

The Changing Patterns of College-to-University Transfer: Examination of Ontario's Graduate Satisfaction Survey 2007-2015

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Executive Summary

The ability of Ontario college students to transfer credits to the university sector in Ontario has been an ongoing issue for many years. Progress toward a more seamless postsecondary education system has been slow and steady (CRSM, 2015), culminating in the announcement in 2011 by Ontario's Ministry of Training, Colleges and Universities (MTCU) of a new provincial credit transfer framework, committing \$73.7 million over five years.

This report describes provincial trends in college transfer to university using data from the Ontario College Graduate Satisfaction Survey (GSS) for the years 2007 to 2015. The study tracked the volume of graduates moving between college and university, and their characteristics and experience of transfer. Of the 694,379 graduates, 444,451 participated in the GSS, for an average response rate of 64%.

The research questions include:

1. What are the trends in transfer to further education after graduation?
 - a. Which institutions and programs are college graduates choosing? Has the distribution changed among institutions, credentials or programs?
 - b. Are graduates entering programs that more closely align with their college credential? Has the amount of reported transfer credit changed?
 - c. What is the student profile of college graduates who transfer?
 - d. Why do college graduates transfer to university?
 - e. What information sources on transfer are graduates using?
2. Are college transfers to university satisfied with their academic preparation and transition experience?
3. What factors, including socioeconomic and transfer-specific characteristics, influence the transfer rate and satisfaction with the transition experience?

The study incorporates new variables including disability and Aboriginal self-identity to test whether students who are under-represented in the direct entry pathway to university, are also under-represented in the college-to-university transfer pathway.

The first section of this report shows the full complement of transfer pathways for all college graduates. The remaining sections focus on transfer to university programs for college graduates of one-year certificate and two-and three-year diploma programs, excluding college degree and graduate certificate programs.

Results

Transfer rates

The overall percentage of college graduates furthering their education has been fairly stable at approximately 26%. However, the percentage transferring to a university program has decreased, from 8% in 2006–07 to 5.5% by 2014–15. In contrast, the share transferring to a college program has increased, from 17% to 19.1% over the same period. When graduate certificate and college degree programs are excluded from the analysis, the transfer rate declines from 8.3% to 6.3%. Controlling for any changes in the composition of students, programs, or college profiles, the regression models show that the graduating years of 2012 to 2015 had significantly lower transfer rates than the 2007 reference year.

Factors that may have contributed to this trend include: the increased number of students, particularly international students, entering college with a degree; the increase in pathway options to a degree, such as college degree programs and access programs in university; increased student spaces in universities due to shrinking demographics; and greater awareness of the career options for graduates with a college credential (non-degree).

Ontario college graduates who were less likely to transfer were female, older, international, originally from neighbourhoods that were low-income or where English was the first language, and graduates whose campus of college graduation was beyond a commuting distance to university. Graduates who reported a disability were slightly less likely to transfer, and Aboriginal students were equally as likely to transfer. Graduates of advanced diploma and community service and preparatory/upgrading programs were more likely to transfer. Transfer largely occurred within related fields of study.

Major shifts in regional transfer rates occurred in 2007 to 2015. In 2007, Metro Toronto and the surrounding Central Region had much higher transfer rates than the rest of the province; by 2015, however, their rate was similar to that of other provincial regions. La Cité collégiale continues to have the highest percentage of graduates who transfer, at 14% in both 2007 and 2015, whereas Durham College has experienced the highest rate increase and now has the second highest rate in the province at 9% vs 6.6% in 2007. In terms of absolute numbers of transfers, the larger Metro Toronto colleges still predominate, with Humber, Seneca, and George Brown ranked in the top three. York and Ryerson universities continue to rank first and second in the volume of transfers received, with University of Ontario Institute of Technology (UOIT) moving toward a tie with the University of Ottawa for third place. However, when the amount of transfer is weighted to enrolment, the Northern universities are receiving a much larger share of transfer students compared to other Ontario universities across the province.

Transfer experience

Overall, university transfers reported being satisfied with their academic preparation (85%), the college-to university transition (81%), and their college education (87%). These values have been stable since 2007.

University transfers who made use of information were more satisfied with their transition experience, particularly those who used college sources (5 percentage points more likely to be satisfied) or university sources (3 percentage points more likely). Graduates who transferred for academic or program related reasons were more satisfied with their transition experience, whereas those transferring due to encouragement from others, or to advance their careers or employment outlook, did not differ in their satisfaction level.

As might be expected, transfer credit that either met or exceeded expectations is a very large influencer on satisfaction with the transition experience. As well, receiving transfer credit and transferring to a related program area are also positive influencers on transfer. The timing of notification of credit is not significant.

Conclusions

The study of transfer rates, the transfer experience, and trends over time is a complex endeavor, particularly in a dynamic environment with shifting student aspirations and demographics, a proliferation in new program offerings at colleges and universities, and changing labour market demand. Further

research should focus on areas such as the role of college-university transfer for groups traditionally under-represented in university, and the effectiveness of current transfer agreements to support students. The creation of data infrastructure using the Ontario Education Number can provide central tracking of transfer rates, so that transfer can be measured by student demographics, region, transfer credit, and student retention and success after transfer. Administrative data, however, cannot capture the student perspective, and an ongoing reliance on survey data such as the Ontario College Graduate Satisfaction Survey, together with other qualitative research, will be required.

Introduction

The ability of Ontario college¹ students to transfer credits to the province's university sector has been an ongoing issue for many years. However, when the college system was created, then Education Minister Bill Davis announced that “no able and qualified student should be prevented from going on from a College of Applied Arts and Technology to a university.” He recommended the creation of a committee to set the conditions under which qualified college graduates would be admitted to university. Progress toward a more seamless postsecondary education system in Ontario has been slow and steady (CRSM, 2015), culminating in the announcement in 2011 by Ontario's Ministry of Training, Colleges and Universities (MTCU)² of a new provincial credit transfer framework, committing \$73.7 million over five years. The purpose of this framework was to develop a more comprehensive and transparent system of pathways and credit transfer. Concurrently, the province created The Ontario Council on Articulation and Transfer (ONCAT), with the goal to enhance student pathways and reduce barriers for students looking to transfer among Ontario's 44 publically funded postsecondary institutions.

One of the barriers to a progress evaluation of college to university transfer pathways has been a lack of system-wide data on the volume of movement between sectors, the experience of students who transfer, and their success after transfer. Many early discussions on transfer pathways were based on anecdotal data or on data from a single institution. One of the few province-wide sources available has been Ontario's Graduate Satisfaction Survey (GSS), a census of all publically funded college graduates six months after graduation. Initiated in 1998, the GSS originally asked graduates whether they were attending school full or part time, at which college or university, in what program type and area of study, and why they were continuing. This data was used for reporting purposes on both an institutional (Decock, 2006) and provincial basis (Colleges Ontario, 2005, 2008; Decock, McCloy, Liu, & Hu, 2011; CCI Research, 2011), focusing on trends in overall transfer rates, and transfer rates by sending and receiving institution. Provincially, these reports show that, based on the GSS data, the overall transfer rate to university for college graduates rose from 6% in 2001–02, peaking at 8.7% and 8.8% in 2004–05 and 2005–06 respectively, before declining to 7.7% in 2008–09. Throughout all these years, York and Ryerson universities continued to receive the most university transfer students, with La Cité collégiale and Seneca College having the highest share of graduates continuing on to university.

In 2005, the colleges worked with Ontario's Ministry of Training Colleges and Universities (MTCU) to add to the GSS a module on the transfer experience of those who continued their education full time. The module included items on information sources; satisfaction with academic preparation and the transfer experience; revised reasons for continuing; perceived affinity between program transferred from and entered; and amount, timing, and satisfaction with transfer credit. Provincially, this data has been used in three reports including an in depth review of both college and university transfer of the 2006–07 graduates (Decock, et al., 2011); a review of Ontario's college-university transfer (Kerr, McCloy, & Liu, 2010), part of which included three years of graduate data; and a study of college and university transfer up until the 2008-09 graduating year (CCI Research, 2011). The results showed that college graduates who transfer were, overall, satisfied with their academic preparation, relied primarily on transfer information from colleges and university instead of personal sources, and largely entered related

¹ The term “college” used throughout this report refers to Ontario's publically funded college system, consisting of 24 Colleges of Applied Arts and Technology.

² MTCU was recently renamed the Ministry of Advanced Education and Skills Development (MAESD).

programs. Reasons for continuing were mainly career and credential related as well as increasing their skills and knowledge. The Metro Toronto area colleges and universities had the largest volume of transfers, and the largest share of their graduates transferring. University transfers were more likely to be younger, from preparatory or community service programs, and from three-year diploma programs.

The number of transfer agreements has since grown – the provincial government has invested more money into the development of pathways, and institutions have increased initiatives to foster student mobility (CRSM Briefing Note, 2015). In addition, the GSS data has since become a critical data source for provision of transfer grants and as transfer performance indicators in the Strategic Mandate Agreements between Ontario’s Ministry of Advanced Education and Skills Development (MAESD) and the province’s publically funded postsecondary institutions.³ MAESD uses GSS data to distribute the Credit Transfer Innovation Grant (CTIG) to colleges based on each institution’s share of Ontario university transfer students. The most recent Strategic Mandate Agreements (SMA) also incorporate the transfer rate calculation used for CTIG, but also includes two satisfaction indicators derived from the GSS. These include the percent of Ontario university transfers who were satisfied with their academic preparation, in addition to the percentage satisfied with their transition experience.

Accessibility to college and university remains a priority for student groups, institutions, and the Ontario government, with indicators included in each institution’s SMA. Multiple studies show lower rates of access to university for students who have disabilities, are low income, Aboriginal, or from rural communities or communities beyond a community distance to a university (Finnie, Childs, & Wismer, 2011; Norrie & Zhao, 2011; Zhao, 2012). These studies also indicate that the college population is more reflective of the overall population, and some evidence suggests that transfer students at university are more likely to come from these under-represented groups than are those who enter directly (Kerr et al., 2010; Dumaresq et al., 2003).

This study incorporates key demographic variables that were neither previously available nor created in the aforementioned studies, using responses to new GSS questions in recent years on disability and Aboriginal self-identity. As well, the current study derives a neighbourhood income measure and whether the graduate is from a rural or urban community based on their postal code. Proximity to a university is derived from the distance between the college campus of graduation and the nearest Ontario university. With the inclusion of these new variables, the study could test whether students under-represented in the direct entry pathway to university are also under-represented in the college-to-university transfer pathway. Research on Seneca College students in Toronto has shown that although neighbourhood income does not affect rates of transfer independently, transfer increases for students who are both low income and have a parent with a degree (Steffler, McCloy, & Decock, 2016). Students whose first language was English were less likely to transfer, and males were more likely to transfer. Aspirations for university upon college entry, and strong college academic performance, were the strongest determinants of transfer.

Research Questions

The study sought to describe provincial trends in college transfer to university, including the transfer rate and the transfer experience. The research questions included:

³ Each of the 45 publically funded colleges and universities has an agreement with MAESD, highlighting institutional priorities. See: <https://www.ontario.ca/page/college-and-university-strategic-mandate-agreements#section-2>

1. What are the trends in transfer to further education after graduation?
 - a. Which institutions and programs are college graduates choosing? Has the distribution changed among institutions, credentials or programs?
 - b. Are graduates entering programs that more closely align with their college credential? Has the amount of reported transfer credit changed?
 - c. What is the student profile of college graduates who transfer?
 - d. Why do college graduates transfer to university?
 - e. What information sources on transfer are graduates using?
2. Are college transfers to university satisfied with their academic preparation and transition experience?
3. What factors, including socioeconomic and transfer-specific characteristics, influence the transfer rate and satisfaction with the transition experience?

Methods

The study uses data from the GSS for the years 2006–07 to 2014–15. The GSS is administered to all college graduates with an Ontario College Credential from a publically funded College of Applied Arts and Technology (CAAT) in Ontario. It is administered approximately six months after graduation through telephone surveys conducted by an external service provider to whom the colleges provide contact information and graduate characteristics such as age, gender, and program of study. The graduate record file of each college is examined by college auditors and reported to MAESD, which uses the results to gauge the performance of colleges on three of the five Key Performance Indicators (KPIs) – graduate satisfaction rate, employment rate, and employer satisfaction rate – each of which is tied to a modest sum of performance funding and made public.

The initial question of the survey asks the student if they went on to further education, either full or part time. Those indicating they were enrolled full time complete a detailed survey about their current education. Graduates who indicate they are working part time and attending school part time are asked several employment-related questions as well as fewer questions on their education. This study uses the following variables from the GSS:

Administrative fields

Administrative fields provided to MAESD by the colleges include program, credential, college, and college campus of graduation, full versus part-time status, gender, age, permanent postal code (first three digits), and international status at graduation. This study derived several variables from these administrative data:

Program area

Seven program area groupings were derived from MAESD's occupation cluster classification system, described in an earlier report by McCloy & Liu (2010).

College region and size

The classifications for college region and size are the same as described previously by McCloy & Liu (2010). The study used the first digit of the college's postal code to determine its provincial region

(Central, Eastern, Metro Toronto, Northern, or Southwestern), and used student enrolment to determine college size (small, medium, or large).

Distance and selectivity of nearest university

A variable was derived from the use of postal codes to indicate the geographical proximity of the nearest Ontario university to the college campus of graduation: 50 km or less, greater than 50 km and less than 80 km, or greater than 80 km. An additional variable was created to describe the academic selectivity of the nearest university, using published historical admission averages⁴.

Neighbourhood income

For a proxy of each graduate's household income, the three-digit permanent postal code was matched to household income data from the 2006 Census. A student's neighbourhood income group was divided into low, medium and high income terciles based on the average pre-tax household income for Ontario households. International and non-Ontario students were excluded from the neighbourhood income analysis.

Survey fields

The specific wording of the questions from the survey used in this report are in the appendix 1. The first question on the GSS asks whether the respondent is enrolled in full- or part-time education in the reference week. If the response is yes, the following information is gathered:

Institution name and type

A drop-down list of names of Ontario publically funded postsecondary institutions is provided to the interviewer. These institutions are subsequently grouped under "university," "college," or "other education". Starting in 2010–11, specific institution names were provided as open ended responses to "other" university, "other" college, and "other education". In the current study, these open field responses were all reviewed, cleaned and recoded as necessary as some responses were found on the Ontario institution list, whereas others were incorrectly identified as colleges or universities and vice versa. Online research was conducted to determine the correct institution type for unknown institutions.

College or university credential

Survey responses were classified as degree, certificate/diploma, degree offered jointly with a college or university, or no credential specified.

University program of study entered

These were classified according to the University Student Information System (USIS).⁵

Reasons for furthering their education

Each question in this series contained three response options for furthering education: "major reason," "minor reason," or "not a reason". Respondents who indicated they were enrolled full time in further education were asked for details about their transfer experience, perceptions, and information sources including:

⁴ Includes universities with high school entering overall averages of over 85%, comprising University of Toronto, McMaster, Queen's, Western, and Waterloo. <https://cudo.ouac.on.ca/>

⁵ http://www23.statcan.gc.ca/imdb-bmdi/document/3124_D3_T4_V1-eng.pdf

- The reported amount, their satisfaction with, and the timing of notification of transfer credit
- Relatedness of university program entered to program from which they graduated
- Whether they would have been accepted into a university program without college graduation
- When they decided to transfer
- Information sources (major, minor, not a source)
- Satisfaction with academic preparation and the transition experience

This report also includes and analysis of the following questions that are asked of all survey respondents:

Disability: Starting in 2013–14, the GSS asked all graduate respondents whether they considered themselves “to have a physical, intellectual, mental health or learning disability” and whether they had registered with disability services at the college while a student.

Aboriginal identity: Starting in 2014–15, the GSS asked graduates if they wanted to “self-identify as an Aboriginal Person, that is, someone who is related to, or descended from, the Original peoples of Canada?”

Satisfaction with goal attainment: Since the survey inception, asked graduates have been asked about their satisfaction with the usefulness of their college education in achieving their goals after graduation. This question also serves as a KPI for the Ontario college sector.

Limitations

Graduates are asked to report on their status during a specified reference week six months after graduating, which may lead to several issues:

- An underestimate of transfer rate, particularly for students who graduate in the fall term as their reference week would be in June/July, a non-traditional enrolment semester.
- Students are asked only if they are currently attending college or university in the reference week, not whether they had ever been enrolled or have registered in an upcoming semester.
- Only graduates are counted. As this is a graduate survey, students who transferred without graduating are not counted. Other research (Smith et al., 2016) has shown that as many as half of those who transferred from Seneca to York University were not graduates.

Results

Overall, approximately one quarter of all surveyed graduates continue their education within six months of graduation, of which two-thirds continue on in college, and one-third in university (Table 1). The most noticeable trend is the decrease in college graduates furthering their education in university, from 8% of 2006–07 graduates to 5.5% of 2014–15 graduates. Far more graduates return to college, with 19% returning in 2015, an increase from 17% in 2007. In an earlier report that analyzed the GSS results from 2001–02 to 2006–07, the overall transfer rate to university in 2001–02 was 6%, peaking at 8.7% in 2004–2005 and 8.8% in 2005–06 (Decock, McCloy, Lin, & Hu, 2011). The peak was likely related to the wave of high school graduates from Ontario’s double cohort (2003) who would have graduated from two- and three-year college programs in each of those years.

Table 1. Percentage of Ontario College Graduates furthering their education by pathway, 2007–2015

	2007	2008	2009	2010	2011	2012	2013	2014	2015	Total
Total # of graduates	60,406	59,012	62,842	72,066	78,651	82,402	87,129	94,232	97,639	694,379
Total # of survey respondents	43,086	40,645	42,185	50,622	57,701	57,462	54,467	52,039	46,244	444,451
Response rate	71.3%	68.9%	67.1%	70.2%	73.4%	69.7%	62.5%	55.2%	47.4%	64.0%
University degree	6.0%	5.5%	6.1%	5.9%	5.3%	5.0%	4.8%	4.2%	4.0%	5.2%
University certificate/ diploma	1.0%	0.9%	0.8%	0.8%	0.8%	0.7%	0.6%	0.6%	0.6%	0.7%
Degree offered jointly with a college	1.0%	1.0%	0.7%	0.7%	0.7%	0.6%	0.6%	0.5%	0.5%	0.7%
University: no credential specified	0.0%	0.0%	0.0%	0.0%	0.5%	0.8%	0.4%	0.3%	0.4%	0.3%
University programs - Total**	8.0%	7.4%	7.7%	7.4%	7.3%	7.1%	6.4%	5.7%	5.5%	6.9%
College degree	0.7%	0.7%	0.7%	0.7%	0.7%	0.9%	0.9%	0.9%	1.0%	0.8%
College certificate/ diploma	15.0%	14.6%	17.7%	16.6%	15.4%	15.7%	15.7%	17.1%	17.2%	16.1%
Degree offered jointly with a university	0.7%	0.7%	0.8%	0.7%	0.6%	0.7%	0.7%	0.7%	0.5%	0.7%
College: no credential specified	0.6%	0.7%	0.2%	0.1%	0.3%	0.2%	0.2%	0.3%	0.4%	0.3%
College programs - Total*	17.0%	16.7%	19.3%	18.1%	17.0%	17.5%	17.6%	18.9%	19.1%	17.9%
Other education	1.7%	1.3%	1.0%	1.2%	0.6%	0.6%	0.4%	0.6%	0.5%	0.8%
Total further education	26.7%	25.4%	28.0%	26.6%	24.9%	25.2%	24.4%	25.2%	25.2%	25.6%

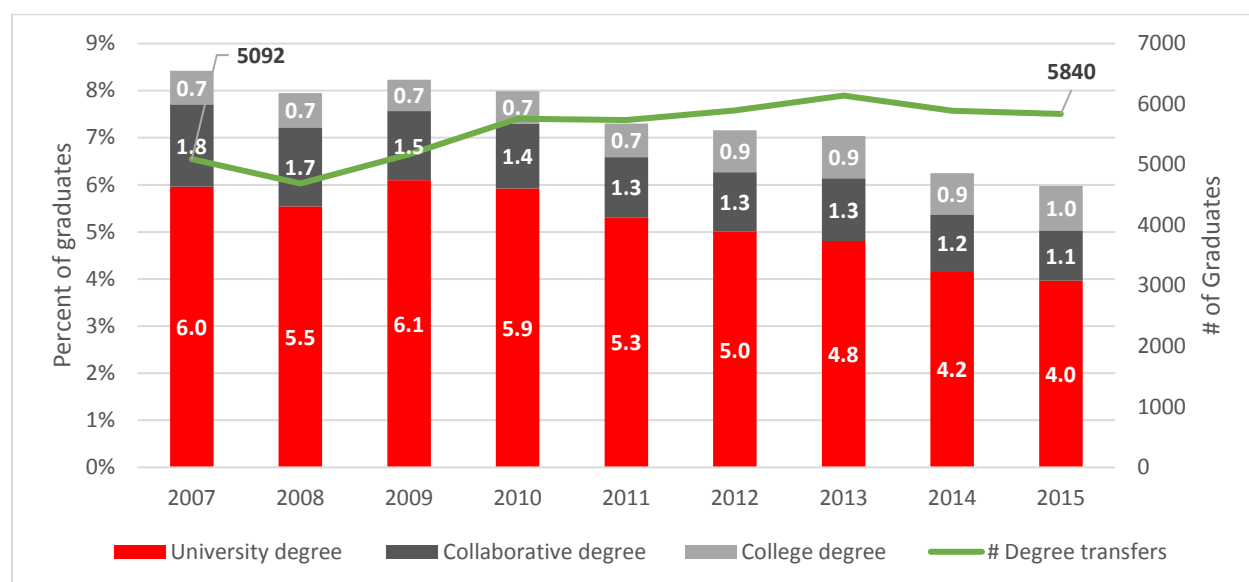
Note: *Major changes in the options for college program types were made for the 2009 survey year, resulting in a lack of comparability to the previous years; **for university program type, the survey started asking in 2009 whether it was an undergraduate or graduate professional degree. “Other education” also included those who did not provide an institution name or type of program.

The question about credential type has a known French-translation issue, with a high share of French-language survey responses indicating university certificate/diploma, rather than degree programs.

College to degree transfer rates

In addition to degrees, universities also offer certificate, diploma and continuing education courses, whereas colleges have offered degrees since 2002. Data on transfers specifically to degree programs at a college or university over time (Figure 1) indicate that the percentage of graduates entering a university degree has declined from 6% to 4%, but without a counterbalance in the percentage entering a college or collaborative degree program — the latter has been moderately stable. However, when the growth in numbers of graduates is taken into account (Table 1), the proportion of transfers entering a degree program has risen modestly since 2006–07, by an estimated 15%.

Figure 1. Percentage and estimated number* of college graduates furthering their education in a degree program, 2006–07 to 2014–15



Notes: The calculation of a transfer rate from college to any degree program is defined as the percentage of survey respondents who indicated they were enrolled full or part time in a university degree, a collaborative university/college degree, or a college degree program. The total number of survey respondents was adjusted by the response rate to produce an estimated total number of graduates entering a degree program using the calculation of: # transfers = (# surveyed respondents in degree program/total survey respondents)*# graduates. There is an issue with the French-language translation for credential, in which “degree option” may be misconstrued for the “diploma option”.

Trends in college degrees granted

An important contextual piece in a review of Ontario transfer rates to university is the growth of college degrees in Ontario. The number of college degree graduates increased from 503 in 2007 to 2,239 by 2015, a rate increase from 0.8% to 2.3%. In regions with high numbers of college degree offerings, students have the option of acquiring a degree, eliminating the need to transfer credits to a university degree program; those at the start of college who intend to obtain a degree, likely may choose to enter a college degree program instead of embarking on a transfer pathway. In short, the college degree programs have likely displaced some of the college-to-university transfer activity. The trends in the provision of college degrees, by region and individual colleges, and the relationship of these trends to regional transfer trends, are shown later in this report.

Who transfers to university?

The first section of this report showed the complete transfer pathways for all college graduates. For the remainder of this report, the focus is specifically on transfer to university programs for graduates of one year college certificates, two year diplomas, or three year degrees, with college degree and graduate certificates excluded.

