

Wrongful Incarceration?
Race differences in reported innocence among jail inmates

A dissertation submitted in partial fulfillment of the requirements for the degree of
Doctor of Philosophy at George Mason University

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Master of Arts
George Mason University, 2006

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Summer Semester 2010
George Mason University
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DEDICATION

This is dedicated to my husband Mark Youman, for his unwavering and unconventional level of support of our family and my graduate education, and to my sons, Carson and Kincaid Youman, for unselfishly sharing their childhood with my graduate studies and making me so proud in countless ways.

ACKNOWLEDGEMENTS

I would like to thank first and foremost my advisor, mentor, and dissertation Chair, Dr. June Tangney, who has given me tremendous opportunities and shared much wisdom and expertise on this journey. I would also like to thank Dr. Jeff Stuewig for his expertise in statistics and his patience in sharing his skills. This project would not have been possible without the assistance of all members of the Human Emotions Research Laboratory at George Mason University who spent many hours transcribing interviews. John Matthews, Robert Dumville, Kristen Durbin and Leah Adams were especially helpful with assuring the quality of the transcriptions. Thank you to Dr. Kimberly Becker for helping to develop a coding scheme for Reported Innocence and Anika James for being my primary second rater of Reported Innocence. Thank you to Dr. Mark Hastings for sharing his knowledge of the Personality Assessment Inventory and the Psychopathy Checklist: Screening Version. Thank you to Shilpa Krishnan for sharing syntax for the coding of “getting away with crime.” Thank you to all the grandparents who shared their love and time with my children. Much thanks to members of my dissertation committee, Dr. A. Wade Boykin of Howard University, Dr. Lauren Cattaneo from George Mason University, and Dr. Alex Pieterse from the University at Albany. The project described was supported in part by Grant Number 5F31MH076563-02 from the National Institute of Mental Health. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institute of Mental Health or the National Institutes of Health. This research was also supported in part by Grant # RO1 DA14694 from the National Institute on Drug Abuse.

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ABSTRACT

WRONGFUL INCARCERATION? RACE DIFFERENCES IN REPORTED INNOCENCE AMONG JAIL INMATES

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There is no question that African Americans are disproportionately represented among the incarcerated. With the current state of the literature it is unclear whether this is fully explained by higher rates of criminal behavior among African Americans relative to Whites or whether racial disparities in the justice system might partially explain the overrepresentation of African Americans. A review of the literature suggests that there may be racial bias in the justice system in need of further exploration as far as the legitimacy of such high rates of incarceration for African Americans. This study found some support for the hypothesis that there could be racially disparate rates of wrongful incarceration as indicated by several distinct forms of indirect evidence. Specifically, African Americans (N = 182) in a large suburban county jail were more likely to report that they were innocent of the current charges for which they were incarcerated relative to Whites (N = 152) in their accounts of their behavior prior to their arrest. Correlations between reported innocence (RI) and predictors of criminal behavior supported the

validity of RI. Further, observed race differences in RI were robust controlling for positive impression management and socio-economic status. In terms of mean differences in predictors of criminal behavior, as expected, African Americans scored higher on self-control (a protective factor for crime) and lower on drug problems than Whites. Contrary to expectations, African Americans scored higher on psychopathy and criminogenic cognitions relative to Whites. Although it was hypothesized that race would moderate the link between psychological predictors of criminal behavior (psychopathy, criminogenic cognitions, self-control, substance use problems, and borderline personality disorder) with both official prior criminal records and future criminal behavior, interaction terms were not significant in moderated regression analyses. Nor did African Americans show a weaker relationship between lifetime history of criminal charges and self-reported undetected criminal offenses in the year following release from jail than Whites. Power was insufficient, however, to detect a small effect size for these moderated effects. Finally, self-reports of detected and undetected criminal behavior in the year after release into the community suggested that Whites are better at “getting away with crime” than African Americans. Taking together the indirect evidence of wrongful incarceration and detection of crime in this study, it appears that African Americans are more likely to be unfairly arrested and detained.

INTRODUCTION

Racial Disparities in Rates of Incarceration: Magnitude of the Problem and Costs

The overrepresentation of African Americans in jails and prisons is well-documented at both the state and national levels. While African Americans comprise approximately 13% of the total U.S. population they make up an estimated 40% of incarcerated individuals; in comparison 75% of the U.S. population is White, while Whites comprise only approximately 40% of those incarcerated. (U.S. Census Bureau, 2000; Bureau of Justice Statistics, 2004a). The U.S. Bureau of Justice Statistics predicts that 32% of African American men will be incarcerated in state or federal prisons at some point in their lifetime, versus 17% of Hispanic males and 5.9% of White males (Bureau of Justice Statistics, 2007). African American males have a much greater risk of incarceration.

There are serious social, political, and economic costs of incarceration for the African-American community. Many African-American children are growing up while a parent is incarcerated. African American children are nearly nine times more likely than White children to have a parent in prison—that's 7% of African American children and 0.8% of White children (Bureau of Justice Statistics, 2000). Having an incarcerated parent increases the likelihood of a child's eventual incarceration by five times. These

children are also at higher risk for drug and alcohol use, gang involvement, teen pregnancy, poor school performance, low self-esteem and depression (Kleiner, 2002).

In many states, convicted felons having served their time, following release are banned from applying for federal financial aid for higher education, living in public housing, receiving welfare benefits or food stamps, serving on a jury or voting. Thirteen percent of the African-American adult male population is disenfranchised, which is seven times the national average (Human Rights Watch and The Sentencing Project, 1998). The rate of disenfranchisement for African-American women is 3 times the national average for women (The Sentencing Project, 2004). It is estimated that in states with the most restrictive voting laws, 40% of African American men become permanently disenfranchised.

Incarceration costs American society. It is 2.5 times more expensive to send someone to jail than it does to send him or her to college (Western Interstate Commission for Higher Education, 2002). In FY 2001, the average cost of housing an inmate in the US was \$22,650 per year (Bureau of Justice Statistics, 2004c).

Life after incarceration is fraught with many barriers to a successful re-entry into society. Over two thirds of offenders released from prisons recidivate within three years of their release (Bureau of Justice Statistics, 2007). Attaining employment after incarceration is difficult. African-American males without a criminal record are less likely to get a call back than Whites with a criminal record, and the negative effect of a criminal record in attaining employment is 40% higher for African-Americans than Whites (Pager, 2003). With difficulty finding employment many ex-offenders are

impoverished. Poverty, in turn, increases the risk of further incarceration and mental disorder.

Socioeconomic Status and Crime

There may be risk factors for incarceration that disproportionately affect African Americans and result in increased criminal behavior, and as such might explain much of the overrepresentation of African Americans in the justice system. Lower socioeconomic status is a likely explanation. African Americans and White Americans may live in the same country but are arguably living in different societies. In White America the standard of living is higher, physical health is better, and the odds of being incarcerated are much lower (U.S. Department of Health and Human Services, 2001).

Since African Americans are overrepresented among the lower end of the socioeconomic spectrum, one might expect that this accounts for a large portion of the overrepresentation of African Americans among the incarcerated. Even after decades of research on the link between SES and crime with regard to race, however, there is no clear answer as to what extent disparities in SES account for the disproportionately high incarceration rates for African Americans. One widely popular theoretical explanation in Criminology is the Anomie or Strain Theory which posits that individuals among the lower class (especially minorities) will have fewer legitimate opportunities to meet their economic or occupational aspirations and therefore turn to illegitimate or criminal means instead (Akers, 1994). Several reviews of the empirical evidence conclude that while there is some support for this theory it is generally “a weak effect”, though no actual effect size estimates were presented (Akers, 1994; Gottfredson & Hirschi, 1990).

It is difficult to estimate an effect size because various approaches have been used to investigate the relationship between SES and crime. Some studies rely on official arrest records - at either the individual or aggregate level - while others utilize self-reports of criminal behavior. In general, early analyses of Strain Theory found that crime (based on official records) was more prevalent in lower income and high minority composition neighborhoods. There are concerns, however, that the reliance on official records may reflect racial disparities in the policing system that may bias those results. Later studies using self-reports of criminal behavior found less compelling evidence that criminal behavior varies by SES, although these results are more prone to potential reporting bias. Several studies have shown that even while controlling for SES factors, the incarceration rates for various states were significantly predicted by the percentage of African Americans in the population (Jacobs & Carmichael, 2001; Smith, 2004).

It is possible that there is a race by SES interaction in relation to crime. Results from several studies contain contradictory evidence, however. An analysis of the relationships between race and social class with aggregate data from official records of robbery, burglary and homicide from 1957-1988 found a statistically significant differential impact of SES by race; whereas median family income was negatively related to robbery for Whites, it was unrelated for African Americans (LaFree, Drass, & O'Day, 1992). On the other hand, when examining individual level self-reported crime in the past year there appeared to be a stronger negative relationship between income and the prevalence of crime for non-Whites relative to Whites (Dunaway, Cullen, Burton, Jr., & Evans, 2000). In a sample of over 500 adults in the community, personal income weakly

predicted self-report crime in the past year ($\beta = -.09, p < .05$) for Whites whereas there was a seemingly stronger negative correlation for non-Whites ($\beta = -.29, p < .05$). The difference between these beta weights was not reported, though, so it is unclear whether this was a significant difference. In sum, although SES is a risk factor for incarceration it seems unlikely that lower SES in African Americans fully explains disproportionate incarceration rates. The possibility of a race by SES interaction, however, should be considered when examining race differences related to crime.

Drugs, Crime and Race

Another possible risk factor for incarceration which might disproportionately affect African Americans is drug use. Drug use has been clearly linked to criminal offending. According to the Bureau of Justice Statistics (2005, 2007), about 16% of convicted jail inmates said getting money for drugs was their motive, about 29% reported using illegal drugs at the time of the offense, about 55% admit to using illegal drugs in the month prior to offense. About 27% of violence victims believed the offender was using drugs or alcohol when the crime was committed.

If we are to believe pervasive media coverage, African Americans are the most likely to use drugs and commit drug related crimes. Research does not back this up. Two epidemiological studies conducted in the late 1980s to early 1990s, the Epidemiological Catchment Area (ECA) study (Kessler et al., 1994) and National Comorbidity Study (NCS) (Robins & Regier, 1991), reported rates of current Drug Abuse/ Dependence for males. Rates were very similar for African Americans (1.73%) and Whites (1.84%) in the ECA report; the NCS study found African Americans to have lower rates of any

substance use disorder than Whites. More recent statistics on the rates of drug use and dependence were similar for Whites and African Americans in the community (Substance Abuse and Mental Health Services Administration, 2002; 2008).

The rate of drug abuse and dependence among convicted jail offenders is significantly higher among Whites (78%) than African Americans (64%) (Bureau of Justice Statistics, 2007b). In an analysis of over 200 White and 250 African American jail inmates drawn from the same data set used for the current study, substance use prior to incarceration was examined (Youman, Stuewig, & Tangney, 2007). Results revealed that Whites were significantly more likely than African Americans to have ever used alcohol (88.2% to 82.6%) cocaine-based drugs (63.7% to 43.4%) and opiates (50.0% to 22.1%). Whites also demonstrated more versatility in the average number of different drugs ever used, ($M = 4.7$, $SD = 3.01$) relative to African Americans ($M = 2.8$, $SD = 1.99$). Of those inmates using drugs or alcohol in the year prior to incarceration, there were no race differences in meeting dependence criteria for alcohol, marijuana or cocaine use, but Whites were significantly higher in meeting dependence criteria for opiates. In other studies of jail inmates¹, White males were significantly more likely to have drug abuse/dependence disorders within the previous two weeks (12.9%) than African American males (24.9%) (Teplin, 1994). White female jail inmates also had higher rates of drug abuse/dependence in the previous six months (56.5%) than female African American jail inmates (53.0%) (Teplin, Abram, & McClelland, 1996).

¹ These two studies are described in more detail in the subsequent section on mental disorders.

Taken together, studies from community samples, the Bureau of Justice Statistics and jail data indicate that higher rates of drug use cannot explain higher rates of incarceration for African Americans. If anything, White inmates have a more extensive drug use history than African American inmates.

Racial Differences in Mental Disorders

Perhaps there are psychological vulnerabilities such as mental illness which might disproportionately impact African Americans. Racism has adverse effects of the mental health of African-Americans through multiple pathways: unfair treatment from societal institutions which reduces socio-economic status and opportunities, the acceptance of negative cultural stereotypes and reported discrimination of African Americans with a resultant increase in psychological distress (Williams & Williams-Morris, 2000). Racist attitudes in White Americans have decreased in the past few decades but remain a factor of American life (Schuman, Steeh, Bobo & Krysan, 1997). With the additional stressors of higher rates of poverty, negative racial stereotypes and discrimination to contend with, it would be logical to expect that African Americans would have higher rates of mental disorders.

