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Assessing the Race–Crime and Ethnicity–Crime Relationship in a Sample of Serious Adolescent Delinquents

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Official record studies consistently show that Blacks exhibit higher levels of involvement in criminal offending than Whites do. Although self-report studies suggest somewhat lower levels of Black overrepresentation in criminal offending activity (especially with less serious forms of crime), there appears to be considerable evidence that Blacks are disproportionately involved in serious crime. Yet most of this evidence is based on data from broad cross-sections of the general population. To date, there is little evidence on which to base inferences about the relationship between race and criminal involvement within serious offender populations. In this article, the authors use both official record and self-report data on samples of serious adolescent offenders in Philadelphia and Phoenix to reach a better understanding of the relationship between race and criminal activity. The analysis suggests that consistent race differences of the kind normally seen in the criminological literature are not evident in our sample of serious offenders.

Keywords: *demographics; race; ethnicity; crime; self-reports; official records*

Since the beginning of the 20th century, racial and ethnic differences in the rates of serious juvenile and adult offending have been repeatedly observed in the United States (Hawkins, Laub, & Lauritsen, 1998). The lifetime risk of being arrested and incarcerated for Black and Hispanic males is much higher than it is for White males (Blumstein & Graddy, 1982; Bonczar & Beck, 1997), rates of involvement in serious violence are much higher for Blacks than Whites (Morenoff, 2005), and Blacks have a higher rate of personal violence and homicide victimization than Whites do

(Sampson & Lauritsen, 1997). Despite widespread consensus about these disparities, the discussion of race and crime remains "mired in an unproductive mix of controversy and silence" (Sampson & Wilson, 1995, p. 37), with many criminologists who "loathe to speak openly on race and crime for fear of being misunderstood or labeled a racist" (Sampson & Lauritsen, 1997, p. 32).

One of the key disputes in the race–crime literature concerns the overrepresentation of Blacks in official crime statistics (Walker, Spohn, & DeLone, 2003). Race-specific arrest rates published by the FBI's Uniform Crime Reporting (UCR) program are often used to illustrate the problem. As shown in Table 1, non-White arrest rates are higher than White arrest rates for all crimes (and summary indices).[1] For example, the non-White arrest rate for robbery was 132.8 per 100,000, whereas the comparable rate for Whites was 23.0 per 100,000. The non-White to White robbery ratio was 5.773, indicating that for every one White who was arrested for robbery, almost six non-Whites were arrested for robbery.

Two competing explanations for these large race disparities have been proposed. The first, referred to here as the "differential involvement hypothesis," is that Blacks simply commit more crime and more of the types of crime (e.g., violence) that lead to official criminal justice system processing (Blumstein, 1982, 1993; Wilbanks, 1987), and Blacks also continue to commit crime (especially that of violence) into adulthood when White rates appear to decrease (Elliott, 1994).[2] The second hypothesis, referred to here as the "differential criminal justice system selection hypothesis," asserts that differential police presence, patrolling, and profiling, combined with discrimination in the courts and correctional systems, leads to more Blacks being arrested, convicted, and incarcerated (Chambliss, 1994, 1995; Hindelang, 1978; Tonry, 1995; Zimring & Hawkins, 1997). It is also the case that this hypothesis is more likely to apply to the sorts of (victimless) crimes in which there is more discretion available to agents of formal social control (e.g., drug use, "public order" crimes, etc.). Self-report studies that show a somewhat weaker statistical association between race and criminal behavior have been used to support this position.[3]

Although there is considerable agreement about the statistical fact of minority overrepresentation in the criminal justice system, researchers have not yet reached agreement about the validity of these competing explanations for that disparity. In fact, a National Academy of Sciences panel recently concluded that the debate between the "behavior [differential involvement] versus justice [differential selection]" positions has led to a "conceptual and

Table 1
U.S. Arrest Rates by Race, 2001

Crime Type	All Races	White	Non-White	Non-White: White Ratio
Part I Offenses				
Crime Index[a]	791.3	615.1	1534.9	2.495
Violent Crimes[b]				
Violent Crime Index	230.9	164.7	510.2	3.097
Murder	5.2	3.0	14.8	4.933
Forcible rape	9.8	7.3	20.3	2.780
Robbery	44.0	23.0	132.8	5.773
Aggravated assault	171.8	131.5	342.3	2.603
Property Crimes[c]				
Property Crime Index	560.4	450.4	1,024.7	2.275
Burglary	100.3	84.7	165.9	1.958
Larceny-theft	408.5	329.6	741.4	2.249
Motor vehicle theft	51.6	36.0	117.4	3.261
Arson	6.4	6.0	8.1	1.350
Selected Part II Offenses				
Forgery and counterfeiting	42.0	33.8	76.6	2.266
Fraud	123.0	99.7	221.3	2.219
Embezzlement	7.2	5.8	13.2	2.275
Stolen property	44.2	30.8	101.1	3.282
Weapons violations	60.9	43.8	133.0	3.036
Sex offenses	33.0	29.1	49.5	1.701
Gambling	6.4	3.1	20.0	6.451
Drug abuse violations	587.2	450.2	1,165.6	2.589

Source: Data are from the "Age-Specific Arrest Rates and Race-Specific Arrest Rates for Selected Offenses, 1991-2001" (Retrieved September 10, 2005, from http://www.fbi.giv/ucr/addpubs.htm).
a. Crime index includes the part one offenses including the violent crimes of murder and non-negligent manslaughter, forcible rape, robbery, and aggravated assault and the property crimes of burglary, larceny-theft, motor vehicle theft, and arson.
b. Violent crime includes four offenses: murder and nonnegligent manslaughter, forcible rape, robbery, and aggravated assault. According to the Uniform Crime Reports' definition, violent crimes involve force or the threat of force.
c. Property crime includes four offenses: burglary, larceny theft, motor vehicle theft, and arson.

methodological impasse" (McCord, Widom, & Crowell, 2001, p. 229). In this article, we explore this issue from another vantage point by investigating racial and ethnic differences in official record and self report-based measures of criminal behavior within a sample of serious adolescent offenders.

Theoretical Issues

We begin by exploring evidence relating to the three most prominent explanations of minority overrepresentation in the criminal justice system. As originally discussed by Hindelang (1978), these explanations include (a) differential criminal involvement, (b) differential criminal justice system selection and processing, and (c) a combination of differential involvement and differential selection.

Differential Involvement

Beginning with the differential involvement hypothesis, there perhaps is no clearer statement than that of Wolfgang and Ferracuti (1967). They argued,

> Statistics on homicide and other assaultive crimes in the United States consistently show that Negroes have rates between four and ten times higher than Whites. Aside from a critique of official statistics that raises serious questions about the amount of Negro crime, there is no real evidence to deny greater involvement that Negroes have in assaultive crimes . . . There is reason to agree . . . that whatever may be the learned responses and social conditions contributing to criminality, persons visibly identified and socially labeled as Negroes in the United States appear to possess them in considerably higher proportions than do persons labeled White. Our subculture-of-violence thesis would, therefore, expect to find . . . [widespread] learning of, resort to, and criminal display of the violence value among minority groups such as Negroes. (p. 264)

Some recent sociological-based theories of crime and violence also emphasize the differential involvement position. Most notable among these is Elijah Anderson's street code thesis. At its core, Anderson (1999) argues that the circumstances of life among the ghetto poor, which includes among other things discrimination and racial residential segregation that are specific to minority communities, spawn an oppositional culture—"that of the street"—"whose norms are often consciously opposed to those of mainstream society" (p. 33).

This street culture, then, amounts to a set of informal rules that govern interpersonal behavior, especially street violence. When one's respect is challenged, the code, in effect, turns on. Anderson (1999) notes that this street code, which ultimately leads to higher rates of crime and especially violence, is felt by poor inner-city Blacks, particularly the young. A related respect-based code of the streets has also been identified among Hispanics (Bourgois, 2003).[4]

Differential Selection

A second position, the "differential selection hypothesis," attributes the overrepresentation of Blacks in official crime statistics to anti-African American bias within the criminal justice system (Chambliss, 1994, 1995). This explanation tends to deny the possibility of differential involvement. In its place, it predicts that criminal justice officials will act in a discriminatory fashion—an African American and a White are charged with the same offense yet treated differently by decision makers within the criminal justice system (Quinney, 1970; Taylor, Walton, & Young, 1973; Turk, 1969). A principal derivation of this explanation is the so-called status characteristics hypothesis associated with the labeling perspective (Paternoster & Iovanni, 1989). Labeling theory argues that differences in official statistics (i.e., arrest, adjudication, and incarceration rates) are due to biases in official processing and from the label that attaches to the offender. Individuals subscribing to the differential selection hypothesis, then, argue that there are no important differences between criminals and noncriminals but that differences in arrest rates along demographic (and other) lines are due primarily to biases in official processing (Chapman, 1968).

According to Goldkamp (1976), a quasi-labeling perspective can also be used to understand the differential selection thesis. Forslund (1970), for example, argues that prejudice and discrimination may produce an increase in Black official crime rates, because of some mechanism that encourages police to apply the law more rigorously against them. This differential police mobilization leads to the disproportionately higher number of Blacks in official crime statistics. In addition, Sutherland and Cressey (1970) argued that "the procedures used in the administration of criminal justice are biased against minority groups, especially Blacks" (p. 133). Such procedures will exaggerate the amount of crime committed by Blacks (Goldkamp, 1976).

