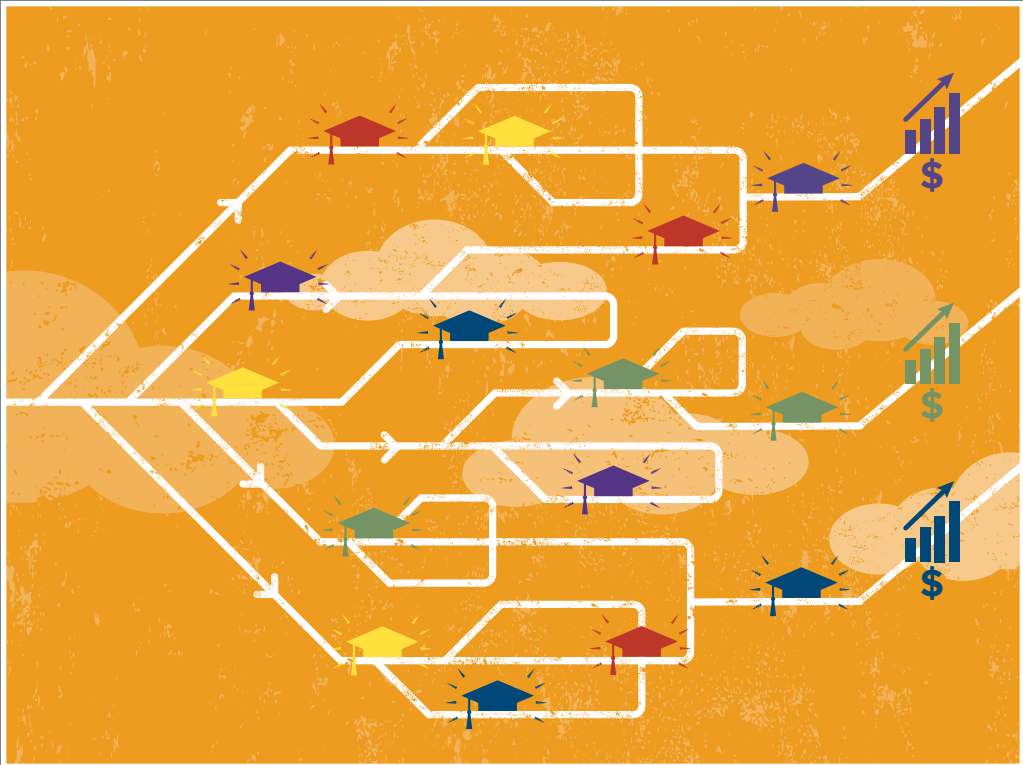


The Economic Impact of Increasing College Completion



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Executive Summary

There is strong evidence that raising the level of attainment of higher education degrees has historically yielded long-run economic and social benefits in the United States. Yet investing in greater educational success is costly, because it involves sending more students to college for longer periods of time, and because further investment may be needed to improve attainment rates. In this report, we present a simple model of the long-run economic costs and benefits of improving attainment by increasing completion rates.

Given the assumptions of our model, costs exceed benefits over a number of years, but economic returns later begin to kick in and eventually the program of investment yields a positive net economic return.

Currently, only 61 percent of first-time, full-time students at four-year colleges complete their college degree within eight years, which is twice the normal time. As a result of these low completion rates, one-quarter of thirty- to forty-year-olds who have attended some college, including both two- and four-year programs, have no degree.¹ A college degree provides a boost to earnings and employment, but much of the gains come from the completion of the degree. As a result, college dropouts forgo the majority of the benefits of higher education. Increasing college completion represents, in turn, an opportunity to boost earnings, lower unemployment, and expand the economy.

However, increasing college completion requires upfront costs. Those who dropped out of college chose to do so despite existing subsidies. As a result, encouraging current dropouts to stay in school for an extra year will likely exceed the current average cost of a year of college. Creating a precise estimate of this cost is difficult, as increasing completion may involve low-cost nudges, high-cost incentives, improvements in school quality, or some mix of the three. As a result, this analysis will not attempt to estimate the total costs of increasing completion, but instead will consider one possible scenario.

Moody's Analytics combined simulations of the U.S. Macro model with analysis using detailed micro-data-based models of education, earnings, and employment to compare the trajectory of the U.S. economy under two scenarios: a baseline in which the recent trajectory in educational attainment continues, and a scenario in which completion rates are significantly increased. The projections considered in this analysis assume that colleges at which the completion rate is currently below 50 percent will see their completion rates increase by half, while those with completion rates above 50 percent will see their noncompletion rates decrease by half.

1. Census Bureau, Current Population Survey, Annual Social and Economic Supplement, 2016.

Under the baseline model, the share of the population with a bachelor's degree is expected to rise from 31 percent in 2016 to 40 percent in 2046, and under the higher completion scenario the share will increase to 46 percent. The rate of improvement in overall population attainment under the scenario is similar to the improvements in the last few decades. The attainment rate for associate's degrees is expected to rise from 10 percent in 2016 to 12 percent in the baseline model and to 15 percent in the scenario model. This is also consistent with past rates of overall improvement, albeit faster than in recent years. The recent slowdown suggests that improvements of a similar magnitude to the scenario model will be needed to return to past growth rates.

The direct effect of greater college completion will be to increase average earnings by 3.1 percent and, because college graduates are more likely to be employed, to increase employment by 0.5 percent. By 2046, total real GDP will be 2.5 percent larger than under the baseline. The labor market is also positively affected, with the unemployment rate 0.1 percentage point lower than under the baseline. The effect on total employment in the short run is negative, as more students enroll in school instead of working. In the long run, however, total employment is 0.5 percent higher, as more-educated workers have a greater likelihood of being employed.

This analysis assumes that the extra spending is financed via increases in government debt, rather than by increased taxes. Greater spending on higher education raises the deficit in the near term, with the negative impact peaking at \$137.8 billion in 2025. However, the effect on the deficit begins to decline in 2026 as the employment effects turn from negative to positive and wage gains gradually accumulate. By the end of the forecast horizon, the deficit is lower under the higher-completion scenario. The increase in U.S. debt peaks at \$1.9 trillion in 2041 but declines to \$1.6 trillion by 2046, an increase of 2.6 percent compared with the baseline. Under a lower cost scenario, which was also examined, the increase in U.S. debt peaks at \$1.4 trillion in 2041 and declines to \$942 billion by 2046.

Increased earnings and productivity will expand the economy in the long run, translating to higher wages, employment, and GDP. However, using illustrative estimates of the likely costs, the net effect on the federal government deficit will be negative for some time.