Demographics

Table 2 and Figure 2 show the transfer rates by graduate characteristics and trends over time. Younger graduates, graduates from urban communities, and those attending college full time at graduation are much more likely to transfer to university. Females and graduates from higher-income neighbourhoods

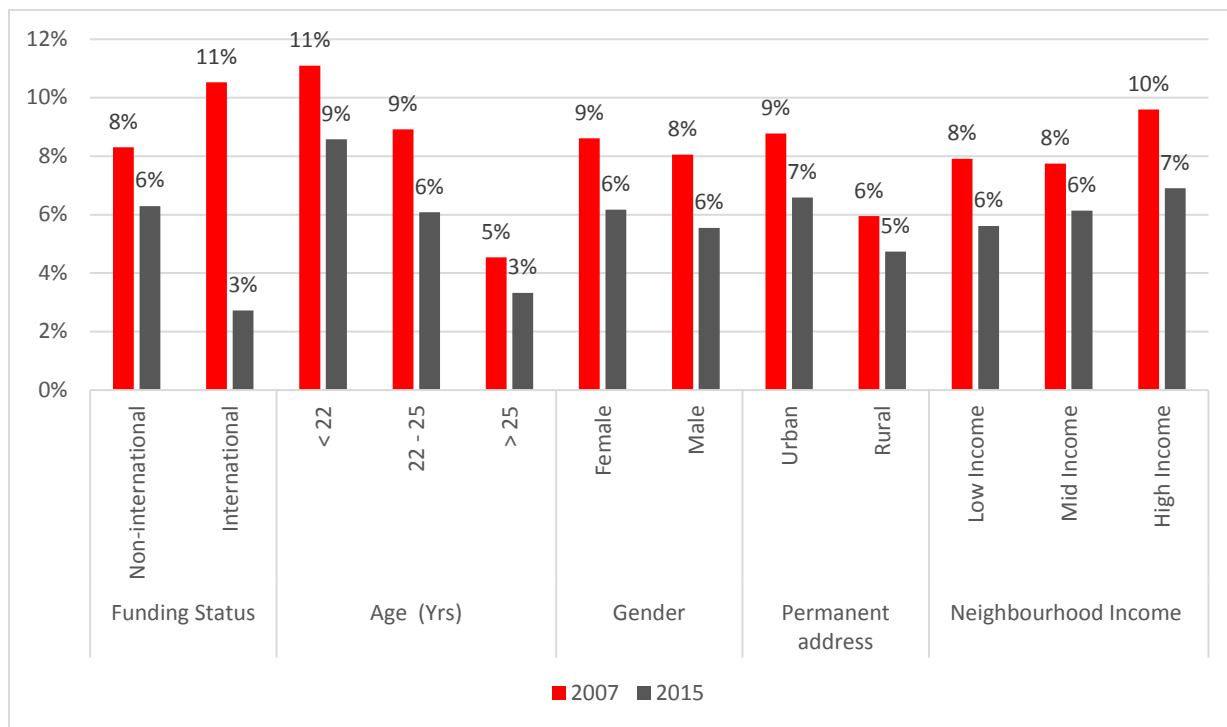
are somewhat more likely to transfer to university. Transfer rates have been declining across all these characteristics, with the decrease in transfer rates for international students the most dramatic. Whereas almost 11% of international graduates continued on to university in 2007, only 2.7% transferred in 2015, a much lower rate than the non-international rate of 6.3%.⁶

Table 2. Transfer by student demographics (one-, two-, and 3-year college programs), 2007–2015 graduates

		2007	2008	2009	2010	2011	2012	2013	2014	2015	Total
Status in Canada	Non-international	8.3%	7.9%	8.1%	7.8%	7.8%	7.8%	7.2%	6.4%	6.3%	7.5%
	International	10.5%	7.2%	7.9%	9.0%	5.7%	3.7%	2.5%	2.2%	2.7%	4.2%
Age (Yrs)	< 22	11.1%	10.4%	10.7%	10.9%	10.9%	10.6%	9.5%	8.6%	8.6%	10.2%
	22 - 25	8.9%	8.3%	8.6%	8.3%	8.9%	8.1%	7.2%	6.4%	6.1%	7.9%
	> 25	4.5%	4.4%	4.5%	4.1%	3.7%	4.1%	3.9%	3.2%	3.3%	3.9%
Gender	Female	8.6%	8.2%	8.3%	8.2%	8.0%	7.9%	6.9%	6.1%	6.2%	7.6%
	Male	8.1%	7.4%	7.8%	7.3%	7.3%	6.9%	6.6%	5.8%	5.5%	6.9%
Permanent address	Urban	8.8%	8.4%	8.6%	8.2%	8.1%	8.2%	7.6%	6.7%	6.6%	7.9%
	Rural	5.9%	5.0%	5.4%	5.5%	6.0%	5.7%	5.3%	4.9%	4.7%	5.4%
Neighbourhood income	Low	7.9%	7.4%	7.6%	7.4%	7.1%	7.2%	6.7%	6.0%	5.6%	7.0%
	Middle	7.7%	7.4%	7.5%	7.7%	7.6%	7.5%	6.9%	6.1%	6.1%	7.2%
	High	9.6%	9.3%	9.3%	8.1%	8.8%	8.4%	7.9%	6.5%	6.9%	8.3%
Course load at graduation	Full time	8.6%	8.1%	8.4%	8.1%	7.9%	7.8%	7.1%	6.3%	6.2%	7.6%
	Part time	6.7%	6.7%	6.5%	5.9%	6.6%	5.8%	5.0%	4.3%	3.9%	5.7%
Total		8.4%	7.8%	8.1%	7.8%	7.7%	7.5%	6.8%	6.0%	5.9%	7.3%

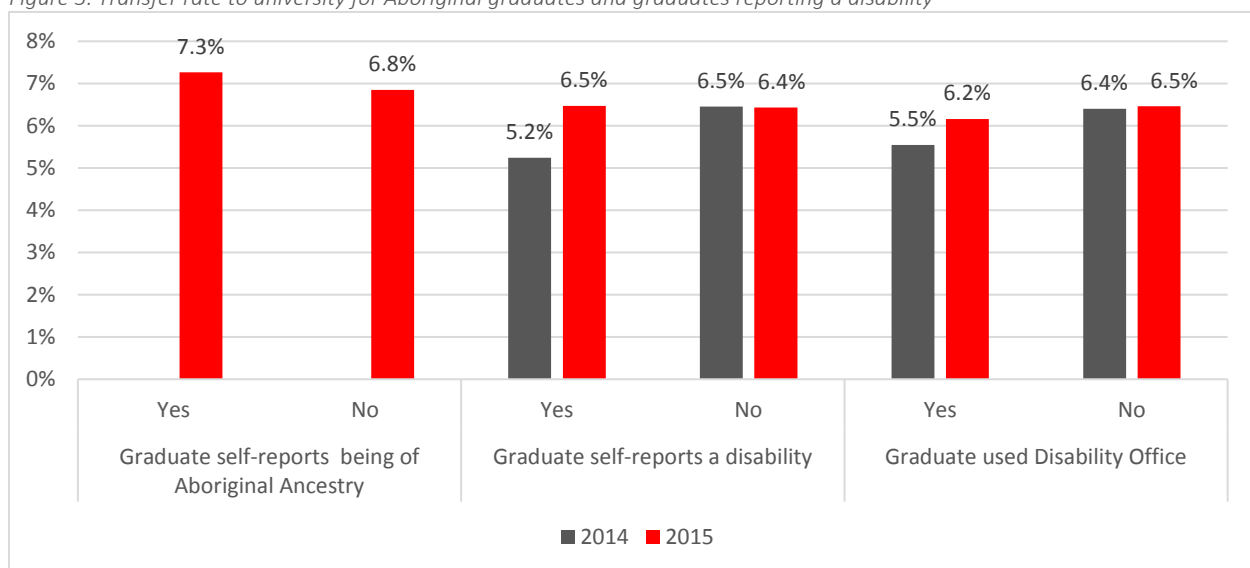
⁶ A report by the authors “Mobility of International Students in Ontario Colleges” focuses specifically on the mobility pathways of international students and graduates.

Figure 2. Transfer rate by graduate demographics, 2007 vs 2015



For 2013–14, the transfer rate to university was slightly lower for college graduates who self-reported having a disability, or who reported using the Disability Services Office (Figure 3). However, in 2015, the transfer rates for both measures of disability status were similar. Additionally, GSS data for 2015 show that the transfer rate was slightly higher (7.3%) for those self-identifying as Aboriginal, relative to those who were not (6.8%).

Figure 3. Transfer rate to university for Aboriginal graduates and graduates reporting a disability



Note: The questions on disability have only been included in 2014 and 2015, and Aboriginal identity in 2015.

Transfer by program characteristics

The analysis of transfer trends by student demographics shows a decline in transfer rates over time. Similarly, the decline in transfer rates is fairly consistent across credentials and program areas. Advanced diploma programs (three years) have the highest transfer rate, averaging 11%, followed by two-year diploma programs at 7%, and one-year certificate programs at 5% (Table 3). Program areas with the highest rate of transfer are preparatory/upgrading (14%), community service (12%), and business (9%). The decrease in preparatory program transfer rates is notable, from 16% in 2007 to 10% in 2015. Since 2007, a detailed analysis of program offerings within the two-year General Arts and Science (GAS) programs show that these programs are growing, and have become increasingly geared toward upgrading, particularly English-language learning, than to university transfer.⁷

Table 3. Transfer rate to university by program characteristics (one-, two-, and three-year programs), 2007–2015 college graduates

		2007	2008	2009	2010	2011	2012	2013	2014	2015	Total
Credential type	Cert.	5.4%	6.1%	6.3%	5.8%	5.3%	5.5%	4.8%	4.0%	4.7%	5.3%
	Diploma	8.4%	7.8%	7.7%	7.4%	7.3%	6.9%	6.3%	5.6%	5.6%	7.0%
	Adv. Diploma	10.7%	9.6%	11.0%	11.0%	11.8%	11.3%	10.6%	9.6%	8.3%	10.5%
Program type	Business	10.0%	9.0%	10.0%	10.1%	9.7%	9.6%	8.4%	7.7%	7.7%	9.2%
	Community Service	13.9%	13.2%	13.2%	12.8%	12.5%	12.5%	11.6%	10.3%	10.1%	12.2%
	Creative and Applied Arts	5.4%	4.9%	4.6%	4.8%	4.9%	4.5%	3.8%	3.8%	3.7%	4.5%
	Health	2.2%	2.1%	2.1%	2.0%	1.8%	1.5%	1.5%	1.6%	1.8%	1.8%
	Hospitality	2.8%	3.1%	2.6%	2.6%	3.8%	2.7%	1.9%	1.5%	1.5%	2.5%
	Prep/Upgrading	16.4%	16.8%	17.5%	15.8%	15.1%	14.5%	12.4%	10.2%	10.2%	14.2%
	Engineering/Technology	4.3%	3.8%	4.2%	3.8%	3.9%	3.8%	4.0%	3.3%	3.3%	3.8%
Cohort size	<100	6.9%	6.3%	6.7%	6.5%	6.7%	6.5%	5.9%	5.4%	5.7%	6.3%
	100-200	9.8%	11.2%	11.3%	10.0%	8.8%	8.4%	8.6%	7.2%	6.4%	8.9%
	>200	17.3%	15.2%	13.1%	12.2%	11.0%	10.3%	7.8%	6.3%	6.0%	10.1%

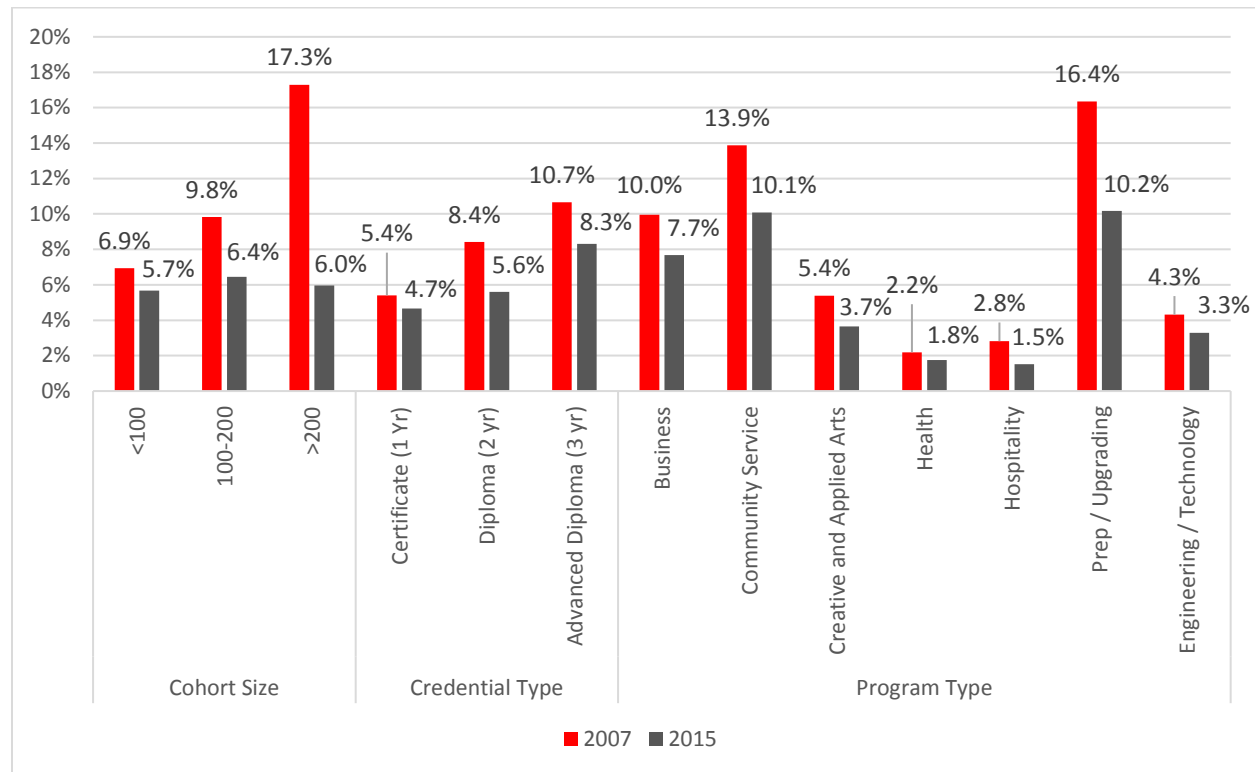
Transfer rates have declined rapidly for the very large college programs with greater than 200 graduates (Table 4). The sharp drop in transfer rates for the large, two-year programs in Early Childhood Education (ECE)⁸ and GAS likely accounts for this decline. In 2007, ECE was the largest supplier of transfers, but by 2015 it fell to fourth place because of changes in the labour market and the creation of college degree programs in the area (McCloy, Steffler, & Decock, 2015). The decline in transfer rate for the two-year GAS program is largely the result of changes to its program composition across the province.

⁷ For example, Humber and Conestoga College's two year GAS provides ELL for academic purposes, whereas Niagara College's two year GAS is a large college preparatory program.

⁸ The changing patterns of transfer in Ontario's ECE programs are the subject of a report by the authors: <http://www.senecacollege.ca/mobilityresearch/reports/The-impact-of-labour-market-and-policy-changes-on-university-transfer-The-case-study-of-Early-Childhood-Education.pdf>

The Social Service Worker program is now the top supplier of college graduates continuing on in university, followed by the one-year GAS program. In terms of estimated absolute numbers of transfers, Social Service Worker, Preparatory Health Science, and Child and Youth Worker programs have increased the most. Although these programs have grown rapidly, thus increasing the numbers of transfers, their transfer rates have remained constant.

Figure 4. Transfer rates to university by program characteristics, 2007 vs 2015 college graduates



Note: One-, two-, and three-year programs only

Table 4. Top 10 college programs by number of transfers to university, 2007 vs 2015

Program	2007			2015		
	Transfer rate (%)	Estimated number of transfers	Rank	Transfer rate (%)	Estimated number of transfers	Rank
Early Childhood Education (2 yr)	17.0%	488	1	5.2%	235	4
General Arts and Science (2 yr)	27.8%	328	2	11.4%	191	6
Police Foundations (2 yr)	14.4%	326	3	13.1%	332	3
General Arts and Science (1 yr)	18.1%	322	4	12.8%	372	2
Social Service Worker (2 yr)	17.5%	284	5	17.0%	431	1
Business Administration (3 yr)	18.3%	227	6	15.7%	125	11
Bus Admin - Accounting (3 yr)	20.2%	194	7	20.0%	190	7
Preparatory Health Sciences (1 yr)	9.3%	122	8	8.3%	219	5
Business Admin - Marketing (3 yr)	14.5%	109	9	11.0%	65	17
Child and Youth Worker (3 yr)	11.7%	104	10	12.9%	184	9

Note: Numbers were adjusted for each program's provincial response rate.

Transfer by college and college characteristics

The study analyzed the transfer rates by college characteristics including Ontario college region, proximity of a university to the college campus of graduation, selectivity of the nearest university (based on published entering high school grades), and size of college (Table 5, Figure 5). Overall, graduates who are more likely to transfer are from a college in Metro Toronto and surrounding areas, in closer proximity to a university (particularly non-selective), and have graduated from a large college.

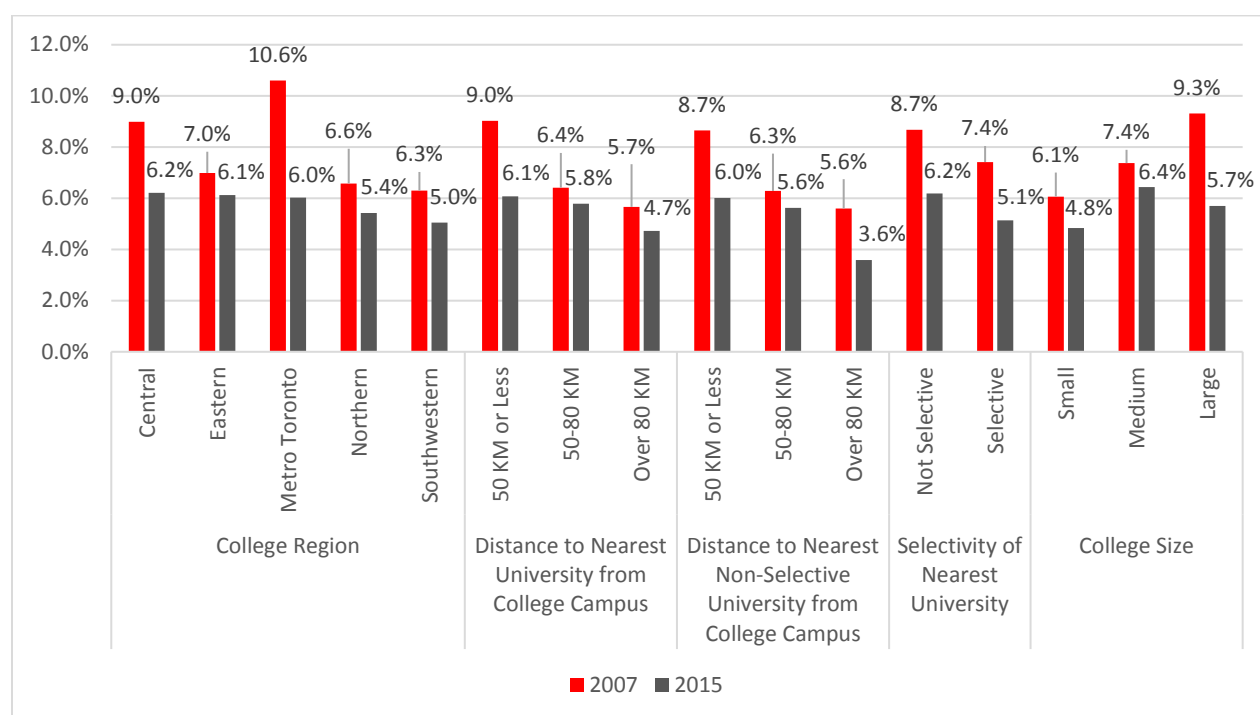
That said, the decrease in transfer rate mostly affected colleges in Metro Toronto and the surrounding Central Region.⁹ Transfer rates in the other regions have fallen somewhat, but not to the same extent. In 2007, the regional transfer rate ranged from 6.3% in Southwestern Ontario to 10.6% in Metro Toronto. By 2015, however, the range was only between 5.0% and 6.2% (Southwestern and Central regions respectively). Also evident are the decreases in the transfer rate for graduates from large institutions and from college campuses with a university within commuting distance, both of which pertain to the Greater Toronto Hamilton Area.

⁹ Since college regions differed in their growth of international students, the study also compared transfer trends with the exclusion of international graduates. The declines in non-international student transfer rates (-2.2% Central, -0.5% Eastern, -3.8% Metro Toronto, -1% Northern, and -1.2% Southwestern) show that international student growth is partially responsible for the transfer rate decline across regions.

Table 5. Transfer rate to university by college characteristics (one-, two-, and three-year programs), 2007–2015 college graduates

		2007	2008	2009	2010	2011	2012	2013	2014	2015	Total
College Region	Central	9.0%	8.8%	8.6%	8.6%	8.3%	7.9%	7.1%	6.1%	6.2%	7.8%
	Eastern	7.0%	6.3%	7.8%	6.9%	7.6%	8.3%	7.0%	6.4%	6.1%	7.1%
	Metro Toronto	10.6%	9.7%	9.9%	9.7%	8.7%	7.8%	7.3%	6.3%	6.0%	8.4%
	Northern	6.6%	6.5%	6.2%	6.6%	6.8%	7.2%	6.4%	6.1%	5.4%	6.5%
	Southwestern	6.3%	5.8%	5.6%	5.2%	5.8%	5.7%	5.3%	4.6%	5.0%	5.5%
Nearest University	50 km or Less	9.0%	8.4%	8.9%	8.5%	8.1%	7.8%	7.2%	6.3%	6.1%	7.6%
	50-80 km	6.4%	6.3%	5.5%	6.4%	6.4%	7.0%	5.3%	4.9%	5.8%	6.0%
	Over 80 km	5.7%	5.4%	4.9%	4.8%	6.1%	6.0%	4.9%	4.6%	4.7%	4.1%
Selectivity of Nearest University	Not Selective	8.7%	8.1%	8.3%	8.1%	8.0%	7.8%	7.0%	6.2%	6.2%	7.6%
	Selective	7.4%	7.2%	7.5%	6.8%	6.7%	6.6%	6.3%	5.3%	5.1%	6.5%
College Size	Small	6.1%	5.7%	6.1%	6.0%	6.0%	6.3%	6.0%	5.0%	4.8%	5.8%
	Medium	7.4%	6.8%	6.9%	7.0%	7.2%	7.3%	6.5%	5.8%	6.4%	6.8%
	Large	9.3%	8.8%	9.1%	8.5%	8.3%	7.7%	7.1%	6.2%	5.7%	7.8%

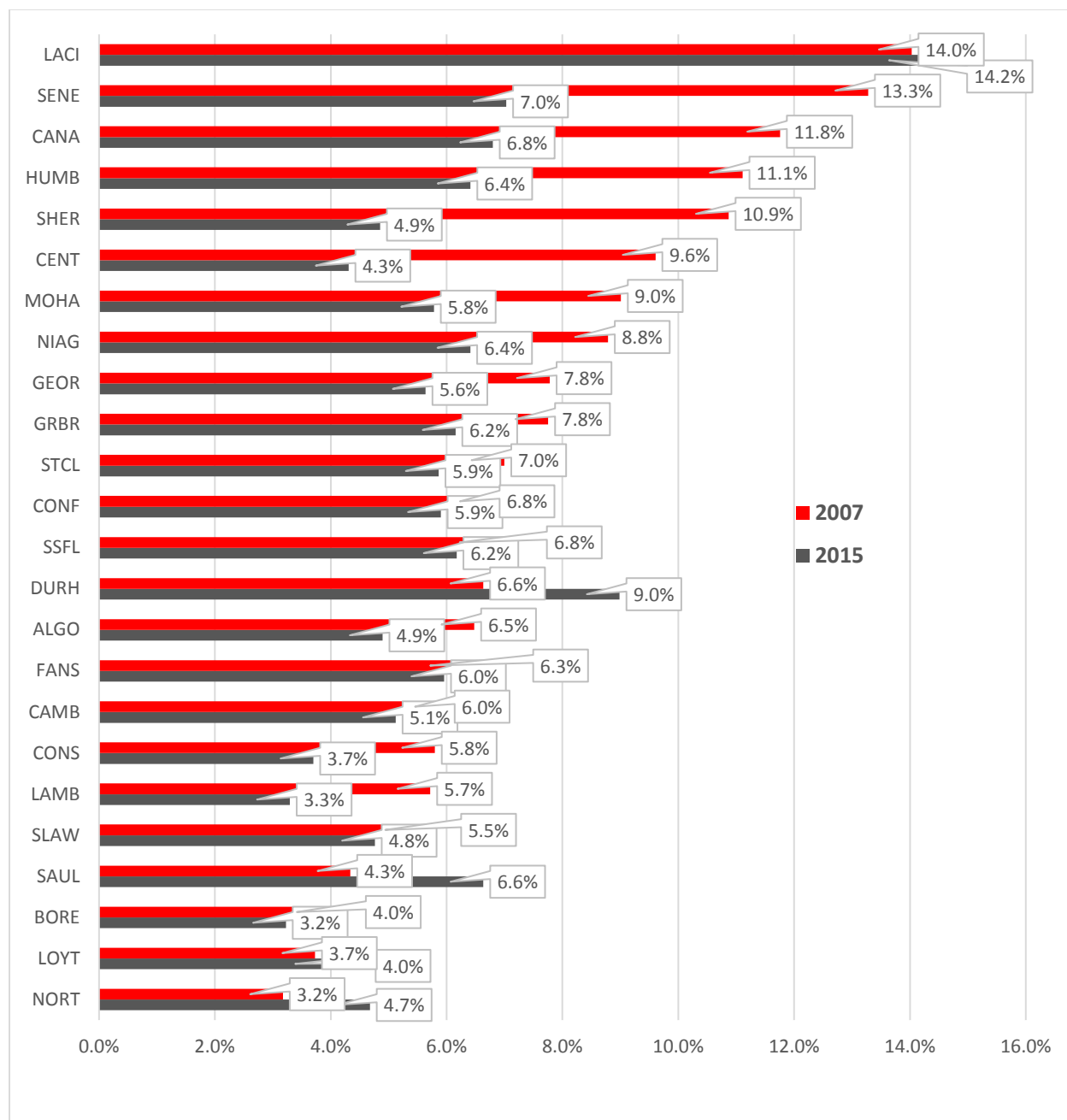
Figure 5. Transfer rate to university by college characteristics, 2007 vs 2015 college graduates



La Cité continues to have the largest percentage of college graduates who transfer to university, at 14% in both 2007 and 2015 (Figure 6). The large decrease in transfer rates for the Metro Toronto and Central regions, as shown previously, is also seen here for individual colleges. Durham College, also from the Central region, is the exception. Durham has experienced the largest increase in transfer rate, from 6.6%

of its graduates transferring in 2007 to 9% in 2015, and now has the second highest transfer rate in the province. Besides Durham and La Cité, only three colleges increased their transfer rates since 2007: two from the Northern region (Sault and Northern) and Loyalist. These three colleges had among the lowest rates of transfer in 2007.

