

RESEARCH SPOTLIGHT

Benefits of B.A. Alternatives

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In recent years, the pursuit of a bachelor's degree has become as common a part of rhetoric about the "American Dream" as homeownership. Indeed, many point to the estimated \$1 million additional lifetime earnings of those who complete a traditional bachelor's degree, a figure made famous by a 2012 report from the Census Bureau, as evidence that college is likely a good bet for everyone. In addition to research on the returns to bachelor's degrees, there has been a substantial amount of research on the benefits of associate's degrees, which are often considered similar to the first two years of a four-year college curriculum. The results generally find substantial earnings increases linked to associate's degrees, as much as 24 percent for men and 31 percent for women.

Research looking at the value of a bachelor's degree or an associate's degree has generally measured the value of the degree relative only to that of high school completion, however. The literature has said little, if anything, about alternate forms of tertiary education like diplomas and certificate programs from community and technical colleges, despite more people receiving such diplomas and certificates every year than associate's degrees. In a recent *Journal of Labor Economics* article, Christopher Jepsen of University College Dublin, Kenneth Troske of the University of Kentucky and the Institute for the Study of Labor, and Paul Coomes of the University of Louisville attempt to fill this empirical gap by providing one of the first rigorous estimates of the labor market returns to community college diplomas and certificates.

Unlike associate's degrees, diplomas and certificates typically require significantly fewer credit hours to complete and are primarily awarded in technical programs. According to the authors, the few studies of the effects of certificates that do exist offer inconclusive evidence and often rely on small, unreliable samples. The authors use detailed administrative data on individuals within the Kentucky Community and Technical College System, which provides the ability to control for a variety of variables that might affect employment outcomes, such as employment experience, individual aspiration, innate ability, and race/ethnicity. Additionally, the authors believe that the richness of the data and the similarities among community college systems around the country make their findings more broadly applicable.

The authors use a traditional "fixed-effects" human capital model in order to discern the causal effects of

different award attainments on average quarterly earnings. In other words, the model measures the effect of the award on the earnings of the individual student as compared with his earnings before obtaining the award. They measure the variation in individual earnings over time, as well as the variation between individuals, in order to capture the full effect of attaining each award. In addition to controlling for demographic variables like age and sex, the authors attempt to compare outcomes for individuals with similar anticipated earnings trajectories by capturing differences based on a student's initial aspirations and age.

The authors find substantial labor market gains associated with associate's degrees and diplomas, and more modest gains associated with certificates, whose returns varied highly among fields. One trend that characterized all the results was that awards had larger positive effects on the average earnings of female students than on those of male students. Men who pursued associate's degrees

earned an additional \$1,484 on average, whereas women earned an additional \$2,363 on average. Average quarterly earnings increases associated with diplomas were comparable to associate's degrees, at \$1,265 for men and \$1,914 for women. Certificates were associated with a more modest but still positive

effect of around \$300 on average for both men and women. Income gains associated with certificates were more highly variable than gains for associate's degrees and diplomas, and they were the largest by far for men who entered vocational programs such as electrician and mechanic training and women who entered programs in health. Based on the results of a sensitivity analysis, the authors find that their results are indeed robust and speculate that the similarity between community and technical college programs across the United States means that their findings can be considered representative of analogous programs around the country.

These results suggest that human capital investments in alternate forms of tertiary education in technical and vocational fields have substantial labor market returns. Judging from the relative scarcity of economic literature on the effect of these programs and the longtime focus of policymakers on four-year degrees, further study of the benefits of these alternatives may be warranted. Such research may become increasingly relevant as the conventional wisdom on the value of bachelor's degrees is called into question amid rising tuition costs and rising levels of student loan debt. **EF**

"The Labor-Market Returns to Community College Degrees, Diplomas, and Certificates." Christopher Jepsen, Kenneth Troske, and Paul Coomes. *Journal of Labor Economics*, January 2014, vol. 32, no. 1, pp. 95-121.