

THE ART of College Admissions

A Trustee Guide to the Value of Entrance Exams



AMERICAN COUNCIL OF TRUSTEES AND ALUMNI
Institute for Effective Governance



AMERICAN COUNCIL OF TRUSTEES AND ALUMNI



Launched in 1995, the American Council of Trustees and Alumni (ACTA) is an independent, non-profit organization dedicated to working with alumni, donors, trustees, and education leaders across the country to support liberal arts education, high academic standards, the free exchange of ideas on campus, and high-quality education at an affordable price.

ACTA's Institute for Effective Governance (IEG), founded in 2003 by college and university trustees for trustees, is devoted to enhancing boards' effectiveness and helping trustees fulfill their fiduciary responsibilities fully and effectively. IEG offers a range of services tailored to the specific needs of individual boards, and focuses on academic quality, academic freedom, and accountability.

THE ART of College Admissions

A Trustee Guide to the Value of Entrance Exams

Introduction

For most college-bound students, college entrance examinations—the SAT or the ACT—are a rite of passage. Approximately 70% of four-year colleges and universities in the United States require applicants to submit entrance examination scores: in 2012, 1,664,479 students took the SAT and 1,666,017 took the ACT.¹

In recent years, however, a number of educators have challenged the usefulness of these tests as indicators of college readiness, and some institutions have stopped requiring college entrance examinations altogether. There are outstanding institutions, such as St. John's College, famous for its Great Books program, that do not require college admissions tests. But, for the reasons set forth below, ACTA counsels extreme caution before eliminating college entrance examinations.

Arguments concerning the SAT and ACT are complex, often vehement, and, unfortunately, sometimes poorly documented.² The purpose of this trustee guide is to acquaint you with the history and use of college entrance tests and the arguments for and against continuing their role in admissions. The guide is organized to help you ask the important questions so that you can provide appropriate oversight of your admissions process. Board members should never read

about fundamental changes to admission policies first in the newspaper. As a trustee, you are responsible for both the academic and financial health of your institution, and the important policy of how best to handle admissions testing rests ultimately with you.

The SAT and ACT – A Brief History

The College Board administered the first college admissions test in 1901, and the Scholastic Aptitude Test (SAT)—designed to measure general academic ability—appeared in 1926. The SAT has undergone many changes in its

nearly century-long history. Within its first 15 years, the SAT was joined by a series of subject-specific tests, called Achievement Tests until they were renamed SAT II Subject Tests in 1993. By the 1940s, the SAT assumed

the familiar structure of a verbal and a math test, each with multiple choice questions and a scoring scale from 200 to 800 points. The SAT gained considerable importance in 1934, when Harvard began to use it to determine scholarship awards for academically promising boys from modest backgrounds. A year later, it became a requirement for all Harvard applicants and its use rapidly spread throughout colleges and universities.

The SAT served as one of the early democratizing forces in higher education: academic aptitude as

“Today more people criticize the SAT for inhibiting access to higher education than applaud it for opening doors in the first place. Listening to 21st century critics, it is impossible to deduce that a significant portion of the exam’s original intent was to enhance access for those previously excluded from highly selective institutions.”³

– Jonathan Epstein, senior consultant,
Maguire Associates

measured by a standardized test began to supplant the reputation of a student's secondary school as the key criterion for admission.⁴ Since 1993 the test has been officially known as the SAT I Reasoning Test. A more dramatic change came the following year: reacting to the fact that average scores had fallen to 424 Verbal and 478 Math—sharply below the 500 mark previously considered “average”—test scoring was “re-centered” and a score of 500 was assigned to the lower actual average score. A pre-1994 SAT I Verbal score of 500, for example, became a score of 580 under the re-centered scoring system.

University of California president Richard C. Atkinson made national headlines in 2001 by recommending that the University of California System suspend use of the SAT I until it could be redesigned to focus on academic achievement. Given his professional background in cognitive psychology and testing, the educational community gave much deference to his recommendations. He cited findings at UC showing that the SAT II Subject Tests—which measure progress in specific fields of study rather than aptitude—were far better predictors of college performance than the SAT I.

