



International Journal of Humanities & Social Science Studies (IJHSSS)
A Peer-Reviewed Bi-monthly Bi-lingual Research Journal
ISSN: 2349-6959 (Online), ISSN: 2349-6711 (Print)
Volume-II, Issue-VI, May 2016, Page No. 67-88
Published by Scholar Publications, Karimganj, Assam, India, 788711
Website: <http://www.ijhsss.com>

Exploring the Gross and Relative Effects of Race/Ethnicity in Selective College Enrollment: Evidence from the United States

Dr. Gokhan Savas

Assistant Professor of Sociology, Social Sciences University of Ankara, Turkey

Abstract

This research investigates the college destinations of students from different racial/ethnic groups in the United States. Utilizing the Educational Longitudinal Study of 2002 and Barron's Profiles of American Colleges, the study finds that black and Latino students are significantly less likely than are white students to attend all types of institutions. For 2 year and nonselective 4-year college enrollment, this race effect is explained by socio-economic background and high school achievement. For selective college enrollment, precollege achievement primarily explained the race effect. Overall, race achievement gap during high school strongly predicted the race gap in college enrollment. Low socio-economic background of black and Latino students also explained their disadvantages in 4-year colleges and universities.

Key Words: higher education, inequality, race/ethnicity, selective college enrollment.

Introduction: Higher education is not only an important means for upward mobility in American society, but also is a critical period for young adults in their transition to adulthood. However, not everyone has the ability to access higher education. Studies have documented inequalities in higher education when it comes to race/ethnicity (Beattie, 2002; Bowen and Bok, 1998; Karen, 2002; Davies and Guppy, 1997; Massey and Fischer, 2006; Dickerson and Jacobs, 2006; Kao and Thompson, 2003; Perna, 2000). Although racial/ethnic minorities are projected to have increasing enrollment rate, the gap between white and students of color will remain the same through 2020 (Synder and Dillow, 2011).

College selectivity matters in the United States especially because it positively affects students' future socioeconomic outcomes and those who attend higher status schools learn more on average in their careers than others (Kao and Thompson, 2003; Rumberger and Thomas, 1993; Kingston and Lewis, 1990; Pascarella and Terenzini, 1991). In addition, minority students attending selective colleges and universities are more likely to have higher college GPA and also are more likely to graduate from college compared to those who are attending less selective institutions (Bowen and Bok, 1998; Massey et al., 2003; Alon and Tienda, 2005). There are also numerous positive effects of attending selective colleges in employment as well as civic participation and overall life satisfaction (Bowen and Bok, 1998). This has been referred to as the college quality effect, which is intensifying in the United States (Dickerson and Jacobs, 2006).

We do not know yet what might explain the net and gross effects of race in college enrollment considering college selectivity. Why are race differences in college enrollment occurring? How is it

Exploring the Gross and Relative Effects of Race/Ethnicity in Selective College Enrollment:... Gokhan Savas playing out across institution types? In other words, the race differences in college enrollment may vary in selective and non-selective institutions.

In their recent research, Carbonaro, Ellison, and Covay (2011) indicate the importance of including multiple possible college enrollment outcomes when examining inequalities in the college pipeline. They call researchers attention to the need for further research that provides a more complex picture of post-secondary education. In this sense, this study incorporates horizontal stratification of higher education - college selectivity.

Historical Changes in American Selective Colleges: The genesis of American higher education dates back to the colonial era. At that time, American higher education institutions were predominantly influenced by English culture and the Christian tradition (Cohen, 1998; Thelin, 2004). Those colonial institutions we know today were Harvard, Yale, Princeton, Columbia, Brown, Rutgers, William and Mary, University of Pennsylvania. In this era, European settlers who wanted to establish a new culture mainly influenced the organizational structures of these colonial institutions which were mainly based on Cambridge and Oxford type as observed in England (Brubacher and Rudy, 1997). They did not solely train ministers; rather their main idea was to educate men in various fields in society, who were expected to occupy leading positions in society (Brubacher and Rudy, 1997; Cohen, 1998; Thelin 2004).

During the colonial era, higher education was seen most valuable tool for transmitting European cultural heritage to next generations. Establishing principle of these institutions was based upon the concept of the state, the church and the university; and ‘to this day, this concept is preserved in the symbolism of the Western world by the gowns worn by justices in court, ministers in church, and professors and graduates at commencement’ (Brubacher and Rudy, 1997, p.7). Those colonial colleges now known as American selective colleges and universities were initially reserved for white Anglo-Saxon Protestant males (Karabel, 2005; Stampnitzky, 2006). The exclusion of women and students of color was the norm until 1960s at selective colleges and universities such as Harvard, Yale, Princeton, Dartmouth, Columbia, Williams, Amherst, and Wesleyan (Karabel, 2005), and over time this has been replaced by a more diverse group of elite students (Karabel, 2005; Stampnitzky, 2006). Karabel’s (2005) landmark study also clearly indicates how academic leaders at prestigious universities redefined merit over the course of the twentieth century. American selective colleges incorporated non-academic factors into their admission policies and put more weight on those indicators such as legacy, athletic skills, geographic location, letters of recommendations, but more importantly ‘evaluations of character and personal qualities’ (Karabel, 2005; Stampnitzky, 2006).

