
Disparities at Adjudication in the Juvenile Justice System: An Examination of Race, Gender, and Age

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Black and male youths are overrepresented at every stage of juvenile justice processing. The current study investigated racial, gender, and age disparities in the probability of a formal adjudication using administrative data ($N = 12,070$) from a large, urban county in the Midwest. The authors extend previous work by considering the joint effect of race, gender, and age on formal adjudications in the juvenile justice system. The findings indicate that being black, male, and in the middle of the juvenile court's age jurisdiction were associated with an increase in the probability of receiving a formal adjudication, after controlling for prior referrals and the type and severity of the underlying offense. The magnitude of racial and gender disparities differed across age and was greatest for the least serious offenses. Through the application of graphical analyses, the authors identify youths most at risk of disparate treatment.

KEY WORDS: *adjudication; disparities; gender; juvenile justice; race*

In 1988, Congress amended the Juvenile Justice and Delinquency Prevention Act of 1974 to address the overrepresentation of minority youths in the juvenile justice system. Decades later, minority youths, and black youths in particular, remain overrepresented at every stage of processing in U.S. juvenile justice courts (Donnelly, 2017). A majority of studies have found that the overrepresentation of minority youths persists, even after accounting for racial differences in the involvement in crime (Leiber, Bishop, & Chamlin, 2011), implying that the race of juveniles acts independently to influence decision making within the juvenile justice system (Bridges & Steen, 1998). That racial bias may be a potential cause of the overrepresentation of minority youths should be of great concern to social workers, both as a matter of social justice and as professionals whose duties as probation officers, therapists, counselors, and providers of court-ordered evaluations shape the lives of youths who come into contact with the juvenile justice system. The current study examined how race intersects with gender and age to influence decision making at adjudication.

CONSEQUENCES OF INVOLVEMENT IN THE JUVENILE JUSTICE SYSTEM

There are long-term consequences for youths involved with the juvenile justice system. Compared

with youths whose cases are dismissed, youths who are formally adjudicated potentially face probation or residential placement, which has been shown to increase the risk of juvenile recidivism (De Li, 1999; Ryan, Abrams, & Huang, 2014) and adult incarceration later in life (Aizer & Doyle, 2015). Youths who have been labeled as delinquents through formal adjudications are more likely than other juveniles to develop relationships with delinquent peers and engage in antisocial behavior (De Li, 1999). In addition, varying degrees of involvement with the juvenile justice system have been associated with worse educational, employment, and income attainment outcomes (Aizer & Doyle, 2015; De Li, 1999; Hjalmarsson, 2008; Kerley, Benson, Lee, & Cullen, 2004; Tanner, Davies, & O'Grady, 1999). Finally, racial inequalities and disparities in the juvenile justice system carry over to adult criminal court, where a juvenile record has been found to increase the likelihood of a prison sentence for black men relative to white men (Ulmer & Laskorunsky, 2016). Lipsey and Cullen (2007) concluded from a review of the literature that traditional court supervision and sanctions focusing on punishment, at best, modestly reduce recidivism and, in some cases, may actually increase reoffense rates. Alternatively, rigorous program evaluations have found that less common, community-based interventions focusing on family interactions

and providing supportive services reduce problematic behavior among youths on probation or in residential placement; yet only about 5% of youths who could benefit from proven interventions have access to these services (Greenwood, 2008).

THEORETICAL PERSPECTIVE ON RACIAL DISPARITIES

Throughout U.S. history, African Americans have been associated with criminality (Kennedy, 1997). The image of young black men as aggressive and prone to violence is a deep-seated racial stereotype that is consistently reinforced by media portrayals (Welch, 2007) and racialized criminal justice policies such as the “war on drugs” that differentially affect minorities (Bishop & Leiber, 2011). Public perceptions of black criminality infiltrate the juvenile justice system, where court officials attribute negative personality traits (for example, lack of remorse) to the criminal behavior of black youths but cite negative environmental factors (for example, broken home) to explain the criminal behavior of white youths (Bridges & Steen, 1998). More recently, Graham and Lowery (2004), using an experimental design, found that police and probation officers held unconscious negative racial stereotypes about black youths that influenced judgments about culpability, likely recidivism, and deserved punishment. The perception that, relative to white youths, black youths are more culpable, more likely to reoffend, a danger to society, and deserving of punishment could lead to harsher treatment within the criminal justice system (Steffensmeier, Ulmer, & Kramer, 1998).

Empirical studies have found that after controlling for legal factors, race influences decision making throughout the juvenile justice system (Engen, Steen, & Bridges, 2002). Nonetheless, a simple model of discrimination based on racial stereotypes cannot account for the complex nature of these empirical findings, which include both more severe and more lenient outcomes for black youths that vary both across studies and decision-making stages (Leiber, Peck, & Beaudry-Cyr, 2015). One puzzling aspect of the literature is the frequent finding that white youths are more likely than black youths to be formally adjudicated (Peck & Jennings, 2016; Rodriguez, 2010; Secret & Johnson, 1997) or that there are no racial differences at this decision-making stage (Freiburger & Burke, 2010; Morrow, Dario, & Rodriguez, 2014).