Figure 6. Transfer rate by college, percentage of graduates, 2015 vs 2007 (one-, two-, and three-year programs only)

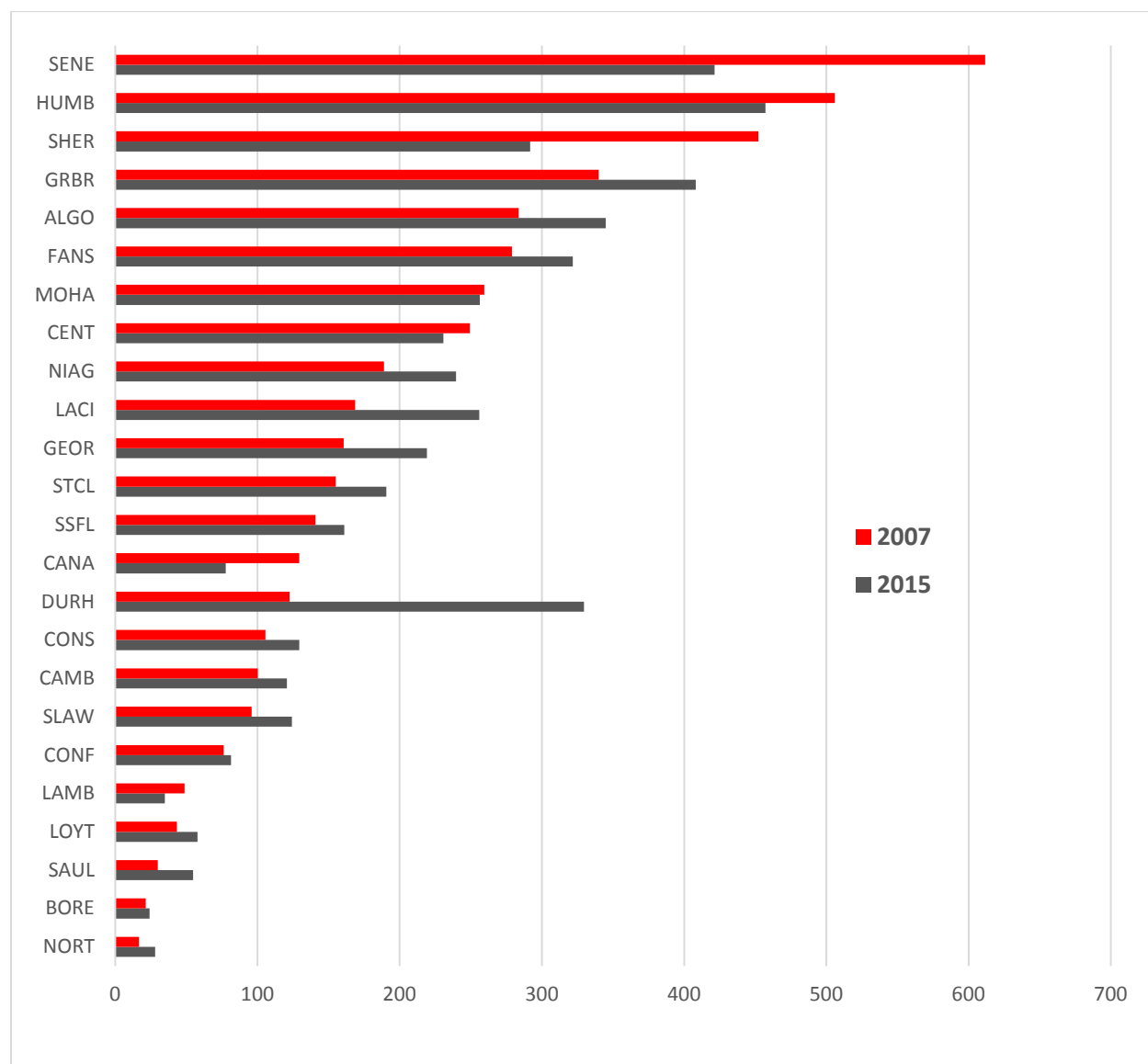


Note: Institutions are displayed in descending order based on the 2007 transfer rates. The full college name for each abbreviation is listed in appendix 2.

Seneca and Humber colleges, despite their decreasing numbers of transfers, continue to have the highest number of graduates who transfer to university. Whereas the majority of colleges saw an increase in the

absolute number of graduates transferring, Seneca and Sheridan had decreases of 31% and 36% respectively (Figure 7). Durham's transfer numbers have grown significantly since 2007, with nearly triple the number of graduates continuing on to university.

Figure 7. Number of transfer students, 2015 vs 2007, graduates of one-, two-, and three-year credentials



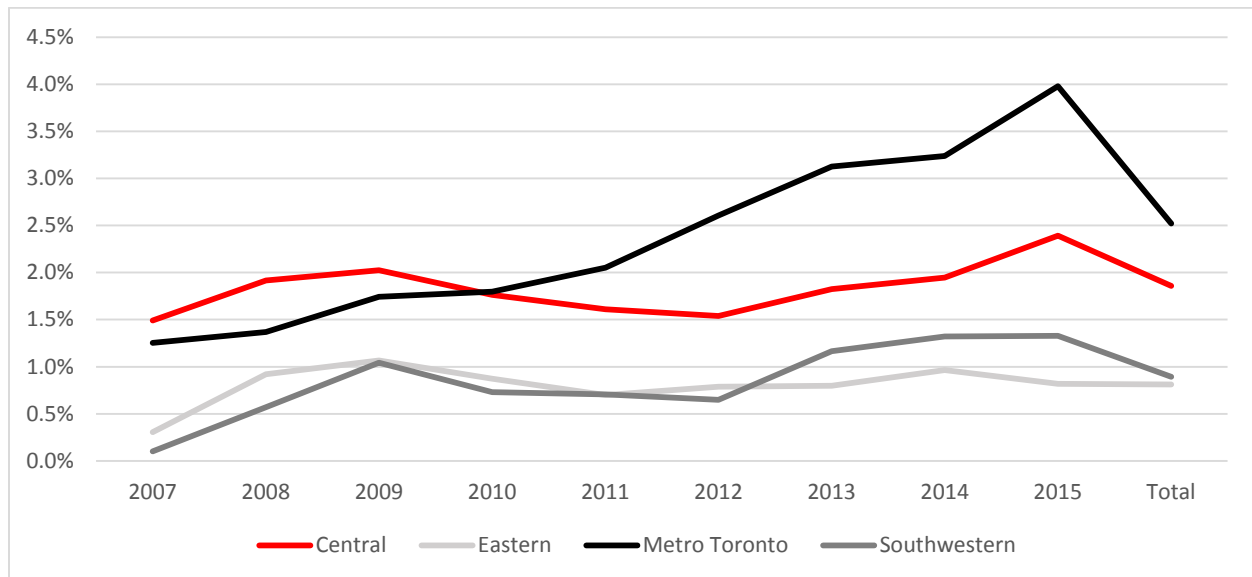
Note: Transfer numbers adjusted for each college's survey response rate

Degrees granted by college

The growth in college degree programs provides more options for students to attain a degree, which likely has the effect of partially displacing transfer pathways. Therefore, the foregoing analysis of transfer rates by region and individual colleges is contextualized with the changes in college degree granting. Some Ontario colleges began offering four-year degree programs in 2002. However, the decision to offer degree programs has varied greatly by region, with three of the four Metro Toronto colleges (Humber, Sheridan, Seneca) leading the way, and none of the Northern region colleges offering such programs

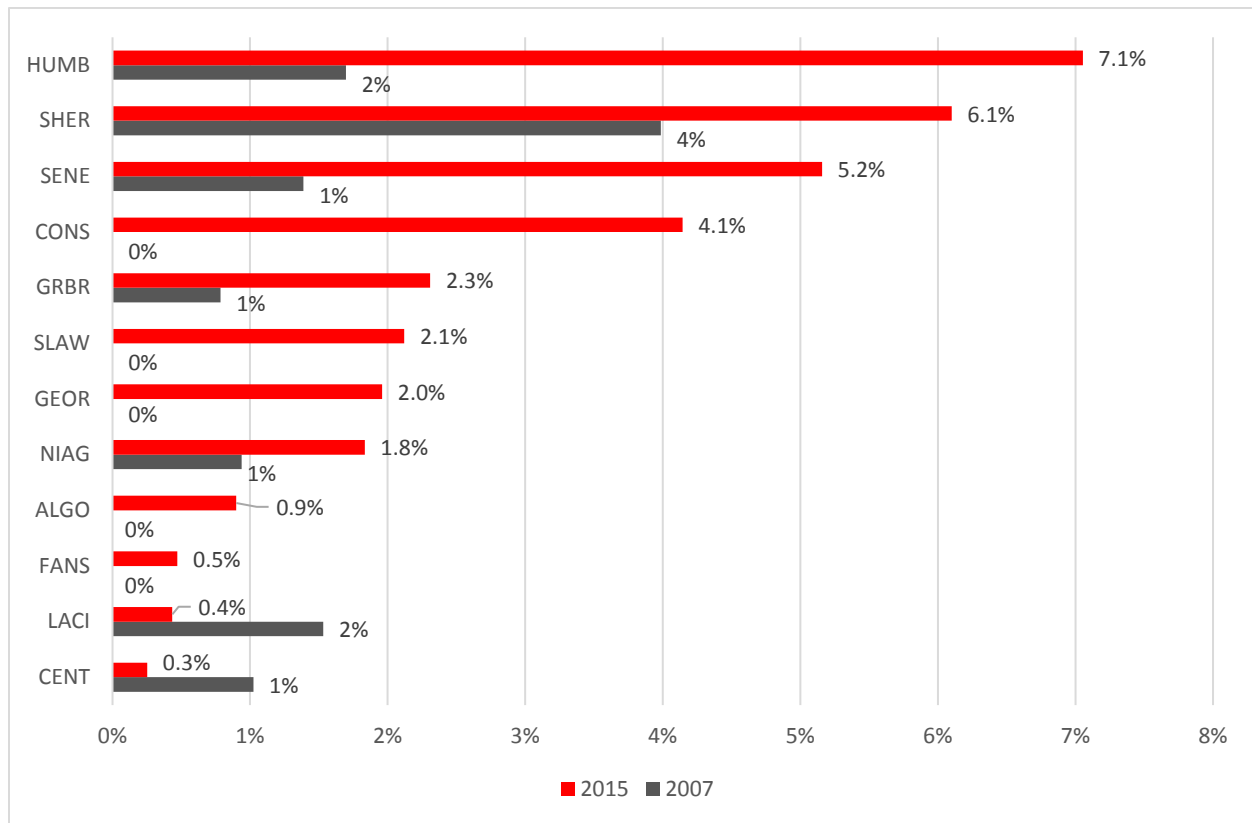
(Figure 8, Figure 9). Students in regions with high numbers of college degree offerings have the additional option of acquiring a degree without having to transfer credits to a university. This option potentially has an impact not just on the colleges offering degree programs, but also other colleges in the region, as seen with the decline in transfer at Centennial College (which has minimal degree offerings). The percentage of college degree graduates from the Metro Toronto region increased from 1.4% in 2007 to 4% in 2015, which partially compensates for the decline in the region's transfer rates, from 10.6% to 6% over the same period (Table 5).

Figure 8. Trends in college degrees granted by region, 2007–2015



Note: The Northern region colleges do not offer degrees.

Figure 9. Percentage of graduates with a college degree, by college, 2007 vs 2015

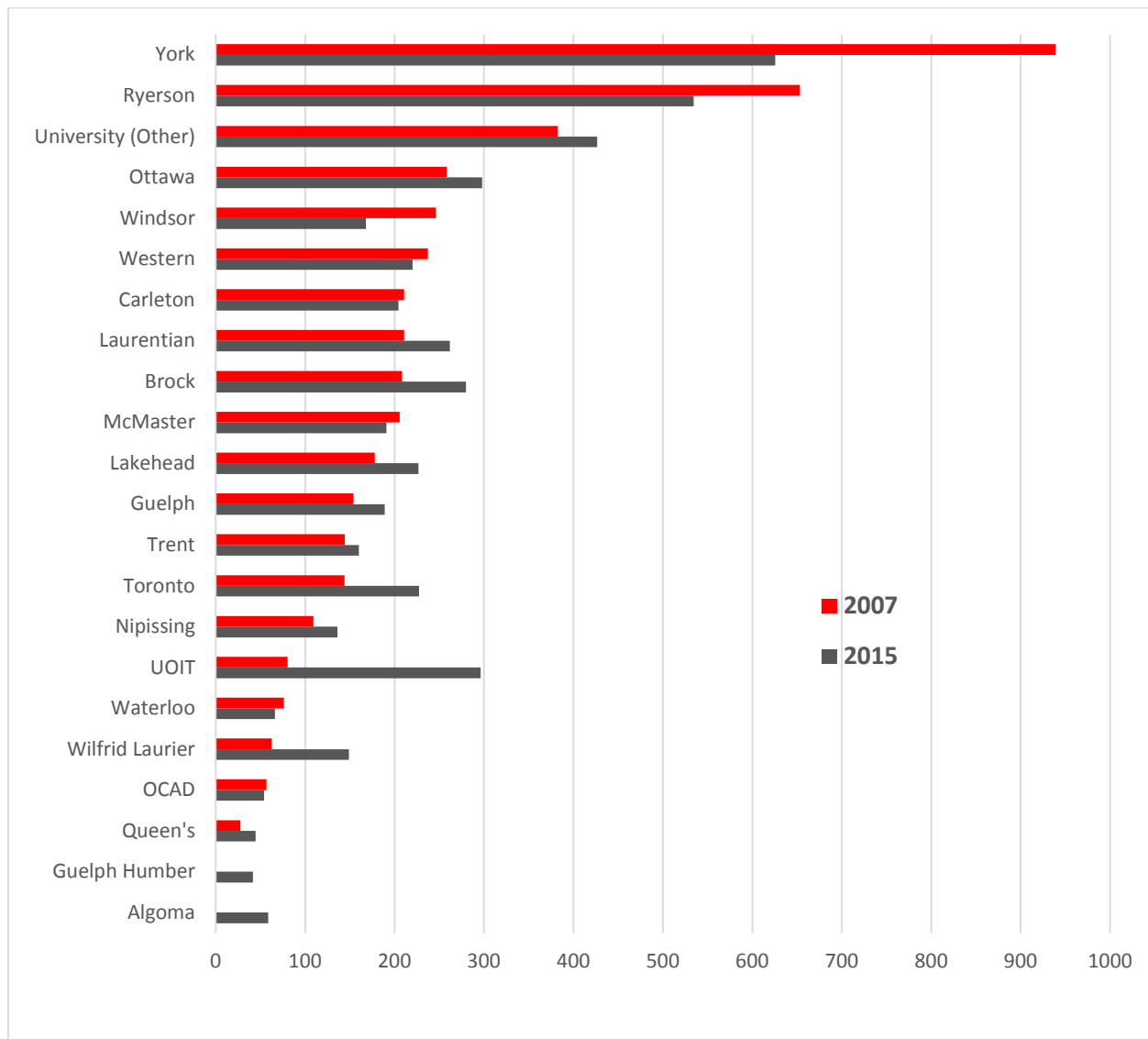


Note: Share of all graduates, including those with graduate certificates. Includes only colleges with degree graduates in 2015

Receiving university

The number of transfers to York and Ryerson universities in Toronto decreased in 2007 to 2015 (Figure 10), mirroring the decline in transfers for colleges in the Greater Toronto Area (GTA), particularly Seneca and Sheridan. In contrast, the number of transfers increased for Durham College, which shares a campus with UOIT. Details of this bilateral movement are shown in Table 6.

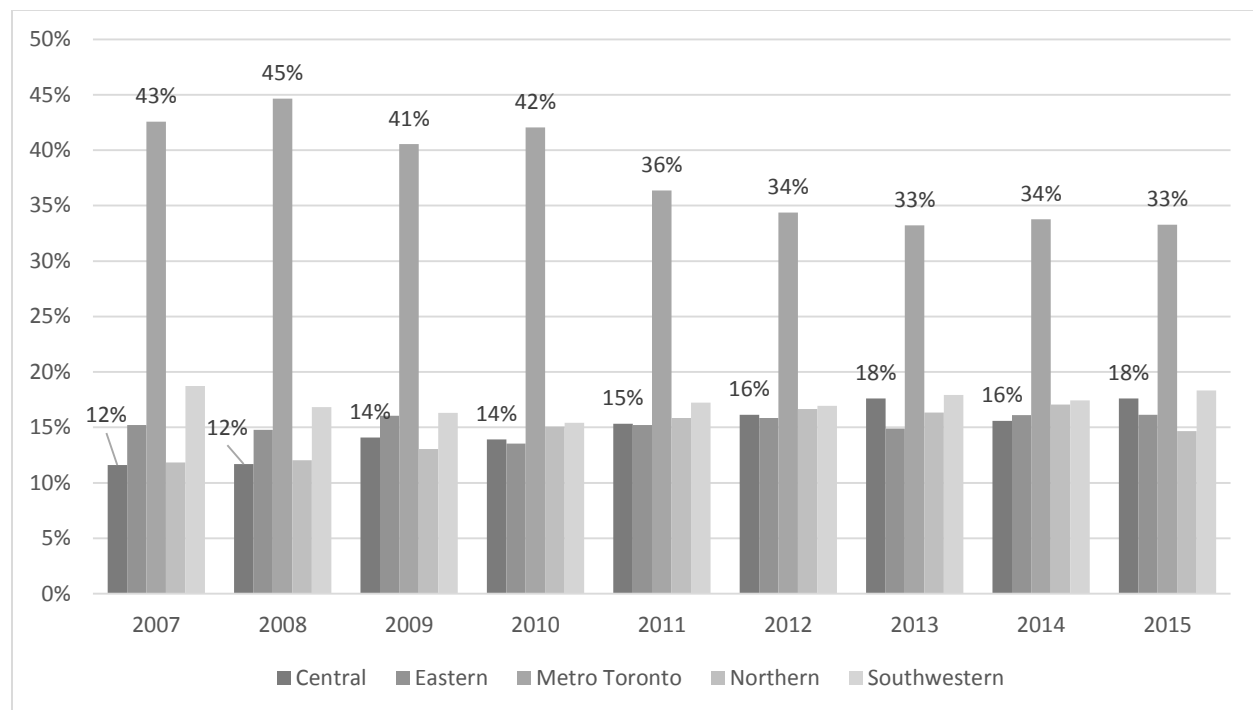
Figure 10. Number of transfer students, by receiving university, six months after graduation from a one-, two-, or three- year credential only, 2007 vs 2015



Note: Transfer numbers adjusted for each college's survey response rate

The Metro Toronto region continues to have the highest provincial share of transfers by region, at one-third (33%) of all transfers in 2015 (Figure 11). However, this rate is a major drop from 45% in 2008, with most of the decrease occurring between 2010 and 2012. The Central and Northern regions have made up the difference, increasing from 12% to 18% and 12% to 15% respectively.

Figure 11. Share of college to university transfer students by Ontario university region, 2007–2015



The analysis shown in Table 6 accounts for the relative size of each university by creating a ratio of the share of transfer students versus the share of Ontario university enrolment (see Decock et al., 2011). A value of “1” indicates that the share of the provincial enrolment matches the share of Ontario transfer students; a value of greater than 1 indicates an over-representation of college transfers; and a value of less than 1 indicates an under-representation. In 2007, the three Northern universities, and Ryerson in Toronto, had the highest transfer ratios. In 2015, the Northern universities’ ratio outdistanced that of the rest of the province because of the declining market share of Ontario enrolment and an increase in the transfer student share. Algoma University, which became an independent university in 2008 (formerly an affiliate of Laurentian), has become a leader in transfer student enrolment relative to its total enrolment share. UOIT, also a young university (established in 2002), has experienced growth in its total enrolment share and its share of transfer students to the extent that its transfer ratio is just behind that of the Northern universities. York University’s share of transfers has dropped considerably, from 22% to 14%; however, as its enrolment share has also decreased (from 14% to 10%), its transfer ratio has only fallen from 1.8 to 1.4.

Table 6. Percentage of Ontario university transfer students relative to share of Ontario university enrolment

	2007-08			2015-16		
	% share of Ontario transfers	% share of Ontario enrolment	Share of transfer/ share of enrolment	% share of Ontario transfers	% share of Ontario enrolment	Share of transfer/ share of enrolment
Algoma	N/A	N/A	N/A	1.3%	0.3%	4.7
Brock	5.0%	4.1%	1.2	6.3%	3.8%	1.6
Carleton	5.0%	5.2%	1.0	4.6%	5.4%	0.9
Guelph	3.7%	5.7%	0.6	5.2%	6.2%	0.8
Lakehead	4.2%	1.8%	2.4	5.1%	1.5%	3.4
Laurentian	5.0%	2.1%	2.4	5.9%	1.8%	3.4
McMaster	4.9%	6.3%	0.8	4.3%	6.5%	0.7
Nipissing	2.6%	1.1%	2.3	3.1%	0.8%	3.8
OCAD	1.3%	0.8%	1.7	1.2%	0.9%	1.4
UOIT	1.9%	1.5%	1.3	6.7%	2.3%	3.0
Ottawa	6.1%	8.1%	0.8	6.7%	7.9%	0.8
Queen's	0.7%	4.4%	0.1	1.0%	5.0%	0.2
Ryerson	15.5%	5.2%	3.0	12.1%	6.8%	1.8
Toronto	3.4%	16.8%	0.2	5.1%	16.7%	0.3
Trent	3.4%	1.9%	1.8	3.6%	1.8%	2.1
Waterloo	1.8%	7.1%	0.3	1.5%	7.8%	0.2
Western	5.6%	8.1%	0.7	5.0%	7.5%	0.7
Wilfrid Laurier	1.5%	3.8%	0.4	3.4%	3.9%	0.9
Windsor	5.9%	3.6%	1.6	3.8%	2.8%	1.3
York	22.3%	12.2%	1.8	14.1%	10.4%	1.4

Notes: Fall full-time head count, university enrolment numbers from Council of Ontario Universities, <http://cou.on.ca/numbers/multi-year-data/enrolment/>; Dominican University College and Northern Ontario School of Medicine (NOSM) excluded; college transfer numbers as share of transfers to Ontario universities

A comparison of the top 10 university-college transfer partnerships (2015 versus 2007) by transfer volume and the system-wide share, clearly shows the importance of geographical proximity between partner institutions. For both years, each of the top 10 university-college partnerships resided in the same city or surrounding area (Table 7). Toronto's prominence in college-to-university transfer partnerships has declined from comprising 6 of the top 10 partners in 2007, to only three in 2015. The Durham-UOIT partnership has emerged from outside the top 10 in 2007, to occupy second place behind Seneca-York in 2015. As noted previously, some of the decline in transfer in the Toronto area can be attributed to the growth in degree offerings by the colleges. An interesting example is transfer between Seneca and Ryerson. In 2007, Seneca graduates who transferred to Ryerson reported entering business programs, particularly in management, human resources and finance, in addition to information technology. Seneca has grown its own degree offerings in these areas, resulting in a decline in transfers to Ryerson from Seneca.

Table 7. Top 10 college-university partnerships by number of transfer students, 2015 vs 2007

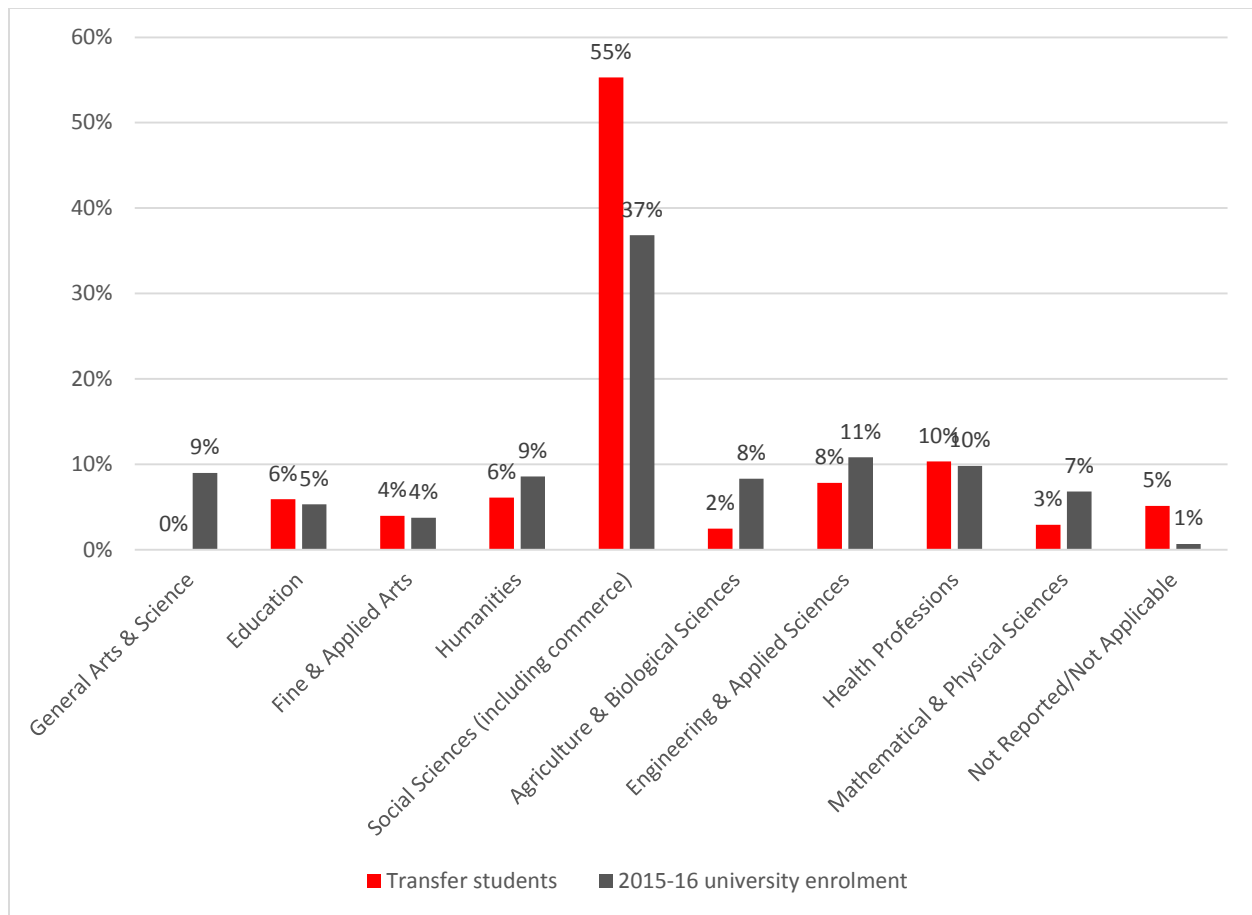
2015				2007			
	University –college partner	# transfers	Share of transfers		University –college partner	# transfers	Share of transfers
1	Seneca-York (Toronto)	197	4.1%	1	Seneca-York (Toronto)	333	7.3%
2	Durham-UOIT (Oshawa)	193	4.0%	2	Humber-York (Toronto)	202	4.4%
3	Fanshawe-Western (London)	184	3.8%	3	Fanshawe-Western (London)	168	3.7%
4	George Brown-Ryerson (Toronto)	181	3.7%	4	Seneca-Ryerson (Toronto)	155	3.4%
5	La Cite-U of Ottawa (Ottawa)	178	3.7%	5	St. Clair-Windsor (Windsor)	137	3.0%
6	St. Clair-Windsor (Windsor)	139	2.9%	6	George Brown-Ryerson (Toronto)	136	3.0%
7	Algonquin-Carleton (Ottawa)	136	2.8%	7	Algonquin-Carleton (Ottawa)	132	2.9%
8	Niagara-Brock (St. Catharines)	131	2.7%	8	Sheridan-York (Oakville/Toronto-GTA)	128	2.8%
9	Humber-York (Toronto)	113	2.3%	9	La Cite-U of Ottawa (Ottawa)	111	2.4%
10	Mohawk-McMaster (Hamilton)	84	1.7%	10	George Brown-York (Toronto)	103	2.2%

Note: Count and percentage share adjusted for college response rate.

