

RESEARCH BRIEF

No. 51-17

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Student Progress through Program Curriculum Three Semesters After Initial Enrollment: Fall 2015 Cohort

Credits attempted is positively associated with completion and transfer and is considered a good early indication that students are on track to meet their goals (Calcagno, et al. 2006; Chen, 2005). In particular, core courses are an important component of the curriculum and many of these courses are pre-requisites for more advanced coursework related to a student's major. Given this, it is important that students enroll in core courses in their first few semesters.

This Research Brief examines two measures of student progress: (1) student progress through the core courses required for their degree program and (2) the accumulation of total credits needed to graduate. Data is presented for a Fall 2015 cohort comprising **first-time in college (FTIC), full-time students**.ⁱ The cohort is tracked to the end of Fall 2016.ⁱⁱ When looking at full-time students, we would expect them to have attempted a significant portion of their coursework after three semesters.

Key Findings

Average Number of Core Courses Completed Three Semesters After Initial Enrollment:

- The average number of core courses completed ranged from 3.1 courses (A.S. General Studies) to 5.5 courses (A.S. Psychology Specialization).
- In most programs, on average, students were unsuccessful in at least one core course that they attempted.
- The data indicates that students in programs that require fewer core courses did not complete their requirements sooner than other students but rather attempted fewer core courses.

Median Number of Credits Completed Three Semesters After Initial Enrollment:

- Within three semesters of initial enrollment, the median full-time student in most programs had completed fewer than half the credits required for graduation.

ⁱThis Brief only includes data for A.A. and A.S. degree programs and specializations in which more than 100 FTIC full-time students were enrolled in Fall 2015.

ⁱⁱData includes credits attempted in Fall 2015, Spring 2016, Summer 2016, and Fall 2016.

**Section 1. Average Number of Core Courses Completed
Three Semesters After Initial Enrollment**

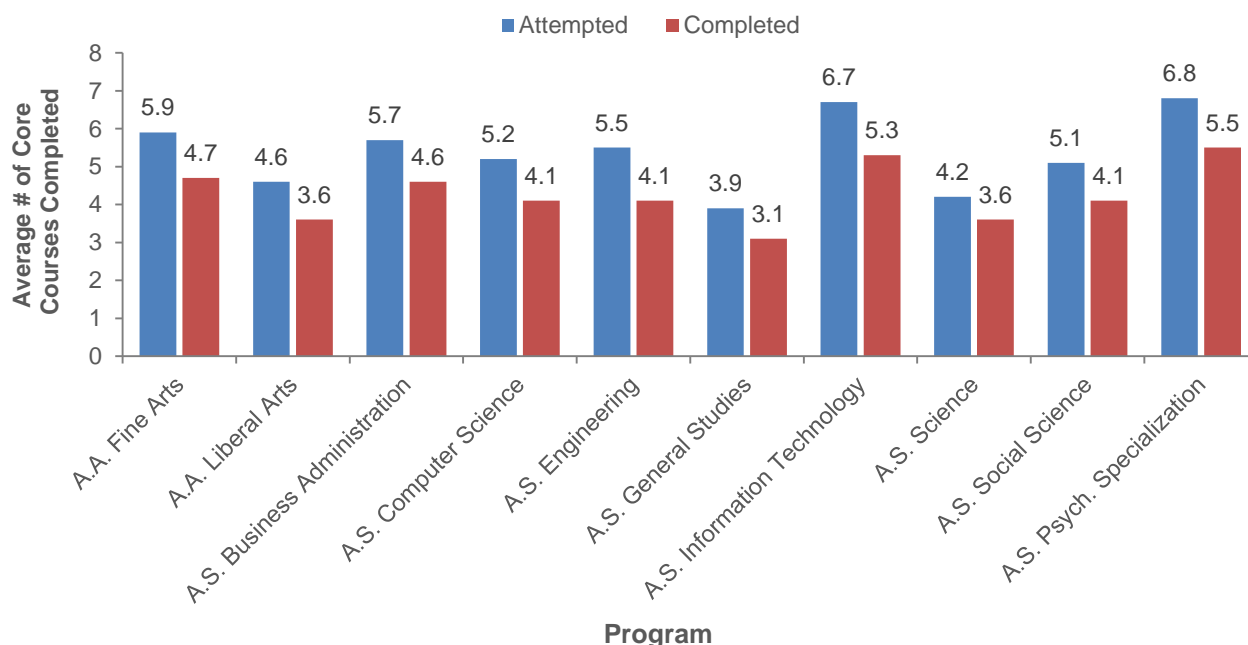
The number of required core courses varied by academic program and ranged from six core courses in the A.S. General Studies program to 16 core courses in the A.S. Social Sciences-Psychology Specialization. Table 1 and Figure 1 present the average number of core courses students *attempted* and *completed*.

