Student Pathways and Supports:
Investigating Retention and Attrition in Mature University Students

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1. Introduction

The enrolment of mature students in PSE programs is on the rise due to increasing recognition of the importance of attaining a higher education for employment success and future earnings as well as recent government initiatives to raise the post-secondary attainment rate of adults in Ontario (Kerr, 2011). Mature students represent a significant minority population on campus: 23.3% of post-secondary undergraduates in Canada are 25 years of age or older (Statistics Canada, 2013). Despite the current and potentially increasing proportion of mature learners, there has been little focus on this unique student population. Research to date has focused almost exclusively on the school context and student-program fit as contributors to student success. There has been limited consideration given to other institutional factors, or to the challenges of meeting family and/or employment roles as unique sources of strain that may apply to this population.

When compared to traditional students, mature students are found to be clearer about their reasons for attending PSE and can be quite successful in their studies, often achieving higher average grades than younger students (Carney-Crompton & Tan, 2002; Holmes, 2005; Scott, Burns, & Cooney, 1996). Paradoxically, mature students are also more likely to drop out or fail to enrol in subsequent semesters (Carney-Crompton & Tan, 2002; Holmes, 2005; MacFadgen, 2008; Scott, et al., 1996), behaviours that are costly to individual students, their families, and institutions. For these reasons it is important to investigate the various pathways that mature students take when attempting to complete PSE, while also examining their reasons for withdrawing and returning to study, and the policies and unique supports that may assist mature students to be more successful in completing their degrees.

The most common reason mature learners leave PSE is due to role overload (Scott et al., 1996). Role overload, or strain, often forces mature learners to approach PSE as a part-time student, a predictor for not successfully obtaining a degree (Tangiguchi & Kaufman, 2005). This is due to degree completion taking longer. "Prolonged enrolment is easily interrupted by periods of absence from school and this can interfere with the continuity of students' learning" (Tangiguchi & Kaufman, 2005, p. 913). These absences make it difficult for mature students to move from basic level courses to advanced courses, and essentially act as obstacles to degree completion. Role strain and the adoption of alternate paths to those of full-time study occur because many mature learners have multiple roles including employee, spouse/partner, as well as being a parent in many cases while trying to complete their degree. The various demands of these roles, both financially and emotionally, can cause mature learners to doubt whether returning to school is beneficial (Gerrard & Roberts, 2006); however the benefits of attaining a post-secondary education (including social and financial success) are increasingly recognized and mature students represent a valued sector of the workforce. Consequently, reducing attrition rates through increasing awareness of stresses and barriers to academic success amongst this demographic is beneficial to society.

Attrition rates also speak to the lack of services and accommodation offered to mature students. In a study completed by Carney, Crompton, and Tan (2002) comparisons revealed that mature, female students reported that there were fewer individuals available to them for emotional and instrumental support than there were for traditional students. Carney and colleagues (2002) make several recommendations for ways that post-secondary institutions can better support the success of mature students, including:

- Orientation – Transitioning to school requires a great deal of adjustment. Orientations inform students about the demands of higher education, course expectations, and the time required to be successful.
- Evaluation of delivery and the structure of courses – Making courses more accessible through formats such as distance education is beneficial to nontraditional students.
- Re-evaluate admission criteria – Methods for assessing academic potential must be evaluated as many nontraditional students do not meet the expectations of standardized testing, and grades, that traditional students are measured by.

It is clear that mature learners are a growing subset of students in Ontario and that their unique needs must be recognized and addressed. The current research was conceptualized to add to the growing literature in identifying and understanding the needs of mature students. Specifically, this project investigates reasons for withdrawal from study, plans to return to study, and the supports provided by institutions in order to make recommendations to post-secondary schools that can aid mature learners in successfully completing their pathway and obtaining degrees. Addressing these barriers is an important goal that is likely to significantly increase the return on investments of individuals, governments, and institutions and reduce both the direct and indirect costs to society that may otherwise result (Charlton, Barrow, & Hornby-Atkinson, 2006).

2. Research Objectives

The primary purpose of this project was to examine factors influencing mature student retention and identify alternate pathways mature students may follow towards degree completion. This purpose was selected as it has the potential to identify institutional and policy-related changes that could improve the participation and persistence of adult learners in post-secondary study. Four specific aspects pertaining to mature student retention were investigated:

  i.   Predicting withdrawal from study: Statistical analysis of how individual, psychological, institutional and social factors influence the persistence of mature students in post-secondary study.
 ii.   Reasons for withdrawal: Examination of the reasons mature students give for their decision to withdraw or contemplating doing so.
iii.   Plans for returning to study: Identifying the extent to which mature students plan to continue their studies in the future.
iv.   Supports provided by institutional policies/programs: Examination of the relevance and availability of current policies and programs to mature students offered at Ontario's 20 public universities and 24 colleges.

3. Methods

The study was conducted using a combination of recently collected student survey data and publicly available information from post-secondary institutions in Ontario. Data used to address the first three research questions come from the Mature Student Experience Survey (MSES; van Rhijn, 2012). The MSES was a longitudinal study of mature students that included emphases on well-being, motivations for attending university, and student experiences. The three-year study (2010-2013) collected data at six time points using an online survey with open- and closed-ended questions. Participants were students aged 25 or older enroled in undergraduate study and recruited from four Ontario institutions: the University of Guelph, York University, the University of Waterloo, and Ryerson University. Registrars' offices assisted with email recruitment over the three-year period.

To examine withdrawal from study, this project used data from participants who indicated that they were no longer enrolled in school in a subsequent survey phase. These "exit" participants completed an alternate survey exploring reasons for leaving study. Exit surveys were collected from 166 participants who stopped attending for one or more semesters and did not graduate. These participants provided the focal sample for this work.

The first research objective (predicting withdrawal) was addressed using logistic regression models to determine the relative contributions of predictor variables for mature students' continuation or withdrawal from study. Predictor variables for the models included: age, gender, partner status, presence of children, employment status, family income, enrolment status (full/part-time), depression, school satisfaction, and perceived stress.

The second and third research objectives employed thematic analysis of responses to two open-ended survey questions regarding reasons for withdrawing and an additional open-ended question regarding future educational plans. Analysis followed Braun & Clarke's (2006) six phases of thematic analysis, an inductive approach allowing themes to emerge from the data.

The fourth research objective examined the nature of institutional supports available to mature students. For this activity, a document analysis of information available from public universities and colleges in Ontario was conducted (24 universities; 20 colleges). Publicly accessible institutional websites were examined to locate policies and procedural documents pertaining to material relevant to mature students, including admission and enrolment policies, financial assistance, academic and social supports, and child care. A content analysis was conducted to determine their relevance and accessibility to mature students. The documents were critically analysed to better understand how accessible programs and supports are to mature students and to identify gaps and limitations.

a) Measures

The measures used for regression analysis included the following demographic variables: age, gender, partner status (partnered or single), presence of children 18 years of age or younger (children or no children), employment (average number of hours worked per week), family income, and enrolment status (full or part-time study). Details for the remaining measures are included below.

Depression.

Depression was measured using the 20-item Zung Self-Rating Depression Scale (Zung, 1965). Responses are measured using a five point Likert scale (1 = 'strongly disagree' and 5 = 'strongly agree') with higher scale scores indicating greater depressive symptoms. A sample item is "I feel down-hearted and blue."

School satisfaction.

School satisfaction was measured using the five-item school subscale of the Extended Satisfaction with Life Scale (Alfonso, Allison, Rader, & Gorman, 1996). Responses are measured using a seven point Likert scale (1 = 'strongly disagree' and 7 = 'strongly agree') with higher scores indicating higher levels of satisfaction. A sample item is "The education I get at school is great."

Perceived stress.

Perceived stress was measured using the ten-item Perceived Stress Scale (Cohen, Kamarck, & Mermelstein, 1983; Cohen, & Williamson, 1988). Responses are measured using a five point Likert-type scale (1 = 'never' and 5 = 'very often') where responses indicate how often respondents have, for example, "Felt that you were unable to control the important things in your life?"

Tension.

Tension was measured by responses to a single question adapted from the 1988 National Child Care Study (Lero et al., 1992): "While things vary from day to day, overall, how much tension do you feel in juggling family/life and school responsibilities?" Responses were on a sliding scale from 1 = 'no tension' to 10 = 'a great deal of tension'.

Reasons for not being enrolled.

