

From Community College to a Bachelor's Degree and Beyond: How Smooth Is the Road?

By Natalia Kolesnikova

Community colleges provide an opportunity to many students who would not attend college otherwise: students from low-income families, first-generation students and older students who continue to work full time as they attend college. Attending a community college, even without completing a degree, results in economic payoffs and better job opportunities.¹

Community colleges were originally designed to prepare students, through an associate degree, to transfer to a four-year college. The purpose of community colleges has changed significantly over time. Now, many community college students choose not to pursue their education further than receiving a degree or a certificate from a community college. A previous article on community colleges (in the October 2008 issue of *The Regional Economist*) examined the opportunities and payoffs for students who attend community colleges. This article focuses on one particular group of students: those who start their post-secondary education at community colleges and then continue at four-year institutions. How do these students compare with their counterparts who initially start at four-year institutions?

From a Community College to a Bachelor's Degree

Bridget Terry Long and Michal Kurlaender recently studied a group of students over a nine-year period. They found that the rates of dropping out or “stopping out” without a bachelor's degree are much higher for those who start at community colleges than for those who start at four-year institutions.² Community college students were 36 percent less likely to obtain a bachelor's degree than

similar students who started at four-year colleges. Moreover, among community college students who expressed an intention to obtain a four-year bachelor's degree, only 26 percent have such a degree nine years later. On the other hand, 50 percent and 73 percent of those who start at nonselective and selective four-year institutions, respectively, obtain a bachelor's degree within nine years. The negative effect of starting post-secondary education at a community college remains even after the authors adjust for selection bias by controlling for students' race, gender, age, ability (measured by ACT scores) and family income. The authors suggest that “it is worth comparing the size of the penalty to the difference in costs at two-year versus four-year institutions.”³

Long-term Educational Choices

Still, some community college students successfully transfer to four-year colleges and obtain a bachelor's degree or higher. The 2003 National Survey of College Graduates shows that among people who have at least a bachelor's degree, 17 percent report having received an associate degree.⁴ The data allow a comparison between those who received an associate degree prior to enrolling at a four-year institution to obtain a bachelor's degree and those who started their post-secondary education at a four-year college.

The survey data indicate that there are differences in educational choices between those who obtained an associate degree before enrolling in a four-year college and those who did not. Students with an associate degree are more likely to be enrolled in public and nonselective colleges than students who do not have an associate degree (who are, in turn, more likely to attend private and selective universities). When it comes to

choosing a field of study, fewer people with a prior associate degree major in sciences and engineering than people who start their college education at a four-year college. Instead, people with an associate degree are more likely to major in health, technology and management than their counterparts.

Almost 70 percent of bachelor's degree holders with a prior associate degree do not continue their education beyond their first bachelor's degree. This compares with less than 60 percent of their counterparts who started post-secondary education at four-year colleges. For those who continued beyond a bachelor's degree, slightly less time was needed on average to obtain a master's or a professional degree if a person had an associate degree but more time was needed to finish a Ph.D. program. Among people who only have a bachelor's degree, about 21 percent have a prior associate degree. Among those who received a master's degree, only 14.3 percent have an associate degree. The proportion of people with an associate degree is even smaller among those with a doctorate or a professional degree (5.8 and 9.5 percent, respectively).

Long-term Labor Market Outcomes

An important measure of long-term outcomes is, of course, an individual's salary. The survey data provide an opportunity to compare annual salaries of people with an associate degree who proceeded to receive a bachelor's degree or higher with annual salaries of their counterparts with no prior associate degree.⁵

As expected, the results confirm that people with a higher level of education have, on average, higher earnings. Bachelor's degree holders earn \$54,125 a year; people with a master's degree earn \$60,676 a year;



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people with a doctorate earn \$70,711 a year; and people with professional degrees earn \$78,705 a year, on average. What is more interesting, the results also show differences in annual salaries for individuals with a prior associate degree and without it for all education levels. Regardless of the highest degree, people who started their post-secondary education with an associate degree earn about \$2,600-\$9,100 less on average, depending on their highest degree, than those who started at a four-year college.

