

High school graduates who hope to graduate from college have two main choices for realizing this goal. They can enroll directly in four-year schools or they can first go to a community college and then transfer to a four-year school. Virtually all the research on this topic shows that students who go to a community college first are less likely to earn a B.A. than are students who start their post-secondary education at a four-year college or university. Two primary reasons for this pattern have been proffered and tested. The first suggests that the differences between students who start at two-year and four-year colleges account for the higher rates of college completion among those who start at four-year colleges. The other explanation emphasizes institutional barriers at community colleges for students who want to transfer.

This study explores why initial enrollment in a community college is associated with a lower probability of earning a bachelor’s degree. Two primary questions are posed. 1) For whom are two-year colleges most beneficial in terms of earning a B.A. and for whom are they most detrimental? 2) Which points along the route to a bachelor’s degree are most dangerous for the aspirations of community college students – a) What proportion of students intend to transfer but never do and what are the characteristics of students who do and do not transfer? b) What proportion of transfer students succeed in earning a B.A. and how do graduates differ from non-graduates? Answers to these questions will add to the understanding of the reasons for the gap between graduation rates for those who start at community colleges and those who first enroll in four-year colleges.

NELS:88 is the data source for this study. The sample includes on-time high school graduates who consistently (in 8<sup>th</sup>, 10<sup>th</sup> and 12<sup>th</sup> grade) expected to earn at least a B.A. and enrolled in either a community or a four-year college within two years of high school. The outcome of interest is a bachelor’s degree by 2000. Socioeconomic status (SES) (parental education, family income and structure) and academic performance in high school (repeating a grade, test scores, grades) are the primary predictors of college completion. The odds of earning a B.A. are compared across SES and academic performance categories for students who started at two-year and four-year colleges, net of other factors related to attainment. Then, the odds of transfer and college graduation given transfer are estimated for community college students.

Table 1. Distribution of Students and Percentage Who Earned a B.A. by SES-Academic Performance Category and First College Attended

	1 <sup>st</sup> College				Ratio b/t 4-year/Comm.
	Community		Four-year		
	% in Cat.	% w/BA	% in Cat.	% w/BA	
SES x Academic Performance					
High SES-High Performance	3.1	73.3***	15.4	91.2***	1.24
High SES-Low Performance	8.9	57.1	11.1	81.6	1.43
Low SES-High Performance	16.4	44.5	31.8	78.4	1.76
Low SES-Low Performance	71.7	24.4	41.7	63.0	2.58
High SES	12.0	61.2	26.5	87.2	
High Academic Performance	19.4	49.0	47.2	82.6	
Total	100.0	32.1	100.0	74.3	2.32

\*\*\*p<0.001

Higher percentages of students who started at four-year colleges fell into a high SES or high academic performance category than did students who started at community college (Table 1).

Overall, 32.1% of high school graduates who first attended a community college earned a bachelor’s degree compared to 74.3% of their peers who first attended a four-year school. Three quarters (73.3%) of high SES-high performance community college students earned a B.A. but they accounted for only 3.1% of students who started at a community college. In comparison, nine in ten (91.2%) of high SES-high performance students who started at a four-year school completed college; they comprised 15.4% of four-year students. Among high SES-high performance students, those who started at a four-year school were 1.24 as likely to earn a B.A. as those who started at a community college. Among low SES-low performance students, only one quarter (24.4%) of community college students earned a B.A.; they constituted almost three quarters (71.7%) of community college students. Nearly two thirds (63.0%) of student from four-year colleges, 41.7% of that group, earned a B.A. Thus, low SES-low performance students who started college at a four-year school were 2.58 times more likely to earn a B.A. as those who started at a community college.

Table 2. Percentage of Community College Students Who Transferred and Percentage of Transfers Who Earned a B.A. by SES-Academic Performance Category

	Percent Who Transferred	Percent of Transfers Who Earned B.A.
SES x Academic Performance		
High SES-High Performance	90.1	81.4
High SES-Low Performance	78.8	73.7
Low SES-High Performance	77.3	57.3
Low SES-Low Performance	44.6	53.9
Total	54.4	58.6

In order to earn a B.A., community college students have to apply to and be admitted to a four-year college, enroll in and adjust to the new college. These are significant challenges that require considerable effort and determination that students who start at a four-year college do not have to face. Both steps, preparing to transfer, and succeeding after transferring, offer opportunities for students to stray from their plans of finishing college.

Overall, 54.4% of students who started college in a community college transferred to a four-year school (Table 2). Nine in ten high SES-high performance students transferred to four-year colleges as did about eight in ten students from high SES-low performance or low SES-high performance backgrounds. In comparison, 44.6% of students in the low SES-low performance category, who comprised the vast majority of students who started at community college, transferred to a four year school. Of all students who transferred, 58.6% earned a B.A. within eight years of high school graduation. Of the one in twenty transfer students from a high SES-high performance background, 81.4% finished college. Just over half (53.9%) of the low SES-low performance group earned a B.A.