- In most programs, on average, students were unsuccessful in at least one core course that they attempted.

Table 1. Average Number of Core Courses Attempted and Completed Three Semesters After Initial Enrollment by Program: Fall 2015 to the End of Fall 2016

Academic Program	Number of Core Courses Required	Average Number of Core Courses Attempted	Average Number of Core Courses Completed	Average Progress Towards Completion of Core Curriculum (%)
A.A. Fine Arts	11	5.9	4.7	42.7%
A.A. Liberal Arts	7	4.6	3.6	51.4%
A.S. Business Administration	10	5.7	4.6	46.0%
A.S. Computer Science	11	5.2	4.1	37.3%
A.S. Engineering	15	5.5	4.1	27.3%
A.S. General Studies	6	3.9	3.1	51.7%
A.S. Information Technology	14	6.7	5.3	37.9%
A.S. Science	8	4.2	3.6	45.0%
A.S. Social Sciences	8	5.1	4.1	51.3%
A.S. Social Sciences/Psychology	16	6.8	5.5	34.4%

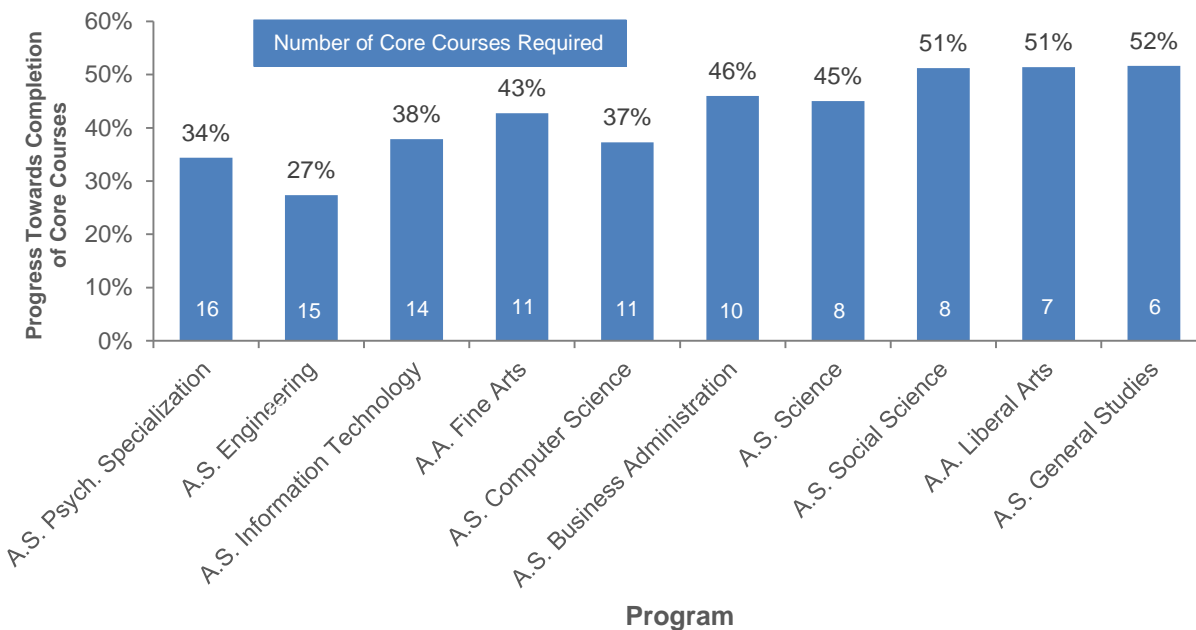
Figure 1. Average Number of Core Courses Attempted and Completed Three Semesters After Initial Enrollment by Program: Fall 2015 to the End of Fall 2016



As can be expected, students in programs with a higher number of core courses to complete made less progress in completing core courses (Figure 2).