Participants who were not enrolled in classes in subsequent phases of the MSES survey were asked why they were not enrolled and provided responses to a single, "select all that apply" question with the following response options: finances, child care, family responsibilities, employment, choosing to withdraw from studies, and other (please specify text box provided with this option). As a follow up, participants were asked "Do you plan on registering for further post-secondary courses in the future?" and provided with 'yes,' 'no,' and 'undecided' response options.

Open-ended questions.

In addition to the measures already noted, responses to the following open-ended (i.e., text response) questions from the survey were analysed: 1) "Please identify the primary reason why you are not enrolled this semester. You may also use this area to provide any further information or explanation as to why you are not enrolled;" and 2) Please comment on your future plans for your education.

b) Participants

Participants were 1537 mature students from the MSES who completed two or more phases of the survey. All of the participants attended university in southern Ontario (at one of four Ontario institutions at which recruitment efforts occurred) and, in order to meet the mature student criteria, were required to be 25 years of age or older and attending university on either a full or part-time basis. Characteristics of the sample for this project are reported in Table 1. A majority of the sample are identified as "continue" participants as they continued their studies by enrolling in a subsequent semester (n = 1371).

Some of the mature student participants did not enrol in a subsequent semester but still participated in an "exit" survey in which they were asked about reasons why they did not enrol. These participants make up the participant group identified as "withdraw" (n = 166). A majority of participants identified as female (72.0%) and were studying on a full-time basis (56.2%). The participants averaged 37.2 years of age. A minority of the sample were partnered (i.e., married or common law; 47.6%) and had dependent children (29.7%). Continuing and withdrawing participants were not significantly different when compared by age, gender, or whether they had dependent children; however, withdrawing participants were significantly more likely to be partnered and studying on a part-time basis.

4. Results – Predicting withdrawal from study

Statistical analysis of how demographic, social, psychological, and institutional factors influence the persistence of mature students in post-secondary study was conducted. Specifically, logistic regression was used to assess the contribution of various factors (predictor variables) on mature students' continuation or withdrawal. Predictor variables included in the model were: age, gender, partner status (partnered or single), presence of children (children or no children), employment (number of hours), family income, depression, enrolment status (full or part time), school satisfaction, perceived stress, and tension. Data were analyzed from 1120 mature students who continued their studies and 143 students who withdrew from post-secondary study. For students identified as having withdrawn from studies in a particular semester of data collection, predictor variable data were taken from the previous semester of study. For students identified as continuers, the predictor variable data was taken from the second-to-last available semester of data collection in order to predict the most recent continuation outcome. Students who graduated from post-secondary study were identified as continuers as they did not withdraw without completion.

In logistic regression, the determination of whether variables predict an outcome (with a model including all variables) is based on comparison to a constant only baseline model. Odds ratios for each predictor demonstrate the change in odds of an outcome occurring; an odds ratio greater than one indicates an increased chance of the outcome, and an odds ratio less than one indicates a decreased chance of the outcome. The outcome for this analysis is withdrawal from university.

Logistic regression analysis was conducted to determine the relative influence of various predictor variables on mature student continuation (coded 0) or withdrawal (coded 1). A baseline evaluates the fit of the model with only the intercept or constant included. The initial -2 Log Likelihood was calculated to be 892.18. In this constant only model, all students were predicted to be continuers. With no predictors, the model is 88.7% correct in accurately predicting whether a student withdrew or continued. With only the constant in the model, Wald's statistic was significant (Wald χ^2 (1) = 537.21, $p <$ .001). The beta value for the constant in the model is b = -2.06, and the odds ratio has a value of .13.

With the addition of all the predictors – age, gender, partner status, presence of children, employment, family income, depression, enrolment status, school satisfaction, perceived stress, and tension – the -2 Log Likelihood decreased from the baseline to a value of 782.29. This decrease indicates better outcome prediction. The overall test of the model including the predictors was significant (χ^2 (11) = 109.89, $p <$

0.001). This statistic indicates that the model is predicting withdrawal or continuation significantly better than the constant only model. The variance accounted for by the model ranged from .08 from the Cox and Snell R^2 to .16 from the Nagelkerke R^2, or from 8 to 16 percent. The statistically non-significant Hosmer and Lemeshow's goodness-of-fit test indicates that the model fits the data well, $\chi2$ (8) = 10.70, p = 0.21. With the predictors in the model, there was 88.5% accuracy in classification as withdrawal or continuation overall.

Of the eleven predictors entered into the model, three predictors were found to significantly predict the outcome: full/part-time enrolment (Wald χ^2 (1) = 36.31, p < .001), school satisfaction (Wald χ^2 (1) = 16.54, p < .001), and tension managing multiple roles (Wald χ^2 (1) = 6.37, p = 0.01). Enrolment has a reported beta value of b = -1.60 suggesting that every 1 unit change in enrolment (i.e., from a value of 0 for part time to a value of 1 for full time) results in the probability of withdrawal decreasing by 1.60 units. The odds ratio for enrolment was .20 indicating that full time students are less likely to withdraw from post-secondary study. The reported beta value for school satisfaction, b = .40, suggests that for every 1 unit change in school satisfaction – with an increasing value indicating more dissatisfaction – the probability of withdrawal increases by .40 units. With an odds ratio of 1.50, more dissatisfied students are 1.50 times as likely to withdraw (i.e., more likely to withdraw). The third significant predictor in the model, tension, has a reported beta value of b = -.13 suggesting that every 1 unit change in tension – with an increasing value indicating more tension – results in the probability of withdrawal decreasing by .13 units. The odds ratio value for tension indicates that those with more tension are .88 times as likely to withdraw (i.e., less likely to withdraw). See Table 2 for beta values, Wald's χ^2 and odds ratios for all predictors entered into the model.

The model seems to better predict continuation than withdrawal. This could be due to the uneven samples of withdrawers (n = 143) and continuers (n = 1120). The number of predictor variables entered into the model could also be a factor in these results. With a low number of students identified as withdrawers, including the eleven predictor variables in the analysis may render the results inaccurate. It is noteworthy that the confidence interval for odds ratios of the identified significant predictors do not cross the value of 1; having both limits of the confidence interval either above or below 1 gives confidence to the direction of the relationship between predictor variable and outcome.

5. Results – Reasons for withdrawal

Participants were given six options and asked to indicate all of the reasons they were not currently enrolled in courses. A majority of respondents (84.4%) provided only a single answer to this question despite having the option to select all that apply. The remaining respondents selected either two (7.8%) or three (7.8%) reasons. Finances were identified as a reason for withdrawing by 29.7% of participants, 26.4% indicated family responsibilities, 26.4% indicated employment, 8.0% indicated that they withdrew by choice, 7.5% indicated child care, and 21.2% chose the "other" response option. When participants chose "other" as an option, they were asked to specify their reasons in a text box. Analysis of the "other" field resulted in the creation of four new groups: 6.1% of participants listed health as a reason for not currently being enrolled; 3.3% were not enrolled due to pregnancy or maternity leave; 2.8% were participating in a co-operative work term, internship, or practicum placement; and 6.6% did not

enrol due to poor course offerings. In order to further explore participants' reasons for not being enrolled in school, participants were also asked to fill out an open-text box identifying the primary reason why they were not enrolled in the current semester and providing further information or an explanation as to why they were not enrolled. Analysis of these responses resulted in two main themes: involuntary withdrawal and voluntary withdrawal, each with several subthemes.

a) Involuntary withdrawal from study

Participants who felt that their withdrawal was involuntary indicated that they would have preferred to be enrolled but external forces prevented them from continuing their studies. Sub-themes of involuntary withdrawal included health and well-being, family responsibilities, finances, employment, and institutional reasons.

Participants who listed health and well-being as a reason described having to take time off due to medical issues, stress, or burnout. For example, one participant explained that "due to a recent concern regarding my heart, I was asked to reduce stress and take things easy" (Female, 49).

Participants described family responsibilities as either caregiving roles or a change in family status. Caregiving roles included taking care of children, aging parents, or other family members with health concerns. Changes in family status included getting married or divorced, having a baby, or dealing with a death in the family. As one participant explained, "two aging parents with health difficulties are needing more of my free time than in previous years" (Female, age 29).

Finances were a concern for many participants who indicated that they could no longer afford their tuition or were not able to access student loans. One participant wrote, "I cannot really afford to spend the extra money right now. The recession hit hard in our house so we have to tighten our belts" (Female, age 59).

