



CONESTOGA

Connect Life and Learning

**Exploring the Success and Challenges of Diploma to Degree Transfer
Students**

**Report Prepared for the College-University Consortium Council/Ontario
Council on Articulation and Transfer**

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Executive Summary

Using a combination of qualitative and quantitative methods, the present study examined the experiences and outcomes of diploma to degree transfer students at Conestoga College Institute of Technology and Applied Learning. Generally, the results of this study show positive support for the credit transfer and pathway initiatives implemented by the Ministry of Training, Colleges, and Universities, in that transfer students tend to experience high levels of academic success in their postsecondary education pathway. Subjectively, the study also demonstrated that students identified the positive value of obtaining a college degree.

Using structured interviews, we found that students generally had a positive experience with their chosen pathway through their postsecondary education (PSE) experience. For those students who transferred in from a diploma, instead of viewing their diploma program as having been merely a means to get them into degree studies, students also saw added value in taking the diploma prior to entering the degree program. Many felt that their Diploma level study provided them with practical, hands-on experience, and that their program gave them a unique perspective not shared by non-transfer students.

Transfer students did, however, face some particular challenges. Many expressed feeling underprepared for the degree program and felt that more information about what to expect in the degree program would have reduced or eliminated this issue.

In addition to students' positive subjective feelings about their education pathway, administrative data showed that transfer students benefited from their participation in the diploma program in both higher degree program GPA and fewer drop-outs relative to non-transfer students.

To help improve the experiences and performance of diploma to degree transfer students, several recommendations are being suggested:

1. Provide incoming diploma students information about their option to transfer into the degree program with advanced standing

2. Continue to provide diploma students with detailed information about the transfer options throughout the diploma program through the form of seminars and workshops (including transfer requirements)
3. Encourage diploma instructors to informally market the degree programs to their students
4. Provide transfer students with additional supports and services to help them transition from the diploma to degree and cope with the additional workload in the degree program through:
 - a. peer tutoring programs
 - b. bridging programs
 - c. increased integration of transfer students into the classroom environment

Implementing some of these suggestions may help transfer students manage their expectations about the transfer process (e.g., requirements to enter the degree program) and the degree program (e.g., workload), as well as provide them with additional tools (e.g., tutor or mentorship program) to succeed in the degree.

Section 1: Introduction and Background

1.1 Conestoga Research Project

In the 2010 HEQCO At Issue Paper, *Forging Pathways: Students who Transfer Between Ontario Colleges and Universities*, it was stated that “enhancing transfer pathways from college to university has been suggested as a means of increasing access to university, particularly for students of traditionally under-represented or at-risk groups. Improved pathways may also provide students with more accessible options in remote areas that are under-served by PSE institutions. Students who are not otherwise qualified for university, either through insufficient grades or deficiencies in prerequisite courses, may be provided an alternative pathway to university through initial preparation in the college system”. While the data currently available in Ontario are very disjointed, with no single complete source (until the Ontario Education Number or OEN is fully implemented), this paper has reported that the percentage of college graduates who later pursued a [university] degree rose from 5.3 per cent in 2001-2002 to 8.4 per cent in 2006-2007, and that indicators of transfer student success appear to be improving (HEQCO, 2010). Meanwhile, several studies at B.C. universities have found that although transfer students perform well in universities, they tend to achieve somewhat lower grades in university courses than direct entry students (Heslop, 2004).

A key assertion of the HEQCO paper suggests that if student mobility is truly set as a priority for the PSE system, then the system must also ensure that there are adequate levels of support services available to promote student success (HEQCO, 2010). In addition, the 2010-11 Multi-Year Accountability Agreement Report Back asked Ontario colleges to provide examples of support services specifically designed to aid transfer students. Taken together, these points support the need for research projects like the one described herein.

Currently, Conestoga College Institute of Technology and Applied Learning is in the process of developing support services that specifically target transfer students (either internal transfers or transfer-ins from other PSE institutions). Through an in-depth qualitative and quantitative study, Conestoga explored the successes and challenges of diploma to degree transfer students. Six of nine degree programs are developing, or have developed, official pathways

that involve bridge courses from related diploma programs. Currently there are almost 500 students enrolled in these six degree programs, of which approximately 50 have transferred into Year 2 or Year 3 of their chosen degree. The results of this study not only provides the foundation for future research as the study group expands, but will begin to identify areas where Conestoga could improve the services and/or supports we provide to our transfer students. Sharing these results across the province will also support the development of similar services at other Ontario Colleges.

1.2 Research Objectives

This study was designed to address the following research questions:

1. Does the demographic profile of students, who transfer-into a degree program with advanced standing from a diploma program, differ from that of traditional students who began the degree program in Year 1/Level 1?
2. How does the academic performance of students who transfer-into a degree program with advanced standing from a diploma program compare to that of traditional students who began the degree program in Year 1/Level 1?
3. How do the graduation rates of students who transfer-into a degree program with advanced standing from a diploma program compare to that of traditional students who began the degree program in Year 1/Level 1?
4. If differences in academic standing or graduation rates exist between students who transfer-into a degree program with advanced standing from a diploma program and traditional students who began the degree program in Year 1/Level 1, how do these differences correlate with specific demographic groupings such as international students or new immigrants?
5. What factors influence the decision to transfer into a degree program from a diploma program?
6. What barriers exist for diploma students wishing to transfer into a degree program?
7. What supports exist for diploma students wishing to transfer into a degree program?
8. How can the pathways from diplomas to degrees be improved?

Section 2: Method and Procedure

2.1 General

To assess the outcomes of diploma to degree transfer students, a combination of qualitative and quantitative data were collected. For the qualitative portion of the study, students who had transferred from a diploma program to a degree program with advanced standing were recruited through program coordinators. Volunteers participated in an interview session. Quantitative data were obtained from the college Student Information System (SIS).

2.2 Qualitative Data Collection

2.2.1 Recruitment

The coordinators of several Conestoga degree programs (i.e., Accounting, Audit and Information Technology; Architecture – Project and Facility Management; Community and Criminal Justice; Integrated Telecommunication and Computer Technologies; International Business Management; Mechanical Systems Engineering) were contacted to request access to program students. They were also asked to identify any students who had transferred into the degree program with advanced standing. All of the coordinators agreed to participate and they were provided with a recruitment letter (see Appendix A) that was emailed to qualified students. Approximately 212 students were sent the recruitment email. Interested students were asked to contact the research coordinator, who then arranged an interview session. Students were offered a \$20 Conestoga Bookstore gift card for taking part in the study.