A link between mental illness and criminality is suggested by the General Theory of Crime which posits that the psycho-behavioral construct of low self-control is the predominate risk factor leading to criminal behavior (Gottfredson & Hirschi, 1990). There is considerable empirical support for this theory for White adults and juveniles, as well as African American juveniles (Longshore & Turner, 1998; Pratt & Cullen, 2000; Vazsonyi & Crosswhite, 2004).

Certain mental disorders are theoretically more likely to be crime-related due to a lack of self-control inherent in these disorders including: antisocial personality disorder (APD), borderline personality disorder (BPD), psychopathy, and alcohol or substance abuse/dependence. Self-control, as measured by the Brief Self-Control Scale (Tangney, Baumeister, & Boone, 2001), was negatively correlated with crime-related mental disorders including APD (-.62) and BPD (-.65) in a sample of ethnically diverse undergraduate students. The relationship between self control and mental disorders was weaker for less crime-related disorders, anxiety (-.34) or depression (-.34). Mental disorders in the above study were measured with the Millon Clinical Multiaxial Inventory – III (MCMI-III; Millon, Davis, & Millon, 1997) and Symptom Checklist 90 (SCL-90; Derogatis, Lipman & Covi, 1973).

If the additional stressors faced by African Americans resulted in higher rates of crime-related mental disorders relative to Whites, it might help explain higher rates of incarceration for African Americans. Estimates of prevalence rates for mental disorders in the community are provided by two epidemiological studies, the Epidemiological Catchment Area (ECA) study (Kessler et al. 1994) and National Comorbidity Study (NCS) (Robins & Regier, 1991). Both diagnosed disorders using structured clinical interviews. An important consideration in the ECA study is that “Middle class African Americans apparently were excluded from the ECA sample, elderly African Americans were reportedly oversampled, and low income African American males were apparently undersampled” (Neal & Turner, 1991, p. 401). The NCS sample on the other hand was weighted to match demographic and socio-economic characteristics of the U.S.

Differences in income and education as an explanation for significant race differences in diagnoses were ruled out by controlling for these and re-analyzing the data.

The prevalence rates for males with current antisocial personality disorder in the community, based on ECA findings, was actually slightly lower for African Americans (0.69%) than Whites (0.85%) and the same trend was found in the NCS. African American males had slightly lower rates of current major depression, according to the ECA, with African Americans at 1.4% and Whites at 1.6%. The NCS found a stronger differential between the races for affective disorders in general with African Americans having an OR of .63 versus Whites.

Rates of mental illness among the incarcerated are significantly higher than those among the general population and, as such, mental illness appears to be a risk factor for criminal behavior (Jordan, Schlenger, Fairbank, & Caddell, 1996; Teplin, 1990, 1994; Teplin, Abram & McClelland 1996; Veysey & Bichler-Robertson, 1999). This has become increasingly problematic due, in part, to the criminalization of the mentally ill that has occurred along with the trend as a result of psychiatric de-institutionalization and has likely affected members of both races (Teplin, 1984; Torrey, 1995).

One question is whether differential rates of mental disorders (or the delivery of mental health care) might account for the fact African Americans are incarcerated at a much higher rate than Whites. Perhaps the reason we see slightly lower rates for mental disorders in the community is because a higher percentage of African Americans with mental disorders are incarcerated and therefore not included in community samples. If

this were the case, one would expect rates of mental disorder in jails or prisons to be higher for African Americans relative to Whites.

Little is currently known about race differences in the prevalence of mental disorders in incarcerated African American adult offenders. Systematic data in this area is critical due to both the high rate of incarceration of African Americans and the high rates of psychiatric disorders in incarcerated populations in general. There are only a few methodologically sound prevalence studies of psychiatric disorders of jail inmates that report rates of disorder by race. Jails, rather than prisons, are important because they are the point of entry for incarcerated individuals prior to formal sentencing and thus provide a first opportunity for the detection and treatment of mental disorder, and because jails house inmates charged with the full range of crimes, from relatively minor misdemeanors to the most serious felonies.

Estimates of the prevalence of mental disorders in jails are based primarily on data collected from 1983-1984 on a large sample of male detainees at the Cook County, Illinois jail (Teplin, 1994) and a similar data set collected on female jail detainees from 1991-1993 in the same county (Teplin, Abram & McClelland, 1996). Diagnoses were made shortly after booking into the jail based on DSM-III criteria using the National Institute of Mental Health Diagnostic Interview Schedule (NIMH-DIS: Robins, Helzer, Croughan, & Ratcliffe, 1981). Over 60% of the males and over 70% of the females had current symptoms of any disorder assessed (Teplin, 1994; Teplin, Abram & McClelland 1996). Significant race differences were found with African American males having lower rates of current disorders than Whites for antisocial personality disorder (46.8%,

65.8%), and major depressive episode, (2.9%, 9.6%). The same trend held true for women. No studies have been found which looked at race differences in rates of psychopathy and borderline personality disorder, other theoretically crime-related disorders, in jail inmates. In short, Teplin's research indicated that African American jail inmates had, if anything, a lower prevalence of current mental disorders than Whites.

Criminogenic Cognitions and Race

Although higher rates of mental illness do not seem to explain why African Americans are disproportionately incarcerated, there may be other psychological factors fueling this phenomenon. Maladaptive cognitions may exist which do not cross the threshold of mental illness but contribute to criminality, nonetheless. Many prominent theories of criminology including subcultural, anomie, differential association, control, and labeling theories propose that criminals have a characteristic way of thinking which engenders and propagates criminal behavior (Andrews & Bonta, 1994; Bandura, 1990; Glueck & Glueck, 1930, 1934; Maruna & Copes, 2005; Sutherland, 1947; Sykes & Matza, 1957; Yochelson & Samenow, 1976). In other words, deviant thoughts lead to criminally deviant actions.

Several measures have been developed to assess these hypothesized cognitive styles and have tested the relationships between criminogenic cognitions and unlawful behavior. The most thoroughly researched is the 1) Psychological Inventory of Criminal Thinking (PICTS; Walters, 1990, 2002) composed of 8 criminal thinking scales: Mollification – justification of crimes or externalization of blame, Cutoff – elimination of psychological deterrents to crime, Entitlement – attitude of ownership towards wants,

Power Orientation – use of aggression to intimidate others, Sentimentality – doing good deeds to atone for past crime, Superoptimism – belief in ability to get away with crime, Cognitive Indolence – immature problem-solving, and Discontinuity – poor self-discipline) and two validity scales (Confusion and Defensiveness).

More recently, the Criminogenic Cognitions Scale (CCS; Tangney, Meyer, Furukawa, & Cosby, 2002) was developed for the current study, assessing Externalization of Blame, Notions of Entitlement, Negative Attitudes Towards Authority, Short-term Orientation, and Insensitivity to the Impact of Crime.

Both measures have demonstrated adequate reliability as well as concurrent, construct, and predictive validity (Tangney, Stuewig, Furukawa, Kopelovich, Meyer, & Cosby, 2006; Walters, 2002). Results from separate studies utilizing either the PICTS or CCS have indicated that African Americans have significantly higher mean scores for criminogenic cognitions (Walters, 1995; Walters, Elliot, & Miscoll, 1998; Youman, Stuewig, Tangney, & Becker, 2005). It is possible that the experience of living as a historically oppressed minority in the U.S. has increased the likelihood of developing maladaptive cognitive styles which in turn increase the incidence of offending behavior among African Americans. Such models, however, have not been directly tested.

Rates of Criminal Offending by Race

A key question remaining is whether African Americans are actually committing more crimes than Whites commensurate with observed disproportionate rates of incarceration. This is an obvious question which is difficult to answer. Several studies indicate that African Americans commit more crimes which partially explains why they

are incarcerated at higher rates; however, this has been found primarily in the narrow category of homicide (O'Carroll, 1990; Pallone & Hennesy, 1992).

One way to determine whether African Americans commit more crimes is to simply review offender statistics in Bureau of Justice Statistics (BJS) reports based on statistics compiled in the Sourcebook of Criminal Justice (Pastore, & Maguire, 2009a). For example, in 2005, African Americans comprised 12% of the population and Whites made up about 75%. Yet, 39% of all arrests for violent offenses were of African Americans and only 59% were of Whites. For property crimes during the same period, overrepresentation of African Americans and underrepresentation of Whites was less pronounced; 29% of all arrests were of African Americans and 69% were of Whites.

The above statistics reveal one side of the offender/victim relationship. If accurate, they should match up fairly closely to rates of offending as reported by victims. This matching of statistics is easier to do for victims of violent offenses since the apparent race of the offender is often easier for victims to identify. Victimization data were reported from the 2005 National Criminal Victimization Survey (NCVS; Bureau of Justice Statistics, 2009b). Direct comparisons between NCVS and BJS statistics should be interpreted with caution since the data come from different sources and are collected with different methodology² but can still be reviewed for obvious discrepancies. Victims' reports from the NCVS are consistent with arrest rates in that African Americans are overrepresented among those identified as the offenders in violent crimes; however the

² Data from the Bureau of Justice Statistics report actual number of arrests recorded by law enforcement officials. Data from the Victimization Survey is from individuals age 12 and over gathered from a representative sample of U.S. households.

degree of overrepresentation does not seem to be as large from victims' reports. Also in 2005, a sample of White and Black victims of violent crime reported the perceived race of their offenders as 54% White and 25% Black³. Thus the arrests/victims comparisons matched more closely for Whites than African Americans. This was also observed in a comprehensive review of offender and victimization statistics in the U.S. by Walker, Spohn, and DeLone, (2004). That is, African Americans do seem to represent a higher than expected proportion of offenders relative to their proportion of the general population based on both offender and victim reports, but from victims' reports the effect seems to be less pronounced than offender statistics portray.

Social Control Theory and Impact on Incarceration

From the literature reviewed so far, the obvious factors anticipated to explain the overrepresentation of African Americans have not resulted in a completely satisfactory explanation. One social control theory explanation for race differences in incarceration rates, known as the "racial threat theory", implicates incarceration as a means of social control whereby the dominant political force exercises its powers to perpetuate its domination over the underclass (Smith, 2004). V.O. Key's (1949) "racial threat hypothesis" posits that racial hostility of Whites towards African Americans is a common phenomenon, one that varies as a function of the proportion of African Americans in the population.

An important test of this racial threat hypothesis is whether the proportion of African Americans in a state has a direct effect on the rate of incarceration for that state

³ These aggregate numbers were calculated for this dissertation from spreadsheets obtained from the 2005 National Criminal Victimization Survey.

while controlling for crime rate. This is precisely what the data supported—one of the strongest variables tested to explain the determinants of incarceration from 1980 to 1995 in the U.S. was the percentage of African Americans in state populations—even when controlling for crime rates, SES and alternative political explanations (Smith, 2004). In fact, in Smith’s pooled-time series analysis, crime rates⁴ and socio-economic variables⁵ were not even significant predictors of state incarceration rates during this period, but the percentage of the population that was African American was. Similarly, there was empirical support for the racial threat theory wherein the states with the largest African American populations had higher incarceration rates even when controlling for violent crime and poverty (Jacobs and Carmichael, 2001). While there was a similar relationship for the Hispanic population, the results were less robust signifying that this phenomenon is more relevant for African Americans.

For insight into how social control impacts the lives of African American citizens, we can look at racial profiling, one indicator of institutional racism in the justice system. There is strong evidence that race is a significant factor in policing practices. Recently enacted legislation requiring documentation of the race of individuals stopped by police on alleged traffic violations has resulted in a large body of empirical evidence underscoring the extent to which the decision to make traffic stops is based on the race of the driver. There is strong empirical evidence from Missouri, Rhode Island, Massachusetts and many other states that African Americans are disproportionately more

⁴ Crime rates included violent crime rate (number of homicides, rapes, robberies and assaults per 100,000 population) and property crime rate (burglary, larceny, and motor vehicle thefts per 100,000 population) from the *Sourcebook of Criminal Justice Statistics* over the various years sampled.

⁵ Socio-economic variables included percent in poverty, percent unemployed, and the state gini index (inequality of wealth distribution).

likely to be stopped, searched, and arrested yet less likely to be found with contraband than White drivers (Farrell & McDevitt, 2003; Farrell, McDevitt, Bailey, Andresen & Pierce, 2004; Nixon 2004). Further, African American and Hispanic male drivers are more likely than Whites to report that police acted improperly during the traffic stop (Lundman & Kaufman, 2003) suggesting that police are less likely to have “probable cause” for stopping African American drivers than White drivers. Thus, race-based police practices increase the likelihood of African Americans getting caught committing an offense relative to Whites.