In sum, the differential selection argument rests on the assumption that differential deployment of police and efforts of other criminal justice officials against racial minorities is the primary factor underlying Blacks' overrepresentation in official crime statistics.[5]

A Mixed Model of Differential Involvement and Selection

A third position concedes some level of differential involvement between race groups but also hypothesizes that all of the differences between the race groups cannot be attributed to differential criminal activity. For example, policy makers may enact legislation treating criminal acts in which minority

groups are known to be heavily involved more severely than criminal acts favored by Whites (Tonry, 1995). Kaye (1982) describes this type of discrimination as biased rule formulation (distinguishing between bias in the formulation of a rule vs. bias in the application of a rule). In addition, Quinney (1970) emphasizes the possibility "that in similar situations Negroes are more likely than Whites to be apprehended" (pp. 129-130). Chambliss (1969) also makes reference to systematic bias in law enforcement, and he notes that Blacks are "more likely to be scrutinized and therefore to be observed in any violation of the law and more likely to be arrested and discovered under suspicious circumstances" (p. 86; also see Chambliss, 1994, 1995; Chambliss & Nagasawa, 1969; Chambliss & Seidman, 1971). Finally, although Blumstein (1993) reports strong evidence of differential involvement in serious crimes by Blacks in comparison to Whites, he also notes that the prospect of racial discrimination cannot be dismissed: "There are too many anecdotal incidents and analysis of particular jurisdictions reflecting blatant discrimination to reach so naive a conclusion" (p. 759). For many criminologists, the relevant question is not whether race group differences can be attributed solely to differential involvement or selection. Rather, the key analytic task is to document the contribution of both mechanisms to the patterns observed in different populations at different time points.

Prior Empirical Research

There exists both a large research literature on the more general race–crime relationship as well as the issues involved in comparing self-reports and official records (Maxfield, Weiler, & Widom, 2000; Thornberry & Krohn, 2003). Generally speaking, both police records (Wolfgang, Figlio, & Selin, 1972) and self-report surveys (Elliott, 1994; Farrington, Loeber, Stouthamer-Loeber, Van-Kammen, & Schmidt, 1996; Williams & Gold, 1972) show disproportionate involvement in serious violence among Blacks (Hawkins et al., 1998; Morenoff, 2005, p. 145; Reiss & Roth, 1993; Tracy, 1987) with somewhat less Hispanic involvement (Morenoff, 2005).[6] This is significant, because research also indicates that crimes involving serious violence are more likely to be reported to the police, more likely to result in apprehension of the offender, and more likely to trigger more severe criminal justice sanctions (Blumstein, Cohen, Martin, & Tonry, 1983; Gottfredson & Gottfredson, 1987). In addition, researchers have also examined racial disproportionality in prisons (Blumstein, 1982, 1993; Crutchfield, Bridges, & Pitchford, 1994; Sorenson, Hope, & Stemen,

2003). This research generally suggests that much of the minority overrepresentation in prisons can be attributed to race group differences in arrests for crimes that are most likely to lead to imprisonment. But this research also indicates that it is unlikely that behavioral differences can account for all minority overrepresentation.

Johnson, Petersen, and Wells (1977) compared estimates of marijuana use for various demographic subgroups in Chicago, Omaha, and Washington, D.C., with actual arrest rates for these groups based on police records. Their analysis indicated that Blacks were more likely to be arrested controlling for actual offense levels in Chicago, but the opposite was true in Omaha. In Washington, D.C., the arrest probabilities for Whites and Blacks were approximately equal.

Hindelang's (1978) study of the differential involvement and selection hypotheses using rape, robbery, and assault data from the UCR (arrest statistics) and NCS (National Crime Survey victimization statistics) was one of the earliest attempts at assessing the race–crime link. Several key findings emerged from his analysis. First, both the UCR and NCS data showed that Blacks were overrepresented compared to their representation in the general population for rape, robbery, and assault. Second, in a simple comparison between the UCR and NCS data, Hindelang found that for the crimes of rape and assault, there was some evidence of unexplained disparity (i.e., the Black arrest rate was higher than the Black NCS rate). There was no such discrepancy for robbery. Third, when Hindelang analyzed only those NCS victimizations in which the victims told interviewers that the crimes were reported to the police, he was led to a substantively different conclusion. Here, there was virtually no evidence for the differential selection hypothesis for either rape or robbery, but a slight bias remained for (aggravated) assault.[7] In sum, although he found some evidence of differential selection, most of the racial disproportionality in the arrest data was shown in the victimization data to be attributable to greater involvement of Blacks in personal crimes in which victims could identify the race of the offender.

In subsequent research, Hindelang, Hirschi, and Weis (1981) applied basic cross-tabular and correlational approaches to official and (ever and last year) self-report records from Seattle adolescents to examine the race–crime relationship. A number of important findings emerged from their study. First, they noted that the observed race differences in official and self-reported delinquency may be due to the type of offenses examined. The absence of racial differences observed in self-reports could be due to the minor items found in those measures; among violent offenses, the racial differences evident in official records emerge once again.

Second, among offenders with high official offense rates, the Seattle data exhibited no Black and White differences. Third, a reverse-record check showed that for every offense category, Black males were less likely to self-report an offense falling into the same offense category as their official offense. For serious offenses as a whole, the White nonreporting rate was 20% compared to 57% among Blacks. In addition, White males reported 90% of the offenses on their records, whereas Black males reported only 67% of the offenses listed on their official records.[8] Blacks tended to underreport as a function of the seriousness of the offense: more serious, less reporting (burglary, vehicle theft, and weapons offenses).[9] Hindelang et al. (1981) concluded that although racial discrimination in criminal justice processing undoubtedly exists, the available evidence clearly indicates that for the offenses examined, there are true Black and White differences in offending behavior.[10]

Using data on arrests for drunk driving in a mid-sized Georgia city, Hollinger (1984) compared the racial characteristics of drivers who were randomly stopped and found to be drunk or near drunk with those of drivers who had been arrested for drunk driving. Once socioeconomic status was considered, the results failed to indicate racial differences between the offending but not arrested drivers and the arrested drivers.

D'Alessio and Stolzenberg (2003) used data from the National Incident-Based Reporting System (NIBRS) to examine the effect of an offender's race on the probability of arrest for forcible rape, robbery, and assault in 17 states during 1999. In addition to investigating the differential involvement and selection hypotheses, these researchers exploited the detailed incident-level information in NIBRS to investigate the link between the decision to arrest and several other factors such as whether the victim was injured, the race of the victim, the victim–offender relationship, and weapon use. Three key findings emerged from their study. First, multivariate logistic regression analyses indicated that the odds of arrest for Whites was 22% higher for robbery, 13% higher for aggravated assault, and 9% higher for simple assault than they were for Blacks, whereas there were no differences for forcible rape. Second, they failed to find any evidence of an offender–victim race interaction; that is, Black offenders who victimized Whites were not more likely to be arrested as prior research had suggested. Third, the authors found that several offense or offender characteristics other than race were related to the probability of arrest, including the offender's age, whether the offender was a stranger, and whether multiple offenses occurred. In sum, D'Alessio and Stolzenberg (2003) conclude that the null findings regarding systematic racial bias against Blacks in the arrest decision "suggest some

rethinking of traditional held notions about the underlying causes of the elevated arrest rates for Blacks" (p. 1392).

McNulty and Bellair (2003) used data from the Add Health to examine racial and ethnic differences in serious adolescent violence, including serious fighting, assault, and weapon use. Three key findings emerged from their study. First, descriptive information indicates that Black, Hispanic, and Native American adolescents reported significantly higher involvement in serious violence than Whites, and Asian youth reported significantly lower involvement compared to Whites. Second, they found that self-reported offending differences between Whites and minorities were explained by the variation in community disadvantage (for Blacks), involvement in gangs (for Hispanics), social bonds (for native Americans), and situational variables (for Asians). Third, when the authors examined minority group differences in serious violence, differences in violence among Blacks, Hispanics, and Native Americans were not evident; yet Asians were significantly less likely to be involved in violence compared with the other groups.

Three other studies not targeted directly at the differential involvement and differential selection hypotheses deserve mention. In the first study, Maxfield and his colleagues (2000) compared (lengthy retrospective) self-reports and official records of offending and arrests using a sample of child maltreatment victims and their matched controls. Their analyses revealed that (a) there was less agreement between self-reports and arrest information for Blacks than for Whites, (b) there were lower levels of reporting for Blacks than Whites, and (c) although racial and ethnic differences emerged for less frequent offenders, subjects with more frequent official contacts more often self-reported arrests, regardless of race or ethnicity.

Sampson, Morenoff, and Raudenbush (2005) recently attempted to explain racial and ethnic disparities in violence using three waves of data of young adults participating in the Project on Human Development in Chicago Neighborhoods. Using self-report data, two key findings emerged from their study. First, the odds of violence were 85% higher for Blacks compared to Whites, whereas Latino violence was 10% lower. Second, over 60% of the Black–White gap and the entire Latino–White gap was explained by structural factors, including the marital status of parents; immigrant generation and dimensions of neighborhood social context; and to a much lesser extent, demographic characteristics.[11]

Finally, Tracy (2005) conducted a three-county study in Texas to ascertain whether certain racial or ethnic groups were processed selectively and differently across four juvenile justice decision-making stages: (a) detention at the preadjudication stage, (b) referral to the district attorney for

prosecution, (c) referral to court for adjudication, and (d) sentenced to secure confinement. In short, the findings indicated that out of a possible 36 instances of differential handling of minority youth (i.e., four system stages × three counties × three offender groups [all, males, and females]), only 5 yielded unfavorable system processing for minority youth. Tracy concluded by arguing for more research on why minority youth are overrepresented in the prevalence, incidence, and severity of delinquency, which would begin with a focus on the societal disadvantages that place minority youth at much greater risk of criminal activity.

Extending Prior Research

Although previous research has been helpful in evaluating the differential involvement and differential selection question, some important ambiguities remain. Perhaps the most prominent limitation is a heavy reliance on aggregate data. Such studies provide useful but indirect evidence about the linkage between actual offending levels and criminal justice processing practices in individual cases. An objective of this research is to reach a better understanding of the link between race and offending activity at the individual level.

Another limitation of this literature is its relatively heavy reliance on broadly based samples of adolescents, such as those studied in the Seattle, National Youth, and Add Health Surveys. Although these studies are useful for reaching an understanding of behavioral differences between race groups, it is well known that behavior patterns in broad samples of "normal" youth do not generalize well to high-risk samples in which behavior problems are often much more severe (Cernkovich, Giordano, & Pugh, 1985). Our analysis relies on a sample of serious adolescent offenders and provides us with a unique opportunity to document racial differences in offending behavior for persons typically not enrolled in broad-based self-report studies. More important, few efforts contain both self-reported and official record data for the same individuals to draw comparisons of offending activity. Thus, race comparisons often rely exclusively on self-report or on official record data. By contrast, our study has the ability to examine race differences in behavior using both self-report and official record data on the same individuals covering the same period of time.

