



The Community College Penalty and Bachelor's Degree Completion: Fact or Fiction?

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Executive Summary

For the past twenty years, studies examining the relationship between initial community college enrollment and bachelor's completion have shown mixed results with some studies indicating a clear penalty for community college enrollment and other studies showing no penalty. Generally, the penalty or the lack thereof is determined by the point at which the given study commences tracking the community college students. For the studies that began tracking at initial community college enrollment, there is evidence of a penalty or decreased likelihood of degree completion (Alfonso, 2006; Doyle, 2009; Long & Kurlaender, 2009; Sandy, Gonzales & Hilmer, 2006). These studies compare the outcomes of an entire cohort or multiple cohorts of community college entrants to the outcomes of students who directly enter four-year colleges.

Other research takes a more conditional approach and censors community college entrants who fail to make the transition to a four-year college. As a result, these studies use comparisons between community college entrants who make the transition or vertically transfer to a four-year college and students who directly entered four-year institutions. When researchers compare transfer students with native juniors, the results show no penalty for initially enrolling in community college (Glass & Harrington, 2002; Lee, Mackie-Lewis & Marks, 1993; Melguizo, Kienzel & Alfonso, 2011; Melguizo & Dowd, 2009). In other words, community college transfer students are just as likely to earn a bachelor's degree as students with similar characteristics who directly enrolled at four-year colleges.

While arguments can be made for both approaches to tracking community college students as they potentially progress towards bachelor's degree completion—at community college entry or post-vertical transfer—we decided to test the community college penalty assumption by narrowing the community college group down to those who transfer and make the transition to a four-year college using a sample from Illinois. To create a valid comparison group, we ensured that the direct four-year college entrants persisted to rising junior status, which creates a point of entry parallel to that of the community college transfer students.

To explore whether or not a penalty in community college enrollment exists, we used propensity score matching (PSM), which allowed us to identify a group of four-year rising juniors with a similar distribution of characteristics, such as demographics and environmental factors, as the community college transfer group. The characteristics were related to one's likelihood of being a community college transfer student. Then, we used a post-treatment adjustment to account for institutional differences that could potentially impact the bachelor's degree completion (see Methods Section). In the end, community college transfer students were matched to a four-year rising junior from the same high school, with a similar likelihood of being a community college transfer student, and who attended a similarly selective four-year college. This provided a more precise examination of the treatment effect.

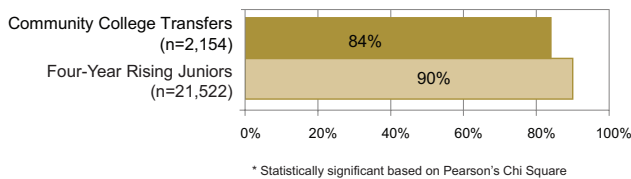
Bachelor's Degree Completion

Prior to Matching

While the rate of bachelor's degree completion for both groups was fairly high, the community college transfer students had a significantly lower rate relative to rising four-year rising juniors (84% to 90%). As shown below, there was six percentage point difference favoring four-year rising juniors. This was not surprising given the large differences on key factors—such as high school GPA, ACT scores, and family income—that generally suggested the four-year rising juniors would have a higher likelihood of completing a bachelor's degree. That is, overall, the rising four-year juniors had a stronger profile in terms of academic preparation.

Figure A

Bachelor's Completion Rates Prior to PSM

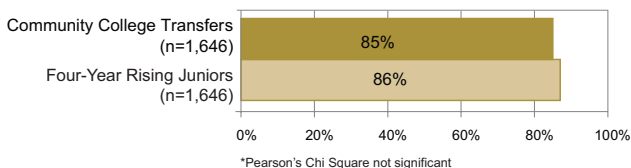


After Matching

After matching, only one percentage point separated the two groups in terms of the rate of bachelor's degree completion (see Figure below). Further, inferential statistics indicated no community college penalty was evident. That is, community college transfer students were just as likely to complete a bachelor's degree as four-year rising juniors after controlling for other pre-college and environmental factors that impact one's likelihood of taking the community college to four-year pathway.

Figure B

Bachelor's Completion Rates After PSM

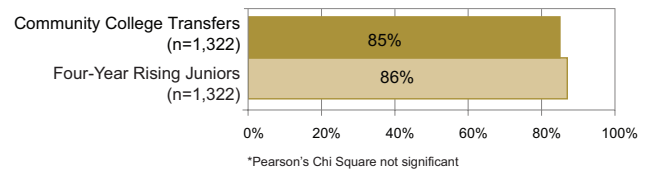


After post-treatment adjustment

To better control for college context, we also matched on institutional selectivity, which substantially improved the balance between the two groups. As shown below, the rate of bachelor's degree completion for community college transfer students was 85% relative to 86% for the four-year rising juniors. The one percentage point advantage favoring rising four-year juniors lacked statistical significance and once again indicated that *no community college penalty was evident*.

Figure C

Bachelor's Completion Rates After Post-Treatment Adjustment



The Community College Penalty is Fiction

While our study was fairly specific and the results cannot be applied to all community college transfer students, let alone all community college students, we found no significant evidence of a community college penalty. We therefore conclude that community college transfer students were just as likely to earn a bachelor's degree as rising four-year juniors. These results help validate the findings of previous studies that have demonstrated no community college penalty for community college transfer students (Glass & Harrington, 2002; Lee, Mackie-Lewis & Marks, 1993; Melguizo, Kienzel & Alfonso, 2011; Melguizo & Dowd, 2009). In other words, our study provides additional evidence that the community college to four-year pathway is a viable option for Illinois high school graduates.

The full report is available at www.siu.edu/ierc
For further information, contact the IERC at Southern Illinois University Edwardsville
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