Evidence of wrongful incarceration has been mounting. Gross et al., (2005) found at least 340 clear cut legal exonerations in the U.S. from 1983 to 2003, though the race of the exonerated was not addressed. The authors estimate that these are a small percentage of actual cases of wrongful conviction since exonerations occur most frequently in murder and rape cases with little post-conviction validity research conducted for other types of crime. The Innocence Project (2001) looked at the first 138 cases where convictions were overturned through DNA testing, and found that race was implicated as a key determining factor in the wrongful convictions. Mistaken eyewitness identification was the main factor in over two-thirds of these cases and, of these, 61% of the exonerated were African American while 25% were White.

Research Questions and Hypotheses

In short, we still don't know why African American men are so over-represented in jails and prisons. This differential incarceration rate is not due completely to lower socio-economic status, nor to higher rates of drug usage, nor do there seem to be higher

rates of crime-related mental illness among African Americans either in jail or in the community. It does appear that African Americans commit more crimes than Whites, though not to the degree that disproportionate arrest rates suggest. Some of the strongest evidence reviewed here suggests that incarceration rates in the United States are significantly determined by racial demographics above and beyond even crime rates and socio-economic indicators. DNA technology has revealed that wrongful incarceration is a problem in this country that seems to disproportionately affect minorities. Data from racial profiling analysis have revealed that African Americans are treated unfairly by the police in terms of higher levels of monitoring, searching and detaining them as suspects.

This review of the literature has led to a hypothesis that wrongful incarceration occurs disproportionately to African American inmates relative to Whites. The current study evaluated whether wrongful incarceration is a plausible partial explanation for the overrepresentation of African Americans among the incarcerated. Several qualitatively distinct forms of indirect evidence were examined including reported innocence and relationships between psychological predictors of criminal behavior and arrest records. In addition, the possibility of differential rates of the detection of crime by race was also examined.

This study tested a number of specific hypotheses as evidence for racially disparate rates of wrongful incarceration:

Hypothesis 1) African Americans would be more likely to report innocence of their current offenses than Whites;

Hypothesis 2) African Americans would have lower mean levels of psychological predictors of criminal behavior (psychopathy, antisocial personality disorder, drug problems, alcohol problems, criminogenic cognitions, and borderline personality features) as well as higher levels of self-control, a protective factor for criminal behavior; Hypothesis 3) the relationship between psychological predictors of criminal behavior and a) lifetime history of criminal charges and b) reported number of arrests in the year following release from jail, would be weaker for African Americans relative to Whites; Hypothesis 4) there would be a weaker relationship for African Americans between lifetime history of charges and self-reported undetected criminal offenses in the year after release from jail, indicating there was more error (wrongful incarceration) inflating African Americans criminal records.

Additional analyses will assess the validity of reports of innocence by examining correlations between reported innocence and psychological indicators of criminal behavior. Gender differences in reported innocence will also be examined.

Another possible partial explanation for disproportionate rates of incarceration might be higher levels of surveillance or stricter law enforcement for African Americans relative to Whites. Such bias could result in a higher likelihood of “getting away with crime” for Whites and a higher likelihood of getting caught committing crime for African Americans. This is viewed as another line of indirect evidence of wrongful incarceration. If it were shown that Whites were more likely to get away with crime, it would reinforce the notion that African Americans are being held to a different standard in terms of suspicion of criminal behavior and subsequent confinement. Therefore,

Hypothesis 5) of this study was that, in reference to the year following release from jail, Whites would have a higher ratio of self-reported undetected offenses to self-reported arrests, indicating that Whites were more likely to “get away with crime.”

Results of this study would be relevant to psychologists in a number of ways. It could inform clinical, counseling, or forensic psychologists treating or assessing court involved clients who may claim unfair treatment by the legal system. It could provide empirical support for the continued need to train individuals employed in criminal justice to be aware of -- and eliminate -- racial biases which might influence their decision making in whom to arrest, detain and prosecute. It could also generate further clinical research into the psychological impact of wrongful incarceration on individual’s psychological distress, psychological well-being and future behaviors.

METHOD

Participants

Data were collected as part of an on-going longitudinal study of incarcerated offenders. The larger project, funded by the National Institute on Drug Abuse, examined the importance of moral emotions (shame, guilt, empathy) in reducing HIV risk, substance abuse relapse, and criminal recidivism. Participants for the current dissertation project were 334 White and African American adult inmates at the Fairfax County Adult Detention Center. Selection criteria were developed to identify incoming inmates likely to serve at least 4 months (i.e., long enough to complete the 4-6 session baseline assessment and to have the opportunity to request and engage in at least some jail programs and services). Thus, selection criteria were (1) arrested and held on at least one felony charge other than probation violation, without bond or on total bond GE \$7,000, (2) assigned to the jail's medium and maximum security "general population" (e.g., not in the forensic block or solitary confinement owing to safety and security issues), and (3) sufficient language proficiency to complete study protocols in English or Spanish.

Participants in the larger study who consented (N = 628) provided a self-report of race from a list of options: African-American/Black (43%), Asian/Pacific Islander (3%), Mexican American (1%), Middle Eastern (<1%), Mixed (4%), Native American (<1%),

Other (3%), Other Hispanic (8.5%), and White (36%). Of these participants, 26 (4%) had data that were deemed invalid for inclusion in the study, 92 (15%) left the jail or withdrew before relevant data could be collected. In order to code a key variable for this dissertation, relevant portions of an audio or videotaped semi-structured clinical interview were transcribed. There were some technical difficulties which further reduced the sample size; 52 (8%) tapes had audio recording problems which made it impossible to transcribe the interviews, and an additional 30 (5%) did not have audio or videotapes which could be located. In total interviews for 427 participants of the larger study were transcribed. Subsequently the transcriptions were coded for reported innocence (RI)⁶. Chi-square analysis revealed that the participants with reported innocence codes were similar in racial/ethnic demographics to the full group of consenters, $\chi^2(8) = 11.93, p = .15$.

This dissertation analyzed race differences between Whites and African Americans. Reported innocence was coded race blind for all available transcripts including participants of all racial/ethnic categories. After reported innocence coding was complete and inter-rater reliability was determined (see below in procedures), we included only those participants that self-selected White or African-American/Black racial categories for inclusion in data analysis (see Table 1 for demographics). All participants in this subsample completed their interviews and measures in English. The final subsample for the current dissertation was 45.5% White (N = 152) and 54.5% African American (N = 182). Gender composition differed by race with African

⁶ See measures section for a description of this variable.

Americans having a higher percentage of males (71%) than Whites (60%). The average annual income in the year prior to incarceration was \$20,474; African-Americans had significantly lower income than Whites. There was no race difference in years of educational attainment or age. Participants in this sample could have had any number of index offense charges which were categorized into seven broad groups of offenses. There were no race differences in the percentage of inmates who had charges within these categories: violent charges (19% of inmates), theft charges (54% of inmates), drug (25% of inmates), violent sex (3% of inmates) , non-violent sex (2% of inmates) non-compliance with a legal mandate (28% of inmates) and/or miscellaneous charges (21% of inmates); nor were there race differences in the mean number of index offense charges per inmate, $2.74(1.98)$, $t = 1.18$, $p = .24$.

Of the 334 participants in this sample at baseline, 187 were eligible for and consented to a one year post-release follow up assessment. Demographics are reported for the full sample at baseline and the subsample with one year post-release data (Table 1).

Table 1

Demographics

Baseline					
Demographic	Total N (%)	White N (%)	African American N (%)	χ^2	
Male	220 (66%)	91 (27%)	129 (39%)		
Female	114 (34%)	61 (18%)	53 (16%)		
Total	334 (100%)	152 (45.5%)	182 (54.5%)	4.47*	
Demographic	Total Mean (SD)	White Mean (SD)	African American Mean (SD)	<i>t</i>	<i>d</i>
Age	33.8 (10.1)	34.2 (10.3)	33.4 (9.9)	0.71	0.08
Income	\$20,474 (17,247)	\$23,551 (19, 513)	\$17,851 (14,604)	2.83**	0.33
Years of Education	11.88 (2.10)	12.07 (2.39)	11.71 (1.81)	1.53	0.17
N	302-334	139-152	163-182		
One Year Post-Release					
Demographic	Total N (%)	White N (%)	African American N (%)	χ^2	
Male	137 (73%)	51 (27%)	86 (46%)		
Female	50 (27%)	25 (13%)	25 (13%)		
Total	187 (100%)	76 (41%)	111 (59%)	2.48	
Demographic	Total Mean (SD)	White Mean (SD)	African American Mean (SD)	<i>t</i>	<i>d</i>
Age	33.91 (10.17)	34.0 (10.84)	33.84 (9.73)	-0.10	0.02
Income	\$20,180 (17,702)	\$24, 733 (20,813)	\$16, 869 (14, 265)	-2.77**	0.44
Years of Education	11.74 (2.01)	11.83 (2.17)	11.68 (1.89)	-0.49	0.07
N	171-187	72-76	110-111		

*p < .05, **p < .01

An attrition analysis was completed to compare key variables (Table 2) between the participants who were in the one year post-release subsample ($n = 187$) and those who were only in the baseline sample ($n = 147$) with little difference in the race and gender composition by group. There were no significant differences between the groups in age, income, or years of education measured at baseline. In terms of the total number of index offense charges at baseline, there were no mean differences between the post-release group, 2.60 (1.97), and the baseline only group, 2.92 (1.99), $t = 1.44, p > .05$. Nor were there differences in the percentage of inmates with charges in the different categories of offending between the baseline only group and post-release group, respectively: violent charges (18%, 20%); theft charges (56%, 53%); drug (28%, 24%); violent sex (3% , 4%); non-violent sex (2%, 1%); non-compliance with a legal mandate (27% , 28%); and/or miscellaneous charges (20%, 22%). Thus, participants who were retained in the longitudinal sample were quite similar to those who were not in terms of background variables.

Table 2

Demographics Attrition Analysis

Race and Gender Composition				
Baseline Only Group				
	Total N (%)	White N (%)	African American N (%)	χ^2
Male	83 (57%)	40 (27%)	43 (29%)	
Female	64 (43%)	36 (25%)	28 (19%)	
Total	147 (100%)	76 (52%)	71 (48%)	0.94ns
One Year Post-Release Group				
	Total N (%)	White N (%)	African American N (%)	χ^2
Male	137 (73%)	51 (27%)	86 (46%)	
Female	50 (27%)	25 (13%)	25 (13%)	
Total	187 (100%)	76 (41%)	111 (59%)	2.48ns
Demographics at Baseline Both Groups				
Demographic	Total Mean (SD)	Baseline Only Group Mean (SD)	Post-Release Group Mean (SD)	<i>t</i>
Age	33.79	33.64 (10.05)	33.91 (10.17)	-0.24ns
Income	\$20,475 (17,247)	\$20, 859 (16,694)	\$20, 180 (17, 702)	0.34ns
Years of Education	11.88 (2.01)	12.05 (2.20)	11.74 (2.01)	1.32ns
n	301-330	131-147	171-187	

ns = non-significant

Procedures

Shortly after assignment to the general population, eligible inmates were presented with a description of the study and asked to participate and allow the researchers access to their jail and credit records. Inmates were assured of the voluntary and confidential nature of the project and that no information would be shared with any jail personnel. In particular, it was emphasized that the decision to participate or not would have no bearing on their status at the ADC or their release date. Regarding confidentiality, all interviews were conducted in the privacy of the professional visiting rooms, used by attorneys, or in secure classrooms. In addition, inmates were assured that collected data would be protected by a Certificate of Confidentiality from the Department of Health and Human Services (DHHS).

Once informed consent had been signed, each inmate completed a series of 4 to 5 sessions including: an individual interview to obtain demographic, biographical, psychological treatment, and criminal history information; and touch-screen computer questionnaires including symptoms of mental disorder (PAI), self control, and criminogenic beliefs. The last session consisted of a lengthy (2-3 hours) in-depth semi-structured clinical interview focusing on (1) the inmate's social history (e.g., family history, educational history, relationship history, history of antisocial behaviors, etc.) and (2) nature and circumstances surrounding the instant offense (or alleged offense), and the inmate's perceptions of how they could have avoided the offense (or his/her related behavior) for others. Written notes and videotapes of the session were subsequently coded for analysis. Based on this and other collaborative information, the Psychopathy

Checklist – Screening Version (PCL: SV; Hare, Cox & Hare, 1995) and the actuarial-based Violence Risk Appraisal Guide (VRAG; Harris, Rice & Quinsey, 1993) were completed on each inmate. Participants received an \$18 dollar honorarium upon completion of this first wave.

Each participant was then contacted at one year post-release for a telephone interview and was asked to report on arrests and undetected criminal activities since their release back into the community. Again the confidentiality of the data was emphasized and participants were reminded not to include any incriminating information regarding the specific time or place of any offense to further protect themselves. An honorarium of \$50 was paid for participation at one year post-release.