In this study, we seek to build on this literature by examining the differential involvement and selection question in a different manner. Specifically, we rely on data from over 1,300 serious adolescent offenders in Philadelphia

and Phoenix who are participating in a large-scale study of the transition from adolescence to young adulthood. Our task in the analyses presented here is to document basic patterns of criminal involvement among Blacks, Hispanics, and Whites referred to the authorities for involvement in serious criminal offenses in Philadelphia and Phoenix.

The use of an adolescent, offender-based sample is important for at least two reasons. First, most self-report studies have been carried out using representative or approximately representative samples of the general population. Although useful for inferring criminal activity in the population, such studies are less helpful in studying serious criminal involvement in offenses that are most likely to lead to arrest and formal criminal justice processing. For example, in the National Youth Survey, involvement in serious violence is relatively rare (Elliott, 1994). Although this problem was partially overcome in the Rochester, Denver, and Pittsburgh youth studies by sampling a higher risk group from the general population, involvement in serious violence—even within these higher risk samples—is still quite low (Kelley, Loeber, Keenan, & DeLamatre, 1997). Second, little is known about offending behavior among serious juvenile offenders and whether the conclusions drawn from samples of broader populations are applicable to them.[12]

Overall, then, previous research on the link between race and crime raises an important question not yet addressed in the extant literature: Looking back on the recent behavioral history of a sample of serious adolescent offenders, will we see important behavioral differences between racial and ethnic groups? If one assumes—as some theorists argue—the existence of a justice system that discriminates against minority groups at every stage of processing within that system, then we might expect to find important racial and ethnic group differences in prior arrest experiences. If discriminatory processes are operating, we would also expect to find evidence of behavioral similarity when we examine self-reports of offending behavior between racial and ethnic groups. Under this "rife discrimination" thesis, we would expect to see racial and ethnic group differences in official processing but see behavioral similarity when we compare racial and ethnic groups on self-reported offending. Another possibility is that the criminal justice system is acting in a race-neutral fashion and that it simply treats the most serious offenders most punitively (Blumstein, 1993). Under this framework, when racial disparities appear, they can be attributed to "differential involvement." If this type of process is operating, we might expect to see racial and ethnic group differences in self-reported behavior and corresponding racial and ethnic group differences in criminal justice processing as reflected in official record data.

A third scenario is more complicated. Under this scenario, we assume that some discrimination occurs at the front end of the criminal justice system (i.e., decisions to stop, decisions to arrest) but that the criminal justice system responds to serious offenders in a more even-handed way than it does with less serious offenders (i.e., a special case of the "liberation hypothesis"; see Spohn & Cederblom, 1991). Within this framework, we might expect to see little evidence of racial and ethnic differences in self-reported offending behavior or in criminal justice processing practices. But the failure to find evidence of racial and ethnic differences in this kind of inquiry has a great deal to do with an offender's clearance of the relatively high hurdle of seriousness required to qualify for enrollment in the study.

Finally, a relatively simple hypothesis is that neither self-reported offending patterns nor official records of criminal justice system processing exhibit important racial and ethnic differences because there are no such differences. In other words, variation in self-reported offending activity and arrest experiences is largely independent of racial and ethnic groups within a sample of serious juvenile offenders.

To be clear, our study is not designed to assess race differences in adjudication rates for serious delinquency. Instead, the goal is to see whether the different racial and ethnic groups in our sample exhibit different levels of prior arrests and self-reported offending frequency. We also wish to be clear that we are not using our sample to say anything about racial and ethnic differences (or lack thereof) in self-reported and official record delinquency within the general population of juvenile offenders. Such an interpretation could be open to the criticism of sample selection bias. Instead, however, our question is simply whether the racial and ethnic groups in our sample of serious juvenile offenders exhibit important differences in prior self-reported delinquency or prior arrests. So it is a descriptive result about this sample. It is also important to keep in mind that our findings have nothing to say about whether the racial and ethnic groups in our sample are differentially treated after they have been enrolled in the sample.

Thus, the purpose of our study is twofold. First, we want to describe the prior offending activity of different racial and ethnic groups within our sample of serious adolescent offenders, which will serve an important descriptive function. Second, we think the explanations described above lead to somewhat different predictions about the racial and ethnic patterns of prior offending we might expect to see in a study of serious offenders. Such an analysis builds on the existing literature by documenting racial and ethnic patterns in prior offending activity and comparing it to self-reported estimates of offending among a sample of serious adolescent offenders.

Data and Methods

Our data come from an ongoing longitudinal study of male and female adolescent offenders in Philadelphia (Philadelphia County) and Phoenix (Maricopa County) (Mulvey et al., 2004; Schubert et al., 2004, for a more complete description). These offenders had all been adjudicated delinquent or found guilty of a serious offense (overwhelmingly felonies). Eligible crimes included felony offenses against persons and property, as well as several misdemeanor weapons offenses and sexual assault. Specifically, the juveniles were sentenced for a range of committing offenses: 41% for violent crimes against persons (e.g., murder, rape, robbery, and assault), 30% for property crimes (e.g., arson, burglary, and receipt of stolen property), 13.5% for weapons, 2% for sex crimes, and 2% for other crimes (e.g., conspiracy, and intimidation of a witness). Because drug violations represent such a significant proportion of the offenses committed by this age group, and because males account for the vast majority of those cases, the proportion of juvenile males recruited with a history of drug offenses was capped at 15% of the full sample at each site so that the heterogeneity of the sample would not be compromised. The cap did not apply to those adolescents who were processed in the adult criminal system (20% of the Phoenix sample).[13] Offenders who agreed to participate in the study, and for whom parental consent was obtained, completed a baseline interview. For offenders in the juvenile system, this interview was conducted within 75 days of the adjudication hearing. For offenders in the adult system, the baseline interview was conducted within 90 days of the decertification hearing in Philadelphia or the adult arraignment hearing in Phoenix (there is no waive-back provision to the juvenile system under Arizona law).

A total of 1,355 offenders who met study eligibility requirements were recruited into the study.[14] Although the age of enrolled offenders ranged from 14 to 18 years, over 75% of the sample was between the ages of 15 and 17 at the time of enrollment (mean = 16). Table 2 presents the race and gender distribution of the offenders in the sample. Out of the sample of 1,355 cases, 562 (41.5%) were Blacks, 454 (33.5%) were Hispanics, and 274 (20.2%) were Whites. Table 2 also shows that Blacks are the largest group in Philadelphia, whereas Hispanics are the largest group in Phoenix. Our analysis focuses on the relationship between race, sex, and three measures of offending behavior covering the 12 months preceding enrollment: (a) number of officially recorded arrests in the past 12 months leading to a court referral (see Figure 1); (b) the frequency of self-reported offending activity, a 22-item scale that measures the number of

Table 2
Race and Gender Distribution ($N = 1,355$)

	Overall					
	Male		Female		Total	
Race	*N*	%	*N*	%	*N*	%
White	225	19.2	49	26.6	274	20.2
Black	494	42.2	68	37.0	562	41.5
Hispanic	398	34.0	56	30.4	454	33.5
Other	25	2.1	4	2.2	29	2.1
Missing	29	2.5	7	3.8	36	2.7
Total	1171	100	184	100	1355	100
	Philadelphia					
	Male		Female		Total	
	N	%	*N*	%	*N*	%
White	63	10.4	9	9.5	72	10.3
Black	442	72.9	61	64.2	503	71.8
Hispanic	85	14.0	22	23.2	107	15.3
Other	4	0.7	1	1.1	5	0.7
Missing	12	2.0	2	2.1	14	2.0
Total	606	100	95	100	701	100
	Phoenix					
	Male		Female		Total	
	N	%	*N*	%	*N*	%
White	162	28.7	40	44.9	202	30.9
Black	52	9.2	7	7.9	59	9.0
Hispanic	313	55.4	34	38.2	347	53.1
Other	21	3.7	3	3.4	24	3.7
Missing	17	3.0	5	5.6	22	3.4
Total	565	100	89	100	654	100

self-reported delinquent and criminal acts reported by the juvenile in the past 12 months (see Figure 2)[15]; and (c) a count of the number of different types of delinquency an individual self-reported in the year preceding referral (i.e., a variety score with a maximum possible score of 22; see Figure 3).[16] All three of these figures illustrate the highly skewed nature of criminal offending activity in this sample—a pattern typically seen in studies of