Criminal justice scholars speculate that there may be a “corrective effect” at the adjudication stage, where judges treat black youths with leniency to make up for harsher treatment in earlier processing stages (Peck & Jennings, 2016). Alternatively, Bishop, Leiber, and Johnson (2010) integrated the concepts “loose coupling” from organizational theory and the “focal concerns” perspective from criminal justice theory (see Steffensmeier et al., 1998), arguing that because judges act alone and within legal constraints at adjudication hearings, “legal criteria will be highly influential whereas demographic factors (including race) and contextual considerations will play no role because they are apt to be viewed as evidentially neutral” (Bishop et al., 2010, p. 219). An implication of this hypothesis is that, in addition to race, age and gender will not play significant roles in judicial decision making at adjudication. There is, however, reason to believe that judges are prone to consider individual characteristics in determining guilt and punishment. Sanborn’s (1996, 2001) documentation of the conflict between judges’ concern for the welfare of youths and their role as neutral, impartial fact finders suggests that adjudication decisions are not solely guided by legal facts.

JOINT EFFECTS OF RACE, GENDER, AND AGE

In addition to race, judges may also consider juveniles’ gender and age in rendering their decisions. Mears et al. (2014) hypothesized that court officials may treat juveniles at the bottom and top of a court’s age jurisdiction with leniency relative to those in the middle of the age jurisdiction. Officials may view younger juveniles as less culpable and more receptive to rehabilitation than youths in the middle of the court’s age jurisdiction, whereas older youths may be more likely to be transferred to adult court or have their cases dismissed if they are viewed as less deserving of court resources. However, Mears et al. did not consider whether the relative leniency afforded to the youngest and oldest juveniles would apply equally across race and gender. For example, black youths or male juveniles may not benefit from a “youth discount” if court officials perceive them as culpable or threatening, regardless of age. In addition, competing theories within feminist scholarship predict that female youths will either be treated with relative leniency to protect them from the callousness of the criminal justice system (chivalry hypothesis) or be

treated more harshly to punish them for violating gender roles (evil woman hypothesis) (Guevara, Herz, & Spohn, 2006). Both theories find support in the empirical literature, depending on the nature of the crime and the processing stage considered (Spivak, Wagner, Whitmer, & Charish, 2014). The relationship between gender and juvenile justice outcomes is further complicated by race. Adopting an intersectionality perspective, scholars have theorized that leniency toward female youths will not apply equally to black and white youths (Guevara et al., 2006). Empirical findings paint a more complex picture, finding that race and gender often intersect to produce both lenient and harsher outcomes, contingent on the underlying offense, severity of the crime, and the processing stage considered (Leiber, Brubaker, & Fox, 2009). For example, Moore and Padavic (2010) found that white girls received more lenient dispositions than black girls, but that the probability of harsher treatment converged as the severity of the underlying offense and number of prior offenses increased. A study by Guevara et al. (2006) also produced counterintuitive findings in that white female youths were no less likely to be detained pretrial than nonwhite female youths and were actually more likely to receive residential placement.

Whereas much of the extant research has focused on racial disparities at multiple processing stages, relatively few studies have examined the joint effects of race, gender, and age on decision making within the juvenile justice system (Leiber et al., 2015; Morrow et al., 2014). Moreover, studies examining some combination of race, gender, and age effects have been mostly limited to the intake and disposition phases (Leiber & Johnson, 2008; Leiber & Mack, 2002; Leiber et al., 2015). To our knowledge, only Morrow et al. (2014) have examined the joint effects of race and age at adjudication.

Findings on the joint effects of race, gender, and age across decision-making points have been complex and frequently contradictory. For example, Leiber and Mack (2002) found that although black youths were more likely than white youths to be treated more harshly at intake, the effect was not conditioned by age and there was no relationship between race or age and disposition severity. Similarly, Leiber et al. (2015) found that the influence of race and gender at intake and disposition were not conditioned by age. However, Leiber and

Johnson (2008) concluded that white juveniles benefited more from the youth discount at intake than their black counterparts, but again found no relationship between race and age at the disposition phase. In a study similar to ours, Morrow et al. (2014) also found evidence that a youth discount did not apply evenly across racial groups. At the point of adjudication, black preteenagers were actually more likely than white preteenagers to have their cases dismissed, but favorable treatment for black youths disappeared for mid- and late-teenagers. Although the findings of Morrow et al. were consistent with the theory that demographic characteristics of youths should have little bearing on judicial decision making, there were several limitations to the study. Because the study sample included only 9% black youths, the results may not have been representative of many urban areas that have a higher percentage of black youths. In addition, the study did not examine the joint effects of race and gender on adjudication or consider whether disparities varied across offense types.

The present study makes a significant contribution to the literature by expanding on Morrow et al. (2014) to examine the joint effects of race, age, and gender in a county with significant numbers of both black and white youths. Through the application of graphical analyses, we pinpoint the location and magnitude of disparities across race, gender, age, and offense type, enabling policymakers and practitioners to identify potential areas for intervention. Racial and gender disparities at adjudication are critical for understanding overrepresentation at earlier and later processing stages. A formal adjudication ensures that youths will penetrate further into the system through probation or residential placement. In turn, adjudication may influence future involvement with juvenile and adult courts if the police or court officials view youths with a previous adjudication as being more culpable, likely to reoffend, or deserving of punishment. Despite the perceived importance of evidentiary proof, it is critical to examine whether race, gender, and age are associated with a greater probability of receiving a formal adjudication.