Validity of Self-Report Data

One question that arises with self-report measures in a study of criminal offenders is whether participants will truthfully report their attitudes and behavior. Empirical studies have found that the self-report of criminal behavior provided in the context of confidential research is reliable and demonstrates high criterion validity (Horney & Marshall, 1992; Huizinga & Elliot, 1986; Mieczkowski, 1990; Weiss, et al., 1998). Further, evidence supports that mental disorder and substance abuse factors do not adversely affect the quality and accuracy of self-reported arrest history (Nieves, Draine & Solomon, 2000). There is some evidence that African Americans tend to underreport deviant or socially undesirable behavior more so than Whites (Pfaff-Wright & Tomaskovic-Devey, 2000; Sudman & Bradburn, 1982). However, a recent study of differential validity by race of a self-report measure predicting recidivism of adult

offenders found no significant race differences among scores for White, African American, Hispanic, and Aboriginal Australian offenders (Loza, Cumbleton, Shahinfar, Neo, et al., 2004). To assess for racial differences in the validity of self report in this study, we examined levels of Positive Impression Management (PIM) on the PAI, indicative of social desirability response bias.

Measures

Reported Innocence (RI). This variable was coded race-blind by myself and another rater based on transcriptions of an in-depth semi-structured interview regarding the nature and circumstances surrounding the offense (or alleged offense) of the current incarceration which was conducted as part of the larger assessment of psychopathy.

To be clear, the goal of coding reported innocence was to rate as objectively as possible, based on the participants' accounts, as to what extent the participants' behavior was consistent with the charge(s) against them. Coding was not based on whether or not the participant accepted moral responsibility or felt they should be found innocent in a court of law, but rather on what he or she said they did. This measure was conceptualized as an assessment of how legitimate the arrest and detention of the participant was from a law enforcement perspective. In other words, was there good cause to charge the participant with a crime based on the actual behavior of the participant? Theoretically, if the same decision criteria were used by law enforcement for all participants regardless of race, there should be no race difference in this variable; however, a significant race difference would suggest the possibility of institutional racism in the decision to arrest and detain these individuals as suspects of felony crimes.

In a courtroom setting, guilty defendants are very likely to plead “not guilty” regardless of the true state of affairs for legal reasons. In this research setting a more accurate statement of participants culpability was expected due to the confidential nature of the research study and the reality that there was little to be gained by reporting falsely, other than impression management, which could be controlled for in data analysis, if necessary.

During the interview, the participant was asked a series of questions relevant to determining whether or not he or she had indeed engaged in the illegal behavior with which he or she were charged. These questions included: What are your current charges?; What did the police say you did?; What happened?; How were you arrested?; Was this spontaneous or planned?; Were you under the influence of drugs or alcohol?; Do you think your sentence was fair?; and What kind of a job did your lawyer do? While these questions served as guidelines for the interviewer, the interviewers often asked follow up questions in order to clarify responses to these key questions. It should be noted that participants were not asked directly whether they were guilty or innocent of their current charges. This variable was not intended to serve as a measure of the phenomenology of guilt or innocence for the participant, but rather the legitimacy of the arrest from a law enforcement perspective. A methodical process was used in the attempt to maximize the reliability and validity of the coding of reported innocence from the interviews. First, to minimize bias due to the race of the participants, coders were kept blind to the race of the participant and therefore could not directly view videotapes of the interviews. The relevant portion of each interview was transcribed for those participants in the larger

longitudinal study with video or audiotapes of sufficient sound quality. All transcribers were trained in small group or individual sessions about the importance of recording the interviews verbatim and not revealing the race or ethnicity of the participant being interviewed.

Each transcription began with a document containing written instructions and a template of the interview form. Transcribers were told to make sure the transcription matched the interview exactly. For words that were unclear to the transcriber a symbol was used to signify the absence of each missing word (???). Each transcript was reviewed for missing words before being printed for coding. When missing words were noted a second quality assurance researcher (with a particularly good ear) would attempt to fill in the missing words. In addition, a random sample of two transcripts per transcriber was reviewed by another transcriber to check the accuracy of the transcription. Adequate accuracy of transcription was noted for all but one transcriber. Subsequently all of the transcriptions completed by that problematic transcriber were redone.

A five point coding scale was developed (see Appendix A for a detailed explanation of the coding scheme development process) with a second rater based on a review of 20 transcripts. This single item scale was conceptualized as a continuous measure with levels of reported innocence ascending from 1 to 5. Codes were assigned as follows: 1) reported complete guilt for all current charges; 2) reported guilt for some but not all current charges; 3) reported being an unknowing participant in a crime; 4) reported legal behavior that was similar to current charges but was exaggerated or misconstrued as criminal; and 5) reported complete innocence of all charges.

Again, codes were assigned to reflect the legitimacy of the arrest based on the behavior reported by the participant, not whether the participant accepted responsibility for the crime. For example, if a participant reported that they were caught with stolen merchandise that they did not know was stolen and mentioned that they were, therefore, innocent of the crime, the raters would code the behavior as a 3, or unknowing participant in a crime. From a law enforcement perspective, the participant was in possession of stolen goods, therefore the police had a legitimate reason for the arrest. Similarly, if the participant reported engaging in consensual sex with an adult yet denied sexual assault charges, the raters would code the behavior as a 4 with the reasoning that there was some grounds for arrest since intercourse took place, even though the participant denied wrongdoing. In each of these examples, the participant might have claimed they were completely innocent, therefore, if coded from the participant's perspective, a higher reported innocence score would have been assigned as compared to the coding used in this study of the raters' assessment of the legitimacy of the arrest.

For the full process of coding RI from transcripts, another member of the research lab was recruited as the second rater (the second rater from the initial coding scheme development phase was no longer affiliated with the research lab). This lab member was trained by me using the coding instructions that had been previously developed. This new rater coded the same 20 transcriptions previously used. These codes were compared to the consensus codes of the original two raters which were presented as the standard. The two raters for the first 20 codes were White females in their 30s. The two raters for the

majority of the coding were a White female in her 30s (myself) and an African American female in her 20s.

To improve inter-rater reliability in coding, the coding decision guidelines along with specific examples (see Appendix B for coding instructions) were used by each rater and a coding legend was available on each code sheet. At each session both raters assigned codes to ten transcriptions independently. Then the two raters compared codes. Discrepancies were discussed and coders arrived at a single code by consensus, where possible. If not possible because it was determined that the information available was insufficient, a code of 8 was assigned. This process was then repeated with another 10 transcriptions, to avoid rater drift. Of the 427 coded transcriptions 14 (3%) were given a final code of 8. The inter-rater reliability for the sample of 427 coded transcriptions (including participants who were of all racial/ethnic categories) was measured by an intra-class correlation coefficient for average measures, $\rho_2 = 0.90$, which is considered excellent inter-rater reliability. Because this was a single item measure it is not possible to report internal consistency.

Validity of Reported Innocence. Correlates of reported innocence (RI) were examined to investigate the validity of the raters' assessments of the participants' level of culpability for their index offenses (Table 3) based on the inmates' reports of their behavior. Reported innocence was not related to the demographic variables of age, income or education. It was only modestly positively correlated with the validity indicator of PIM, ($r = .15, p = .01$) suggesting that those reporting higher levels of

innocence were somewhat more likely to present themselves in a favorable light, in general.

Correlations between RI and predictors of criminal behavior were also examined. If RI were a valid indicator of innocence of criminal behavior, then one would expect it to be negatively correlated with predictors of crime such as psychopathy, antisocial personality features, drug problems, alcohol problems, criminogenic cognitions or borderline personality features and positively correlated with protective factors such as self-control. Consistent with this hypothesis, RI was negatively related to antisocial personality features, drug problems, and borderline features (Table 3). Conversely, as would be expected, RI was significantly positively correlated with self-control. There were no significant relationships between RI and psychopathy, alcohol problems or criminogenic cognitions, however. Further, a Z-test for the difference between independent correlations revealed that there were no race differences between any of these correlations so RI seems to function quite similarly among Whites and African Americans in terms of these relationships. There were two correlations amongst the predictors of criminal behavior which were stronger for Whites (drugs problems and antisocial personality, drug problems and self-control). Given that 28 comparisons of correlations were made, one would expect 1.4 of the differences between correlations to be statistically significant ($28 * .05$).

Table 3

Correlations with Reported Innocence and Predictors of Criminal Behavior by Race

Construct	1	2	3	4	5	6	7	8
1 Reported innocence	-	.11	-.17*	-.25**	-.03	.13	.21**	-.15*
2 Psychopathy	.04	-	.43***	.36***	.34***	.44***	-.35***	.46***
3 Antisocial pers.	-.19*	.57***	-	<u>.44***</u>	.36***	.48***	-.59***	.59***
4 Drug probs	-.21**	.50***	<u>.64***</u>	-	.49***	.12	<u>-.52***</u>	.50***
5 Alcohol probs	-.12	.27**	.27**	.36***	-	.25**	-.30***	.42***
6 Crimin. cogs	.09	.44***	.54***	.29***	.01	-	-.35***	.46***
7 Self-control	.19*	-.35***	-.68***	<u>-.68***</u>	-.29***	-.44***	-	<u>-.64***</u>
8 Borderline feat.	-.15	.34***	.66***	.61***	.29***	.54***	-.75***	-

Note: Correlations above for African Americans (N 177-180), correlations below for Whites (N 148-151). Underlined correlations are significantly different by race.

*p < .05, **p < .01, ***p < .001

The Personality Assessment Inventory (PAI: Morey, 1991). This 344 item self-report measure of personality and psychopathology traits was used to assess clinical levels of symptoms of mental disorders. The PAI was designed to correspond to the DSM III taxonomy for psychopathology. A substantial body of research supports the reliability and validity of the PAI in capturing clinically relevant features of psychopathology including in forensic settings (Douglas, Hart & Cropp, 2001; Morey, 1991). A benefit of using this self-report measure, which has been normed on a racially and ethnically representative sample, is that, relative to clinician diagnoses, the risk of a racially biased

interpretation by another party cognizant of the race of the individual interviewed was reduced. Additionally, the validity of the participants' self-report data was evaluated using information from the PAI's four validity scales: Infrequency, Inconsistency, Positive Impression Management, and Negative Impression Management. Reliability estimates (alphas) for this parent sample by race (White, African American) for the primary scales used in data analyses are as follows: antisocial features (.69, .78); drug problems (.75, .61); alcohol problems (.84, .79); borderline features (.73, .76); positive impression management (.62, .63); and negative impression management (.72, .71).

Data in this study revealed no race differences in PIM mean T scores, 44.26 (12.41), $t = -0.31$, $p = .76$, nor did the percentage of subjects with PIM scores greater than or equal to 68, the validity cutoff recommended by Morey (1991) for clinical samples, 2.4%, $\chi^2 = 0.07$, $p = .80$.

Psychopathy Checklist – Screening Version (PCL-SV; Hare, Cox & Hare, 1995).

A 12 item measure with demonstrated high reliability and validity used by clinicians in forensic settings to make a dimensional diagnosis regarding psychopathic tendencies of the participants. The Total Score is comprised of two Factors. Factor 1 is characterized by interpersonal and affective features of psychopathy (e.g., superficial charm, grandiosity, shallow affect). Factor 2 is characterized by socially deviant tendencies (e.g., impulsivity, irresponsibility, poor anger control). Each factor scale is made up of 6 items with scores ranging from 0 to 2 per item. The range for each factor is 0 to 12, thus the range of PCL: SV Total scores is 0 to 24. Each factor score represents the sum of scores for all six items. The total score represents the sum of both factor scores. Internal reliability

estimates (White, African American) from this sample were adequate to good, (.84, .74) for the Total score, (.78, .67) for Factor 1, and (.77, .68) for Factor 2.

The PCL-SV was scored by highly trained clinicians based on videotaped in-depth clinical interview and collateral official criminal records. Scorers were highly supervised during their training and required to demonstrate adequate inter-rater reliability before being allowed to serve in the study. Additionally, a randomly selected subset of protocols was double coded by the supervising clinician with a resultant intra-class correlation of .87.

The PCL-SV is a shorter screening version of the 20 item PCL-R (Hare, 2003), but is similar in structure and the items were derived from the fuller measure. The weighted mean of the Total scores for the two measures correlates at .80. A number of studies have compared the validity of psychopathy scores for both Whites and African Americans for the PCL-R. Generally these studies have found that the PCL-R has the same factor structure from confirmatory factor analyses, that the items perform similarly in terms of measuring psychopathy from Item Response Theory analyses, and that the psychopathy score predicts prospective arrests equally well for both groups (Sullivan & Kosson, 2006). Several cautions are in order when interpreting psychopathy results; higher rates of arrests and convictions on the criminal record may result in more false positives for African Americans – scores above the cutoff criteria for psychopathy when true race differences in the construct of psychopathy do not exist (Sullivan & Kosson, 2006) -- and the PCL: SV over-predicts psychopathy relative to the PCL-R (Hare, Cox & Hare, 1995).

