

**Highlighting New
Poverty Research****by Nikolas Pharris-Ciurej,
Charles Hirschman, and
Joseph Willhoft**Pharris-Ciurej, N., Hirschman, C., Willhoft, J., The 9th Grade Shock and the High School Dropout Crisis, *Social Science Research* (2011), doi: 10.1016/j.ssresearch.2011.11.014

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The 9th Grade Shock and the High School Dropout Crisis

Background. The American education system has long prided itself on near universal high school graduation rates. But recent research has challenged this interpretation. Several recent studies using school enrollment data suggest that the on-time, or four-year, high school graduation rate is in the range of 65 to 70%, about 15 to 20 percentage points below the estimates based on survey and census data. Survey data tend to overestimate the high school graduation rate because alternative certification, such as GED certificates and delayed graduation, are conflated with on-time high school graduation. The distinction is, however, an important one. GED recipients receive lower wages than on-time high school graduates. Although school administrative data can yield more accurate measurement of progress through high school than do retrospective surveys, the lack of individual-level student data in national administrative data has been an obstacle to panel research. In this study, the authors are able to connect the dots with access to individual-level administrative data. They are able to integrate research on the socio-demographic status of individual students with school records that contain information on grades and progress through high school. In doing so, they find that one important factor in predicting failure in high school is the '9th grade shock,' which they define as a significant decrease in GPA from 8th to 9th grade.

Methods. Using linked individual-level administrative records from a large West Coast metropolitan school district, Nikolas Pharris-Ciurej, Charles Hirschman and Joseph Willhoft track patterns of high school attrition and on-time high school graduation of individual students. The analysis is based on the school records of roughly 9,000 first-time 9th graders from 1994 to 2005. These data allow the authors to track each student from their entry into the school system to their exit or graduation. Also, the student records include information on course history, grades, and basic family background and demographic characteristics, allowing for analyses of the correlations between individual characteristics and high school graduation. The 8,948 first time 9th graders were tracked for six years after enrollment in 9th grade. To estimate the 9th grade shock, the sample for the multivariate analysis was restricted to the 7,441 9th graders that also completed 8th grade in the same school district.

Findings. One of the most important findings in this study is the pervasiveness of failure in high school. In this sample, 14% of first-time 9th graders are retained (held back) and an additional 19% have exited the school district by the end of the second year. Ultimately, less than 50% of students who begin 9th grade graduate in four years from the same district. Taking into account that some students transfer to other school districts, the authors estimate that about 65 to 70% of first time 9th graders will eventually graduate from a high school. Consistent with prior research, the authors show that students from disadvantaged backgrounds and minorities have a much lower graduation rate than do students from higher income families and neighborhoods. For example, students from low-income families are 25% less likely to graduate than those students from non-poor homes. A very common pathway to failure is low grades during the freshman year, generally in the first semester. What is most surprising is that failure in the 9th grade is not always predicted by grades in middle school. Indeed the widespread pattern of significant decrease in GPA from 8th grade to 9th grade, which the authors label as the '9th grade shock,' is the strongest predictor for failure to complete high school. Disadvantaged and minority students are very likely to experience the 9th grade shock, but the pattern affects students from all backgrounds. The authors conclude that the transition from middle school to high school is not working well for many students.

Poverty Research Flash

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Poverty Research Flash 2012-01

The 9th Grade Shock and the High School Dropout Crisis

New research from Nikolas Pharris-Ciurej, Charles Hirschman, and Joseph Willhoft

Key Findings

- Failure in high school is more pervasive than previously thought. Ultimately, fewer than 50% of students who begin 9th grade graduate in four years from the same district. Taking into account that some students transfer to other school districts, the authors estimate that about 65 to 70% of first time 9th graders will eventually graduate from a high school.
- The authors show that students from disadvantaged backgrounds and minorities have a much lower graduation rate than do students from higher income families and neighborhoods, which is consistent with prior research.
- A very common pathway to failure is low grades during the freshman year, generally in the first semester. Surprisingly, failure in the 9th grade is not always predicted by grades in middle school. In fact, the widespread pattern of significant decrease in GPA from 8th grade to 9th grade, which the authors label as the '9th grade shock,' is the strongest predictor for failure to complete high school.