METHOD

Data

Through a unique data-sharing agreement, the University of Michigan's Child and Adolescent Data Lab obtained electronic records of all formal petitions filed from July 2008 to December 2013

for the most populous county in a Midwest state. A strength of this study is that it is based on a full census of administrative data for a major urban county. In addition to the demographic variables race, gender, and age at referral, the data also include legal information pertaining to the referral, including the adjudication decision for each referral, a description of the underlying offenses, and a measure of offense severity.

We restricted the population to include referrals involving white and black youths ages 16 and under who entered the juvenile justice system between 2009 and 2013 and whose entire history of referrals took place in the study county. The decision to restrict the analysis to referrals involving white and black youths did not substantially reduce the population size, as less than 0.1% of referrals involved youths who were neither white nor black. Also excluded were referrals pertaining to minor traffic violations and administrative procedures and referrals in which the judicial decision did not correspond to either a dismissal or an adjudication decision (for example, if referrals were transferred to another county).

Dependent Measure

The dependent variable in our study is the dichotomous variable formal adjudication (yes/no). In this study, a formal adjudication is analogous to a guilty verdict in adult criminal court. Following a formal adjudication, judges issue formal dispositions, which usually entail community supervision (probation) or residential placement. Cases that are not formally adjudicated are dismissed or potentially diverted to other services.

Independent Variables

Sociodemographics. Our study includes indicator variables for race (black and white) and gender (female and male). Age was measured at the time cases were filed with the juvenile court. It should be noted that in the regression analysis, we mean-centered age and applied a square transformation. This follows previous research suggesting a quadratic, nonlinear relationship between age and outcomes in the juvenile justice system (Mears et al., 2014).

Number of Prior Referrals. A youth's previous involvement with the juvenile court may factor into judges' perceptions of culpability for the current referral, the likelihood of recidivating,

and the potential for treatment to be effective. We constructed a count-based measure of the number of prior referrals based on each juvenile's complete referral history.

Number of Total Charges. The number of charges associated with the current referral is another important measure of the severity of the offense that judges may take into account during the adjudication phase. Depending on the nature of the crime, prosecutors may charge juveniles multiple times for the same offense type (for example, person felony) or charge them with multiple different offenses (for example, person felony and disturbing the peace). Thus, we included the number of charges within a given referral as a count-based measure.

Offense Type. Consistent with earlier studies (Leiber, Peck, & Rodriguez, 2013; Rodriguez, 2007, 2010), we considered only the most serious offense within each case based on the hierarchy: person felony, person misdemeanor, property felony, property misdemeanor, controlled substance, public peace, probation, and status. An indicator variable denotes offense type, with person felony serving as the reference category.

Data Analysis

Our data extract contained 13,336 youths, and 90.5% had complete data. We used listwise deletion to handle the relatively low percentage of missing data, producing a final sample size of 12,070. Univariate and bivariate analyses were conducted to describe the sample and examine the relationship among demographic and legal variables with adjudication. Given the large sample size and statistical power of the study, we discuss all significant relationships in the context of confidence intervals (CIs) and effect sizes based on Cohen's (1988) heuristic (.10 = small effect, .30 = medium effect, and .50 = strong effect). Cramér's V and Cohen's *d* estimate effect size for categorical and continuous variables, respectively.

We fit a series of logistic regression models to test associations between demographic characteristics and adjudication decisions while controlling for other legal variables. We tested for potential interaction effects between demographic and legal variables identified in earlier studies by performing likelihood ratio chi-squared tests and examining model fit based on the Bayesian information criterion (BIC). Although a number of interactions

were statistically significant, Raftery (1995) cautioned against reliance on the chi-squared test for goodness of fit, as in large samples the traditional measure of significance ($p < .05$) can lead to the rejection of parsimonious but still adequate models. Adopting Raftery's (1995) heuristic (strong effect indicated by greater than a 10-point change in the BIC), we retained an interaction between race and offense type. In addition, we provided probability plots to facilitate interpretation of results.

RESULTS

As shown in Table 1, approximately 68.1% of the youths in this sample were black ($n = 8,219$) and 68.9% were male ($n = 8,315$). Ages of youths ranged from 11 to 16 years, with a mean of 15.1 ($SD = 1.3$). The number of prior offenses ranged from 0 to 10 ($M = 0.6$, $SD = 1.0$), and the number of total charges ranged from 0 to 25 ($M = 1.8$, $SD = 1.1$). These variables were highly skewed, so we applied a log transformation in subsequent analyses. The percentages in Table 1 represent the bivariate probability that youths will receive a dismissal or a formal adjudication. Overall, 42.3% of referrals resulted in an adjudication. In addition to being overrepresented among the population of referred

youths, black youths were also more likely to receive a formal adjudication than white youths (46.6% versus 32.9%, Cramér's $V = 0.13$). Similarly, male youths were also more likely than female youths to receive a formal adjudication (45.0% versus 36.2%, Cramér's $V = 0.08$). The strength of association indicated by Cramer's V for both group comparisons is relatively weak.