Figure 1
Prior Arrest Distribution

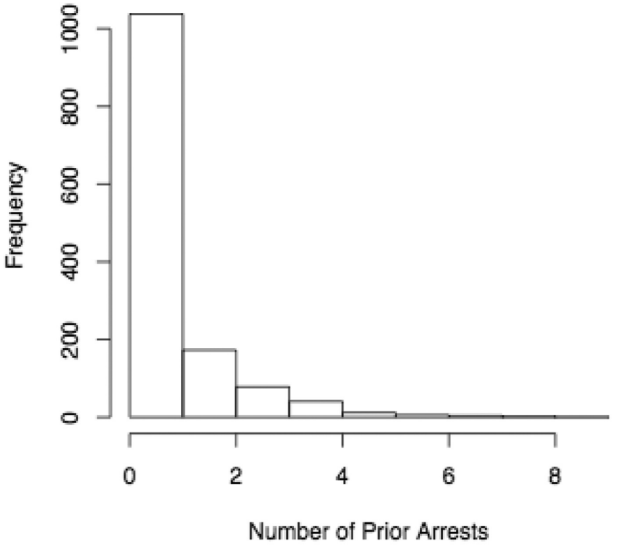


Figure 2
Prior SRO Frequency

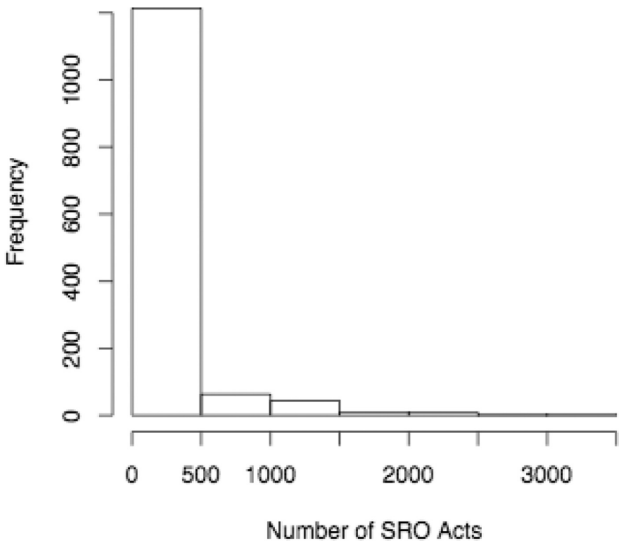
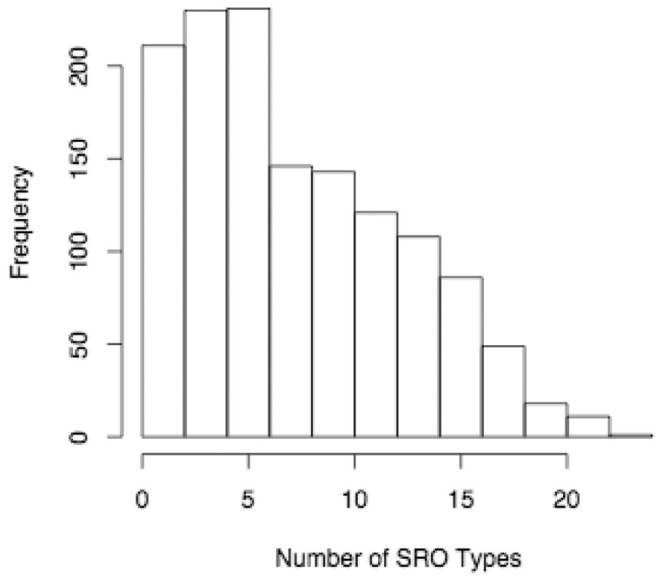


Figure 3
Prior SRO Variety

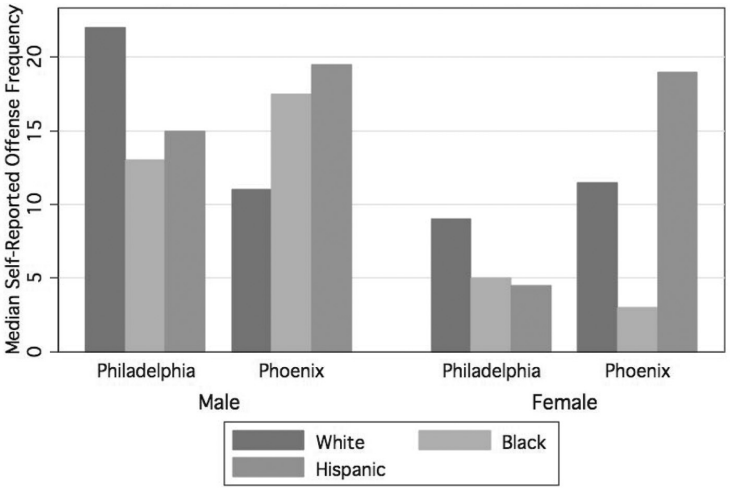


criminal offending within the general population (Brame, Fagan, Piquero, Schubert, & Steinberg, 2004). Because 10 individuals out of the 1,290 cases of interest do not have valid self-reported offending information for the variety score or the self-reported offense frequency score, our analysis sample is composed of 1,280 individuals.[17]

Results

We begin our analysis by examining racial and ethnic differences in self-reported criminal offending. Figure 4 displays the median pre-enrollment year self-reported offense frequencies for each racial and ethnic group separately for males and females in Philadelphia and Phoenix. Among Philadelphia males, the bar chart seems to indicate a higher level of self-reported offense frequency among Whites than for Hispanics and Blacks. But a nonparametric comparison of the medians[18] indicates that the hypothesis of equal medians cannot be rejected (χ^2 with 2 degrees of freedom = 1.184;

Figure 4
Self-Reported Offense Frequency

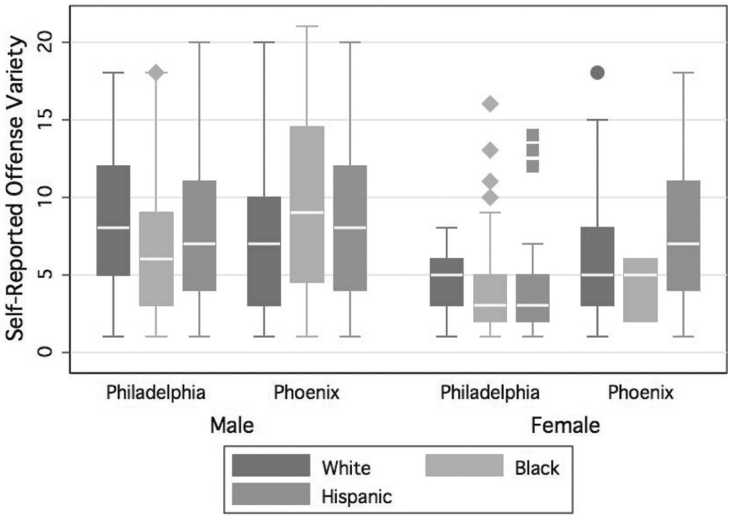


$p > .05$). Similar comparisons of Phoenix males (χ^2 with 2 degrees of freedom = 2.756; $p > .05$), Philadelphia females (χ^2 with 2 degrees of freedom = 3.216; $p > .05$), and Phoenix females (χ^2 with 2 degrees of freedom = 1.558; $p > .05$) all produced similar results. Overall, then, there appears to be no difference in median self-reported offense frequency between racial and ethnic groups.

Next, we turn to our analysis of the prior-year self-reported offense variety scores. We summarize these comparisons with box plots in Figure 5. Our comparison of the median scores between racial and ethnic groups among Philadelphia males produces a nonsignificant chi-square value (χ^2 with 2 degrees of freedom = 4.348; $p < .12$; χ^2 with 2 degrees of freedom = 4.791; $p < .10$ with ties dropped). Nevertheless, this chi-square statistic is larger than the one we observed with self-reported offense frequency. Although this is attributable to the higher levels of offending variety among Whites within the subgroup of Philadelphia males, it is also true that Whites represent a small fraction (61/585 = 10.4%) of the Philadelphia males enrolled in the study.

Among Phoenix males, Blacks stand out as having higher variety scores than Hispanics and Whites. In addition, the chi-square statistics for the median comparisons between the three race groups are higher than those

Figure 5
Self-Reported Offense Variety Score



observed for self-reported offending frequency (χ^2 with 2 degrees of freedom = 3.662; $p < .17$; χ^2 with 2 degrees of freedom = 4.268; $p < .12$ with ties dropped). Yet Blacks make up only a small fraction of the offenders within the Phoenix male sample (52/523 = 9.9%).

Our analysis of the Philadelphia females indicates considerable similarity in the variety score distribution. Although Whites seem to exhibit slightly higher levels of offense variety in the year preceding enrollment, the overall comparison of the medians between the three racial and ethnic groups is not statistically significant (χ^2 with 2 degrees of freedom = 0.684; $p > .05$). Under one specification, higher variety scores among Hispanic females in Phoenix on the other hand leads to a statistically significant racial comparison for one specification (ties dropped), but the result does not hold up when ties are split equally among the below-median and above-median groups (χ^2 with 2 degrees of freedom = 2.644; $p < .27$; χ^2 with 2 degrees of freedom = 7.210; $p < .03$, with ties dropped).

The data for arrests leading to referral in the year preceding enrollment in the study is an official record-based measure of criminal involvement. As noted above, this variable takes the form of an event count. In addition, as

Figure 6A
Mean Prior Year Arrest Frequency

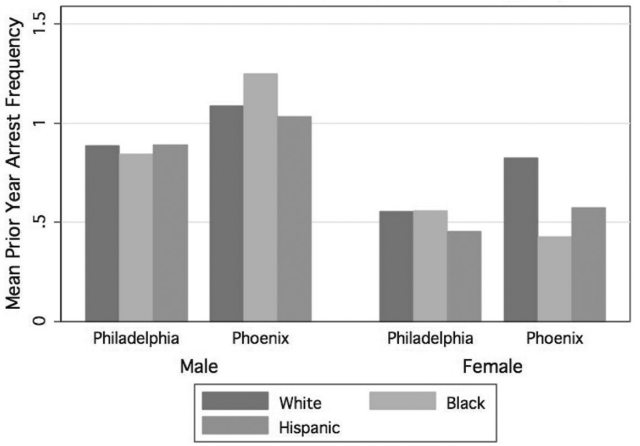
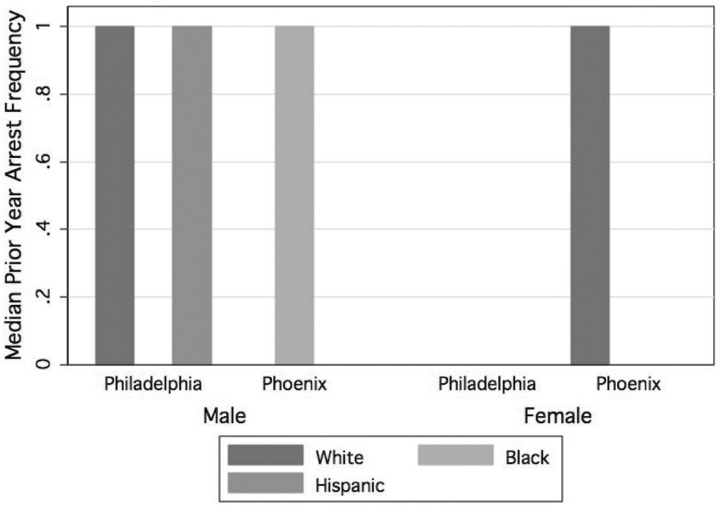


