

Background

Racial/ethnic gaps in educational attainment continue even among students who showed early academic promise. Whites and Asians earn bachelor's degrees at higher rates than do Latinos, particularly Mexicans, and African Americans (Census, 2000). Lower high school graduation rates are one reason for the lower rates of college graduation among Latinos and African Americans. In addition, college enrollment rates are lower among Latino and African American high school graduates (Census, 2004). Moreover, among those enrolled in college, Latinos are more likely to attend two-year colleges than whites, Asians and African Americans (Census, 2004). Students who first enroll in a two-year institution out of high school are less likely to eventually earn a bachelor's degree than those who start their post-secondary education in a four-year college or university.

Research Questions

This study explores reasons for racial/ethnic differences in college completion rates among academically promising students between those who first attended two-year schools and those who first enrolled in four-year schools. Specifically, reasons for lower graduation rates among Latinos of Mexican origin and African Americans compared to whites and Asians are examined. Three areas of potential explanation are considered: family SES, goals and expectations for the future, and academic performance.

Data and Methods

Sample

The study sample is from NELS:88 and is limited to "academically promising" respondents who enrolled in some form of post-secondary educational institution after high school. Academically promising is defined as having at least a B average (3.0 out of a possible 4.0) in the four core courses (math, science, English and history/social studies) in middle school. The sample is followed from 1988, when the respondents were eighth graders, until 2000, when they were in their mid-twenties.

Measures

The outcome measure is dichotomous: respondents who earned a B.A. by 2000 are compared to those who did not.

The two key independent variables are race/ethnicity and type of first post-secondary institution (PSI). Race/ethnicity consists of four categories: non-Latino white, non-Latino African American, Latinos of Mexican origin and non-Latino Asian. Respondents were also categorized by whether the first PSI they attended after high school was two-year or four-year.

Three sets of factors were included in the multivariate analyses: 1) family SES; 2) expectations for the future; and 3) academic ability. Family SES was measured in 1988 using family income and parental education. Students' goals and expectations were captured in 1992 via their and their parents' educational expectations, the age at which they expected to become a parent and the level of control they felt over their lives and future (locus of control). Standardized test scores in math and reading, measured in 1992, were used to approximate academic ability.

Analyses

Multivariate logistic regression models containing interactions between race/ethnicity and first PSI test the effect of control variables on the relationship between race/ethnicity and the odds of earning a B.A. by 2000 by type of initial PSI. Males and females were analyzed separately due to different patterns in the proportion who attend and graduate from college. Five sets of models were carried out. The first serves as a base model. The second model includes SES measures, the third expectations and goals for the future and the fourth includes test scores. The final model includes all three sets of controls. Each model was run with Mexicans as the reference group and rerun with African Americans as the reference group.

Results

Males

Table 1 presents the logistic models for males. The top panels present odds ratios with Mexicans as the reference group; in the lower panels, African Americans are the reference group.

Table 1. Males: Odds of Earning a BA: Race/ethnicity*Type of Initial PSI

	Controlling for:				Full
	Base	SES	Goals/Plans	Test Scores	
Reference: Mexicans					
Initial 4-year PSI					
Whites	4.18***	2.61**	3.98***	2.91**	2.31*
African Americans	1.28	1.06	1.32	1.64	1.43
Asians	4.98**	3.38*	4.51*	2.84	2.43
Mexicans (ref.)	1.00	1.00	1.00	1.00	1.00
Initial 2-year PSI					
Whites	2.42 ⁺	1.51	3.11*	1.58	1.63
African Americans	0.88	0.86	1.01	1.11	1.06
Asians	3.32*	2.05	3.56 ⁺	2.37	2.04
Mexicans (ref.)	1.00	1.00	1.00	1.00	1.00
Ref.: African Americans					
Initial 4-year PSI					
Whites	3.28***	2.48**	2.77***	1.72 ⁺	1.62
African Americans (ref.)	1.00	1.00	1.00	1.00	1.00
Asians	3.90*	3.20*	3.24 ⁺	1.73	1.70
Mexicans	0.78	0.95	1.00	0.61	0.70
Initial 2-year PSI					
Whites	2.76	1.76	2.82	1.43	1.53
African Americans (ref.)	1.00	1.00	1.00	1.00	1.00
Asians	3.78	2.38	3.23	2.13	1.92
Mexicans	1.14	1.16	1.21	0.90	0.94

⁺p≤0.1; *p≤0.05; **p≤0.01; ***p≤0.001

Reference: Mexicans: In the base model, whites who initially enrolled in a four-year school are more than four times as likely as Mexicans to graduate from college whereas Asians are five times more likely. The differences between Mexicans and both whites and Asians are smaller among the subgroup initially enrolled in two-year schools. Controlling for SES narrows the

differences among those initially attending four-year schools while erasing differences between Mexicans and others. Holding future expectations and goals constant has little effect on the racial pattern for either group. Net of test scores, no differences appear between students first attending two-year schools; among those enrolled first in four-year schools, test scores account for Asian-Mexican differences.