Table 2 presents results from logistic regression models testing the association between juveniles' demographic characteristics and adjudication decisions after controlling for confounding legal variables. Model 1 includes the full set of demographic and legal variables, without any interaction terms. This model shows that black youths have 67% greater odds of a formal adjudication than white youths (95% CI = 1.53 to 1.82). Relative to female youths, male youths have 24% greater odds of a formal adjudication (95% CI = 1.14 to 1.36). The odds ratios for age (1.03, 95% CI = 1.00 to 1.07) and age squared (0.92, 95% CI = 0.90 to 0.95) suggest that the odds of being formally adjudicated increased with age until approximately age 15, after which the odds decreased by 8% per year. An increase in the number of prior offenses and number of total charges was also associated with an increase in the

Table 1: Characteristics of Youths in Juvenile Justice System, by Adjudication Decision, 2009 to 2013						
Variable	n	Dismissed		Adjudicated		Test Statistic
		n	%	n	%	
Overall	12,070	6,968	57.7	5,102	42.3	
Race						
White	3,851	2,583	67.1	1,268	32.9	$\chi^2(1) = 202.3^*, V = .13$
Black	8,219	4,385	53.4	3,834	46.6	
Gender						
Female	3,755	2,397	63.8	1,358	36.2	$\chi^2(1) = 83.3^*, V = .08$
Male	8,315	4,571	55.0	3,744	45.0	
Age at filing (years), $M(SD)$	15.1 (1.3)	15.0	(1.3)	15.3	(1.2)	$t(11,662) = -9.69^*, d = .18$
Number of prior referrals, $M(SD)$	0.6 (1.0)	0.5	(1.0)	0.7	(1.0)	$z = -11.83^*, d = .14$
Number of current charges, $M(SD)$	1.8 (1.1)	1.6	(0.9)	2.1	(1.3)	$z = -31.42^*, d = .53$
Offense type						
Person felony	2,344	943	40.2	1,401	59.8	$\chi^2(7) = 910.7^*, V = .27$
Person misdemeanor	2,601	1,778	68.4	823	31.6	
Property felony	1,000	481	48.1	519	51.9	
Property misdemeanor	1,058	827	78.2	231	21.8	
Controlled substance	444	316	71.2	128	28.8	
Public peace	795	500	62.9	295	37.1	
Probation	778	246	31.6	532	68.4	
Status offense	3,050	1,877	61.5	1,173	38.5	

Notes: V = Cramér's V ; t = t statistic for t test (unequal variances); z = z statistic for Mann-Whitney Test; d = absolute value of Cohen's d .
* $p < .001$.

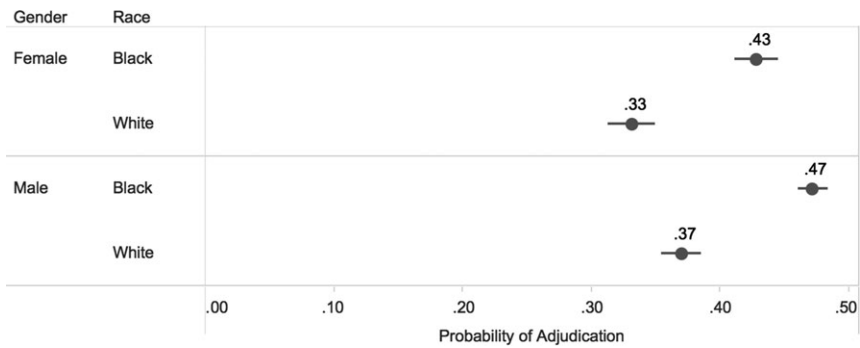
Table 2: Odds Ratios from Logistic Regression Models Predicting Formal Adjudication				
Variable	Model 1		Model 2	
	OR	95% CI	OR	95% CI
Race				
(White)				
Black	1.67	(1.53, 1.82)	1.12	(0.91, 1.38)
Gender				
(Female)				
Male	1.24	(1.14, 1.36)	1.23	(1.12, 1.34)
Age	1.03	(1.00, 1.07)	1.03	(0.99, 1.06)
Age squared	0.92	(0.90, 0.95)	0.92	(0.90, 0.94)
Natural log prior offenses	1.26	(1.16, 1.37)	1.26	(1.16, 1.38)
Natural log total charges	3.51	(3.19, 3.86)	3.44	(3.13, 3.79)
Offense type				
(Person felony)				
Person misdemeanor	0.51	(0.45, 0.58)	0.49	(0.38, 0.62)
Property felony	0.79	(0.67, 0.92)	0.46	(0.34, 0.63)
Property misdemeanor	0.34	(0.28, 0.41)	0.38	(0.27, 0.53)
Controlled substance	0.45	(0.36, 0.57)	0.27	(0.19, 0.40)
Public peace	0.62	(0.52, 0.73)	0.25	(0.17, 0.35)
Probation	2.21	(1.82, 2.69)	2.30	(1.60, 3.29)
Status offense	1.12	(0.98, 1.28)	0.59	(0.46, 0.75)
Race × offense type				
(Race × person felony)				
Race × person misdemeanor			0.99	(0.75, 1.31)
Race × property felony			2.04	(1.42, 2.93)
Race × property misdemeanor			0.82	(0.55, 1.20)
Race × controlled substance			2.14	(1.32, 3.47)
Race × public peace			3.50	(2.32, 5.29)
Race × probation			0.90	(0.60, 1.35)
Race × status offense			2.36	(1.80, 3.08)
Intercept	0.33	(0.28, 0.38)	0.46	(0.37, 0.57)
BIC		14,633		14,585
Pseudo R^2		0.118		0.125
Observations		12,070		12,070