University program of entry

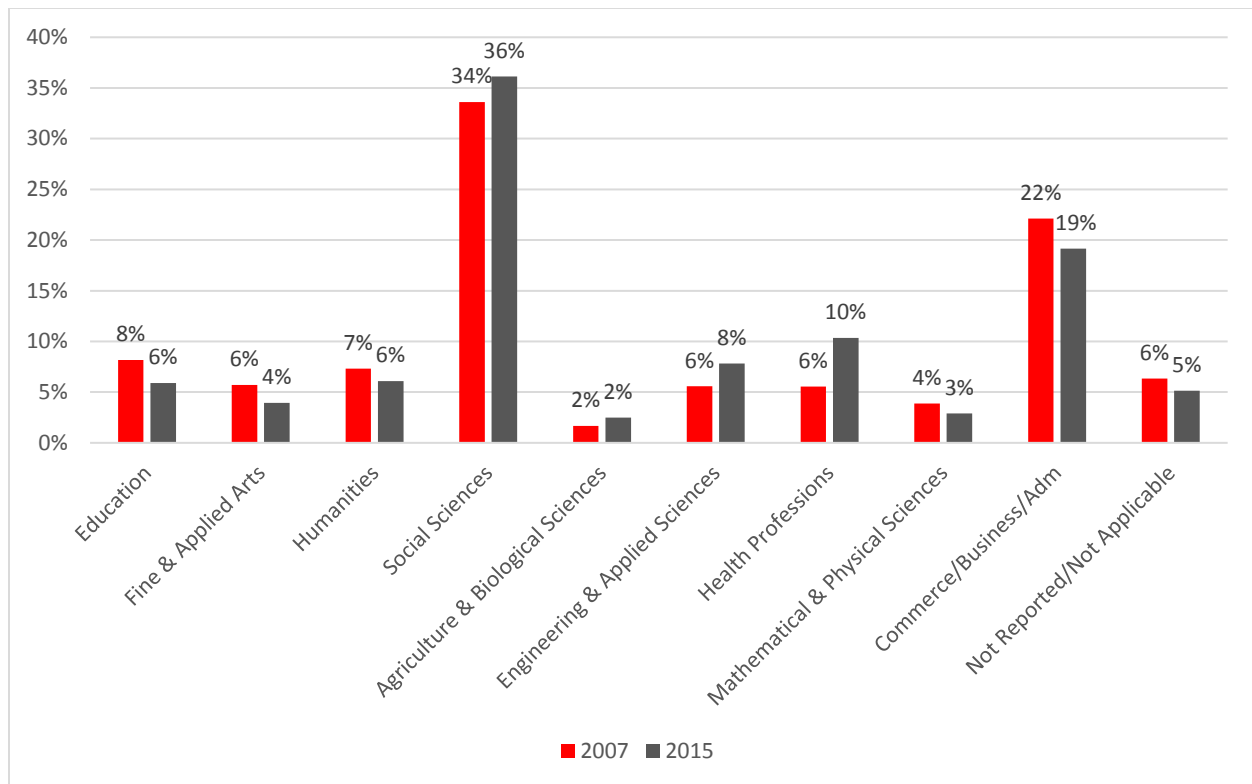
The study analyzed the distribution of transfer students by field of study relative to the distribution of the overall university population. The results (Figure 12) show that college transfers are more likely than the overall university population to enter the social sciences and commerce, and less likely to enter any of the sciences (applied, life, or physical). A comparison of the distribution for college transfers between 2007 and 2015 (Figure 13) shows slight differences. Transfers into health and engineering have increased slightly, whereas the share for education, fine arts and business has reduced slightly.

Figure 12. University program enrolment: College transfers versus overall university enrolment, 2015–2016



Note: University enrolment numbers by program area from Council on Ontario Universities, <http://cou.on.ca/numbers/multi-year-data/enrolment/>

Figure 13. Distribution of university transfers by field of study, 2007 vs 2015



College graduates largely enter a university field of study that is related to their program area of graduation (Table 8). For example, almost three-quarters of college business graduates entered a university business program; likewise 70% of community service graduates (from programs such as Social Service Worker and Police Foundations) continued on in the social sciences, and 66% of engineering graduates entered either engineering or math-related programs. Program affinity is further addressed later in the report.

Table 8. Affinity between college program area and university program of entry

University Program Entered	College Program Area of Graduation							Total
	Business	Community Service	Creative and Applied Arts	Health	Hospitality	Preparatory / Upgrading	Engineering/ Technology	
General Arts & Science	1%	1%	3%	4%	2%	4%	1%	2%
Education	1%	15%	3%	8%	3%	3%	1%	6%
Fine & Applied Arts	1%	1%	34%	1%	2%	3%	1%	4%
Humanities	3%	4%	30%	2%	10%	14%	1%	7%
Social Sciences	15%	70%	10%	7%	16%	34%	10%	36%
Agriculture & Biological Sciences	0%	1%	0%	7%	7%	3%	9%	2%
Engineering & Applied Sciences	1%	0%	3%	1%	2%	2%	54%	7%
Health Professions	0%	2%	1%	57%	2%	25%	3%	8%
Mathematical & Physical Sciences	2%	0%	1%	4%	2%	3%	12%	3%
Commerce/Business/ Administration	73%	1%	10%	2%	50%	4%	5%	22%
Not Reported/Not Applicable/Other	3%	3%	5%	6%	6%	5%	4%	4%
	100%	100%	100%	100%	100%	100%	100%	100%

Transfer experience

Reasons for continuing

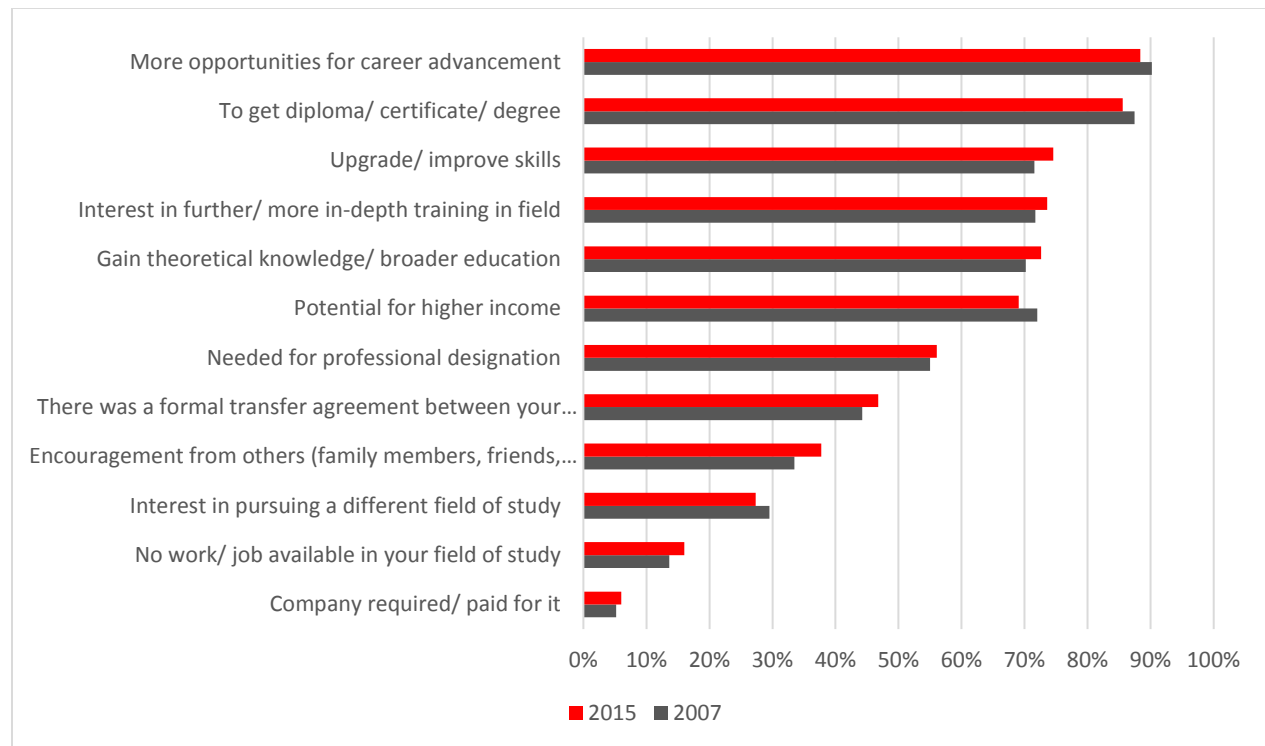
The GSS asked graduates who continued their education after graduation to consider a series of 12 potential reasons for furthering their education, and to rate each as a “major,” “minor,” or “not a reason.” The data show that the reasons for continuing on to university after college graduation have remained very stable since 2007 (Table 9, Figure 14). On average, almost 90% of university transfers cited career advancement or obtaining the credential as a major reason, followed by reasons associated with expanding their education such as acquiring more in depth training, more theoretical knowledge, or improving skills.. In contrast, just over one-quarter of transfers reported pursuing a different field of study as a major reason. The potential for higher income was a major reason for 72% of respondents. Almost half (47%) of respondents identified the existence of a formal transfer agreement as a major reason for continuing on to university. Encouragement from others was of moderate influence, at 35%. A lack of jobs in their field of study and the employer requiring or paying for university were the least cited reasons for transfer.

Table 9. Reasons for continuing on to university, % major reason, 2007–2015 college graduates

	2007	2008	2009	2010	2011	2012	2013	2014	2015	% point change, 2007-2015
More opportunities for career advancement	90%	90%	90%	89%	89%	90%	89%	90%	88%	-2%
To get diploma/ certificate/degree	87%	87%	87%	86%	86%	86%	86%	86%	86%	-2%
Upgrade/improve skills	72%	72%	74%	74%	72%	72%	74%	74%	75%	3%
Interest in further/ more in-depth training in field	72%	73%	73%	72%	72%	73%	73%	74%	74%	2%
Gain theoretical knowledge/broader education	70%	71%	74%	71%	71%	73%	74%	74%	73%	2%
Potential for higher income	72%	74%	72%	72%	71%	73%	72%	70%	69%	-3%
Needed for professional designation	55%	57%	57%	55%	54%	56%	56%	57%	56%	1%
There was a formal transfer agreement between your previous and your current program	44%	45%	45%	46%	47%	48%	48%	50%	47%	3%
Encouragement from others (family members, friends, faculty)	33%	34%	33%	34%	36%	38%	38%	36%	38%	4%
Interest in pursuing a different field of study	30%	28%	28%	30%	27%	25%	25%	26%	27%	-2%
No work/job available in your field of study	14%	14%	16%	18%	18%	19%	19%	18%	16%	2%
Company required/ paid for it	5%	5%	5%	5%	5%	5%	5%	6%	6%	1%

Note: Includes graduates who indicated they were enrolled either full or part time in a university program six months after graduation

Figure 14. Reasons for continuing on to university, % major reason, 2007 vs 2015 college graduates



Information Sources

Graduates who indicated they were enrolled in full-time education were asked about the information sources they used when making plans for further education (Table 10). Graduates who transfer to university use a variety of information sources, with university sources (e.g. staff, website, publications) the most common ones, suggesting that students likely go directly to the institutions they are considering attending. The reported reliance on university staff (academic and administrative) for information has increased by five percentage points since 2007, from 74% to 79%, with an 8% increase in those reporting staff to be a major source.

College sources are separated into two categories, academic (faculty, coordinators, counselors) and administrative staff (registration, student services). A consistent proportion, about three-quarters of transfers, uses academic sources more often. Reliance on college administrative staff for information has increased somewhat since 2007, at 4%, but the proportion of those citing it as a major source has increased by seven percentage points. Students' peers, parents, and families continue to be important sources of information, but are less dominant (particularly parents as sources) than the literature shows for those transitioning from high school (King et al., 2006). In 2013, the GSS added questions on the use of university and college transfer advising services. Data show that each service is currently used by almost two-thirds of transfers.

The least-used sources of information are the OCUTG and college hard copy publications. The use of hard copy publications has dropped by eight percentage points, understandably because of the long-term shift from print to electronic. Despite the continued decline in the use of hard copy publications, it is

important to note that almost half of transfers report some usage. In 2013, the GSS question on the OCUTG was refined to ask whether the respondent used the website page that hosts the OCUTG (ONTransfer.ca), resulting in a much lower reported usage of 38% compared to 53% reported OCUTG usage in 2012. This result may be due to a lack of awareness of the specific webpage address, or because respondents were referring to college or university transfer guides instead of the provincial guide. By 2015, however, the reported usage of ontransfer.ca increased from 38% to 44%.

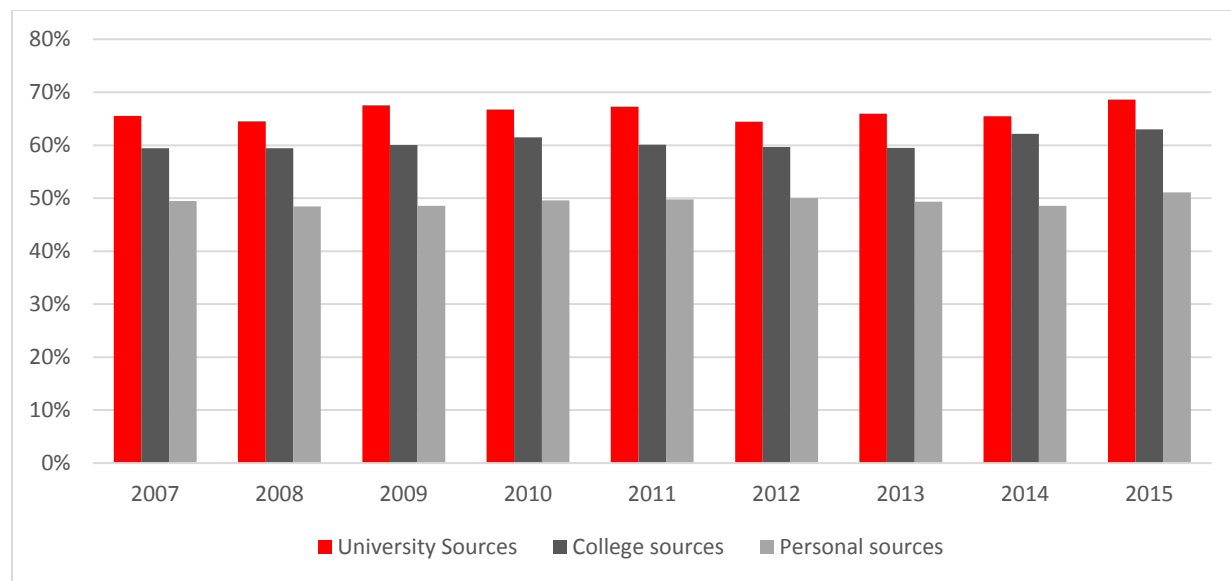
Table 10. Information sources for graduates transferring to full-time university programs, percentage (%) major or minor source, 2007–2015

	2007	2008	2009	2010	2011	2012	2013	2014	2015	% pt change , 2007- 2015
University website/publications	86%	86%	88%	86%	88%	87%	86%	86%	87%	1%
University staff (including registrar's office, faculty, etc.)	74%	73%	75%	75%	75%	74%	75%	77%	79%	5%
College faculty/counselors/ program coordinators	74%	74%	72%	73%	73%	73%	73%	75%	75%	1%
Other students (including current and former college and university students)	75%	74%	75%	74%	75%	74%	75%	76%	73%	-2%
College website	68%	69%	69%	70%	68%	69%	65%	66%	70%	2%
Parents and family	72%	71%	71%	71%	70%	70%	69%	69%	70%	-2%
College administration, i.e. registrar's office, student services	63%	64%	63%	63%	63%	63%	64%	67%	67%	4%
University credit-transfer advising services							65%	63%	65%	
College credit-transfer advising services							62%	62%	63%	
College hard copy publications	54%	53%	52%	52%	49%	48%	47%	45%	46%	-8%
Ontario College University Transfer Guide (OCUTG)	55%	56%	55%	54%	53%	53%				
ONTransfer.ca website							38%	41%	44%	

Note: A breakout of the information sources by major or minor sources for 2015 are in the appendices.

To compare where respondents obtain their information from, the study categorized all of the sources of information into three main groups: university, college and personal sources (Figure 15). University-based sources, such as staff, administrative offices, or websites, were cited as major by approximately two-thirds of transfer students, whereas transfers cited approximately 60% of college sources as major. For each of these sources, usage has risen marginally. Almost half of students cited either their family or other students as a major source of information on transfer, a share that has changed little since 2007.

Figure 15. Sources of information on transfer to university, % major, 2007-2015 graduates



Colleges sources: Used as a major source at least one of: college hard copy publications; college administration, i.e. registrar's office, student services; college website; college faculty/counselors/program coordinators

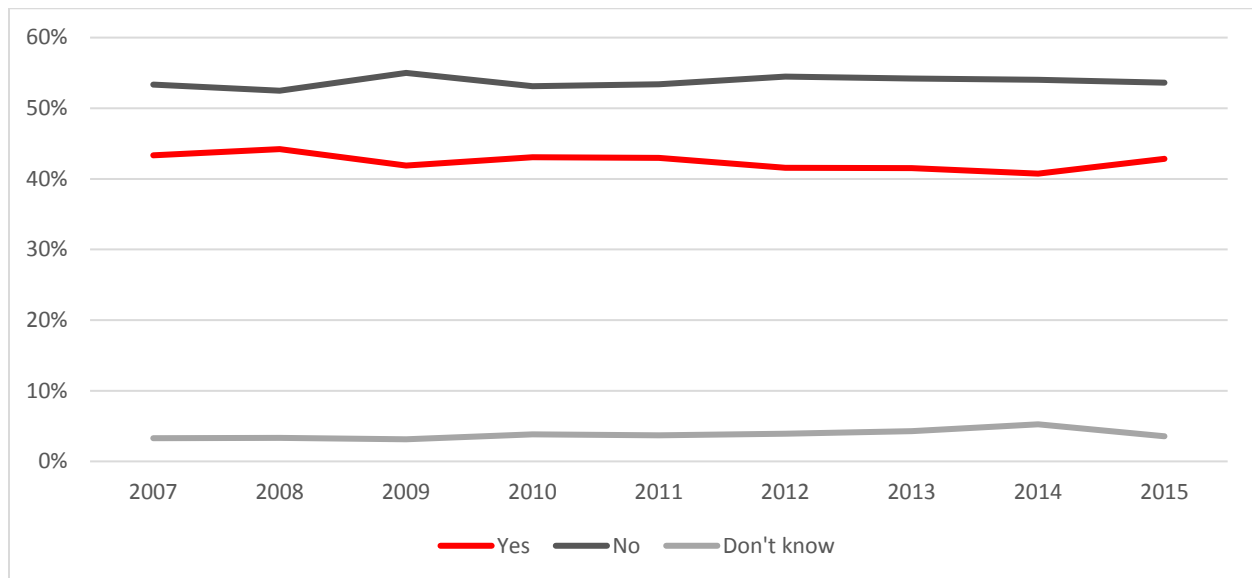
University sources: Used as a major source at least one of: university staff (including registrar's office, faculty, etc.), university website/publications

Personal sources: Used as a major source at least one of: parents and family; other students (including current and former college and university students)

College as route of access to university degree

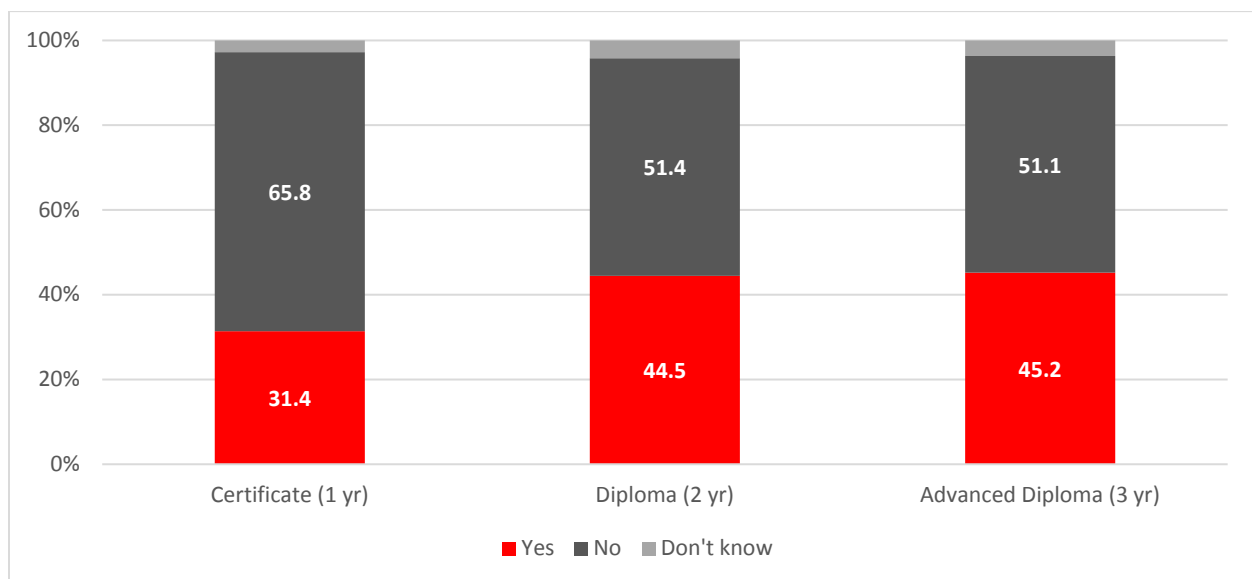
A key question in the area of student mobility is whether the college transfer pathway enables a student to attain a university degree which they otherwise may not have achieved. Over half of graduates reported they would not have been accepted into university without first having graduated from college (Figure 16). Figure 17 shows the results by credential and demonstrates the access role that one-year certificate programs play in particular, with 66% reporting they would not have been accepted without graduating from college first. Unpublished data from Seneca show that only one-quarter of graduates from 2007–2014 who transferred (certificate and diploma programs only) would have been eligible to enter university directly based on their high school grades and courses, with little difference between the role of a certificate versus a diploma on university access. The different results of these two sources is likely related to the survey's question about needing to "graduate" first, as college courses, particularly in two- and three-year programs, are often transferable without the requirement of graduating first.

Figure 16. Responses to the question, “Do you think you would have been accepted into your current program without graduating from college first?” (2007–2015 graduates)



Note: Total excludes refused and missing responses.

Figure 17. Responses to the question, “Do you think you would have been accepted into your current program without graduating from college first?” by credential (2007–2015 graduates)



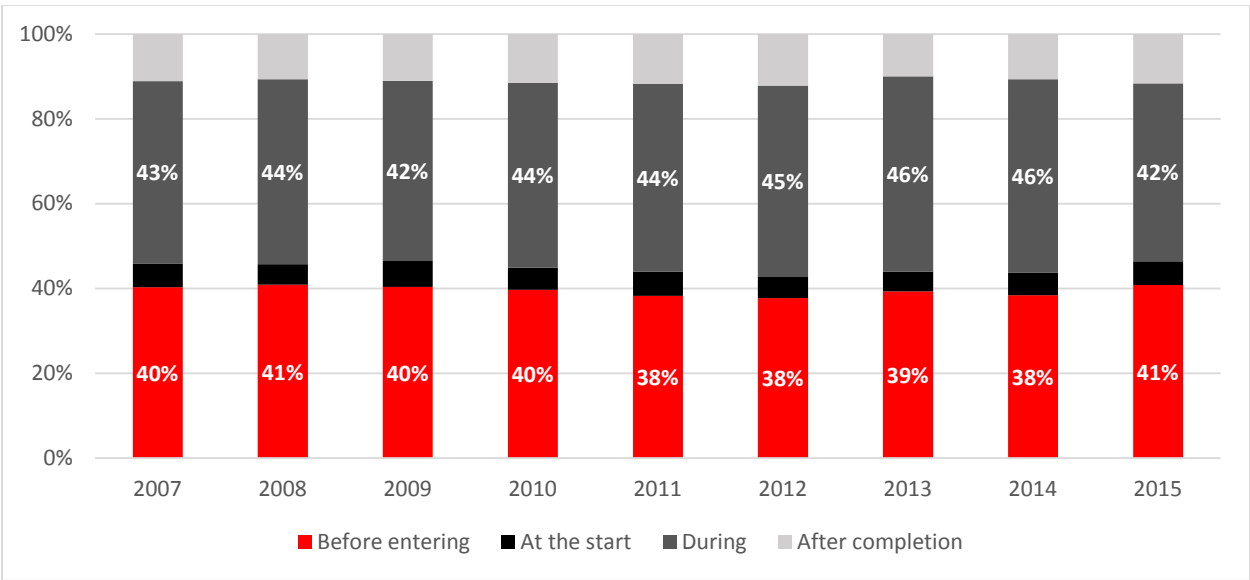
Note: Includes graduates who indicated they were enrolled in full-time university six months after graduation

Timing of decision

Graduates who transferred were asked about the timing of their decision to transfer (before entering college, at entry, during their program, after graduation). Figure 18 shows that over time, between 43% and 48% of transfers made the decision before or at the start of entering their program, and 42% to 46%

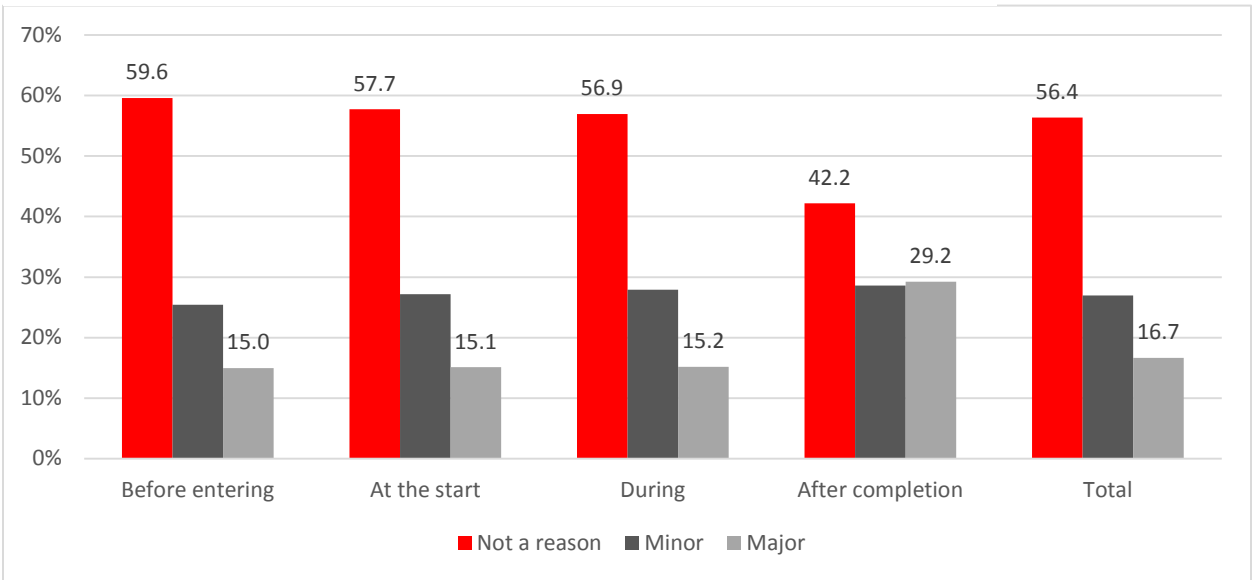
decided during their program. Only between 10% and 12% decided to transfer after graduation. Of those who made the decision to transfer after they graduated, 29% cited a lack of jobs as a major reason to continue their education, compared with 15% for those who decided earlier (Figure 19). However, timing of decision did not appear to have a relationship with other cited reasons for transfer (results not shown).

