

# Providing Context for College Readiness Measures: College Enrollment and Graduation Projections for the 2015 High School Graduating Class

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ACT recently released *The Condition of College & Career Readiness 2015*. The *Condition* report provides insights into the college readiness levels of students from the 2015 high school graduating class who took the ACT® test. Nationally, 1,924,436 high school seniors took the ACT, representing approximately 59% of the 2015 US graduating class. For this cohort, 31% met none of the ACT College Readiness Benchmarks, 15% met one, 14% met two, 12% met three, and 28% met all four.

Prior research has shown that students who meet the ACT College Readiness Benchmarks are less likely than those who do not meet the Benchmarks to take remedial coursework in English or mathematics.<sup>2</sup> Students meeting the Benchmarks have also been found to be more likely to enroll in college the fall following high school graduation, persist to a second year at the same institution, earn a grade of B or higher in selected first-year college courses, earn a first-year college grade point average of 3.0 or higher, and complete a degree.<sup>3</sup> Moreover, as the number of Benchmarks met increases, students' likelihood of achieving these outcomes also increases.

In this brief, we help put the college readiness levels of the 2015 ACT-tested high school graduating class into context by examining what these levels likely translate into in terms of later

college outcomes. Specifically, we report projected enrollment and degree completion counts and rates by the number of Benchmarks students met. We also provide the technical details about the data sources we used and the assumptions we made in estimating the projections.

## Method

Projected enrollment and degree completion counts and rates by the number of ACT College Readiness Benchmarks met were estimated nationally for the 2015 ACT-tested high school graduating class based on rates observed and derived from earlier cohorts of ACT-tested students; college enrollment and graduation data on earlier cohorts was provided by the National Student Clearinghouse (NSC). Immediate enrollment rates at two- and four-year institutions were based on the observed rates for the entire 2014 ACT-tested high school graduating class.<sup>4</sup> Immediate enrollment is defined as enrolling in college the fall following high school graduation. Research has found that a nontrivial percentage of ACT-tested students delay their postsecondary enrollment; delayed enrollments were not accounted for in the reported projections.<sup>5</sup>

Degree completion rates were estimated using a sample of roughly 25,000 students from the 2003 ACT-tested high school graduating class.<sup>6</sup> A stratified random sample was drawn to ensure

The **ACT College Readiness Benchmarks** are scores on the ACT subject area tests that represent the level of achievement required for students to have a 50% chance of obtaining a B or higher or about a 75% chance of obtaining a C or higher in corresponding credit-bearing first-year college courses.<sup>1</sup> The Benchmarks correspond to scores of 18, 22, 22, and 23 on the ACT English, mathematics, reading, and science tests, respectively.

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representation of all ACT-tested students from the 2003 cohort. Student weighting was applied to further ensure that the sample reflected the population.<sup>7</sup> However, if data were available for the entire 2003 cohort or for a more recent ACT-tested cohort, the estimated graduation rates might differ from those used in the projections. For students who initially enrolled in a four-year postsecondary institution, six-year bachelor's degree completion rates were estimated. For students who initially enrolled in a two-year postsecondary institution, six-year associate's or bachelor's degree completion rates were estimated. A relatively small percentage of students (fewer than 4%) who initially enrolled in a four-year institution completed only an associate's degree; these cases were not accounted for in the reported projections.

NSC collects enrollment and degree attainment data from over 3,600 public and private colleges and universities enrolling 98% of all students in the United States.<sup>8</sup> Using NSC data allows for tracking students across institutions so that degree attainment

is not restricted to completion from the initial institution attended.

## Results

Table 1 provides the projected enrollment and graduation counts and rates by the number of ACT College Readiness Benchmarks met for the 2015 ACT-tested high school graduating class. The table illustrates how the type of institution initially attended was taken into account in the calculations. Note that actual enrollment and graduation rates for the 2015 cohort may vary from the numbers reported here: enrollment and graduation projections are based on enrollment and degree completion patterns of earlier cohorts of students as described in the Method section.

Projected enrollment results for the 2015 ACT-tested high school graduating class suggest:

- Approximately 282,000 (or 47%) of the more than 600,000 students not meeting any Benchmarks will enroll in a postsecondary institution in fall 2015. A

somewhat comparable number of these students will initially enroll in a two-year institution as in a four-year institution.

