



Intergenerational Mobility and ACT Scores

Shannon Hayes, MPA

Foreword

ACT was founded more than 60 years ago to democratize access to higher education in America by providing a research based assessment aligned with the knowledge and skills individuals need for postsecondary success. This test allowed students from all across the country to demonstrate that they were ready to succeed in college and beyond. Though the ACT test has been refined and enhanced over the years—and colleges and universities have broadened how they use ACT scores—we remain proud that the test still offers an impartial, unbiased measure of what students know and are able to do. Students from all backgrounds can use the ACT test as one important facet of their college application process.

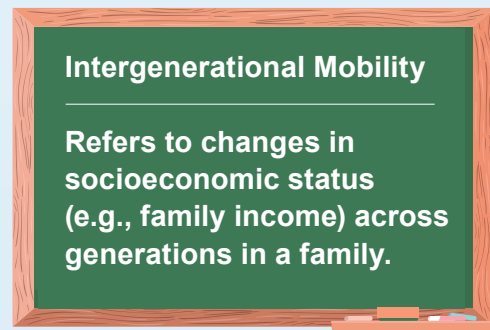
This is crucial because we know the importance of postsecondary education for learners today. Everyone has their own pathway and dreams, but it is increasingly essential for all students to earn a credential or degree after high school in order to earn a sustainable living wage for themselves and their families. College can lift people out of poverty and change someone's life trajectory. However, more and more students, particularly those from populations traditionally underserved in education, are attending colleges that are not a good fit. These students may drop out or earn a degree that offers limited career options. As a result, they may take on significant debt without the expected boost in income.¹

The research team at Opportunity Insights has been examining the relationships between family background, location, educational success, and future earnings since 2011, releasing groundbreaking analyses that inform public policies regarding housing, education, and more. As evidenced by ACT's decades of research on education and workforce topics, we also believe in the ability of unbiased research to inform both large scale public policies as well as individual decisions. ACT is honored to collaborate with Opportunity Insights to advance the body of knowledge on the role colleges play in intergenerational mobility.

Janet Godwin
ACT CEO
September 2021



The American Dream is an inspiring ideal. But analysis has shown that the opportunity to improve one's situation in life is not equally distributed. Beginning with its groundbreaking research on how geography affects American children's opportunity to earn more than their parents (also known as intergenerational mobility), the research team at Opportunity Insights has used Internal Revenue Service (IRS) income records for children and parents to investigate the availability of opportunity across multiple facets of American life.²



The following brief summarizes the detailed research findings from Opportunity Insights' recent paper, *Income Segregation and Intergenerational Mobility Across Colleges in the United States*, including that, on average, students from low-income families who attend elite colleges see higher future earnings than their peers at less selective schools. However, there is a high degree of segregation by parental income across colleges, with students from high-income families more likely to attend elite or selective colleges and students from low-income families more likely to attend less selective or open-admission colleges. This limits the opportunities available for students from low-income families to see the increased earnings associated with graduating from an elite college.³

This brief also offers recommendations from ACT to assist policymakers, admissions counselors, and educators in secondary and postsecondary systems to overcome the barriers to opportunity uncovered by this report.

What does the research say?

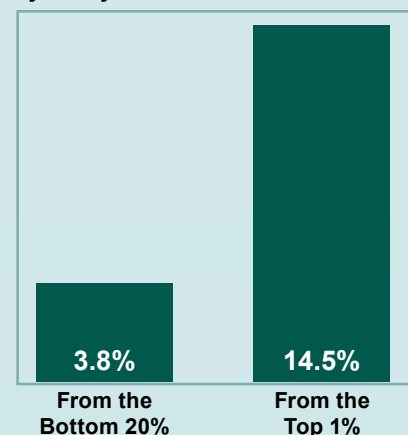
Students from low-income families who attend elite colleges see, on average, higher future earnings than their many peers at less selective schools, but there is a high degree of segregation by parental income across colleges. As mentioned above, the recent paper, *Income Segregation and Intergenerational Mobility Across Colleges in the United States*, draws these conclusions, among others, through its examination of IRS income records for students (born between 1980 and 1982) and their parents in conjunction with the students' ACT/SAT scores and where they went to college.



This research found that reducing income segregation at selective colleges would increase intergenerational mobility.