Figure 18. Timing of decision to further their education, 2007–2015 graduates who transferred to university



Note: Includes graduates who indicated they were enrolled in full-time university six months after graduation

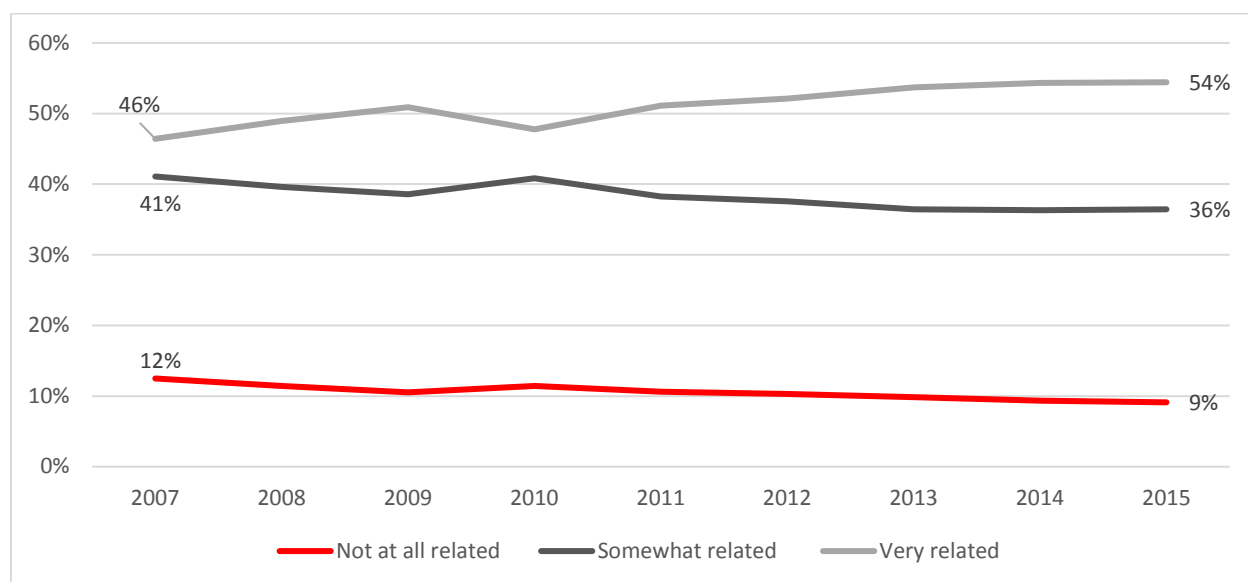
Figure 19. Role of work availability on timing of decision to transfer (%), 2007–2015 graduates who transferred to university



Relatedness of program

Most college graduates who transfer to university primarily move into a program that they consider somewhat or very related, at 90% in the most recent year (Figure 20). Over half (54%) consider their university program to be “very related,” an increase of almost nine percentage points since 2007. These reported levels of alignment match those seen in the analysis of sending and receiving programs (Table 8). High levels of alignment between sending and receiving program are also shown previously in an analysis of reasons for transfer (Figure 14). The cited reasons of “upgrade/improve skills” and “interest in further/more in-depth training in field” ranked higher than “interest in pursuing a different field of study.”

Figure 20. Relatedness of current university program to previous college program, 2007–2015



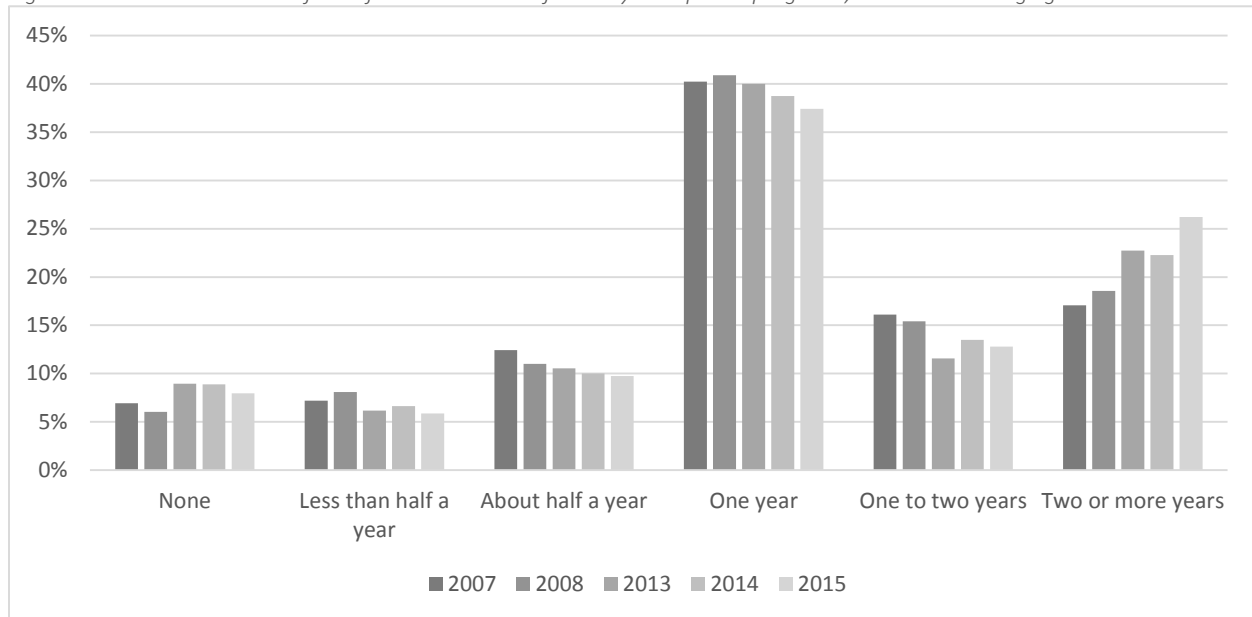
Note: Includes graduates who indicated they were enrolled full time in university six months after graduation.

Estimate of amount of credit received

In 2015, 39% of graduates from two-year diploma programs reported more than a year of transfer credit, an increase from 33% in 2007 (Figure 21). For advanced diploma programs, the share of graduates who reported two or more years of transfer credit (Figure 22)¹⁰ increased from 40% in 2007 to 57% in 2015.

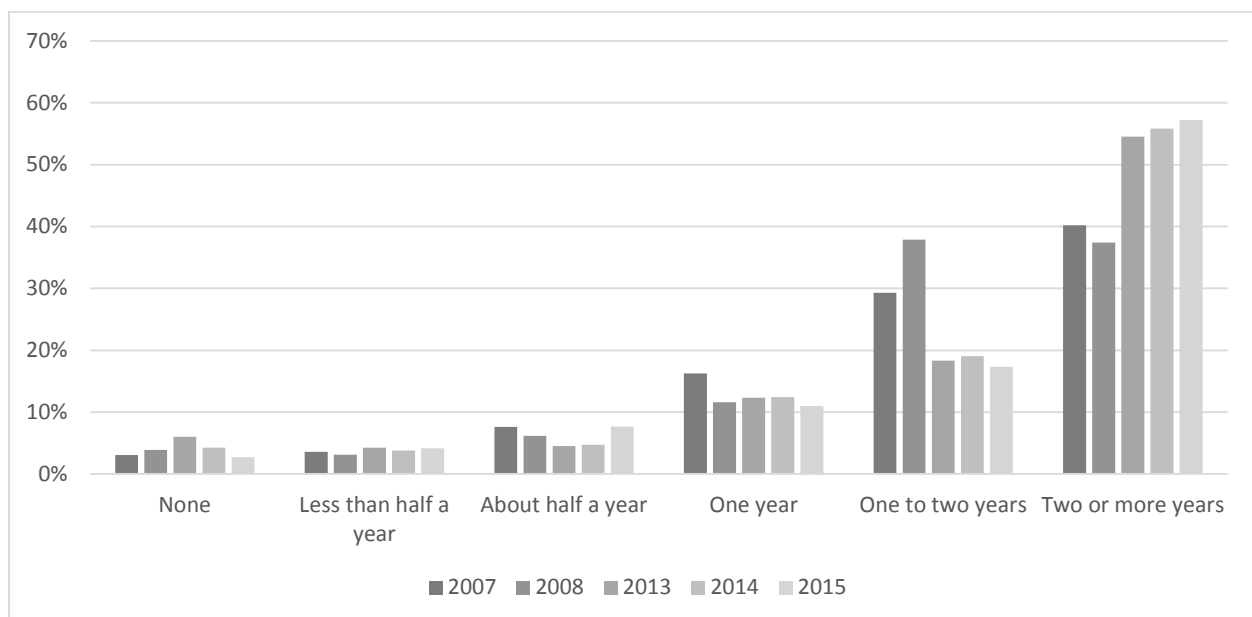
¹⁰ One-year certificates are not shown, since typically there is minimal transfer credit provided.

Figure 21. Estimated amount of transfer credit received for two-year diploma programs, 2007–2015 college graduates



Notes: For the graduate survey years of 2009-2012, the GSS did not ask the question about estimated amount of credit received. In 2013, the category of “two or more years” was divided into “two years” and “more than two years”. For this analysis, the two categories are combined. “Don’t know,” missing, and refused responses are removed from the total. Note that some graduates may have obtained credit from previous education.

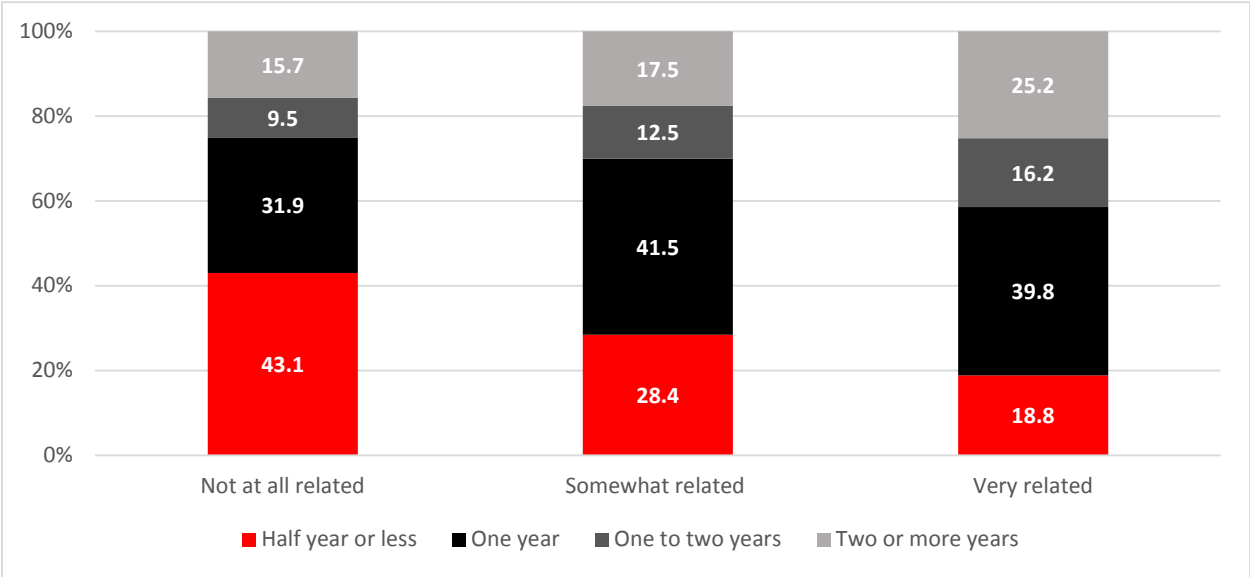
Figure 22. Estimated amount of credit transfer received for advanced diploma programs (three-year), 2007–2015 graduates



Further analysis by reported level of program affinity can help to explain the distribution of transfer credit. As would be expected, there is a strong association between program relatedness and the amount

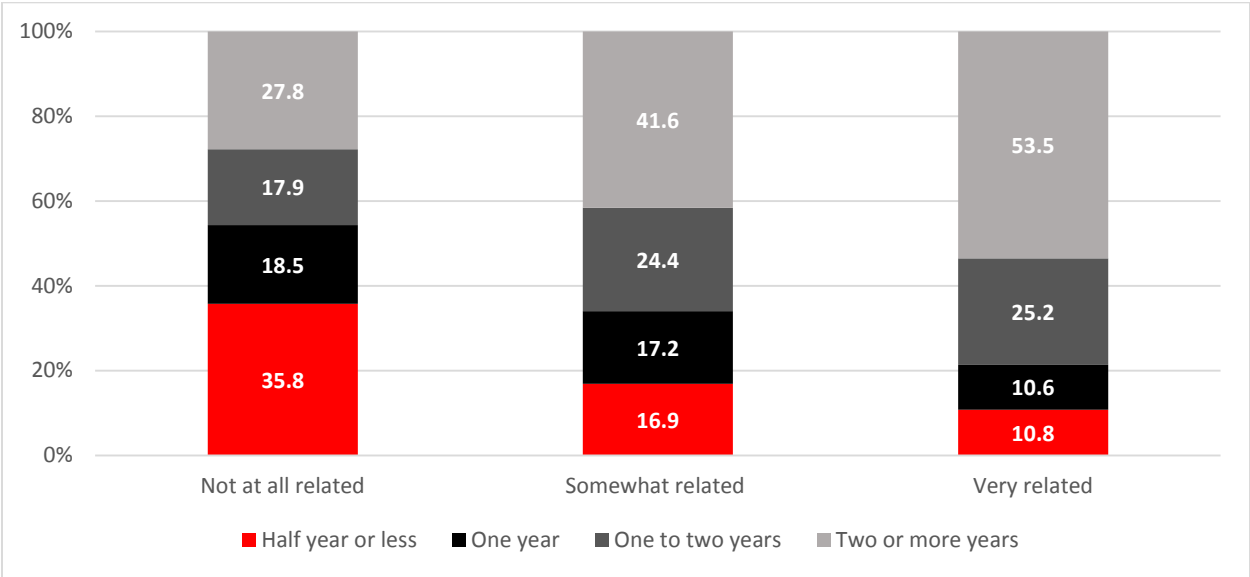
of credit reported for graduates of both the two- and three-year diploma programs (Figures 23 & 24). For graduates of two-year programs, 81% of those who transferred into a “very related” program reported receiving at least one year of transfer credit, compared with only 57% of those transferring into an unrelated program. Similarly for three-year programs, 79% of those from “very related” programs reported receiving more than one year of transfer credit, compared with 46% for those who entered an unrelated program.

Figure 23. Relationship between perceived relatedness of university program and amount of transfer credit, 2007–2015 graduates of two-year diploma programs



Note: This question was not asked for the graduate survey years of 2009–2012

Figure 24. Relationship between perceived relatedness of university program and amount of transfer credit, 2007–2015 graduates of three-year advanced diploma programs



Notes: Includes graduates who indicated they were enrolled full time in a university. This question was not asked for the graduate survey years of 2009-2012. “Don’t know,” refused and missing responses were excluded from the total.

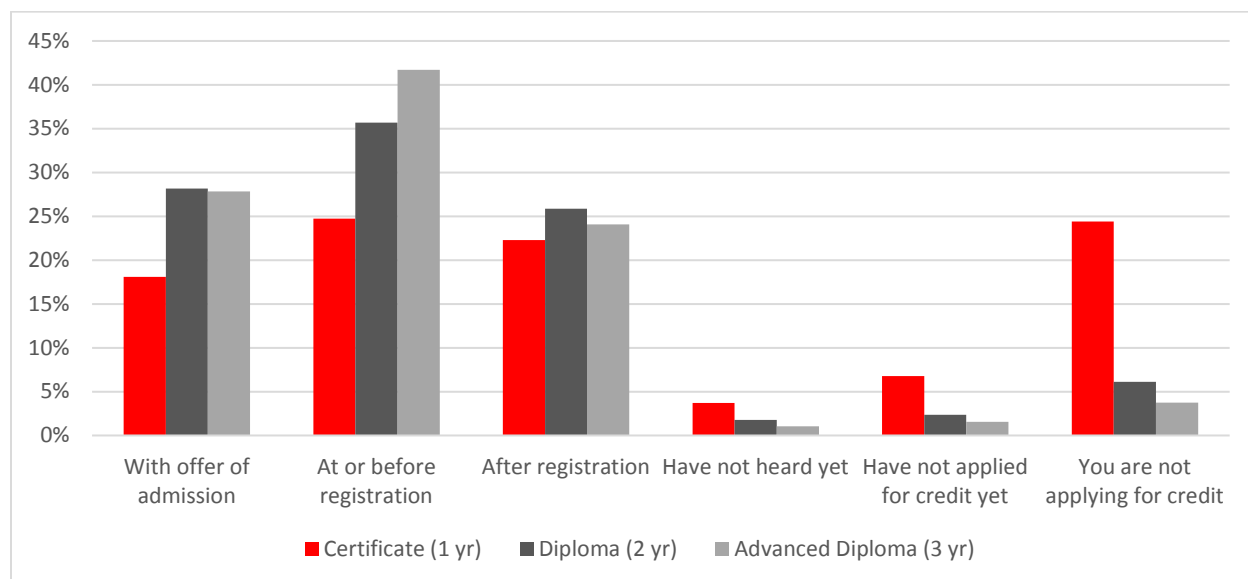
Timing of credit notification

In 2015, only one-quarter of transfers found out whether they were receiving transfer credit when they were offered admission; a third found out at or before registration, and a quarter did not know until they were enrolled. These proportions have not changed since 2007, and they indicate that many students decide to enroll without knowing how many credits they will need to graduate from university. Figure 25 breaks out the results by college credential: 31% of graduates from a one-year certificate program had not yet applied to university, or were not applying; this rate compares to just 8% of those from a two-year diploma program and 5% from an advanced diploma program. For those who had applied to university, 62% of graduates of one-year certificate programs had heard by registration, compared with 70% and 73% of two- and three-year diploma programs respectively.

Table 11. Responses to the question, “When did you find out whether you were receiving credit for your college program?”

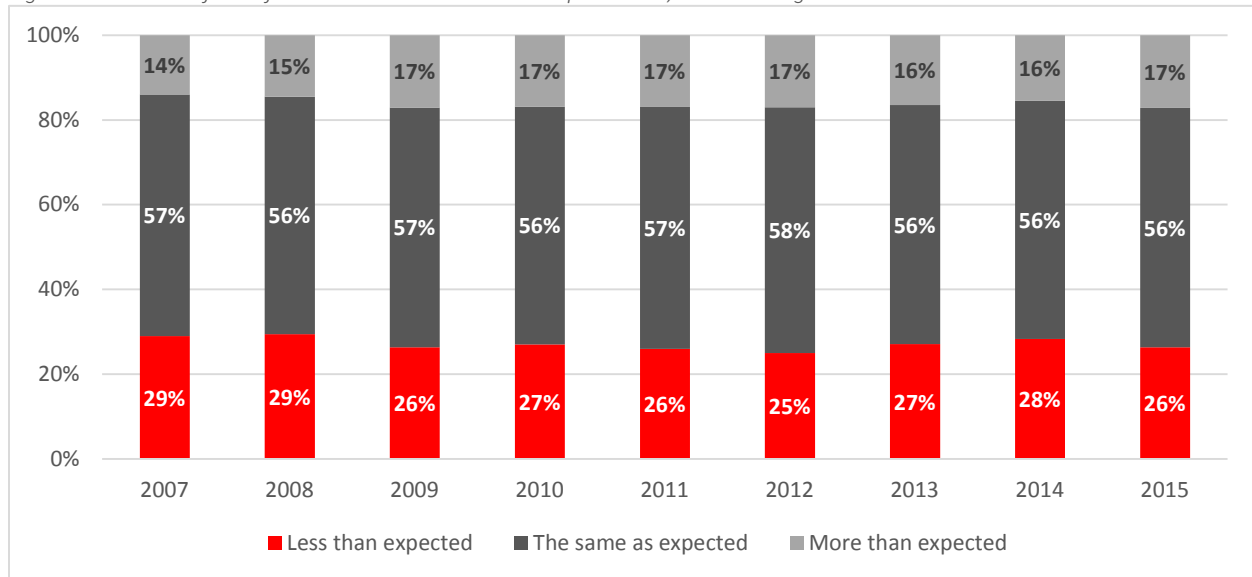
	2007	2008	2009	2010	2011	2012	2013	2014	2015	Total
With offer of admission	29%	29%	27%	25%	25%	23%	27%	28%	25%	26%
At or before registration	33%	33%	36%	36%	37%	38%	35%	36%	34%	36%
After registration	26%	26%	23%	25%	23%	24%	27%	23%	26%	25%
Have not heard yet	2%	2%	2%	2%	2%	2%	2%	1%	1%	2%
Have not applied for credit yet	2%	3%	4%	3%	4%	3%	3%	3%	3%	3%
You are not applying for credit	8%	8%	9%	8%	9%	9%	7%	9%	10%	8%

Figure 25. Timing of transfer credit notification by program credential, 2007–2015 graduates



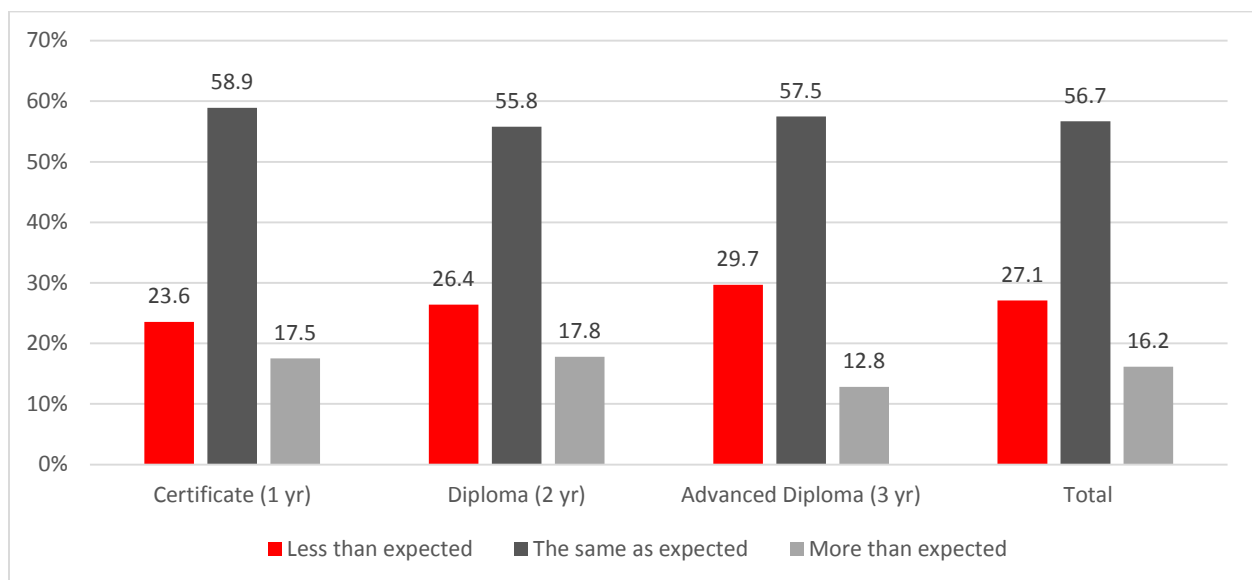
The share of transfers who reported receiving less credit transfer than expected has held constant, ranging from 25% to 29% between 2007 and 2015, with an overall average of 27% (Figure 26). Between 56% and 57% obtained the same amount of credit as they expected. Figure 27 shows the breakout by credential. Those with credentials of longer duration were slightly more likely to have received less credit transfer than expected, and less likely to have received more than expected.

Figure 26. Amount of transfer credit received relative to expectations, 2007–2015 graduates



Note: Data only for graduates who had applied for credit and received a response.