Figure 6B
Mean Prior Year Arrest Frequency



(*continued*)

Figure 6C
65th %ile Prior Year Arrest Frequency

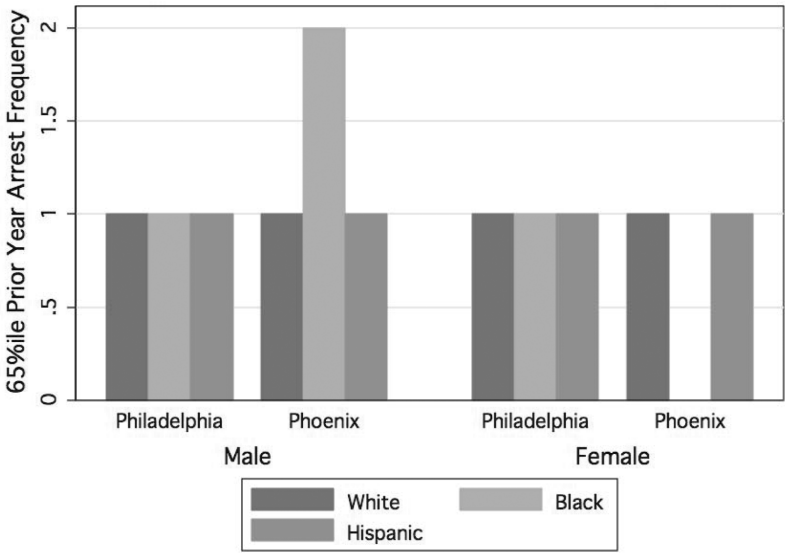


Figure 6D
80th %ile Prior Year Arrest Frequency

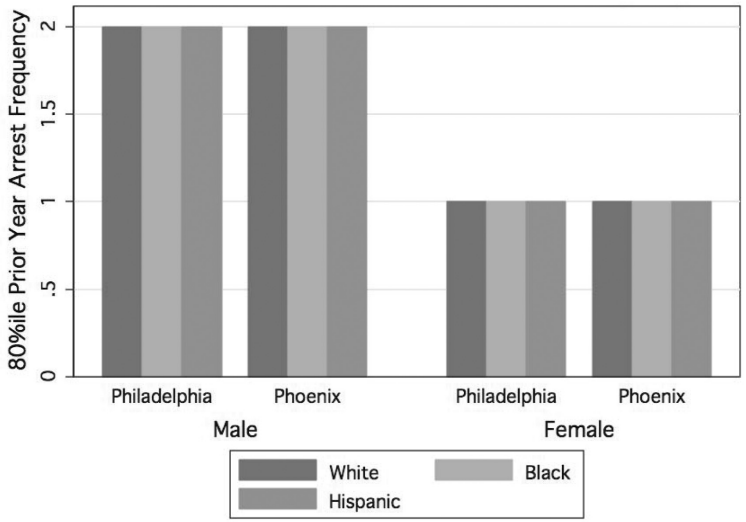


Table 3
Negative Binomial Regressions of Prior Year Arrest Frequency on Race Groups Stratified by Site and Gender

Philadelphia Males	Parameter Estimate	*SE*	*Z* Ratio
Constant term	–0.113	0.157	–0.72
Race = White	0.000		
Race = Black	–0.065	0.168	–0.39
Race = Hispanic	0.031	0.204	0.15
Dispersion parameter	0.398	0.098	
Phoenix Males	**Parameter Estimate**	***SE***	***Z* Ratio**
Constant term	0.002	0.111	0.02
Race = White	0.000		
Race = Black	0.300	0.196	1.53
Race = Hispanic	0.059	0.132	0.44
Dispersion parameter	1.233	0.192	
Philadelphia Females	**Parameter Estimate**	***SE***	***Z* Ratio**
Constant term	–0.552	0.470	–1.18
Race = White	0.000		
Race = Black	–0.065	0.507	–0.13
Race = Hispanic	–0.151	0.566	–0.27
Dispersion parameter	0.183	0.194	
Phoenix Females	**Parameter Estimate**	***SE***	***Z* Ratio**
Constant term	–0.190	0.197	–0.97
Race = White	0.000		
Race = Black	–0.672	0.681	–0.99
Race = Hispanic	–0.363	0.322	–1.13
Dispersion parameter	0.295	0.244	

Figures 1 and 6A-6D demonstrate, this variable is highly skewed with most cases exhibiting an arrest count that is zero or close to zero. Because of the compressed and skewed distribution of the event counts, we systematically tested for racial and ethnic differences within each site and gender group by estimating a series of negative binomial regression models fit with a constant term and dummy variables for Black and Hispanic cases (Whites were used as the reference category). Table 3 presents a summary of the regression results. These models all point to the same conclusion: There are no significant differences in prior-year arrest rates between racial and ethnic

Table 4
Negative Binomial Regressions of Prior Year Arrest Frequency on Race Groups Stratified by Site and Gender, With Self-Report Variety

Philadelphia Males	Parameter Estimate	*SE*	*Z* Ratio
Constant term	–0.492	0.188	–2.62
Race = White	0.000		
Race = Black	–0.001	0.166	0
Race = Hispanic	0.062	0.201	0.31
Self-report variety	0.045	0.012	3.76
Dispersion parameter	0.363	0.094	
Phoenix Males	**Parameter Estimate**	***SE***	***Z* Ratio**
Constant term	–0.363	0.141	–2.58
Race = White	0.000		
Race = Black	0.169	0.195	0.87
Race = Hispanic	–0.023	0.132	–0.17
Self-report variety	0.048	0.011	4.39
Dispersion parameter	1.135	0.183	
Philadelphia Females	**Parameter Estimate**	***SE***	***Z* Ratio**
Constant term	–1.113	0.496	–2.24
Race = White	0.000		
Race = Black	0.040	0.488	0.08
Race = Hispanic	–0.204	0.561	–0.36
Self-report variety	0.104	0.036	2.85
Dispersion parameter	0.035	0.183	
Phoenix Females	**Parameter Estimate**	***SE***	***Z* Ratio**
Constant term	–0.371	0.197	–1.24
Race = White	0.000		
Race = Black	–0.609	0.681	–0.89
Race = Hispanic	–0.401	0.322	–1.23
Self-report variety	0.028	0.034	0.83
Dispersion parameter	0.289	0.244	

groups. And in Table 4, we take this analysis one step further and add a control for self-reported offending variety in predicting official arrests in the prior year. Here, in three of the four regressions, self-reported offending variety is positively and significantly related to official arrests as expected, and once again, there are no significant differences in prior year arrest rates between racial and ethnic groups.

Discussion

Previous research—mostly focused on broad cross-sections of the general population—demonstrates a strong relationship between race and official record measures of involvement in criminal offending. Although the relationship between race and self-reported offending is typically weaker than what is observed in official record data, most self-report studies document more extensive levels of involvement in serious criminal behavior among minority populations, particularly among Blacks. Our review of the literature further indicates that documentation of race-specific offending patterns of serious (adolescent) offenders involved in the criminal justice system are absent. Also absent is any systematic racial and ethnic comparison of official criminal justice system arrest data and self-reported offending data collected on the same subjects (for an exception, see Fergusson, Horwood, & Swain-Campbell, 2003). Therefore, despite the existence of considerable evidence about race and crime in the extant literature, virtually nothing is known about these patterns in samples of serious adolescent offenders.

We proposed some reasons for hypothesizing that race and ethnicity patterns in the larger literature should also appear in our data. And we noted equally plausible reasons why commonly found race and ethnicity patterns in general population or quasi-general population studies would not emerge in a sample like ours. A key unresolved issue in the extant literature is whether there are important racial differences in prior offending behavior among a sample of serious offenders. Regardless of which substantive finding emerged from our effort, the study extended this line of research in several important ways, primarily with its focus on Black, White, and Hispanic males and females, as well as the use of a serious, adolescent offender sample.

Overall, our analysis of the Philadelphia and Phoenix data has produced little evidence of important racial and ethnic differences in either self-reported offending (frequency or variety) or officially based arrests leading to a court referral in the year preceding study enrollment. Although two of the variety score analyses for males yield some limited evidence that Whites exhibit higher variety scores among Philadelphia males and Blacks exhibit higher variety scores among Phoenix males, these analyses are not conclusive, primarily because of the small number of Whites in Philadelphia and the small number of Blacks in Phoenix. That these differences cannot be interpreted as statistically significant in the self-reported frequency analysis suggests that our conclusions about these differences must be further qualified. Among Phoenix females, there is some suggestion of higher variety scores

for Hispanics, but this finding appears to be sensitive to the technical detail of whether cases with the median score are dropped from the analysis. In addition, there is no significant difference in median self-reported offense frequency levels between racial and ethnic groups among Phoenix females.

To be sure, our study is limited in several respects. First, more attention needs to be paid to racial and ethnic differences with respect to specific types of criminal behavior. It could be that important patterns are evident for certain types of crime but not for other types. We know from prior research that offenders who are heavily involved in offending are often committing minor offenses with a low probability of arrest (Blumstein, Cohen, Roth, & Visher, 1986; Piquero, Farrington, & Blumstein, 2003). It will be important to further investigate the race-specific and ethnic-specific correlation between serious self-reported offending activity and arrest frequency (see Thornberry & Krohn, 2003).

Second, as noted above, our finding of no prior-year official record differences between racial and ethnic groups is consistent with more than one hypothesis that bears on the "differential selection vs. differential involvement" literature. For example, our analysis only demonstrates that there is no prima facie evidence of disparate treatment of minorities. That does not preclude the possibility that disparate treatment exists for certain subpopulations within our data or for a broader offender population from which our sample of serious offenders is drawn. Although we have tried to study racial and ethnic patterns within subgroups that seem reasonable, other analyses are possible and studies within different populations may produce different results. But a counterargument to this position is that our sample of serious adolescent offenders in Phoenix and Philadelphia is an understudied subgroup in its own right. In fact, race-specific and ethnic-specific offending patterns in large groups of serious adolescent offenders are poorly understood, and the descriptive results provided by this study contribute to a correction of that deficiency in the extant literature.