2.2.2 Participants

Interviews with 20 transfer students were initially sought for the qualitative portion of this study; however, only 19 participants volunteered to take part and of those 19, two failed to show up for the interview. Thus data from 17 participants are included in the final report. Of the 17, 6 (35%) were female and 11 (65%) were male. The average age of participants was 26 years. Ages ranged from 21 to 48 years old. Twelve of the 17 participants were born in Canada;

the other 5 were foreign born. Twelve participants spoke English as their primary language, 4 spoke English as a second language and 1 participant was hearing impaired and utilized American Sign Language. The distribution of students among the various degree programs was as follows: 1 from Mechanical Systems Engineering, 1 from Integrated Telecommunication and Computer Technologies, 1 from Health Informatics Management, 2 from Community and Criminal Justice, 3 from Architecture – Project and Facility Management, 4 from Accounting, Audit and Information Technology, and 5 from International Business Management (see Figure 1).

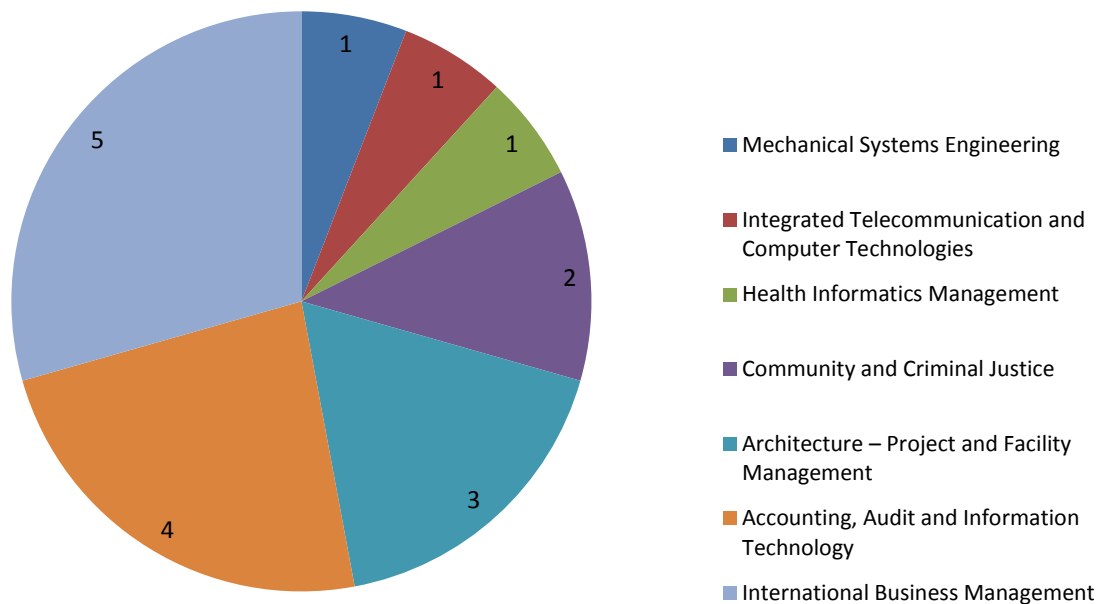


Figure 1. Qualitative Interview: Number of Participants from each Degree Program

2.2.3 Procedure

Interviews using a structured interview guide (see Appendix B) were conducted with students who had transferred into a degree program with advanced standing. The interview guide contained a list of 17 predetermined questions centred on four general topics: primary college goals, factors influencing transfer decision, experiences with the transfer process, and

experiences in the transfer program. Interviews were conducted in a quiet classroom setting and involved one interviewer and an interviewee. The interviews were approximately 30-45 minutes in length. Interviews were digitally recorded and were transcribed once the interview was completed. Following transcription all electronic files were destroyed to protect the anonymity of the participants. Transcribed files were then uploaded into NVivo 9. NVivo 9 was used to examine common themes that appeared in participants' responses. The themes that emerged were then verified by the research coordinator.

2.3 Quantitative data Collection

2.3.1 Procedure

The college administration data base (SIS) was used to gather secondary data on transfer students. Conestoga offers a total of nine degree programs. Information for students from the following degree programs was included:

- Accounting, Audit and Information Technology
- Architecture – Project and Facility Management
- Community and Criminal Justice
- Health Informatics Management
- Integrated Telecommunication and Computer Technologies
- International Business Management
- Mechanical Systems Engineering
- Public Relations

The Interior Design degree program began in Fall 2011 and as such students from this degree were not included in the study. The final data file included students' date of birth, country of birth, gender, program, primary language, cohort start date, current standing (e.g., eligible to continue, discontinued, graduated, etc.), current GPA, previous PSE, and high school grades. Transfer status (i.e., transfer student vs. non-transfer student) was determined from separate lists provided by program coordinators. The data was entered into SPSS 18 (Statistical Package for the Social Sciences) which was used to conduct the quantitative analyses.

2.3.2 Participants

Data for 772 students, from cohorts starting in 2007 through 2011, were gathered from the SIS (see Table 1 for a breakdown of students per program and Figure 2 for the proportions of students in each program). Of the 772 students, 291 (38%) were female, 480 (62%) were male, and 1 did not report gender. Among the 772 students, 109 (14%) were transfer students, 661 (86%) were non-transfer students, and 2 (.26%) were of unknown status. The average student starting age across all programs was 21.5 years (minimum age = 18, maximum age = 52). For students' primary language, 695 reported English as being their first language, 9 reported English as their second language and 68 failed to report their primary language.

Table 1: Transfer vs. Non-transfer Students within each Degree Program – Cohorts Starting in 2007 Through 2011

Degree Program	Number of Non-Transfer Students	Number of Transfer Students	Total Number of Students
Accounting, Audit and Information Technology	100	31	131
Architecture – Project and Facility Management	129	26	155
Community and Criminal Justice	42	29	71
Health Informatics Management	69	0	69
Integrated Telecommunication and Computer Technologies	65	1	66
International Business Management	154	16	170
Mechanical Systems Engineering	89	5	94
Public Relations	13	0	13
Total	661	108*	769

