No "White" Child Left Behind: The Academic Achievement Gap Between Blacks and Whites

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The issue of racial inequality in education has consistently been addressed through government policy in an attempt to solve the problem of discrimination in the American school system. The latest government attempt is the No Child Left Behind Act of 2001 (NCLB). This study examines the relationship between race and composite reading and math test scores with secondary data analysis from the Educational Longitudinal Study of 2002 (ELS:2002) of 8,215 10th grade students with a composite model consisting of: student role performance (SRP), schools, families, and peers. Univariate, bivariate, and multivariate analyses are used to examine the independent effects on test scores. Mean composite test scores show an 82.8% gap in test scores between black (44.42) and white (53.64) non-Hispanic 10th grade students. The examination of each model segment and path analysis shows student role performance factors and family factors explain more of the variance on test scores and have more of an effect on test scores than other model segments. This suggests that racial discrimination contributes to the academic achievement gap between blacks and whites.

1. Introduction

Accountability is the focus of the current "No Child Left Behind" policy, which addresses the academic achievement of America's youth and especially the achievement gap that exists between low-income and minority students and their white, middle-class counterparts. Race can be detrimental to the academic achievement of minorities (Davis and Jordan, 1994; Fordham and Ogbu, 1986); however, when minorities execute behaviors that are socially acceptable for their roles as students (Davis and Jordan, 1994) and their parents and teachers have higher expectations (Davis and Jordan, 1994; Entwisle, Alexander, and Olson, 2005; Felson, 1990) minority students can obtain academic achievement. This study endeavors to discredit these prior findings by controlling for these factors to support the idea that white students have higher composite test scores than black students as a result of discrimination rather than individual choice.

2. Experiment, Results, Discussion, and Significance

Student role performance, schools, families, and peers are the four model segments used to examine their effects on test scores. The hypotheses for this study are as follows: 1a. White students have higher composite test scores than black students, net of other factors. 1b. Students who participate in both academic and athletic extracurricular activities have higher composite test scores than students who do not participate, net of other factors. 2a. Net of other factors, schools with more rules have students with higher composite test scores than schools with fewer rules. 2b. Schools with lower occurrences of bullying and harassment have students with higher composite test scores than schools with higher occurrences of bullying and harassment, net of other factors. 3a. Students from families with a high socioeconomic status have higher composite test scores than students from families with a lower socioeconomic status, net of other factors. 3b. Families with higher educational expectations have students who have higher composite test scores than students from families with lower educational expectations, net of other factors. 4. Net of other factors, students whose peers drop out of school have lower composite test scores than students whose peers do not drop out of high school.

Univariate and bivariate analysis were executed to obtain descriptives of the full sample as well as the subgroups of white and black students for each interval and binary variable. Multivariate analysis was conducted by performing an Ordinary Least Squares Regression. Each of the independent variables included in the full-saturated model as well as each of the subgroups were regressed upon test scores in order to compare across and within groups, net of other factors. A statistical difference test was used to determine if the coefficients were statistically different between the subgroups.

The most important finding from this study shows that family socioeconomic status is the best predictor of test scores, net of other factors, which supports hypothesis 3a. Prior research states socioeconomic status is a predictor of attainment because more family income provides children with more out-of-school experiences that enhance academic achievement (Entwisle et al., 2005). When examining the change in variance explained, blacks have the greatest decrease in variance explained when the family model segment is removed. This suggests that family factors, including family socioeconomic factors, have a greater affect on test scores for blacks than whites. Black students benefit from an elevated family socioeconomic status more so than whites. Hypothesis 1a asserts white students have higher composite test scores than black students, net of other factors, which is supported by this study's findings. An 82.8% gap exists between blacks and whites with test averages of 53.64 for whites and 44.42 for blacks. Test scores for whites, on average, are in the 55th percentile while black's test scores are in the 28th percentile. The table confirms that being black decreases test scores by 6.01. These results corroborate the findings by Davis and Jordan (1994) and Fordham and Ogbu (1986) that race can be detrimental to the academic achievement of minorities.

TABLE 2

OLS Regression Analysis for the Race Model

(Dependent variable=scores)

Variables:	Full Sample			White				Black		
Independent Variables:	unstd.	[1]	std.	unstd.	[1]	std.	[2]	unstd.	[1]	std.
Student Role Performance										
Black (0,1)	-6.01	***	-0.23							
Female (0,1)	-0.98	***	-0.05	-0.19	***	-0.01		-1.15		-0.06
At least one disability (0,1)	-8.00	***	-0.27	-5.68	***	-0.22	<>	-8.42	***	-0.30
Hours spent on homework	0.20	***	0.09	0.30	***	0.15	<>	0.18	***	0.08
At least one extracurricular activity (0,1)	2.00	***	0.09	1.08	***	0.06	<>	2.23	*	0.10
At least one remedial class (0,1)	-2.62	***	-0.07	-2.89	***	-0.09		-2.57	***	-0.07
Level of deviance (1 to 5)	-1.25	***	-0.09	-0.18	***	-0.02		-1.43		-0.10
School										
Teacher/Student Ratio	-0.02	***	-0.03	-0.03	***	-0.06		-0.02	*	-0.04
% Free lunch students	-0.03	***	-0.06	-0.01	***	-0.05		-0.04		-0.07
Number of school rules (0 to 12)	-0.15	***	-0.04	-0.12	***	-0.03		-0.17		-0.04
Social Environment (0-2,0=high quality)	-2.23	***	-0.07	-1.97	***	-0.07		-2.22	**	-0.07
Family										
Number of siblings	-0.18	**	-0.03	-0.48		-0.11		-0.09	***	-0.01
Number of resources (0 to 6)	0.36	***	0.04	0.27	***	0.05		0.39		0.04
Family socioeconomic status	13.96	***	0.28	11.49	***	0.25	<>	14.27	***	0.29
Expected to attend college (0,1)	3.98	***	0.07	1.07	***	0.03		4.77		0.09
Peers										
Number of peers dropout	-0.97	***	-0.04	-1.77	**	-0.09	<>	-0.73	***	-0.03
(Constant)	45.6	***		44.6	***			42.6	***	
Adjusted R-squared	0.42	***		0.35	***			0.25	***	
n=	8315			6936				1379		

[1] = *** p < 0.001; ** p < 0.01; * p < 0.05

[2] = <> significant difference between blacks and whites at the .05 level

3. Conclusions

The most important finding from this study shows that family socioeconomic status is the best predictor of test scores and that family factors, including family socioeconomic factors, have a greater affect on test scores for blacks than whites. Black students benefit from an elevated family socioeconomic status more so than whites in regards to academic achievement.

4. Acknowledgements

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