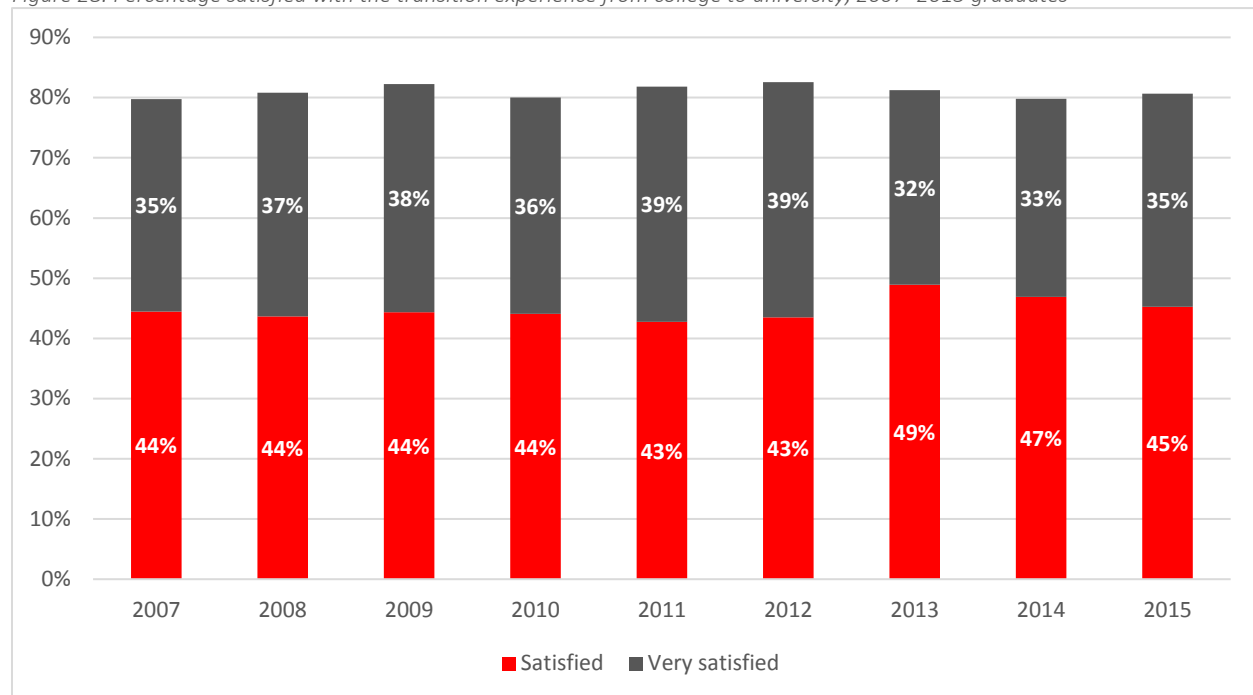
Figure 27. Expectations of transfer credit by credential, 2007–2015 graduates



Satisfaction with transition experience

The proportion of transfers who reported they were “satisfied” or “very satisfied” with their transition experience to university has been very stable since 2007, averaging 81% (Figure 28).

Figure 28. Percentage satisfied with the transition experience from college to university, 2007–2015 graduates

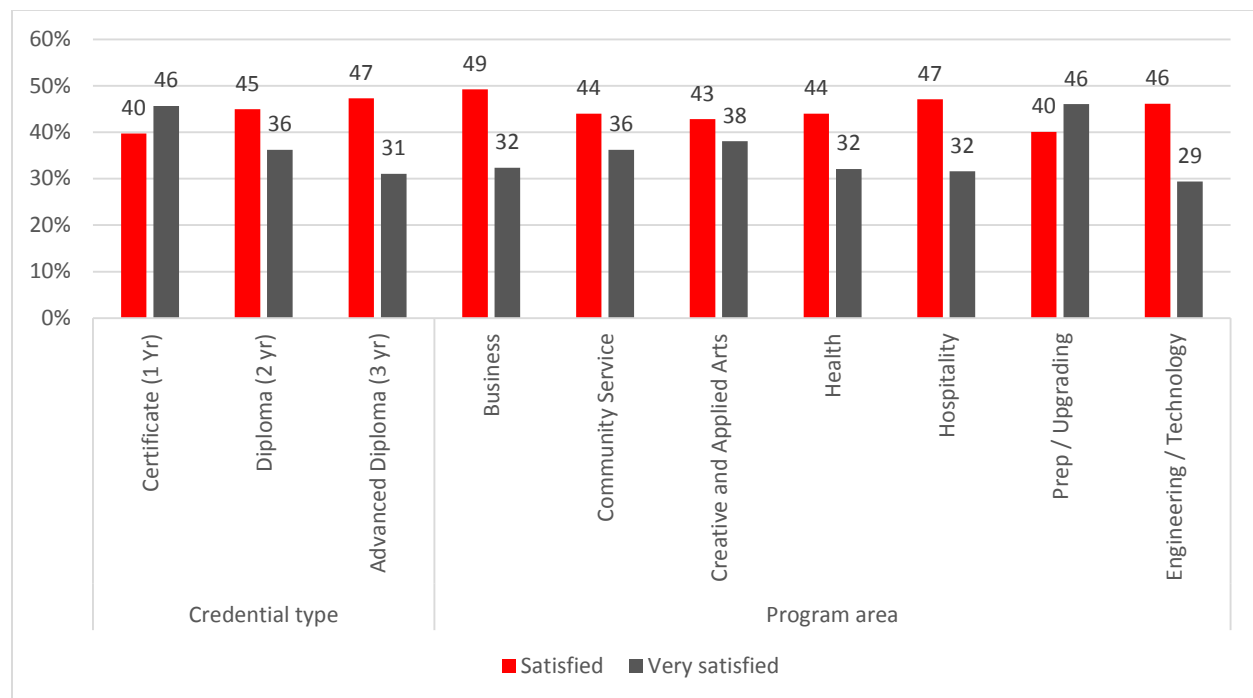


Notes: Includes graduates who indicated they were enrolled full time in a university six months after graduation.

For the combined years of 2007 to 2015, satisfaction with the transition experience differed by credential and program area (Figure 29). Graduates who transferred to university from credentials of shorter duration were more satisfied with their experience; 46% of certificate program graduates were very satisfied compared to 31% of graduates from advanced diploma programs. Overall, 86% of transfers from one-year certificate programs were satisfied and very satisfied, compared to 81% from diploma programs and 78% from advanced diploma programs.

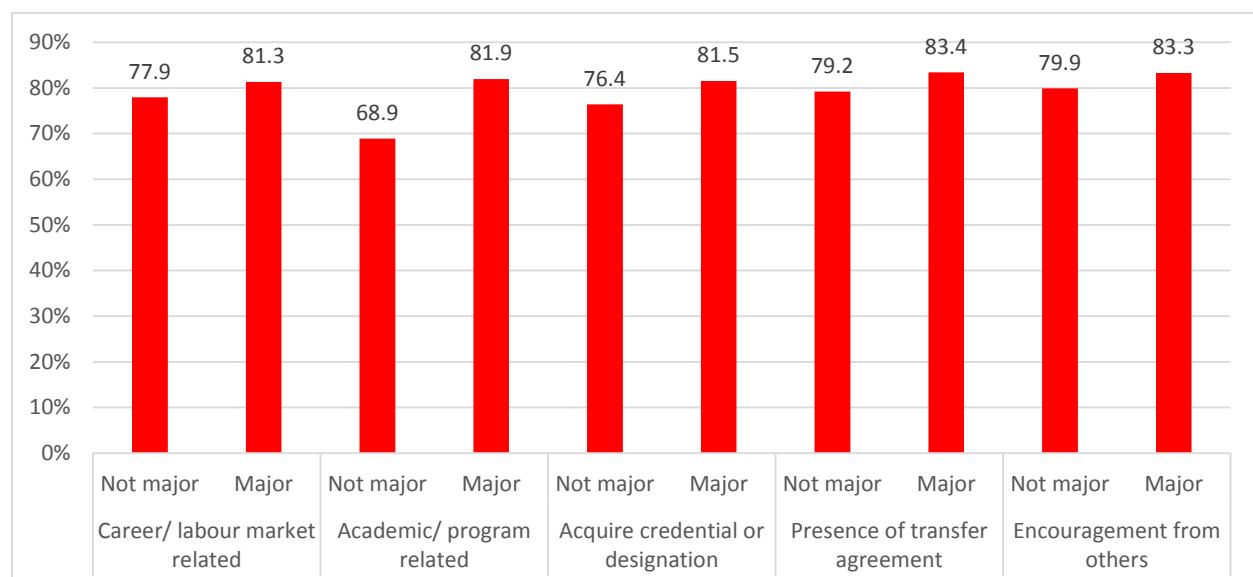
Differences in satisfaction rates also exist by program area. Satisfaction with the transition from preparatory/upgrading programs was very high, at 86% (satisfied and very satisfied) compared to 76% for health and engineering, with the other program areas reporting in the intermediate range.

Figure 29. Satisfaction with the transition experience by credential and program area, 2007–2015 graduates



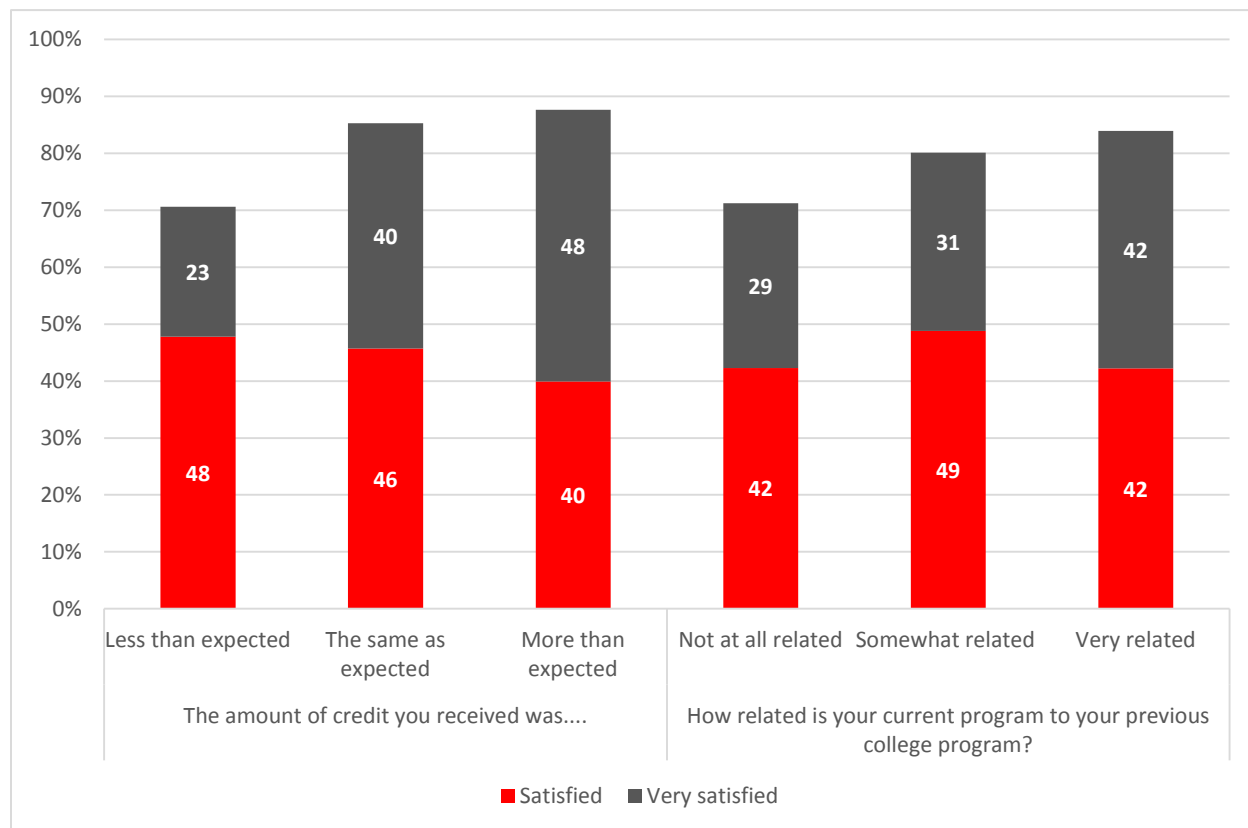
The study analyzed three major factors that may explain graduates' satisfaction with the transition experience: i) the reasons for transferring, ii) whether the expected amount of credit was obtained, and iii) the degree of affinity between the college and university programs. Although a higher satisfaction rate is associated with citing most reasons as major (Figure 30), those who cited academic or program related reasons were much more satisfied than those who did not (82% versus 69%).

Figure 30. Association between satisfaction with transition experience and reasons for transferring (grouped), 2007–2015 graduates



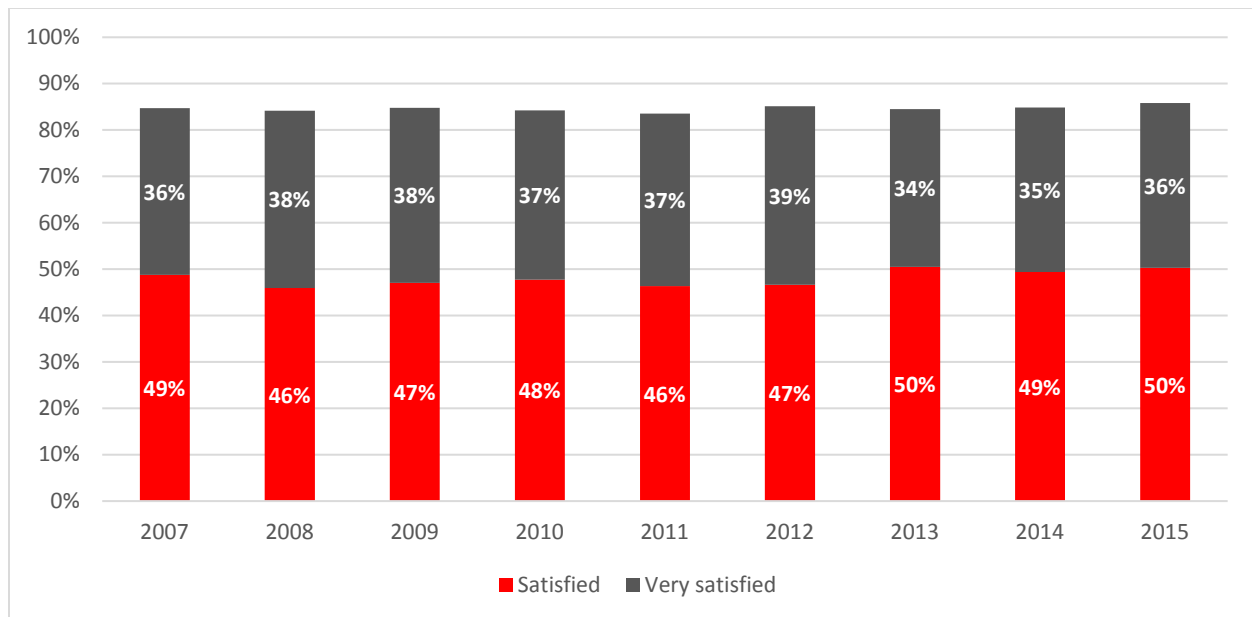
Receiving the expected amount of transfer credit and moving within a related field have a positive effect on graduates' satisfaction with their transition experience. Only 71% of those who received less credit than they expected reported they were satisfied and very satisfied, compared to 86% and 88% of those who received the same amount of credit, or more credit, than they expected, respectively (Figure 31). Those who received more credit than expected were much more likely to be very satisfied. Likewise, only 71% of those who transferred into a program "not at all related" to their college program were satisfied and very satisfied compared to 84% of those who transferred into a "very related program."

Figure 31. Satisfaction with transition experience by program relatedness and amount of expected transfer credit received, 2007–2015 graduates



Transfer students were also asked about their satisfaction with their academic preparation (Figure 32). The percent satisfied has been consistently high over time, at 85%, with 37% very satisfied and 48% satisfied.

Figure 32. Percentage satisfied with academic preparation for university, 2007–2015 graduates

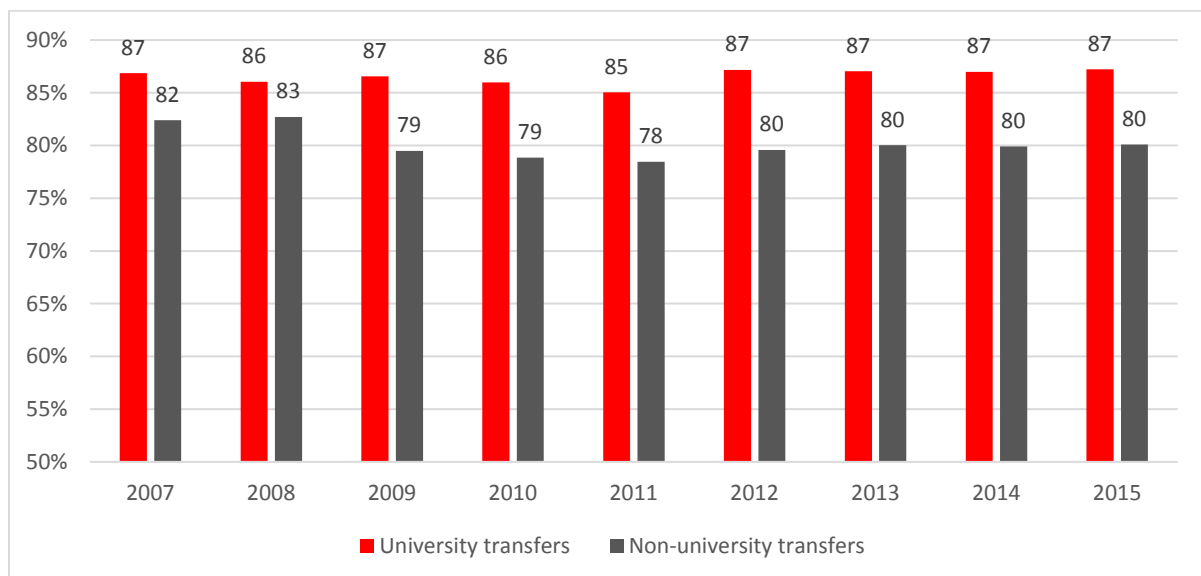


Note: Includes graduates who indicated they were enrolled full time in university six months after graduation.

Graduate satisfaction with usefulness of college education

The study compared the satisfaction rates between college graduates who transferred to university and graduates who did not transfer (Figure 33). For each year studied, the overall satisfaction rate of university transfers was very stable, between 85% and 87%. However, the satisfaction rate of non-university transfers dropped after the 2008 recession, likely because of lower employment prospects, widening the gap in satisfaction between transfers and non-transfers by another 4 percentage points.

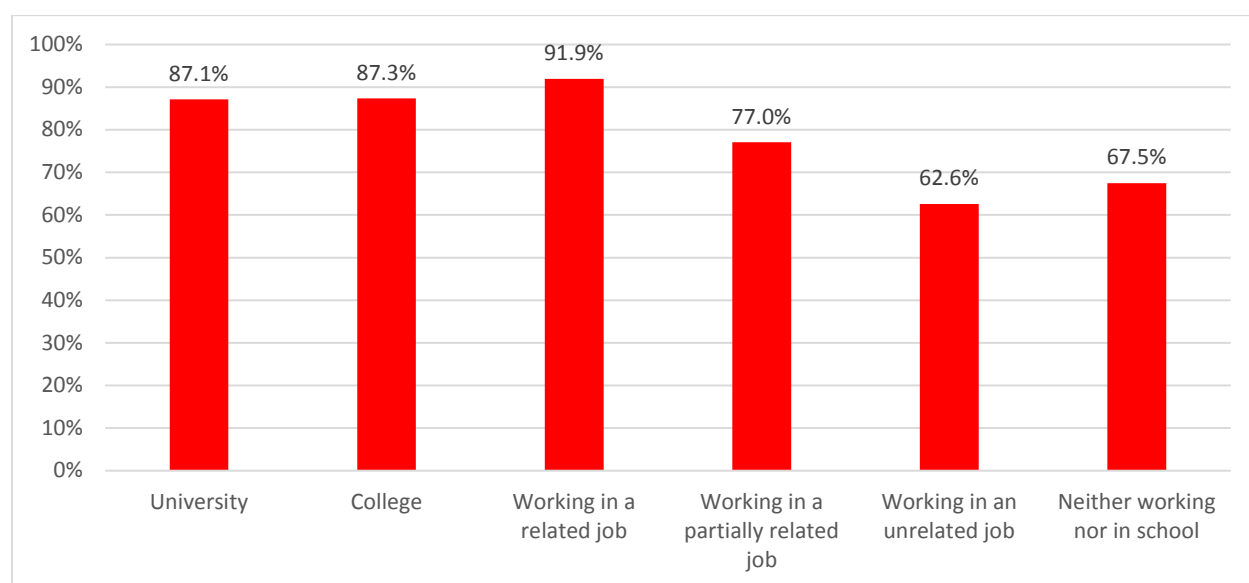
Figure 33. Percentage satisfied with their college credential in achieving their goals, 2007–2015 graduates



Note: Survey question: How would you rate your satisfaction with the usefulness of your college education in achieving your goals after graduation?

The study also analyzed the influence of labour market participation and other education activity after graduation, on graduates' satisfaction with their college education (Figure 34). Graduates who obtain a job related to their field of study are the most satisfied, with a steady 92% indicating they were satisfied or very satisfied. Graduates who further their education in a college or university program also have a strong and similar satisfaction rate of 87% on average. However, previous research has shown that graduate satisfaction is negatively affected by being unemployed or under-employed (McCloy & Liu, 2010; McCloy, et al., 2016).

Figure 34. Percentage satisfied with their college education by activity after graduation, 2007–2015 graduates



Regressions: Influences on the transfer rate and satisfaction with transition experience

Transfer rate

To determine which factors independently influence the overall transfer rate, four regression models were performed (Table 12). Model 1 includes all students, including international students, for all years. As international students do not have an Ontario permanent address, this model necessarily excludes neighbourhood characteristics such as income level and mother tongue (derived from Census data) and other geographic characteristics such as proximity to the nearest university. Model 2 excludes those who are international students and those without an Ontario permanent address, and includes measures derived from neighbourhood income level and first language. Model 3 focuses on students from Ontario, but to determine the effect of disability status on transfer, it only includes those years for which the GSS included the question on disability (2014 and 2015). Similarly, Model 4 focuses on all Ontario students, including those who self-identify as having a disability, and includes data from the new GSS question on Aboriginal identity. As this question was not asked until 2015, Model 4 focuses solely on that year.

Sociodemographics

The results across three models show that male graduates are very slightly but significantly more likely to transfer than are female graduates. International students are 3 percentage points less likely to transfer.

Graduates under 22 years of age, across all models, are more likely to transfer, with graduates 22 to 25 years of age 3 percentage points less likely; those over 25 years of age were 6 percentage points less likely to transfer than the younger age group. Relative to graduates from the lowest income neighbourhood, those from middle and higher income neighbourhoods were more likely to transfer. Graduates from neighbourhoods with a higher share with English as the mother tongue were less likely to transfer (4 to 6 percentage points, dependent on the model).

In 2014 and 2015, the GSS asked graduates for the first time two key questions: whether they self-identified as having a disability, and whether they identified as being of Aboriginal ancestry. The results show that when controlling for various factors, graduates with a disability were slightly and significantly less likely to transfer than other students. This finding mirrors the descriptive data which showed a transfer rate of 6.4% for those without a disability versus 5.8% for those with a disability. As for those who self-identified as Aboriginal, the regression analysis showed no difference in the transfer rate. These results are interesting as these populations are considered under-represented in university, and are much less likely to transition from high school to university (Finnie et al., 2011).

Program and credential

Graduates of one-year certificate programs were less likely to transfer, and graduates of advanced diploma programs were more likely than two-year diploma graduates to transfer. Graduates of community service and preparatory/upgrading programs were more likely than business graduates to transfer, with graduates of all other program area less likely.

Geography

Graduates from Southwestern Ontario colleges were consistently less likely to transfer than those from each of the other regions. The proximity between the college campus of graduation and the university on transfer had a slight but significant effect, with transfer less likely for graduates from campuses located more than 80 km from a university. As well, if the nearest university to the college campus of graduation had high admission standards (selective), those graduates had slightly lower transfer rates. Transfer rates to university were higher for graduates from larger cohorts and larger colleges.

Time trends

The descriptive data show a decline in the provincial transfer rate to university. Controlling for any potential changes in the composition of students, programs, or college profiles, the regression models also showed a decline in transfer rates, with the years 2012 to 2015 having significantly lower transfer rates than the 2007 reference year.

