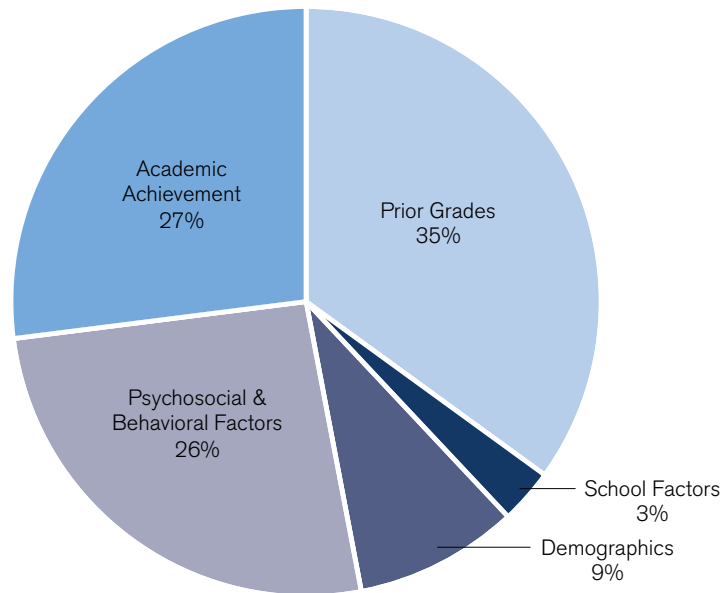


The Relative Importance of Middle School Academic and Psychosocial Characteristics in Predicting Twelfth-Grade High School GPA

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Relative Importance of Predictors of Twelfth-Grade Cumulative High School GPA



Note: The data used for this analysis came from a longitudinal sample of 3,768 students from 21 schools who took both ACT Explore and ACT Engage Grades 6–9 in 2006, when most students were in eighth grade. Additional waves of data were collected each fall, ending in 2011, when most students should have graduated from high school. The percentages show the percent of the total variance in the model accounted for by each predictor, a measure of the strength of the relationship between the predictors and twelfth-grade GPA. The total variance explained in the dominance analysis, a technique that allows us to compare the relative importance of the set of predictors in the model, was $R^2 = 0.51$.

One of the most important predictors of on-time high school graduation is high school grades. Knowing which student characteristics are important predictors of future grades is an essential step toward developing a system to identify at-risk students and providing the support they need to be successful.

A longitudinal research study found that in eighth grade, the most important predictor of twelfth-grade GPA was student grades (accounting for 35% of the model), followed by academic achievement (27%, measured by ACT Explore®) and psychosocial and behavioral factors (26%, measured by ACT Engage® Grades 6–9).¹ Demographics (gender, race/ethnicity, and parent education)

and school factors (percent free or reduced lunch-eligible and percent minority) were less important predictors, together accounting for 12% of the model.

These findings underscore the value of using multiple measures, including academic achievement and behaviors, to provide a more holistic approach to assessment that can better assist students in developing the knowledge and skills needed for success. ■

¹ Joann L. Moore, Jason D. Way, Alex Casillas, Jeremy Burrus, Jeff Allen, and Mary Ann Hanson, *Effects of Psychosocial Characteristics of Middle School Students on High School Grades and On-Time Graduation*, ACT Working Paper 2015-07 (Iowa City, IA: ACT, 2015), <http://www.act.org/research/papers/pdf/WP-2015-07.pdf>.

Earlier grades are the best single predictor of later grades.

Academic achievement and psychosocial factors also are important predictors of high school GPA.

These findings supplement previous ACT research suggesting that a combination of academic and psychosocial factors play a role in helping prepare students for success.

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