy. *Peabody Journal of Education*, 96(5), 508–526. <https://doi.org/10.1080/0161956X.2021.1971282>
- Kiecolt, K., & Nathan, L. (1985). *Secondary analysis of survey data*. Sage.
- Kim, J., Kim, J., DesJardins, S. L., & McCall, B. P. (2015). Completing algebra II in high school: Does it increase college access and success? *The Journal of Higher Education*, 86(4), 628–662. <https://doi.org/10.1080/00221546.2015.11777377>
- Kirk, D. S., & Sampson, R. J. (2013). Juvenile arrest and collateral educational damage in the transition to adulthood. *Sociology of Education*, 86(1), 36–62. <https://doi.org/10.1177/0038040712448862>

- Klugman, J. (2012). How resource inequalities among high schools reproduce class advantages in college destinations. *Research in Higher Education*, 53(8), 803–830. <https://doi.org/10.1007/s11162-012-9261-8>
- Knight, M. G., & Marciano, J. E. (2015). *College-ready: Preparing Black and Latina/O youth for higher education—a culturally relevant approach*. Teachers College Press. <https://eric.ed.gov/?id=ED542770>
- Koricich, A., Chen, X., & Hughes, R. P. (2018). Understanding the effects of rurality and socioeconomic status on college attendance and institutional choice in the United States. *The Review of Higher Education*, 41(2), 281–305. <https://doi.org/10.1353/rhe.2018.0004>
- Lemert, E. M. (1951). *Social pathology: A systematic approach to the theory of sociopathic behavior*. McGraw-Hill.
- Lin, N. (1999). Social networks and status attainment. *Annual Review of Sociology*, 25(1), 467–487. <https://doi.org/10.1146/annurev.soc.25.1.467>
- Lin, Y., & Liu, V. Y. T. (2019). *Timing matters: How delaying college enrollment affects earnings trajectories*. CCRC working paper No. 105. Community College Research Center, Teachers College, Columbia University.
- Makarinos, M., Cullen, F. T., & Piquero, A. R. (2017). Adolescent criminal behavior, population heterogeneity, and cumulative disadvantage: Untangling the relationship between adolescent delinquency and negative outcomes in emerging adulthood. *Crime & Delinquency*, 63(6), 683–707. <https://doi.org/10.1177/0011128715572094>
- McDonough, P. M. (1997). *Choosing schools: How social class and schools structure opportunity*. SUNY Press.
- McDonough, P. M., Calderone, S., & Venegas, K. (2015). The role of social trust in low-income Latino college financing decisions. *Journal of Latino/Latin American Studies*, 7(2), 133–148. <https://doi.org/10.18085/1549-9502-7.2.133>
- McLeod, J. D., & Kaiser, K. (2004). Childhood emotional and behavioral problems and educational attainment. *American Sociological Review*, 69(5), 636–658. <https://doi.org/10.1177/000312240406900502>
- Meiners, E. R. (2011). Ending the school-to-prison pipeline/building abolition futures. *The Urban Review*, 43(4), 547–565. <https://doi.org/10.1007/s11256-011-0187-9>
- Menard, S. (2002). *Applied logistic regression analysis*. Sage. <https://doi.org/10.4135/9781412983433>
- Meng, X.-L., & Rubin, D. B. (1992). Performing likelihood ratio tests with multiply-imputed data sets. *Biometrika*, 79(1), 103–111. <https://doi.org/10.1093/biomet/79.1.103>
- Moore, W., Pedlow, S., Krishnamurty, P., & Wolter, K. (2000). *National longitudinal survey of youth 1997 (NLSY97)*. National Opinion Research Center.
- Morgan, I. (2022). *Equal is not good enough: An analysis of school funding equity across the U.S. and within each state*. Education trust. <https://eric.ed.gov/?id=ED626472>
- Murnane, R. J., Willett, J. B., & Boudett, K. P. (1999). Do male dropouts benefit from obtaining a GED, postsecondary education, and training? *Evaluation Review*, 23(5), 475–503. <https://doi.org/10.1177/0193841X9902300501>
- National Center for Education Statistics. (2024). *College enrollment rates* [Condition of Education]. U.S. Department of Education, Institute of Education Sciences. <https://nces.ed.gov/programs/coe/indicator/cpb>
- National Longitudinal Surveys. (2025). *Retention & reasons for non-interview*. <https://www.nlsinfo.org/content/cohorts/nlsy97/intro-to-the-sample/retention-reasons-non-interview>
- Office of Juvenile Justice and Delinquency Prevention. (2022). *Statistical briefing book: Crime FAQs*. <https://ojjdp.ojp.gov/statistical-briefing-book/crime/faqs/QA05101>