Factors Affecting College Enrollment:

Precollege Achievement: Academic preparation during high school significantly affects racial/ethnic differences in college enrollment. Race differences at the pre-college stage, to some extent, explain the race differences observed after high school graduation. It means that precollege achievement (e.g., students’ high school GPA, Scholastic Assessment Test-SAT and American College Testing-ACT scores) is an important predictor for their prospective college enrollment. In the United States, the SAT measures literacy and writing skills needed for academic success in college, and it assesses how well the test takers analyze and solve problems—skills they learned in school that they will need in college. The ACT measures high school students’ general educational development and their capability to complete college-level work with the multiple choice tests covering four skill areas including English, mathematics, reading, and science.

While white students had an average of 3.09 high school GPA, black and Latino students had an average of 2.47 and 2.60 respectively (NAEP 2009). SAT mean scores of college-bound seniors also demonstrate that white students have historically had higher scores in all subjects compared to black and Latino students (U.S. Department of Education 2012). Research indicates that African American and Latino students internalize and externalize stereotypes about their race and cultures, which works to threaten and decrease their academic performance (Charles et al. 2009). Also, those students may not develop school-related skills and habits due to their isolated social conditions (Downey, 2008). Compared to white students, African American and Latino students are more likely to live in poor socioeconomic neighborhoods and go to low quality public high schools. This would make them have low high school achievement for accessing higher education (Massey et al., 2003).

Parental Expectations: Parents who have high expectations for their children set high standards and make high demands, which would in turn result in high academic achievement (Boocock, 1972; Fan and Chen, 2001; Halle, Kurtz-Costes, and Mahoney, 1997; Tomul, 2008). More specifically, parental expectations have significant impacts on students' college entry outcomes. Students who have higher parental expectations are more likely to enroll in college (Perna and Titus, 2005; Conley, 2001). Parental impacts on students' educational pathways, however, is also related to and informed by race. The lower parental expectations of black and Hispanic students can also be related to parents' socio-economic status. Parents who have low socio-economic status as well as parents who have less education expect their children to complete less education compared to those who have a higher socio-economic status (SES) and higher educational levels. Socioeconomic status was measured as a composite based family income, father's/guardian's occupation, and mother's/guardian's occupation. Parents who are highly educated and who have a high SES tend to have more information regarding educational opportunities through their social capital, can pass necessary information to their children, and may have higher educational expectations for them (Bourdieu and Passeron, 1979; Coleman, 1988; Hossler and Stage, 1992; Tomul, 2008). Black and Latino parents experience more challenges to become actively involved in their children's education especially due to their limited resources and lower socio-economic conditions (Solorzano, 1992; Strayhorn, 2010). Perna and Titus (2005) indicate that relative to whites and Asians, black and Latino students have lower levels of family income and parental education, and they also attend schools with limited resources to promote college enrollment.

Educational Expectations: Students' expectations for further education and career are related to their college enrollment. Students who have more educational and career expectations are more likely to go to college. Parental expectations discussed above positively impact students' own educational expectations (Coleman, 1988; Reynolds and Burge, 2008), and this is interconnected with other factors that influence college enrollment and works as a sort of cycle. Racial/ethnic minorities have greater educational expectations than whites (Qian and Blair, 1999; Kao and Tienda, 1998). African Americans have especially high educational aspirations reflecting their high pro-school values, but there is also a discrepancy between their high educational aspirations and low academic performance due to the lack of material conditions (Ainsworth-Darnell and Downey, 1998; Downey, 2008).

College Selectivity and Race: Race-sensitive college admission policies significantly affected educational and occupational trajectories of historically underrepresented students at American institutions. Bowen and Bok (1998) find the positive effects of race-sensitive college admissions and argued that race must continue to be a primary factor in the admission process at colleges and

Exploring the Gross and Relative Effects of Race/Ethnicity in Selective College Enrollment:... Gokhan Savas universities especially for selective institutions because race-sensitive admission policies increased the likelihood that African American students would attend selective institutions. Espenshade and Randolph's (2009) recent research also confirms these findings by showing that 'black applicants receive a boost equivalent to 3.8 ACT points at public NSCE institutions and to 310 SAT points at private institutions, on an all-other-things-equal basis' (p.127).

Although college enrollment has significantly increased for the previously excluded racial/ethnic groups over time and especially since *Brown vs. Board of Education*, these groups have extensively been in low-tier, non-selective schools in the American higher education system (Hearn, 1991; Karen, 2002). Among the 2004 high school graduating class, the percentages of Black and Hispanic students who attended moderately or highly selective 4-year institutions are 23% and 18% respectively whereas the percentages of whites and Asians were 45% and 53%, respectively. (The Higher Education: Gaps in Access and Persistence Study, NCES 2012).

Little research investigates the race pattern in college selectivity. African American and Latino students in the United States have lower rates of selective college enrollment compared to their white peers, and they have been historically underrepresented in American higher education. Research also echoes this gross effect of race in college enrollment (Hearn, 1991; Karen, 2002) and indicates that African American and Latino students are less likely than are white students to go to college. To see the net effect of race on college enrollment, studies have mainly included students' high school achievement and their socio-economic background in the analysis. Such studies find that African American and Latino students have gained a net advantage over white students in college enrollment when prior academic achievement and socioeconomic status are held constant. In other words, once we hold high school achievement and SES constant, black students, who have lower achievement and SES than whites, are more likely to go to college (especially four year and selective ones) compared to white students (Perna, 2000; Massey et al., 2003). The important point here is to realize that the advantage of students of color, particularly African American students, in higher education attainment is conditioned upon their socioeconomic background and academic performance, which is called 'net black advantage' (Bennet and Xie, 2003; Bennet and Lutz, 2009). This means that racial differences in college enrollment occur largely through SES and academic achievement. In other words, if there are two students whose SES and GPA are exactly the same but the race differs, the black one is more likely to go to college.