“From my viewpoint, the most important reason for changing the SAT is to send a clear message to K-12 students, their teachers and parents that learning to write and mastering a solid background in mathematics is of critical importance.”⁵

– Richard C. Atkinson, president emeritus,
University of California

His critique led the College Board to make major changes in the SAT I, among them the addition of a third test, an 800-point Writing exam. The University of California has notably continued to use the SAT I along with the SAT II Subject Tests.⁶

The ACT (formerly “American College Testing Program”), first used in 1959, is an alternative to the SAT exam that has been in particularly wide use in the Midwest. It can substitute for the SAT I Reasoning Test in admissions at all four-year colleges and universities that require standardized admissions tests. The ACT has four parts: English, Reading, Math, and Science, with an optional Writing test. It resembles an “achievement” test (based on high school curricula) rather than an aptitude test like the SAT I; its scoring scale ranges from 1 to 36.⁷

Questions on the SAT I and ACT are carefully chosen to reflect regular high school coursework, rather than Advanced Placement or other college-level study. In mathematics, for example, problems include arithmetic and number functions, algebra, geometry, trigonometry, and some statistics and probability.

The Test-Optional Movement

Despite its legacy as an egalitarian influence on college admissions, college admissions testing has come under fire in recent years for perceived socioeconomic biases. Some critics have also challenged the tests’ validity in predicting college success.

Although the University of California continued to use the SAT, other institutions moved from requiring the SAT or ACT to a test-optional system. These include a number of highly-regarded liberal arts colleges and universities such as Franklin and Marshall College, the College of the Holy Cross, Pitzer College, and Wake Forest University.

Institutions that have abandoned the SAT as a requirement have done so for a number of reasons.

These include a commitment to increasing ethnic diversity and the desire for a more “holistic” assessment in admissions, which would emphasize high school grades and qualitative factors like leadership skills. Admissions tests have been blamed for reinforcing social inequality, given the significant achievement gap among students from different ethnic groups and economic levels. Issues of disparate race, gender, and socioeconomic impact are extensively discussed by the National Center for Fair and Open Testing.⁸

Another—and troubling—motivation for test-optional policies is the advantage it sometimes brings to an institution in the *US News & World Report* rankings. The average admissions test score is a factor in a school’s

“Call it the Law of Artificial Score Inflation. By dropping its testing requirements, a college can reasonably expect that most applicants with higher scores will submit them, but those with lower scores will not. When that college computes its average of enrolled students, it can report, with a somewhat straight face, that its scores have risen.”⁹

– Eric Hoover, senior writer,
Chronicle of Higher Education

ranking. Since only students with high SAT or ACT scores would typically submit their scores, the institution’s “average” scores would rise. The test-optional institution, moreover, hopes to garner a larger applicant pool, reject more candidates, and thus increase its “selectivity” rating.¹⁰ Sadly, this dubious practice is already notorious—education writer Eric Hoover dubbed it “The Law of Artificial Score Inflation”—and recent experience shows that an institution that goes test-optional needs to be prepared for as much skepticism as cheering.¹¹

Pro and Con Arguments for Test-Optional Policies

So what are the arguments—pro and con—for eliminating mandatory tests?

These tests privilege the affluent: wealthier students can afford tutoring and expensive test preparation, and can afford to take the test multiple times.

