

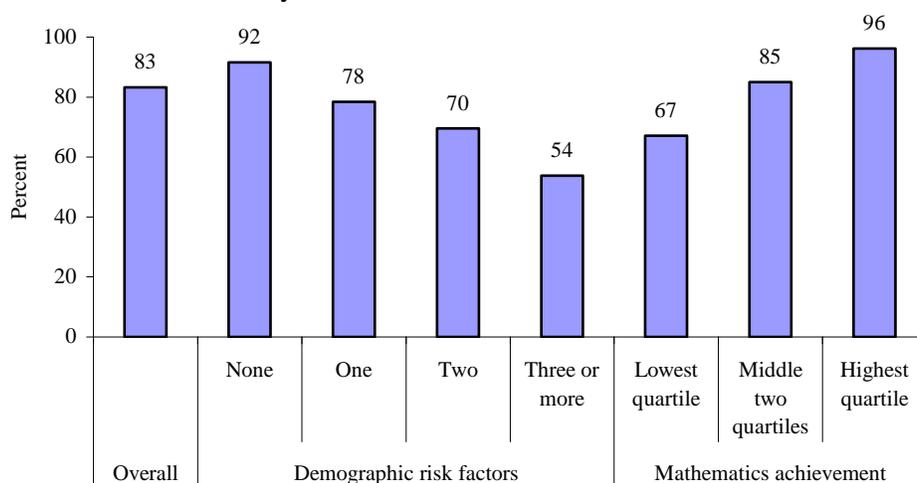
Early Predictors of High School Graduation and Dropout

By Russell W. Rumberger

Research has found that as early as elementary school, dropouts differ from students who graduate from high school. If schools could identify students at risk of dropping out early in their educational careers, then early interventions could be developed to help such students. This statistical brief examines some early predictors of high school graduation and dropout, focusing on the middle school years.

Two types of factors predict whether students are likely to graduate from high school. One concerns *demographic factors*. A longitudinal study of 8th-grade students found that only 50% of the students with three or more demographic risk factors completed high school. Those risk factors are defined as: (1) being from a single-parent household; (2) having parents who did not graduate from high school; (3) having an older sibling who dropped out of school; (4) spending three or more hours home alone after school per day; (5) being a limited-English-proficient student; and (6) coming from a low-income family (see Figure 1). But such factors are not useful for designing interventions because schools have little control over them. The other type concerns *student performance factors*, such as grades and test scores, which can provide an early warning system for schools. The same longitudinal study of 8th-grade students found that only 67% of students with the lowest mathematics achievement graduated from high school, compared to 85% of students with average achievement.

Figure 1
Percentage of U.S. 8th Graders (Class of 1992) Who Earned a High School Diploma as of 2000, by Selected 8th-Grade Characteristics

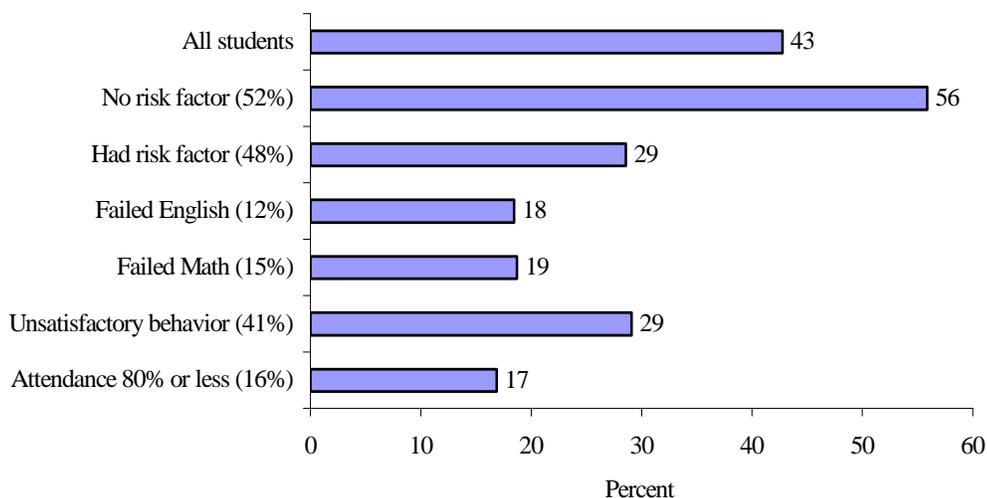


SOURCE: Steven J. Ingels, Thomas R. Curtin, Phillip Kaufman, Martha N. Alt, and Xianglei Chen, *Coming of age in the 1990s: The eighth-grade class of 1988 12 years later* (Washington, D.C.: U.S. Department of Education, National Center for Education Statistics, 2002). Retrieved July 13, 2007 from:

<http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2002321>

Research has found a number of student performance measures can predict the risk of dropping out. A recent study in Philadelphia found that 48% of all sixth-grade students had four school-related risk factors—course failures in English and math, unsatisfactory behavior, and poor attendance—that were all associated with an increased risk of not completing high school (see Figure 2).

Figure 2
 Percentage of Philadelphia 6th Graders (Class of 2003) Who Earned a High School Diploma as of 2003-04, by Selected 6th-Grade Risk Factors



SOURCE: Robert Balfanz, and Liza Herzog, *Keeping middle grades students on track to graduation* (2006). Retrieved July 13, 2007 from: http://www.philaedfund.org/powerpoint/dropoutresearch_4.06.ppt

Despite the usefulness of such predictors, they are not perfect. In the Philadelphia study, 41 percent of the sixth-grade students who failed to graduate did not have any of the four risk factors; therefore, an intervention program that only targeted students with those four risk factors would miss a substantial group of would-be dropouts who did not have any of those risk factors. It also means that some of the targeted students would not require an intervention because they would graduate anyway.

Student performance measures are generally available from school data systems. Another source of information on student performance is the classroom teacher. Classroom teachers, especially elementary teachers who generally spend the entire day with their students, have a very good idea of which students are likely to do well in the years ahead. One study found that a composite measure of six classroom behaviors rated by elementary school teachers in the sixth grade was highly predictive of students' performance in middle and high school.¹

¹ Risk was assessed in sixth grade using a teacher rating scale evaluating (1) need for supervision, (2) level of motivation, (3) academic potential, (4) social interaction skill, (5) difficulty-to-teach, and (6) need for special education services. See: Katherine A. Larson and Russell W. Rumberger, *ALAS: Achievement for Latinos through academic success*. In Helen Thorton (Ed.), *Staying in school: A technical report of three dropout prevention projects for middle school students with learning and emotional disabilities* (Minneapolis, MN: University of Minnesota, Institute on Community Integration, 1995).