Reasons for withdrawing that were related to students' employment included scheduling conflicts, time-related issues, and increased demands at work. Participants explained that they enrolled on a semester-by-semester basis, depending on whether they could find classes that they could schedule into their work-week. Other participants described time-related issues where they were not able to devote enough hours to their schoolwork due to time spent at their jobs. Participants also chose not to enrol in classes due to increased demands at work. While some of these demands were indefinite, such as a promotion or new job, others were temporary. One such temporary situation was explained by the following participant: "I am an accountant and this time of year I have many reporting functions that require my attention. This work takes priority over school" (Male, age 48). Several participants felt that they were in a no-win situation where they needed to work to be able to afford to study but were not able to enrol in classes because of lack of time due to their employment.

Finally, institutional issues were also noted as reasons for not enrolling in classes such as a perceived lack of support, being unable to continue due to poor grades, or scheduling issues. Scheduling issues related to being unable to enrol in classes due to no relevant courses being offered that semester or not being able to schedule courses around other commitments.

b) Voluntary withdrawal from study

The second main theme apparent in participants' responses was voluntary withdrawal. In contrast to participants who wanted to enrol in classes but were not able to, students who voluntarily chose not to enrol in classes were much more satisfied with their decision. Subthemes of voluntary withdrawal included taking a planned break; pausing to decide whether to continue; and participating in co-op, internships, or practicum placements.

Participants took planned breaks from school either for leisure or because they wanted to stay home with their children. Leisure-related reasons included spending more time on hobbies, taking a vacation that would have caused them to miss too much school, and planning a wedding. In contrast to participants who did not enrol due to lack of access to child care, some participants described wanting to take time away from school to focus on raising their children. For example, a participant explained, "My kids are very small (23 months, 10 months) and need me, and I want to be 100% present for them until they are a little older" (Female, age 38).

Some participants did not enrol in classes because they were questioning whether they wanted to continue. Participants who chose to withdraw for this reason did so because they were either reassessing their future or not performing as well as they had anticipated. Some students were unsure if they were on the right track, such as this participant who described being, "unsure if the academic path I was taking was the right one. Taking time to evaluate options before proceeding further with my studies" (Female, age 30).

Participants who chose not to continue because they were not satisfied with their performance differed from those who were forced to withdraw due to poor grades because they were still meeting their course requirements. For example, one participant stated, "I found myself not meeting my full potential with my courses" (Female, age 31). Finally, several participants in the study were not enrolled in classes due to participating in co-op, an internship, or practicum placement.

6. Results – Plans for returning to study

Mature students' plan to return to study were assessed in two ways: 1) Respondents were asked if they planned to register for further post-secondary courses in the future and 2) Respondents were asked to comment on their future plans for their education. Of those surveyed who responded, 147 participants (89.6%) responded "yes" when asked if they plan to return to study (11 were "unsure"); only six participants responded that they did not plan to register for future courses. These numbers demonstrate that the majority of mature students who withdrew from their studies for one or more semesters intended to continue with their education at some point in the future. This finding is important as students who temporarily withdraw but return to complete their program (stop-outs) are often counted as having withdrawn (i.e., having dropped out), which does not accurately account for the path that these individuals may take. Analysis of the open-ended responses also revealed several sub-themes that helped to explain the choices that these individuals made when considering their return to post-secondary studies.

Three distinct pathways were evident in the analysis: those who were returning to studies immediately after one semester out, those who were not planning to return to study, and those who plan to return to studies in the future. Those who planned to return to studies immediately and those who did not plan to return to study were much less prevalent in the data, when compared to those who planned to return to study in the future. Those who planned to return to studies in the future and those who did not plan to study in the future accounted for only 37.4% of the respondents where those who planned to return to study in the future accounted for 62.6%. For those who planned to return to studies immediately, responses were generally quite straight-forward and easy to interpret. For example, one participant stated that she had, "one more course to complete what I started – Certificate in Marketing Management" (Female, age 34), suggesting that she will finish this course the following semester, and complete her certificate. Those who responded that they were not planning to return to study most often did not elaborate and thus it is difficult to examine reasons for this non-return. Completion of a degree, however, is a plausible explanation for not returning to study as demonstrated by one respondent's comment "No further immediate plans right now beyond graduating and finding full time employment" (Male, age 34).

Those who were planning to return to studies in the future encompass the majority of respondents, and as such, responses were coded into several sub-themes in order to begin to understand the data. Although there is some overlap between each sub-theme, responses were coded into five distinct categories: personal concerns, family concerns, work/employer-related concerns, resource concerns, and institutional concerns. Responses that were coded as personal concerns addressed very personal issues, unique to the individual. For example, one participant stated "…I plan to study for the rest of my life, as far as my health allows" and further added, "I did not well prepare for my fallen health since I thought that I am still very healthy and young enough for higher education" (Female, age 57). Obviously for this participant health concerns are contributing to her inability to return to studies immediately. A second respondent suggested another unique personal concern; being unsure of their future path, stating, "I keep changing my mind about which academic path to follow – the courses I love, or to switch to business which would be better for career reasons but is much less inspiring" (Female, age 42).

Several participants responded with similar concerns suggesting that confidence in their decision to return to study is an integral factor. This confidence in the decision to return to study is related to another sub-theme: institutional concerns. Several respondents suggested that they did not wish to return to studies immediately given concerns with the institution. "I need four courses to graduate" (Female, age 67) "…3rd year courses are few – very difficult to pick a course" (Female, age 67). This response suggests an issue that is entirely institutionally based: there are too few courses being offered that semester. Another participant (Female, age 37) suggests that, "not being on campus, and not having a car limits me majorly at York with regard to enrolling for classes that aren't already full. I know first-year students are giving [sic] preference, but what about us mature students with less free time on our hands?" This response not only demonstrates institutional concerns, class times that are offered are not accessible for mature students, but also resource concerns as well, as this participant must rely on public transit to attend classes and is limited by that schedule. The primary source of concern as evidence by one participant who said, "like mature students are marginalized because of our age, and sometimes it's a challenge to get funding because of pre-existing consumer debt" (Female, age 29).

Another participant echoed this concern stating, "…I did not qualify for OSAP or other funding. My financial stresses are great however and going back to school means that I worsened the situation" (Female, age 55). It is evident from reviewing the data that mature students face unique challenges in accessing traditional funding for schooling, and that these challenges can contribute to their decision to delay study.

Financial concerns are also highly connected to work concerns, as many participants were employed during the course of this study. One participant stated, "I can't afford to take the time off, and I have to feed my kids and take them to daycare and back. I don't have any financial concerns, because at present, my employer is paying for any courses I take at about 90% refund rate…" (Male, age 38). Nevertheless, the same respondent continued, saying, "I am not taking courses at the moment because I'm in a seconded position, which will end Aug 2012. The future of my employment past Aug 2012 depends on whether or not I'll engage in further studies." The intertwined nature of work and studies are quite apparent in this participant's response; his ability to study is affected by his finances, which is affected by his employment, which is in turn affected by his studies. Another participant stated "I plan on completing my degree when my work schedule permits…" (Female, 38). This respondent further added that, "as a part-time mature student, my employment comes first, and my studies come second since I need to finance my day-to-day living plus education."

Lastly, family concerns were apparent. Two responses demonstrate the considerations involving family that mature students often make when determining whether to return to study: "I plan to back to school [sic] to finish my post-secondary study this September after my baby's delivery" (Female, age 38) and "I plan to continue my studies at a later date…when my child is a bit older and my attention will not be torn" (Female, age 49). Another respondent stated that "there are various competing responsibilities that present challenges to completing consecutive and successive educational goals…compared to my educational goals, those other responsibilities take precedence…"(Female, age 49). Many mature students are in a position where they are not only a student but also a caregiver.

This analysis clearly demonstrates that mature students face unique challenges in ability to pursue post-secondary study. Several participants stated that they would appreciate having more variety in terms of course offerings (e.g., part-time degrees and distance education courses). With the many roles that a mature student takes on it can be difficult for them to attend classes which are offered only during "regular business hours." Another interesting concept that came up throughout the analysis was the idea that learning changes over time. Many respondents suggested that they thought it would be easy to return to school as they had done well previously; however, they found that, when they enrolled and began to take classes, it was much more difficult than they had originally assumed. There also appear to be some issues with course prerequisites and transfer courses, as some individuals had taken the prerequisites for a course a number of years previously and found that they had forgotten most of the important information. It is clear that mature students face unique challenges in their studies and this is an area of education that requires further research and study.

