Racial differences in academic achievement among juvenile offenders

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ABSTRACT

Racial differences were examined in academic achievement among a large, diverse juvenile delinquent population in the Southwestern United States. Participant data were collected from the University of Arizona Juvenile Delinquency Project (UAJDP) database. Academic measures included school absences; grade point average; standardized reading, writing, and math achievement scores; and, special education placement. Results showed significant differences among racial groups on all measures of academic achievement. Whites had higher passage rates on standardized tests in math, reading, and writing, as well as higher GPA, compared to all racial minorities except for Asians. Native-American youth performed lower on most academic measures compared to other racial groups and had significantly more absences than any other racial group. Moreover, Whites had the highest rates of special education whereas Asians had the lowest. Implications of these findings are discussed in terms of future research and public policy issues.

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1. Introduction

According to the 2010 United States (U.S.) Census, racial diversity continues to grow across the nation (U.S. Census Bureau, 2010). The Census projects that the non-Hispanic White population will peak in 2024 and then slowly decrease, whereas the population of Asian, Black, and Hispanic groups will increase in numbers up until 2060. In fact, the minority population in the U.S. is predicted to become the numerical majority by 2043 (U.S. Census Bureau, 2010). Consequently, the U.S. student population will continue to become more diverse, as well. Over the next decade, school enrollment numbers are expected to rise for Blacks, Hispanics, Asian/Pacific Islanders, Native American/ Alaska Natives, and students of two or more races, but fall for Whites (Hussar & Bailey, 2013). Hispanics, which make up the largest and fastest, growing minority group in the U.S., have already doubled in school enrollment numbers from 1990 to 2006 (Fry & Gonzales, 2008).

Given the increase in racial diversity among American students, there is a growing concern regarding the academic achievement disparity between Whites and racial minorities. Racial disparity has existed in the U.S. for more than a century and has been a topic of concern in education since the U.S. Supreme Court's decision in *Brown v. Board of Education* (1954) in which it was decided that separate but equal

education is unconstitutional. When the National Assessment of Education Progress (NAEP) first collected data on academic progress in 1970 for all U.S. students, it became evident that Black and Hispanic students were almost on average four years behind White students (Chubb & Loveless, 2002). Since then, educators and legislators have attempted to even the playing field for racial minorities through the passage of laws and policies (e.g., No Child Left Behind [NCLB]). However, the achievement gap between White students and most other minority students remains. For example, between 1971 and 2008, the achievement gap in reading and math between White and Black students remained quite large, with only slight narrowing beginning in 2004. The gap in reading and math between White and Hispanic students has also remained quite large, but has not narrowed since data were first collected in 1990 (Rampey, Dion, & Donahue, 2009). In addition, Native American students were found to lag behind their non-Native American peers, whereas Asian students were found to perform at achievement levels similar to White students (NAEP, 2011). Because White students appear to perform, in general, at a higher level academically, as well as on achievement tests, compared to Black, Hispanic and Native American students, this provides them with the opportunity to pursue higher education endeavors at a higher frequency which, in turn, often results in earning a higher income and experiencing less social adversity (Chubb & Loveless, 2002).

Of equal importance to the achievement gap between Whites and racial minorities is the distinct issue of academic disparity occurring between juvenile offenders and non-offenders (Archwamety & Katsiyannis, 2000; Beebe & Mueller, 1993, Cottle, Lee, & Heilbrun, 2001; Foley, 2001; Katsiyannis, Ryan, Zhang, & Spann, 2008; Meltzer, Levine, Karniski, Palfrey, & Clarke, 1984, Zamora, 2005). For example,

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in a review of the academic characteristics of juvenile delinquents, Foley (2001) reported that these youth were one year to several years below expected grade levels and had high rates of academic failure and grade retention. Some studies have also found that the majority of juvenile delinquents held in detention centers read at an elementary school level despite an average age of approximately 15 years (Beebe & Mueller, 1993; Meltzer et al., 1984). In one study, Zamora (2005) used the *Kaufman Test of Educational Achievement* (KTEA) to determine the academic level of 327 delinquent males ages 10 to 17 years. The results indicated that nearly half of the juveniles both read and performed math at an elementary school-age level despite the fact that 86.6% of the juveniles were placed between 7th and 10th grade. Further, Katsiyannis and Archwamety (1997) reported that juvenile recidivists (repeat offenders) performed poorer in reading, math, and writing, compared to non-recidivists, suggesting an area of further study regarding a possible link between the low academic achievement and the recommitting of juvenile offenses.

