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## The Evolution of Class Inequality in Higher Education: Competition, Exclusion, and Adaptation

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### SECTION A: RESEARCH ABOUT THE USE OF COLLEGE ADMISSION TESTS

Before 1900, every selective college administered its own admission tests to prospective students. Since its founding in 1900, the College Entrance Examination Board (CEEB) has administered entrance exams for applicants to leading private colleges (Lemann 1999). By 1915, most of the selective institutions recognized the CEEB tests, which evolved into the contemporary SAT (Duffy and Goldberg 1998; Lemann 1999). The Educational Testing Service (ETS), which administers the SAT today, was founded in 1948 and the test gradually gained weight in admissions decisions. As competition rose for slots at institutions with selective admissions, aptitude testing became more acceptable for screening heterogeneous student pools (Jencks and Riesman 1968; Lemann 1999). In 2005, 59 percent of institutions reported assigning “considerable importance” to test scores, a 13 percentage point rise from 1993 (NACAC 2006).

Scholars have debated this growing reliance on test scores in college admissions. On the one hand, standardized test scores are considered valuable and objective tools for appraising the college readiness of students who attended schools of varied quality (Katz 1978). Their popularity stems from the claim that they measure general cognitive ability and are

impervious to training or preparation. On the other hand, critics argue that standardized tests do not measure abilities that are important for learning, such as motivation, imagination, and intellectual curiosity. They are also highly correlated with socioeconomic status (Blau et al. 2004; Camara and Schmidt 1999; Crouse and Trusheim 1988; Fischer et al. 1996; Freedle 2003; Geiser and Studley 2002; Rothstein 2004; Sacks 1999; Wells 1978). Others argue that short-term preparatory activities can significantly boost students’ scores, and that scores usually improve with reexamination (Briggs 2001; Buchmann, Roscigno, and Condron 2006; NACAC 2009; Vigdor and Clotfelter 2003). A more substantive criticism is that they have low predictive validity for future academic success, particularly when compared with performance-based measures like grades or class rank (Alon and Tienda 2007; Blau, Moller, and Jones 2004; Bowen and Vars 1998; Bridgeman, Jenkins, and Ervin 2000; Camara and Echternacht 2000; Crouse and Trusheim 1988; Geiser and Studley 2002; Hoffman and Lowitzki 2005; Rothstein 2004; Sacks 1999; Shea 2007; Stricker, Rock, and Burton 1991; Zwick 2004).

The correlation between test scores and first-year college grade-point average (FGPA) typically validates admission tests as a selection tool. In a report to The National Association for College

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Admission Counseling (NACAC), Zwick (2007) summarizes the current research about the predictive validity of college admission tests: “An examination of large-scale studies, (focusing on multi-institution studies and reviews published in 1985 or later) reveals some consistent patterns. The multiple correlation of ACT score (all four section scores considered together) or SAT score (verbal and math scores considered together) with FGPA is about .4, on average (ACT 1997; Camara and Echternacht 2000; College Board and ETS 1998; Noble 1991; Ramist et al. 1994; Rigol 1997; Willingham 1998). This correlation—the validity coefficient—is usually slightly lower than the correlation between high school GPA and FGPA. Considering ACT or SAT scores as predictors along with high school grades yields correlations with FGPA that average about .5.” A recent College Board (2008) research report reaches similar conclusions. In summary, high school grade-point average is still the best predictor of first year college grades, and test scores provide a small increment to predictive validity.

Test scores thus seem largely redundant with high school grades (Crouse and Trusheim 1988). Test scores do have some predictive value for college success, but is this improvement worth the negative impacts of testing? Even Charles Murray (2007) recently argued that “nothing important would be lost by dropping the SAT . . . the SAT’s independent role in predicting freshman grade point turned out to be so small that knowing the SAT score added next to nothing to an admissions officer’s ability to forecast how an applicant will do in college—the reason to give the test in the first place.” Along the same lines, a special panel convened by the NACAC posits that despite their prevalence in U.S. high school culture, college admission exams may not be critical to making good admission decisions at many of the colleges and universities that use them. The commission encouraged colleges to consider dropping the SAT or ACT as admission requirements (NACAC 2008). Although it concedes that some institutions may need testing, the commission supports the position that high school grades are the best way to predict college success. Making the SAT optional has been a recent trend among liberal arts colleges, some of which rank in the top-100 institutions in the *U.S. News* list (FairTest 2009).

**SECTION B: THE PREDICTIVE VALIDITY  
FOR GRADUATION LIKELIHOOD OF TEST  
SCORES IN FOUR DATA SETS**

In an additional analysis, I compare the predictive validity for graduation likelihood of test scores to that of class rank for students attending all four-year and selective institutions during the period of the current investigation. I fit a specification of six-year graduation rate among students attending all four-year and selective institutions in 1972, 1982, and 1992. To portray the graduation chances of students who enrolled in more selective institutions (sample size precludes this with national data sets), I analyze the College and Beyond (C&B) database built by the Andrew W. Mellon Foundation. It includes data on students at such schools in the fall of 1989 (Bowen and Bok 1998).<sup>1</sup>

I use percentile distributions for test scores and class rank to examine intra-cohort differences in their predictive validity.<sup>2</sup> For the analyses at selective institutions, I use indicators for the top 10 percent in test scores and class rank distributions. These measures better reflect the censored variation of test scores at the most elite institutions.

Although test scores do predict college graduation rates for students attending all types of four-year institutions, the influence on graduation chances is smaller than that of class rank at all institution types. These results reflect other findings on the issue. Consequently, both the rationale and the legitimacy for placing increased value on test scores in admissions since the 1980s seem rather dubious.

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<sup>1</sup> I adjust the analysis for the clustering of observations in a few institutions.

<sup>2</sup> I also test for inter-cohort changes. Results suggest that the weight of test scores on graduation chances declined in the 1980s. Yet we cannot definitely conclude that their predictive validity declined. It is impossible to disentangle changes in the predictive validity from those in the selection process. When the weight of test scores in admission rises, the student population becomes more homogenous regarding test scores, and a decline in their predictive validity can materialize.

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**Table S1.** The Effect of Test Scores and Class Rank on College Graduation Likelihood among Students Attending Four-Year and Selective Institutions, Logistic Odds Ratios; Adjusted Models

	NLS 1972	HS&B 1982	NELS 1992	C&B 1989
Four-Year Institutions				
Test scores (percentile)	1.009**	1.014**	1.010**	
Class rank (percentile)	1.017**	1.023**	1.021**	
N	7,799	4,729	5,114	
Four-Year Selective (median SAT 900 to 1050)				
Test scores (top decile)	1.504**	1.743**	1.320*	1.142**
Class rank (top decile)	1.735**	2.548**	2.235**	1.586**
N	4,720	3,688	3,844	26,909

*Note:* Controls include SES, race/ethnicity, sex, type of high school, region, and type of institution attended.

\*  $p < .05$ ; \*\*  $p < .01$  (two-tailed tests).

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