7. Results – Supports provided to mature students by institutions

While the proportion of mature undergraduate students in Ontario higher educational institutions is highly variable, mature students represent a distinct and not insignificant population. In Ontario, full-time mature students represent from 2% to 21% of enrolment in universities and 17% to 43% in colleges (refer to Tables 3 and 4, respectively). As the enrolment figures do not include part-time students, the overall proportion of mature students on post-secondary campuses is likely higher since mature students are more likely to study on a part-time basis than traditional students (as demonstrated for student parents as a subset of mature students; van Rhijn, Smit Quosai, & Lero, 2011). Indeed, part-time enrolment figures demonstrate that mature students make up from 24% to 78% of part-time university students in Ontario (Table 5; comparable figures are not available for Ontario colleges). The growing presence of mature students enrolled in Ontario post-secondary institutions has led to most universities and colleges providing information and supports to accommodate their needs. Accessibility to information regarding higher education institutions' admission policies, supports, and financial aid, is crucial to both current and potential students, particularly mature students. As the use of technology increases, exploring institutional websites is a common way for students to acquire information about potential post-secondary institutions and the resources they provide.

One of the objectives of this study was to examine the nature of institutional supports available to mature students. A document analysis of information available on public websites hosted by Ontario's public universities and colleges was conducted. Only English-language universities (*n* = 23) and colleges (*n* = 19) were included in the document analysis (excluded Hearst, La Cite). Institutional websites were explored to locate policies and procedural webpages and documents that were considered particularly relevant to mature students. These pages included admissions and enrolment policies, financial assistance, student supports, child care, and health and wellness supports dedicated to mature students. Using the search function on each institution's homepage, the term "mature student" was used to collect information. Additional search terms were added as needed, such as "scholarship," "support," and "child care" to supplement the initial search term. A spreadsheet was constructed by recording the following information about available policies and supports for mature students:

- Page number of the search results where information was found,
- Type of policy or support for mature students,
- Name of the support available,
- The URL, and
- A brief description of the policy and/or support.

A content analysis was conducted to determine the relevance and accessibility of institutional supports for mature students. Documents were critically analyzed to better understand how accessible current institutional information, programs and supports are to mature students.

This section provides an overview of the institutional policies and supports available to mature students on Ontario post-secondary institutional websites. Most searches on institutional websites for "mature students" yielded results that were dedicated to this group of students; however, these searches were often confusing, time-consuming, and frustrating. One key finding for this study relates to the variability

in the level of availability, accessibility, and appropriateness of information for mature students within and between universities and colleges. The following section summarizes information available for mature students on university and college websites about (a) admission and enrolment policies, (b) financial resources, (c) academic and social supports, and (d) child care supports.

a) Admission and enrolment policies for mature students

All Ontario universities and colleges had information about admission policies and procedures for mature students on line. Most Ontario institutions have a separate admissions pathway for mature students, in addition to the typical admissions pathway. The mature student pathway accommodates older applicants who either (a) some higher educational experience (college or university), (b) had never been enrolled in college or university before, or (c) had been out of the formal education system for several years.

With few exceptions, age was explicitly included in universities' definition of a mature student (Table 6). Typically, the minimum age for mature students was 21 years. Some universities did not define mature students by age, but rather by their lack of previous university enrolment (e.g., Carlton, Dominican, Guelph, Lakehead, Queens, Ottawa, and Waterloo).

Other requirements for admission for universities included the number of years mature students had been out of the formal education system. Most universities required mature students to have been out of the formal education system for a minimum of 1-5years. Seven universities required mature students to have been out of high school for a minimum of 1- 2 years. Other universities required mature students to have never attended university (n = 5) or to have been enrolled previously for less than a full year (n = 2). Most universities also required mature students to include a CV/résumé, and a letter outlining their learning and career goals. Some universities also required specific supplemental documentation and transcripts.

In colleges, admission policies defined mature students as being 19 years or older (Table 7). Lacking the Ontario secondary school diploma (OSSD) or its equivalent, or holding the OSSD, but not the required credit units for regular university admissions were also included in admission criteria for mature students. Almost half of the colleges also required an assessment or evaluation for admission.

The University of Toronto was the only institution that did not have a separate mature student admission pathway. All University of Toronto applicants are admitted through the same admission process. For those who do not meet the admission requirements, applicants may apply through the Academic Bridging Program or Transitional Year Program.

b) Financial aid for mature students

Ontario universities and colleges typically have a separate page dedicated to scholarships and bursaries for all students. At some institutional websites, access to the financial aids webpage was available through mature student resource portals or separate sections were dedicated to mature students on the institutions' webpage for scholarships and bursaries, this was not always the case. In total, 12 universities and 11 colleges (or roughly half of Ontario's higher education institutions) have some

information about scholarships and bursaries available to mature students on their web pages. Accessing information about scholarships and bursaries for mature students usually required extra time to search institutions' financial aids webpages. Overall, the proportion of financial resources and support available to mature students entering post-secondary institutions was minimal in comparison to available awards/bursaries for traditional students. Eligibility for university scholarships and bursaries were based on specific criteria, such as enrolment in specific colleges or departments, gender, or living with disabilities (Table 8). College scholarships and bursaries were not always specifically for tuition, but included covering child care and/or transportation (Table 9).

Although some entrance scholarships and bursaries do not explicitly exclude mature students from eligibility, some eligibility requirements may implicitly exclude mature students. For example, scholarships that require that recipients must have been registered for full-time studies may exclude mature students who change their enrolment status throughout the academic year.

To demonstrate how mature students may search for institutional financial resources, incoming students at one University would have to access information about scholarships and bursaries through the Scholarships/Awards/Bursaries webpage, click on Entering Student and then follow instructions to apply for entrance scholarships. For current and continuing students, searching for awards/bursaries becomes more intensive. On the Scholarships/Awards/Bursaries page, students would have to click on the link for Awards for Specific Groups, and then select the appropriate Faculty link and/or Criteria/Group-specific link. Under Criteria/Group-specific Awards, "mature student" is not listed. However, "Part-time / OPUS" awards may apply to mature students, as the eligibility requirements often require students to be a "registered part-time student", meet a minimum cumulative GPA, or to have completed a minimum number of credits.

c) Academic and social supports for mature students

Orientation sessions for incoming students typically include information about available academic and support services on campus, a campus tour, and a meet and greet session. Less than half of universities offer an orientation for mature students at the beginning of the academic year (Table 8). Although most of these orientations take place on a weekday, a few were offered on weekday evenings or on weekends An exception to the traditional orientation sessions for incoming students is the New Student Transition program, offered at Nipissing University. This program offers incoming mature students an all-day appointment tailored to the student's study program. Additionally, Nipissing hosts online workshop seminars that help support mature students in making the transition to student life. A few universities also offer workshops (n =3), events (n = 2), or other resources (n = 6), such as newsletters, webpages or video information to support mature students throughout their academic careers (Table 8). University-organized workshops for mature students tend to focus on learning skills, exam preparation, or familiarization with computers/technology (e.g., OCAD).

Eight universities also have student-led mature students associations. These associations sometimes organize academic, career and social workshops and events; provide mentorship; and provide information about campus services and supports. Some mature student associations also have a physical

space on campus where mature students can study and socialize with one another. York University, for example, has three campus associations for mature students.

Five colleges offer orientation sessions for mature students at the beginning of the academic year, as well as sessions throughout the year (Table 9). A few colleges (*n* = 2) also offer workshops. Cambrian College offers workshops designed to support mature students with disabilities with their studies. Fleming College, on the other hand, offers general workshops to address student concerns, such as choosing a study program, options for financial resources, and study supports. Several colleges (*n* = 6) offer events throughout the year that range in activities. Some events are more social (e.g., Niagara's "Dessert in the Vineyard"), while others are informative (e.g., Centennial offers panel events to discuss second careers). Five colleges also offer a range of various documents (articles, books, fact books, guides) or online information for mature students (*n* = 5).

Loyalist College offers a range of supports that recognize the needs of mature students, including a mature students association and an orientation for mature students. The student organization assists and supports mature students throughout their academic career, offering information, a place to socialize with other mature students, and other supports to enhance their academic experience. "Return to Learn" events are also held at Loyalist, where individuals can book appointments during the day or evening with a college advisor to discuss opportunities and/or issues in their studies and for career advice.

d) Child care on campus

Information about child care services could be found on a majority of post-secondary institution websites (15 universities, 8 colleges; see Tables 10 and 11, respectively). Accessing this information was usually through a resource page for mature students (university or student association), through search results on the institutional webpage for "mature student support" or "child care". Although most of these results led directly to information about a child care centre, individual items of information (e.g., registration/fees; eligibility of child; hours of operation) required further exploration. While several child care centres listed this information on their website, many child care centres did not provide this information. For further information about registration and child care fees, students would have to contact the centre (via email, phone, or in person). In almost all cases, applications for a fee subsidy for low-income parents are submitted separately to a local municipality. Parents may find themselves on a waiting list for a space in a child care centre, for a subsidy or for both. Most on-campus child care centres included their philosophy/curriculum approach; staff to child ratios; the location and hours of operation; eligibility of children based on age; and preference or prioritization given to students or employees from the institution. Additionally, a few institutions (e.g., Centennial, Guelph, Seneca, Waterloo, Western, and York) offer more than one child care facility on campus. Some of these also function as a learning and training laboratory for students enrolled in Psychology, Early Childhood Education, etc.