Criminogenic Cognitions Scale (CCS; Tangney, et al., 2006). A 25 item measure assessing a distinct set of beliefs that serve to rationalize and perpetuate criminal activity, including: notions of entitlement/demand for respect, a short-term orientation toward goals, negative attitudes towards authority, an external locus of control or failure to accept responsibility for one's actions, and an insensitivity to the impact of crime on victims and society (See Appendix C). The total score reflects the average of the 25 items on a four point scale.

Preliminary results from over 500 jail inmates in the parent study supported the reliability, validity, and predictive utility of the measure. Criminogenic scores were strongly linked to concurrent self-report measures of aggression, antisocial personality, risk for future violence, low empathy, and clinicians' ratings of psychopathy (PCL: SV). In addition, criminogenic thinking assessed at entry to the general population predicted subsequent official reports of inmate misconduct during incarceration, as well as criminal recidivism during the first year post-release (arrests and self-reported undetected felonies).

Cronbach's reliability for the Total score in this parent sample was high for both races (White alpha = .83; African American alpha = .79). Cronbach's reliability for the five dimensions were as follows (White alpha; African American alpha): notions of entitlement/demand for respect (.59; .61), a short-term orientation toward goals (.56; .44), negative attitudes towards authority (.80; .73), an external locus of control or failure to accept responsibility for one's actions (.57; .57), and an insensitivity to the ripple effect of crime on victims and society (.56; .63)

The Brief Self-Control Scale. (BSCS; Tangney, Baumeister, & Boone, 2004) A 13 item abbreviation of the Self-Control Scale. This brief measure was developed to arrive at a uni-dimensional score reflecting five domains of self-control: controlling thoughts, controlling emotions, controlling impulses, regulating behavior/performance, and habit-breaking (See Appendix D). The total score reflects the average of the 13 items on a five point scale. This measure has demonstrated internal reliability and validity in both college and offender samples. Cronbach's reliability for this sample was high for both groups (White alpha = .88; African American alpha = .85).

Recidivism Data: Self-reported arrests and undetected offenses at 1 year post-release. These data were collected primarily in telephone interviews during which participants were asked to provide information about the frequency of arrests (see Appendix E) and undetected offenses (see Appendix F) they committed in the first year they were released into the community. In the event that a participant was re-incarcerated at the time of the interview, an in person interview was conducted at the correctional facility. Participants were asked by category of crime how many times they were arrested or committed a specific offense and did not get caught. The categories were as follows: theft, robbery, drug offenses, domestic violence disputes, assault, murder/manslaughter, weapons offenses, prostitution, sex offenses, major driving offenses, fraud, probation/parole/court violations, kidnapping, arson, resisting arrest/contempt of court/assault of police officer, miscellaneous offenses (e.g. vandalism, drunk in public, driving on a suspended license), and other offenses.

Socio-economic status. Highest level of education attained and income in the year prior to incarceration by self-report.

RESULTS

Inmates' Reported Innocence (RI) for Current Offenses

The majority of inmates in this study – all of whom were arrested for at least one felony charge -- reported that they were completely guilty (62% of the combined sample) of their current charges (Table 4). Furthermore, an additional 26% described behavior that revealed that they were at least a participant in an illegal activity --whether or not they knew it at the time (codes 2-3). About 7% of the combined sample of White and African American participants reported they were completely innocent of the crimes with which they were charged, indicating the strongest possibility of wrongful incarceration.

Table 4

Frequencies of Reported Innocence

Code	Total N (%)	White N (%)	African American N (%)
1 Complete guilt	207 (62%)	107 (70%)	100 (55%)
2 Partial guilt	58 (17%)	21 (14%)	37 (20%)
3 Unknowing participant in crime	31 (9%)	12 (8%)	19 (10%)
4 Legal related behavior	13 (4%)	6 (4%)	7 (4%)
5 Complete innocence	25 (7%)	6 (4%)	19 (10%)
N	334	152	182

Hypothesis #1 predicted that African Americans would report higher levels of RI than Whites. These codes were first dichotomized to analyze the difference in frequencies by race between those who clearly reported complete innocence (code 5) with those who reported lower levels of innocence reflecting gray area in terms of how guilty they were of the current offenses (aggregated codes 1-4). A chi-square test of this comparison revealed that African Americans were significantly more likely to report complete innocence (10.4%) than Whites (3.9%); $\chi^2 = 5.04, p = .03, OR = 2.84, 95\% CI = 1.10-7.30$.

Moreover, the mean difference in reported innocence was tested through an analysis of variance with race and gender as categorical independent variables and RI as a

continuous dependent variable. As hypothesized, African Americans had a higher RI mean than Whites (Table 5), which was a small but statistically significant effect (Cohen's $d = .32$) There was no significant mean difference in reported innocence by gender; nor was there a significant race by gender interaction. Further, this race difference in RI persisted when positive impression management (PIM) was entered as a covariate in an ANCOVA, $F(1, 327) = 4.90, p = .03$, Cohen's $d = 0.31$. This race difference was also robust controlling for both income in the year prior to incarceration and years of educational attainment as covariates in an ANCOVA, $F(1, 397) = 4.50, p = .04$, Cohen's $d = 0.31$.

Table 5

Reported Innocence Descriptives and Analysis of Variance

Descriptives						
Groups	Total Mean (SD)	White Mean (SD)	African American Mean (SD)	N		
Male	1.85 (1.32)	1.60 (1.15)	2.03 (1.40)	220		
Female	1.62 (1.00)	1.52 (0.91)	1.74 (1.10)	114		
Total	1.78 (1.22)	1.57 (1.06)	1.95 (1.32)	334		
N	334	152	182			
Analysis of Variance						
Source	<i>Type III Sum of Squares</i>	<i>Df</i>	<i>Mean Square</i>	<i>F</i>	<i>p</i>	<i>n</i>
Race	7.53	1	7.53	5.15	.02	.12
Sex	2.60	1	2.60	1.78	.18	.07
Race * Sex	0.86	1	0.86	0.59	.44	.04
Error	483.15	330				
Total	1551.00	334				

Race Differences in Psychological Predictors of Criminal Behavior.

Since Whites were expected to be guiltier of the behavior leading to their arrest, in hypothesis #2 Whites were also expected to have higher means for predictors of criminal behavior and a lower mean for self-control. There was mixed support for this hypothesis. Some race differences were evident (Table 6). As expected, Whites reported significantly higher levels of drug problems and were also slightly higher in alcohol problems. African Americans had significantly higher means for psychopathy, yet there was no race difference in antisocial personality features. In terms of psychopathy, a post-hoc analysis revealed that, though there was a significant race difference in means, there was no race difference in the percentage of participants who met the cutoff criteria ($M = 18$) for psychopathy, 16.3%, $\chi^2 = 1.18$, $p = .28$, $OR = 1.39$, $95\%CI = 0.78 - 2.52$. Also as hypothesized, self-control was significantly lower among Whites. In terms of criminogenic cognitions, African Americans had a significantly higher overall score, though for both groups the mean was near the midpoint of two on the four-point scale. Due to the multiple components of this construct it made sense to look in greater depth at this measure. Mean race differences were found for those questions assessing the dimensions of negative attitudes towards authority, notions of entitlement/demands for respect and lack of appreciation for the impact of crime. No race differences were observed for external locus of control/denies responsibility or short-term gratification.

Finally, borderline personality features were slightly elevated for Whites, but not significantly so⁷.

⁷ One would expect .07 mean differences when making 14 comparisons. Nine race differences were detected. A Bonferroni correction to account for this number of comparisons would set the alpha at $p < .003$. The mean differences for self-control, psychopathy Total and Factor 1, criminogenic cognitions and significant subscales still met this conservative criterion. Drug problems was significant at $p = .005$.

Table 6

Means for Predictors of Criminal Behavior

Scale	Subscale	Total Mean (SD)	White Mean (SD)	African American Mean (SD)	<i>t</i>	<i>d</i>
Psychopathy		12.28 (4.82)	11.32 (5.12)	13.08 (4.41)	-3.31***	-0.37
	Factor 1	5.81 (2.84)	5.24 (3.01)	6.28 (2.61)	-3.34***	-0.37
	Factor 2	6.47 (2.80)	6.09 (2.91)	6.80 (2.66)	-2.33*	-0.25
Anti-social pers.		64.07 (12.06)	64.01 (12.54)	64.11 (11.67)	-0.07	-0.01
Drug problems		73.53 (21.16)	77.12 (24.56)	70.51 (17.67)	2.78**	0.31
Alcohol problems		60.30 (17.96)	61.87 (19.95)	58.99 (16.04)	1.42	0.16
Criminogenic Cognitions		2.21 (0.35)	2.14 (0.35)	2.27 (0.35)	-3.61***	-0.37
	Neg attitude auth.	2.51 (0.58)	2.36 (0.57)	2.65 (0.56)	-4.68***	-0.51
	Ext. locus/respons.	2.13 (0.54)	2.18 (0.55)	2.10 (0.54)	1.26	0.15
	Entitlement/res pect	2.31 (0.46)	2.17 (0.41)	2.43 (0.48)	-5.24***	-0.58
	Short-term gratification	2.03 (0.44)	2.01 (0.45)	2.05 (0.44)	-0.85	-0.09
	Impact of Crime	2.07 (0.53)	1.98 (0.47)	2.15 (0.56)	-3.00**	-0.33
Self-control		2.96 (0.70)	2.81 (0.70)	3.08 (0.68)	-3.49***	-0.39
Borderline Features		63.75 (13.23)	65.11 (14.10)	62.61 (12.28)	1.70	0.19
<i>n</i>		327-331	149-151	178-180		

p* < .05, *p* < .01, ****p* < .001

Race as a Moderator of the Relationship between Criminogenic Factors and Prior Criminal Charges

It was hypothesized that African Americans had been incarcerated with less due cause over the years, and that this would result in weaker relationships between predictors of criminal behavior and the number of prior criminal charges for African Americans relative to Whites (hypothesis #3a). Seven different hierarchical regression analyses were conducted to test whether race moderated these relationships. In each case the dependent variable was the number of criminal charges on the inmates' official criminal record⁸. In each regression, race (dummy coded as 1 for African American and 2 for White) and the independent variable were entered in Step 1 and the interaction term was entered in Step 2. There were main effects in the expected direction for the independent variables of psychopathy, antisocial personality features, drug problems, alcohol problems, self control (negatively) and borderline personality features, indicating that these were, indeed, good indicators of criminal behavior for this sample (Table 7). Criminogenic cognitions were the sole exception and were not related to the number of prior charges.

⁸ Since this DV was not normally distributed, this variable was log transformed for the regressions. The regressions were run with raw data and also with two outliers on the DV changed to the next highest number of arrests plus 1 with essentially the same results. The numbers reported include the changed outliers.

Table 7

Regressing Predictors of Criminal Behavior onto Prior # of Criminal Charges (ns= 321-327)

Construct	Main Effect					Interaction with Race				
	<i>B</i>	<i>SE</i>	β	<i>t</i>	R^2	<i>B</i>	<i>SE</i>	β	<i>t</i>	$R^2\Delta$
Psycho- pathy	.027	.004	.353	6.77***	.151	.007	.008	.168	0.86	.002
Antisocial personality	.006	.002	.200	3.72***	.07	.002	.003	.186	0.56	.001
Drug problems	.007	.001	.405	7.96***	.190	-.003	.002	-.450	-1.69	.007
Alcohol problems	.005	.001	.241	4.49***	.087	-.002	.001	-.252	-0.96	.003
Crimin. cognitions	.025	.059	.024	0.42	.030	.002	.119	.006	0.02	.000
Self- control	-.095	.029	-.180	-3.28**	.061	-.036	.058	-.163	-0.63	.001
Borderline features	.005	.002	.197	3.64***	.072	.002	.003	.230	0.71	.001

p < .01, *p < .001

The crux of hypothesis #3a, that race would moderate the relationships of the above IVs and prior criminal charges, was tested with the interaction terms in Step 2 of the regressions. None of these interactions was significant, however, offering no indication that race moderated these relationships. Race was significantly related to lifetime criminal charges from official records (African Americans had more charges), $\beta = -.17, t = -3.17, p = .002$.