Notes: Reference categories are in parentheses. OR = odds ratio. CI = confidence interval. BIC = Bayesian information criterion. Values in bold are statistically significant based on a 95% CI. Age is mean-centered at zero.

odds of a formal adjudication. Racial and gender differences in the odds of a formal adjudication persisted, even after controlling for prior referrals and the nature of the underlying offense. Model 2 introduces an interaction between race and offense type. Figure 1 displays the probability of a formal adjudication from the final model for each race–gender combination. Relative to the other groups, black male youths were the most likely (47%) to receive a formal adjudication, while white female youths were the least likely (33%) to experience a negative outcome. Comparing racial differences within gender, the probability of a formal adjudication was approximately 10 percentage points greater for black male and female youths relative to their white counterparts. Similarly, within race,

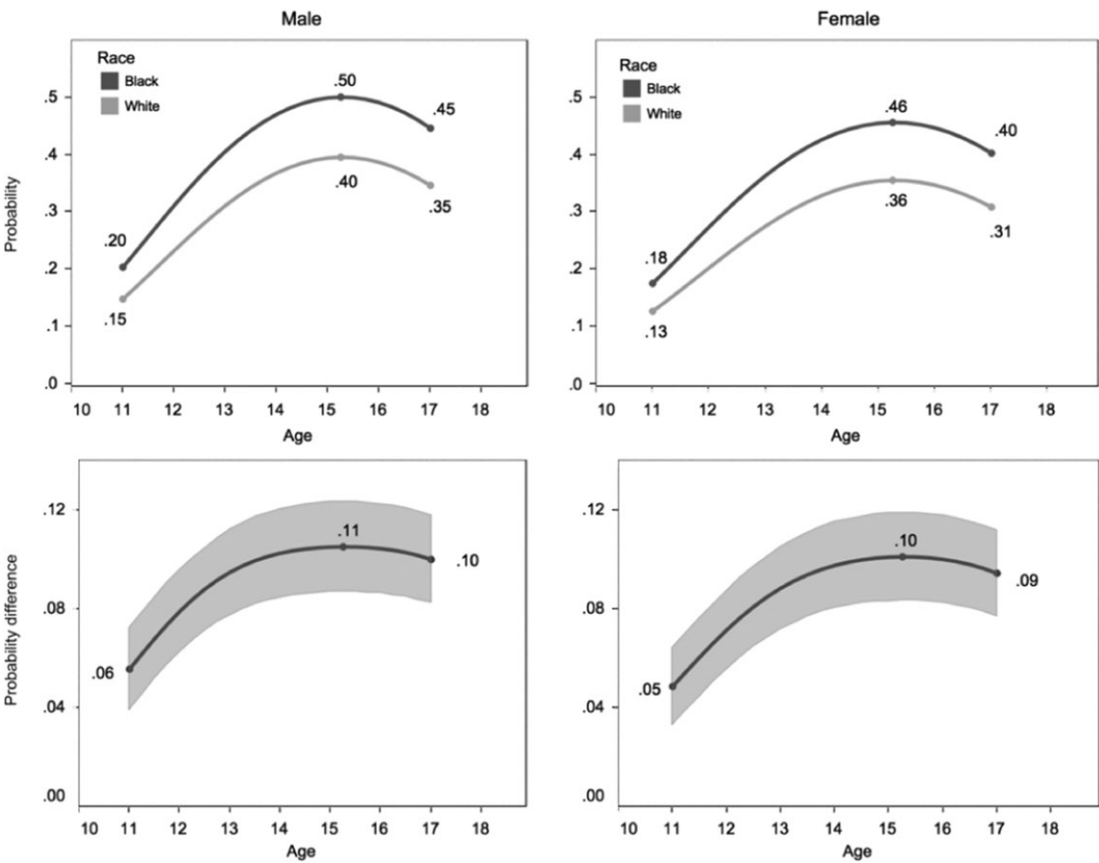
the probability of a formal adjudication was approximately 4 percentage points greater for male youths than female youths. Despite the leniency afforded to female youths, black female youths (43%) had a higher probability of a formal adjudication than white male youths (37%). Wald tests (not shown) confirm that the nonoverlapping CIs in the figure correspond to statistically significant differences in probabilities between groups ($p < .05$). The main effects of race and gender displayed in Figure 1 illustrate that both black youths and male youths were disadvantaged at the adjudication stage. The top of Figure 2 extends the analysis by examining race and gender effects across ages. In general, the figure provides support for the theory that within race–gender groupings, younger juveniles

Figure 1: Probability of a Formal Adjudication, by Race and Gender



Notes: Probabilities are estimated based on model 2 by fixing gender and race while holding all other variables at their observed values. Plot shows 95% confidence intervals.