To better understand this phenomenon, a regression analysis can be applied to compare people of the same race, gender, highest degree, major field of study and work experience but who differ in obtaining an associate degree prior to pursuing a bachelor's degree. The table shows that, for each education level, the same pattern is observed: Workers with little experience make less than those with more experience, women earn less than men and minorities earn less than whites. More important to this study, those who obtain an associate degree and then a more-advanced degree have lower earnings than similar individuals who started their college education at a four-year college.⁶


Data available from the college graduates survey are not sufficient to answer why the persistent salary gap exists because the survey results do not include any information on family background and academic preparation of individuals. One could hypothesize that, because community college students are more likely to come from families with lower incomes and education, these students are also more likely to attend poor-performance schools for their elementary and secondary education. It is possible that these students fall far behind even before entering the post-secondary

education system and that this disadvantage affects their educational and labor market outcomes throughout their lives.

Looking Ahead

Compared with those who start their post-secondary education at traditional four-year colleges, community college students are less likely to obtain a bachelor's degree or continue their education beyond it. There is also a persistent salary gap between those who have a bachelor's degree or higher and a prior associate degree and similar individuals who do not have a prior associate degree. This gap remains even for people of the same gender, race, education, experience level, field of study and type of college they attended.

Still, for many students, community colleges offer the best chance to obtain a college education. It is important, however, for individuals to know how easy it is to get sidetracked. If someone's objective is obtaining a bachelor's degree, a person should be more persistent and stay focused on the goal.

Community colleges play an important role in serving disadvantaged populations. However, it is not reasonable to expect that they alone will be able to overturn apparent long-lasting cultural and educational negative effects that students from low-income families are facing. There is also a need to re-examine what is the best measure of community colleges' performance. Given their changed purpose and higher emphasis on terminal certificate programs and work-force training, transfer rates to four-year colleges are not an adequate evaluation tool anymore. 

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ENDNOTES

- See Kane and Rouse for a survey of several studies and more information.
- The study uses a unique longitudinal data set that includes everyone who entered Ohio public institutions of higher education in the fall of 1998 and follows them over nine years. Data provide information on students' high school preparation, entrance exams, degree intentions, family background, college performance and, finally, degree completion.
- It is also worth mentioning that students who start post-secondary education at community colleges take longer on average to complete a degree. The length of the study, nine years, might not give enough time to obtain a bachelor's degree for some of them.
- The 2003 National Survey of College Graduates (NSCG) included a sample of respondents to the 2000 Decennial Census long form who indicated they have a bachelor's degree or higher in any field of study. The survey collected detailed information about their educational background characteristics, current and past employment, current salary and demographic characteristics. It is assumed that people who indicated that they have an associate degree received it prior to enrolling in a four-year institution to obtain a bachelor's degree.
- This analysis considers only individuals of prime age (25 to 55 years old) who are employed. The sample is also restricted to those between the 5th percentile and 95th percentile of salary distribution in the NSCG dataset.
- For more detailed results and discussion, see Kolesnikova.

REFERENCES

- Kane, Thomas J.; and Rouse, Cecilia Elena. "The Community College: Educating Students at the Margin between College and Work." *Journal of Economic Perspectives*, Winter 1999, Vol. 13, No. 1, pp. 63-84.
- Kolesnikova, Natalia. "Community Colleges: A Route of Upward Economic Mobility." Federal Reserve Bank of St. Louis *Community Development Report*, March 2009. See www.stlouisfed.org/community/assets/pdf/CommunityColleges.pdf.
- Long, Bridget Terry; and Kurlaender, Michal. "Do Community Colleges Provide a Viable Pathway to a Baccalaureate Degree?" *Educational Evaluation and Policy Analysis* (forthcoming).

EFFECT OF VARIOUS FACTORS ON SALARY

Highest Degree	Having a prior associate degree	For each extra year of experience	Being a woman	Being black	Being Hispanic	Being Asian
Bachelor's degree	-\$2,268	\$574	-\$12,681	-\$5,583	-\$6,345	-\$3,627
Master's degree	-\$2,117	\$532	-\$11,671	-\$1,349	-\$3,534	-\$1,836
Ph.D.	-\$6,883	\$1,374	-\$7,583	-\$6,014	-\$2,556	-\$3,012
Professional degree	-\$7,767	\$1,185	-\$7,061	-\$2,025	-\$2,899	-\$2,455

NOTE: Author's calculations. Data are from 2003 NSCG survey. Each cell represents a dollar effect on annual salary of changing one factor when all other factors remain the same. For example, an individual with a bachelor's degree who has a prior associate degree earns \$2,268 a year less than a similar (of the same highest level of education, race, gender, work experience, etc.) individual who has no prior associate degree. Similarly, a woman with a master's degree earns \$11,671 a year less than a similar (of the same level of education, race, work experience, etc.) man.