Transfer patterns of Seneca's business students: Student profile and academic success at Toronto universities

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Executive Summary

Students in Toronto, Ontario, have several options close to the city when considering post-secondary institutions to attend, including, but not limited to, York University, Ryerson University, and Seneca College. The proximity of these and other post-secondary institutions in Toronto facilitates the movement of students between institutions and the creation of pathways.

Recently, ONCAT's business transfer committee, which is composed of college and university representatives from business faculties across Ontario, set a priority to "gather data and create a report to share widely on the success of transfer students in business." To address that priority, this study investigates the academic success of students who were enrolled in a Seneca College business program during 2012 through 2017, who either transferred to Seneca from York University or Ryerson University, or transferred from Seneca to York or Ryerson. Research questions include:

- 1. What share of Seneca's business students, including non-graduates and graduates, continue to a university program (including graduate degrees)? What share of Seneca business entrants transfer from a university program (including graduate certificates)?
- 2. What is the socio-demographic and academic profile of students who transfer in each direction? How does it compare with the profile of Seneca business students who have not transferred?
- 3. How well do transfer students perform academically after transfer? What are the sociodemographic, program and academic characteristics of those who are successful after transfer?
- 4. How well are students performing within transfer agreements and other high-volume pathways? Does the amount of transfer credit provided have an effect on student success?

METHODS

The sample for the current study includes all Seneca students who enrolled in a business program at Seneca during 2012-13 to 2016-17 (n=24,610). The study sample was shared with York and Ryerson who, using a matching procedure based on students' personal identifiers, identified which of these students had enrolled at each respective institution at any time from 2007 to 2018. For each matched student, the universities then extracted detailed student

data including: the program(s) enrolled in, credits attempted and earned per term, amount of transfer credit awarded upon university entry, term and cumulative GPA, graduation status, and program of graduation. Seneca merged the extracted university data with the College's previously created linked data file for all Seneca students. This linked dataset includes data on student demographics, Seneca grades and enrollment status, student survey responses at entry, math and English testing results, high school records, and neighbourhood income data from the 2006 census. This study presents the results of both descriptive and regression techniques.

RESULTS

Of the 24,610 students enrolled in a Seneca business program between 2012 and 2017, approximately 11% attended either York or Ryerson between 2006 07 and 2017 18, and 0.2% attended all three institutions. In total, 1,233 transferred from York to Seneca, 392 from Ryerson to Seneca, 701 from Seneca to York, and 395 from Seneca to Ryerson.

Student profile

- Overall, Seneca's business student population is older, with only 43% of students starting at age 20 or under. The share of Seneca students age 20 and under was much larger for those who transferred to York (71%) and Ryerson (58%). In contrast, the share of students age 20 or under entering Seneca from York or Ryerson was much lower, at 42% and 20% respectively.
- Business programs at Seneca attract large numbers of international students, with an overall share of 36% for the years studied. A high percentage of students who transferred from Seneca business to York were also international (42%) compared to the share who transferred to Ryerson (42% vs. 11%). The large majority of students transferring from York or Ryerson to Seneca were Canadian citizens (84% and 89%, respectively). Only 12% of transfers from York and 6% from Ryerson were international students.
- Two thirds of students who eventually transferred to Ryerson or York had plans for university upon college entry.
- University graduates entering Seneca primarily enrolled in graduate certificate
 programs (87%), whereas those who did not complete their university degree entered
 a range of credentials at Seneca, with 18% choosing a college degree. Of Seneca
 students continuing on to York or Ryerson, an overwhelming share entered business
 or related programs (82% at York, 95% at Ryerson), whereas university students
 entering Seneca came from various university programs.
- Only 32% of students entering Seneca graduated from university pre-transfer, whereas 78% of Seneca students who transferred to York or Ryerson had graduated pre-transfer.
- York and Ryerson students who came to Seneca without a degree had poor grades, with over two thirds obtaining an average of D or below prior to transfer. In contrast, the university degree-holders who transferred had much stronger grades, with 71% of Ryerson transfers and 47% of York transfers having a university average of B or above.
- Of Seneca students who transferred to university, 58% had a Seneca average of B or above, with graduates having higher averages than non-graduates.

Propensity to transfer to university: Older students, international students, and those who reported English as their first language, were less likely to transfer to York or Ryerson.