Figure 2: Probability and Difference in Probability of a Formal Adjudication, by Race, Gender, and Age



Notes: Probabilities are estimated based on model 2 by fixing gender and race while holding all other variables at their observed values. Plot shows 95% confidence intervals. Mean-centered age was used to construct the figure, but uncentered ages are displayed for ease of interpretation.

are treated with more leniency relative to their older counterparts in that the probability of a formal adjudication increased with age through about ages 14 to 15. The parabolic shape of the curve suggests that the oldest juveniles may also be treated with more leniency relative to youths near the center of the age distribution.

The top panels of Figure 2 show that racial differences in the probability of a formal adjudication persisted across age for both male and female youths. The corresponding bottom panels reveal that the differences in probabilities between races were statistically significant ($p < .05$) at all ages. Also evident from the bottom panels is that the magnitude of racial disparities varied by age. Racial differences were largest around age 15 when black male and female youths were 10 to 11 percentage points more likely to receive a formal adjudication than their similarly situated white counterparts and smallest at age 11 when black youths were only 5 to 6 percentage points more likely to receive a formal adjudication. Another important takeaway from Figure 2 is that as a result of the persistent racial gap in adjudication decisions, younger black youths were consistently treated more harshly than older white youths. For example, a 15-year-old white male youth had a similar probability of a formal adjudication as a black male youth two years younger.

Figure 3 examines the joint effects of race and gender on the probability of a formal adjudication. (Because the curvilinear relationship between age and adjudication persisted across all offense types, we do not show the joint effects of age.) Plotting the results by offense type reveals that racial and gender differences in adjudication decisions were conditioned by offense type. Black male and female youths were substantially ($p < .001$) more likely to receive a formal adjudication than their white counterparts for controlled substance violations, property-related felonies, public peace violations, and status offenses. For example, the probability that a black male youth was formally adjudicated for a public peace violation was 27 percentage points higher than for a white male youth. The differences for status offenses (22 percentage points) and controlled substance violations (17 percentage points) were similarly high. Racial differences for female youths were nearly identical for these crimes. In comparison, while male youths were more likely to receive a formal adjudication than female youths across offense types, differences in probabilities varied

little across offense types. For example, gender differences for white youths ranged from a low of 2.9 percentage points for public peace violations to a high of 4.6 percentage points for person-related felonies. Gender gaps were of a similar magnitude for black youths, ranging from 3.4 percentage points for property-related misdemeanors to 4.6 percentage points for person-related felonies, property-related felonies, public peace violations, and status offenses.

DISCUSSION

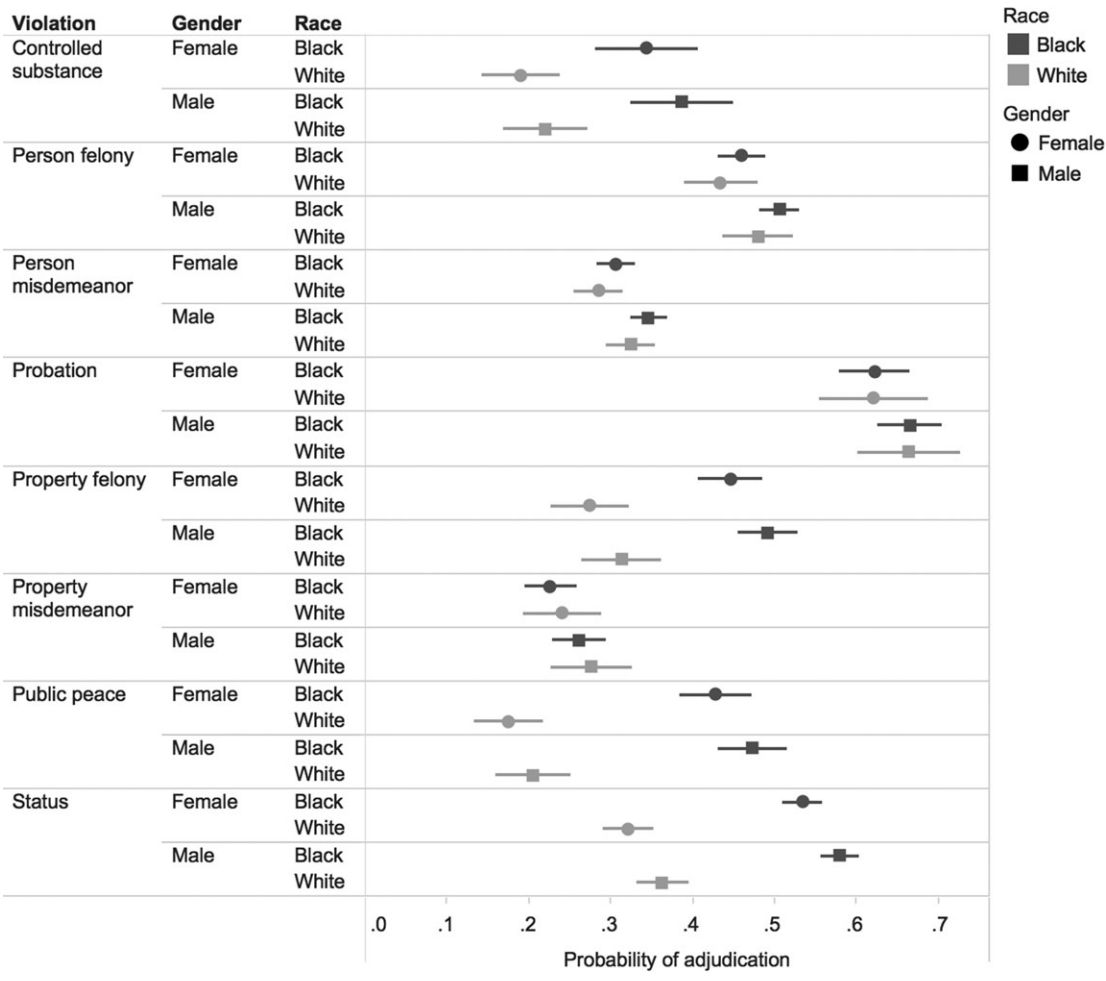
The purpose of this study was to determine whether a juvenile's race, gender, or age were associated with the probability of a formal adjudication, thereby suggesting the presence of bias in these rulings. Although a number of previous studies examined the joint effects of race, gender, and age on decision making within the juvenile justice system, to our knowledge no study to date assessed these effects in the context of adjudication. In addition, we examined whether the association between race or gender and adjudication was conditioned by age or offense type, further enhancing our ability to determine the presence and nature of bias.