**Note: program was not reported for 1 transfer student*

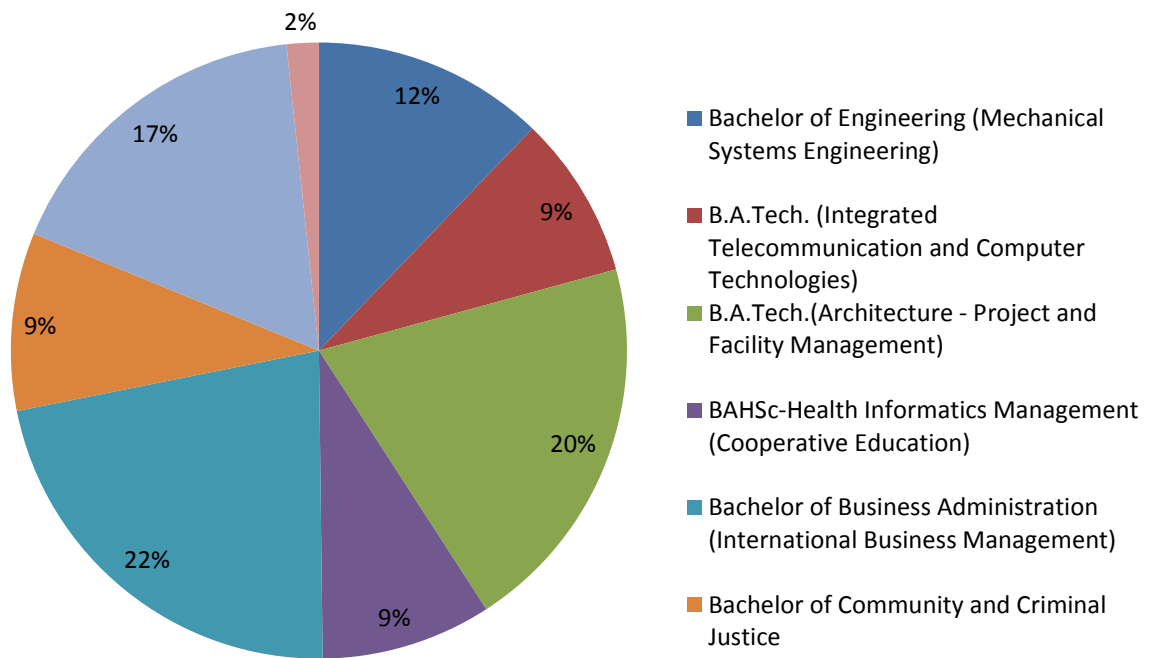


Figure 2. Quantitative Data: Proportion of Students from each Degree Program in the Quantitative Data

Section 3: Findings

3.1 Quantitative Analyses

3.2 Transfer vs. Non-transfer Student Profiles

To determine how to improve the experiences of diploma to degree transfer students - thereby helping to ensure their success - policy makers and educators must first understand who these transfer students are. Thus, we first compared the profiles of transfer students to those of non-transfer students. Because transfer students pursued a college diploma before entering the degree program, it is no surprise that transfer students tend to be older on average at the start of the degree program than non-transfer students (see Table 2, also see Figure 3 for the age distribution of transfer and non-transfer students). Beyond this, transfer students did not differ from non-transfer students in the proportions of males versus females

(see Table 3), or country of birth (see Table 4). Although age differences between transfer and non-transfer students are not surprising, it should be noted that because transfer students tend to be older, they likely experience different life situations than do non-transfer students. They may, for example, have additional family responsibilities or greater financial constraints.

Table 2: Age at Program Start

	Mean Age	Median Age	Age Mode	Minimum Age	Maximum Age
Transfer Students	22.53	21	20	18	50
Non-Transfer Students	21.33	20	19	18	52

Note: The difference in starting age between transfer and non-transfer students was significantly different, $t(766) = -2.26, p = .02$.

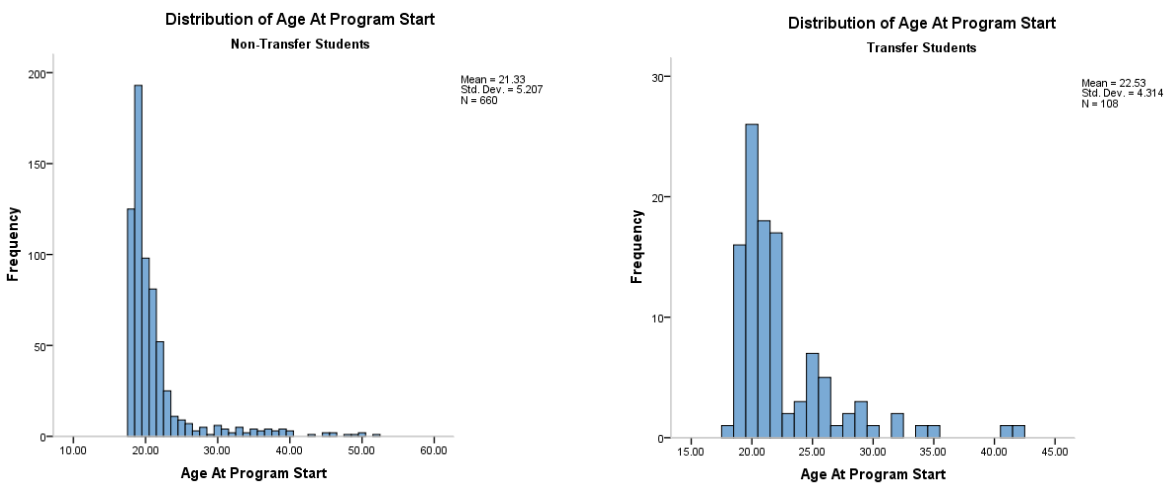


Figure 3. Distribution of age at the start of the program for transfer and non-transfer students

Table 3: Gender

	Male (#)	Female (#)	Total
Transfer Student	66	43	109
Non-Transfer Student	413	248	661
Total	479	291	770

Note: There was no significant difference in the proportion of males to females based on transfer status, $X^2(1, N = 770) = 0.15, p = .70$.

Table 4: Country of Birth

Country of Birth	Transfer Student (#)	Non-Transfer Student (#)
Canadian Born	39	203
Foreign Born	11	78

Note: There was **no** significant difference in the proportion of Canadian born Foreign born based on transfer status, $\chi^2(1, N = 331) = 0.72, p = .40$.

3.3 Academic Success

Next, we wanted to determine whether transfer students differed from non-transfer students in their success outcomes. Specifically, current program GPA, program sequence (i.e., whether students were completing the program on schedule or not) and continuity (i.e., whether students were remaining in the program or whether they discontinued the program) were examined.¹

3.3.1 GPA

Using a regression analysis, transfer students' GPA was compared to non-transfer students' GPA. Participants' gender, high school English and math grades (see Appendix C for a discussion of the use of high school grades), primary language, age at the start of the program, whether they had participated in previous postsecondary education, and whether they were Canadian or Foreign born were examined in the same analysis to control for these as alternative explanations. There was a main effect of transfer status, which indicated that transfer status was a significant predictor of students' current GPA, $b = 1.65, t = 1.98, p = .05$, even controlling for all of the other factors. Specifically, transfer students tended to perform significantly better ($M = 3.90, SD = .76$) than non-transfer students ($M = 2.57, SD = .91$) (see Figure 3). Transfer status did not interact with any of the other variables.