- Students in the A.S. Social Sciences-Psychology Specialization (16 core courses) had completed on average 34 percent of the required core courses.
- In comparison, students in the A.S. General Studies program (6 core courses) had completed 52 percent of the core courses required by the end of Fall 2016.

Figure 2. Average Progress towards Completion of Core Courses Three Semesters After Initial Enrollment by Program: Fall 2015 to the End of Fall 2016



Note: Figure is ordered by number of core courses required.

Figure 3 (next page) presents a detailed breakdown by program of the number of core courses completed by students.

- Although students in programs that required relatively fewer core courses had made greater *progress* toward completing their degree requirements within three semesters, these students were not necessarily more likely than other students to have completed a greater *number* of core courses.
- In fact, students in programs with a larger number of core course requirements had generally completed a greater number of core courses after three semesters than those in programs that required relatively fewer core courses.
- For example, while 13 percent of full-time students in the A.S. General Studies program had completed 6 core courses within three semesters, 52 percent of students in the A.S. Social Sciences-Psychology Specialization had done so. However, the A.S. General Studies program has only 6 core courses, while the A.S. Social Sciences Psychology program has 16.

Figure 3. Number of Core Courses Completed Three Semesters After Initial Enrollment by Program: Fall 2015 to the End of Fall 2016

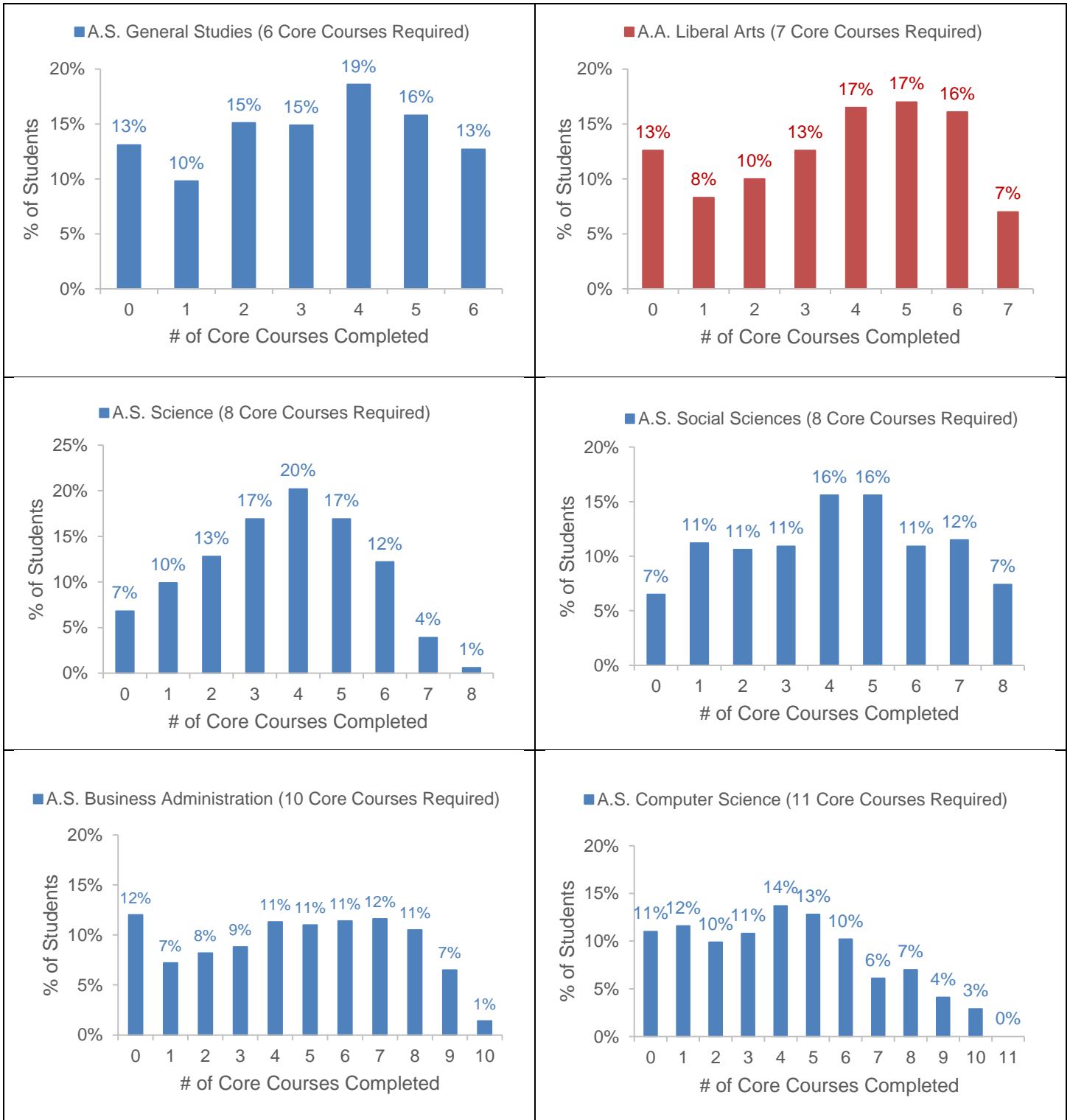
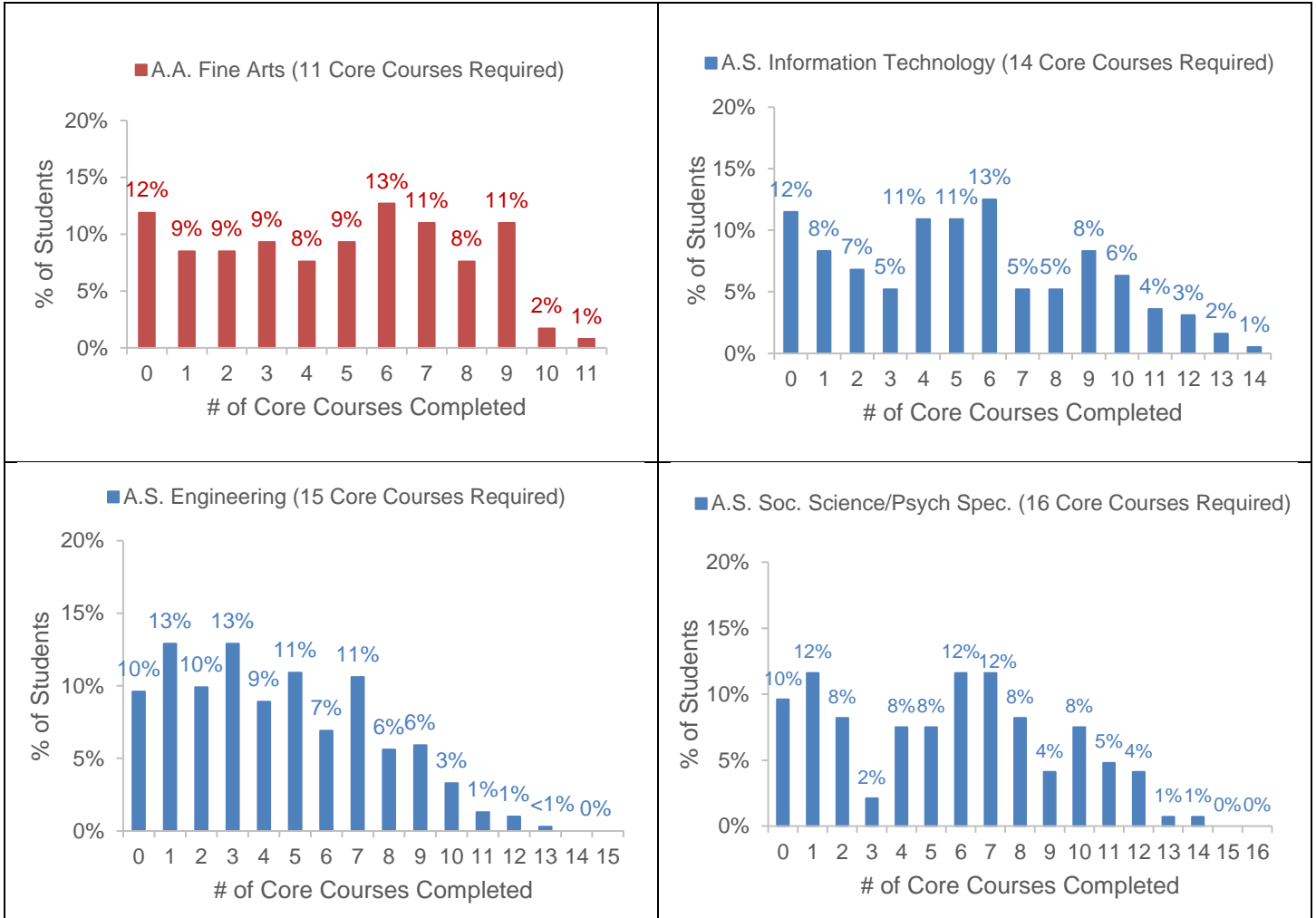