Data: This research utilizes the Education Longitudinal Study of 2002 (ELS:2002) that follows a nationally representative cohort of students from 2002, when they were high school sophomores in 2004, through their postsecondary education in 2006. The ELS includes 16,200 10th grade students in 750 schools, which represent 3.4 million students as of 2002 in the United States. The analytic sample of this research includes high school graduates and a GED holder who remained in the study from 2002-2006, and reported "highest level of education attempted." Students who did not provide information about their postsecondary enrollment were excluded from analyses. About 6 percent of all ELS respondents in the tenth grade in 2002 fall into the high school dropout category by the spring of 2006. For students who attended more than one school, the analyses include the school they attended first. At the end, the analytic sample of the study includes 9,910 respondents.

ELS: 2002 is the most recent longitudinal dataset spanning high school to postsecondary enrollment in the United States. To secure the generalizability of the research findings, the study includes the panel weight provided by ELS, which adjusts for sample member nonresponses to maintain representativeness of the analytic sample.

Methodology

College selectivity is the dependent variable of the present research. ELS: 2002 has the highest level of admissions selectivity of all postsecondary institutions at which the respondent was accepted. Institutions identified as 4-year schools via IPEDS data are classified as highly selective, moderately selective, or inclusive according to the 2005 Carnegie classifications based on the scores of entering freshmen on SAT and/or ACT. However, ELS' college selectivity is not used in this study especially because the mean of SAT/ACT scores is not necessarily the best proxy variable for college selectivity. This is not only because the scores are not a requirement for admission to all colleges (Turley et al., 2007) but also because the scores do not necessarily match the selective admission rate of the institutions (Mullen et al., 2003). This means that institutional selectivity should include a more comprehensive measurement than SAT or ACT scores. Therefore, a more comprehensive measure of college selectivity is created using Barron's Profiles of American Colleges 2004. Barron's rates the selectivity of all four-year colleges on a scale from the most selective to the least selective. These ratings are based on the high school GPAs, high school class ranks, and SAT/ACT scores of enrolled students, as well as on the proportion of applicants admitted.

To see distinct differences in terms of selectivity, colleges are classified with a Barron's ranking of 1 ("most competitive") or 2 ("highly competitive") as "highly selective" and match their IPEDS codes in ELS. In 2004, 157 colleges and universities held this ranking. About eight percent of 2004 high school graduates attended selective colleges.

The primary independent variable of interest is race/ethnicity that includes non-Hispanic white, non-Hispanic black, Hispanic, and Asian. Parental expectations, students' educational expectations and precollege achievement are intervening variables of the research. Parental expectations are measured as a dummy variable to indicate whether parents have any expectations from their children to earn a bachelor's degree or higher (BA degree=1, else=0). Students' educational expectations are measured as a dummy variable to indicate whether students have any expectations to earn a bachelor's degree or higher (BA and/or higher=1, else=0). As another important intervening variable, precollege academic achievement is measured by students' high school GPAs in all courses and their standardized math and reading test scores. Both math and reading achievement are measured by ELS using standardized t-scores.

As an important control variable, gender is incorporated in the analyses and includes males and females. Family and high school characteristics are also included as other controls. Socio-economic status, family structure, and number of siblings are family background variables. High school controls include high school type and urbanicity. Socio-economic status is measured as a composite in ELS based on five equally weighted, standardized components: father's/guardian's education, mother's/guardian's education, family income, father's/guardian's occupation, and mother's/guardian's occupation. Family structure is measured as a dichotomous variable indicating students lived in families with two biological or adoptive parents during 2002 when they were eight graders (Students live in families with two parents =1, not live in families with two parents = 0). I measure number of siblings as the total number of brothers and sisters students have in home. High school control is measured as dummy variables for public, Catholic and other private schools, with public schools as the reference group. School urbanicity is measured as dummy variables for urban, suburban and rural, with urban as the reference category.

Analytic Strategy: Using ELS:2002, a set of logit models is estimated for all higher education entry outcomes including no college enrollment, 2-year college, 4-year nonselective and 4-year selective colleges. A set of logistic regressions is modeled to examine the likelihood enrolling in each college enrollment in relative to no college for race groups separately. The odds ratios of each covariate in the models are reported and compared.

The logit models to predict college enrollment are as follows (controls in the models include SES, high school type, high school urbanicity, number of sibling, family structure);

- Model I:* Odds of college enrollment $p/(1-p)$ = $\exp(a + \beta_1 \text{race})$
Model II: Odds of college enrollment $p/(1-p)$ = $\exp(a + \beta_1 \text{race} + \beta_2 \text{controls})$
Model III: Odds of college enrollment $p/(1-p)$ = $\exp(a + \beta_1 \text{race} + \beta_2 \text{controls} + \beta_3 \text{precollege_achievement})$
Model IV: Odds of college enrollment $p/(1-p)$ = $\exp(a + \beta_1 \text{race} + \beta_2 \text{controls} + \beta_3 \text{parental_expectations})$
Model V: Odds of college enrollment $p/(1-p)$ = $\exp(a + \beta_1 \text{race} + \beta_2 \text{controls} + \beta_3 \text{educational_expectations})$
Model VI: Odds of college enrollment $p/(1-p)$ = $\exp(a + \beta_1 \text{race} + \beta_2 \text{controls} + \beta_3 \text{precollege_achievement} + \beta_4 \text{parental_expectations} + \beta_5 \text{math educational_expectations})$