¹ It was the authors' intention to also examine student graduation rates, however, because degree programs are a recent offering at Conestoga College there was insufficient numbers of graduates to perform a reliable analysis.

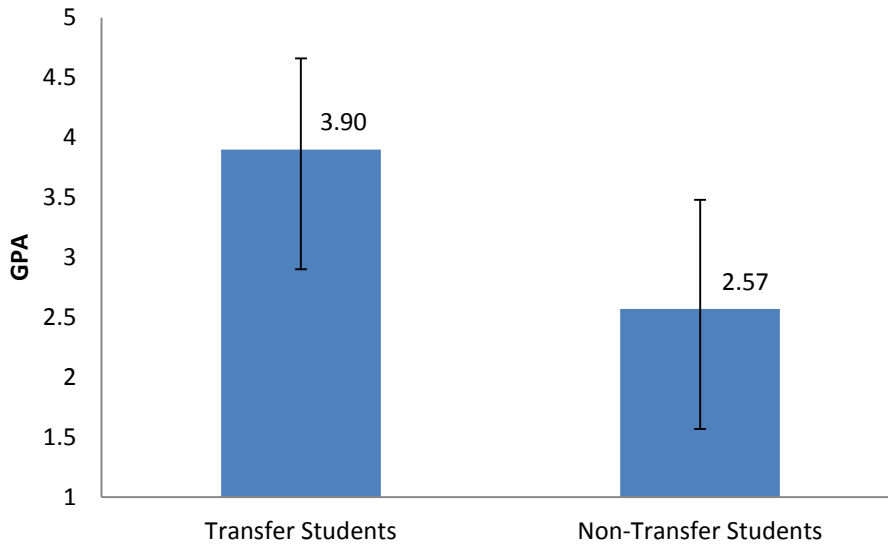


Figure 4: Current Program GPA for Transfer versus Non-Transfer Students

3.3.2 Sequence

A chi-square analysis was conducted next to examine whether transfer students differed from non-transfer students in their propensity to remain on schedule in their program or not. While 9% of non-transfer students tended to be off-sequence which is slightly higher than 5% of non-transfer students, the analyses showed that students' transfer status was not significantly related to whether they stayed in sequence or not, $\chi^2 (1, N = 770) = 2.06, p = .15$. As the number of students available for analysis grows, it will be important to re-test this finding to assess whether the trend remains and becomes significance.

Further chi-square analyses were conducted to examine individual differences in whether transfer students and non-transfer students remained in sequence or not. First, participants' gender was examined. There was a significant association between gender and the likelihood of students staying on sequence for non-transfer students, $\chi^2 (1, N = 661) = 4.47, p = .04$, but not for transfer students, $\chi^2 (1, N = 661) = .001, p = .98$. Among non-transfer students, more male (10%) than female (6%) students went out of sequence in their program. One reason for the gender difference in remaining on-sequence for non-transfer students could be preparedness. In the current high school environment, which has had the cumulative effect of many government initiated positive discrimination efforts, females tend to take on a more

demanding course load and achieve higher GPAs than their male counterparts (Peter & Horn, 2005). They also tend to possess higher non-cognitive skills than males, such as organization, attentiveness, and seeking help from others (Jacob, 2002; Evans, 2008). Together, these factors may better prepare females for success in PSE than males. In the current study, however, we find no gender differences in remaining on-sequence for transfer students. This could be due to several factors. First, because transfer students tend to be older than non-transfer students and have already attended PSE, this could eliminate the advantage of preparedness that females had over males in high school. Second, it is possible that only males who performed well in the diploma program chose to continue on to a degree program; thus, male transfer students may reflect a subpopulation of males in general. No other associations were significant.

3.3.4 Continuity

Whether students stayed in the program or chose to leave the program was examined next. A chi-square analysis showed that students' transfer status was significantly related to whether they stayed in the program or not, $\chi^2(1, N = 769) = 29.31, p < .001$. Compared to non-transfer students (32%), transfer students were significantly less likely to drop out of their degree program (6%).

Next we wanted to examine whether other individual difference factors were involved in whether differences existed in continuity for transfer students versus non-transfer students. For the next three chi-square analyses, the data file was split based on transfer status.

First, we wanted to examine whether continuity rates differed for males and females within each transfer status. A chi-square analysis showed a significant association between students' gender and whether they stayed in the program or not for non-transfer students, $\chi^2(1, N = 661) = 5.66, p = .02$, but not for transfer students, $\chi^2(1, N = 108) = .34, p = .56$.

Second, for non-transfer students, a higher proportion of male students (35%) discontinued their program before finishing than did female students (26%). This result is consistent with what was found above for sequence, and the two are related. It stands to reason that once students fall behind in their course schedule, it may be difficult to catch up, thus leading to higher dropout rates for off-sequence students.

Third, we examined whether having previous postsecondary experience influenced whether students were more likely to drop out of their program. By definition, all transfer students would have possessed previous postsecondary experience, thus only non-transfer students were included in this analysis. Results showed that previous PSE was significantly associated with whether non-transfer students stay in the program, $\chi^2 (1, N = 661) = 10.26, p = .001$. Generally, non-transfer students with previous postsecondary experience were more likely to discontinue their program (39%) compared to students with no previous postsecondary experience (27%). It is possible that non-transfer students' failure to complete previous PSE program predicts whether they remained in the current degree program; however, insufficient data was available to reliably test this hypothesis. No other associations for individual differences were significant.

3.4 Qualitative Analyses

3.4.1 Factors influencing the decision to transfer into a degree program to a diploma program.

Students were asked why they had decided to transfer into a degree program. Generally, participants reported that their decision to transfer into the degree program from the diploma had to do with increasing their opportunities. One student thought that “switching over to the degree would give me more opportunities to live the lifestyle that I want [Accounting, Audit and Information Technology].” A second student thought that the degree program would provide “better education and better job opportunities and just further advance my career [Architecture – Project and Facility Management].” A third student commented that it was “my desire to be more educated and yeah, I thought it would be a good opportunity as well [Community and Criminal Justice].”

Several students also felt that the diploma was simply not sufficient enough to enter the workplace. One student speculated that “from an employer’s point of view a diploma doesn’t really get the kind of job that I was hoping to get, so I realized that I did need to get some more

education. [International Business Management]” Other students came to this conclusion through observing students who had graduated earlier. For example, one student said that “I noticed that...students even from previous years who graduated with their college diploma...they hadn't gotten jobs. They were still looking for jobs...I still wanted my degree because you...probably need a degree to get...a little bit further [Architecture – Project and Facility Management].” Another student came to a similar conclusion through first-hand experience on the job market, and stated, “I had looked for some jobs and realized that I wasn't going to find anything that I was completely satisfied with for the time being, so I decided that I should just go back to school and finish it up [Accounting, Audit and Information Technology].”