Hypothesis #3b proposed that race moderated the relationships between predictors of criminal behavior and post-release arrests. This was tested with the subsample of participants that also had longitudinal post-release data ($n = 187$). The dependent variable pertinent to this hypothesis was a count variable of the number of arrests in the year following their release from jail that participants reported. There was a large number of zeros in this DV since the majority of participants in this subsample (55%) were not arrested in the year following release. Therefore, the appropriate test for a dependent variable with many zeros, a generalized linear model with an over-dispersed Poisson probability distribution using the log link function, was used to evaluate this hypothesis. In each of seven separate regressions, the predictors of criminal behavior and race were entered simultaneously for each predictor. In terms of this prospective measure of recidivism⁹, as expected, antisocial personality features, drug problems, alcohol problems, self-control (negatively) and borderline personality features each predicted the

⁹ The dependent variable was run with raw data and with one outlier changed to the next highest arrest plus 1, with essentially the same results. The numbers reported include the changed outliers.

total number of arrests in the year post-release (Table 8)¹⁰. Only criminogenic cognitions were not significantly predictive of post-release arrests.

Table 8

Regressing Predictors of Criminal Behavior onto one Year Post-release Arrests(n = 182-187)

Construct	Main Effect			Interaction with Race		
	<i>B</i>	<i>SE</i>	<i>Wald χ2</i>	<i>B</i>	<i>SE</i>	<i>Wald χ2</i>
Psychopathy	.065	.025	6.97**	.002	.053	0.00
Antisocial pers.	.029	.008	13.58***	.009	.016	0.35
Drug probs	.021	.005	15.76***	.003	.011	0.06
Alcohol probs	.022	.005	16.66***	.002	.011	0.02
Crimin. cogs	.466	.308	2.29	.286	.623	0.21
Self-control	-.499	.158	9.97**	-.119	.326	0.13
Borderline feat.	.024	.008	9.02**	.003	.016	0.05

p < .01, *p < .001

Of particular interest was the significance of interaction terms entered into additional regressions along with the predictor IVs and race. There were no significant

¹⁰ One would expect 0.3 significant main effects by chance when making 7 comparisons. Six significant main effects were found. A Bonferroni correction would set the alpha at $p < .006$. The t test for each significant main effect was significant at $p < .004$, excluding psychopathy where $p = .008$.

interactions between race and the above independent variables offering no indication that race moderated these relationships. Race entered alone into a Poisson regression did not predict the total number of arrests in the year following release into the community, $B = .09$, $SE = .23$, $Wald \chi^2 (1, n = 186) = 0.12$, $p = .69$.

Race Moderation of the Relationship between Prior Charges and Future Offenses

It was also expected in hypothesis # 4 that African Americans would have a weaker relationship between their history of prior charges and reported undetected offenses in the year after release. This hypothesis was based on the assumption that African Americans' criminal records would be inflated due to higher rates of wrongful incarceration than Whites and that the more accurate the number of prior charges the stronger the correlation between offense history and future offenses. Surprisingly, neither race ($B = .46$, $SE = .34$, $Wald \chi^2 (1, n = 183) = 1.93$, $p = .17$) nor the number of prior criminal charges ($B = .00$, $SE = .01$, $Wald \chi^2 (1, n = 183) = 0.10$, $p = .76$) predicted the total number of post-release undetected offenses, as tested with a generalized linear model using an over-dispersed Poisson distribution¹¹. Contrary to expectations the interaction between race and the number of future undetected offenses was not significant either, $B = .02$, $SE = .02$, $Wald \chi^2 (1, N = 183) = 0.67$, $p = .41$.

Detection of Crime

There were no statistically significant mean race differences in any of the arrest or undetected offense variables reported for the year following release from jail (Table 9).

¹¹ The DV of post-release offenses was capped at one offense per day per type of crime (365). The regression was run with the raw data and with two outliers changed to next highest plus 1 but results were the same. The numbers reported include the changed outliers.

African American and White participants reported comparable numbers of arrests undetected offenses, and number of different types of crimes committed (an indicator of criminal versatility).

Table 9

One Year Post-release Recidivism Descriptives

Recidivism Measure	Total Mean (SD)	White Mean (SD)	African American Mean (SD)	<i>t</i>	<i>d</i>
Total # arrests	0.92 (1.41)	0.88 (1.62)	0.80 (1.16)	-0.39	.06
Total # arrests (excluding drugs)	0.83 (1.30)	0.88 (1.50)	0.83 (1.14)	0.14	.04
Number of different types of crime arrested for	0.61 (0.88)	0.66 (1.09)	0.57 (0.71)	-0.65	.10
Total # of undetected offenses	82.16 (182.76)	105.67 (208.14)	66.05 (162.19)	-1.40	.21
Total # of undetected offenses (excluding drugs)	43.40 (118.30)	62.08 (135.91)	36.61 (103.28)	-1.71	.21
Number of different types of undetected offenses	1.08 (1.53)	1.26 (1.81)	0.95 (1.30)	-1.39	.20
n	186-187	76	110-111		
Getting away with crime (log)	1.00 (0.99)	1.36 (0.88)	0.80 (0.99)	-2.93**	-.60
Getting away with crime (log excluding drugs)	0.60 (0.92)	0.98 (0.91)	0.38 (0.86)	-3.42***	-.68
n	110	39	71		

p < .01, *p < .001

Note: The t tests for the getting away with crime variables were run with raw data and with outliers changed, with essentially the same results. One arrest outlier was changed to the next highest arrest plus 1. The number of post-release undetected offenses was capped at one offense per day per type of crime (365 maximum per crime) and two outliers were changed to next highest plus 1. The numbers reported reflect the changed outliers.

Hypothesis #5 predicted that Whites would be more successful in “getting away with crime” than African Americans. The rationale for this hypothesis was that police officers would be more likely to monitor and therefore catch African Americans who engaged in crime based on observed differences in the literature regarding racial profiling.

Getting away with crime was operationalized by dividing the number of undetected offenses +1 by the number of arrests +1, thus a higher ratio indicated having gotten away with more crime¹² (Krishnan, Tangney, & Stuewig 2008). This variable was only calculated for participants that reported having recidivated--those who reported at least one arrest or undetected offense (N = 110). Using this method of calculation, Whites were significantly more likely to get away with crime than African Americans, (White $M (SD) = 1.36 (0.88)$; African American $M (SD) = 0.80 (0.99)$, $t = -2.93$, $p = .004$, $d = -.60$). Furthermore this race effect was robust in both a) an ANCOVA with PIM entered as the control variable, race $F (1, 106) = 6.98$, $p = .009$, and b) an ANCOVA with both highest level of education attained and income in the year prior to incarceration entered as control variables, race $F (1, 91) = 8.78$, $p = .004$. In order to test whether this effect was unduly influenced by a higher frequency of drug use for either group, “getting away with crime” was also calculated excluding drug related arrests or undetected offenses, with essentially the same result; Whites were more likely to “get away with” crime (White $M (SD) = 0.98 (0.91)$; African American $M (SD) = 0.38 (0.86)$, $t = -3.42$, $p < .001$). Again this race

¹² This number was then log transformed (due to the non-normal distribution of this count variable) for the analysis of the mean difference between the racial groups. The t-tests were run with raw data and outliers changed to next highest plus one for both arrests and undetected offenses with similar results. Those reported here used the outlier changes.

difference persisted controlling for both PIM and SES variables in separate ANCOVAS respectively, race $F(1, 106) = 9.45, p = .003$; $F(1, 91) = 11.91, p = .001$.

Power Analysis

One question is whether the analyses in the current study had sufficient power to detect meaningful effects, particularly where null results were observed. The recommended power for empirical psychological studies is .80 (Cohen, 1992). Data analyses in this study included mean differences analyzed with t-tests and ANOVAS/ANCOVAS and multiple hierarchical regression analyses to test for moderation effects.

For the t-tests and ANOVAS with this sample size of 152 White and 182 African Americans and a two-tailed alpha of .05, the calculated statistical power (.44) using GPower statistical software (Erdfelder, Faul, & Buchner, 1996) was insufficient to detect a small effect size for mean differences (.20). The power (.89) should have been sufficient to detect a slightly larger effect size (.35). The power was high (.995) for detecting a medium effect size (.50).

Null results were observed for all hypothesized interactions testing for race differences in relationships between predictors of crime and both prior history of criminal charges and future arrests. Power to detect interactions in moderated regressions is notoriously small (Aguinas, 1995). In regards to the DV of prior charges, power was calculated in terms of the estimated change in F^2 when adding an interaction term to the model in the 2nd step, after two main effects were added into the model in the 1st step. With the sample size of 327 participants and a two-tailed alpha of .05, the power in this

study to detect a race moderation between a predictor of crime and the participant's prior number of charges from official records was nearly sufficient (.72) to detect a small effect size (about 2% change in the variance accounted for). For a slightly larger effect size ($F^2 = .04$) power should have been sufficient (.95). The same was true for a medium effect size ($F^2 = .06$) with a power of .99.

In regards to the DV of future arrests the n was smaller with only 187 total participants. With a two-tailed alpha of .05, the power in this study to detect a race moderation between a predictor of crime and the participant's future arrests was not quite sufficient (.49) to detect a small effect size (about 2% change in the variance accounted for). For a slightly larger effect size ($F^2 = .04$) power should have been sufficient (.78). The same was true for a medium effect size ($F^2 = .06$) with a power of .92.

DISCUSSION

This study investigated indirect evidence of wrongful incarceration in a sample of White and African American jail inmates charged with at least one felony offense. The key question was whether African Americans were more likely than Whites to report that they were innocent of the charges for which they were currently incarcerated. Ultimately the truth of guilt or innocence cannot be ascertained from the available data. There was, however, indirect evidence in this study that African Americans were more likely to be wrongfully incarcerated.

Race Differences in Reported Innocence

The first type of indirect evidence examined was inmates' reported innocence (RI) with regard to the crimes for which they were currently incarcerated. African Americans were more likely to report behavior indicating the complete innocence of their charges relative to Whites. African Americans also scored higher than Whites on a continuous measure of reported innocence. This result is consistent with the notion that African Americans were more likely to be wrongfully incarcerated and held with less cause for suspicion suggesting the influence of institutional racism in the decision to arrest and detain suspects of felony offenses.

Validity of Reported Innocence

One may be understandably hesitant to accept the assertions of innocence of jail inmates at face value. In this study, the participants were not asked directly whether they were guilty or innocent of their charges, but instead to provide a detailed account of the events leading to their arrest which was then coded to reflect the legitimacy of the arrest in light of the inmates' reported behavior. To examine the validity of these ratings of innocence, the positive impression management (PIM) scale of the widely used Personality Assessment Inventory was considered. This scale was specifically designed to detect a tendency to present oneself in an unrealistically favorable light. This construct was only mildly related to inmates' reported innocence. Importantly, PIM was consistent across race, offering no indication that African Americans were more likely than Whites to skew their responses to paint a more flattering picture of themselves. Nonetheless, the means of Whites' and African Americans' RI were re-analyzed controlling for PIM and the results were the same; African Americans reported higher levels of innocence of the charges against them.

The correlates of RI with psychological predictors of criminal behavior added further credence to these claims of innocence. If higher levels of RI were truly indicative of innocence it would likely be positively related to protective factors for criminal engagement and negatively related to risk factors. As expected, inmates with higher RI also reported higher levels of self-control and lower levels of antisocial personality features, drug problems, and borderline personality features. Thus there was support for the validity of RI from these indicators such that inmates reporting higher levels of

innocence tested as less psychologically inclined to commit crime, relative to those who admitted they were guilty of charges.

If any of the predictors of crime had been positively related to RI, it would have raised some doubt about the validity of the measure. None of the predictors were significantly positively related to RI for either Whites or African Americans. Three of the predictors studied were unrelated to RI, though: psychopathy, criminogenic cognitions, and alcohol problems. In terms of psychopathy, there may have been a cancelling effect because psychopathy indicates both a tendency to commit crime which would result in a negative correlation with RI, but also a higher tendency for deceitfulness which would have resulted in a positive relationship with RI, assuming reports of higher innocence were false.

The criminogenic cognitions scale (CCS) is comprised of five components: notions of entitlement/demand for respect, a short-term orientation toward goals, negative attitudes toward authority, external locus of control or failure to take responsibility for one's actions and insensitivity to the impact of crime on victims and society. In terms of criminogenic cognitions you might expect different relationships with validly reported innocence depending on the component of the CCS, so the apparent lack of correlation is not too surprising. For example, it would make sense for validly reported innocence to negatively correlate with short-term orientation and insensitivity to the impact of crime. The relationship between RI and external locus of control/responsibility for one's actions would likely be positive for those accurately reporting innocence, but negative for those who were dishonest in reporting innocence. Finally, it would make sense for RI to

positively correlate with negative attitudes towards authority and stronger feelings of entitlement to respect whether one were truly guilty of a crime or not. In fact, someone who was truly innocent might have even higher levels of negative attitudes towards authority due to the fact they were wrongfully incarcerated. Taken together, these complicated relationships between RI and criminogenic cognitions depending on the validity of RI and the particular component of the CCS, could very well have resulted in the observed null correlation that trended slightly positive.