All on-campus child care centres prioritize student parents and faculty/staff. Some also provide spaces for community members/referrals (4 universities; 3 colleges). Many child care centres listed whether or not they offered part- or full-time child care; programs for a range of age groups (from infants to school-

age children); and before and after school programs on a part- or full-time basis. Many institutions with on-campus child care also provide access on their webpage or a direct link to information about off-campus community child care centres. A few institutions do not offer on-campus child care, but offered referral services to community child care centres or caregivers/nannies (e.g., Loyalist, Ryerson, and University of Toronto).

As noted earlier, child care centres offer early childhood development programs designed for specific age groups. The majority of on-campus child care centres accept toddlers to preschoolers, although, some also accept infants (0-12 months; 8 universities, 4 colleges) and others accept school-age children (5-12 years; 3 universities, 3 colleges). Most centres are open 12 months out of the year, but some are only open during the academic year (Sept to Apr). The majority of on-campus child care centres are open only on weekdays (e.g., 7:30am to 6:00pm), although a few child care centres open a little later in the morning (e.g., 8am or 9am). Only one institution, Lakehead, offered evening hours. A few child care centres offer some flexibility to accommodate student parents' class schedules (e.g., George Brown). Algoma University was the only one that offers child care during student orientations.

8. Discussion and Conclusions

This project employed a mixed-methods approach to investigate various factors influencing mature student retention, pathways, and institutional supports. Four specific research activities were undertaken. First, a statistical analysis was conducted using recently collected longitudinal data on mature students to determine the extent to which demographic, psychological, institutional and social factors influence the persistence of mature students in post-secondary study. For this analysis, logistic regression was used to predict whether participants continued their studies or withdrew from a subsequent semester. Second, a thematic analysis of text responses from responses to open-ended questions was conducted to examine the reasons why mature students did not enrol in a subsequent semester. Third, another thematic analysis was conducted to investigate mature students' plans for continuing their studies in the future among those who had withdrawn from study (i.e., did not enrol in a subsequent semester). Fourth, a content analysis was conducted of available of information that is pertinent to mature students by accessing information that was available on publicly available websites at Ontario's public universities and colleges. The focus of this analysis was on current institutional policies and programs and their relevance and availability to mature students.

In terms of predicting withdrawal, the logistic regression model was better at predicting individuals who continued in their study than those who withdrew in a subsequent semester. Nevertheless, the analysis provided some insight into factors related to withdrawal. Three variables were significant predictors of withdrawing: part-time enrolment status, school satisfaction, and tension managing multiple roles. Participants who were studying on a full-time basis were less likely to withdraw in subsequent semesters. This is likely related to better supports available to those studying full-time, including access to financial resources/aid. Additionally, mature students studying on a part-time basis are more likely to be working in addition to attending school. The additional demands experienced when working as well as dealing with family and school responsibilities likely result in greater challenges negotiating multiple

role demands, sometimes resulting in the decision to enrol part-time, sometimes resulting in the decision to withdraw from study, at least temporarily. These patterns were evident not only in the statistical analysis, but also in students' stated reasons for withdrawing (see below).

School satisfaction was also a significant predictor in that mature students who were more dissatisfied with their schooling were more likely to withdraw. School satisfaction has been found to be related to a number of other relevant factors including academic self-efficacy, ability to balance school and family roles, and overall satisfaction with life (for student parents; van Rhijn & Lero, 2014) as well as perceived program fit (MacFadgen, 2008). Mature students who are more satisfied with school may also feel motivated to attend school, and enjoy their studies and find them relevant to their goals and interests, in addition to believing in their ability to be successful (i.e., academic self-efficacy, ability to balance their roles).

Tension managing multiple roles was the final significant predictor of withdrawal. Paradoxically, individuals reporting greater tension between their family/life and school responsibilities were less likely to withdraw. It may be that mature students anticipate the greater levels of tension that they will experience when adding the school role and are proactive in time management and priority setting behaviors. Work-family research has demonstrated that adding roles can have positive impacts (Ahrens & Ryff, 2006; Barnett, 2008); however, there may be limits to the amount of tension that is protective. This finding requires further investigation to better understand the role of tension in the experiences of mature students.

When these mature students identified their reasons for withdrawing, the top three reasons were finances, family responsibilities, and employment (each identified by over 25% of those who withdrew). Further investigation demonstrated that reasons for withdrawing from study fell into two main themes, involuntary and voluntary withdrawal. Involuntary reasons were beyond the participant's control and included reasons such as health issues, caregiving responsibilities, financial constraints, employment-related challenges that conflicted with school attendance, and institutional issues related to class scheduling/availability as well as perceived lack of support. Voluntary reasons cited by mature students included taking planned breaks from school for leisure or family reasons, and participating in field placements related to their studies (e.g., internships, co-operative work terms, practicum). Some mature students also chose to take a break from their studies in order to evaluate whether they wanted to continue based on the timing of their studies, whether their studies were relevant, and sometimes due to poor academic performance.

When asked about their plans for returning to study, a large majority of participants (89.6%) said that they planned to continue their studies in the future. These participants were classified as "withdrawers" for this project because of their failure to enrol in a subsequent semester; however, based on these findings, it appears that some mature students choose to take a period of time off and then return as an alternate pattern to full-time, continuous enrolment. This is an important distinction as it may suggest that findings demonstrating higher attrition rates among mature students (e.g., Carney-Crompton & Tan, 2002; Holmes, 2005; MacFadgen, 2008; Scott, et al., 1996) may be inflated. While we are unable to determine whether or not these mature students ultimately did return to study, this finding demonstrates that their intention is to do so. It is important that we begin to understand that mature

students may not follow the simpler, more linear pathways that are typical of traditional students. Instead, mature students may take a more circuitous route as they respond to their individual needs by "stopping out" for a period of time with full intentions of completing their studies eventually rather than fully "dropping out."

Our policy analysis of the Ontario university and college websites provided insight into the availability and relevance of institutional policies and programs and information about them for mature students. We focused on four specific areas for this analysis which included admission and enrolment policies, financial resources, academic and social supports, and child care supports.

With regards to admission and enrolment policies, there are three salient factors in determining whether applicants to a university or college should apply through the traditional pathway or through the mature student pathway: Age, length of time away from formal education, and previous enrolment at a university/college. Although most universities and colleges have set a minimum age for mature student applications (19 or 21 years old), the length of time away from formal education also matters (e.g., minimum of 1-5 years). If students were previously enrolled in a university or college program, it must have been for less than a full year or its equivalent in courses. For universities, there are slight differences in the minimum number of years away from formal education (e.g., 1-2 years away from high school, or 1-5 years away from formal education). For colleges, the differences in mature student requirements seem more specific to the program they are applying for. Overall, these differences seem arbitrary, especially with regards to university admission requirements. Standardizing admission requirements for mature students would make this information more accessible and less confusing. Additionally, it should be noted that although admission to Ontario colleges and universities through the mature student pathway is set at 19 and 21 years, collected data on mature students (e.g., as collected by Statistics Canada and in the MSES program of research) defines them as 25 years or older.

Despite the majority of colleges and universities having a mature student pathway for admission, some universities and colleges did not include specific resources and information on financial supports for mature students. Having a dedicated section on the institutional website related to financial supports available specifically to mature students would make this information easily accessible and appropriate.

We also note that eligibility requirements for student scholarships and bursaries, while not explicitly excluding mature students from applying or being considered for such awards/aids, can have that effect. Scholarships that reward students based on, on-campus leadership and registration as a full-time student, in addition to academic achievement, may be beyond the reach of most mature students. However, the academic trajectory for mature students typically does not follow the traditional student's trajectory, as mature students may change their enrolment status or take semesters/years off from academia to balance the needs of their personal and family life. This would exclude them from consideration for financial supports that base eligibility on full-time enrolment status, regardless of their academic achievements. Thus, although many student financial supports are deemed to be inclusive of all students, a majority of these scholarships and bursaries may not be attainable for mature students.