Some students worried that even if they did find work it would not be commensurate with their college education. One student experienced this, “after I'd finished my diploma program I went to work for about...a year and a half and then, since I couldn't find anything that was actually related to management...that's when I decided to come back to school and actually upgrade to something better [International Business Management].”

Many students felt that a degree would allow them to obtain a better career. Highlighting this, one student stated “I hope that I would get a better job and...there would be more job opportunities [Community and Criminal Justice].” Students provided several reasons why this might be the case. Some students hoped that the co-op opportunities provided in the degree program would give them the added edge needed to be successful in the job market. One student claimed that “having worked in the field and gaining experience now...with the co-op terms, talking to the employers and...HR...or even at the career centre here, having the degree itself will help you get a lot further [Architecture – Project and Facility Management].” Others believed that the increased knowledge that they would gain in the degree program would be the key to success. One student “went to a college...[degree] program, and I did that for myself, my skills, my knowledge, to broaden my call to have an education because I believe education is still the best legacy [International Business Management].” Still other students believed that obtaining a degree could lead to further opportunities such as the ability to obtain an accreditation or designation. One student felt that the degree program would give “me the opportunity in the future if I wanted to go for a[n]...accounting designation, I [need] a degree to

do that [Accounting, Audit and Information Technology].” A second student “decided to transfer into the degree program cause I wanted more than just an advanced diploma cause eventually I wanna go and get my MBA so I need to get my university degree first, and in order to get your [MBA] you need to also have your degree [International Business Management].” A third student claimed that “I’d be eligible for CGA/CMA, hopefully CA. Those are the main things cause I know in the working world today...they look at...the letters on your name, it’s important and... I never really wanted to stop after college...I always wanted...a designation at the end of the day. [Accounting, Audit and Information Technology]”

Overall, students believed that a college degree is more vocationally focused than a university degree; thus, they see the practical value of a college obtained degree. Specifically, students tended to believe that obtaining a college degree would help them to further their careers and, indeed, some believed that their opportunities would be limited or non-existent without it.

3.4.2 Barriers for diploma students wishing to transfer into a degree program

For most students, the transition from the diploma to the degree was a smooth process. Although the majority of students reported not having faced any barriers, a few notable issues did emerge. Some students mentioned concerns over the overall time commitment required to complete the degree. Even though the length of time required was shortened due to transfer credits received in the diploma program, the time commitment seemed daunting to some students. One student was frustrated “cause I went from a 2-year diploma to a 4-year degree after already having done a year of the diploma, plus I had done the General Arts and Science Health Option right before that. So it was...a lot of time [Health Informatics Management].” Similarly, a second student commented that “I would say [it] is the time difference as opposed to starting the...degree and doing the transfer thing. It’s...almost an extra two years. Which is...a little...long...maybe five I think would be more realistic [Accounting, Audit and Information Technology].”

Another issue that some students faced was the difference in workload between the diploma and degree program. One student contrasted the diploma and degree program by

saying “[the degree] was difficult compared to the diploma program but I think that had to do more with the time constraints on it, especially with having seven classes [International Business Management].” Another student was “juggl[ing] the weight and try to manage my time... and then, it’s...harder...cause you have a lot more work [Architecture – Project and Facility Management].” A third student had a similar issue and stated, “I found it really tough because I didn’t feel that I was challenged as much in my previous program. I...didn’t really go into [the degree] with...a mindset of...how hard I was going to need to work and manage my time. I...kinda got overwhelmed [International Business Management].” As a result of the increased workload some students also struggled with time management. One student thought that “maybe the biggest thing I’d say is more time management...there’s a little bit more stuff to do so just manage your time, right, and you’ll be fine [Accounting, Audit and Information Technology].” One student believed that the reason for this was that “it’s just more hours and it’s more difficult, people might not... know what they’re getting themselves into...and...because the AIT program is new...there’s no tutors available [Accounting, Audit and Information Technology].” This suggests that students may not be provided with enough information to build realistic expectations about the degree program, and that when the pressure builds, more support might be required to help manage the realities of the workload.

Some students also commented on difficulties with communication between themselves and the registrar’s office when registering for the program. One student in particular experienced a miscommunication regarding the transfer credits he would receive, saying “at that time I was also told that all my [diploma] related courses would be considered throughout the schooling, however I found out that my [diploma] related courses taken in the first two years were [not] gonna be accepted...it was a bit fuzzy off the get go and I hadn’t signed on anything so that was a little area of contention [International Business Management].”

Not unexpectedly, some students also cited financial difficulties. For example, one student had few problems but did comment that the issues that did exist were “mostly...financial. That was the big one [Health Informatics Management].” Similarly, a second student had “no difficulty except worry about financial...issue[s] because that might add up

to...[an] incredible amount of money at the end of the degree program [Community and Criminal Justice].” This last issue highlights some concerns that transfer students may experience to a greater degree than non-transfer students. Because transfer students spend a longer period of time in PSE, their financial burdens may be increased.

Although the majority of students had a good experience with the process of transferring from the diploma to the degree, the primary issue they had was related to communication. Particularly they expressed that an improved line of communication between the college administrators and students regarding program expectations would help students manage their expectations better, perhaps reducing some of the pressure that transfer students feel.

3.4.3 Supports for diploma students wishing to transfer into a degree program

Because most students interviewed were internal transfer students, they were already familiar with the Conestoga environment and so did not require an orientation to the school. Although orientations were offered, most students did not take advantage of them. When asked what supports or services were offered to help students who wished to transfer into the degree program, students discussed program coordinators and instructors as a major source of support. One student relayed that “all the teachers were there and they would always be there to help you. So, it’s really good...and it’s an open door environment, so you just go up and don't have to...call in to talk to them. They're always there when you need them, as opposed to...when I was...doing my...diploma program. You'd have to call and make an appointment and it’s a long procedure. If you see them, you see them. If you don't, you don't really get to see them [Architecture – Project and Facility Management].” Another student expressed that “a lot of the professors were very helpful...they were more than willing to talk to you after class and that was probably the only method of support that I really took advantage of [Mechanical Systems Engineering].” A third student mentioned that “[the coordinator] was pretty helpful. If I had any questions, I just went to him. He was really...good at making himself available. Really good at answering questions. Really good at explaining a lot of the outline of the course. What do you have to take. What do you not have to take in terms of managerial courses and

electives, and explaining all about how that worked. So I'd say he was definitely the best support I had [International Business Management]." These observations show that the instructors and coordinators have a high level of approachability which the students find valuable.