Mean Differences in Predictors of Crime

Another line of indirect evidence of racially disparate wrongful incarceration was mean differences in predictors of criminal behavior by race. Those indicators considered risk factors for criminal behavior were expected to be lower for African Americans based on the assumption that more African Americans would be wrongfully incarcerated and thus less psychologically inclined to commit crime. In the same vein, African Americans were expected to have higher levels of self-control. This expectation held for self control and drug problems and trended in the hypothesized direction for alcohol problems and borderline features, offering further support for the wrongful incarceration hypothesis.

Several questions arose, however, because even though African Americans had higher RI than Whites, they had relatively higher levels of psychopathy and criminogenic cognitions than Whites. How can these contradictory results be explained? For one, as noted above, psychopathy and criminogenic cognitions were unrelated to RI so the hypothesis itself, that more innocent inmates would have lower levels of these constructs may have been misguided. Second, it might provide support that African Americans were

being less honest than Whites in their reports of the innocence of their current charges and that they were just as guilty as Whites (though again scores were similar in terms of PIM). Alternatively, it might be that those African Americans who were, perhaps, less guilty of their charges in this instance, had equivalent criminal tendencies, in general, but were less culpable in the case of these particular current charges. In other words, those who were, perhaps, wrongfully incarcerated in this instance may participate in crime from time to time, but were not guilty of the current charges.

In terms of criminogenic cognitions, more exposure of African Americans to prejudice and racism relative to Whites would conceivably result in higher levels of certain components of criminogenic cognitions. For instance, individuals who felt they were treated unfairly by authority figures (e.g. teachers, principals, police or the court system) might understandably have higher negative attitudes towards authority as well as endorse higher levels of entitlement or demands of respect, two of the subscales elevated among African Americans in this sample. It might also be harder to appreciate the impact of crime if one is immersed in an impoverished neighborhood (African Americans inmates in this study had lower incomes than Whites, though both groups had low incomes in the year prior to incarceration) where every day is more of a struggle to survive and crime permeates the neighborhood. African Americans and Whites in this study had similar levels of the external locus of control/responsibility for one's actions. According to Sue (1978), racial and ethnic minorities would theoretically be expected to endorse higher levels of external locus of control and external locus of responsibility than Whites; however, one would not necessarily expect this difference to emerge when

restricted to a sample of financially low income individuals since the poor are also theoretically more likely to have a more external locus of control and locus of responsibility than individuals of higher SES. There were no group differences in the final component of criminogenic cognitions, short-term orientation.

A potential confound of psychopathy scores for African Americans could be that the very phenomena of study here, wrongful incarceration, could have artificially inflated psychopathy scores even if there were no true race differences in psychopathy. Several of the items used by clinicians to score psychopathy on the PCL:SV take into consideration the number of charges on an inmates' official record and how much responsibility the inmate took for their crimes. Imagine a scenario in which, given truly different actual offending patterns, an African American with a criminal record were just as likely, or even more likely than a White with a criminal record, to be arrested and charged even if the African American did not commit the crime (as evidenced by the RI results in this study). An African American in this situation would naturally appear to be minimizing responsibility for their crimes because they were actually less responsible for their crimes. Even so, the clinician would likely score this African American inmate more highly on psychopathy than the White inmate who assumed more responsibility because he or she were, in fact, more responsible.

Over time this could have a cumulative effect on African American inmates' criminal record, making them even more likely to be suspected of future crimes and subsequently arrested, resulting in the observed disproportionate arrest rates and supervision requirements for African Americans seen in the literature reviewed. These

observed disproportionate rates of arrests and supervision could inflate the rating of three of the 12 items on the PCL:SV. The recognized expert in the detection and theory of psychopathy, Robert Hare, never expected there to be theoretically relevant racial/ethnic differences in psychopathy (Hare, 2003), but most of the data used in the development of the theory of psychopathy and development of the PCL rating scales were obtained from White Canadian males. The Canadian justice system may be freer of differential practices in regards to inmates of African descent than the U.S. justice system as there were never Jim Crow laws or legal segregation in Canada. Since PCL measures are sensitive to the number of charges on an inmate's record, it is reasonable to expect higher mean scores for African Americans simply due to the fact of disproportionate rates of incarceration. In fact, three out of ten studies which reported inmates' psychopathy scores by race reported higher mean scores for incarcerated African Americans, none found the reverse, and there were a number with non-significant results although most of these trended toward higher scores for African Americans as well (Sullivan & Kosson, 2006). The only one of the studies with jail inmates found higher psychopathy scores among African Americans.

In general, there was some support from this line indirect evidence--mean differences in psychological predictors of crime--that African Americans were more likely to be wrongfully incarcerated, but the results were mixed. African Americans had a higher levels of self-control and lower levels of drug problems but also higher levels of psychopathy and criminogenic cognitions. Unexpectedly higher means for African Americans on these two constructs may have been influenced by wrongful incarceration in a different way than hypothesized, but the data were inconclusive.

Moderation Analyses

It was hypothesized that there would be a demonstrable moderation of race on the relationships between psychological predictors of criminal behavior and an inmate's official record of prior criminal charges, because the criminal record was expected to be inflated by higher rates of wrongful incarceration for African Americans but be more accurate for Whites. Based on a review of the literature on disproportionate rates of incarceration, DNA based exonerations, and racial profiling, the moderation effect was estimated to be of medium size. In light of the observed small effect size for race differences in RI, perhaps a more realistic expectation would have been a small effect size for a change in explained variance due to the addition of an interaction term. In other words, since there was only a small effect size for the phenomenon of wrongful incarceration (if RI was a valid indicator) there was little reason to expect a medium effect size for race moderating the effects of the relationships. A power analysis based on the sample size in this study indicated there was insufficient power to detect a small effect even if there truly was one.

Several other moderation effects were tested for the subset of participants on whom recidivism data was gathered. Prior criminal charges were expected to be predictive of future offending behavior but less so for African Americans based on the assumption that there would be more error (wrongful incarceration) in an African American's record which would weaken the relationship between prior charges and future offending. Another hypothesis was that race would moderate the relationship between these same predictors of crime and prospective reports of arrests in the year after

release into the community. Neither of these hypotheses was supported. Due to various factors (e.g. inability to find participants one year after release, the continuous incarceration of other participants making them ineligible for follow up when this dataset was collected) the subsample was limited to an N of 187. Again this sample size was underpowered to detect a small effect size for race moderating the above relationships, so this data was inconclusive.

Race Differences in the Detection of Crime

The strongest effect found in this study was that Whites were more likely to “get away with crime” in the year after release back into the community. That is, given the number of crimes committed over that year, African Americans had a higher likelihood of being arrested than Whites. Thus there appeared to be an effect of higher levels of surveillance and detection of crime--relative to the number of crimes committed--for African Americans in the year after release from jail. This finding was consistent with the literature reviewed on racial profiling.

Implications

Taking together the indirect evidence of wrongful incarceration and detection of crime in this study, it appears that African Americans are more likely to be unfairly arrested and detained. This is not how the “justice” system is supposed to work. If the data presented here are to be believed, along with the literature on racial disparities seen in DNA-based overturned convictions, data supporting the Racial Threat Hypothesis of Social Control Theory, and racial profiling, we have a problem in our justice system which needs to be addressed.

Of course we know the system cannot be perfect and that in (hopefully) rare cases, the innocent will be caught in the snare. However, African Americans shouldn't have to shoulder a greater burden of proof of their innocence. Of some comfort was the evidence in this study that the incidence of complete innocence (by self-report) was rather low and that the great majority of inmates reported complicity in their charges. It was also encouraging that income was not related to reported innocence, so the poorer did not seem to be at increased risk. Gender bias wasn't implicated as an area of concern, either. Nonetheless, a higher likelihood of being innocently caught in the snare because of race is anathema to the notion of justice the theoretical foundation of the United States legal system.

While the effect sizes for these phenomena appear to be small to medium, there are situations where a small statistical effect can “tell a big story” and strong conclusions are appropriate (Cortina & Landis, 2009). This is undoubtedly one such occasion. Incarceration is not only socially stigmatizing but also has a profound impact on one's future ability to get a job and financially support a family, can lead to loss of public assistance for housing and food stamps, can result in disenfranchisement in the political process, and often results in a cycle of incarceration that is likely to be perpetuated by one's children. Over 10.6 million arrests are made each year in the U.S. (Pastore, & Maguire, 2009a) so even if only 1% of these arrests are in error (wrongful incarceration) it would affect over 100,000 people per year. It is imperative that error is kept to a minimum and that these errors aren't biased against any particular demographic group because more faith in the justice system is better for all Americans.

There are psychological implications of this study as well. Clinical, counseling and forensic psychologists with court involved clients should seriously consider the evidence of wrongful incarceration and racial bias in detecting crime found in this study. Individuals claiming innocence of their crimes or racial bias may actually be telling the truth -- more so than one might otherwise expect. This is an important issue to address in psycho-therapy. Exposure to racial discrimination has been shown to be experienced as stressful with increases in levels of psychological distress and decreases in psychological well-being among African Americans (Pieterse & Carter, 2007; Williams, Neighbors & Jackson, 2003).

The assumption of criminal involvement has been proposed as a form of “racial micro-aggression”, an often covert or subtle form of modern day racism, which is believed to have a negative impact on the psychological health of individuals exposed to it (Carroll, 1998; Sue, et al., 2007). Racial disparities in wrongful incarceration and racially biased detection of crime can lead to implicit biases among both Whites and African Americans. Whites could consciously or unconsciously be sending subtle messages to African Americans expressing fear of criminal behavior such as clutching their purses, monitoring African Americans while shopping, or crossing to the other side of the street. Such stereotypes could also result in a racial identity among African Americans characterized by internalized negativity toward one’s own race (Worrell, Cross, & Vandiver, 2001). The results of this study undermine the negative stereotypes of African Americans that fuel these biases.

Wrongful incarceration and racially biases in the justice system can perpetuate criminal behavior. A number of studies have found empirical support for “the code of the streets” as an explanatory factor for violent crime, particularly among African Americans (Gabiddon, 2007). As originally proposed by Elijah Anderson (1994), “the code of the streets is actually a cultural adaptation to a profound lack of faith in police and the judicial system (pg. 82).” The result is a culture of continual fighting for respect in interpersonal relationships often resulting in violent confrontations for perceived disrespect. This theory is consistent with the observed higher means of the entitlement/demands of respect component of the Criminogenic Cognitions Scale in this study. If the type of racial bias that results in higher levels of reported innocence were reduced or eliminated, the need for this type of defensive posture – and resultant violent crime -- could be reduced as well.

Results from this study also highlight the continued importance of racial socialization practices in African American families. There is evidence that preparing African American youth for racial bias -- such as that found in this study -- along with instilling positive messages related to racial or cultural heritage, can serve to promote resilience, improve academic achievement, and act as a buffer against psychological distress (Bowman & Howard, 1985; Miller, 1999; Murry, Berkel, Brody, Miller & Chen, 2009). It should be noted, however, that absent messages of racial pride, the exposure to parents’ messages of racial discrimination has been associated with increased antisocial behavior (Hughes, Witherspoon, Rivas-Drake & West-Bey, 2009).

Limitations

This study is most generalizable to individuals arrested for more serious crimes because the sample was limited to individuals with felony charges. It is unclear whether there would be fewer or more reports of innocence for less serious charges. On the one hand, less serious charges have less serious consequences for the accused so less discernment may be used in filing charges resulting in more false positives; on the other hand, more serious charges may trigger stronger a stronger “racial threat” reaction in authorities leading to more racially biased legal actions for more serious offenses.

Interpretations about the actual rate of wrongful incarceration are not warranted because this was not an epidemiological study. Nor were all inmates meeting eligibility criteria approached due to a limited supply of researchers and large number of eligible inmates. The reported innocence rate of about 7% in this study, however, was close to the empirically derived estimate of 3-5% for factual wrongful convictions based on data from capital rape-murders in the late 1980s (Risinger, 2007).

While there was support for the validity of reports of innocence in this study, it is impossible to determine whether participants were telling the truth. Further, even if inmates were telling the truth as they believed it, these reports were still based on the individual’s own construal of events which are subject to cognitive distortions. Additionally, most of the other constructs in this study were measured through inmates’ self-reports which could have been influenced by social desirability; however, there was no reason to suspect that the degree of honesty would vary by race (the observed PIM was consistent by race). Furthermore, no method of data collection is free from error. The exceptions to self-report were official criminal records (which might have contained

clerical errors and omissions) and clinician rated psychopathy (which may have been influenced by cultural differences among participants and inflated by the phenomena of wrongful incarceration itself).