- Research on the predictive value of the SAT suggests that it is equally useful across a range of socioeconomic groups.¹²
- Although many test-prep companies advertise 100-point gains from coaching, classes, and review materials, according to the National Association for College Admission Counseling, that number is closer to 30 points on the old 1600-point scale. At the majority of colleges and universities, both selective and non-selective, such a bump in score would have little or no effect.¹³ With regard to the examination fees, one out of every five SAT takers receives a fee waiver from the College Board, and ACT also offers fee waivers.¹⁴
- It is important to keep institutional costs in mind, too. Not every school has the resources to do extensive portfolio analysis of applications. For these schools, the SAT is an effective screening tool and can make the selection process less costly. Some institutions that use test-optional admissions report that the alternatives are highly labor-intensive.¹⁵

The tests are superfluous and misleading. High school grades, recommendations, and essays can predict college success better than a single high-stakes standardized test.

- College admissions tests still represent the closest thing institutions have to an objective standard that

can be measured across the country. Eliminating the SAT as a requirement would of necessity make the admissions process more subjective. “Holistic” evaluations of applicants use personal interviews and other sources, which are difficult to measure objectively, to gauge a student’s potential.¹⁶

- Grade inflation seems to necessitate a national benchmark like the SAT or ACT. Harvard professor Stephan Thernstrom and American Enterprise Institute scholar Abigail Thernstrom noted that a 2001 national survey of teenagers found 61% had received no grade lower than a B on their last report card.¹⁷ In the decade between 1996 and 2006, the percentage of SAT test takers with “A+, A, or A-” averages rose from 36% to 43%, and the percentage of “C”-range grades dropped from 15% to 11%; during that same period the average SAT verbal score dropped nine points among test takers with “A”-range grades, and the average math score dropped three points among the same population.¹⁹ By 2012 the percentage of “A+, A, or A-” grades had climbed to 45%, up nine percentage points from 1996.²⁰ This lopsided concentration of high school grades at the top of the grading scale and the wide differences in academic quality among U.S. high schools make it very difficult to determine which students are prepared for college-level work. Only 25% of the 2010 ACT test takers met all four College Readiness

“While one size doesn’t fit all, the truth is that some institutions are trying to make fine distinctions between very talented potential scholars from around the nation and the world. As one measure among many, standardized tests are very important in this regard.”¹⁸

– William Fitzsimmons, Dean of Admissions, Harvard University

benchmarks that predict a student's chance of receiving a "C" or "B" grade in typical first-year college courses—a sobering reminder of the limited value of many high school transcripts.²¹

- The data show that what matters for college success is the level and standard of high school preparation—which tends to be reflected in SAT and ACT scores. Significantly, in 2012, students who had a high school core curriculum in math, science, English, and history had average SAT scores 144 points higher than students without a high school core. Participants in honors or AP

“Are admissions officers at SAT-optional universities saying that the test scores do not provide probative evidence of the possession of these skills? Are they saying that these skills are not relevant to success in the educational program of their colleges? Neither claim is remotely plausible.”²²

– Colin Diver, president emeritus,
Reed College

courses in English and math show similarly higher scores, 251 and 294 points higher, respectively.²³

When former State University of New York provost Peter Salins studied the relationship between SAT scores and graduation rates at SUNY, he found that the several campuses that raised their admission standards had higher graduation rates for subsequent classes.²⁴

- When University of Georgia researchers studied the predictive value of the SAT after its 2005 revision, they found that there was significant correlation between strong performance on the Writing section and grades in freshman English courses.²⁵

- A 2007 study by the Maryland Higher Education Commission showed a strong correlation between SAT scores and degree completion and concluded that the “higher the SAT scores of students, the greater the likelihood that they not only returned for a second year of study but eventually earned a baccalaureate as well.”²⁶
- Combining the SAT or ACT scores with other information provides admissions committees with the most comprehensive and reliable review possible. Coupled with high school records, admissions test scores independently add significant predictive value to the evaluation of an applicant’s likelihood of success in college. Given the limitations and critiques of transcript, grading standards, and application materials, Harvard University uses multiple measures including grades, recommendations, and tests, preferring other standardized tests such as the AP and IB exams over the SAT and ACT. Nevertheless, Harvard continues to use the SAT and ACT, in particular, the Writing tests. Why would evaluators ever accept less information when they can have a richer picture of the student under consideration?²⁷