Students across the spectrum of family income levels typically see similar earnings after graduating from the same college or university, but only 3.8 percent of students attending Ivy-Plus colleges⁴ were from the bottom twenty percent, or fifth, (known in the original research as a quintile) of family incomes, compared to 14.5 percent from just the top one percent of family incomes.

Students Attending Ivy-Plus Colleges, by family income level⁴

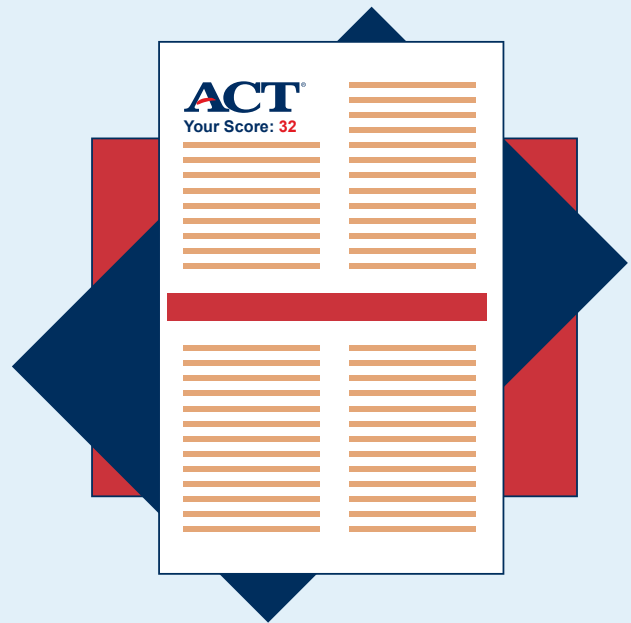


Because students graduating from the same school generally see only limited differences in their eventual earnings regardless of their parents' income level, economically desegregating colleges to allow more students from low-income backgrounds to attend elite schools (whose students generally have higher incomes later on) would have a big impact on this group's future earnings, and therefore on their intergenerational mobility.

So how can colleges be economically desegregated?

If all we did was ensure the proportion of students from different family income levels at elite schools matched their proportion in the overall college-going population, there would be slightly more students from low-income families and many more students from middle-income families (and many fewer students from high-income families) at elite colleges. As an example, the researchers found that 2.2 percent of students in the lowest fifth of family incomes and 68.1 percent in the highest fifth achieved the highest scores, so elite colleges would seek to enroll, among their students who earned scores in that range, 2.2 percent from the lowest fifth of family incomes and only 68.1 percent from the highest fifth.⁵

If the current college-going population was, in fact, evenly distributed across college tiers by college admission scores in this manner, the underrepresentation of students from the bottom fifth of family incomes quintile at selective colleges would improve by 38 percent.⁶ The proportion of students from the middle-fifth family income levels would also increase. This approach would merely end patterns of undermatching, in which high-achieving students who come from backgrounds with lower family incomes are less likely to attend selective colleges while similarly high-achieving students from backgrounds with higher family incomes are more likely to attend these colleges; this undermatching causes almost two thirds of income segregation across colleges. To be clear, there are multiple causes of undermatching, not all of which are related to the admissions policies of these selective colleges.⁷ However, the research focuses on this specific approach for increasing access.



However, because the researchers found that an estimated 36.1 percent of income segregation at the colleges studied is caused by differences in students' racial backgrounds, geographic origins, and test scores, evenly distributing students by ACT/SAT score across selectivity tiers cannot fully close the gaps between students with different family income levels. Due to inequities in the United States' K-12 educational system and other systemic challenges, students from low-income backgrounds tend to achieve, on average, lower scores on standardized tests.⁸