Students in three-year diploma programs were most likely to transfer compared to students in the other credentials, whereas students from hospitality and tourism programs were less likely to transfer compared with students from most other program areas. Overall, academically stronger students were more likely to continue on to university: students who took university preparatory courses in high school, obtained good grades at Seneca, and performed well in math assessment testing at Seneca entry, were more likely to continue on to Ryerson or York. As would be expected, having plans for university at college entry, or receiving transfer advising at Seneca's Degree and Credit Transfer Office (DCTO), greatly increased the rate of transfer.

Comparison of transfer and non-transfer Seneca students: Students entering business programs from university have stronger high school grades and assessment scores than other non-transfer students, and are more likely to be retained and obtain good grades at Seneca. However, when these background characteristics, as well as socio-demographic characteristics, are controlled for in the regression models, university students perform similarly to other Seneca students.

Success after transfer: Few factors were found to significantly influence success for students who transfer to York or Ryerson: students who scored higher on math assessment upon Seneca entry and who had stronger Seneca GPAs (pre-transfer) obtained higher university GPAs and had higher odds of being retained within a year of transferring. The lack of effect of socio-demographic characteristics of interest (such as gender, age, status in Canada, first language) on post-transfer success is interesting; these characteristics may have directly influenced students' pre-transfer GPA and academic success, but had little or no direct effect on their post-transfer academic success.

At Seneca, students transferring from York or Ryerson obtained higher GPAs if they were female, came from a middle-income rather than a low-income neighbourhood, and had a parent with a degree. Academic background, including higher HS grades, English and math assessment testing, and university GPA were all associated with a higher GPA at Seneca. Similar factors were significant in the odds of graduating on-time, however, income and parent's education, and English assessment scores were not significant in the regression models.

Pathway analysis: For students entering Seneca from York or Ryerson, the selected pathways of interest were those entering a degree or graduate certificate program in business. Overall, 12% of Seneca's business degree students had transferred from York or Ryerson; over half them had pursued a business or related degree at university. These students had previously struggled in university, with 85% obtaining an average of D or below, and thus appear to be using the college degree pathway as a "second chance" at acquiring a degree. At Seneca they obtained lower grades than the non-transfer students (GPA of 2.3 vs. 2.5 for non-transfers) and had a higher withdrawal rate at three years after program entry (36% vs. 28%).

In contrast, students entering Seneca's graduate certificate programs in business had good grades at university and performed very well at Seneca in terms of graduation rates and grades; 84% graduated within one year, with a GPA of 3.6 /4. Students were primarily graduates from the social sciences and humanities (77%), with 58% entering one of two Seneca business programs: Human Resources Management and Public Relations – Corporate Communications.

Established pathways from Seneca business diplomas to commerce degrees were selected for in-depth analysis of Seneca business students who transferred to Ryerson or York. Overall,

these long-standing pathways appear to be functioning well. The Seneca-to-Ryerson business pathway focuses on graduates of three-year business diploma programs who for the most part can enter the third year of one of several business management majors, or enter a standalone two-year degree completion program in business technology management. Despite taking, on average, a reduced course load, 43% obtained a Ryerson degree within two years, and 73% had a degree within three years of entering. At York, pathways to commerce degrees attract more Seneca graduates of two-year programs, and students on average take a reduced course load. Overall, 24% of Seneca graduates of two-year business programs completed a commerce degree at York within two years, and 40% within three years. In comparison, 29% of the three-year diploma graduates completed their degree at York within two years, and 35% within three years. Regression models using the whole population of students who transferred to university, irrespective of pathway, showed that it was the amount of credit or advanced standing, as well as Seneca pre-transfer grades, that explained who graduated within two years. There was no institutional effect, indicating that the transfer policy was the key determinant.

CONCLUSIONS

The significant bi-directional movement of students between Seneca College and major neighbouring universities, York and Ryerson, is noteworthy, reflective of longstanding institutional partnerships. Key drivers of success post-transfer (GPA and retention) include a student's GPA prior to transfer and math assessment scores, regardless of pathway (university to college or college to university).

Overall, the results suggest there are two populations of students taking the university-to-college pathway: (1) those who did poorly in university and did not graduate and are seeking a second chance at a post-secondary credential and 2) those who are successful university graduates and are choosing one-year graduate certificates with specialized training to prepare them for the labour market. Seneca business students transferring to university are, primarily, academically strong students who are continuing in business by laddering their Seneca diploma to a university degree.