- Perna, L. W. (2000). Differences in the decision to attend college among African Americans, Hispanics, and whites. *The Journal of Higher Education*, 71(2), 117–141. <https://doi.org/10.1080/00221546.2000.11778831>
- Perna, L. W. (2006). Studying college access and choice: A proposed conceptual model. In J. C. Smart (Ed.), *Higher education: Handbook of theory and research* (Vol. 21, pp. 99–157). Springer Netherlands. https://doi.org/10.1007/1-4020-4512-3_3
- Perna, L. W., & Titus, M. A. (2005). The relationship between parental involvement as social capital and college enrollment: An examination of racial/ethnic group differences. *The Journal of Higher Education*, 76(5), 485–518. <https://doi.org/10.1080/00221546.2005.11772296>
- Pike, G. R., Hansen, M. J., & Childress, J. E. (2014). The influence of students' pre-college characteristics, high school experiences, college expectations, and initial enrollment characteristics on degree attainment. *Journal of College Student Retention: Research, Theory and Practice*, 16(1), 1–23. <https://doi.org/10.2190/CS.16.1.a>
- Puzzanchera, C. (2021, May). *Juvenile arrests, 2019*. <https://ojjdp.ojp.gov/publications/juvenile-arrests-2019.pdf>
- Ro, H. K., Knight, D. B., & Loya, K. I. (2016). Exploring the moderating effects of race and ethnicity on the relationship between curricular and classroom experiences and learning outcomes in engineering. *Journal of Women and Minorities in Science and Engineering*, 22(2), 91–118. <https://doi.org/10.1615/JWomenMinorScienEng.2016013601>
- Rovner, J. (2014). *Disproportionate minority contact in the juvenile justice system*. The Sentencing Project. <https://www.sentencingproject.org/app/uploads/2022/10/Disproportionate-Minority-Contact-in-the-Juvenile-Justice-System.pdf>
- Rovner, J. (2023). *Latinx disparities in youth incarceration*. The Sentencing Project. <https://www.sentencingproject.org/fact-sheet/latinx-disparities-in-youth-incarceration/>
- Royston, P. (2004). Multiple imputation of missing values. *The Stata Journal: Promoting Communications on Statistics and Stata*, 4(3), 227–241. <https://doi.org/10.1177/1536867X0400400301>
- Royston, P., & White, I. (2011). Multiple imputation by chained equations (MICE): Implementation in Stata. *Journal of Statistical Software*, 45(4). <https://doi.org/10.18637/jss.v045.i04>
- Sampson, R. J., & Laub, J. H. (1997). A life-course theory of cumulative disadvantage and the stability of delinquency. In T. P. Thornberry (Ed.), *Developmental theories of crime and delinquency* (1st ed. pp. 133–162). Routledge. <https://doi.org/10.4324/9780203793350-4>
- Scott-Clayton, J. (2017). *Thinking “beyond the box”: The use of criminal records in college admissions*. The Brookings Institution. <https://www.brookings.edu/articles/thinking-beyond-the-box-the-use-of-criminal-records-in-college-admissions/>
- Shedd, C. (2015). *Unequal city: Race, schools, and perceptions of injustice*. Russell Sage Foundation.
- Siennick, S. E., & Staff, J. (2008). Explaining the educational deficits of delinquent youths. *Criminology*, 46(3), 609–635. <https://doi.org/10.1111/j.1745-9125.2008.00118.x>
- Skiba, R. J., Arredondo, M. I., & Williams, N. T. (2014). More than a metaphor: The contribution of exclusionary discipline to a school-to-prison pipeline. *Equity and Excellence in Education*, 47(4), 546–564. <https://doi.org/10.1080/10665684.2014.958965>
- StataCorp. (2013). *Stata survey data reference manual: Release 13*. Stata Press Publication.
- StataCorp. (2019). *Stata release 16: Multiple imputation*. Stata Press Publication.
- Steele, E. (2020, September 30). *Common App removes school discipline question from college application*. *Common app*. <https://www.commonapp.org/blog/common-app-removes-school-discipline-question-college-application>
- Stewart, R., & Uggen, C. (2020). Criminal records and college admissions: A modified experimental audit. *Criminology*, 58(1), 156–188. <https://doi.org/10.1111/1745-9125.12229>

- Sweeten, G. (2006). Who will graduate? Disruption of high school education by arrest and court involvement. *Justice Quarterly*, 23(4), 462–480. <https://doi.org/10.1080/07418820600985313>
- Thomas, S. L., & Heck, R. H. (2001). Analysis of large-scale secondary data in higher education research: Potential perils associated with complex sampling designs. *Research in Higher Education*, 42(5), 517–540. <https://doi.org/10.1023/A:1011098109834>
- Wald, J., & Losen, D. J. (2003). Defining and redirecting a school-to-prison pipeline. *New Directions for Youth Development*, 2003(99), 9–15. <https://doi.org/10.1002/yd.51>
- Welch, K., & Payne, A. A. (2018). Latino/a student threat and school disciplinary policies and practices. *Sociology of Education*, 91(2), 91–110. <https://doi.org/10.1177/0038040718757720>
- Wells, R. S., & Lynch, C. M. (2012). Delayed college entry and the socioeconomic gap: Examining the roles of student plans, family income, parental education, and parental occupation. *The Journal of Higher Education*, 83(5), 671–697. <https://doi.org/10.1080/00221546.2012.11777262>
- Widdowson, A. O., Siennick, S. E., & Hay, C. (2016). The implications of arrest for college enrollment: An analysis of long-term effects and mediating mechanisms. *Criminology*, 54(4), 621–652. <https://doi.org/10.1111/1745-9125.12114>
- Williams, R. (2015, January 13). *Multicollinearity*. <https://www3.nd.edu/~rwilliam/stats2/l11.pdf>
- Xu, R., Frank, K. A., Maroulis, S. J., & Rosenberg, J. M. (2019). Konfound: Command to quantify robustness of causal inferences. *The Stata Journal: Promoting Communications on Statistics and Stata*, 19(3), 523–550. <https://doi.org/10.1177/1536867X19874223>
- Zick, C. D., Bryant, W. K., & Österbacka, E. (2001). Mothers' employment, parental involvement, and the implications for intermediate child outcomes. *Social Science Research*, 30(1), 25–49. <https://doi.org/10.1006/ssre.2000.0685>