Using the SAT will reduce access and disadvantage minority and poor students. Abandoning the SAT leads to a more diverse applicant pool and entering class.²⁸

- Requiring the SAT or ACT and having a more diverse applicant pool are not mutually exclusive. A recent study by Stanford professor Caroline M. Hoxby and Harvard professor Christopher Avery found that low-income, “high-achieving” students—based on SAT/ACT scores and GPA—tend not to apply to selective colleges, despite the fact that those

who do so enroll and persist at the same rates as their high-income peers. The report recommended that colleges adopt broader outreach programs, informing low-income students about their college-going opportunities, to combat this discrepancy.²⁹

- Not every college has been happy with the results of test-optional admissions. The faculty of Lafayette College voted in 1998 to reinstate the admissions testing requirement after the test-optional system failed to garner the expected surge of high-achieving diverse students.³⁰ Some schools have found applicants to be skeptical of an admissions process that does not include the SAT and ACT.³¹
- Minority participation in admissions testing has risen dramatically: 27% of the 2011 ACT-tested freshmen and 45% of the 2012 SAT test takers were minority students. For the SAT, there was a 78% increase in the years between 2000 and 2010.³² It stands to reason that academic bridge programs between high schools and higher education hold potential for increasing diversity while increasing college readiness.³³
- College applicants have significant access to higher education, notwithstanding their performance on standardized tests. A 2009 study of over 1,300 four-year colleges and universities found that two-thirds of schools admitted at least 75% of their applicants, accounting for over half of all students enrolled.³⁴

The Next Steps

The movement to make the SAT or ACT optional in admissions is a growing one, and since universities constantly look to their peer institutions when deciding major policy changes, this is an issue to

which you as a trustee must pay special attention. Here are some suggestions for what to do next.

- **Ask whether your institution is considering a test-optional policy.** Do not allow yourself to be blindsided. Trustees should not have to hear about this change in admissions policy after the fact. Direct administrators to give the board ample notice if ever a change in admissions criteria is being contemplated.
- **If a change is under consideration, ask why your institution would drop or modify standardized testing requirements.** Any decision made concerning the official policies of a university ought to be made with the institution's academic integrity in mind. Trustees should ask what the purpose and goals of the intended change are.
- **Obtain Data.** Several institutions have conducted studies concerning the correlation between standardized test scores and academic success. As a trustee, you can call upon your Office of Institutional Research to use existing data to study the relationship between test scores, high school GPA, and collegiate outcomes measures—graduation rates, college GPA, and relevant licensure test results.
- **If necessary, ask for a review of admissions policies.** It might be helpful to ask for a comprehensive study of admissions practices at your university, especially as they concern testing. How much do standardized tests count for admission, and how much emphasis is placed on more subjective criteria? What sort of impact do standardized tests have on merit-based financial aid or other scholarships?

- **Discuss the topic in board meetings and hear all sides.** Although trustees should not set themselves up as “micromanagers” in the day-to-day operations of the university, any decision with as much potential impact as the decision to go test-optional deserves significant debate and deliberation in board meetings.
- **Make sure that the board has the opportunity to approve or reject any proposal.** In addition to hearing reports and holding debates on the use of the SAT or ACT, any proposal regarding something this important should come to a vote before the board.

Because of your unique fiduciary responsibility as a trustee, you should familiarize yourself with the current trends in admissions policy. Well-considered admissions policies are essential to safeguard the academic integrity of your institution.

ACTA is Here to Help

For over fifteen years, ACTA has advised boards of trustees on all matters relating to higher education standards, cost-effectiveness, and accountability. We can facilitate board study sessions and retreats and organize regional conferences on key topics of higher education governance. On ACTA’s website, trustees can find a large and growing number of reports designed to help them understand the many issues they encounter.

We welcome your questions and contact at any time, by phone: 202-467-6787, or email: info@goacta.org, attention: Institute for Effective Governance.