Descriptive Results: Table 1 provides descriptive statistics for all variables used in the study. There are more females than males (53 per cent vs. 47 per cent) in this research. The majority of students are white (64 per cent). The percentage of blacks, Latinos, and Asians are 12 per cent, 14 per cent, and 10 per cent respectively. Students have an average high school GPA of 2.89, and 82 per cent of them enrolled in college. The most majority of students expected to get a bachelor's degree or higher in the future. Similarly, their parents also hold high expectations for them. 91 per cent of parents expected their children to have at least a B.A. degree.

An average student has a good socio-economic standing, and most students come from two-parent families (79 per cent). While 49 per cent of students are from suburban areas, 32 per cent of them come from urban settings. Only 19 per cent of students are from rural areas. The majority of students attended public high schools (76 per cent).

Table-2 indicates whether there is a statistical relationship between race and postsecondary outcomes. Chi-square statistics is used to test this relationship; race groups are very significantly different from each other in postsecondary outcomes. Whites, blacks and Asians have pretty much same enrollment rate in both 2-year and nonselective 4-year colleges, but Latino students have the lowest enrollment in these colleges (24 per cent).

When it comes to college selectivity, there is a huge gap between Asians and other racial/ethnic groups. 16 per cent of Asians are enrolled in 4-year selective colleges and universities. This rate is only 7 per cent for whites and 4 per cent for Latinos. However, black students are the most disadvantaged group in 4-year selective college enrollment (2 per cent). Asians have the lowest rate of no college enrollment and the highest rate of 4-year selective college enrollment.

Table -3 shows the characteristics of students who enrolled in a selective college and also those who did not go to college. Students going to selective institutions are disproportionately female, white, and those with high educational and parental expectations. They are also more likely to have a high GPA and high math and reading test scores.

Among those who did not go to college there are more black and Latino students as well as males. These students have lower educational and parental expectations. They have also low academic achievement in high school. The majority of students who did not go to college have low socio-economic background and are from public high schools (93 per cent). Only 55 per cent of students enrolling in a selective college are from public high schools.

Multivariate Results: A series of logit models with each college type versus no college are used to predict students' college destinations. Table 4 has logistic regression models to predict 2-year college enrollment vs. no college. The gross effect of the race variable on 2-year college enrollment indicates that Latino students are not significantly different from their white counterparts, but black students are less likely than are white students to enroll in 2-year colleges. Asian students are more likely to enroll in two-year colleges compared to white students.

Among control variables, private high school graduation and students' socio-economic background are highly important for their 2-year college enrollment. The disadvantaged position of black students has disappeared and black students are no longer different from white students after controlling for background variables. Also, Latino students have gained an advantage over white students in the model. The net Latino advantage suggests that when Latino students and white students have similar socio-economic background characteristics, Latino students are more likely to go to 2-year colleges.

Black students were initially not different from white students. However, when precollege achievement (GPA, standardized test scores) is added into the model black students have gained a significant advantage over whites. The odds of blacks enrolling in 2-year colleges are about 1.5 times higher than the odds of whites enrolling in similar colleges. This means that once we hold precollege achievement constant, black students, who have lower test scores and GPA than whites, are more likely to go to 2 year colleges compared to white students. Precollege achievement does not change the effect of the Latino variable. Latino students still maintain their net advantage. Parental expectations and students' educational expectations significantly increase the odds of enrollment. Both parental and educational expectations explain the net Black advantage given that Black students have lost their "net advantage" and are no longer different from whites once their educational and parental expectations are controlled.

The final model indicates that compared to white students, Asian students are most likely to go to 2-year colleges compared to no college, followed by Latino and black students. Students' socio-economic status is the most powerful predictors of 2-year college enrollment. The results also suggest that there is a net black/Latino advantage in 2-year colleges mainly due to the effects of precollege achievement for blacks and the effects of socioeconomic background, precollege achievement and educational expectations for Latinos.

Table-5 has a set of logit models to predict nonselective 4-year college enrollment vs. no college. In terms of the gross effect of race, both black and Latino students are significantly less likely to enroll in nonselective 4-year colleges compared to their white counterparts. Black students are not significantly different from white students net of the effects of socio-economic background. This suggests that socioeconomic background variables, especially SES and high school type, explain the negative impact of being black on 4-year college enrollment.

The results indicate that a 1-point increase in students' high school GPA increases the odds of enrolling in 4 year nonselective institutions by about 6 times. More importantly, high school GPA explains the disadvantage of black and Latino students. When precollege achievement is included in

the model, both black and Latino students have significantly gained a relative advantage over white students. This suggests that the race achievement gap during high school years predicts further differences in 4-year college enrollment.

Parental expectations are highly significantly increasing the odds of enrollment. Those whose parents expect them to have a B.A. degree are about 6 times more likely to go to nonselective 4 year colleges compared to those whose parents do not have similar expectations. Net of the effect of parental expectations and the controls, black students are not different from white students and Latino students are less likely to go to nonselective 4-year colleges relative to white students. Parental expectations do not explain race differences in enrollment in a four-year non-selective college.