With increasing enrolment and participation of mature students at higher education institutions, it was surprising to see that there were not more universities or colleges offering orientations, workshops, and

other supports for incoming and current mature students. The information accessed on orientations for mature students were usually for ones that had been offered at the beginning of the current academic year (2014/15), and was typically restricted to a brief description of what information and/or events had been offered. Additionally, it seems that most orientations ranged from one day to one week, and were usually scheduled during week days/afternoons. Some universities scheduled orientation sessions during the evenings and weekends, but this was rare. Scheduling orientation sessions for mature students at various times (evenings) and on weekends may be more appropriate for this cohort of students. Also, only one university (Algoma) explicitly offered child care services during orientation sessions for mature students. Offering these kinds of services may also be helpful for mature students as it would remove a potential barrier/challenge to attending orientation sessions.

It may also be appropriate to develop and offer a diverse range of academic and social supports for mature students: In-person workshops and events may be useful for mature students, but also offering a range of online supports (from resource portals to webinars) may accommodate mature students who are unable to regularly be on campus.

Information about child care centres on campus was one of the better developed components of information available to mature students. The majority of universities offered on-campus child care facilities, but less than half of the colleges offered similar facilities. Some universities/colleges did not offer on-campus child care, but provided information and offered referral services to community child care centres, caregivers and nannies. On the other hand, this information was not designed specifically for mature students, but for the larger university community (student parents, faculty, and staff) and in several cases, the community in general.

a) Limitations

Several of the limitations of this study are related to the MSES dataset. These limitations include: 1) despite the broad recruitment strategy, mature students self-selected to participate resulting in a convenience sample; and, 2) participants in the MSES are from four universities in southern Ontario, limiting our ability to generalize to the broader population as well as mature college students. As previously mentioned, the uneven sample sizes for the logistic regression limited our ability to predict withdrawal. While this works adds to an area where there is a paucity of research (i.e., investigation of mature student attrition through the use of longitudinal data), there is need for future longitudinal work to examine this research area more fully. Furthermore, it is rare to find research examining reasons for leaving study. Scott, Burns & Cooney (1996) is the only other study we found that investigated reasons that mature students leave study; however, their work only examined those who withdrew and didn't follow longitudinally to determine predictors of withdrawal. Finally, the policy analysis focused only on public university and college websites in Ontario. While these websites are the primary way that prospective and current students find information on supports, our investigation was limited by our ability to search the websites and, therefore, may have missed some available supports. Nevertheless, we did find the accessibility of information to mature students on these websites to be limited and many of the websites were difficult to navigate, especially related to information specific to mature learners.

b) Conclusions

The number of individuals returning to seek higher education after establishing a career and starting a family is growing steadily (Carney-Crompton & Tan, 2002; Kerr, 2011). This trend reflects the need to retrain and/or to upgrade knowledge and skills in order to adjust to a volatile labour market, ensure continuing employment, and support career advancement. Concerns about a shrinking labour force that evidences a skills-jobs mismatch add to the priority being given to ensure that workers have access to PSE programs as a critical resource for their own future and as a tool to promote employment and economic prosperity across the province (Kerr, 2011). Barriers to access are important considerations for policy makers, but barriers to program completion are another concern – ones that can have costly repercussions for individuals, families, institutions, and the province. Successful completion of PSE programs is crucial for adults who potentially would otherwise be stuck in low-paying jobs and/or precarious employment with little chance of career advancement. PSE has been identified as particularly important in poverty reduction strategies and for allowing displaced workers to retrain for other positions, demonstrating recognition of PSE's role in a comprehensive labour market strategy. PSE credentials are also important for newcomers to Canada whose economic and social integration are affected by extending opportunities to successfully complete a relevant degree.

Given the importance of PSE for these reasons and others, the fact that mature students, despite their motivation, are more likely to withdraw from study than traditional students (Carney-Crompton & Tan, 2002; Holmes, 2005; MacFadgen, 2008; Scott et al., 1996) is an issue that should not be ignored. Addressing these barriers is an important goal that is likely to significantly increase the return on investments of individuals, governments, and institutions and reduce both the direct and indirect costs to society that may otherwise result (Charlton, Barrow, & Hornby-Atkinson, 2006). Furthermore, there is a need for universities and colleges to recognize this unique population of students as part of their commitment to diversity within their post-secondary populations and as a population to target for future enrolment.

In this research project, we examined factors influencing mature student retention and explored the possibility that mature students may follow alternate pathways on their path to degree completion. This investigation suggests that mature learners may withdraw from their studies for a number of factors including competing pressures, financial limitations, and potential lack of fit with future goals; however, attrition statistics may be inflated and mask alternate pathways selected by some mature students as a way to manage financial costs and negotiate multiple role demands, especially related to employment and the care of children or other family members. While some Ontario universities and colleges provide accessible and relevant information and important resources to support student success and a welcoming environment, others have not yet oriented to the needs of this discrete group. Accessible, relevant information and effective supports would be beneficial to current (and prospective) mature students and would help post-secondary institutions provide an environment that supports their success.

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Table 1. *Sample Characteristics*

	Total (*N* = 1537)			Continue (*n* = 1371)			Withdraw (*n* = 166)			
	n	Mean/ %	SD	*n*	Mean/ %	SD	*n*	Mean/ %	SD	*p*
Age	1510	37.2	10.2	1344	36.8	10.0	166	39.9	11.1	
Gender (female)	1100	72.0		976	71.6		124	75.6		
Partner status (partnered)	720	47.6		621	46.0		99	60.7		***
Dependent child[a]	456	29.7		404	29.5		52	31.3		
Enrolment status (full-time[b])	861	56.2		826	60.3		35	21.3		***

*p < .05. **p < .01. ***p < .001.

Note. Group numbers vary due to missing data. Significance tests conducted as follows: Independent samples t-tests used for continuous variables and Pearson chi-square difference tests used for categorical variables.

[a] Participants had at least one dependent child under the age of 18 living with them.

[b] Full-time status defined according to Canada Student Loans Program requirements of 60% or greater of a full course load.

Table 2. *Summary of Predictors Entered into Logistic Regression Model to Predict Withdrawal*

Predictor	B	SE B	Wald's χ^2	df	p	Odds Ratio (OR)	95% CI for OR Lower	Upper
Current age	-.01	.01	.89	1	.35	.99	.97	1.01
Gender[a]	-.10	.22	.23	1	.63	.90	.59	1.38
Partner status[b]	.41	.22	3.42	1	.07	1.50	.98	2.31
Presence of children[c]	-.08	.22	.13	1	.72	.93	.60	1.42
Employment	.01	.01	.55	1	.46	1.01	.99	1.02
Family income	.11	.11	.89	1	.35	1.11	.89	1.39
Depression	-.00	.01	.01	1	.92	.99	.98	1.02
Enrolment status[d]	-1.60	.27	36.31	1	.00	.20	.12	.34
School satisfaction	.40	.10	16.54	1	.00	1.50	1.23	1.81
Perceived stress	.01	.02	.08	1	.78	1.01	.97	1.05
Tension	-.13	.05	6.37	1	.01	.88	.80	.97
Constant	-2.23	.73	9.26	1	.00	.18		

[a]Dichotomous variable: 0 = female, 1 = male
[b]Dichotomous variable: 0 = single, 1 = partnered
[c]Dichotomous variable: 0 = no children, 1 = children
[d]Dichotomous variable: 0 = part time, 1 = full time

Table 3. *Students 25 Years and Older in Full-time University Study by Institution – Fall 2012[a]*

Institution	Total Enrolment	Students 25 years and older – Number	Students 25 years and older – %
Algoma University	905	192	21%
Lakehead University	6,234	1,206	19%
Laurentian University	6,205	1,009	16%
University of Ottawa	28,076	4,205	15%
York University	37,706	5,746	15%
University of Windsor	10,934	1,504	14%
Nipissing University	3,643	469	13%
University of Toronto	50,338	6,475	13%
OCAD University	3,220	394	12%
UOIT	7,680	943	12%
Ryerson University	20,183	2,105	10%
Trent University	5,902	607	10%
Western University	26,783	2,630	10%
McMaster University	20,535	1,829	9%
Carleton University	17,744	1,493	8%
Brock University	13,656	925	7%
Queens University	16,332	1,221	7%
University of Waterloo	20,395	830	4%
University of Guelph	21,278	728	3%
Wilfrid Laurier University	14,677	5,746	2%

[a]Headcount, eligible for funding, full-time students, including affiliated schools' enrolment. Data provided by the Ontario Ministry of Training, Colleges and Universities.

