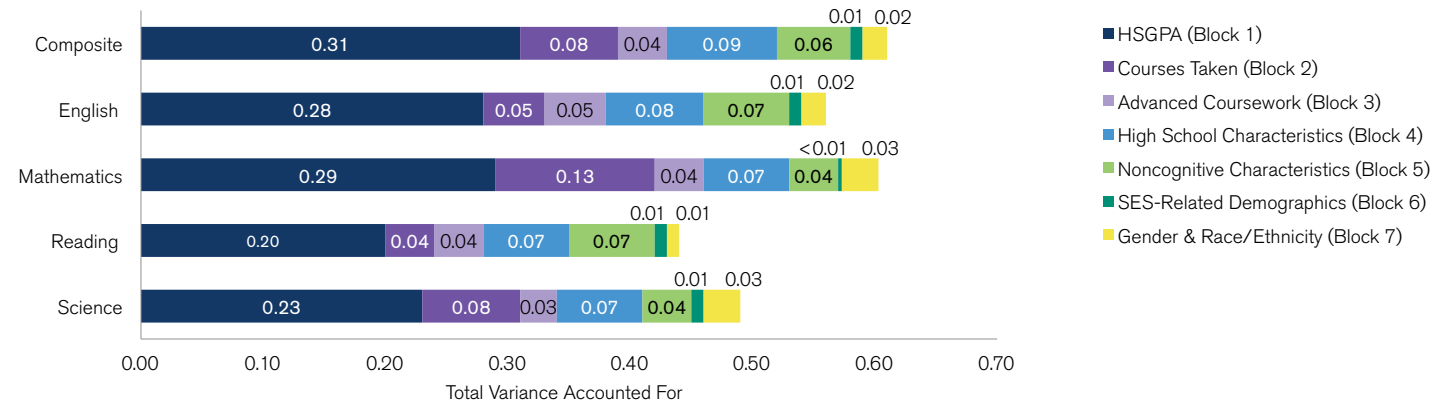


# Relating Student and School Characteristics to Performance on the ACT®

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## Proportion of Variance in ACT Scores Explained by Student and School Characteristics



Note: Results are based on 6,440 high school seniors from 4,541 schools who took the ACT in the fall of 2012 and completed an online questionnaire. For a more detailed description of the study results including the specific variables that entered the models and their corresponding parameter estimates, see [A Multidimensional Perspective of College Readiness](#).

In light of the growing interest for evaluating both cognitive and noncognitive measures to obtain a more holistic view of college readiness, a recent study examined the contributions of students' noncognitive characteristics toward explaining performance on the ACT® test, over and above traditional predictors such as high school grade point average (HSGPA), coursework taken, and school characteristics.<sup>1</sup>

About 35% to 52% of total variance in ACT scores was explained by HSGPA, courses taken, advanced coursework, and high school characteristics. After accounting for these traditional predictors, students' noncognitive factors explained between 4% and 7% of the variance in ACT scores. These noncognitive characteristics included indicators of needing help in improving subject-related academic skills; educational plans; parental involvement; perceptions of education; and taking the ACT prior to senior year. Socioeconomic

status and other demographic characteristics accounted for less variance in ACT scores (4% or below), after controlling for other student and school characteristics.

The results from this study may help provide better context and guidance for the interpretation of college readiness measures, and may also contribute to a more holistic understanding of college readiness. This perspective is important in order to better understand the multidimensional nature of college and career readiness and subsequent success. The results also highlight the limited variance accounted for by demographic variables, after controlling for relevant student and school characteristics, and shed light on why subgroup differences in ACT scores may exist. ■

<sup>1</sup> Daniel M. McNeish, Justine Radunzel, and Edgar Sanchez, *A Multidimensional Perspective of College Readiness: Relating Student and School Characteristics to Performance on the ACT*, ACT Research Report No. 2015-6 (Iowa City, IA: ACT, Inc., 2015).

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