Another limitation of this study was that race was only measured as a demographic variable and, as such, did not capture the complexity of racial identity and race-related cognitive or emotional processes. African Americans are not a monolithic group. Surely, there was variance in this sample in terms of racial socialization, perceived racial discrimination, cultural mistrust, racial identity development, and the overall experience of living as an ethnic minority in a historically oppressive society, as well as the meaning derived from that experience. Any of the above constructs could have played a role in the development or expression of attitudes or beliefs measured in this study. Since there was no available data about these potential moderators the question as to how they might have impacted these results remains unanswered.

Future Directions

Since the current study had a longitudinal design, it would be useful to follow up with these inmates and assess whether the subsequent impact of incarceration on mental health, re-entry into the community, financial stability and the likelihood of future arrests differed by level of reported innocence. Among those who claimed complete innocence, it would also be useful to follow up on how many were convicted and sentenced versus how many had the charges dropped and whether this differed by race.

This study indicates the need for further investigation of racially disparate rates of wrongful incarceration and the detection of crime. Reported innocence is a variable that

can be reliably coded and also appeared to be a valid proxy for wrongful incarceration in that complete innocence was only reported in a small percentage of inmates and correlations between reported innocence and predictors of crime were in the hypothesized directions. While there was a small positive correlation with positive impression management, this could also be measured and controlled for in future studies.

It would be helpful to conduct a larger scale study in multiple settings (e.g. urban jails, rural jails, prisons) and multiple regions of the country (particularly in terms of the minority composition of the population and history of racial oppression) and to include inmates with less serious offenses, in order to get a better sense of the rates of wrongful incarceration by race. Ideally such a study would attempt to corroborate reported innocence and self-reported undetected offenses with a lie detector test. The ability to confirm self-reports of arrests with official records would also bolster the confidence in the results of such a study by empirically testing the accuracy of self-report by race. More refined measures of race and race-related psychological phenomena (e.g. perceived discrimination, racial identity, cultural mistrust, racial socialization) would further enhance the ability to draw conclusions from such a study in terms of the antecedents, correlates and consequences of wrongful incarceration.

APPENDICES

APPENDIX A

Development of a Coding Scheme for Reported Innocence

In the first step of developing a coding scheme, myself and another researcher who had not conducted any of the initial interviews attempted to derive a coding scheme based on interviewers' handwritten notes from 80 of the interviews. A preliminary three point coding scheme was used: 1 complete guilt (high concurrence between the participant account and police account of illegal behavior), 2 partial guilt (some inconsistencies between the two accounts) 3 complete innocence (no concurrence between the two accounts in regards to illegal behavior). The coders then noted disagreements in coding. For each case in which different codes were assigned by the two raters, the circumstances in the inmate's account were discussed and a consensus code was then determined. In the second step, a third researcher typed verbatim transcripts of 20 of these original interviews. These were then coded by the same two raters following the same process of discussing and arriving at consensus codes. Next we compared the codes arrived at through interviewer notes to those arrived at using verbatim transcripts. It was clear that interviewer notes did not accurately enough capture the necessary information for coding reported innocence and that verbatim transcripts would be required to provide adequate validity and reliability.

In the third step of deriving a coding scheme, these 20 transcripts were analyzed by the two coders to determine if the three point coding scale seemed sufficient to capture the range of reported guilt through reported innocence. Through discussion a five point

coding scheme for reported innocence was agreed upon: 1 fully admits guilt, 2 partially admits guilt, 3 admits to being an unknowing participant in a crime, 4 admits to non-criminal but related behavior ,and 5 reports complete innocence of illegal behavior. In rare cases where there was not enough information to assign a code or consensus was not met an 8 would be used to signify missing data.

Some of the interviews had been originally completed in Spanish. When available, bilingual transcribers were asked to transcribe the interview verbatim in Spanish. Next they would translate the transcription into English and save it in the same format as the other English transcriptions so that it did not appear to be any different from those originally conducted in English. These bi-lingual transcribers checked each others' transcripts for accuracy. They also completed transcriptions for interviews originally conducted in English so that it would not be completely obvious that a transcription done by that researcher had been a Spanish transcription.

APPENDIX B

Guidelines for Coding Innocence or Guilt from the HARE

(05/18/2005)

1. Log in to the network
2. Right click the start menu on the bottom left
3. Select explore
4. Find the HERL server
5. Open Herl/Coding/Perceived Innocence
6. Open the RA_innoc_coding.xls file
7. Enter participant number
8. Determine the appropriate code for each HARE paper protocol with the following guidelines:
 - a. The intent of this process is to determine whether the participant admits guilt or denies guilt for the alleged crime that they are currently incarcerated for in the legal sense, not moral sense. We are trying to get at whether or not they committed the crime according to their own account of what happened. If the account of “what happened” is inconsistent with “what are you charged with” or “what did the police say you did” this indicates some level of perceived innocence. Be careful when looking at the “accepts responsibility” coding because the RAs were assessing moral (not legal) responsibility.
 - b. Base your decision on reviewing the Adult Antisocial Behavior section of the HARE paper interview (usually pages 2-4). Interpret only answers that address the current crime, not criminal history.
 - c. Be cautious when reviewing the spontaneous or planned coding. This is not necessarily a direct answer from the participant. Sometimes the RA uses clinical judgment in assigning this code. You should take this into consideration within the totality of the interview.
9. Determine the appropriate perceived innocence code

- a. **Fully admits guilt = 1.** This is the code you should use when the participant clearly admits to committing the index offense for which they are currently incarcerated and there are no inconsistencies between what they admit to and what the police say they did. This applies only if they admit they knowingly did something illegal (they weren't an unknowing accomplice in someone else's crime).
- I stole someone's credit card and made purchases
 - I sold drugs to an undercover cop
 - I got in a fight
 - I smoke weed but there isn't anything wrong with it
- b. **Partially Admits Guilt = 2.** Use this code when the participant admits to one or more of the charges against them but not all of the charges, they claim it is an issue of self-defense, or they the inmate is admits the behavior but downplays the full degree of severity. This should be used when the inmate appears guilty but there is some shade of innocence in their report of their behavior.
- I was driving drunk but I didn't steal the car, my girlfriend is just mad at me
 - My friend gave me a stolen credit card, I knew it was stolen and I used it to make purchases
 - I was charged with assault on a police officer but I just grabbed his arm
 - Someone pulled a knife on me then I shot him
 - They said I raped her but I just fell on her
 - If I were white and did the same thing they would not have arrested me
- c. **Unknowing Participant=3.** Use this code when the participant admits to participating in a crime that was in process but did not realize a crime had been committed.

- My boyfriend was selling drugs in the other room but they arrested me too.
 - The police were using me to catch someone else, I was in the room during the drug deal but I didn't do anything.
 - My cousin showed up with a new car, I didn't know it was stolen.
 - A co-worker made some bad checks and I signed them but didn't know they were bad
- d. Non-criminal behavior=4.** Use this code when they admit to participating in an event that is not criminal but the police are elevating it to the level of crime.
- I had been drinking but I wasn't drunk
 - I kissed her but I didn't assault her
 - I had a knife on me and they say I had intent to commit burglary
 - A police officer asked me to stop but I kept going, then stopped
 - I borrowed something and they got mad and said it was stolen
- e. Completely Innocent = 5.** Use this code when the participant clearly expresses that they didn't commit the offense. This code should be used for participants who believe they were wrongfully accused. Especially important to look for is the Accepts no responsibility/mostly blaming and Denies offense check boxes on page 4 to be used in interpretation if they pertain to the current charge.
- They got the wrong person
 - My sister did this not me
 - They arrested me because I fit the description
 - They arrested me because of my record
 - They think I know something about the crime but I don't
 - My husband committed a bunch of crimes and they are charging me too (not present during the crimes)

- It says “denies” somewhere on the protocol regarding the current offense
- f. **Unable to Tell = 8.** Use this code when the above codes cannot be used because answers are ambiguous or conflicting or you just don’t have enough information to make the decision.
10. Be sure to save before closing!

APPENDIX C

Criminogenic Cognitions Scale

Please indicate how well each statement describes your current thinking, using the following scale: 1= Strongly Disagree 2= Disagree 3= Agree 4= Strongly Agree

1. When I want something, I expect people to deliver.
2. Bad childhood experiences are partly to blame for my current situation.
3. The future is unpredictable and there is no point planning for it.
4. My crime(s) did not really harm anyone.
5. I feel like what happens in my life is mostly determined by powerful people.
6. I will never be satisfied until I get all that I deserve.
7. A theft is all right as long as the victim is not physically injured.
8. Even though I got caught, it was still worth the risk.
9. Because of my history I get blamed for a lot of things I did not do.
10. Most of the laws are good.
11. Victims of crime usually get over it with time.
12. When you commit a crime the only one affected is the victim.
13. Most police officers/guards abuse their power.
14. Society makes too big of a deal about my crime(s).
15. Sometimes I cannot control myself.
16. I expect people to treat me better than other people.
17. People in authority are usually looking out for my best interest.
18. Why plan to save for something if you can have it now.
19. I insist on getting the respect that is due me.
20. If a police officer/guard tells me to do something, there's usually a good reason for it.
21. People in positions of authority generally take advantage of others.
22. I am just a "born criminal."
23. I deserve more than other people.
24. I think it is better to enjoy today than worry about tomorrow.
25. I do not like to be tied down to a regular work schedule.

Scoring: External locus/failure to accept responsibility = Items 2, 5, 9, 15, 22
Notions of entitlement/demands of respect = Items 1, 6, 16, 19, 23
Negative attitudes towards authority = Items 10, 13, 17, 20, 21
Immediate/short-term gratification = Items 3, 8, 18, 24, 25
Insensitivity to impact of crime = 4, 7, 11, 12, 14

APPENDIX D

Brief Self-control Scale

We would like to learn a little more about you. In answering the following questions please be honest and accurate and trust your first response. Rate your responses on the following scale:

1=Not At All Like Me 2=Unlike Me 3=Sometimes Like Me 4=Like Me 5=Very Much Like Me

Self-Discipline

I am good at resisting temptation.

(R) I have a hard time breaking bad habits.

(R) I wish I had more self-discipline.

(R) I have trouble concentrating.

(R) Sometimes I can't stop myself from doing something, even if I know it is wrong.

Deliberate/Non-impulsive Behavior

(R) I say inappropriate things.

(R) I often act without thinking through all the alternatives.

Healthy Habits

I refuse things that are bad for me.

(R) I do certain things that are bad for me, if they are fun.

People would say that I have iron self-discipline.

Work Ethic

(R) I am lazy.

(R) Pleasure and fun sometimes keep me from getting work done.

Reliability

I am able to work effectively toward long-term goals.

APPENDIX E.

Recidivism Measure – Post-Release Arrests

I'd like to ask you about your criminal behaviors in the first 12 months since your release, referring to the time period we've been focusing on, from ____ to _____ and not including incarceration. Please remember that all of the information you provide will be kept completely confidential. To further protect yourself, please do not give me any specific details about person, place, or time.

During this time period, were you **arrested** for any of the following:

√	Crime	# Times	Month they were <u>first</u> arrested after release	<u>First</u> month crime was committed after release	Comments
	Theft				
	Robbery				
	Drug Offenses (Possession/Use or Distribution)				
	Domestic Violence Dispute				
	Assault (Simple/Aggravated)				
	Murder/Manslaughter				
	Weapons Offenses				
	Prostitution				
	Sex Offenses(Rape, Aggravated Sexual Assault, Indecent Exposure)				
	Major Driving Offenses				
	Fraud(Writing bad checks/ Running cons)				
	Probation/Parole/Court Violations				
	Kidnapping				
	Arson				
	Resist Arrest/ Contempt of Court/ Assault on Police Officer				
	Miscellaneous Offenses: Vandalism/Driving w/o License/ DIP/ Disorderly Conduct				
	Other, type:				

APPENDIX F

Recidivism Measure – Post-Release Undetected Offenses

Now I'd like to ask you about offense you may have committed but have not been caught for. Again, this information is kept completely confidential. During the time period between _____ and _____, did you engage in any of the following offenses and not get caught?

√	Crime	# Times	<u>First month crime</u> was committed after release	Comments
	Theft			
	Robbery			
	Drug Offenses (Possession/Use or Distribution)			
	Domestic Violence Dispute			
	Assault (Simple/Aggravated)			
	Murder/Manslaughter			
	Weapons Offenses			
	Prostitution			
	Sex Offenses (Rape, Aggravated Sexual Assault, Indecent Exposure)			
	Major Driving Offenses			
	Fraud(Writing bad checks/ Running cons)			
	Probation/Parole/Court Violations			
	Kidnapping			
	Arson			
	Resist Arrest/ Contempt of Court/ Assault on Police Officer			
	Miscellaneous Offenses: Vandalism/Driving w/o License/ DIP/ Disorderly Conduct			
	Other, type:			

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