Table 12. Regression analysis: Transfer to university, six months after graduation, Ontario college graduates, 2007–2015

	VARIABLES	MODEL 1 All students (includes International)	MODEL 2 Ontario students (all years)	MODEL 3 Ontario students (includes Disability status, 2014, 2015 only)	MODEL 4 Ontario students (includes Disability and Aboriginal identity, 2015 only)
Gender	Male	0.005*** (0.001)	0.005*** (0.001)	0.008*** (0.002)	0.007 (0.003)
Status in Canada	International	-0.028*** (0.001)			
Disability status	Self-identify with disability			-0.007** (0.003)	0.001 (0.005)
Aboriginal status	Self-identify as Aboriginal				0.009 (0.008)
Age (Yrs) (Ref: < 22 yrs)	22 - 25	-0.026*** (0.001)	-0.025*** (0.001)	-0.030*** (0.003)	-0.031*** (0.004)
	> 25	-0.060*** (0.001)	-0.059*** (0.001)	-0.061*** (0.003)	-0.061*** (0.004)
Neighbourhood Income (Ref: =Low Income)	Middle		0.005*** (0.001)	0.006*** (0.002)	0.009*** (0.003)
	High		0.012*** (0.001)	0.010*** (0.003)	0.016*** (0.004)
Neighbourhood Share with English as Mother Tongue			-0.060*** (0.003)	-0.045*** (0.007)	-0.043*** (0.010)
Cohort Size (Ref: >200)	<100	-0.019*** (0.002)	-0.020*** (0.002)	0.009*** (0.003)	0.015*** (0.005)
	100-200	-0.005*** (0.002)	-0.005*** (0.002)	0.015*** (0.004)	0.014*** (0.005)
Grad Credential (Ref: 2-yr Diploma)	Certificate 1-yr	-0.030*** (0.001)	-0.031*** (0.001)	-0.031*** (0.002)	-0.029*** (0.003)
	Advanced Diploma 3-yr	0.056*** (0.001)	0.056*** (0.001)	0.047*** (0.003)	0.041*** (0.004)
Grad Program Group (Ref: Business)	Community Services	0.026*** (0.002)	0.030*** (0.002)	0.029*** (0.004)	0.030*** (0.006)
	Creative and Applied Arts	-0.062*** (0.001)	-0.062*** (0.002)	-0.060*** (0.004)	-0.065*** (0.005)
	Health	-0.049*** (0.001)	-0.043*** (0.001)	-0.045*** (0.003)	-0.048*** (0.004)
	Hospitality	-0.060*** (0.001)	-0.060*** (0.002)	-0.060*** (0.003)	-0.063*** (0.005)
	Preparatory/ upgrading	0.070*** (0.002)	0.081*** (0.002)	0.065*** (0.006)	0.063*** (0.008)
	Engineering/ Technology	-0.053*** (0.001)	-0.047*** (0.001)	-0.052*** (0.003)	-0.051*** (0.005)
College Size (ref: Large)	Small	-0.012*** (0.002)	0.002 (0.002)	-0.004 (0.005)	0.005 (0.007)
	Medium	-0.003*** (0.001)	-0.001 (0.001)	0.003 (0.003)	0.010*** (0.004)
College Region (Ref: Southwestern)	Central	0.023*** (0.001)	0.024*** (0.001)	0.016*** (0.003)	0.012*** (0.004)
	Eastern	0.020*** (0.001)	0.012*** (0.001)	0.007** (0.003)	0.001 (0.005)
	Metro Toronto	0.035*** (0.001)	0.025*** (0.002)	0.016*** (0.004)	0.017*** (0.005)

	VARIABLES	MODEL 1 All students (includes International)	MODEL 2 Ontario students (all years)	MODEL 3 Ontario students (includes Disability status, 2014, 2015 only)	MODEL 4 Ontario students (includes Disability and Aboriginal identity, 2015 only)
	Northern	0.026*** (0.002)	0.019*** (0.002)	0.021*** (0.005)	0.006 (0.007)
Nearest University is >80 km	Distance from College Campus		-0.006*** (0.002)	-0.009** (0.004)	-0.008 (0.006)
Selectivity of Nearest University	Nearest University is "Selective"		-0.002** (0.001)	-0.002 (0.002)	-0.004 (0.003)
Academic Year of Graduation (Ref: 2007)	2008	-0.003 (0.002)	-0.002 (0.002)		
	2009	-0.000 (0.002)	0.000 (0.002)		
	2010	-0.002 (0.002)	-0.001 (0.002)		
	2011	-0.001 (0.002)	-0.000 (0.002)		
	2012	-0.004** (0.002)	-0.003 (0.002)		
	2013	-0.010*** (0.002)	-0.008*** (0.002)		
	2014	-0.016*** (0.002)	-0.015*** (0.002)		
	2015	-0.017*** (0.002)	-0.016*** (0.002)	0.002 (0.002)	
Term of Graduation (Ref: Winter)	Summer	-0.010*** (0.001)	-0.010*** (0.001)		
	Fall	-0.059*** (0.001)	-0.062*** (0.001)		
	Constant	0.083*** (0.003)	0.147*** (0.004)	0.100*** (0.009)	0.108*** (0.014)
	Observations	389,675	354,934	64,739	29,170
	R-squared	0.053	0.056	0.044	0.042

Regression results: Satisfaction with transition experience

Graduates who indicated they had enrolled in full-time education six months after graduation were asked about their satisfaction with the transition experience. Table 13 contains the regression results specifically for those who transferred to university. Model 1 comprises all graduates (including those from outside Ontario) and therefore does not include neighbourhood characteristics of income and mother tongue. Model 2 excludes those outside of Ontario, and includes neighbourhood income and mother tongue. Both models include reasons for transfer and information sources. Model 3 contains all variables (excluding those outside Ontario) in addition to transition variables related to the timing, amount, and expectations for transfer credit, as well as the relatedness of the transfer program to college program of graduation. Model 3 includes only the group that at the time of the survey had both applied for credit and had been informed about the amount awarded. The years between 2008 and 2013 are not included in Model 3 as some transfer credit questions were not asked in those years.

Sociodemographics

Males were slightly but significantly more satisfied with their transition experience than females. Older transfers were slightly less likely to be satisfied, and there were no differences by neighbourhood mother tongue or income.

Program and credential

Across all models, graduates from advanced diploma programs were less satisfied than graduates from two-year diploma programs. Results by program area are of interest in that several fields of study are no longer significantly different when transition variables are included. Engineering transfers are less satisfied than the business reference in all models. However, community service, health and hospitality transfers cease to be less satisfied than the business reference group once other factors related to transfer credit and program affinity are controlled for (held constant). In contrast, graduates from preparatory/upgrading programs become more satisfied than the reference when these other factors are taken into consideration, likely because preparatory graduates generally have no “related field” to enter, and once that absence is controlled for, a slight inflation of satisfaction occurs.

Geography

There was no difference by region in satisfaction rates, but graduates from medium-sized colleges were slightly less likely to be satisfied. The results showed that proximity between the college campus of graduation and the university entered, had no consistent effect on satisfaction rates. Likewise, the size of the graduating class had no effect.

Time trends

The descriptive data show only a slight change in satisfaction over time. Controlling for any potential changes in the composition of students, programs, or college profiles, the regression models show slightly higher satisfaction rates between 2011 and 2013 than in the 2007 reference year.

Reasons for transfer and role of information sources

The reasons for transfer and the sources of information were clustered into broader related groupings. Overall, transfers who indicated they made high use of any of the listed information sources were more likely to be satisfied with their transition experience. As expected, access to sources of information generally enhances the transition experience. Those who indicated that at least one of the college sources was a major source were 5 percentage points more likely to be satisfied. The rate for using university sources was slightly lower at 3%. Those who indicated that personal sources, such as family or other students, were a major source of information were about 2 percentage points more likely to be satisfied than those who did not. The use of student and information sources was not significant in Model 3, likely because the model contained fewer years.

The study also tested whether the reasons for transfer were associated with subsequent satisfaction with the transition. Those who transferred for academic or program related reasons were 10 percentage points more likely to be satisfied even when controlling for transition factors. Those who indicated extrinsic factors such as encouragement from others, or career/labour market goals, were not more likely to be satisfied than those who did not. Interestingly, those who cited a transfer agreement as a major reason for transfer, were not more satisfied when transfer credit factors were controlled for (Model 3).

Transfer credit and program affinity

Model 3 measured the effect of the notification of transfer credit, the amount of transfer, and whether the amount met expectations, as well as the perceived affinity of the transfer program. As might be expected, transfer credit amount that either met or exceeded expectations was a significant influencer on satisfaction with the transition, with those who received more transfer credit than they expected 17 percentage points more likely to be satisfied than those who received less than expected. Those who received some transfer credit relative to no credit were 7 percentage points more likely to be satisfied. The timing of notification was not significant. Graduates who transferred to a related program area were more likely to be satisfied with the transition experience than those moving to an unrelated program area.

Table 13. Regression analysis: Satisfaction with transition experience to university, six months after graduation, Ontario College graduates, 2007–2015

	VARIABLES	All Graduates	Graduates from Ontario	Transfer variables
Gender	Male	0.018***	0.018***	0.023***
		(0.005)	(0.005)	(0.008)
Status in Canada	International	0.066***		
		(0.012)		
Age (Yrs) (Ref: < 22 yrs)	22 - 25	-0.021***	-0.023***	-0.011
		(0.006)	(0.006)	(0.009)
	> 25	-0.035***	-0.035***	-0.032**
		(0.008)	(0.008)	(0.013)
Neighbourhood Income (Ref:=Low Income)	Middle		-0.003	-0.007
			(0.006)	(0.010)
	High		0.004	0.009
			(0.007)	(0.010)
Neighbourhood Share with English as Mother Tongue			0.002	-0.019
			(0.018)	(0.027)
Cohort Size (Ref: >200)	<100	-0.005	-0.006	0.020
		(0.008)	(0.008)	(0.012)
	100-200	0.003	0.003	0.012
		(0.008)	(0.008)	(0.013)
Grad Credential (Ref: 2-yr Diploma)	Certificate 1-yr	0.016	0.019	0.026
		(0.009)	(0.010)	(0.015)
	Advanced Diploma 3-yr	-0.031***	-0.028***	-0.050***
		(0.008)	(0.008)	(0.012)
	Degree 4-yr	0.076***	0.071***	0.027
		(0.023)	(0.025)	(0.050)
Grad Program Group (Ref: Business)	Grad. Certificate 1-yr	-0.026	-0.027	-0.052**
		(0.014)	(0.015)	(0.026)
	Community Services	-0.025***	-0.023***	-0.022
		(0.008)	(0.008)	(0.012)
	Creative and Applied Arts	-0.017	-0.010	0.002
		(0.011)	(0.012)	(0.019)
	Health	-0.037**	-0.038**	-0.005
		(0.014)	(0.015)	(0.024)

	VARIABLES	All Graduates	Graduates from Ontario	Transfer variables
College Size (Ref: Large)	Hospitality	-0.050**	-0.054**	-0.012
		(0.020)	(0.022)	(0.038)
	Preparatory/Upgrading	0.014	0.015	0.040**
		(0.010)	(0.011)	(0.016)
	Engineering and Technology	-0.036***	-0.040***	-0.049***
		(0.010)	(0.010)	(0.016)
	Small	-0.014	-0.015	-0.015
		(0.016)	(0.017)	(0.026)
	Medium	-0.027***	-0.031***	-0.040***
		(0.007)	(0.007)	(0.012)
	Central	0.007	0.009	0.005
		(0.008)	(0.009)	(0.013)
Ontario College Region (Ref: Southwestern)	Eastern	0.004	0.006	-0.010
		(0.009)	(0.010)	(0.015)
	Metro Toronto	0.001	0.003	-0.005
		(0.009)	(0.010)	(0.015)
	Northern	-0.020	-0.015	-0.041
		(0.016)	(0.016)	(0.025)
Nearest University (Ref: Over 80 km)	Distance from College Campus	0.032	0.036**	0.045
		(0.017)	(0.017)	(0.026)
Selectivity of Nearest University	Nearest University is "Selective"	-0.005	-0.006	-0.013
		(0.006)	(0.007)	(0.010)
Academic Year of Graduation (Ref: 2007–08)	2008	0.011	0.012	0.018
		(0.011)	(0.011)	(0.012)
	2009	0.019	0.023**	-
		(0.011)	(0.011)	
	2010	-0.005	-0.001	-
		(0.010)	(0.011)	
	2011	0.026***	0.028***	-
		(0.010)	(0.010)	
	2012	0.030***	0.031***	-
		(0.010)	(0.010)	
	2013	0.019	0.022**	0.026**
		(0.010)	(0.011)	(0.012)
	2014	0.002	0.004	0.001
		(0.011)	(0.012)	(0.012)
	2015	0.005	0.006	0.006
		(0.011)	(0.012)	(0.013)
Term of Graduation (Ref: Winter)	Summer			-0.008
				(0.012)
	Fall			0.031
				(0.025)
Major Source of Transfer Information	College	0.055***	0.055***	0.050***
		(0.005)	(0.006)	(0.009)
	University	0.033***	0.032***	0.036***
		(0.006)	(0.006)	(0.009)

	VARIABLES	All Graduates	Graduates from Ontario	Transfer variables
	Students and family	0.017*** (0.005)	0.018*** (0.005)	0.010 (0.008)
Major Reason for Transferring	Encouragement from others	0.010 (0.005)	0.010 (0.006)	0.010 (0.009)
	Acquire credential or designation	0.027*** (0.010)	0.028*** (0.010)	0.028 (0.016)
	Academic/program related	0.100*** (0.012)	0.102*** (0.012)	0.093*** (0.018)
	Career/labour market related	0.007 (0.011)	0.004 (0.012)	-0.014 (0.018)
	Presence of transfer agreement	0.034*** (0.005)	0.034*** (0.005)	0.005 (0.008)
Transfer Credit Received (Ref: Less than expected)	Same as expected			0.143*** (0.010)
	More than expected			0.170*** (0.012)
Timing of Credit Notification (Ref: Notified after program start)	At start of program or earlier			-0.000 (0.009)
Relatedness to Previous Program (Ref: Program not related)	Somewhat related			0.072*** (0.016)
	Very related			0.110*** (0.016)
Received Transfer Credit	Yes			0.065*** (0.021)
	Constant	0.626*** (0.021)	0.621*** (0.025)	0.414*** (0.046)
	Observations	25,590	23,855	9,653
	R-squared	0.032	0.032	0.070

Notes:

1. Classification of information sources:
 - a. *Colleges sources*: Used as a major source at least one of: college hard copy publications; college administration, i.e. registrar's office, student services; college website; college faculty/counselors/program coordinators
 - b. *University sources*: university staff (including registrar's office, faculty, etc.); university website/publications
 - c. *Students and family sources*: parents and family; other students (including current and former college and university students)
2. Classification of major reasons for transfer:
 - a. *Career/labour market related*: Reasons included one of: potential for higher income, no job, company paid, more opportunities for career advancement
 - b. *Academic/ program related*: One of training, theoretical knowledge, upgrading skills, different field
 - c. *Acquire credential or designation*: To get diploma/certificate/degree; needed for professional designation

Discussion

The study analyzed nine years of data from Ontario's College Graduate Satisfaction Survey to determine the influences on the transfer rate to university, trends in the rate over time and the potential explanations for them, and the transfer experience.

Influences on transfer rate

Previous research has shown that students who are less likely to attend university are male, low income, Aboriginal, have a disability, or live beyond commuting distance from a university (Finnie et al., 2011). Less is known about rates of transfer to university by these groups within the college student population. This study serves to bridge this gap in knowledge and suggests that the college transfer pathway to university may be more equitable than the direct entry pathway. There were only slight differences by income, commuting distance, and for students with a disability whereas males, and Aboriginal students are as likely to transfer to university as other college students. Other research on Seneca students that includes details on college performance and plans for university at entry, shows that within the college population, college performance and aspirations for transfer are more important than sociodemographic factors on transfer rates, indicating this pathway may be more merit- and motivation-based (Steffler et al., 2016; McCloy et al., 2016).

Graduates of one-year certificate programs were less likely to transfer, and graduates of advanced diploma programs were more likely to transfer than those from two-year diploma programs. Graduates of community service and preparatory/upgrading programs were more likely than business graduates to transfer, with all other program area graduates less likely to transfer.

Programs with the highest transfer volume in 2015 were Social Service Worker, followed by the one-year GAS and Police Foundations. In 2007, ECE, the two-year GAS program, and Police Foundations had the highest numbers of transfers. ECE also experienced a dramatic drop in transfer rate coinciding with changes in the labour market that made working in the profession more attractive, and with the creation of several ECE college degree programs (McCloy et al., 2015). The two-year general arts program offerings throughout Ontario now focus less on university transfer preparation and more on skills development.

College graduates are largely transferring within related fields, as shown when the program of college graduation and university program of entry are mapped. Approximately two-thirds of transfers are moving within related fields of study. This finding is further validated by results from a separate GSS question that asked transfers to rate the affinity of their program of transfer. In 2015, 54% reported that it was very related and 36% indicated it was somewhat related. The share reporting that the programs were very related has increased from 46% in 2007. Additionally, only 27% of university transfers in 2015 indicated interest in pursuing a different field of study as their major reason for transfer.

Major regional shifts in transfer rates have occurred since 2007: Metro Toronto and Central region had much higher transfer rates than other regions of the province, but their rates are now similar to those of other regions. La Cité continues to have the highest percentage of graduates who transfer, at 14% in both 2007 and 2015, whereas the rate for Durham College (as an exception to the other GTA colleges) increased from 6.6% to 9%, the second highest rate in the province. In terms of absolute numbers of transfers, the larger Metro Toronto colleges still predominate, with Humber, Seneca, and George Brown ranked in the top three.

The decreases in the volume of transfers from York and Ryerson universities, together with UOIT's increases, mirror those seen in the college transfer numbers: York and Ryerson are in close proximity to the Toronto colleges, and UOIT shares a location in Oshawa with Durham. However, York and Ryerson continued to rank first and second in the volume of transfers received, with UOIT moving into a tie with

the University of Ottawa for third, up from a 15th place ranking in 2007.. Yet when the amount of transfer is weighted to enrolment, the Northern universities are taking on a much larger share of transfer students than the rest of the province.

Controlling for any potential changes in the composition of students, programs, or college profiles, the regression models show that the graduating years of 2012 to 2015 had significantly lower transfer rates than the 2007 reference year. The following section on transfer trends attempts to account for these changes over time.

Transfer trends

The overall percentage of college graduates, including for all credentials, who furthered their education remained fairly stable throughout the years of this study, averaging 26%. The percentage transferring to a university program decreased from 8% in 2006–07 to 5.5% by 2014–15, whereas the share entering a college program increased from 17% to 19.1%, with the increase largely due to transfers into college certificate and diploma programs. When transfers from graduate certificate and college degree programs are excluded, the transfer rate to any university program still shows a decline, decreasing from 8.3% in 2007 to 6.3% in 2015.

The descriptive data show that across all student, program, and college characteristics, the transfer rate has been declining, indicating that no single factor or set of factors included in the current analysis is responsible. The exception is international students, with growth in enrolment share, but a substantial drop in transfer rates, far larger than the system average. Additionally, only five of the 24 colleges experienced an increase in the share of graduates transferring. The regression analysis supports this finding, which, by holding student and program characteristics constant, shows that graduates from the 2011–12 academic year onwards were less likely to transfer to university than the 2006–07 graduates.

The following section discusses external factors, not captured in the current study, which may be responsible for the decline in transfer rates.

Potential external factors

Increase in college students with previous degrees

The share of college entrants with a degree increased from 12.9% in 2011–12 to 17.9% in 2015–16 (MAESD, Student Satisfaction Survey; unpublished CRSM analysis). When graduate certificate and degree programs are excluded, the share of degree holders was 7.7% in 2011–12 and 10% in 2015–16. The growth in international students is partially responsible for the increase in degree holders, as 30% of international entrants in certificate or diploma programs over this time period reported having a degree. However, even within the non-international student population, the share of certificate or diploma program entrants who reported having a degree increased from 6.4% to 7.8% over the same period.

Pathways to a degree have been increasing

The provision of college degrees gives students the option of entering college degree program without having to transfer credits to a university. The number of graduates from college degree programs has increased four-fold, from 503 in 2007 to 2,239 by 2015. The Toronto area colleges have experienced the most growth in the provision of degree programs, and also the largest decline in transfer rates. A similar trend has been observed in British Columbia, where the gradually declining rate in student mobility from 2008–09 to 2013–14 was attributed to “the numerous new opportunities available to students to

complete a bachelor's degree or other credentials at a single institution, without the need to transfer elsewhere for completion" (Government of BC, 2017).

In a positive development, universities in Ontario have increased their focus on bridging programs, such as the Transition Year Program (offered at York and the University of Toronto) and the Bridges to Ryerson initiative, to improve access to university for underprepared or non-traditional students (Medovarski, Sanders, & Spotton Visano, 2015; Kerr, 2011).

Plateauing university enrolment

Plateauing university enrolment may mean that some universities have greater capacity to accept more students directly from high school. Undergraduate enrolment (FTE) in Ontario universities has only increased by 0.4% between 2012 and 2015 for funding eligible students, and 3% when including ineligible students¹¹. A recent report by the Higher Education Quality Council, suggested that universities may lower their high school admission averages in geographic areas with a declining 18-25 year-old population, thus competing with local colleges (Weingarten, Kaufman, Jonker, & Hicks, 2017).

Increased focus on career opportunities for college graduates

The marketability of a college credential is increasingly recognized as a viable alternative to a university education. For example, Colleges Ontario, the provincial advocacy association representing all 24 CAATS, mounted a marketing campaign to stress the value of college credentials in the labour market (Colleges Ontario, 2008). Some evidence to support this theory is seen with Seneca College entrants where the proportion with plans for university after graduation dropped from 42% in 2008–09 to 34% in 2013–14, whereas entrants' plans for employment rose from 40% to 46% over the same period. Similarly, a recent report on transfer trends in ECE came to the conclusion that improved labour market outcomes (as well as the creation of college degree programs in early childhood education/development), contributed to a large decrease in transfer rates (McCloy et al., 2015).

Lack of comprehensive strategic planning

Pathway development between colleges and universities may need to follow a more strategic framework. Lennon et al. (2016) found that pathway development has failed to focus within geographic areas where students are known to transfer the most, and that many pathways appear to be under-utilized. The study found that only 16% of Ontario university pathways are with colleges within commuting distance and that the average number of transfers per pathway is 1.3.

Transfer experience

The reasons for transferring to university have been consistent over time. Highest-ranked reasons include career advancement; obtaining a credential; and expanding education, skills and training (such as acquiring more in-depth training, more theoretical knowledge, or improving skills). In contrast, just over one-quarter of transfers reported pursuing a different field of study as a major reason for transfer. A lack of jobs in their field of study, as well as employers requiring or paying for a university credential, were the least-cited reasons.

Transfers report a high use of a variety of information sources, with reliance on university websites, staff, or publications the most common, and reliance on most sources remaining the same over time. Reliance

¹¹ Funding "ineligible" primarily pertains to international students. Council of Ontario Universities, Multi-Year Data: Enrolment, <http://cou.on.ca/numbers/multi-year-data/enrolment/>

on university staff and college administration for information has increased, whereas reliance on college hard copy publications has decreased. When information sources are grouped together based on whether they originate from college, university, or personal sources, two-third of transfers use university sources as a major source, followed by college sources at 60% and personal sources at 50%.

Approximately 40% of transfers had already made the decision to transfer when they entered college, with 11% deciding after graduation. This trend was stable over time. An interesting observation is that those who said their reason for returning to school was a lack of a job, were also more likely to have decided to transfer after graduation.

The amount of transfer credit has been increasing somewhat, with transfers in related programs obtaining more credit, as would be expected. Timing of credit notification has not changed over time, with only one-quarter of students finding out when they were offered admission, one-third at or before registration, and one-quarter not knowing until they were enrolled in university. The amount of credit received has been constant over time, with 27% receiving less than they expected and the majority (57%) receiving the amount they expected.

Satisfaction of university transfers with their academic preparation, transition experience, and college education overall remains consistently high. The rate of satisfaction with academic preparation averaged 85%. Satisfaction with the transition experience has also been stable, averaging 81%. Overall, 85% of transfers from one-year certificate programs were satisfied compared to 81% from diploma programs and 78% from advanced diploma programs. Satisfaction with the transition from preparatory/upgrading programs was very high, at 86%, compared to 76% for health and engineering, with the rate for other program areas in the intermediate range.

The proportion of transfers who reported being satisfied with the usefulness of their college education in achieving their goals has remained consistently high over time, averaging 87%. The satisfaction rate of the university transfer group was similar to that of college transfers, and slightly lower than those working in a related job (92% satisfied); college transfers, however, had much higher satisfaction rates than those working in partially related or unrelated jobs, or those not working.

The factors influencing satisfaction with the transition experience were examined more closely in a regression model and showed slightly higher satisfaction rates between 2011 and 2013 than in the 2007 reference year. Males were slightly but significantly more satisfied with their transition experience than females, and older transfers were slightly less likely to be satisfied.

Graduates from advanced diploma programs were less satisfied than graduates from two-year diploma programs; transfers from engineering, community service, health, and hospitality were less satisfied than the business group reference.

Overall, transfers who made high use of information sources were more likely to be satisfied with their transition experience. Transfers using at least one of the college information sources were 5 percentage points more likely to be satisfied and 3 percentage points more likely to use university sources.

Having an academic or program-related reason for transfer resulted in a 10 percentage point increase in satisfaction with their transition experience. Those influenced by extrinsic factors such as encouragement from others or career/ labour market interests, did not differ in satisfaction rates.

As might be expected, the amount of transfer credit either meeting or exceeding expectations significantly influenced satisfaction with the transition experience. Receiving transfer credit and transferring into a related program area were also positive influencers on transfer, whereas the timing of notification was not significant.

Conclusion

The study of transfer rates, the transfer experience, and trends over time is a complex endeavor, particularly in a dynamic environment with shifting student aspirations and demographics, a proliferation of new program offerings at colleges and universities, and changing labour market demand. Further research should focus on areas such as the role of college-university transfer for groups traditionally under-represented in university, and the effectiveness of current transfer agreements to support students. The creation of data infrastructure using the Ontario Education Number can provide central tracking of transfer rates, so that transfer can be measured by student demographics, region, transfer credit, and student retention and success after transfer. Administrative data, however, cannot capture the student perspective, and an ongoing reliance on survey data obtained from such sources as the Ontario College Graduate Satisfaction Survey, together with other qualitative research, will be required.

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Appendices

Appendix 1. Graduate Satisfaction Survey, questions of relevance to report

1. First of all, could you tell me whether you were attending an educational institution on a full-time basis or part-time basis during the week of **July 1st - 7th, 2014**? [G/E]
 - 1 Yes, full-time [754] -- CONTINUE
 - 2 Yes, part-time -- CONTINUE
 - 3 No -- SKIP TO Q.6

2. And during that week, were you attending a college, a university or other institution?
 - 01 College (Other) [755- 756] SPECIFY: _____ -- CONTINUE
 - 02 Algonquin
 - 03 College Boreal
 - 04 Cambrian
 - 05 Canadore
 - 06 Centennial
 - 07 La Cite collégiale
 - 08 Conestoga
 - 09 Confederation
 - 10 Durham
 - 11 Fanshawe
 - 12 George Brown
 - 13 Georgian
 - 14X Le College des Grands Lacs (INVISIBLE AND UNAVAILABLE TO THE INTERVIEWER)
 - 15 Humber
 - 16 Lambton
 - 17 Loyalist
 - 18 Mohawk
 - 19 Niagara
 - 20 Northern
 - 21 St. Clair
 - 22 St. Lawrence
 - 23 Sault (pronounced: Sue)
 - 24 Seneca
 - 25 Sheridan
 - 26 Sir Sandford Fleming

 - 51 University (Other) SPECIFY: _____ -- SKIP TO Q.4
 - 71 Algoma **[New in 07f]**
 - 52 Brock/Concordia Lutheran Seminary/College/College Dominician de Philosophie et de Theologie
 - 53 Carleton
 - 54 Guelph
 - 55 Lakehead
 - 56 Laurentian/Huntington/Sudbury/Hearst/Thorneloe
 - 57 McMaster/McMaster Divinity College
 - 68 Nipissing
 - 70 Ontario College of Art & Design/OCAD **[New in 05s]**
 - 69 Ontario Institute of Technology/UOIT **[New in 05w]**
 - 58 Ottawa/St. Paul University
 - 59 Queens/Queen's Theological College
 - 60 Ryerson

- 72 The Michener Institute **[08s only]**
 61 Toronto/Knox College/Regis College/St. Augustine's Seminary/St. Michael's College/Trinity
 College/Victoria University/Wycliffe College
 62 Trent
 63 Waterloo/Conrad Grebel University College/Renison College/St. Jerome's University/St. Paul's
 United College/Waterloo Lutheran Seminary
 64 Western/Brescia College/Huron College/King's College/St. Peter's Seminary
 65 Wilfred Laurier
 66 Windsor
 67 York
 81O Other educational institution (SPECIFY) _____ → **SKIP TO Q.5**
 98 Refused

3. Was this a... **READ LIST 0-4, 6-9 [Revised in 08s]**

- 1 second year option or transition from a one year program [838]
 3 third year option or transition from a two year program
 2 two year diploma
 8 three year advanced diploma
 9 graduate certificate or post-diploma
 6 college degree
 7 degree offered jointly with a university (i.e. a collaborative program)]
 0 one year certificate, or
 4 continuing education course
 5 neither/refused **[DO NOT READ]**

4. Was this a university... **READ LIST 1- 3, 5 [Revised in 08s]**

- 1 certificate or diploma program, or [922] [V113]
 2 undergraduate degree program
 6 graduate or professional degree program
 3 continuing education course
 5 degree offered jointly with a college (i.e. a collaborative program), or
 4 neither/refused **(DO NOT READ)**

4a. What program did you enrol in? (university respondents, using USIS/ SPEMAG codes)

5a. Please tell me whether each of the following were a major reason, a minor reason or not a reason at all for returning to continue with your education? **READ AND ROTATE LIST**

		Major	Minor	Not a Reason	RF	DK
A.	Potential for higher income	3	2	1	8	9 [1180]
B.	No work/ job available in your field of study	3	2	1	8	9 [1181]
C.	To get diploma/ certificate/ degree	3	2	1	8	9 [1182]
D.	Interest in further/ more in-depth training in field	3	2	1	8	9 [1183]
E.	Interest in pursuing a different field of study	3	2	1	8	9 [1184]
F.	Needed for professional designation	3	2	1	8	9 [1185]
G.	Gain theoretical knowledge/ broader education	3	2	1	8	9 [1186]
H.	Encouragement from others (family members, friends, faculty)	3	2	1	8	9 [1187]
I.	More opportunities for career advancement	3	2	1	8	9 [1188]
J.	Upgrade/ improve skills	3	2	1	8	9 [1189]
K.	There was a formal transfer agreement between	3	2	1	8	9 [1190]

L. your previous and your current program
Company required/ paid for it 3 2 1 8 9 [1191]

IF ANSWERED PART TIME IN Q1, SKIP TO Q.6, ELSE CONTINUE:

5b. When you were making your plans for further education, please tell me whether each of the following was a major source of information, minor source of information or not used at all?