Our results offer strong support for the presence of bias in adjudication decision making, and resultant disparities in juvenile justice outcomes. We found that being black, male, and in the middle of the court's age jurisdiction (ages 14 to 15) all increased the probability of receiving a formal adjudication. The magnitude of racial disparities was greatest for youths in the middle of the court's age jurisdiction and for relatively minor offenses. The following discussion situates our findings in the literature while suggesting possible implications for social workers.

Racial Disparities

After controlling for prior offenses and other characteristics of the case, our findings indicate an increased risk of adjudication for black youths. These results contradict prior studies that found no direct relationships between race and adjudication (Bishop & Frazier, 1988; Morrow et al., 2014) or that white youths were treated more harshly at adjudication (Peck & Jennings, 2016; Secret & Johnson, 1997), but are consistent with a number of recent studies suggesting that black youths were disadvantaged at adjudication relative to white youths (Leiber, 2016; Peck & Beaudry-Cyr, 2016). In addition, we found that whereas black youths

Figure 3: Probability of a Formal Adjudication, by Race, gender, and Offense Type



Note: Probabilities are estimated based on model 2 by fixing gender and race while holding all other variables at their observed values. Plot shows 95% confidence intervals.

were more likely to receive a formal adjudication for status, public peace, and controlled substance offenses, there was no statistically significant difference between racial groups for three of the four most serious crimes and probation violations. That racial disparities were smallest for the most serious crimes supports earlier findings (Bishop & Frazier, 1988).

Gender Disparities

Our finding that male youths are modestly disadvantaged relative to female youths contrasts with previous studies that found no direct relationship between gender and adjudication (Bishop & Frazier, 1988,

1992; Bishop et al., 2010; Morrow et al., 2014; Secret & Johnson, 1997) or that female youths were disadvantaged at adjudication relative to male youths (Leiber & Peck, 2012). Whereas several studies found that gender effects were conditioned by race (Freiburger & Burke, 2010) or applied to specific crimes, such as status offenses (Spivak et al., 2014), the present study found that gender differences persisted across race and offense type.

Age Disparities

Based on prior research (Mears et al., 2014), we expected that youths in the middle of the court’s age jurisdiction would be more likely to receive a

formal adjudication than younger or older juveniles. Consistent with our expectations, the youngest juveniles were substantially less likely to receive a formal adjudication than those in the middle of the age distribution, while the oldest juveniles were also treated more leniently. Similarly, [Morrow et al. \(2014\)](#) found that preteenagers (ages 12 and under) were more likely to have their petitions dismissed at adjudication than mid-teenagers (ages 13 to 15) and late-teenagers (ages 16 to 17). Although the earlier study detected no difference in adjudications between mid-teenagers and late-teenagers, modeling age as a categorical variable may have masked curvilinear effects we captured with a quadratic.

Age Disparities Conditioned by Race and Gender

We found that the curvilinear relationship between age and adjudication held across race and gender. Most prominently, a racial gap favoring white youths persisted across age but was narrowest for the youngest offenders and largest near age 15, when the probability of a formal adjudication peaked for all groups. This finding suggests that age is conditioned by race in that the probability of a formal adjudication increased with age at a faster rate for black youths relative to white youths. Another important difference between our analysis and [Morrow et al.'s \(2014\)](#) is that the earlier study found that black preteenagers were more likely than white preteenagers to have their petitions dismissed, while there were essentially no racial differences for mid- and late-teenagers. Although our findings differed—black youths were disadvantaged at all ages and racial disparities increased with age—both sets of results indicate that racial disparities may be conditioned by age.

