



THE TOOLBOX AND STUDENT AID POLICY

In *The Toolbox Revisited: Paths to Degree Completion from High School Through College*, Clifford Adelman confirms what many in the higher education community have known or suspected for quite some time: there is a relatively narrow academic path that maximizes the likelihood that a student will earn a baccalaureate degree. Steps along this path include a rigorous high school curriculum; immediate full-time attendance, preferably at a four-year college; no stopping out; and summer attendance if needed. We commend the report for once again drawing the nation's attention to the critical importance of the education pipeline.

What the report fails to make clear is that, today, students from high socioeconomic status (SES) backgrounds are still able to follow such a path perhaps ten times more often than students from low SES backgrounds. Compounding that oversight, the study draws two policy inferences that are not supported by the data or methodology:

- SES matters only “modestly” to college degree completion for students in the study.
- SES-related gaps in degree completion can be narrowed if more low SES students can be made to follow the path highlighted in the report, with no allowance made for the financial barriers they face from middle school through adulthood.

These faulty inferences could distract policymakers from the report's useful findings and lead to disastrous policy changes for low SES students. Both inferences result from failing to allow for the consequences of pervasive selection bias compounded by omitted variable bias.

Excluding Low SES Students. *Toolbox Revisited* is upfront about using a nonrepresentative sample of students that screens out a large portion of those with low SES. As indicated in the report, the sample used in the study “constitutes roughly half who reach the 12th grade . . . It does not include students who failed to graduate from high school, those who earned General Education Diplomas (GEDs), those who had not enrolled in any postsecondary institution by the age of 26, and those who entered the postsecondary system but never attended a bachelor's degree-granting institution.” This excludes a very large portion of low SES students—the vast majority of two-year college students, for example. Drawing valid inferences from such a sample about the effect of SES—or any other factor—on degree completion for *either* all students *or* for students in the sample is nearly impossible. There is simply no way to know whether the low SES students in the sample differ from those who were screened out across unmeasured attributes, such as perseverance, quality of academic or financial aid information, intensity of guidance, or completion of a successful early intervention program. Any of these unmeasured attributes could be offsetting strong—not modest—effects of SES on degree completion among the students *in the sample*. This pervasive selection bias also renders invalid the finding that students' early expectations and plans do not matter at all. Inferences, or even speculations, with major policy implications cannot be drawn from such a sample.

Omitting Financial Aid. *Toolbox Revisited* is upfront also about omitting total financial aid as an independent variable or control—because the data are poor. Financial aid is known to be an important factor in student behavior. Omitting it, regardless of the reason for doing so, introduces strong downward bias in estimating the effect of SES on degree completion, even when a random sample of students is used. Omission of financial aid as a variable or control, even though such data are poor or nonexistent, requires that the researcher avoid inferences about the effect of *both* SES and financial aid, and carefully qualify other results. In particular, conclusions about the estimated effects on degree completion of improving rigor of high school curriculum must be accompanied by a disclaimer that financial barriers must also be eliminated for those effects to transpire. Not to do so runs the risk of misleading policymakers to conclude that improvements in academic preparation *alone* can narrow SES-related gaps in college degree completion, when in fact the effects of financial aid were neither estimated nor controlled.

Previous Research. Once again, while the report is to be commended for drawing the attention of policymakers to academic preparation—particularly rigor of high school curriculum—as a critically important step in degree completion, it is important that such findings be placed in proper perspective. A large body of previous research has shown clearly that:

- Students’ academic preparation—high school curriculum, timing and level of enrollment, and academic progress—are themselves determined in large part by SES.
- Financial aid, particularly grant aid, is necessary to offset the effects of low SES, even for students who are *highly academically prepared*.

While *Toolbox Revisited* confirms our understanding that academic preparation is critical to baccalaureate degree completion, it does little to improve our knowledge of factors that compel students to get academically prepared and stay on track in the first place.

In that regard, national longitudinal data arranged in simple descriptive tables show clearly that SES matters greatly at each stage of the education pipeline. From 8th grade through adulthood, the aspirations, expectations, plans, college enrollment, and persistence behavior of low SES students decline steadily relative to their high SES peers—even for students who are college qualified. These descriptive data inform us about how *all* students in the longitudinal sample actually behaved and are absolutely clear in their interpretation. They warn us that our current higher education financing policies may have unintended consequences for degree completion.

Conclusion. Perhaps the best proof *in practice* that financial aid is a necessary condition for both enrollment and degree completion is the recent experience of highly selective private and public colleges. Harvard University, Massachusetts Institute of Technology, University of Virginia, University of North Carolina, and other colleges that admit only the most qualified high school graduates have reached out to enroll more low SES students. In doing so, they have found that large increases in grant aid are required, or even the best prepared low SES students will not enroll and persist to degree completion. The conclusion for public policy is inescapable: the best way to narrow SES-related gaps in baccalaureate degree completion is to increase early information, improve academic preparation, *and* increase financial aid simultaneously.