- Approximately 458,000 (or 86%) of the more than 532,000 students meeting all four Benchmarks will enroll in a postsecondary institution in fall 2015, with thirteen times more students initially enrolling in a four-year than a two-year institution.
- As the number of Benchmarks met increases, projected enrollment rates increase. Moreover, students are more likely to enroll at four-year institutions than at two-year institutions as the number of Benchmarks met increases.
- Roughly nine out of every ten students meeting all four Benchmarks will immediately enroll in college, compared to only five out of every ten students doing so for those meeting no Benchmarks.
- Approximately 1.3 million (or 69%) of the more than 1.9 million students will immediately enroll in college.

Table 1. Projected Enrollment and Graduation Counts and Rates for the 2015 ACT-Tested High School Graduating Class

ACT College Readiness Benchmarks		Students projected to enroll immediately (fall 2015) <sup>1</sup>			Immediate enrollees projected to graduate in 6 years <sup>2</sup>		
Number of Benchmarks met	Number (%) of students meeting Benchmarks	Number (%), 2-year institution	Number (%), 4-year institution	Total %	Number (%), 2-year institution	Number (%), 4-year institution	Total % enroll and graduate <sup>3</sup>
0	600,333 (31%)	138,076 (23%)	144,079 (24%)	47%	41,422 (30%)	63,394 (44%)	17%
1	289,373 (15%)	63,662 (22%)	136,005 (47%)	69%	22,281 (35%)	70,722 (52%)	32%
2	261,828 (14%)	44,510 (17%)	154,478 (59%)	76%	18,694 (42%)	92,686 (60%)	43%
3	240,437 (12%)	31,256 (13%)	163,497 (68%)	81%	15,002 (48%)	109,542 (67%)	52%
4	532,465 (28%)	31,947 (6%)	425,972 (80%)	86%	17,570 (55%)	315,219 (74%)	62%
Total	1,924,436	309,451 (16%)	1,024,031 (53%)	69%	114,969 (37%)	651,563 (64%)	40%

<sup>1</sup> Projected percentage of students from the 2015 ACT-tested cohort who will immediately enroll in college.

<sup>2</sup> Projected percentage of college enrollees from the 2015 ACT-tested cohort who will complete a degree in six years by institution type.

<sup>3</sup> Projected percentage of students from the 2015 ACT-tested cohort who will immediately enroll in college and complete a degree in six years.

Figure 1. For an alternative presentation of the data in this brief, see ACT Data Byte 2015-5.<sup>9</sup>



Projected degree completion results for the 2015 ACT-tested high school graduating class suggest:

- Approximately 105,000 (or 17%) of the more than 600,000 students meeting no Benchmarks will immediately enroll in college and complete a degree within six years.
- Approximately 333,000 (or 62%) of the more than 532,000 students meeting all four Benchmarks will immediately enroll in college and complete a degree within six years.
- Roughly six out of every ten students meeting all four Benchmarks will immediately enroll in college and complete a degree within six years, but only two out of every ten students meeting no Benchmarks will do the same.
- As the number of Benchmarks met increases, projected completion rates increase.
- Approximately 767,000 (or 40%) of the more than 1.9 million students will immediately enroll in college and complete a degree within six years.

### Summary

This brief provides a frame of reference for interpreting the college readiness levels of the 2015 ACT-tested high school graduating class by connecting their aggregated college readiness levels to important college outcomes.

Actual graduation rates for the 2015 cohort will not be available until 2021 and may vary from the projections reported here. The projections were estimated using enrollment and degree completion rates and patterns of earlier cohorts of students that may not be representative of rates that will be seen for the 2015 cohort—especially the graduation rates, which were based on a cohort that graduated from high school more than ten years ago (i.e., the 2003 ACT-tested cohort). That said, the projections provide additional insights into what the college readiness levels of the 2015 ACT-tested cohort likely mean in terms of future success in college.

A majority of students from the 2015 cohort (86%) aspire to earn a college degree. The enrollment and graduation projections suggest that for many of these students, their educational goals will go unfulfilled. This is especially the case for the students not meeting any ACT College Readiness

Benchmarks, many of whom (nearly 80%) indicated they have degree aspirations. Yet it is projected that only 17% of them will immediately enroll in college after high school and complete a degree six years later. Many students who did not meet any Benchmarks will likely be required to take remedial coursework. Because remedial courses are often not credit-bearing, having to take them can delay students' completion and increase the cost of educational programs. The results underscore the importance of ensuring all students graduate from high school academically prepared so they are equipped to achieve their post-high school educational goals. Improving the college readiness levels of high school graduates has the potential to increase the nation's college degree completion rates and to build a more highly skilled and productive workforce.