Table 3. Logistic Regression Models Predicting the Odds of Earning a B.A. among Community College and Four-year College Students

	Base Model	Full Model <sup>a</sup>
1 <sup>st</sup> College = Community College:		
High SES-High Academic Performance	8.54***	5.92**
High SES-Low Academic Performance	4.14***	2.98***
Low SES-High Academic Performance	2.49**	2.35***
Low SES-Low Academic Performance	1.00	1.00
1 <sup>st</sup> College = Four-year College:		
High SES-High Academic Performance	6.07***	4.75***
High SES-Low Academic Performance	2.62***	2.25***
Low SES-High Academic Performance	2.14***	1.79***
Low SES-Low Academic Performance	1.00	1.00
High-High: Community College v. Four-year		
	0.27*	0.28*
Low-Low: Community College v. Four-year		
	0.19***	0.23***
Pseudo R <sup>2</sup>		
	0.18	0.22
-2ll (df)		
	910.6 (7)	1146.7 (21)
N		
	4,533	4,500

<sup>a</sup>Model includes race/ethnicity, sex, plans for the future, high school characteristics

\*p≤0.05; \*\*p≤0.01; \*\*\*p≤0.001

The above models use interaction terms to compare the odds of college graduation across SES and academic performance categories within the group of students who started college at a community college and within the group who began at a four-year school (Table 3). As the bivariate analyses indicated, students from high SES-high performance backgrounds were many times more likely to earn a B.A. than were those from low SES-low performance backgrounds. This was true for those who started in community colleges and those who started in four-year colleges. In fact, for both groups, low SES-low performing students were significantly less likely than all other groups to finish college. Controlling for demographics, future plans and high school characteristics did not appreciably change this pattern.

Comparisons are also presented within SES and performance groups across first college type categories. Among students in the high SES-high performance group, students who started at a community college were only 28% as likely to earn a B.A. as those who started in a four-year college. Among the low SES-low performance group, those who enrolled first in a community college were only 23% as likely to finish college as those who first enrolled a four-year college or university.

The next set of models provides information on the role of the transfer process in the lower odds of graduating among community college students. Community college students from high SES backgrounds who performed well in high school were more than five times more likely to transfer to a four-year school than low SES-low performing students, net of demographics, months of full-time attendance, plans for the future and high school characteristics (Table 4). In fact, students in the low SES-low performance category were more than three times less likely to transfer than students from any other SES-academic performance category.

Table 4. Logistic Regression Models Predicting the Odds of Transfer to a Four-year College among Community College Students

	Base Model	Full Model <sup>a</sup>
SES x Academic Performance		
High SES-High Academic Performance	11.27***	5.59**
High SES-Low Academic Performance	4.63***	4.21**
Low SES-High Academic Performance	4.23***	3.47***
Low SES-Low Academic Performance	1.00	1.00
Pseudo R <sup>2</sup>	0.10	0.26
-2ll (df)	99.8 (3)	285.8 (18)
N	939	929

<sup>a</sup>Model includes race/ethnicity, sex, months of full-time attendance, plans for the future, high school characteristics

\*\*p≤0.01; \*\*\*p≤0.001

Not surprisingly, transfer students from high SES backgrounds are more likely to graduate than those from low SES backgrounds (Table 5). Specifically, transfer students from high SES backgrounds but without a record of strong academic performance were two to three times more likely to graduate than those from low SES backgrounds, regardless of their past academic performance. Although the difference between high SES-high performance students and low SES students becomes non-significant, the size of the odds ratio suggests that the difference is not significant because there were few students in the high SES-high performance category.

Table 5. Logistic Regression Models Predicting the Odds of Earning a B.A. among Transfer Students

	Base Model	Full Model <sup>a</sup>
SES x Academic Performance		
High SES-High Academic Performance	3.74 <sup>+</sup>	2.86
High SES-Low Academic Performance	2.39 <sup>+</sup>	3.52*
Low SES-High Academic Performance	1.15	1.30
Low SES-Low Academic Performance	1.00	1.00
High-High v. High-Low		
High-High v. Low-High		
High-Low v. Low-High		2.70 <sup>+</sup>
Pseudo R <sup>2</sup>	0.03	0.18
-2ll (df)	16.8 (3)	112.3 (18)
N	554	553

<sup>a</sup>Model includes race/ethnicity, sex, months of full-time attendance, plans for the future, high school characteristics

<sup>+</sup>p≤0.1; \*p≤0.05

Taken together, the results from Tables 4 and 5 suggest that while both socioeconomic advantage and high academic performance predict transferring from a community college to a four-year school, graduation from that school is much more dependent on SES. Transfer students' academic ability was not a factor in predicting graduation, suggesting that financial difficulties might be the primary reason that able transfer students fail to graduate from college.