

Labor market returns of the GED

The General Educational Development credential (GED) has grown by leaps and bounds since its inception and has become a significant force in the American educational system. Introduced in 1942, the GED was created to make it easier for returning World War II veterans without a high school diploma to earn an equivalent credential. The test, which consists of a group of five subject tests, certifies that the taker has American or Canadian high school-level academic skills. Today the GED is more popular than ever. In 2008, almost 500,000 people received a GED, accounting for 12 percent of all high school credentials issued in that year. In a recent National Bureau of Economic Research (NBER) study entitled *The GED* (NBER Working Paper 16064, June 2010) authors James J. Heckman, John Eric Humphries, and Nicholas S. Mader examine the claims that the test is equivalent to a traditional high school diploma with respect to opportunities to attend college and attain positions in the labor market.

The authors find that the growth in the popularity of the GED is in contrast with low average labor market returns. Their research suggests that a GED holds little value in terms of labor market outcomes; few people actually obtain postsecondary credentials after they receive a GED, perhaps due to deficits in non-cognitive skills such as persistence, motivation, and reliability (despite scholastic aptitude). Although the GED is widely thought to serve as a step to a more valuable credential such as an associate's degree or bachelor's degree, only 31 percent

of those who take the GED enroll in a postsecondary institution, and 77 percent of those students enroll only for a single semester.

The authors also find that, on average, a GED does not increase the wages of dropouts. The researchers determine that males with GEDs earn on average 1 percent less per hour than dropouts, whereas males who are high school graduates with no further education make 3.6 percent more per hour on average than dropouts. The researchers found that females with GEDs earn 1.7 percent more per hour than dropouts, whereas female high school graduates with no college earn 10.6 percent more per hour. Wage returns from the GED are small as well. The authors note a statistically significant 6 percent hourly wage premium 5 years after GED certification.

The majority of the growth in the number of GED test takers is attributable to three demographic groups: those in Adult Education classes (sponsored by government and non-profit entities), prisoners, and 16- to 19-year-olds. Since the early 1980s, 16- to 17-year-olds have been responsible for most of the growth. Because they are still high school age, the authors ask whether students now often choose the GED as a substitute for a traditional (and more valuable) high school degree instead of using it as the second chance it was meant to be.

Wage structures and human capital

The overall wage structure of the U.S. economy—the levels of pay and benefits, the nature of jobs, and the skill sets involved—has changed dramatically over the last several

decades. At least since the 1970s, the monetary returns to education and experience have increased markedly. The two most commonly cited reasons are rapid technological changes, which necessitate a more highly skilled workforce, and the ongoing employment trend toward more service-providing jobs and fewer manufacturing jobs. Over the same period, educational attainment has risen steadily, and it is generally assumed that the two trends are closely related. More education leads to greater returns in the labor market, so more people invest in human capital in order to realize such returns. But it is difficult to actually measure the extent to which increased investment in education relates to the changing wage structure in the United States. How closely related are the two phenomena? How do people formulate their expectations about the future returns to education and experience?

In the July 2010 issue of the *Journal of Labor Economics*, economists Moshe Buchinsky and Philip Leslie attempt to answer these questions. For the authors of this study, the challenge lies in developing a plausible model for how people assess the future returns to education and experience in order to make reasonable decisions about investing in human capital in the present. After all, it is unlikely that many people in the 1970s or 1980s could have accurately predicted the extent of the changes that would occur in the subsequent decades. Buchinsky and Leslie develop a dynamic programming model of educational choices in which people use the information available at the time to forecast wage distributions in the future while—and this is key—taking into

account the inherent uncertainties involved in their assessments of the future. Dynamic programming is a common technique economists use to formulate and solve problems involving sequential decisionmaking under uncertainty. Making reasonable assumptions about a person's expectations of future wages is an important component of the authors' model.

This study demonstrates the value of using dynamic programming methods to analyze people's choices about educational investment. A key element of these kinds of models is how accurately they represent a person's current behavior in relation to future wage distributions and how well they account for uncertainty. Buchinsky and Leslie "propose a general method of forecasting that

is embedded in a dynamic optimization framework" which depends upon "plausible assumptions about what information is available at the time of forecasting." By comparing their methods with those of other studies, the authors were able to create a framework that "accounts for sources of uncertainty faced by individuals" and that has not been used previously. □

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