Despite the large body of evidence indicating that racial minority status and juvenile delinquency are both risk factors in predicting low academic achievement, few studies have specifically explored the racial differences in academic achievement among juvenile delinquents. To our knowledge, Baltodano, Harris, and Rutherford's (2005) study is the only investigation that attempts to examine these differences. However, their study lacked an adequate number of individuals within some of their racial categories, making data analysis and interpretation problematic across all racial groups. Also, like many other delinquency studies, their sample only included males. Furthermore, most juvenile delinquency studies on academic achievement have only included measures of math, reading, and writing, and have excluded other academic variables such as school attendance data, grade point average, and special education placement.

In light of these limitations, the purpose of the present study was to provide a more comprehensive analysis of racial differences in academic achievement among juvenile delinquents, with particular interest in comparing academic outcomes between Whites and racial minorities. Our study advanced extant research in several ways. First, in contrast to many previous studies, our sample included a large, diverse sample of juvenile delinquents. This included all racial categories, which were well represented, and both males and females. Additionally, unique to our study is the inclusion of youth who were arrested, but not detained. Most studies have focused only on incarcerated youth, thus limiting their interpretation of achievement data to detained youth. Second, we included a large number of academic variables that were excluded in many previous delinquency studies (e.g. school attendance data, grade point average, and special education status).

To investigate the relationship between race and academic achievement among juvenile delinquents, the following research questions and hypotheses were developed for this study:

1. What is the current level of academic achievement among juvenile delinquents across all racial groups? Given the wealth of delinquency research suggesting that juvenile delinquents are, on average, low academic performers, we hypothesize that youth in our sample will also show low levels of academic achievement compared to their peers.
2. Are there significant racial group differences with regard to total school absences and GPA among the juvenile delinquent population? No directional hypotheses were formulated regarding school attendance and grade point average since these measures have not yet been systematically studied across racial grouping.
3. Does performance on reading, math, and writing differ among racial groups? Although very few studies have studied racial differences in academic performance among juvenile delinquents, research among the general population suggests that White students, on average, perform significantly better than racial minority students. Thus, we hypothesize that significant differences in standardized achievement

tests of reading, writing, and math will be present among Asian, Black, Hispanic, Native American, and White delinquents. Specifically, we expect White delinquents to outperform all other racial groups on all academic measures.
4. Do racial groups differ in their likelihood of being in special education? No directional hypotheses were formulated regarding special education status since it has not yet been systematically studied across racial grouping.

2. Method

2.1. Participants

Participants in this study consisted of 8996 male and female youth who were enrolled within a large public school district and arrested at least once between August 2006 and May 2011. For those participants who had been arrested multiple times during this time period, the most current data were used. Sixty-four percent of the participants were male and 36% were female. In addition, 1.3% were Asian, 9.8% Black, 52.9% Hispanic, 5.8% Native American, and 29.3% White. As can be seen from Table 1, this racial percentage distribution is consistent with the local school district's percentage breakdown of youth by race. Participants ranging in age from 8 to 17 years and from grades 1 through 12 were represented.

2.2. Procedure

This project was approved by the University of Arizona's institutional review board. The data are part of the University of Arizona Juvenile Delinquency Project (UAJDP) database which was established through a cooperative intergovernmental agency signed agreement between the medium-size cooperating school district, participating juvenile court center, and the University of Arizona. This database consists of offense history, educational, school and demographic data that are obtained yearly through an intergovernmental agency data-sharing agreement (see Thompson & Morris, in 2013, for a more detailed description of the database).

2.3. Variables

Academic measures and school demographic data in this study included:

1. *School absence*, given that truancy is a common problem among all delinquents and will negatively impact their academic functioning. School absence was defined as the total days the participant missed school of the year they were arrested. If they were arrested over multiple years, the most current school year data was used.
2. *Grade point average* (GPA; only available for high school offenders). Grade point average was used to determine current levels of achievement, independent of standardized achievement tests. It was reported on a scale from 0.0 to 4.0.

Table 1
Comparing participant demographics with 2011–2012 Tucson Unified School District (TUSD) data.

Variable	Sample (%)	TUSD (%)
Race/ethnicity		
White	29.5	24.2
Black	9.9	5.6
Hispanic	53.4	61.2
Native American	5.9	3.8
Asian	1.3	2.6
Gender		
Male	64	51.5
Female	36	48.5

Note. 2011–2012 TUSD enrollment data was collected from tusdstats.tusd1.org.