Students' educational expectations also matter in enrollment. The odds of enrollment of students who expect to get a B.A. degree are about 10 times higher than the odds of enrollment of those who do not expect to graduate from college. Net of the effect of educational expectations, black students are not different from white students and Latino students are less likely to go to nonselective 4-year colleges relative to white students. Educational expectations do not explain racial/ethnic differences in enrollment.

The final model indicates that there is an initial gross disadvantage of black and Latino students in nonselective 4-year colleges. The model further suggests that this initial gross disadvantage of black and Latino students is mainly due to differences in precollege achievement. When students' high school GPA and standardized test scores are controlled, black and Latino students are more likely than white students to attend four-year nonselective colleges. Therefore, the disadvantage of black and Latino students can be attributed to differences in precollege achievement.

Table-6 includes logit models to predict highly selective 4-year institutions. The gross impact of race shows that black and Latino students are significantly less likely to enroll in highly selective colleges relative to their white peers. Only Asian students have higher odds of enrolling in these institutions compared to white students.

Students' socio-economic status is highly significant in increasing the odds of selective college enrollment. However, socioeconomic control variables do not change the disadvantaged position of black students in selective institutions. They are still less likely to go to these institutions net of the socioeconomic controls. For selective college enrollment it does not matter if black students are from affluent or poor families because they are still less likely to attend those institutions compared to their white peers. However, these socioeconomic factors have eliminated the disadvantage of Latino students and they are not different from white students in net of socio-economic factors.

High school GPA is extremely important in selective college enrollment and a 1-point increase in students' high school GPA increases the odds of enrolling in selective institutions by about 34 times. Precollege achievement explains racial/ethnic differences in selective college enrollment. In other words, precollege achievement eliminates the race gap in selective college enrollment. Net of the effect of high school GPA and standardized test scores, black students are not different from white students. More importantly, Latino students have gained a relative advantage over their white peers.

Parental expectations are very significant in predicting selective college enrollment. Students whose parents expect them to have a BA degree are 30 times more likely to go to selective colleges. Similarly, educational expectations significantly boost the odds of selective college enrollment. Those who expect to graduate from college are 27 times more likely to attend selective schools.

Both parental and educational expectations do not alter the impact of the black variable, meaning that black students are still less likely to go to selective institutions compared to white students. However, Latino students are no longer statistically different from white students in selective college enrollment net of either parental or educational expectations.

Overall, results indicate that the disadvantage of black students in selective four-year institutions is mainly explained by their precollege achievement including both high school GPA and standardized test scores. Both parental and educational expectations as well as SES do not change the disadvantage of blacks. As seen in the final model, black students are not different from white students in selective college enrollment and this is mainly attributed to the white-black differences in precollege achievement. The disadvantage of Latino students has been eliminated not only by precollege achievement but also by socioeconomic background variables along with parental and educational expectations. Net of the effects of all these variables, Latino students are not different from white students. Only Asian students are significantly different from whites, and they are more likely to go to selective colleges and universities net of the effects of all of the variables.

Conclusion and Discussion: The present study examines the effects of race/ethnicity in the different types of college enrollment of high school graduates. Utilizing the *ELS:2002* and *Barron's Profiles of American Colleges*, the results indicate that Asian students have a great advantage over white students in each college type. Their great advantages have been maintained even after other factors are included in the analysis. Black students than white students are significantly less likely to attend the three types of institutions. This disadvantage of black students in 2-year and nonselective 4-year college enrollment is mainly due to the effects of socioeconomic background and high school achievement. When we hold these factors constant, black students have gained a net advantage and they are more likely to go to these colleges compared to their white peers. When it comes to selective college enrollment, socioeconomic background differences matter less, and high school achievement including both GPA and standardized test scores have explained the disadvantage of black students in selective college enrollment.

The research also finds that Latino students are less likely to go to both selective and nonselective 4-year colleges compared to white students. The disadvantage of Latino students is mainly due to the effects of high school achievement for both selective and nonselective 4-year schools. Along with precollege achievement, socioeconomic background, parental and educational expectations also explain their disadvantaged status in American selective colleges and universities.

The present study finds evidence that structural factors seem to account for the racial/ethnic gap in college enrollment. The low socio-economic status of black and Latino students coupled with their high school achievement mainly explain their disadvantages in college enrollment. In this context, we need to acknowledge that the road to higher education attainment in the United States is not race-neutral. African American and Latino households are disproportionately represented in the lower tiers of the class system, which means that African American and Latino children are carried toward adulthood by social processes that render them considerably less likely to make it to a college or university. The nation's long history of residential segregation by race is an important part of this pattern of racial disadvantage in higher education attainment (Stevens, 2007; Massey et al., 2003). Therefore, institutions need to reconsider those unequal opportunities to access higher education. Race must continue to be a primary factor in the admission process at colleges and universities, especially for selective institutions, because race-sensitive admission policies increased

Exploring the Gross and Relative Effects of Race/Ethnicity in Selective College Enrollment:... Gokhan Savas
the likelihood that African American and Hispanic students would attend selective institutions (Bowen and Bok, 1998).

Considering the lower BA degree attainment as well as the lower high school graduation rate of black and Latino students in the United States, who mostly live in economically and racially segregated and poor neighborhoods with lack of facilities and poor resources in their high schools; federal and state institutions should take some necessary measures. Addressing the issue of tuition would be one of the most important policy measures. College tuition is less affordable for black and Hispanic students than it is for white students. Policy makers should take this into account, and college attendance should become more affordable.