In addition to commenting on the support provided by their instructors and coordinators, some students commented on support they received from peers. Talking about entering the program, one student said that "...the students will actually show you around the college and help you, especially if you're walking around the school...there's students always helping you [Accounting, Audit and Information Technology]." Another student mentioned how this support was apparent from the start of the program when "I went to the orientation...I was offered it and I went and I met some people from the program before the actual program started and I made friends almost instantly which was good [Accounting, Audit and Information Technology]."

Students also talked about the bridging programs as being helpful to their success in degree. They gave students the opportunity to meet other transfer students who would be in their program. In particular, one student pointed out that "when we first started in the bridging module...that's how we got to know each other, and then we came into our actual class and we...branched in with everybody else, but...ever since then it's still that the majority of the bridging students still hang out with the bridging students [Architecture – Project and Facility Management]." A second student observed that the relationships started in the bridging program continued throughout the program by saying "I guess, at the end of the day, say if you have a study group or something, it's the bridging students, they all, they all will all help each other [Architecture – Project and Facility Management]." In the bridging program students are also provided the opportunity to get to know their instructors prior to starting the degree. One student found this helpful because "we met all the professors...we had lectures from them earlier, so...before the semester started, [during bridging], we had...we had lectures from them so we kinda got to know them [Architecture – Project and Facility Management]." These experiences show that the bridging programs not only prepare students for the academic challenges that they may face in the degree program, but also assist them in forming a strong

support network with other transfer students as well as with faculty members. Many students commented that these relationships continued throughout the duration of the program.

To assist with the additional challenges faced by transfer students, colleges may want to include more supports and services for students who are experiencing increased pressures, such as the tutor program suggested by one student. Finally, increasing financial assistance to transfer students, perhaps through grants or scholarships, may make their additional financial burden more manageable.

3.4.4 Suggested improvements for transferring from a diploma to a degree

While most students were pleased with the pathway from the diploma to the degree, the most common suggestion that students made had to do with the information about the degree program. Many students felt that more information about the program should have been made available for them to make a fully informed decision about their education path. One student wanted the administration to “tell the students that it’s a lot more...theory based...what you’re getting, entering into is a lot more different than the typical college environment [Architecture – Project and Facility Management].” Another student felt that the “only thing would be for students who are...bridging...within this school, maybe giving them a little bit more of a support system because we didn’t know anything, we just had [the program coordinator] and that was it. So, we didn’t have anything that we should be anticipating in the program or anything like that [International Business Management].” To alleviate some of the stress of transferring into a degree program, one student suggested that “maybe a presentation on...the transition in general...of what you can expect...with [regards to] work...[and] maybe hours [Community and Criminal Justice].” Although the students tended to praise the support provided by their instructors and coordinators, there seemed to be recognition that the support system should be widened.

Some students felt that some of the responsibility for providing information fell on their diploma instructors. Particularly, one student commented that “I think in the diploma program the professors could have...brought more awareness to [the degree program] [Architecture – Project and Facility Management].” Other students would have found additional information

sessions about the degree programs useful. One student commented that “there weren't any...little extra sessions or seminars...explaining...the pros and cons of bridging over. Cause I kinda went into it blindfoldedly, I wasn't really sure what I was expecting. I was...looking for the course outlines online, kinda got an idea of what it would be about but I wasn't 100 per cent sure what I would be doing. That's, I guess, the only thing I had to kinda wait and see, which would have been better if I knew all along so in my first year I [could know]...I wanted to do it but I wasn't sure but if we were given that opportunity to see what we would be doing in the 3rd or 4th year of this program, I think it would have...help[ed] other students...solidify the idea that they wanted to do it or not [Architecture – Project and Facility Management].”

Students felt that they were lacking the information needed to properly plan the path from the diploma to the degree. Because some students received the information about the degree requirements later in their diploma, they found that they had to work harder to meet those requirements. One student experienced this issue and thought that “it would have been easier to know if, when you're taking the diploma, what you need to...go into the degree. So, instead of having to go back and retake stuff to improve...it would probably be easier just to...know exactly [what mark you] need...to get into...advanced standing [International Business Management].”

Another theme that appeared was related to marketing the program to diploma students. In particular, some students felt that it would have been valuable to be provided with more information about the degree in order to highlight the value of transferring into the degree program. One student thought that students should have been shown “how this [the degree] complements your diploma. So, if you're in Management, how does...the International Business Degree Program...complement your diploma program. How is it going to increase your learning [International Business Management]?”

Students had some definite ideas about improving the transfer from a diploma to a degree. Most of the suggestions had to do with improving the flow of information about the degree program to the diploma students. Students may have benefitted from more information, both about the requirements to get into the degree program with advanced standing and what to expect in the degree program, given at an earlier stage in the diploma.

According to students, the information could be delivered through an increased marketing campaign targeted towards diploma students, promotion by diploma instructors and information sessions.

Section 4: Summary and Discussion

Increasingly, Canadian students are following non-traditional pathways through postsecondary education. With more colleges offering degree programs, obtaining a degree is becoming more accessible to all students. As a result, it has become important to understand the experiences of students who transfer from a diploma to a degree program. The present research sought to better understand who these students are, why it is that they decide to transfer, whether they differ from non-transfer students, what challenges they face, and whether they are successful.

The present study sheds light on some of these pertinent issues. Using a combination of qualitative and quantitative methods, we examined the experiences of diploma to degree transfer students at Conestoga College Institute of Technology and Advanced Learning across eight different degree programs.

Transfer students tend to look much like non-transfer students. Besides being older than non-transfer students at the start of the degree program, transfer students do not differ from non-transfer students in composition of gender or country of birth. However, it is possible that transfer students do differ from non-transfer students in ways not examined in the present research.

In terms of academic success, transfer students tend to obtain higher GPAs in the degree programs than do non-transfer students. Generally, transfer students do not differ from non-transfer students in the extent to which they complete their scheduled courses on time. However, being a transfer student seems to be more beneficial for male students in this regard. Non-transfer males are more likely to get off schedule with their course work than do non-transfer females, but this difference disappeared for transfer students. Male and female transfer students are equally likely to remain on schedule in their degree programs. Drop-out

rates also tend to be lower for transfer students than for non-transfer students. Once again, the difference was partially attributable to male students. For transfer students, gender did not influence dropout rates. For non-transfer students, on the other hand, males tended to drop out of the degree program to a greater extent than non-transfer females.