End Notes

1. Valerie Strauss, “How ACT overtook SAT as the top college entrance exam,” *The Washington Post*, September 24, 2012 <http://www.washingtonpost.com/blogs/answer-sheet/post/how-act-overtook-sat-as-the-top-college-entrance-exam/2012/09/24/d56df11c-0674-11e2-afff-d6c7f20a83bf_blog.html>.
2. Caution is in order when determining how many colleges have ceased using admissions tests. According to the “Test Score Optional List” of The National Center for Fair and Open Testing (<http://www.fairtest.org/university/optional>), approximately 850 schools do not use the SAT or the ACT to admit “substantial numbers of students into bachelor’s degree programs,” out of about 2500 accredited four-year institutions. Yet, as FairTest’s site clarifies, many of the 850 schools listed “deemphasize” rather than make optional the use of standardized tests. As Glenn Milewski and Wayne Camara pointed out, many of the schools on FairTest’s “Optional List” do have some kind of SAT or ACT requirement, which makes the actual use of these tests even more widespread. Glenn B. Milewski and Wayne J. Camara, “Colleges and Universities that Do Not Require SAT or ACT Scores,” *Research Notes* (New York: The College Board Office of Research and Development, September 2002) <<http://research.collegeboard.org/sites/default/files/publications/2012/7/researchnote-2002-18-college-universities-sat-optional.pdf>>.
3. Jonathan P. Epstein, “Behind the SAT-Optional Movement: Context and Controversy,” *Journal of College Admission* (Arlington, VA: National Association for College Admission Counseling, Summer 2009), 9 <http://www.maguireassoc.com/resource/documents/SAT_optional_article-NACAC_Journal_College_Admission_J.Epstein_7-09.pdf>.
4. Jonathan Epstein, “Behind the SAT-Optional Movement: Context and Controversy,” 9; Charles Murray, “Abolishing the SAT,” in *SAT Wars: The Case for Test-Optional College Admissions*, ed. Joseph A. Soares (New York: Teacher’s College Press), 69.
5. Richard Atkinson, *College Admissions and the SAT: A Personal Perspective* (Speech, American Educational Research Association, UC San Diego, April 14, 2004) <<http://www.rca.ucsd.edu/speeches/CollegeAdmissionsandtheSAT-APersonalPerspective1.pdf>>.
6. Richard Atkinson, *College Admissions and the SAT: A Personal Perspective*; see also Richard C. Atkinson and Saul Geiser, “Reflections on a Century of College Admissions Tests,” in *SAT Wars: The Case for Test-Optional College Admissions*.
7. Act, Inc., *Your Guide to the ACT* (Iowa City: ACT, Inc., 2005) <<http://www.act.org/aap/pdf/YourGuidetoACT.pdf>>.