Figure 3 (Cont'd). Number of Core Courses Completed Three Semesters After Initial Enrollment by Program: Fall 2015 to the End of Fall 2016



Section 2. Median Number of Credits Completed Three Semesters After Initial Enrollment

The total number of credits required for graduation ranges from 60 to 68 credits for the programs presented in this Brief. As shown in Table 2, the median number of credits *attempted* varied by program, from 34 credits in the A.A. Fine Arts program to 40 credits in the A.S. Science program. The median number of credits actually *completed* within three semesters by students in the Fall 2015 cohort ranged from 26 to 31.5 credits.

- The median number of credits attempted tended to be higher in programs that required a higher number of total credits to graduate.
- Across most programs, three semesters after initial enrollment, the median full-time student had completed fewer than half the credits required for graduation.ⁱⁱⁱ

The presented median credits *attempted* and *completed* overestimate student progress towards degree attainment as it includes credits that do not count towards graduation. In particular, median credits includes developmental courses. About 40 percent of the Fall 2015 cohort enrolled in a developmental course at some point between Fall 2015 and Fall 2016. Enrollment in developmental courses is another important determinant of student progress and may have varying significance across academic programs.

Comparing median credit completion to core course completion shows that students who are completing fewer core courses are not necessarily completing fewer courses overall.

- For example, A.S. Science students completed a relatively high number of credits (31.5) but a relatively low number of core courses (3.6) (see Table 1 and Table 2).

**Table 2. Median Number of Credits Attempted and Completed by Program:
Fall 2015 to the End of Fall 2016**

Program	Total Credits Required for Graduation	Median Credits Attempted	Median Credits Completed
A.A. Fine Arts	60	34.0	27.0
A.A. Liberal Arts	60	35.5	27.0
A.S. Business Administration	61-65	38.0	28.0
A.S. Computer Science	60	39.0	28.5
A.S. Engineering	67-68	39.0	30.0
A.S. General Studies	60	36.0	26.0
A.S. Information Technology	62	38.0	31.0
A.S. Science	60-64	40.0	31.5
A.S. Social Science	61	36.0	26.0
A.S. Social Sciences/ Psychology Specialization	61	37.0	29.0

Note: A small percentage of students made multiple attempts at a single course. Credits include developmental and other courses that do not count towards graduation.

ⁱⁱⁱ Also see Research Brief 46-17 for data on four-year graduation rates by program.

Conclusion

In summary, differences in core curriculum requirements make cross-program comparisons difficult. The number of core courses required varies from 6 courses in the A.A. General Studies program to 16 courses in the A.S. Psychology Specialization program. As such, students in the Psychology Specialization program completed more core courses and yet still appeared to be further behind in their progress towards degree attainment. Additionally, students may choose not to work on core requirements immediately but may make significant progress towards completing their electives. As such, an analysis of progression through core courses is best accompanied by an analysis of all credits completed.

Overall, median credits completed was lower in the A.A. programs than in the A.S. programs. The data suggests that three semesters after initial enrollment at NOVA, the median student across all programs had completed less than 50 percent of the credits required to graduate.

In this Brief, median credits may include credits that do not count towards graduation. This is significant as 40 percent of the Fall 2015 cohort enrolled in developmental courses at some point between Fall 2015 and Fall 2016. Enrollment in developmental courses may affect the number of courses that students can enroll in. For example, developmental students may not be able to enroll in ENG 111 and a college-level math until they have met their developmental course requirements. This likely hampers overall progression through core course requirements. The proportion of developmental students is known to vary across programs and future Briefs on this subject should examine progression through developmental courses, core courses, and elective courses.

References

Calcagno, J. C., Crosta, P., Bailey, T., & Jenkins, D. (2006, October). Stepping stones to a degree: The impact of enrollment pathways and milestones on community college student outcomes. CCRC Working Paper No. 4. New York: Columbia University, Teachers College, Community College Research Center.

Chen, X. (2005). First-generation students in postsecondary education: A look at their college transcripts (NCES 2005-171). Washington, DC: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education.