Clearly, there are other factors related to college enrollment and degree completion. For instance, only 62% of the 2015 ACT-tested high school graduating class meeting all four ACT College Readiness Benchmarks are projected to enroll in college immediately and complete a college degree within six years. A growing body of literature indicates that educational success is a product not only of academic skills and knowledge but also of noncognitive factors, including motivation, academic goals, and students' vocational interests.<sup>10</sup> Findings from another recent study of 2013 ACT-tested high school graduates suggest that students continue to need education and guidance in the following areas: preparing better academically for college, knowing what it means to be ready for college, developing strong academic behaviors, starting the college and career planning process earlier, and finding the help and support they need to pursue and achieve their educational goals.<sup>11</sup> ■

## Notes

- 1 Jeff Allen, *Updating the ACT College Readiness Benchmarks*, ACT Research Report 2013-6 (Iowa City, IA: ACT, 2013). [http://www.act.org/research/researchers/reports/pdf/ACT\\_RR2013-6.pdf](http://www.act.org/research/researchers/reports/pdf/ACT_RR2013-6.pdf).
- 2 ACT, *Mind the Gaps: How College Readiness Narrows Achievement Gaps in College Success* (Iowa City, IA: ACT, 2010). <http://www.act.org/research/policymakers/pdf/MindTheGaps.pdf>.
- 3 ACT, *Mind the Gaps*; Justine Radunzel and Julie Noble, *Tracking 2003 ACT-Tested High School Graduates: College Readiness, Enrollment, and Long-Term Success*, ACT Research Report 2012-2 (Iowa City, IA: ACT, 2012), [http://www.act.org/research/researchers/reports/pdf/ACT\\_RR2012-2.pdf](http://www.act.org/research/researchers/reports/pdf/ACT_RR2012-2.pdf); ACT, *Readiness Matters: The Impact of College Readiness on College Persistence and Degree Completion*, (Iowa City, IA: ACT, 2013), <http://www.act.org/research/policymakers/pdf/ReadinessMatters.pdf>.
- 4 Enrollment rates overall and by institution type were evaluated descriptively by the number of Benchmarks met for the 2014 ACT-tested high school graduating class. Comparable rates were also observed for the 2012 and 2013 ACT-tested cohorts.
- 5 ACT, *Mind the Gaps*, 12.
- 6 Weighted hierarchical logistic models for degree completion were estimated as a function of the number of ACT College Readiness Benchmarks met that accounted for postsecondary institution attended. Specifically, a random-intercept model, in which the intercept but not the slope was allowed to vary across institutions, was estimated. Separate models were developed for each type of institution (2- or 4-year institution). The estimated degree completion rates from these models can be interpreted as the typical rates across institutions.
- 7 The sample and weighting procedure are described in Radunzel and Noble, *Tracking 2003 ACT-Tested High School Graduates*. Modeled rates here are based on the updated ACT College Readiness Benchmarks reported in Allen, *Updating the ACT College Readiness Benchmarks*. As a result, the modeled degree completion rates differ slightly from those reported in the original 2012 study by Radunzel and Noble.
- 8 NSC's coverage of enrollments at all postsecondary, Title IV, degree-granting institutions has increased over time. Details on NSC's coverage over time is available at <http://nscresearchcenter.org/workingwithourdata/>.
- 9 Justine Radunzel and Krista Mattern, *Students who Graduate High School College-Ready are More Likely to Enroll in College and Earn a Degree* (Iowa City, IA: ACT, 2015). <http://act.org/research/researchers/briefs/2015-5.html>.
- 10 Krista D. Mattern, Jeremy Burrus, Wayne J. Camara, Ryan O'Connor, James Gambrell, Mary Ann Hanson, Alex Casillas, and Becky Bobek, *Broadening the Definition of College and Career Readiness: A Holistic Approach*, ACT Research Report 2014-5 (Iowa City, IA: ACT, 2014), [http://www.act.org/research/researchers/reports/pdf/ACT\\_RR2014-5.pdf](http://www.act.org/research/researchers/reports/pdf/ACT_RR2014-5.pdf); Jeff Allen and Steve Robbins, "Effect of Interest-Major Congruence, Motivation, and Academic Performance on Timely Degree Attainment," *Journal of Counseling Psychology* 57, no. 1 (2010): 23–35. doi: 10.1037/a0017267.
- 11 Justine Radunzel, *Informing Educational Planning and Advising for Students from At-Risk Demographic Groups*, (Iowa City, IA: ACT, 2015). <http://www.act.org/research/policymakers/pdf/Informing-Ed-Planning-Report.pdf>.