Table 4. *Students 25 Years and Older in Full-time College Study by Institution – Fall 2012[a]*

Institution	Total Enrolment	Students 25 years and older – Number	Students 25 years and older – %
Northern College	1,035	446	43%
Centennial College	13,316	4,569	34%
Confederation College	3,226	948	29%
George Brown College	17,253	5,021	29%
Lambton College	3,484	980	28%
Seneca College	19,837	5,258	27%
St. Clair College	8,058	2,087	26%
Sault College	2,359	615	26%
Mohawk College	12,165	2,987	25%
Canadore College	2,552	610	24%
Cambrian College	4,659	1,091	23%
Conestoga College	10,461	2437	23%
Humber College	23,133	5299	23%
Loyalist College	2,796	641	23%
St. Lawrence College	5,964	1,364	23%
Algonquin College	16,068	3,589	22%
College Boreal	1,564	340	22%
Georgian College	9,687	2,052	21%
Niagara College	8,636	1,794	21%
La Cite College	4,427	846	19%
Sheridan College	17,106	3,288	19%
Sir Sanford College	5,787	1,089	19%
Fanshawe College	14,228	2,604	18%
Durham College	8,819	1,510	17%

[a]Headcount, eligible for funding, full-time students, including affiliated schools' enrolment. Data provided by the Ontario Ministry of Training, Colleges and Universities.

Table 5. *Students 25 Years and Older in Part-time University Study by Institution – Fall 2012[a]*

Institution	Total Enrolment	Students 25 years and older – Number	Students 25 years and older – %
Laurentian University	2,039	1,596	78%
Algoma University	262	156	60%
University of Waterloo	1,150	687	60%
Lakehead University	948	505	53%
Western University	2,210	1,142	52%
UOIT	453	235	52%
Brock University	1,796	892	50%
Ryerson University	14,082	7,010	50%
York University	6,805	3,301	49%
Trent University	1,155	508	44%
University of Toronto	5,988	2,617	44%
University of Windsor	1,980	864	44%
Carleton University	3,700	1,441	39%
University of Ottawa	4,934	1,907	39%
McMaster University	3,011	1,138	38%
OCAD University	900	294	33%
Nipissing University	1,576	496	31%
Queens University	983	276	28%
University of Guelph	2,544	668	26%
Wilfrid Laurier University	2,121	518	24%

[a]Headcount, eligible for funding, part-time students, including affiliated schools' enrolment. Data provided by the Ontario Ministry of Training, Colleges and Universities.

Table 6. *University Definitions of "Mature Student" for Admission Purposes*

| Institution | Age | Years out of school | | | Not eligible for admission? | Other requirements | | |
		High school	University / college experience	Formal school / PSE		Bio / Goals / CV	References	Transcripts
Algoma	21 yrs	1 yr	< 1 yr	-	-	Résumé	Y	Y
Brock	21 yrs	2 yrs	-	-	-	-	-	Y
Carleton	-	-	Not as a FT student	2 yrs	Y	Biographical information, and completed required prereqs.	-	Y
Dominican College	-	-	-	2 yrs	-	-	-	-
Lakehead		2 yrs	Never attended	Or, less than 1 yr of community college	Y	Audition and Theory Test (Music Applicants only). Art Portfolio (Visual Arts applicants only)	Y (Nursing transfer only)	Y
Laurentian	21 yrs	1 yr	-	1 yr	Y	Letter outlining the reasons for pursuing university studies. Résumé /CV.	-	-
McMaster	-	2 yrs	Never attended	-	-	-	-	-
Nipissing	20 yrs	-	-	2 yrs	Y	-	-	Y
OCAD	21 yrs	-	-	-	-	-	-	-
Queens	-	-	-	5 yrs	No high school diploma or equivalent; Does not have sufficient academic courses	-	-	-
Royal Military College	21 yrs	-	-	-	Y	Letter. Résumé requires "Military Occupation Classification" qualified member of the Cdn forces; Employee of the DND or spouse of a member of the Cdn Forces.		Y

| Institution | Age | Years out of school | | | Not eligible for admission? | Other requirements | | |
		High school	University / college experience	Formal school / PSE		Bio / Goals / CV	References	Transcripts
Ryerson	21 yrs	-	-	2 yrs	-	Letter specifying ambitions, goals, work experience, and detailed year-by-year outline of activities in/out of formal education	-	Y
Trent	21 yrs	-	-	2 yrs	Y	Mature student supplementary application. Résumé. Course descriptions from other univ/coll attended.	Y	-
Guelph	-	2 yrs	Never attended	-	-	-	-	-
Hearst	-	-	-	-	-	-	-	-
Institute of Technology	21 yrs	2 yrs	Never attended		Y	OUAC 105 application	-	Y (Ont. institutions)
Ottawa	-	-	-	2 yrs	-	"Hold promise of academic success." Meets requirements of faculty/dept.	-	-
Toronto	-	-	-	-	Y	May apply via Academic Bridging Program or Transitional Year program, if applicant does not meet admission requirements	-	-
Waterloo	Varies by faculty	Varies by faculty	Never attended	-	Y	Varies by faculty	-	-
Windsor	21 yrs	-	-	2 yrs	Y May have completed OSSD.	Applicants who have no completed the OSSD or equivalent must submit a student profile.	-	Y
Western	21 yrs	4 yrs	-	-	Has not completed OAC/12U courses.	-	-	-
Wilfrid Laurier	-	-	-	-	-	-	-	-
York	21 yrs	2 yrs	< 1 yr	-	-	Résumé. Letter (1-2 pgs) outlines reasons, goals, skills, and activities. Explanations/ documentation for poor academic performance. Faculty/program specific requirements.	-	Y

Table 7. *College Definitions of "Mature Student" for Admission Purposes*

Institution	Minimum age	Does not have OSSD / equivalent	Assessments / Testing	Other	Transcripts
Algonquin	19 yrs	Y	Evaluation of academic potential	-	-
Cambrian	19 yrs	Y	Mature student assessment	-	-
Canadore	19 yrs	Y	Mature student testing	May have OSSD, but missing necessary subjects.	-
Centennial	19 yrs	-	-	-	-
Boreal	-	-	-	-	-
Conestoga	19 yrs	Y.	-	-	-
Confederation	19 yrs	Y	Mature student assessment	-	-
Durham	19 yrs	Y	-	-	-
Fanshawe	-	-	-	-	-
Fleming	19 yrs	Y	Math and English testing	-	-
George Brown	19 yrs	Y	Admission test, questionnaire to demonstrate skill and aptitude for program.	Demonstrate evidence of ability to manage requirements for a degree. Possesses prereq. Subjects. Interview.	-
Georgian (diploma)	19 yrs	Y	-	-	-
Georgian (degree)	21 yrs	-	-	Must not have been enrolled in formal education for at least 1 yr. No recent unfavorable academic performances. Demonstrates potential for success through academic accomplishment	-
Humber (diploma)	19 yrs	-	-	Has not attended PSE.	-
Humber (degree)	21 yrs	-	-	Did not graduate from secondary school with required 12U (M, U/C) or OAC credits. Away from secondary school for ≥2 yrs. Has not attended PSE.	-
Lambton	19 yrs	-	Mature applicant testing	Out of secondary school ≥ 1 yr.	-
Loyalist	19 yrs	Y	Diagnostic test	-	-

Institution	Minimum age	Does not have OSSD / equivalent	Assessments / Testing	Other	Transcripts
Mohawk	19 yrs	-	-	Not in secondary school	Y
Niagara	19 yrs	Y	Pre-admission testing.	Course portfolio. Written statement. Audition.	
Northern	19 yrs		Academic testing or upgrading.	-	-
St. Clair	19 yrs	Y	Admissions test (math and/or English)	-	-
St. Lawrence	19 yrs	Y	-	Provide credits for Gr. 12 English and Gr. 11 math.	-
Sault	19 yrs	Y	-	-	-
Seneca	19 yrs	Y	-	-	-
Sheridan	19 yrs	Y	-	-	Y