A major limitation of the current research is that it looks at the immediate college enrollment. Many students of color may not follow a straight educational pathway and might drop out school or go to military right after high school and later come back for college. The present results need to be tested for late college enrollment as well. For future research, it would be helpful to see if there are differences between early college enrollment and late college enrollment. The current study has some data restrictions. The ELS has a large number of missing cases in students' SAT/ACT scores especially due to inability to match records, poor data quality from transcripts, and lack of SAT/ACT scores. For future research, it is also important to see the effects of SAT/ACT scores on selective college enrollment, and how racial/ethnic groups differ in these standardized tests.

Table -1: Descriptive Statistics for Dependent and Independent Variables

Variable	Variable Description	Mean	SD	Min – Max
<i>Dependent variable</i>				
Enrollment	College enrollment status (1= enroll in any college, 0= not enroll)	.82	.39	0 – 1
2-year college	2-year college enrollment status (1= enroll in 2-year college, 0= not enroll)	.30	.46	0 – 1
4-year college	4-year college enrollment status (1= enroll in 4-year college, 0= not enroll)	.52	.50	0 – 1
Selectivity	Selective college enrollment status (1= enroll in highly selective college, 0= not enroll)	.08	.28	0 – 1
<i>Independent variable</i>				
Female	Gender (1= Female, 0= Male)	.53	.005	0 – 1
Male*	Gender (1= Male, 0= Female)	.47	.005	0 – 1
White*	Race/ethnicity (1=White, 0= not)	.64	.48	0 – 1
Black	Race/ethnicity (1=Black, 0= not)	.12	.33	0 – 1

Hispanic	Race/ethnicity (1=Hispanic, 0= not)	.14	.34	0 – 1
Asian	Race/ethnicity (1=Asian, 0= not)	.10	.30	0 – 1
High school GPA	Standardized high school GPA for all courses (on a 4-point scale)	2.89	.68	0 – 4
Educational expectation	Higher education expectation of the student (1= if the student aspire to get a bachelor’s degree or higher, 0= if not)	.90	.30	0 – 1
Parental expectation	Expected educational level of parent for the student (1= if at least one parent expects the student to attain a bachelor’s degree or higher, 0= if not)	.91	.29	0 – 1
SES	Socio-economic status composite of the student’s family	.10	.74	-2.10– 1.80
Siblings	The total number of brothers and sisters students have in home	2.17	1.36	0 – 6
Twoparent	Family formation (1= the student is living with two parents, 0= living with single parent)	.79	.41	0 – 1
Urban	School urbanicity (1= if the school is located in urban area, 0= if not)	.32	.47	0 – 1
Suburban *	School urbanicity (1= if the school is located in suburban area, 0= if not)	.49	.50	0 – 1
Rural	School urbanicity (1= if the school is located in rural area, 0= if not)	.19	.39	0 – 1
Public *	School control (1= if the school is public, 0= if not)	.76	.43	0 – 1
Catholic	School control (1= if the school is catholic, 0= if not)	.15	.36	0 – 1
Non-Catholic Private	School control (1= if the school is public, 0= if not)	.09	.29	0 – 1

Note: * indicates a reference group. Source: ELS 2002.

Table-2: Proportions of students in postsecondary outcomes by race (%)

	White	Black	Latino	Asian
No college	16.44	23.64	28.23	10.76
2-year college	27.34	30.66	38.93	29.78
4-year nonselective college	47.59	42.52	27.35	41.93
4-year highly selective college	8.43	3.17	5.47	17.53
Pearson chi2 (9) = 441.8191*** Source: ELS 2002. ***p<.001				

Table -3: Characteristics of students who enrolled in a selective college and those who did not go to college

Variable	Selective College (n=820)	No College (n= 1820)
	%	%
White	0.647	0.575
Black	0.047	0.156
Latino	0.091	0.210
Asian	0.215	0.059
Male	0.448	0.555
Female	0.552	0.445
Urban	0.417	0.263
Suburban	0.492	0.499
Rural	0.091	0.239
Public	0.553	0.932
Catholic	0.213	0.037
Other private	0.234	0.031
Two parent	0.867	0.732
Single parent	0.133	0.268
	Mean	Mean
Educational expectation	0.995	0.724

Parental expectation	0.995	0.733
High School GPA	3.552	2.315
Math achievement	62.403	45.449
Reading achievement	61.106	45.500
SES	0.756	-0.370
Number of siblings	1.799	2.531
Source: ELS 2002.		

Table-4: Logistic regression models to predict 2 year college enrollment

Variable (n = 4730)	Model I			Model II			Model III			Model IV			Model V			Model VI		
	Odds ratio	sig	SE	Odds ratio	sig	SE	Odds ratio	sig	SE	Odds ratio	sig	SE	Odds ratio	sig	SE	Odds ratio	sig	SE
<i>Race</i>																		
Black	0.765	**	0.078	1.040		0.119	1.640	***	0.205	0.944		0.109	0.976		0.113	1.381	**	0.176
Latino	0.898		0.081	1.388	**	0.148	1.804	***	0.206	1.262	*	0.136	1.336	**	0.146	1.586	***	0.184
Asian	1.678	***	0.233	2.288	***	0.356	2.399	***	0.391	2.020	***	0.315	2.150	***	0.341	2.109	***	0.346
<i>Achievement</i>																		
GPA							2.267	***	0.154							1.342	***	0.106

Catholic				2.427	***	0.388	2.670	***	0.451	2.242	***	0.364	2.321	***	0.379	1.611	***	0.160
Other private				1.841	**	0.364	1.489	*	0.300	1.773	**	0.360	1.757	**	0.348	1.861	***	0.184

Note: White, men, suburban, public high school, two-parent families is the reference groups.

