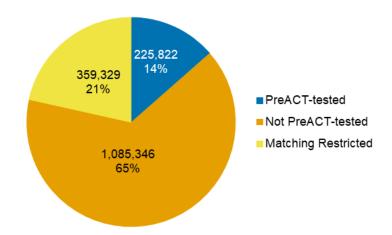# PreACT-Tested Students in ACT's 2020 Graduating Class: A Summary of Performance and Growth

Jeff M Allen, PhD

Among students in the 2020 ACT-tested graduating class, over 225,000 took the PreACT® test before taking the ACT® test. Because some state contracts and data privacy laws restrict matching ACT and PreACT records, the actual number of students who took the PreACT and ACT is higher.

Figure 1. Number of Students in 2020 ACT-Tested Graduating Class by PreACT Testing Status

Note: N = 1,670,497 for the entire 2020 ACT-tested graduating class

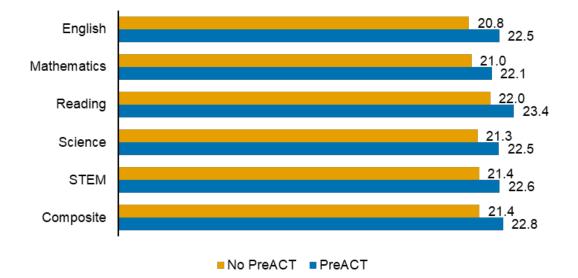## Finding 1: PreACT-tested students scored higher on the ACT test.

The average ACT score for students who took the PreACT was higher than the average ACT score for students who did not (Figure 2). Results varied across states, but on average the state mean ACT Composite score was 22.8 for students who took the PreACT and 21.4 for students who did not.

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Figure 2. Mean ACT Scores by PreACT Testing Status

Note: For each state, mean ACT scores were obtained for students who took the PreACT test and for those that did not. The mean scores were then averaged across 36 states to produce Figure 2. Each of the 36 states had at least 1,000 PreACT-tested students in the 2020 ACT graduating class.

The difference in mean scores ranged from 1.1 for mathematics to 1.7 for English (Figure 3). The PreACT and No PreACT groups are not randomly equivalent groups. Differences between the two groups may be due to factors other than taking the PreACT test. After being statistically adjusted for high school grades and course rigor, student demographics (gender, race/ethnicity, and family income), high school characteristics, and months remaining until high school graduation (determined by ACT test date), the differences in mean scores are smaller. The adjusted difference in ACT Composite score is 0.4 points.
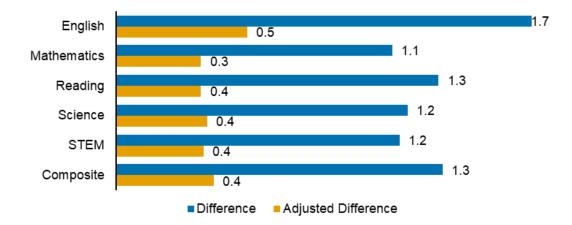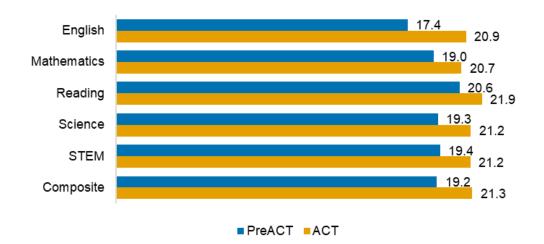
Figure 3. Difference in Mean ACT Scores (PreACT Group – No PreACT Group)

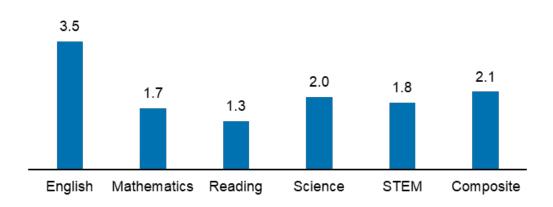
Note: Results are averaged across 36 states.

Finding 2: Average gain from the PreACT to the ACT varies across subjects.

The average gain from the PreACT test to the ACT test varied across subjects from a low of 1.3 points in reading to a high of 3.5 in English.

Figure 4. Average PreACT and ACT Test Scores

Figure 5. Average Gains from the PreACT to the ACT Test

Finding 3: Average gain from the PreACT to the ACT increases with course rigor and performance.