8. Fairtest.org, accessed June 6, 2013 <<http://www.fairtest.org/>>.
9. Eric Hoover, "Colleges Explore Shades of Gray in Making Entrance Tests Optional," *Chronicle of Higher Education*, March 21, 2010 <<http://chronicle.com/article/Colleges-Explore-Shades-of/64758/>>.
10. Jonathan Epstein, "Behind the SAT-Optional Movement: Context and Controversy."
11. Eric Hoover, "Colleges Explore Shades of Gray in Making Entrance Tests Optional"; see also Janet Lorin, "Bowdoin Says No Need for SAT While Buying College Board Scores," *Bloomberg*, July 19, 2011 <<http://www.bloomberg.com/news/2011-07-19/bowdoin-says-no-need-for-sat-while-buying-college-board-scores.html>>.
12. Scott Jaschik, "Renewed Debate on SAT and Wealth," *Inside Higher Ed*, September 14, 2012 <<http://www.insidehighered.com/news/2012/09/14/new-research-finds-sat-equally-predictive-those-high-and-low-socioeconomic-status>>.
13. According to the 2008 NACAC Testing Commission Report, several studies over the past 15 years have shown an average test score gain of 6 to 8 points on the Verbal Section and 14 to 18 points on the Math Section for students using SAT coaching. National Association for College Admission Counseling, *Report of the Commission on the Use of Standardized Tests in Undergraduate Admissions* (Arlington, VA: NACAC, September 2008) <http://www.nacacnet.org/research/PublicationsResources/Marketplace/Documents/TestingComission_FinalReport.pdf>; Derek C. Briggs, *Preparation for College Admission Exams* (Arlington, VA: NACAC, 2009) <<http://www.nacacnet.org/research/PublicationsResources/Marketplace/Documents/TestPrepDiscussionPaper.pdf>>.
14. Collegeboard.com, "1 in 5 Students Use SAT® Fee Waiver," Sept. 2010 <<http://www.connection-collegeboard.com/home/programs-and-services/486-sat-story-2>>.
15. Martha Allman, "Going Test-Optional: A First Year of Challenges, Surprises, and Rewards," in *SAT Wars: The Case for Test-Optional College Admissions*, 175.
16. Eric Hoover, "Holistic Approach is Overrated as Admissions Tool, Says Researcher," *Chronicle of Higher Education*, April 16, 2009 <<http://chronicle.com/news/article/6330/holistic-approach-is-overrated-as-admissions-tool-says-researcher>>, citing the research of Bowling Green State University psychologist Scott Highhouse.
17. Abigail Thernstrom and Stephan Thernstrom, *No Excuses: Closing the Racial Gap in Learning* (New York: Simon and Schuster, 2003), 32.
18. William Fitzsimmons, cited in Epstein (above, n. 3), 15.

19. The College Board, "Table 17: Rising Grades and Falling Test Scores May Signal Grade Inflation," <http://www.collegeboard.com/prod_downloads/about/news_info/cbsenior/yr2006/table17-rising-grades-falling-scores.pdf>; cf. also The College Board, "Table 4: Rising Grades and Falling Test Scores May Signal Grade Inflation," <http://www.collegeboard.com/prod_downloads/about/news_info/cbsenior/yr2001/table4.pdf>; Mark J. Perry, "Rising Grades, Falling Test Scores for HS Seniors," *Carpe Diem*, June 23, 2009 <<http://mjerry.blogspot.com/2009/06/rising-grades-falling-test-scores-for.html>>.
20. The College Board, *2012 College-Bound Seniors Total Group Profile Report* (New York: The College Board, 2012), 5 <<http://media.collegeboard.com/digitalServices/pdf/research/TotalGroup-2012.pdf>>.
21. ACT Inc., *The Condition of College and Career Readiness* (Iowa City, IA: ACT Inc., 2012), 1 <<http://media.act.org/documents/CCCR12-NationalReadinessRpt.pdf>>.
22. Colin Diver, "Skip the Test, Betray the Cause," *The New York Times*, September 18, 2006 <<http://www.nytimes.com/2006/09/18/opinion/18diver.html>>.
23. *The College Board*, "SAT® Report: Only 43 Percent of 2012 College-Bound Seniors Are College Ready," September 24, 2012 <<http://press.collegeboard.org/releases/2012/sat-report-only-43-percent-2012-college-bound-seniors-college-ready>>.
24. Peter Salins, "Does the SAT Predict College Success?" *Minding the Campus*, October 15, 2008 <http://www.mindingthecampus.com/originals/2008/10/by_peter_salins_one_of.html>.
25. Eric Hoover, "Writing Section Is SAT's Most Predictive, Researchers at U. of Georgia Find," *The Chronicle of Higher Education*, July 8, 2008 <<http://chronicle.com/article/Writing-Section-Is-SATs-Most/966>>.
26. Education Policy Committee to Maryland Higher Education Commission, "Memorandum re: Retention and Graduation Rates at Public Four-Year Campuses by SAT Scores," March 8, 2007 <<http://www.mhec.state.md.us/highered/about/Meetings/CommissionMeetings/3-8-07/Ret%26GradRatesPublic4-Yr.bySATSMemo.pdf>>.
27. Richard C. Atkinson and Saul Geiser, "Reflections on a Century of College Admissions Tests," 25; Kevin Rask and Jill Tiefenthaler, "The SAT as a Predictor of Success at a Liberal Arts College," in *SAT Wars: The Case for Test-Optional College Admissions*, 121-26; FairTest.org, "Strong Test-Optional Growth Continues," *FairTest Examiner*, May 2011 <<http://www.fairtest.org/strong-testoptional-growth-continues>>; William R. Fitzsimmons, "Guidance Office: Answers from Harvard's Dean," *The New York Times*, September 11, 2009 <<http://thechoice.blogs.nytimes.com/2009/09/11/harvarddean-part2/#more-7637>>.

