

# Do we know if students are ready for college?

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ACT established its College-Ready Benchmarks in a study conducted in 2005 with about 50 four-year colleges and 50 two-year colleges. They compared students' ACT subject area scores to the probability of earning an A or B grade in a corresponding course in college. ACT English scores were compared to college English Composition grades. ACT Math scores were compared with College Algebra grades. ACT Reading scores were compared with a variety of Social Science courses (psychology, sociology, history, etc.). ACT Science scores were compared with college Biology grades. According to ACT, students who meet a Benchmark on the test have about a 50% chance of earning a B or better in the corresponding college course or courses. For English (college English Composition), the ACT Benchmark score was 18; for Math (college Algebra) it was 22; for Reading (selected college Social Science courses), it was 21, and for Science (college Biology), it was 24.

Researchers in the field have pointed out the limitations of the study that established ACT's College-Ready Benchmarks. Some of the most commonly cited limitations include:

- Different grading practices within and among departments (e.g., 61% of students earned an A or B in English Composition while only 45% earned an A or B in Biology).
- Different grading practices among colleges (e.g., in 25% of institutions students with ACT English score of 11 or below were deemed "College-Ready" and in 25% of institutions students with ACT English scores of 20 or higher were deemed "College-Ready.")
- Difference between students taking College Algebra (median ACT score 20) and those taking Biology (median ACT score 23).
- Differences in college placement tests and their impact on assignment to remedial courses.
- Possible impact of the difference in sample size for English Composition (76,000) and Biology (14,000).
- Lack of alignment of the ACT Science test (mostly scientific reasoning) and Biology grades (much more specific content) that results in a Benchmark of 24 which is at the 80<sup>th</sup> percentile rank nationally which means that only 20% of students nationally are "College-Ready."

While ACT scores can be useful, each Benchmark creates a line in the sand between "ready" and "not ready" that is counterproductive. The distinction becomes even less meaningful when one creates four of those lines (one each for English, Math, Reading and Science) and then pronounces that a student is or is not "College-Ready" when all four Benchmarks are or are not met (see graph below). Isn't this a case of quadruple jeopardy? There is a real danger that students who are told they are not "college-ready" may elect not to attend college when they would have been very likely to succeed.

The ACT College-Ready Benchmarks are too imprecise for high-stakes decision-making. In ACT's study, more students who had been told they **were not** college-ready went on to earn an A or B in Biology than students who had been told they **were** college-ready went on to earn an A or B in Biology. To announce that only 15% of Michigan students are "College-Ready" is misleading - unless one begins by explaining that if Michigan students' ACT scores were just like those of other U.S. students, the percentage deemed to be "College-Ready" could not be higher than 20% since one of the four Benchmarks is at the 80<sup>th</sup> percentile rank nationally.

The State Board of Education has directed the MDE to conduct a study of the relationship between ACT scores and college grades with Michigan students and Michigan post-secondary institutions. Unfortunately, many of the problems cited above will render the results of that study less than helpful for evaluating the quality of K-12 educational programs. There are simply too many variables that impact college grades that have nothing to do with high school achievement.

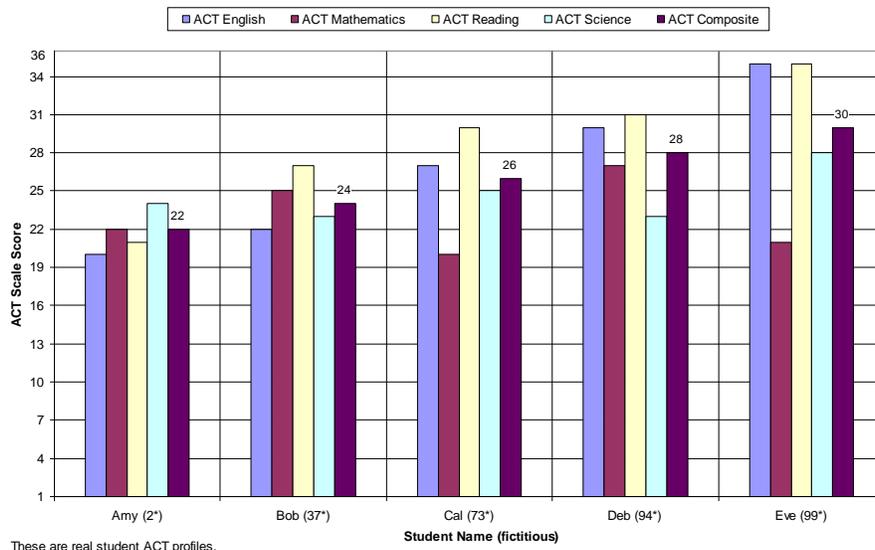
The Michigan Department of Education (MDE) recommended that Michigan Educational Assessment Program (MEAP) tests that are administered in grades 3 through 8 also need to be aligned to the College Ready standards defined in the ACT score/college grade study. There is some evidence that MEAP performance standards (cut-scores) are low in relation to those of other states. The National Assessment of Educational Progress (NAEP) is administered to students in all states. It provides an alternate approach to resetting Michigan’s performance standards. One of its great advantages is that it is administered at grades 4, 8, and 12, not just at grade 11, when the ACT is administered. It would not be necessary to use statistical methods to extrapolate from the 11<sup>th</sup> grade to the 3<sup>rd</sup> grade, as is the case when beginning with the ACT Benchmarks.

The education community knows how this should be done. The National Common Core Standards, which has already been adopted by Michigan, are written to “College and Career Readiness.” Curriculum and assessments are being constructed to help implement these higher standards across all the grades. The common core standards assessments that will be in place in 2014 will more accurately measure these new college readiness standards. Predicting college readiness using a sampling of college grades is a wrongheaded approach at every level – except two: it is faster and cheaper than the right way to assess and benchmark what high school students know and are able to do.

### Example

Using the ACT scores shown below, circle the name of the student who is “College-Ready” according to ACT College-Ready Benchmarks.

**To read the chart:** Amy’s ACT English score was 20; her math score was 22; her reading score was 21; her science score was 24; and her ACT Composite was 22.



\* Percent of students with same composite score who meet all 4 ACT College-Ready Benchmarks.

Yes, using ACT Benchmarks only, Amy is the student who is classified as College-Ready.