Understanding Racial, Gender, and Age Disparities

A number of criminal justice scholars have concluded that racial biases are most prominent in the early processing stages (for example, intake and pre-trial detention) and decrease as youths work their way through the system ([Leiber, 2016](#); [Rodriguez, 2010](#)). The rationale is that the demographic characteristics of juvenile offenders exert less influence at the adjudication phase when judges are “constrained by legal rules of procedure and evidence” in evaluating guilt or responsibility ([Bishop et al.,](#)

2010, p. 218). Contrary to the idea that the adjudication phase is strictly guided by legal factors, the implication of the present study is that race, gender, and age influence adjudication decisions within the juvenile justice system.

The good news is that racial disparities were not consistently observed across all offense types, perhaps indicating progress toward reducing disproportionate contact. The finding that racial disparities were greatest for less serious crimes such as status offenses, where judicial discretion is greatest ([Freiburger & Burke, 2011](#)), suggests that evidentiary constraints may play an important role in limiting the susceptibility of court officials to their own racial biases. In addition, the possibility that black youths are treated harshly only because they are perceived to be more threatening to society than white youths appears less plausible given the significant racial disparity for status offenses, which are essentially victimless crimes, and the relatively minor disparities for person-related offenses. On the other hand, black youths may be unduly punished and labeled as delinquents for relatively minor infractions such as status offenses. As status offenses are the most common infraction in our study, unfair treatment of black youths for minor offenses would contribute to overrepresentation at probation or residential placement and at earlier processing stages if youths with prior adjudications are treated more harshly. Social workers who work with youths who have received probation or residential placement or who complete court-ordered evaluations should be cognizant of the potential for racial bias at adjudication and of the negative impact that real or perceived discrimination may have on minority youths.

Whereas the gender gap was half as large as the racial gap, gender disparities were relatively constant across offense types. Court officials may view female youths as being less culpable or less deserving of formal punishment, regardless of the offense type. Future studies might examine whether female youths are more likely than male youths to be diverted toward services at adjudication rather than being formally adjudicated, the implication being that court officials perceive male youths to be less receptive to rehabilitative services than female youths.

The substantial age disparity in adjudication is troubling in that court officials may use age as a proxy for culpability and responsibility even though age does not guarantee a particular degree

of adolescent development (Mears et al., 2014). It is important to recognize that age disparities persisted even after holding constant the number of prior offenses and the severity of the crime. There is an opportunity for social workers knowledgeable about child development to question the reliance on age in determining how far youths penetrate into the juvenile justice system. Moreover, that older youths are treated with relative leniency indicates that courts may direct fewer resources toward individuals who are close to aging out of the system, rather than acting in the best interest of youths.

Strengths and Limitations

The present study used a large administrative data set for a major urban county with large populations of both black and white youths. To our knowledge, this is the first study to assess the joint effects of race, age, and gender in relation to adjudication. It is also one of the few studies in the field to present results as graphs of probabilities, facilitating an understanding of disparities in juvenile justice processing among academics, policymakers, and the public (King, Tomz, & Wittenberg, 2000). Despite the strength of administrative data, the present study is not without limitations. Court officials may have been influenced by characteristics correlated with race (for example, socioeconomic status or family structure) that we were unable to control for in our models. Although we cannot rule out the importance of omitted variables, the authors of a meta-analysis of juvenile justice outcomes concluded “that studies that control for income or SES, sex, and age are no less likely than other studies to find direct race effects” (Engen et al., 2002, p. 214).

Another limitation is that the administrative data do not enable us to distinguish between formal adjudications and admissions of guilt on the part of youths. Earlier studies have found that a majority of youths admit to an offense during intake or preadjudication hearings as a result of pressure from police, court officials, and parents (Bernard & Kurlychek, 2010). Our finding that racial disparities were greatest for less serious crimes such as status offenses could reflect a greater propensity for black youths to admit to lesser offenses. A future study may examine differences between groups in the probability of admitting guilt to determine if bias is the result of judicial decision making or the

processing of youths before adjudication hearings. Finally, our results may not generalize beyond the study county. Other jurisdictions may have a different racial composition or administrative policies that would lead to divergent outcomes.

CONCLUSION AND FUTURE DIRECTIONS

This study contributes to the literature on the joint effects of race, gender, and age on adjudication decisions. Despite the perceived importance of legal constraints and evidentiary proof, we found that being black, male, and in the middle of the court’s age jurisdiction greatly increased the probability of a formal adjudication, but that racial disparities were largest for less serious offenses. Involvement in the juvenile justice system stigmatizes youths in the eyes of school officials, parole officers, and social workers (Rios, 2011). Social work practitioners must be cognizant of how biases in the juvenile justice system that disproportionately subject black youths and male juveniles to court sanctions for minor offenses shape their own perceptions of who is deserving of services or amenable to treatment. The results of this study also emphasize the need for social workers to promote evidence-based interventions (see Greenwood, 2008) aimed at preventing delinquency and promoting prosocial development as alternatives to traditional, but ineffective, forms of punishment such as probation and residential placement. **SWR**

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Original manuscript received July 26, 2016
 Final revision received October 31, 2016
 Editorial decision November 4, 2016
 Accepted November 8, 2016
 Advance Access Publication November 7, 2017

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 Item #5051. 296 pages. \$43.99.
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