Predicted Attainment of ACT National Career Readiness Certificates for the 2016 ACT-tested High School Cohort

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The ACT National Career Readiness Certificate™ (NCRC®) is a foundational career readiness skills credential applicable to a wide variety of jobs. The NCRC is issued in four levels based on examinee level scores on three ACT WorkKeys® assessments: Applied Mathematics, Reading for Information, and Locating Information:

Certificate Level	Level Score
Platinum	6 or above on all three tests
Gold	5 or above on all three tests
Silver	4 or above on all three tests
Bronze	3 or above on all three tests

The three skills included in the NCRC have been consistently identified as important for success in a broad range of jobs, making them "essential" foundational skills for career readiness.[1] Research has found that individuals who achieve higher NCRC levels meet the skill level requirements for a higher percentage of jobs in the U.S.[2]

Beginning in fall 2015, score reports for the ACT test include *Progress Toward Career Readiness*, which indicates the NCRC level students are progressing toward based on their ACT Composite score. For example, students are reported to be progressing toward the NCRC Gold level if they exceeded the ACT Composite score linked to the NCRC Silver level. The linkage of ACT Composite scores to NCRC levels was based on a large sample of students who took the ACT and the NCRC tests as 11th graders.[3] However, the *Progress Toward Career Readiness* indicator does not necessarily reflect a student's expected NCRC level, as many students can exceed the cut score of a NCRC level but have a low likelihood of reaching the next level. The purpose of the current report is to compare the *Progress Toward Career Readiness* results to predicted NCRC level results to highlight this distinction and provide the predicted distribution of NCRC levels for the 2016 ACT-tested high school graduating class.

Using the same sample used to develop the linkage of ACT Composite scores to NCRC levels, we plotted the percentage of students earning each NCRC level, by ACT Composite score (Figure 1). This relationship between ACT Composite score and NCRC levels can be used to predict NCRC levels for the 2016 ACT-tested high school graduating class. For example, among students with an ACT Composite score of 17, 0% are predicted

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Figure 1: Relative Frequency of ACT NCRC Levels, by ACT Composite Score
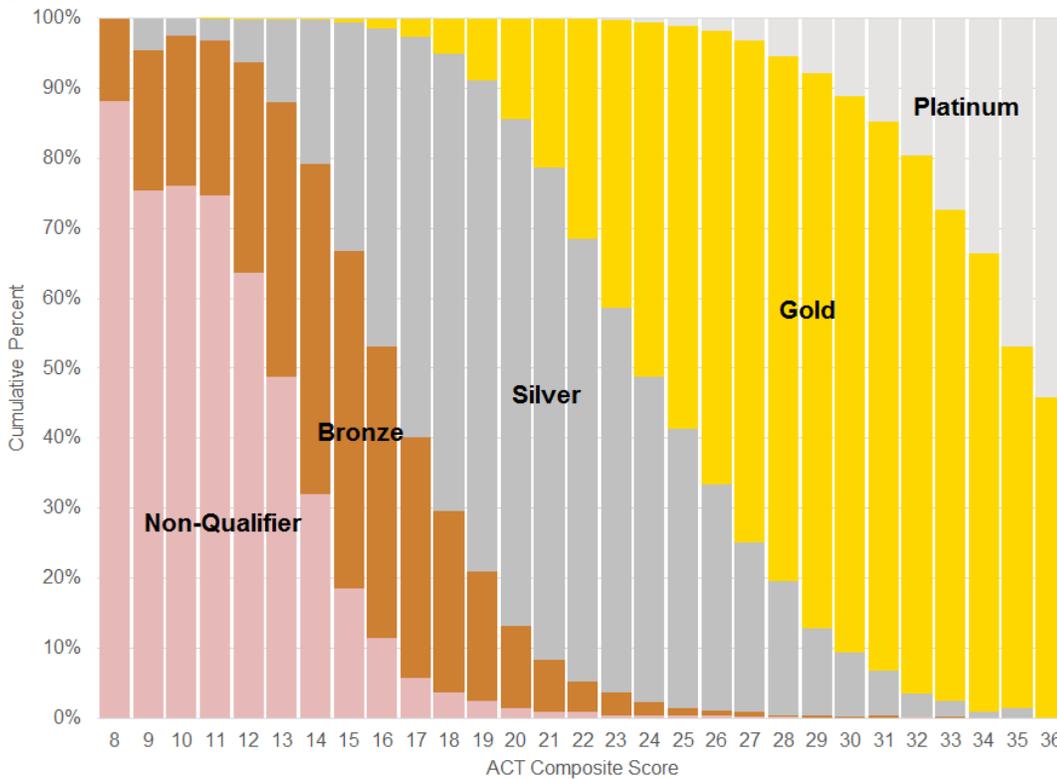
Note: Based on a sample of over 110,000 11th grade students. Percentages are plotted for ACT Composite scores with a sample size of at least 10.

to earn NCRC Platinum, 3% Gold, 57% Silver, 34% Bronze, and 6% no certificate. As ACT Composite score increases, a larger share of students are predicted to earn NCRC Gold or Platinum.