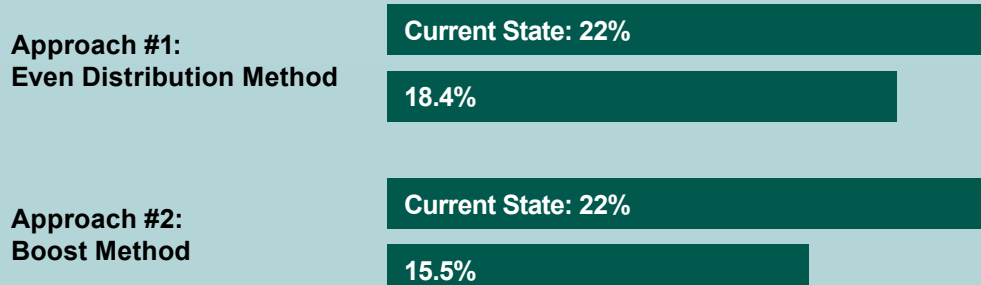
To compensate for these inequities, the research found that if lower-income students were given a preference akin to the “legacy” preference many students — often from high-income families — at elite colleges receive, the higher education system could be fully desegregated economically. Roughly, the preference examined by the researchers would be akin to a bonus of an additional 3-5 points on a student’s ACT Composite score for the bottom fifth of family incomes, 3-4 points on the ACT Composite for the second fifth, 2-3 points on the ACT Composite for the third fifth, and 1-2 points on the ACT Composite for the fourth highest fifth of family income levels.⁹ Students in the top fifth would not be penalized; they would simply not receive this preference in the admissions process.

With a preference along these lines, admissions offices at elite schools would be able to ensure that 20 percent of the incoming class would come from the bottom 20 percent of family incomes, and so on up the income scale until only 20 percent of students would come from the top 20 percent of family incomes. The number of students from low- and middle-income families at the highest-performing colleges and universities would be dramatically increased, and these students would have an equal opportunity to reap the income-increasing benefits of these elite schools.

Why does economic desegregation matter?

The research found that the first approach (distributing students at selective colleges by ACT/SAT scores at the same rate in which they score in the overall college-going population), which eliminates undermatching, would narrow the intergenerational mobility gap (the difference in the rate at which students from the lowest and highest family income fifths reach the top earnings level themselves in the future) from its current 22 percent to an 18.4 percent gap between students in the top and bottom family income levels earning at top-fifth levels in the future. The second approach, granting a preference for students from low-income backgrounds equivalent to 3 to 5 additional points on their ACT Composite score similar to the legacy boost currently enjoyed by students from high-income backgrounds, would narrow that gap from 22 to 15.5 percent.

Intergenerational Mobility Gap



What next steps are recommended?

ACT's recommendations for stakeholders across the education spectrum:¹⁰

Colleges and universities

ACT has always recommended that test scores be used as one of many measures in a college application process that highlights the holistic learner, and we support college admissions officers using admissions factors that work best for their institutions, particularly in the service of ensuring equitable access to selective colleges that can better serve students from low-income backgrounds. This research may help admissions officers further equity goals that include increasing access for students from lower-income families. Additionally, while the research focuses on offers of admission, colleges must then ensure that students from low-income families enroll in their schools at the same rate at which they were admitted. This may require additional outreach to students from this population.¹¹

ACT scores (for all students, including any given an income-based preference as well as those given preferences for legacy status, athletics, and more)¹² can also be used to identify students who may need targeted support, giving all students the best chance to succeed and graduate. The Opportunity Insights research focuses on increasing access to elite colleges for students from low-income families, and this is absolutely essential—but it is not enough. We must also ensure that all students, particularly those from less privileged backgrounds, have the supports they need to make it **through** college and graduate.¹³

Colleges and universities should conduct additional analyses moving forward of both incoming classes and graduates to ensure that their efforts to decrease income segregation and increase intergenerational mobility are proving effective and adjust their practices if necessary.

K-12 educators and policymakers

Because many students from lower family income levels undermatch—attending a less-selective college than they might otherwise be qualified for based on their ACT score—it is important for teachers and counselors to encourage high-achieving students to attend colleges that are good fits and might reap the greatest earnings benefits in the future. This might include helping students participate in college support programs such as [Posse](#) and [CollegePoint](#), which were designed to help students from low-income backgrounds avoid undermatching when applying to colleges and find success at high-performing colleges.¹⁴ As mentioned above, graduates admitted to selective colleges may also need support from their high school to ensure they enroll and matriculate in the fall.

Additionally, this research only addresses those students from low-income backgrounds who are able to matriculate at a college. Because there are inequities in access to postsecondary education, increasing the population of students from low-income families who enroll at all—but particularly at selective colleges—is key to resolving gaps in intergenerational mobility even greater than those in the scope of these data.