Third, this analysis, like much of the extant research (Hindelang et al., 1981), focuses only on the 1-year period preceding enrollment in the study. As more longitudinal data on these offenders becomes available—especially as these offenders make the transition to adulthood—it will be interesting to assess the evolution of our findings about racial and ethnic differences in criminal offending. Fourth, our comparison of self-report and official records did not go past the point of arrest. Future examination of racial and ethnic differences in further system processing, such as detention, placement, and incarceration decisions would be welcomed (e.g., Crutchfield et al., 1994; Tracy, 2005; Wordes, Bynum, & Corley, 1994).

Finally, although the fact that the sample contains important self-report and official records of offending for a large group of male and female adolescent offenders of different races and ethnicities, the sample is still a highly selective one and involves potentially different factors at work with respect to the criminal justice system that may affect outcomes. Subsequent efforts should pay close attention to the sorts of issues that emerge when identifying a particular type of sample, including the eligibility criteria imposed on their participation and progression in the study, and also give further consideration to the role of underreporting among African American and Hispanic youth with respect to self-reported offending.

Going forward, there is a pressing need to continue the field's expansion of studying racial and ethnic differences in crime apart from a focus on Black versus White (Hawkins & Kempf-Leonard, 2006). Given the increasing representation of ethnic groups, especially Hispanics (Saenz, 2004), the near peak levels of immigration (Sampson & Bean, 2006), and the continued glaring differences in imprisonment risk across race and ethnicity (U.S. Department of Justice, 2005), research on the race–crime and ethnicity–crime issue, especially with a focus on Hispanics (Martinez, 2002) and Native Americans (Greenfeld & Smith, 1999), remains paramount. On this point, the much-discussed linkage between immigration and crime also presents unique opportunities for further studying the race–crime and ethnic–crime relationship. This is especially the case with what Sampson and Bean (2006) have termed the "Latino paradox" (p. 20); that is, concentrated immigration has little if any association with aggregate homicide among Latinos, whereas it predicts homicide among Blacks. Because the meaning of race and ethnicity in crime and criminal justice has been underinvestigated (Peterson, Krivo, & Hagan, 2006), we hope that researchers join us in the pursuit of understanding differences and similarities in offending across race and ethnicity. The need for empirical research is clear, but criminologists must renew their theoretical efforts to better understand the nature of the race–crime and ethnic–crime linkage, particularly because few criminological theories have adequately addressed the question of what accounts for racial and ethnic differences in crime (Hawkins, 1995). One place to start would be with a concerted focus on the societal inequities that place minority youth at a much greater risk of exhibiting differentials in the prevalence, incidence, and severity of delinquency (Tracy, 2005). Although the standard list of theories, including routine activities, subcultural, and community-level explanations, have been applied (but not specifically developed) to understand and explain the linkage, recent theorizing about legal socialization (Fagan & Tyler, 2005; Piquero, Fagan, Mulvey, Steinberg, & Odgers, 2005; Tyler, 2003), street codes (Matsueda, Drakulich,

& Kubrin, 2006; Stewart & Simons, 2006), racial stereotypes (Bridges & Steen, 1998; Graham & Lowery, 2004), neighborhood well-being (Piquero, West, Fagan, & Holland, 2006), and perceived injustice (Hagan, Shedd, & Payne, 2005), all in a multilevel framework, may provide unique opportunities for a more complete portrait of the issue at hand. Understanding how these experiences in adolescence and in the juvenile justice system influence relationships with the criminal justice system as youth age and enter adulthood seems to be an area ripe for research (Piquero et al., 2005; Pope & Feyerherm, 1990a, 1990b; Shedd & Hagan, 2006), especially because race appears particularly salient in the transition from adolescence to adulthood (Anderson, 1990; Arnett, 2003; Sullivan, 1989).

Notes

1. To obtain these estimates, the FBI considered only White and non-White (all races other than White). Comparisons of Whites, Blacks, American Indian, Alaskan native, and Asian-Pacific islander yield similar substantive conclusions (Pastore & Maguire, 2001). The Uniform Crime Reporting program (UCR) contains no information on the offender's ethnicity, thereby precluding the provision of any information on crime among Hispanics and other ethnic groups (Morenoff, 2005).

2. It may be that racial discrimination is, in part, responsible for social and economic conditions that lead to higher rates of offending by Blacks, but that possibility does not bear on the question of whether the criminal justice system discriminates against Blacks. According to Wilbanks (1987), "the question of whether the criminal justice system is racist must not be confused with that of whether Blacks commit crimes at a higher rate than Whites because of discrimination in employment, housing, education, and so forth" (p. 7).

3. To be sure, there are a number of plausible reasons why official record studies and self-report studies do not converge on this point: For example, delinquent Blacks may be more likely to be missing from surveyed samples (Weis, 1986), and there is some mixed evidence that the validity of self-reports of delinquency is lower for Blacks than for Whites (compare Farrington, Loeber, Stouthamer-Loeber, Van-Kammen, & Schmidt, 1996, to Thornberry & Krohn, 2003).

4. Structural explanations and/or mediating neighborhood effects might also be important. Neighborhoods tend to sort people by race, and it is difficult to distinguish between neighborhood effects and race effects. Furthermore, because (a) individuals cluster by race into disadvantaged neighborhoods and (b) there is likely to be weaker social control and more crime opportunities in such places, the interaction between neighborhood effects and racial sorting mechanisms may be important as well. Excellent sources of this line of research exist elsewhere (Matsueda, Drakulich, & Kubrin, 2006; Sampson, Raudenbush, & Earls, 1997; Smith, 1986).

5. There also exist several other streams of research that may be salient here, including one that examines issues related to differential policing by race (Alpert, MacDonald, & Dunham, 2005; Fagan & Davies, 2000), a second that examines more general perceived discrimination issues (Bridges & Steen, 1998; Graham & Lowery, 2004), and a third that studies how neighborhood racial context shapes residents' perception of disorder (Sampson & Raudenbush, 2004). The main point is that there is considerable overlap between minority and poor neigh-

borhoods. If such neighborhoods are viewed as high-crime areas, they may be policed more intensively. All other things equal, we would expect that more intensively policed areas will experience higher arrest rates than areas policed less intensively. Under this scenario, residents of minority and poor neighborhoods would be arrested at higher rates than residents of other neighborhoods.

6. To be sure, police records cannot entirely address the issue of Hispanic involvement in serious violence, because the UCR does not collect data on ethnicity.

7. Given that many assaults are never reported to the police and ambiguities about classification of assaults as aggravated or simple, the assault finding may have as much to do with these twin measurement difficulties as with differential involvement or differential selection.

8. Similar results were obtained by Huizinga and Elliott (1986) using data from the National Youth Survey. They found that 11% of African Americans self-reported all offenses for which they had a matching arrest record, whereas the comparable estimate among Whites was 57%.

9. Huizinga and Elliott (1986) also found that officially recorded Black boys were less likely to report their offenses than officially recorded White boys.

10. Hindelang, Hirschi, and Weis's (1981) analysis was much more in-depth than can be presented here. One other noteworthy finding concerned the average correlation across official records and ever-variety self-report scores. Importantly, there was wide variation in the correlations according to race and gender, with the lowest value observed for African American males.

11. In another study, Farrington et al. (1996) examined how ethnicity related to the probability of future juvenile court petitions, using both a standard self-reported delinquency scale as well as a combined scale that included information from other reports (i.e., mothers and teachers). Their analysis indicated that although ethnicity was significantly related to future court petitions—and less so of the combined compared to the traditional self-report scale—ethnicity was not significantly related to past petitions independently of the combined scale (p. 509). They concluded that "ethnic differences in official delinquency were partly attributable to ethnic differences in delinquent behavior and were not attributable to differential ethnic attrition or differential ethnic validity of measures of delinquent behavior" (p. 511).

12. A focus on juvenile offenders also makes sense, because as Pope and Feyerherm (1990a, 1990b) have noted, there may be a greater amount of discrimination observed among agents of social control with respect to juveniles compared to adults (also see Sampson & Lauritsen, 1997).

13. No drug offense quota was imposed on the female sample. Thus, female juveniles who met the age and adjudicated crime requirements were eligible for enrollment in the study.

14. Schubert et al. (2004, pp. 247-250) provide further information on the sample with respect to cooperation and enrollment procedures and rates. During the enrollment period, approximately 10,461 individuals meeting our age and petitioned charge criteria were processed in the court systems in Philadelphia and Phoenix. The petition selected to represent the individual is the first petition on which the youth met the study criteria during the enrollment period (if that individual was not enrolled in the study) or the petition on which a participant was enrolled. Although petitioned on an eligible serious charge, some adolescents did not qualify for enrollment because they were not adjudicated (found guilty) on an eligible charge. In a sizable number of the petitioned cases (n = 5,382), the charges were reduced below a felony-level offense at adjudication. In another 1,272 cases, the court data were not sufficiently clear during the enrollment period to determine eligibility status at adjudication. Slightly more than one half of the youth determined to be adjudicated on an eligible charge were approached for enrollment. Those not approached (n = 1,799) were excluded because of operational and design constraints. We did not approach all eligible cases when the flow of