READ AND ROTATE LIST

		Major	Minor	Not Used at all	RF	DK
A.	College website	3	2	1	8	9 [1192]
B.	College hard copy publications	3	2	1	8	9 [1193]
C.	College faculty/ counselors/ program coordinators	3	2	1	8	9 [1194]
D.	College administration, i.e. registrar's office, student services	3	2	1	8	9 [1195]
E.	University website/ publications	3	2	1	8	9 [1196]
F.	University staff (including registrar's office, faculty, etc.)	3	2	1	8	9 [1197]
G.	Other students (including current and former college and university students)	3	2	1	8	9 [1198]
H.	ONTransfer.ca web site	3	2	1	8	9 [3954]
I.	Parents and family	3	2	1	8	9 [1200]
J.	College credit transfer advising services	3	2	1	8	9 [3955]
K.	University credit transfer advising services	3	2	1	8	9 [3956]

5e. When did you decide that you would further your education after college graduation? Was it... **READ LIST**

- 1 Before entering the _____ (COLLEGE PROGRAM) Program at
_____ COLLEGE [1453] **[New in 06s]**
- 2 At the start of the _____ (COLLEGE PROGRAM) Program at
_____ (COLLEGE) college
- 3 During the _____ (COLLEGE PROGRAM) Program at
_____ (COLLEGE) college
- 4 After completion of the _____ (COLLEGE PROGRAM)
Program at _____ (COLLEGE) college
- 8 Refused
- 9 Don't know

5k. Do you think you would have been accepted into your current program without graduating from college first?

- 1 Yes [1459] **[New in 06s]**
- 2 No
- 8 Refused
- 9 Don't know

5f. How related is your current program to the _____ (COLLEGE PROGRAM) at _____ (COLLEGE) college? Would you say it is..... **READ LIST 1-3**

- 3 Very related [1454][V156] **[New in 06s]**
- 2 Somewhat related
- 1 Not at all related

- 8 Refused
9 Don't know
5g. **NOT ASKED (New in 12s)**
- 5gg. Did you request credit for previous *college or university* learning towards the program you are currently enrolled in? **[New in 06s, revised in 08s, new in 12s]**
1 Yes [3957]
2 No
8 Refused
9 Don't know
- 5h. Please estimate how much credit you have or will receive from your _____ (PROGRAM NAME) toward your current program. Would it be.... **READ LIST 0- 6**
6 More than two years [1456] **[New in 06s, revised in 08s]**
5 Two years
4 One to two years
3 One year
2 About half a year
1 Less than half a year
0 None
8 Refused → **SKIP TO Q.5I**
9 Don't know → **SKIP TO Q.5I**
- 5i. When did you find out whether you were receiving credit for your college program? Was it... **READ LIST 1- 6**
1 With the offer of admission [1457] **[New in 06s]**
2 At or before registration
3 After registration
4 Have not heard yet → **GO TO Q.5kk**
5 Have not applied for credit yet, or → **GO TO Q.5kk**
6 You are not applying for credit → **GO TO Q.5kk**
8 Refused → **GO TO Q.5kk**
9 Don't know → **GO TO Q.5kk**
- 5j. Relative to what you expected, the amount of credit you received was.... **READ LIST 1-3**
1 Less than expected [1458] **[New in 06s]**
2 The same as expected, or
3 More than expected
8 Refused
9 Don't know
- 5kk. Did you use credit transfer advising services for the program you are currently enrolled in?
1 Yes, used credit advising services [3958] **[New in 12s]**
2 No, didn't use credit advising services → **SKIP TO Q.5I**
8 Refused → **SKIP TO Q.5I**
9 Don't know → **SKIP TO Q.5I**
- 5kkk. Overall, how satisfied were you with the credit transfer advising services for the program you are currently enrolled in?
5 Very satisfied [3959] **[New in 12s]**
4 Satisfied
3 Neither satisfied nor dissatisfied
2 Dissatisfied
1 Very dissatisfied

- 8 Refused
9 Do not know
- 5l. Overall, how satisfied are you with the transition experience from college to your current program?
- 5 Very satisfied [1460] **[New in 06s]**
4 Satisfied
3 Neither satisfied nor dissatisfied
2 Dissatisfied
1 Very dissatisfied
8 Refused
9 Don't know
- 5m. And, overall, how satisfied are you with your academic preparation for your current program of study?
[1461][V163] **[New in 06s]**
- 5 Very satisfied
4 Satisfied
3 Neither satisfied nor dissatisfied
2 Dissatisfied
1 Very dissatisfied
8 Refused
9 Don't know
- 44c. In order to group our data, can you tell me if you consider yourself to have a physical, intellectual, mental health or learning disability? [4301] **[New in 13s]**
- 44d. Did you register with the Office for Students with disabilities at any point during your career at _____(I.1 INSTITUTION FROM LIST)? [4302] **[New in 13s]**
- 44e. Do you want to self-identify as an Aboriginal Person, that is, someone who is related to, or descended from, the Original peoples of Canada? [4303] **[New in 14s]**

Appendix 2. Classification of college size and region

Code	College Name	College Region	College Size
ALGO	Algonquin College	Eastern	Large
BORE	Collège Boréal	Northern	Small
CAMB	Cambrian College	Northern	Medium
CANA	Canadore College	Northern	Small
CENT	Centennial College	Metro Toronto	Large
CONF	Confederation College	Northern	Small
CONS	Conestoga College	Southwestern	Medium
DURH	Durham College	Central	Medium
FANS	Fanshawe College	Southwestern	Large
GRBR	George Brown College	Metro Toronto	Large
GEOR	Georgian College	Central	Medium
HUMB	Humber College	Metro Toronto	Large
LACI	La Cité collégiale	Eastern	Medium
LAMB	Lambton College	Southwestern	Small
LOYT	Loyalist College	Eastern	Small
MOHA	Mohawk College	Central	Large
NIAG	Niagara College	Central	Medium
NORT	Northern College	Northern	Small
SAUL	Sault College	Northern	Small
SENE	Seneca College	Metro Toronto	Large
SHER	Sheridan College	Central	Large
SLAW	St. Lawrence College	Eastern	Medium
SSFL	Sir Sandford Fleming College	Eastern	Medium
STCL	St. Clair College	Southwestern	Medium

College region is classified according to the postal code of the college's main campus. (Eastern:K; Central:L; Metro:M; North:P; South:N)

College size is classified according to MTCU audited Full time equivalent (FTE) enrolment for 2006-07.

Appendix 3. Percentage of graduates continuing on to university, by college (1, 2, and 3 year programs only)

College	2007	2008	2009	2010	2011	2012	2013	2014	2015	Total
ALGO	6.5%	6.0%	7.6%	6.8%	7.6%	7.5%	6.9%	6.0%	4.9%	6.7%
BORE	4.0%	3.7%	4.7%	6.8%	4.8%	3.8%	4.8%	4.9%	3.2%	4.5%
CAMB	6.0%	5.2%	4.5%	6.0%	6.9%	6.3%	5.3%	5.2%	5.1%	5.7%
CANA	11.8%	10.3%	9.7%	8.4%	8.8%	11.6%	9.1%	8.1%	6.8%	9.5%
CENT	9.6%	8.0%	7.4%	7.4%	6.3%	5.4%	5.9%	5.3%	4.3%	6.4%
CONF	6.8%	7.4%	7.1%	7.5%	5.6%	6.4%	6.7%	8.5%	5.9%	6.8%
CONS	5.8%	5.0%	6.5%	4.8%	5.0%	5.1%	3.9%	3.8%	3.7%	4.7%
DURH	6.6%	6.0%	7.6%	7.9%	7.9%	7.1%	8.2%	7.3%	9.0%	7.6%
FANS	6.3%	6.1%	5.1%	4.8%	6.6%	6.8%	5.9%	6.0%	6.0%	6.0%
GEOR	7.8%	8.7%	6.0%	8.1%	8.1%	7.8%	5.3%	5.4%	5.6%	6.9%
GRBR	7.8%	7.2%	7.7%	7.6%	7.7%	7.3%	6.6%	5.9%	6.2%	7.1%
HUMB	11.1%	9.9%	11.4%	10.9%	9.3%	8.3%	7.7%	6.1%	6.4%	8.9%
LACI	14.0%	9.5%	13.9%	13.4%	15.6%	17.5%	14.5%	14.8%	14.2%	14.4%
LAMB	5.7%	3.8%	5.1%	5.2%	5.7%	3.8%	4.8%	2.1%	3.3%	4.4%
LOYT	3.7%	2.4%	4.0%	3.8%	3.5%	4.5%	4.0%	2.3%	4.0%	3.6%
MOHA	9.0%	9.2%	10.0%	7.9%	7.2%	6.9%	6.5%	5.8%	5.8%	7.5%
NIAG	8.8%	7.5%	6.4%	7.2%	7.3%	7.4%	7.5%	5.1%	6.4%	7.0%
NORT	3.2%	2.8%	2.2%	2.5%	3.0%	3.1%	4.4%	2.4%	4.7%	3.1%
SAUL	4.3%	8.6%	8.8%	6.9%	10.5%	10.7%	9.0%	7.9%	6.6%	8.3%
SENE	13.3%	12.6%	12.4%	12.2%	11.0%	9.7%	8.6%	7.7%	7.0%	10.5%
SHER	10.9%	11.0%	10.8%	10.5%	9.9%	9.3%	8.0%	6.7%	4.9%	9.1%
SLAW	5.5%	5.6%	5.5%	5.1%	6.6%	6.4%	4.0%	4.1%	4.8%	5.3%
SSFL	6.8%	8.1%	8.5%	6.9%	6.3%	8.1%	6.4%	5.0%	6.2%	6.9%
STCL	7.0%	6.6%	5.7%	6.4%	5.4%	4.9%	6.2%	4.3%	5.9%	5.8%
Total	8.4%	7.8%	8.1%	7.8%	7.7%	7.5%	6.8%	6.0%	5.9%	7.3%

Graduate certificates and college degree graduates removed

Appendix 3. Percentage of graduates continuing on to university, by college (all credentials)

College	2007	2008	2009	2010	2011	2012	2013	2014	2015	Total
ALGO	6.3%	6.0%	7.4%	6.5%	7.2%	7.2%	6.4%	5.8%	4.7%	6.4%
BORE	3.9%	3.7%	4.7%	6.8%	4.8%	3.8%	4.8%	4.9%	3.2%	4.5%
CAMB	6.0%	5.1%	4.5%	5.9%	6.7%	6.3%	5.1%	4.9%	4.9%	5.5%
CANA	11.8%	10.3%	9.3%	8.4%	8.8%	11.5%	8.8%	8.0%	6.7%	9.4%
CENT	10.9%	9.5%	9.2%	8.0%	6.6%	6.3%	6.4%	5.3%	4.9%	7.1%
CONF	6.6%	7.1%	6.8%	7.4%	5.6%	6.2%	6.4%	8.0%	6.0%	6.6%
CONS	5.7%	4.6%	6.0%	4.7%	5.0%	5.0%	3.7%	4.0%	3.8%	4.6%
DURH	6.3%	5.9%	7.3%	7.6%	7.5%	6.9%	7.9%	6.8%	8.4%	7.2%
FANS	6.2%	6.0%	4.9%	4.7%	6.5%	6.6%	5.6%	5.4%	5.5%	5.7%
GEOR	7.3%	7.9%	5.7%	7.6%	7.3%	7.2%	4.9%	5.2%	5.4%	6.4%
GRBR	7.0%	6.2%	6.6%	7.2%	6.8%	6.3%	6.2%	5.6%	6.1%	6.4%
HUMB	9.6%	8.3%	9.7%	8.9%	7.7%	6.9%	6.5%	5.1%	5.2%	7.4%
LACI	13.8%	9.7%	13.7%	13.3%	15.4%	17.7%	14.5%	15.4%	14.1%	14.5%
LAMB	5.7%	4.0%	5.1%	5.5%	5.6%	3.7%	4.6%	1.9%	2.9%	4.4%
LOYT	3.7%	2.4%	4.0%	4.0%	3.6%	4.4%	3.8%	2.2%	3.9%	3.6%
MOHA	8.3%	8.8%	9.8%	7.7%	6.9%	6.7%	6.4%	5.6%	5.6%	7.3%
NIAG	8.2%	6.9%	6.1%	7.3%	6.7%	6.9%	6.8%	4.5%	5.3%	6.5%
NORT	3.2%	2.8%	2.2%	2.5%	3.0%	3.0%	4.4%	2.3%	4.5%	3.1%
SAUL	4.2%	8.5%	8.9%	6.6%	10.1%	10.1%	8.5%	7.6%	6.6%	8.0%
SENE	11.8%	11.2%	11.1%	10.8%	10.2%	8.8%	8.2%	7.3%	6.1%	9.4%
SHER	9.4%	9.6%	9.5%	9.2%	8.7%	8.3%	7.2%	6.1%	4.5%	8.1%
SLAW	5.7%	5.3%	5.2%	5.0%	6.6%	6.3%	3.9%	4.1%	4.7%	5.2%
SSFL	7.4%	7.8%	8.1%	6.6%	6.3%	7.7%	6.2%	5.0%	6.0%	6.8%
STCL	7.0%	6.6%	5.6%	6.4%	5.5%	5.1%	6.2%	4.3%	5.8%	5.8%
Total	8.0%	7.4%	7.7%	7.4%	7.3%	7.1%	6.4%	5.7%	5.5%	6.9%

Appendix 4. Total number of transfers to university (1,2,3 yr programs only), adjusted for college response rates.

	2007	2008	2009	2010	2011	2012	2013	2014	2015	Total
ALGO	284	271	359	365	402	416	410	394	345	3292
BORE	22	22	29	49	33	27	36	39	24	280
CAMB	100	86	73	115	119	124	109	119	121	978
CANA	129	99	99	102	118	139	96	90	78	964
CENT	249	203	212	264	299	286	302	274	231	2366
CONF	76	73	77	86	75	87	93	110	81	755
CONS	106	98	138	116	144	157	124	131	129	1158
DURH	123	124	158	190	222	193	254	256	330	1834
FANS	279	276	235	254	351	373	323	331	322	2747
GEOR	161	178	143	207	215	255	191	199	219	1801
GRBR	340	289	348	405	419	396	378	371	408	3395
HUMB	506	404	478	520	483	450	469	422	457	4304
LACI	169	90	158	151	228	279	221	263	256	1811
LAMB	49	28	37	54	57	43	59	24	35	395
LOYT	43	28	46	50	50	60	54	31	58	420
MOHA	260	266	314	281	288	287	277	252	256	2533
NIAG	189	161	162	195	222	238	256	194	240	1883
NORT	17	14	12	16	23	19	27	14	28	167
SAUL	30	59	58	50	87	87	68	66	55	563
SENE	612	566	529	576	585	532	488	471	421	4884
SHER	452	371	400	454	471	476	452	376	292	3901
SLAW	96	101	101	94	133	132	78	106	124	980
SSFL	141	160	178	167	162	209	169	129	161	1489
STCL	155	159	137	178	164	151	190	140	191	1469
Total	4579	4155	4525	4981	5372	5431	5134	4813	4861	44509

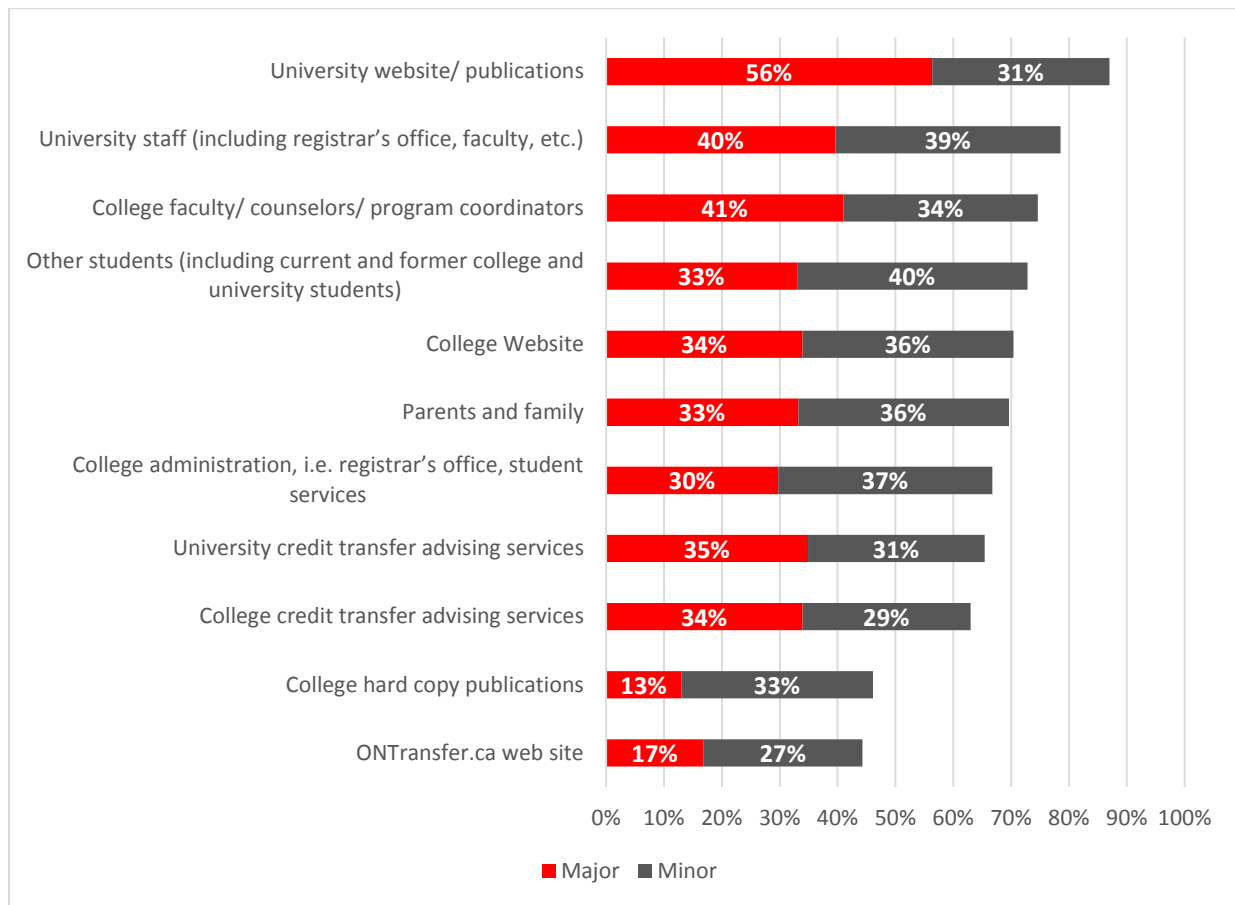
Appendix 5. Total number of graduates continuing on to university (all credentials), adjusted for college response rates.

College	2007	2008	2009	2010	2011	2012	2013	2014	2015	Total
ALGO	288	287	374	378	416	432	418	423	374	3439
BORE	21	22	30	49	33	27	36	39	24	280
CAMB	103	88	76	118	122	128	112	120	120	1002
CANA	135	102	99	104	119	140	97	90	79	980
CENT	330	289	319	353	382	403	402	342	329	3219
CONF	76	73	76	88	75	87	92	111	88	764
CONS	113	102	147	135	169	179	140	172	159	1330
DURH	127	129	172	209	238	219	286	280	348	1994
FANS	284	284	243	269	374	392	335	348	348	2892
GEOR	167	181	152	223	222	266	201	215	235	1894
GRBR	368	307	365	467	452	421	445	437	511	3801
HUMB	522	419	512	560	530	500	532	471	515	4687
LACI	171	93	160	151	231	286	223	286	259	1857
LAMB	50	31	38	61	60	46	66	28	44	446
LOYT	45	28	47	55	54	60	54	31	59	435
MOHA	260	277	328	295	298	304	301	271	271	2657
NIAG	200	163	178	223	227	256	284	214	259	2044
NORT	17	14	12	16	23	19	27	14	28	167
SAUL	30	60	59	51	87	88	68	68	58	573
SENE	628	585	543	591	627	557	544	541	455	5183
SHER	469	389	426	469	483	491	472	404	315	4066
SLAW	104	102	103	99	140	137	82	113	136	1032
SSFL	166	164	181	169	170	212	176	143	180	1578
STCL	157	159	137	178	170	158	195	142	193	1495
Total	4826	4373	4815	5337	5715	5816	5602	5329	5392	47937

Appendix 6. Number of graduates continuing on to university by sending college and receiving university, 2015 (1,2,3 year credentials) adjusted for college response rates

	University (Other)	Algoma	Brock	Carleton	Guelph	Lakehead	Laurentian	McMaster	Nipissing	OCAD	Ottawa	Queens	Ryerson	Toronto	Trent	UOIT	Waterloo	Western	Wilfrid Laurier	Windsor	York	Guelph Humber	Total
ALGO	40	0	7	136	4	13	0	0	29	0	81	9	9	4	2	2	0	4	2	2	0	0	345
BORE	2	0	0	0	0	0	11	0	0	0	6	0	0	0	0	0	0	0	0	2	4	0	24
CAMB	3	0	3	5	0	10	73	0	5	0	3	0	0	3	0	3	0	0	3	0	10	0	121
CANA	9	0	5	0	2	0	9	2	43	2	0	0	0	0	2	2	0	0	0	0	0	0	78
CENT	12	0	12	4	2	2	0	2	2	2	2	0	53	33	6	23	0	2	0	6	68	0	231
CONF	4	4	8	0	0	53	4	0	0	0	0	0	4	0	4	0	0	0	0	0	0	0	81
CONS	7	0	2	0	23	7	7	20	0	0	0	0	2	2	2	2	20	2	32	2	2	0	129
DURH	14	0	4	0	2	2	10	2	2	4	6	0	26	8	36	193	2	0	2	0	16	2	330
FANS	21	0	8	6	15	15	6	6	8	0	0	0	6	0	2	2	2	184	21	6	8	2	322
GEOR	35	0	6	2	10	27	52	2	2	4	2	0	8	10	0	6	2	0	10	0	39	0	219
GRBR	17	2	6	0	4	8	19	23	0	15	0	2	181	48	2	6	6	0	0	0	69	0	408
HUMB	29	2	8	4	80	19	0	19	0	14	2	2	74	29	4	10	4	2	6	2	113	33	457
LACI	68	0	0	2	0	4	4	0	0	0	178	0	0	0	0	0	0	0	0	0	0	0	256
LAMB	2	0	2	0	0	0	0	0	16	0	0	0	0	0	0	0	4	6	0	2	2	0	35
LOYT	2	0	6	13	2	9	2	2	0	0	0	2	0	0	9	6	0	2	0	0	2	0	58
MOHA	4	0	52	0	11	15	4	84	2	2	0	0	13	6	2	0	0	4	43	2	11	0	256
NIAG	24	2	131	4	4	0	2	9	0	0	2	0	16	0	0	2	18	2	11	0	11	0	240
NORT	4	6	0	0	0	0	11	0	0	0	0	2	0	2	0	0	0	0	0	0	2	0	28
SAUL	10	35	0	0	0	2	4	0	0	0	0	2	0	0	0	0	0	2	0	0	0	0	55
SENE	35	2	4	4	6	27	4	4	0	4	0	0	76	35	2	14	2	0	2	2	197	0	421
SHER	16	5	14	2	14	0	9	16	5	5	0	2	61	47	5	9	2	5	16	2	51	5	292
SLAW	25	0	0	15	2	0	27	0	2	0	15	23	2	0	2	2	0	0	0	0	8	0	124
SSFL	26	0	0	6	6	12	2	0	2	2	2	0	4	0	80	12	2	0	0	0	4	0	161
STCL	17	0	2	0	0	2	0	0	17	0	0	0	0	0	0	0	2	4	0	139	6	0	191
Total	427	59	280	204	189	227	262	191	136	54	298	45	534	227	160	296	66	220	149	168	626	42	4861

Appendix 7. *Major and minor information sources, for graduates transferring to full time university programs, % major or minor source, 2015*



Note: Includes graduates who indicated they were enrolled full time in university 6 months after graduation