Notes

1. Justin Ortagus and Rodney Hughes, *Paying More for Less? A New Classification System to Prioritize Outcomes in Higher Education* (Washington, DC: Third Way, 2020), <https://www.thirdway.org/report/paying-more-for-less-a-new-classification-system-to-prioritize-outcomes-in-higher-education>.
2. See, for example, Raj Chetty, Nathaniel Hendren, Patrick Kline, and Emmanuel Saez, *Where is the Land of Opportunity? The Geography of Intergenerational Mobility in the United States*, *Quarterly Journal of Economics* 129, no. 4 (June 2014): 1553-1623, <https://opportunityinsights.org/paper/land-of-opportunity/>.
3. Raj Chetty, John Friedman, Emmanuel Saez, Nicholas Turner, and Danny Yagan, *Income Segregation and Intergenerational Mobility Across Colleges in the United States* (Cambridge, MA: Opportunity Insights, 2020), <https://opportunityinsights.org/paper/undermatching/>.
4. Ivy-Plus colleges are defined in the paper as “the eight Ivy League colleges plus Duke, MIT, Stanford, and the University of Chicago” (page 1). There are broad differences in family income across selectivity tiers, but the researchers found varying levels of segregation among colleges within tiers as well.
5. Chetty, Friedman, Saex, Turner, and Yagan, *Income Segregation and Intergenerational Mobility*, Appendix Table V, page 49.
6. A full listing of schools and their assigned tier can be found at https://opportunityinsights.org/wp-content/uploads/2018/04/mrc_table10.csv.
7. Caroline Hoxby and Christopher Avery, “The Missing ‘One-Offs’: The Hidden Supply of High-Achieving, Low-Income Students,” *Brookings Papers on Economic Activity* 2013, no. 1 (2013): 1-65, doi:10.1353/eca.2013.0000.
8. See research from The Educational Opportunity project at Stanford University at <https://edopportunity.org/explorer/#/map/none/districts/avg/ses/all/3.5/38/-97/> and the student characteristic “Family Income” under “Class Averages and Benchmarks” at <http://www.act.org/content/act/en/research/services-and-resources/data-and-visualization/grad-class-database.html#data-vis>.
9. This would be equivalent to a respective 160, 128, 96, and 64 additional points on the combined SAT, included in the original paper. Note: the original analysis was conducted using the ACT/SAT concordance table in effect in 2016 (<https://mytutor.com/wp-content/uploads/2018/06/sat-act-concordance-chart-2016-v-2018-rev.pdf>), rather than the ones in effect for these particular testing years (roughly 1996-1999) (e.g., <https://files.eric.ed.gov/fulltext/ED562654.pdf>). Because there were multiple revisions to the SAT over that time period, the concorded scores themselves had changed, but the number of ACT Composite score points awarded under a legacy preference are likely to be largely similar.
10. These recommendations are solely the opinion of ACT and do not represent Opportunity Insights or the authors of the original paper.

Notes

11. For example, see Melissa Roderick, Vanessa Coca, and Jenny Nagaoka, "Potholes on the Road to College: High School Effects in Shaping Urban Students' Participation in College Application, Four-year College Enrollment, and College Match," *Sociology of Education* 84, no. 3 (2011): 178–211, <https://consortium.uchicago.edu/publications/potholes-road-college-high-school-effects-shaping-urban-students-participation-college>.
12. For more on preferences given to students from different groups, see Jeffrey Selingo, *Who Gets In and Why: A Year Inside College Admissions* (New York: Scribner, 2020).
13. Linda F. Nathan, *When Grit Isn't Enough: A High School Principal Examines How Poverty and Inequality Thwart the College-for-All Promise* (Boston, MA: Beacon Press, October 2017).
14. For more information, see <https://www.possefoundation.org/about-posse> and <https://www.collegepoint.info/what-we-do/>.



About ACT's Center for Equity in Learning

ACT's Center for Equity in Learning focuses on closing gaps in equity, opportunity, and achievement for underserved populations and working learners. Through purposeful investments, employee engagement, and thoughtful advocacy efforts, the Center supports innovative partnerships, actionable research, initiatives, campaigns, and programs to further ACT's mission of helping people achieve education and workplace success.

For more information, visit equityinlearning.act.org

@ACTEquity

@ACT