Why do students decide to transfer into degree programs to begin with? Many diploma students felt that their diploma would provide them with limited career opportunities. They viewed obtaining a degree as a way for them to “boost” their career options. Students recognized the value of college-based degree by expressing that a college level degree would provide them with the vocational experience they would not necessarily receive in a university context. Having degree programs offered at the college also provided students with an accessible, natural and straightforward pathway into degree education.

What were the challenges, or barriers, that transfer students faced? While most students were pleased with their education pathway, some students cited communication as being the main barrier with their transfer experience. Several students expressed frustrations that the realities of the degree program did not fit with their expectations.

The results of the study highlighted some areas for improvement that would help transfer students adjust to the transition from the diploma to the degree program. Primarily, students commented that learning about the degree program at an earlier stage in the diploma program would have helped them plan the transition better. Also, many thought that receiving more information about what to expect in the degree program, in terms of work load and the type of work, would have been beneficial. Transfer students also expressed interest in receiving increased support and services, such as tutor or mentor programs.

Ultimately, transfer students tended to speak positively about their education pathway. The diploma provides students with the hands on aspect of the field that the degree does not and the degree program provides them with the theory for a greater understanding of the field. Students tend to think that the two complement one another well. Many were glad to have had the experience offered through both the diploma and the degree programs. Transfer students’ academic outcomes seem to support the idea that transfer students do benefit from both

unique experiences in that they tend to receive higher GPAs and are less likely to drop out of the degree program.

Section 5: Recommendations

Although the results of this study indicated positive outcomes for transfer students, we also identified several areas of improvement. In this section, we discuss several recommendations. These recommendations are not only specific to Conestoga College but may be applicable to other Ontario colleges which offer degree programs.

1. Students expressed a desire for increased information about the degree program earlier in their postsecondary education. To assist in this dissemination of information, diploma instructors could more frequently discuss the option to transfer into the degree program with their students. Students would benefit from this information early in their diploma program, but because some students may not decide to pursue a degree until later in the diploma program, efforts should be made to provide the information throughout the program.
2. Students would benefit from additional sources of information about the potential diploma to degree pathway such as periodic seminars and workshops being offered at the college. In both information provided by diploma instructors, as well as in the seminars and workshops, specific information about the degree requirements should be offered. Additionally, students would benefit from information about workload in order to form realistic expectations about what will be required.
3. Because of the difference in workload from the diploma to the degree programs, transfer students could greatly benefit from workshops offered to help them learn how to better manage their time. These workshops could be offered separately, or as part of the bridging program.
4. Many students made comments about the value of the bridging program. Particularly, many formed a strong support network with other students in the bridging program. Programs which do not offer bridging courses could consider alternative mechanisms for providing the non-academic aspects of bridging programs.
5. Even when bridging programs were offered, some students found it difficult to adjust to the demands of the degree program. Given the lower GPAs of non-transfer students, additional services should be explored to support all degree students to overcome challenges they may be facing. Particularly, offering tutoring or mentoring programs would help students deal with specific issues with which they may be having problems.

6. Although not highlighted as a particular issue, several students experienced a certain amount of segregation when entering into the degree program. They commented that transfer students and non-transfer students tended to form their own separate groups. In some cases, instructors attempted to reduce the segregation by having the class complete group projects and ensuring that at least one transfer student was included in each group. For those students who experienced this, they felt a higher degree of integration into the class. More system wide integration methods, such as the one mentioned above, should be considered in each program to ensure that non-transfer students are more accepting of their transfer counterparts and transfer students feel more accepted into the class.
7. Although we did not find many differences between transfer and non-transfer students, there may be important factors that were not captured in the present study. Future research may benefit from expanding the student profile by examining additional factors such as socioeconomic status and first generation PSE student status. Ideally, multisite data with larger samples would provide a more comprehensive profile of transfer and non-transfer students.
8. Although not the primary focus of this particular study, the results suggest that male non-transfer students tend to face unique challenges that impact their success, relative to transfer students and female non-transfer students. Further research may want to examine the factors that influence male non-transfer student success and determine what can be done to help them overcome their obstacles to success.

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Appendix A

CUCC – Exploring the Success and Challenges of Diploma to Degree Transfer Students

Recruitment Email

To: [name of transfer student as identified by the program coordinator]

From: [name of the program coordinator]

Subject: Diploma to Degree Transfer Student Research

Conestoga is interested in improving the experiences of students who have transferred into one of the nine degree programs we offer. This study will examine differences in the pathway that lead to the transfer (including reason for transferring), as well as both objective and subjective academic success for students with various backgrounds, including demographics and academic standing prior to the entering the degree program. The research is funded by the College-University Consortium Council (CUCC) and is being conducted by members of Conestoga's Institutional Research and Planning Office.

The researchers would like to interview 20 students who have transferred into a Conestoga degree program. The interview will take approximately 30-45 minutes and participants will receive a **gift card** for the Conestoga College Book Store. Participants who take part in a phone interview will be offered a \$20 gift card, participants who take part in a face-to-face interview will be offered a \$30 gift card (to compensate for travel to Doon campus). Participants will be selected on a first-come-first-served basis; interviews will take place between March 21st and March 30th, 2012.

If you are interested in participating in this study, please forward this email to Glen Gorman at ggorman@conestogac.on.ca and provide the following information:

Your name:

Your phone number:

Your program:

Your year:

Would you like to participate in a phone or in-person interview (please list one):

If you would like to talk to Glen before deciding, he can be reached at 519-748-5220 ext. 4927.

Please note that this study has received ethics approval from the Conestoga College Research Ethics Board.

Thanks for considering this request,

[Program coordinator]

Appendix B

CUCC Interview Guide

Prior to the interview

If in-person:

- Confirm the interview time and place with the participant the day before the interview
- Provide the participant with detailed directions
- Book the interview room

If by phone:

- Confirm the interview time with the participant the day before the interview
- Confirm contact information

To have:

- If phone interview: participants' contact information
- Consent form
- Copy of the interview guide
- Recorder
- Pen and paper for notes

Ensure that the recorder is charged and that you are NOT recording over the previous session. Record the participant ID number on the recorder prior to the participant arriving or the phone call.

Introduction

Thank you for agreeing to be part of our study. During the interview the recorder will be running, just so I don't miss anything important that you have to say. At no time will your name be attached to this recording and it will be kept confidential while we are working on the project. When the project is completed, this recording will be permanently deleted. Are we okay to proceed?

Great, I'm going to start the recorder now. [start recorder]

The first thing I'm going to do is read to you the information and consent letter. This will tell you what you will be asked to do during the interview, how the information gathered in the study will be used and what your rights are as a study participant.