28. Scott Jaschik, "After the SAT Report, What's Next?" *Inside Higher Ed*, September 29, 2008 <<http://www.insidehighered.com/news/2008/09/29/sat>>. Wake Forest University sociology professor Joseph Soares noted in his essay on the SAT that the University of California system found itself having to look for "alternative ways to sustain its diversity by reexamining its remaining admissions tools" after Proposition 209 in 1996 prohibited consideration of race, sex, or ethnicity. From Joseph A. Soares, "Open Letter to Faculty on Wake Forest's New Admissions Policy," *Window on Wake Forest*, September 24, 2008 <<http://www.wfu.edu/wowf/2008/sat-act/soares/>>.
29. Caroline M. Hoxby and Christopher Avery, *The Missing "One-Offs": The Hidden Supply of High-Achieving, Low Income Students* (Cambridge, MA: National Bureau of Economic Research, NBER Working Paper 18586, 2013) <http://www.brookings.edu/~media/projects/bpea/spring%202013/2013a_hoxby>.
30. Eric Hoover, "Colleges Explore Shades of Gray in Making Entrance Tests Optional."
31. Eric Hoover, "Life After Test-Optional," *The Chronicle of Higher Education*, October 28, 2010 <http://chronicle.com/blogs/headcount/life-after-test-optional/27628?sid=pm&utm_source=pm&utm_medium=en>.
32. Collegeboard.com, "2010 College-Board Seniors SAT® Results Underscore Importance of Academic Rigor," September 2010 <<http://www.connection-collegeboard.com/home/programs-and-services/487-sat-lead-story->>; Sevil Omer, "More minorities taking SAT; scores flat this year," *NBC News*, September 25, 2012 <http://usnews.nbcnews.com/_news/2012/09/25/14094361-more-minorities-taking-sat-scores-flat-this-year?lite>; ACT Inc., "2010 ACT College and Career Readiness Report News Release," *ACT.org*, August 18, 2010 <<http://www.act.org/newsroom/releases/view.php?year=archive&p=721&lang=english>>; ACT Inc., "National Level Norms Composite Report," accessed June 6, 2013 <<http://www.act.org/research/services/pdf/ClassProfileNormReport.pdf>>.
33. Reginald Wilson, "Barriers to Minority Success in College Science, Mathematics, and Engineering Programs," in ed. George Campbell Jr. et al., *Access Denied: Race, Ethnicity, and the Scientific Enterprise* (New York: Oxford University Press, 2000), 202-03.
34. Frederick M. Hess et al., *Diplomas and Dropouts: Which Colleges Actually Graduate Their Students (And Which Don't)* (Washington, DC: American Enterprise Institute, 2009), 5-7 <<http://www.aei.org/papers/education/higher-education/diplomas-and-dropouts/>>.





ACTA

AMERICAN COUNCIL OF
TRUSTEES AND ALUMNI

1726 M Street, NW
Suite 802
Washington, DC 20036
T: 202.467.6787
F: 202.467.6784
E: info@goacta.org
www.goacta.org

