

Matt Harmston is a senior research associate in Education and Workforce Research Services at ACT, specializing in secondary research and report development.

Jill Crouse is a senior research associate in Education and Workforce Research Services at ACT, specializing in postsecondary research and report development.

Multiple Testers: What Do We Know About Them?

MATT HARMSTON, MA, AND JILL CROUSE, PHD

What Does It Mean to Retest?

The practice of taking the ACT® more than once (i.e., retesting) has grown over time. For instance, the percentage of 2009 ACT-tested students who took multiple tests prior to graduating from high school was 41%. By 2015, this percentage had increased to 45%. At the same time, concerns over the impact of retesting also increased, particularly regarding disproportionate access among students of different ethnic groups, family incomes, and parental education levels.

How Do Repeat-Testers Compare to Single-Time Testers?

When comparing the characteristics of 2015 graduates who retested to those who did not, some clear distinctions emerge:

- Repeat-testers' latest scores had an average Composite score 2.9 points higher than their single-test counterparts.
- The racial distribution of single-testers differed from that of repeat testers, particularly for white and Hispanic students. The percentage of single-testers who were white was eight points lower than in the population of repeat-testers, and the percentage of single-testers who were Hispanic was six points higher than in the population of repeat-testers.

- The percentages of single-testers in family income ranges below \$36k were higher than those of repeat-testers.
- The percentages of single-testers in family income ranges above \$60k were at least three points lower than those of repeat-testers.
- The percentages of single-testers with highest parental education levels of high school diploma/GED and below were at least 3% higher than those of repeat-testers.
- The percentages of single-testers with parental education levels of a bachelor's degree and above were at least 4% lower than those of repeat-testers.

What Can We Say About Repeat-Tested Scores?

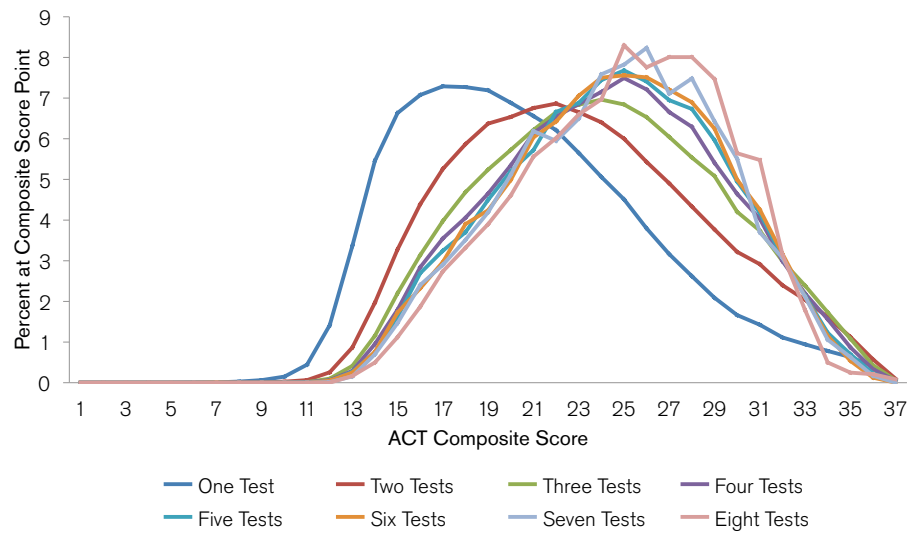
Students who retake the ACT are generally looking to improve their scores. Of 2015 graduates who retested, 57% improved their Composite score on their second testing. However, 22% saw their Composite score decrease on their second test. To a point, students who retested multiple times tended to do better. The average final Composite score was consistently higher as the number of times students tested increased, reaching a ceiling with those who tested ten times (mean = 24.5,

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n = 355). As seen in Figure 1, distributions of final ACT Composite scores shifted up the score scale as the number of testing sessions increased. However, this graphic is limited in that it doesn't speak to differences in student performance between specific test instances (e.g., first vs. second testing, fifth vs. sixth).

As referenced earlier, retesting at least once is associated with increases in average Composite scores when comparing first and second test instances. However, it is crucial to question why these gains occur. In fact, there are multiple factors that impact these gains, some of which are listed here. One factor rests in where students start on the score scale. The percentage of students increasing scores upon retest is higher when their initial score is low, as compared to gains made by students whose initial scores are high. The gain in average Composite scores could also be affected by composition of student cohorts taking a test once vs. twice, two times vs. three times, etc.

An even more prominent factor associated with score gains is time between testing. As time between testing sessions increases, greater curricular coverage occurs in the interval between tests—thus students have the opportunity to master more of the tested material in their classes. Using grade level as a proxy for curriculum coverage and additional time for test preparation, 2015 graduates who first tested as sophomores saw an average Composite score increase of



*Times tested was truncated above 8 because N-counts dipped below 1000

Figure 1. ACT Composite score distributions by times tested:* 2015 graduates

2.7 points by their final test session. Students first testing as juniors demonstrated an average Composite score increase of 1.1 points. Students taking their first and last tests as seniors gained only 0.6 points on average.

Concluding Thoughts

Evidence suggests that students stand a very real potential for increasing Composite scores when repeat-testing. However, there are several important issues to investigate surrounding retesting patterns, including:

- Determining at what point score increases are due more to measurement error than to actual gains in student proficiency;

- Determining detailed relationships between repeat-testing patterns and performance as a function of income, race, or parental education combinations;
- Determining detailed relationships between type of testing program (e.g., national, state, district) and repeat-testing patterns and performance; and
- Determining how student characteristics interact with time between testing sessions, measured monthly, to impact repeat-testing gains.