Source: ELS 2002. Weighted data.

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

Table- 5: Logistic regression models to predict nonselective 4 year college enrollment

Variable (n = 6100)	Model I			Model II			Model III			Model IV			Model V			Model VI		
	Odds ratio	sig	SE	Odds ratio	sig	SE	Odds ratio	sig	SE	Odds ratio	sig	SE	Odds ratio	sig	SE	Odds ratio	sig	SE
<i>Race</i>																		
Black	0.642	***	0.061	1.151		0.138	3.886	***	0.580	1.004		0.123	0.982		0.121	2.945	***	0.456
Latino	0.340	***	0.032	0.705	**	0.086	1.425	*	0.229	0.604	***	0.076	0.636	***	0.081	1.188		0.195
Asian	1.559	**	0.206	2.501	***	0.416	1.984	***	0.357	2.054	***	0.343	2.134	***	0.362	1.691	**	0.319
<i>Achievement</i>																		
GPA							6.601	***	0.598							6.151	***	0.567

Catholic				4.713	***	0.712	4.631	***	0.778	4.008	***	0.610	4.186	***	0.653	4.027	***	0.683
Other private				2.205	***	0.436	1.868	**	0.400	2.111	***	0.457	2.110	***	0.430	1.811	**	0.407

Note: White, men, suburban, public high school, two-parent families is the reference groups.

Source: ELS 2002. Weighted data.

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

Table- 6: Logistic regression models to predict highly selective 4 year college enrollment

Variable (n = 2630)	Model I			Model II			Model III			Model IV			Model V			Model VI			
	Odds ratio	sig	SE	Odds ratio	sig	SE	Odds ratio	sig	SE	Odds ratio	sig	SE	Odds ratio	sig	SE	Odds ratio	sig	SE	
Race																			
Black	0.173	***	0.039	0.285	***	0.088	2.537		1.328	0.281	***	0.087	0.255	***	0.078	2.116		1.079	
Latino	0.319	***	0.056	1.019		0.277	2.450	*	1.117	0.931		0.253	0.912		0.249	2.014		0.885	
Asian	3.809	***	0.591	6.094	***	1.508	5.854	***	2.053	5.450	***	1.419	5.248	***	1.342	4.605	***	1.570	

Siblings				0.794	***	0.055	0.754	**	0.072	0.798	**	0.057	0.816	**	0.057	0.762		0.077
Single parent				0.969		0.199	1.564		0.489	1.012		0.218	1.041		0.225	1.460		0.469
Urban				1.332		0.269	1.700		0.528	1.219		0.250	1.216		0.246	1.647		0.523
Rural				0.707		0.138	0.598		0.182	0.688		0.139	0.646	*	0.131	0.568		0.182
Catholic				7.736	***	1.821	8.448	***	2.998	6.852	***	1.642	6.709	***	1.602	7.898	***	3.046
Other private				3.477	***	0.964	3.127	***	1.117	3.274	***	0.939	3.162	***	0.918	2.767	**	1.003

Note: White, men, suburban, public high school, two-parent families is the reference groups.

Source: ELS 2002. Weighted data.

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

References:

1. Arnett, J.J. 2000. "Emerging Adulthood: A Theory of Development From the Late Teens through the Twenties" *American Psychologist*, 55(5): 469–480.
2. Barron's Profiles of American Colleges. 2004. Hauppauge, NY: Barron's Educational Series.
3. Baum, S., Ma, J., Kathleen, P. 2010. "Education Pays 2010: The Benefits of Higher Education for Individuals and Society." College Board Trends in Higher Education Series.