Reference: African Americans: In the base model, no differences in the odds of graduating from college were found between the reference group and others among those originally enrolled in two-year schools. Among those initially enrolled in four-year schools, whites and Asians are more than three times as likely to go on to graduate as African Americans. Controlling for either SES or future expectations narrows these differences somewhat, controlling for test scores erases the differences between Asians and Mexicans and considerably narrows the gap between whites and Mexicans. Net of all controls, no differences were found between African Americans and others.

Females

Table 1 presents the logistic models for females. The top panels present odds ratios with Mexicans as the reference group; in the lower panels, African Americans are the reference group.

Table 2. Females: Odds of Earning a BA: Race/ethnicity*Type of Initial PSI

	Controlling for:				Full
	Base	SES	Goals/Plans	Test Scores	
Ref.: Mexicans					
Initial 4-year PSI					
Whites	2.24**	1.54	2.34**	1.49	1.44
African Americans	1.32	1.11	1.40	1.36	1.29
Asians	3.54***	2.42*	4.58***	1.99 ⁺	2.49*
Mexicans (ref.)	1.00	1.00	1.00	1.00	1.00
Initial 2-year PSI					
Whites	1.98 ⁺	1.48	1.98	1.41	1.14
African Americans	0.35 ⁺	0.38 ⁺	0.36	0.39	0.40
Asians	3.24**	2.15	3.01*	2.32 ⁺	1.63
Mexicans (ref.)	1.00	1.00	1.00	1.00	1.00
Ref.: African Americans					
Initial 4-year PSI					
Whites	1.69*	1.39	1.56 ⁺	1.09	1.12
African Americans (ref.)	1.00	1.00	1.00	1.00	1.00
Asians	2.67**	2.18*	3.11**	1.46	1.94 ⁺
Mexicans	0.76	0.90	1.02	0.73	0.78
Initial 2-year PSI					
Whites	5.67***	3.92**	3.86*	3.61*	2.84 ⁺
African Americans (ref.)	1.00	1.00	1.00	1.00	1.00
Asians	9.28***	5.69**	5.28*	5.93**	4.04*
Mexicans	2.86	2.65 ⁺	2.66	2.56	2.48

⁺p≤0.1; *p≤0.05; **p≤0.01; ***p≤0.001

Reference: Mexicans: In the base model, Asians were more than three times as likely and whites about twice as likely to graduate from college as Mexicans, regardless of initial PSI. SES accounts for the differences among those initially enrolled in two-year schools and for white-Mexican difference among those who began in four-year schools. Holding test scores constant erases differences between whites and Mexicans in both groups; the differences between Asians and Mexicans remain marginally significant. In the final model, Asians who initially went to a four-year school continue to be more likely to become college graduates than their Mexican counterparts but no differences were seen among those originally enrolled in two-year schools.

Reference: African Americans: Among students originally in four-year schools, Asians and whites are more likely to graduate than college than African Americans. These differences are several times greater among those who started in two-year schools. Net of SES, there is no difference between whites and blacks who started in four-year schools, while the difference between blacks and both Asians and whites narrows but remains large among those in two-year schools initially. Controlling for expectations leads to similar results. Test scores account for all differences among those from four-year schools. Net of all controls, Asians initially enrolled in four-year schools were marginally more likely to graduate than similar blacks while Asians from two-year schools were four times more likely (and whites marginally more likely) than their black counterparts to become college graduates.

Summary

Males and females exhibit different racial/ethnic patterns in the likelihood of college completion by initial PSI. Among males, the lower test scores of Mexicans appear to explain Asian-Mexican differences regardless in initial PSI. Among those who start in four-year schools, lower scores by Mexicans and African Americans account for much or all of their lower odds of graduation. This pattern suggests that the higher graduation rates of Asians and whites among those who enroll in four-year colleges is primarily due to the better academic preparation and performance of these groups compared to African Americans and Mexicans. This appears to be the case even among students who entered high school with high grades. This result suggests that the potential of capable Mexican and black students, even those who make it to college, is not being adequately supported and nurtured in high school.

Among females, the higher rates of college completion among academically promising white females than among similar Mexicans and African Americans can be attributed, in large part, to their more advantaged socioeconomic status and to better academic performance. This is particularly the case among students first enrolled in four-year schools. Neither of these factors accounted fully for the differences between Asians and the reference groups suggesting that additional factors are responsible for the higher college graduation rate of Asian females. While family SES is not amenable to change by schools, a focus on enhancing the academic preparation of young black and Mexican students who show academic potential will likely foster progress towards erasing gaps in college completion between these young women and others.