For the 2016 ACT-tested high school graduating class, we found that 31% are predicted to earn NCRC Gold or Platinum, 42% Silver, 18% Bronze, and 9% would not qualify for any of the NCRC levels (Figure 2).[4] These predictions assume that the relationship between ACT Composite score and NCRC level that was observed in the special sample will apply to the entire

ACT-tested high school graduating class.

The predicted NCRC level distribution can be compared to the percentage of students at each *Progress Toward Career Readiness* level (Figure 2). The percentage of students in the Gold/Platinum level for *Progress Toward Career Readiness* (68%) is much higher than the predicted percentage of students at that level (31%). This difference is caused by differences in how the percentages are defined: The *Progress Toward Career Readiness* Gold level percentage counts all students with ACT Composite

scores of 18 and higher, as an ACT Composite score of 17 is linked to a 50% chance of earning Silver or higher. In contrast, the predicted percentage at the Gold level is determined by weighting each student as "Gold" according to the relative frequency of Gold at the student's ACT Composite score (Figure 1). In sum, the predicted NCRC levels provide a summary measure of the career readiness of the ACT-tested cohort.[5] ■

Figure 2: Distributions of *Progress Toward Career Readiness* and Predicted NCRC Levels, 2016 ACT-tested High School Cohort
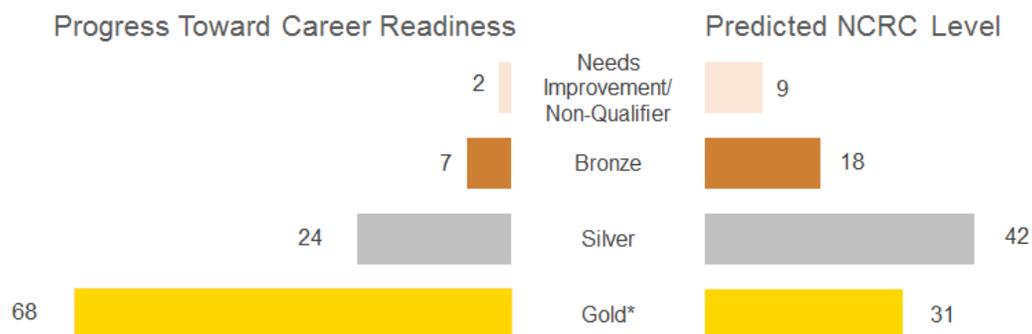
Note: Gold and Platinum NCRC levels are combined for the predicted NCRC levels.

Notes

[1] Analysis of the ACT JobPro® database has found that three ACT WorkKeys cognitive skill areas – Reading for Information, Locating Information, and Applied Mathematics – are most often determined via the job profiling process to be important for job and task performance (*JobPro skill analysis.* 2011, ACT).

[2] https://www.act.org/content/dam/act/unsecured/documents/WK-Brief-NCRCRequirements.pdf

[3] Details of the ACT-NCRC linkage study are available in Chapter 15 of the 2016 ACT Aspire Technical Manual.
https://www.discoveractaspire.org/wp-content/uploads/2016/08/ACT-Aspire-Summative-Technical-Manual.pdf

[4] Alternatively, the percentage of students predicted to reach each NCRC level could have been calculated using a similar methodology as to that employed for the ACT College Readiness Benchmarks. Based on the cut scores derived in the linking study that identified the ACT Composite score associated with a 50% probability of earning that level or higher, the percentage of students falling within that range could be computed. Specifically, the cut scores from the linking study were 13 for Bronze, 17 for Silver, 25 for Gold, and 35 for Platinum. Therefore, students who earned an ACT Composite score of <13 would be classified as Non-Qualifier, 13 to 16 as Bronze, 17 to 24 as Silver, and 25 or higher as Gold or Platinum. Using that methodology, we get similar but slightly different results than the predicted NCRC levels presented in Figure 2: 26% Gold or Platinum, 49% Silver, 22% Bronze, and 4% Non-Qualifier. For comparison, the ranges used to classify students' *Progress Toward Career Readiness* are: <12 as Needs Improvement, 12 to 13 as Bronze, 14 to 17 as Silver, and 18 or higher as Gold.

[5] For more information on career readiness among individuals who took ACT's WorkKeys assessments, please see ACT's report *The Condition of Career Readiness in the United States 2015*.
http://www.act.org/content/dam/act/unsecured/documents/CareerReadinessinUS-2015.pdf. The predicted NCRC level distribution for the 2016 ACT-tested high school graduating class can be compared to the distribution of actual NCRC levels among high school examinees between 2010 and 2014 (Figure 8 of *The Condition of Career Readiness in the United States 2015*). The 2016 ACT-tested high school graduating class is predicted to have a higher percentage of Gold and Platinum certificates, reflecting achievement differences between ACT-tested students across the nation and NCRC-tested high school examinees.