these cases would have overloaded the available interviewers or when we were close to enrolling our predetermined cap of 15% drug offenders. In the end, we managed to enroll more than one of every three (36%) of the identifiable adjudicated felony offenders who came before the courts in these locales during the enrollment period. Our participation rate, defined as the number of participants enrolled divided by the number attempted for enrollment, was 67%. Our refusal rate, defined as the number of adolescents or parents who would not take part in the study divided by the number we approached, is 20%. These figures compare quite favorably with those from other studies of high-risk populations. We examined how our case identification and enrollment process may have filtered out particular groups along the way. The total sample of petitioned youth (exclusive of the 1,272 cases for which the court records were incomplete; $n = 9,189$) was divided into three mutually exclusive groups: (a) those individuals petitioned on an eligible charge but then adjudicated on a lesser, noneligible charge ("petitioned but not adjudicated" group); (b) those petitioned and subsequently adjudicated on an eligible charge but not enrolled into the study ("adjudicated but not enrolled" group); and (c) those petitioned and adjudicated on an eligible charge and then enrolled into the study (the "enrolled" group). Two sets of comparisons using these three groups allowed us to obtain a picture of how our enrollment process influenced sample characteristics. In the first analyses, the petitioned group was compared to the combined adjudicated and enrolled group. This provided a view of the filtering connected with the adjudication process. Next, we compared the adjudicated but not enrolled group to the enrolled group, providing a perspective on potential biases connected with our enrollment criteria (i.e., the cap on drug charges at 15% of the sample) and our recruiting process. Many of the differences across groups are reasonable, because the comparisons are between petitioned cases and adjudicated cases with a very large sample. The petitioned group and the adjudicated group differed in their average age, number of prior petitions, gender, and race. The adjudicated group is more likely to be male, slightly older, and with more prior petitions. This group is also less likely to be White and more likely to be African American and Hispanic. African Americans and Hispanics in this sample are significantly more likely to be adjudicated on a serious charge meeting our criteria than to be found not guilty. The comparisons between the adjudicated but not enrolled group and the enrolled group indicated that the latter is younger at their adjudication hearing, has had more prior petitions, and appeared in the court for the first time at an earlier age. There are also a larger proportion of girls in the enrolled group. None of these results are surprising, given that we purposefully sought to enroll more serious youth and every possible female offender to increase the size of this subgroup for later analyses. Finally, although our enrollment criteria did not include any restrictions on race, we did enroll proportionately more White offenders and fewer African Americans. We know that this discrepancy was not related to differential rates of participant refusal across racial groups because African Americans were not significantly more likely to refuse. It is instead most likely that the imposition of a cap on the proportion of the sample adjudicated on drug charges probably affected this race proportionality, because there is likely to be an association between adjudications for drug charges and race, especially among African Americans in Philadelphia. Indeed, African Americans were significantly more likely to be in the drug cap group than were other racial groups.

15. The 22 items in the self-reported offending scale are the following: (1) destroyed or damaged property; (2) set fire; (3) broke in to steal; (4) shoplifted; (5) bought, received, or sold stolen property; (6) used check or credit card illegally; (7) stole car or motorcycle; (8) sold marijuana; (9) sold other drugs; (10) carjack; (11) drove while drunk or high; (12) was paid for sex; (13) forced someone to have sex; (14) killed someone; (15) shot someone, bullet hit; (16) shot at someone, no hit; (17) took by force with weapon; (18) took by force without

weapon; (19) beat up someone, serious injury; (20) was in fight; (21) beat up someone as part of a gang; (22) carried a gun.

16. As expected, the three offending measures are positively and significantly correlated at $p < .05$. In the full sample, the correlation between self-reported frequency and variety of offending is $r = .680$; the correlation between self-reported frequency and official arrests is $r = .221$; and the correlation between self-reported variety and official arrests is $r = .199$.

17. As can be seen in Table 2, only 1,290 cases are in the Black, Hispanic, or White groups. The other 65 cases are in other race categories, or they have missing data on race.

18. Nonparametric median tests must address the problem of how to deal with scores that fall exactly at the median. The results reported in the text are based on analyses that split the median ties equally into the above-median and below-median groups. We also address this issue by analyzing the data with the median tie cases deleted. We describe those results when they produce different conclusions.

References

Alpert, G. P., MacDonald, J. M., & Dunham, R. G. (2005). Police suspicion and discretionary decision making during citizen stops. *Criminology*, *43*(2), 407-434.

Anderson, E. (1990). *Streetwise: Race, class, and change in an urban community*. Chicago: University of Chicago Press.

Anderson, E. (1999). *Code of the street: Decency, violence, and the moral life of the inner city*. New York: Norton.

Arnett, J. J. (2003). Conceptions of the transition to adulthood among emerging adults in American ethnic groups. *New Directions for Child and Adolescent Development*, *100*, 63-75.

Blumstein, A. (1982). On the racial disproportionality of U.S. prison populations. *Journal of Criminal Law and Criminology*, *73*(3), 1259-1281.

Blumstein, A. (1993). Racial disproportionality of U.S. prison populations revisited. *University of Colorado Law Review*, *64*(3), 743-760.

Blumstein, A., Cohen, J., Martin, S. E., & Tonry, M. H. (Eds.). (1983). *Research on sentencing: The search for reform*. Washington, DC: National Academy Press.

Blumstein, A., Cohen, J., Roth, J. A., & Visher, C. A. (Eds.). (1986). *Criminal careers and "career criminals."* Washington, DC: National Academy Press.

Blumstein, A., & Graddy, E. (1982). Prevalence and recidivism in index arrests: A feedback model. *Law and Society Review*, *16*(2), 265-290.

Bonczar, T. P., & Beck, A. J. (1997). *Lifetime likelihood of going to state or federal prison*. Washington, DC: Bureau of Justice Statistics.

Bourgois, P. (2003). *In search of respect: Selling crack in el barrio* (2nd ed.). New York: Cambridge University Press.

Brame, R., Fagan, J., Piquero, A. R., Schubert, C. A., & Steinberg, L. (2004). Criminal careers of serious delinquents in two cities. *Youth Violence and Juvenile Justice*, *2*(3), 256-272.

Bridges, G. S., & Steen, S. (1998). Racial disparities in official assessments of juvenile offenders: Attributional stereotypes as mediating mechanisms. *American Sociological Review*, *63*(4), 554-570.

Cernkovich, S. A., Giordano, P. C., & Pugh, M. D. (1985). Chronic offenders: The missing cases in self-report delinquency research. *Journal of Criminal Law and Criminology*, *76*(3), 705-732.

Chambliss, W. J. (1969). *Crime and the legal process*. New York: McGraw-Hill.
Chambliss, W. J. (1994). Policing the ghetto underclass: The politics of law and law enforcement. *Social Problems*, *41*(2), 177-194.
Chambliss, W. J. (1995). The institutionalization of racism through law. In Darnell Hawkins (Ed.), *Race, ethnicity, and crime* (pp. 235-258). Albany: State University of New York Press.
Chambliss, W. J., & Nagasawa, R. (1969). On the validity of official statistics: A comparative study of White, Black, and Japanese high school boys. *Journal of Research on Crime and Delinquency*, *6*(1), 71-77.
Chambliss, W. J., & Seidman, R. B. (1971). *Law, order, and power*. Reading, MA: Addison-Wesley.
Chapman, D. (1968). *Sociology and the Stereotype of the Criminal*. London: Tavistock.
Crutchfield, R., Bridges, G., & Pitchford, S. (1994). Analytical and aggregation biases in analyses of imprisonment: Reconciling discrepancies in studies of racial disparity. *Journal of Research in Crime and Delinquency*, *31*(2), 166-182.
D'Alessio, S. J., & Stolzenberg, L. (2003). Race and the probability of arrest. *Social Forces*, *81*(4), 1381-1397.
Elliott, D. S. (1994). Serious violent offenders: Onset, developmental course and termination. *Criminology*, *32*(1), 1-22.
Fagan, J., & Davies, G. (2000). Street stops and broken windows: Terry, race, and disorder in New York City. *Fordham Urban Law Review*, *28*, 457-504.
Fagan, J., & Tyler, T. R. (2005). Legal socialization of children and adolescents. *Social Justice Research*, *18*(3), 217-242.
Farrington, D. P., Loeber, R., Stouthamer-Loeber, M., Van-Kammen, W. B., & Schmidt, L. (1996). Self-reported delinquency and a combined delinquency seriousness scale based on boys, mothers, and teachers: concurrent and predictive validity for African-Americans and caucasians. *Criminology*, *34*(4), 493-518.
Fergusson, D. M., Horwood, L. J., & Swain-Campbell, N. (2003). Ethnicity and criminal convictions: Results of a 21-year longitudinal study. *Australian and New Zealand Journal of Criminology*, *36*(1), 354-367.
Forslund, M. A. (1970). A comparison of Negro and White crime rates. *The Journal of Criminal Law, Criminology, and Police Science*, *61*(2), 214-217.
Goldkamp, J. S. (1976). Minorities as victims of police shootings: Interpretations of racial disproportionality and police use of deadly force. *Justice System Journal*, *2*, 169-183.
Gottfredson, M. R., & Gottfredson, D. M. (1987). *Decision making in criminal justice*. New York: Springer-Verlag.
Graham, S., & Lowery, B. S. (2004). Priming unconscious racial stereotypes about adolescent offenders. *Law & Human Behavior*, *28*(5), 483-504.
Greenfeld, L. A., & Smith, S. K. (1999). *American Indians and crime.* Washington, DC: Bureau of Justice Statistics, U.S. Department of Justice.
Hagan, J., Shedd, C., & Payne, M. (2005). Race, ethnicity, and perceptions of criminal injustice: Toward a comparative conflict theory of similarity and difference. *American Sociological Review*, *70*(3), 381-407.
Hawkins, D. F. (Ed.). (1995). *Ethnicity, race, and crime: Perspectives across time and place*. Albany: State University of New York Press.
Hawkins, D. F., & Kempf-Leonard, K. (Eds.). (2006). *Our children, their children: Confronting racial and ethnic differences in American juvenile justice*. Chicago: University of Chicago Press.

Hawkins, D. F., Laub, J. H., & Lauritsen, J. L. (1998). Race, ethnicity, and serious juvenile offending. In R. Loeber & D. P. Farrington (Eds.), *Serious and violent juvenile offenders: Risk factors and successful interventions* (pp. 30-46). Thousand Oaks, CA: Sage.

Hindelang, M. J. (1978). Race and involvement in common-law personal crimes. *American Sociological Review*, *43*(1), 93-109.

Hindelang, M. J., Hirschi, T., & Weis, J. G. (1981). *Measuring delinquency*. Beverly Hills, CA: Sage.