4. Beattie, I. R. 2002. "Are All 'Adolescent Econometricians' Created Equal? Racial, Class, And Gender Differences in College Enrollment." *Sociology of Education* 75: 19-43.
5. Bell, D. A. 1979. "Bakke, Minority Admissions, and the Usual Price of Racial Remedies" *California Law Review*, 76, 3-19.
6. Bennett, P. R. and Lutz, A. 2009. "How African American is the Net Black Advantage? Differences in College Attendance among Immigrant Blacks, Native Blacks, and Whites." *Sociology of Education* 82: 1: 70-99.
7. Bennett, P. R. And Xie, Y.. 2003. "Revisiting Racial Differences in College Attendance: The Role of Historically Black Colleges and Universities." *American Sociological Review* 68(4):567-580.
8. Berlin, G. L., Furstenberg, F. F., Waters, M. C. 2010. "Introducing the Issue" *The Future of Children*, Journal Issue: Transition To Adulthood 20(1): 3-17.
9. Bowen, W. G. and Bok, D.. 1998. *The Shape of the River: Long-Term Consequences of Considering Race in College and University Admissions*. Princeton: Princeton University Press.
10. Bureau of Labor Statistics, 2010. Spotlight on Statistics Back to College [Http://Www.Bls.Gov/Spotlight/2010/College/Pdf/College.Pdf](http://www.bls.gov/spotlight/2010/college/pdf/college.pdf)
11. Brown V. Board of Education, 347 U.S. 483 (1954).
12. Brubacher, J. S., and Rudy, W. 1997. *Higher Education in Transition: A History of American Colleges and Universities*. Transaction Publishers.
13. Carbonaro, W., Ellison, B. J. And Covay, E. 2011. "Gender Inequalities in the College Pipeline" *Social Science Research* 40: 120-135.
14. Civil Rights Act of 1964.
15. Cohen, A. 1998. *The Shaping of American Higher Education: Emergence and Growth of the Contemporary System*. San Francisco: Jossey-Bass.
16. Davies, S., and Guppy, N. 1997. "Fields of Study, College Selectivity, and Student Inequalities in Higher Education". *Social Forces* 75: 4: 1417-38.
17. Devins, N. 2003. "Explaining Grutter V. Bollinger" *The University of Pennsylvania Law Review* 152: 347-383.
18. Dickerson, N. T. and Jacobs, J. A. 2006. "Race Differentials in College Selectivity, 1981-2000." *Journal of African American Studies* 10(1), 3-18.
19. Espenshade, T. J., Chung, C. Y., And Walling, J. L. 2004. "Admission Preferences for Minority Students, Athletes, and Legacies at Elite Universities. *Social Science Quarterly* 85 (5): 1422-46.
20. Graham, H. D. 1992. "The Origins of Affirmative Action: Civil Rights And The
21. Regulatory State." *Annals of the American Academy of Political and Social Science* 523:50-62.
22. Gratz V. Bollinger, 539 U.S. 244 (2003)
23. Grutter V. Bollinger, 539 U.S. 306 (2003).
24. Hearn, J. C. 1991. "Academic and Nonacademic Influences on the College Destinations of 1980 High School Graduates" *Sociology of Education*, 64, 158-71.

25. Hopwood V. Texas 78 F3d 932 (5th Cir. 1996).
26. Kao, G, And Thompson, Js. 2003. "Racial and Ethnic Stratification in Educational Achievement and Attainment." *Annual Review of Sociology* 29: 417-442.
27. Karabel, J. 2005. *The Chosen: The Hidden History of Admission and Exclusion at Harvard, Yale, and Princeton*. Boston, Ma: Houghton Mifflin Company
28. Karen, D. 2002. "Changes in Access to Higher Education in the United States: 1980-1992." *Sociology of Education*, 75(3), 191-210.
29. Kingston, P. W., and Lewis, L. S., Eds. 1990. *The High-Status Track: Studies of Elite Schools and Stratification*. Albany: State University of New York Press.
30. Massey, D. S, And Fischer, M. J. 2006. "The Effect of Childhood Segregation on Minority Academic Performance at Selective Colleges." *Ethnic And Racial Studies* 29(1): 1-26.
31. Massey, D. S., Charles, C. Z., Lundy, G. F., And Fischer, M. J. 2003. *The Source of The River: The Social Origins of Freshmen at America's Selective Colleges and Universities*. Princeton University Press.
32. McLanahan, S., Haskins, R., Paxson, C., and Sawhill, I. 2010. *Transition to Adulthood. The Future of Children*, 20(1).
33. Mickelson, R. A. 2002. "Affirmative Action In Higher Education." *Education and Sociology: In Encyclopedia*. New York: Routledge Falmer, 29-41.
34. U.S. Department of Labor 2010, "Labor Force Statistics from the Current Population Survey" [.Http://Www.Bls.Gov/Cps/Demographics.Htm#Race](http://www.bls.gov/cps/demographics.htm#Race)
35. Education Longitudinal Study (Els), 2002. U.S. Dept. of Education, National Center for Education Statistics.
36. Pascarella, E. T. and Terenzini, P. T. 1991. *How College Affects Students: Findings From Twenty Years of Research*. San Francisco: Jossey-Bass.
37. Perna, L. W. 2000. "Differences in the Decision to Attend College among African Americans, Hispanics, and Whites." *Journal of Higher Education* 71(2): 117-141.
38. Plessy V. Ferguson, 163 U.S. 537
39. *Public Papers of the Presidents of the United States: Lyndon B. Johnson, 1965. Volume II, Entry 301, Pp. 635-640*. Washington, D. C.: Government Printing Office, 1966.
40. *Regents of the University of California V. Bakke*, 438 U.S. 268 (1978).
41. Rumberger, R., And Thomas, S. 1993. *The Economic Returns to College Quality, Major, and Performance*. *Economics of Education Review*, 12(1), 1-19.
42. Snyder, T.D., and Dillow, S.A. 2011. *Digest of Education Statistics 2010 (Nces 2011-015)*. National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, Dc.
43. Stevens, M. L. 2007. *Creating a Class: College Admissions and the Education Of Elites*. Cambridge, Ma:Harvard Univ. Press
44. Stampnitzky, L. 2006. How Does "Culture" Become "Capital"? Cultural and Institutional Struggles Over "Character and Personality" At Harvard. *Sociological Perspectives*, 49(4), 461-481.

45. Texas House Bill 588 (1997).
46. Thelin, J. R. 2004. *A History of American Higher Education*. Baltimore: The Johns Hopkins University Press.
47. Tomul, E. (2008). The relative effects of family socio-economic characteristics on participation in education in Turkey. *Eurasian Journal of Educational Research*, 30, 153-168.
48. Yosso, T.J., Parker, L., Solórzano, D.G., and Lynn, M. 2004. "From Jim Crow to Affirmative Action and Back Again: A Critical Race Discussion of Racialized Rationales and Access to Higher Education" *Review of Research in Education*, 28, 1-25.