The average Composite score gain steadily increased with grades earned and rigor of high school coursework.
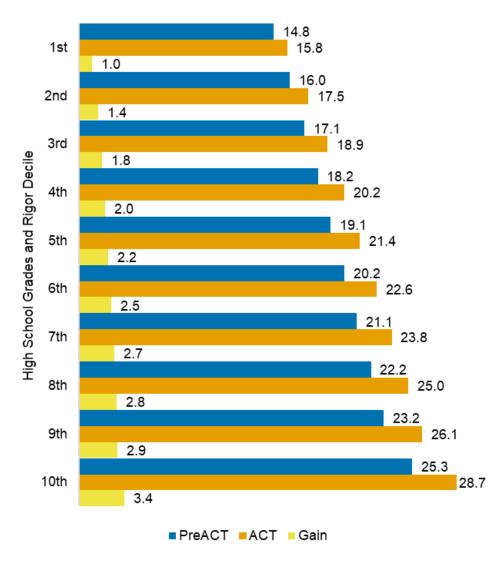
Figure 6. Average PreACT, ACT, and Gain Scores by High School Grades and Rigor Decile

Finding 4: Average gains from the PreACT to the ACT are lower for underrepresented racial/ethnic groups, but much of the difference is explained by course performance, rigor, and school characteristics.

The average Composite score gain from the PreACT test to the ACT test varied across racial/ethnic groups from a low of 1.3 points for Native American students to a high of 3.2 for Asian students. After being statistically adjusted for high school grades and course rigor, high school characteristics, and number of months between tests, the differences in average gains across racial/ethnic groups are much smaller.
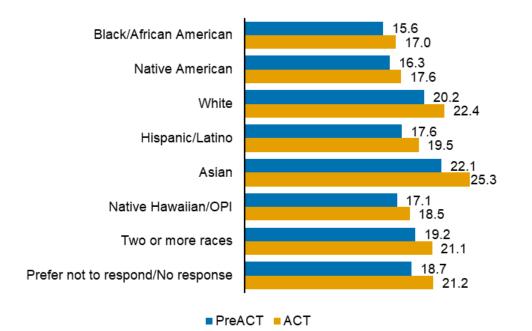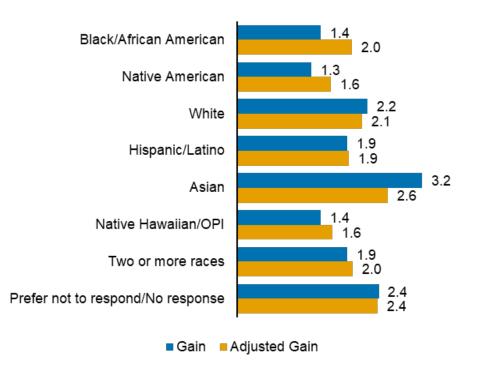
Figure 7. Average PreACT and ACT Composite Scores by Race/Ethnicity

Figure 8. Average Composite Gains by Race/Ethnicity

Finding 5: Average gains from the PreACT to the ACT increased with family income level, but much of the increase is explained by course performance, rigor, and school characteristics.

The average Composite score gain from the PreACT test to the ACT test increased with family income. After being statistically adjusted for high school grades and course rigor, high school characteristics, and number of months between tests, the differences in average gains across income groups are smaller.
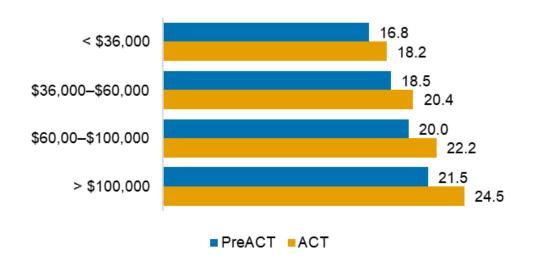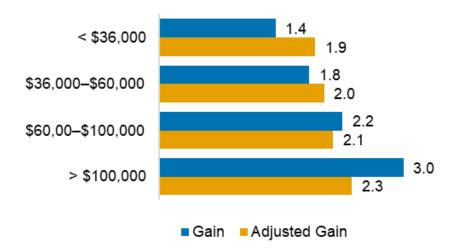
Figure 9. Average PreACT and ACT Composite Scores by Family Income

Figure 10. Average Composite Gains by Family Income

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Jeff Allen is a statistician and director in Validity and Efficacy Research. He specializes in longitudinal research of educational outcomes, student growth models, and validation of college readiness measures.