Hollinger, R. C. (1984). Race, occupational status, and pro-active arrest for drinking and driving. *Journal of Criminal Justice*, *12*(2), 173-183.

Huizinga, D. A., & Elliott, D. S. (1986). Reassessing the reliability and validity of self-report delinquent measures. *Journal of Quantitative Criminology*, *24*(4), 293-327.

Johnson, W. T., Petersen, R. E., & Wells, L. E. (1977). Arrest probabilities for marijuana users as indicators of selective law enforcement. *American Journal of Sociology*, *83*(3), 681-699.

Kaye, D. (1982). Statistical evidence of discrimination. *Journal of the American Statistical Association*, *77*(380), 773-783.

Kelley, B. T., Loeber, R., Keenan, K., & DeLamatre, M. (1997). *Developmental pathways in disruptive and delinquent behavior.* Washington, DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.

Martinez, R. (2002). *Latino homicide: Immigration, violence, and community*. New York: Routledge.

Matsueda, R. L., Drakulich, K., & Kubrin, C. E. (2006). Race and neighborhood codes of violence. In R. D. Peterson, L. J. Krivo, & J. Hagan (Eds.), *The many colors of crime* (pp. 199-220). New York: New York University Press.

Maxfield, M. G., Luntz Weiler, B., & Spatz Widom, C. (2000). Comparing self-reports and official records of arrests. *Journal of Quantitative Criminology*, *16*(1), 87-110.

McCord, J., Widom, C. S., & Crowell, N. A. (Eds.). (2001). *Juvenile crime, juvenile justice*. Washington, DC: National Academy Press.

McNulty, T. L., & Bellair, P. E. (2003). Explaining racial and ethnic differences in serious adolescent violent behavior. *Criminology*, *41*(3), 709-748.

Morenoff, J. D. (2005). Racial and ethnic disparities in crime and delinquency in the United States. In M. Rutter & M. Tienda (Eds.), *Ethnicity and causal mechanisms* (pp. 139-173). Cambridge, UK: Cambridge University Press.

Mulvey, E. P., Steinberg, L., Fagan, J., Cauffman, E., Piquero, A. R., Chassin, L., et al. (2004). Theory and research on desistance from antisocial activity among serious adolescent offenders. *Youth Violence & Juvenile Justice*, *2*(3), 213-236.

Pastore, A. L., & Maguire, K. (Eds.). (2001). *Sourcebook of criminal justice statistics*. Washington, DC: Bureau of Justice Statistics.

Paternoster, R., & Iovanni, L. (1989). The labeling perspective and delinquency: An elaboration of the theory and assessment of the evidence. *Justice Quarterly*, *6*(3), 359-394.

Peterson, R. D., Krivo, L. J., & Hagan, J. (Eds.). (2006). *The many colors of crime*. New York: New York University Press.

Piquero, A. R., Fagan, J., Mulvey, E. P., Steinberg, L., & Odgers, C. (2005). Developmental trajectories of legal socialization among serious adolescent offenders. *Journal of Criminal Law and Criminology*, *96*(1), 267-298.

Piquero, A. R., Farrington, D. P., & Blumstein, A. (2003). The criminal career paradigm: Background and recent developments. In M. Tonry (Ed.), *Crime and justice: A review of research* (Vol. 30, pp. 359-506). Chicago: University of Chicago Press.

Piquero, A. R., West, V., Fagan, J., & Holland, J. (2006). Neighborhood, race, and the economic consequences of incarceration in New York City, 1985-1996. In R. D. Peterson, L. J. Krivo, & J. Hagan (Eds.), *The many colors of crime* (pp. 256-276). New York: New York University Press.

Pope, C., & Feyerherm, W. (1990a). Minority status and juvenile justice processing: An assessment of the research literature (pt. 1). *Criminal Justice Abstracts*, 327-335.

Pope, C., & Feyerherm, W. (1990b). Minority status and juvenile justice processing: An assessment of the research literature (pt. 2). *Criminal Justice Abstracts*, 527-542.

Quinney, R. (1970). *The problem of crime*. New York: Dodd, Mead, and Company.

Reiss, A. J., & Roth, J. A. (Eds.). (1993). *Understanding and preventing violence*. Washington, DC: National Academy Press.

Saenz, R. (2004). *Latinos and the changing face of America*. New York: Russell Sage, and Washington, DC: Population Reference Bureau.

Sampson, R. J., & Bean, L. (2006). Cultural mechanisms and killing fields: A revised theory of community-level racial inequality. In R. D. Peterson, L. J. Krivo, & J. Hagan (Eds.), *The many colors of crime* (pp. 8-38). New York: New York University Press.

Sampson, R. J., & Lauritsen, J. L. (1997). Racial and ethnic disparities in crime and criminal justice in the United States. In M. Tonry (Ed.), *Ethnicity, crime, and immigration: Comparative and cross-national perspectives, crime and justice. An Annual Review of Research* (Vol. 21, pp. 311-374). Chicago: University of Chicago Press.

Sampson, R. J., Morenoff, J. D., & Raudenbush, S. W. (2005). Social anatomy of racial and ethnic disparities in violence. *American Journal of Public Health*, *95*(2), 224-232.

Sampson, R. J., & Raudenbush, S. W. (2004). Seeing disorder: Neighborhood stigma and the social construction of "Broken Windows." *Social Psychology Quarterly*, *67*, 319-342.

Sampson, R. J., Raudenbush, S. W., & Earls, F. (1997). Neighborhoods and violent crime: A multilevel study of collective efficacy. *Science*, *277*, 918-924.

Sampson, R. J., & Wilson, W. J. (1995). Toward a theory of race, crime, and urban inequality. In J. Hagan & R. Peterson (Eds.), *Crime and inequality* (pp. 37-54). Stanford, CA: Stanford University Press.

Schubert, C. A., Mulvey, E. P., Steinberg, L., Cauffman, E., Losoya, S. H., Hecker, T., et al. (2004). Operational lessons from the Pathways to Desistance project. *Youth Violence & Juvenile Justice*, *2*(3), 237-255.

Shedd, C., & Hagan, J. (2006). Toward a developmental and comparative conflict theory of race, ethnicity, and perceptions of criminal injustice. In R. D. Peterson, L. J. Krivo, & J. Hagan (Eds.), *The many colors of crime* (pp. 313-333). New York: New York University Press.

Smith, D. A. (1986). The neighborhood context of police behavior. In A. J. Reiss, Jr., & M. Tonry (Eds.), *Communities and crime: Crime and justice: An annual review of research* (Vol. 8, pp. 313-341). Chicago: University of Chicago Press.

Sorenson, J., Hope, R., & Stemen, R. (2003). Racial disproportionality in state prison admissions: Can regional variation be explained by differential arrest rates? *Journal of Criminal Justice*, *31*(1), 73-84.

Spohn, C., & Cederblom, J. (1991). Race and disparities in sentencing: A test of the liberation hypothesis. *Justice Quarterly*, *8*(3), 601-623.

Stewart, E. A., & Simons, R. L. (2006). Structure and culture in African-American adolescent violence: A partial test of the code of the street thesis. *Justice Quarterly*, *23*(1), 1-33.

Sullivan, M. (1989). *"Getting paid": Youth crime and work in the inner-city*. Ithaca, NY: Cornell University Press.

Sutherland, E. H., & Cressey, D. L. (1970). *Criminology*. New York: Lippincott.

Taylor, I., Walton, P., & Young, J. (1973). *The new criminology*. London: Routledge Kagan Paul.

Thornberry, T. P., & Krohn, M. D. (2003). Comparison of self-report and official data for measuring crime. In J. Pepper & C. Petrie (Eds.), *Measurement problems in criminal justice research: Workshop summary*. Washington, DC: National Academies Press.

Tonry, M. H. (1995). *Malign neglect: Race, crime, and punishment in America*. New York: Oxford University Press.
Tracy, P. E. (1987). Race and class differences in official and self-reported delinquency. In M. E. Wolfgang, T. Thornberry, & R. M. Figlio (Eds.), *From boy to man: From delinquency to crime* (pp. 87-121). Chicago: University of Chicago Press.
Tracy, P. E. (2005). Race, ethnicity and juvenile justice: Is there bias in post-arrest decision-making? In D. Hawkins & K. Kempf-Leonard (Eds.), *Our children, their children: Confronting racial and ethnic differences in American juvenile justice* (pp. 300-347). Chicago: University of Chicago Press.
Turk, A. (1969). *Criminality and legal order*. Chicago: Rand McNally.
Tyler, T. R. (2003). Procedural justice, legitimacy, and effective rule of law. In M. Tonry (Ed.), *Crime and justice: A review of research* (Vol. 30, pp. 431-505). Chicago: University of Chicago Press.
U.S. Department of Justice. (2005). *Criminal offenders statistics*. Washington, DC: Office of Justice Programs, Bureau of Justice Statistics.
Walker, S., Spohn, C., & DeLone, M. (2003). *The color of justice: Race and crime in America*. Belmont, CA: Wadsworth.
Wilbanks, W. (1987). *The myth of a racist criminal justice system*. Monterey, CA: Brooks/Cole.
Williams, J. R., & Gold, M. (1972). From delinquent behavior to official delinquency. *Social Problems*, *20*(2), 209-229.
Weis, J. G. (1986). Issues in the measurement of criminal careers. In A. Blumstein, J. Cohen, J. A. Roth, & C. Visher (Eds.), *Criminal careers and "career criminals"* (pp. 1-51). Washington, DC: National Academy Press.
Wolfgang, M. E., & Ferracuti, F. (1967). *The subculture of violence*. New York: Tavistock.
Wolfgang, M. E., Figlio, R., & Sellin, T. (1972). *Delinquency in a birth cohort*. Chicago: University of Chicago Press.
Wordes, M., Bynum, T., & Corley, C. (1994). Locking up youth: The impact of race on detention decisions. *Journal of Research in Crime and Delinquency*, *31*, 149-165.
Zimring, F. E., & Hawkins, G. (1997). *Crime is not the problem: Lethal violence in America*. New York: Oxford University Press.

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