While I'm reading this, if you have any questions at any time please feel free to stop me and ask. Is that ok? [wait for a response]

[Read information letter and consent form][In person: provide participants with a copy]

Do you have any questions? [If yes, answer. If no, continue]

In person: If you still wish to participate, please sign the bottom of the consent form.

Phone: Now that I've read you the information and consent letter do you still wish to participate? [If no, thank them for their time and end the call. If yes, continue]

In this interview, I'm going to ask you to tell me about your experiences with transferring into a degree program.

Everybody responds to these questions differently, so you may have a lot or very little to say depending on your own views and experiences, however, it would be helpful if you could include as much detail as possible in order for us to gain a greater understanding of your experiences overall.

Primary College Goals

1. What was your reason for going to college/PSE? [Q.1]
(originally? for the diploma?)
2. What were your educational goals when you started your diploma/previous post-secondary experience? [Q.2]
(e.g., did you just want to get your diploma and then enter the workforce, or did you plan to go get a degree after your diploma, etc.)
3. When you started your diploma, where did you see yourself after finishing? [Q.3]
(What kind of job, etc.?)
4. Were you satisfied with the diploma program? [Q.4]

Factors Influencing Transfer Decision

1. When did you decide to transfer into the degree program? [Q.5]
2. What made you decide to transfer to a degree program? [Q.6]
(Was that your plan all along? Did it have something to do with job opportunities? Or pay?)

Experience with the Transfer Process

1. How did you find the admission process into the degree program? [Q.7]

(Did you have all of the requirements? If not, was the registrar's office able to provide you with information about getting the requirements? Did you have any credentials or courses that you felt should have counted towards the degree program but didn't?)

2. Did you face any difficulties transferring into the degree program? [Q.8]
(Did the process take long? How smoothly do you feel that the process went? What was your experience with the registrar's office? How many people did you have to talk to before you were admitted?)

3. When you transferred into the degree program, what kinds of supports or services were offered to help you? [Q.9]
(Welcome materials? Orientation/introduction to program? Processes? Classmates?)

4. Can you identify anything else you felt was acting as a barrier to transferring into the degree? [Q.10]

5. Were you satisfied with the transfer process? [Q.11]

Experience in the Transfer Program

1. Once you were in the program, what was it like? [Q.12]
(Compared to the diploma program/previous PSE? Was it easy or difficult? How was the workload? Did you enjoy it? How were your interactions with your peers?)

2. Do you think your original diploma program/previous PSE prepared you well for the degree program? [Q.13]
(How did you find the transition between the two programs? Was it an easy or difficult transition? Did you feel that you had gained enough knowledge in the diploma program to do well in the degree program? Do you think your performance in the degree program would have been different if you hadn't first done the diploma program?)

3. Did your career goals change over the course of your College education? [Q.14]
(How? Between the diploma and degree?)

4. Do you have any suggestions as to how the pathway from your diploma to degree can be improved? [Q.15]
(Easier for future students?)

5. How do you feel about the current state of your education path? [Q.16]
(How do you feel about having taken your degree? Has it impacted your life? How? What about the diploma? How do you feel about having taken that? Has that impacted your life? How?)

6. Are you currently satisfied with the degree program? [Q.17]

Demographic questions

Now I'd like to gather some demographic information. This is just some details about you to help us better understand your answers.

Are you ready? Ok, great.

1. The first thing I'd like you to tell me is where here were you born? [Q.18]
(prompts: how long did you live there, how long have you lived in Canada, are you currently a Canadian Citizen, how long have you been a Canadian Citizen?)

2. What is your primary language? [Q.19]

3. And how old are you? [Q.20]

4. What program are you enrolled in? [Q.21]

5. Into which year of the program did you transfer in? [Q.22]

6. What year of the program are you currently in? [Q.23]

7. What post-secondary experience did you have prior to transferring? [Q.24]

8. How old were you when you first started College? [Q.25]

9. When you transferred into the degree? [Q.26]

Thank you for completing the interview. Now, I'll stop the recorder.
Do you have any questions you wish to ask off-the-record?

Appendix C

The ability of high school grades to predict postsecondary performance is well founded (e.g., Camara & Echternacht, 2000; Garton, Dyer, & King, 2000). While it is clearly important to control for the influence of high school grades when examining postsecondary performance, it does present certain challenges. The first issue we faced in the present study was in regard to the availability of complete records, specifically the data in the present study included incomplete high school records. The second issue was that of grade equivalency. Specifically, student records contained grades for a variety of different types of courses: college versus university, general versus advanced, applied versus academic, OAC, etc. This second issue was particularly problematic for the present study because the majority of the transfer students did not possess university level high school courses, thus making it difficult to compare high school grades for students who transferred into the degree program to those who did not. A third issue had to do with course codes. Depending on when students went through high school, and where they did their schooling, they may have different codes representing the same, or similar, courses. According to a report published by the Center for Studies in Higher Education (2007), high school grades were found to be a better predictor of postsecondary performance than standardized testing. Although standardized testing was found to be less reliable than high school grades in predicting PSE, some of the issues we faced in the present study were irreconcilable given the nature of the grading system used in Ontario and the rest of Canada. While high school grades should undoubtedly be used when examining PSE success, this information should be supplemented with standardized testing. Without a standardized assessment of students' academic abilities, making predictions based on their academic abilities prior to PSE becomes very difficult, particularly in the case of transfer students. In the present study, we made every attempt to equate students' high school math and English grades, with limited success. In particular we included only the grades of students who had completed the math and communications requirements for each of the programs. In cases where there were multiple options (e.g., the Mechanical Systems Engineering requires one of either Advanced Functions or Geometry and Discrete Mathematics or Mathematics of Data Management), and

students possessed grades for more than one of the options given, we calculated an average of the available options. One way in which to address this issue is to have students complete a standardized test of their academic abilities, particularly math and communications; this would allow us to be more certain of our conclusions when conducting research on postsecondary academic performance. These research issues may highlight a more systemic problem as well. Our research indicates that high school grades are not the only important factor for determining performance in postsecondary education. Many of the transfer students in the present study did not possess the high school requirements for admittance into a degree program, however, they still tended to outperform non-transfer students. This indicates that other factors, such as life experience, may also be important for determining student success. For example, many non-tradition students are those who have spent time in the workplace gaining practical experience. These experiences may even be a stronger indicator of success for these students than will their high school grades. Further, this experience will not be reflected in their high school grades. Thus, it is important for educators to understand what some of these other indicators might be and how to accurately assess them when making decisions about program admittance. Further research in this area is warranted.