# Inputs and Students

***Reviewed by Peter Van Doren***

**CROSSING THE FINISH LINE: Completing College at America's Public Universities**
*By William G. Bowen, Matthew M. Chingos, and Michael S. McPherson*
389 pages; Princeton University Press, 2009

Since retiring as president of Princeton University, labor economist William Bowen has authored several extensive evaluations of higher education. His latest effort, written with Harvard Ph.D. student Matthew Chingos and Spencer Foundation president Michael McPherson, tries to determine why students of lower socioeconomic status (SES) who are part of the general student population at public universities drop out at higher rates than their higher SES classmates, even though there is little dropout-rate disparity between those groups at selective private universities or in public universities' honors programs.

The book has the feel of a report commissioned by a CEO of a massive multi-plant enterprise that manufactures neither cars nor paint brushes, but holders of bachelor's degrees. It conceives of students as little more than inputs from different suppliers. The following stylized facts led the CEO to commission the study:

- Half of the inputs (i.e., entering students) fail to become finished products — a rate that has not changed in 40 years.
- Only 9 percent of the inputs from some suppliers (i.e., households) become finished products — specifically, those suppliers that are in the bottom quartile of the income distribution and neither parent has a college degree.
- Since the early 1980s, the completion rate for inputs from three-fourths of suppliers (households in the bottom three-fourths of the income distribution) has declined.
- However, completion rates vary tremendously across plants (i.e., colleges). At private selective schools and in honors programs within public schools, completion rates do not vary with the observable qualities of inputs. Low SES students who attend honors programs within public universities and selective private schools graduate at essentially the same rate as high-income students who attend those programs.

> The book treats students like inputs in a manufacturing process, rather than the diverse individuals that they are.

How do the Ivies and honors programs at flagship public universities take inputs from different suppliers and consistently turn out good products, while normal programs at flagship and other public universities have greater variation depending on supplier? There are two possible explanations:

- Low SES students who apply to the Ivies and honors programs are different from low SES students in the regular public university systems.
- Special programs in the private schools and honors programs have "special" production processes (e.g., more financial aid, smaller classes, better faculty, more intimate supportive environment) that could be duplicated elsewhere.

The authors recognize the possibility of both explanations, but they clearly favor the second: "In the more intimate settings, the institutions themselves may be providing more of the support for students from all backgrounds that family resources help to buy for the more affluent students in the less intimate settings." The authors demonstrate econometrically that the graduation rate declines by 4.5 percentage points for every $1,000 of increased tuition paid by those in the lowest income quartile. And living on campus improves graduation rates by 7 to 8 percentage points even after controlling for high school grades and family characteristics. While the off-campus effect could be evidence of unobservable variation in the "intellectual seriousness" of off-campus students, Bowen and his coauthors interpret the finding as reflecting "both the general educational benefit of being part of a reasonably close-knit residential community and associated job effects — that is, students who do not live on campus may be more inclined than on-campus students to take jobs away from campus that reduce the likelihood of finishing their degree in a timely fashion."

However, there is empirical evidence offered by other scholars that low SES students in selective programs differ in important ways from low SES students in the general college population. Yet those differences are not observable to Bowen and his colleagues and thus are not statistically controllable.

One piece of evidence from the Federal Reserve Bank of Richmond is that college graduates who initially attended a two-year school but then went on to get their bachelors earn $2,200–7,800 less than graduates who went straight from high school to a four-year college, controlling for race, gender, field of study, and previous work experience. That is, for the set of people with bachelor's degrees, the labor market results suggest that those who initially attended less selective schools are different in ways that affect their income.

A second source of evidence, from Ralph and Todd Stinebrickner, describes outcomes at Berea College in Kentucky,

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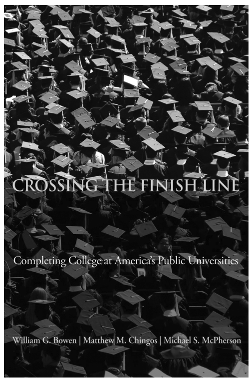
whose mission is to enroll students from low-income backgrounds and pay their direct educational expenses (tuition, room, and board). Despite the provision of resources, the dropout rate is 50 percent. A possible reason for this is that even though all direct expenses are provided, students have very little spending money. Would providing additional credit to finance additional consumption increase retention? The authors of the Berea study conclude that "the large majority of attrition at Berea would remain, even under very generous policies aimed at relaxing credit constraints." But despite the authors' contention, a comparison of the Berea results (50 percent dropout rate) with the 81 percent failure-to-graduate rate cited by Bowen et al. for students from the lowest income quartile whose parents did not have college degrees would seem to put the Berea results in a more positive light.




A third bit of evidence for unobserved heterogeneity comes from the GI bills after World War II and the Korean War. Those programs essentially provided free tuition and living expenses to 70 percent of all men who turned 21 between 1940 and 1955. Despite the generous provision of resources, college attendance rates were not altered for those of less-than-median SES, while they were increased by 9.3 percent for those of higher-than-median SES. But for those of low SES who did attend college, graduation rates were similar to high SES students. Again it would seem that those low SES students who chose to go to school were very different from those who did not in ways not observable to the researcher.

The authors' failure to give more consideration to unobserved heterogeneity is indicative of a larger problem. Even though Bowen is a labor economist and human capital acquisition is an important component of labor economics, the book is entirely devoid of the usual discussion by economists of individuals making choices to further their interests, subject to a budget constraint. As I noted earlier, the book treats students more like inputs in a manufacturing process than the remarkably diverse individuals that they are. This means the book gives no consideration to the possibility that the stylized facts about higher education are the result of individual maximization rather than "problems" that require fixing. To be sure, the fact that college graduation rates have been so unresponsive to the increased incomes obtained by college graduates since 1980 would appear to be a puzzle within a conventional economic framework, but maybe getting a bachelor's degree is not what many people want to do given their skills and interests, despite the financial returns.

To their credit, the book's authors do not make strident claims in support of new public programs to support all low SES students in the way that such students are supported at the best private schools, but their hearts lie in that direction. And with Jim Heckman's recent work showing the returns that exist to preschool programs for the disadvantaged, the intellectual pressure for increased public financial support of early as well as advanced education is increasing. Before we all enthusiastically support such efforts, we should make sure that increased resources can really alter outcomes for the better. And even if they can, are the benefits of such public programs worth the costs, financial and otherwise? R

## *Readings*


- "College Education and the Midcentury GI Bills," by Marcus Stanley. *Quarterly Journal of Economics*, Vol. 118, No. 1 (May 2003).
- "From Community College to a Bachelor's Degree and Beyond: How Smooth Is the Road?" by Natalia Kolesnikova. *Regional Economist* (Federal Reserve Bank of Richmond), July 2009.
- "Schools, Skills, and Synapses," by James J. Heckman. *Economic Inquiry*, Vol. 46, No. 3 (July 2008).
- "The Effect of Credit Constraints on the College Drop-Out Decision," by Ralph Stinebrickner and Todd Stinebrickner. *American Economic Review*, Vol. 98, No. 5 (December 2008).



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