Table 8. *Academic and Financial Supports for Mature Students by University*

Institution	Financial assistance			Notes	Support			
	# of scholarships	# of bursaries	Other		Financial aid	Academic Orientations	Events	Workshops / Webinars
Algoma	1	-	-	-	-	Y	-	-
Brock	1	4	2	-	-		Y	
Carleton	-	1	-	-	-	Y	-	-
Dominican College	-	-	-	-	Tuition reduced by 50% (adults aged 60+ yrs)	-	-	-
Lakehead	1	3	1	-	-	-	-	-
Laurentian	-	1	-	-	-	-	-	-
McMaster	-	-	-	Available to all registered students who apply/ meet eligibility requirements	-	-	-	-
Nipissing	-	1	-	For mature student with documented learning disability	-	Y	-	Y
OCAD	-	-	-	None specifically for mature students.	-	-	-	
Queen's	-	1	-	For Engineering & Applied Science student applicants.	-	-	-	-
Royal Military College	-	-	-	-	-	-	-	-
Ryerson	-	-	-	-	-	-	-	-
Trent	-	-	-	-	-	-	-	-
Guelph	2	-	-	Both scholarships are college-specific	-	Y	-	-
Institute of Technology	-	-	-	Scholarships / bursaries do not specifically exclude mature students	-	-	-	Y

Institution	Financial assistance			Notes	Support			
	# of scholarships	# of bursaries	Other		Financial aid	Academic Orientations	Events	Workshops / Webinars
Ottawa	-	-	-	-	-	-	-	Y
Toronto	1	-	-	-	-	-	-	-
Waterloo	3	-	-	For students who "have been away from formal education for a number of years."	-	-	-	-
Windsor	1	1	-	Scholarship is for female mature student. Bursary (award) prefers mature student or sole parent.	-	Y	Y	-
Western	4	-	-	-	-	Y	-	Y
Wilfrid Laurier	-	-	-	-	-	-	-	-
York	10	-	-	Entrance awards	-	Y	-	-

Table 9. *Academic and Financial Supports for Mature Students by College*

| Institution | Financial assistance | | | Notes | Support | | | |
	# of scholarships	# of bursaries	Other		Financial aid	Academic Orientations	Events	Workshops / Webinars
Algonquin	1	-	-	-	Y	-	-	-
Cambrian	-	-	1	OSAP Bursary for students who incur child care costs	-	-	Y	Y
Canadore	-	1	1	Financial support for child care and transportation	-	-	-	-
Centennial	-	-	-	-	-	-	Y	-
Boreal	-	-	-	-	-	-	-	-
Conestoga	-	-	-	-	-	Y	-	-
Confederation	1	-	-	For student enrolled in Skilled Trades Centre	-	-	Y	Y
Durham	-	-	-	-	-	-	Y	-
Fanshawe	-	-	-	-	Y	-	-	-
Fleming	-	3	-	-	-	-	-	Y
George Brown	-	-	1	Offers scholarships/bursaries, by college. OSAP child care bursary plan, part-time students.	Y	Y	-	-
Georgian	-	-	-	-	-	-	-	-
Humber	2	-	-	-	-	Y	Y	-
Lambton	-	-	-	-	-	-	Y	-
Loyalist	-	1	-	-	-	-	-	Y
Mohawk	1	-	-	External award.	-	-	-	-
Niagara	-	-	-	-	-	-	Y	-

Institution	Financial assistance			Notes	Support			
	# of scholarships	# of bursaries	Other		Financial aid	Academic Orientations	Events	Workshops / Webinars
Northern	-	-	-	-	-	-	-	-
St. Clair	1	-	-	-	-	-	-	-
St. Lawrence	-	-	-	-	-	-	Y	-
Sault	-	-	-	-	-	-	-	-
Seneca	-	-	-	-	-	Y	-	-
Sheridan	Y	-	-	Full-time study required.	-	-	-	-

Table 10. *Child Care Supports on University Campuses*

Institution	Hours of operation	Eligible children (Age)	Available for students, staff, faculty	Full-time fees
Algoma	During orientations sessions	-	-	-
Brock	7:30am – 6:00pm	3 mo - 5 years	Students, staff, faculty Community	Infants: $211.65/wk Toddlers: $185.20/wk Preschool: $158.75/wk
Carleton	8:00am – 5:45pm	6 mo – 5 yrs	Students, staff, faculty	Call for more info
Dominican	-	-	-	-
Lakehead	7:45am – 5:45pm 6:00pm – 10pm	0 - 12 yrs	Staff, faculty	Infants: $62/day Toddlers: $44/day Preschool: $39/day Kindergarten: $38/day School age: $36/day Evening: $24/day
Laurentian	7:00am – 5:30pm	0 - 12 yrs	Laurentian employees and students and employees at Northern Ontario School of Medicine and Health Sciences	-
McMaster	-	18 mo - 5yrs	-	Call for info
Nipissing	-	-	-	-
OCAD	-	-	-	-
Queens	-	-	-	-
Royal Military	-	-	-	-
Ryerson[a]	-	-	-	Call for info
Trent	7:30am-6:00pm 5:30pm during the summer	6 wks – 12 yrs	1/3 for faculty 1/3 for students 1/3 for community	Call for info
Guelph (Child Care and Learning Centre)	7:30am-5:30pm	1 - 5 yrs	-	Call for info

Institution	Hours of operation	Eligible children (Age)	Available for students, staff, faculty	Full-time fees
Guelph (Campus Child Care Cooperative	7:30-5:30pm	3 mo – 4.5 yrs	-	Infants $58.03/wk Toddlers $45.35/wk Presschool $42/84
Institute of Technology (also serves Durham)	6:30am-6:30pm	1 – 5 yrs	Students, staff, faculty	Infants $898/mth Preschool $850/mth Jr/Sr K $450/mth March break/PA days $45/d
Ottawa	-	-	-	-
Toronto[a]	-	-	-	Call for info
Waterloo (Early childhood education centre)	9:00am-11:30pm 1:00pm-3:30pm	2.5 – 5 yrs	-	Check website for program and fees
Waterloo (Bright Starts Co-operative)	7:30am-5:30pm	-	-	Call for info
Waterloo (Kids & Company)	7:00am-6:00pm	3 mo. – 6 yrs	-	Call for info
Windsor		16 mo – 6 yrs	Students, staff, faculty	Call for info
Western (UCC Flexible Child Care)	7:30am-6:00pm	3 mo – Preschool	Students, staff, faculty Community	Flex care $8/hr Call for info
Western (University Laboratory Preschool)	7:30am – 6:00pm	1 – 5 yrs	Students, staff, faculty	Check website or call for info
Wilfrid Laurier University	-	-	-	-
York University (York University Co-op Daycare)	8:00-6:00pm 7:30-8:00am (pre-care)	0-10 yrs	Students, staff, faculty, community	Infants $62.21/day Toddlers $54.48/day K (before and after)$ 35.30 School age $25.75
York University (Lee Wiggins Child Care Centre)	8:00am-5:30pm	18 mo – 5 yrs	Students, staff, faculty	Call for info

[a]On campus information or referral services for child care

Table 11. *Child Care Supports on College Campuses*

Institution	Hours of operation	Eligible children (Age)	Available for students, staff, faculty	Full-time fees
Algonquin	7:30am-5:45pm	0-4 yrs	Students, staff, community	Infant/Toddler $1898/mth Preschool $1171/mth
Boreal	-	-	-	-
Cambrian	-	18 mo-12 yrs	-	-
Canadore	-	-	-	-
Centennial (Progress Campus)	7:30am-6:00pm	Toddlers – Preschoolers	-	-
Centennial (CCC Early childhood education Centre)	7:30am-6:00pm	Infants – School age	Students, staff, community	Call for info
Conestoga	7:30am-6:00pm	0-12 yrs	Students, staff, community	Call for info
Confederation	-	-	-	-
Durham (also serves Institute of Technology)	6:30am-6:30pm	1 – 5 yrs	Students, staff, faculty	Infants $898/mth Preschool $850/mth Jr/Sr K $450/mth March break or PA days $45/day
Fanshawe	-	-	-	-
Fleming	-	-	-	-
George Brown	8:00am-5:45pm	6 wks-5yrs	Students, staff	Infants $1989/mth Toddlers $1809/mth Preschool $1387/mth
Georgian	-	-	-	-
Humber	7:30am-6:00pm	-	-	Call for info

Institution	Hours of operation	Eligible children (Age)	Available for students, staff, faculty	Full-time fees
Lambton	-	-	-	-
Loyalist[a]	-	-	-	Call for info
Mohawk	-	-	-	-
Niagara	-	-	-	-
Northern	-	-	-	-
St. Clair	-	-	-	-
St. Lawrence	-	-	-	-
Sault	7:30am-5:30pm	18 mo – 5 yrs	-	36/d
Seneca (KOLTS)	7:30am-5:30pm	8 mo – 12 yrs	Students, staff, community	Call for info
Seneca (Newnham Campus Child Care)	7:30am-6:00pm	18 mo – 5 yrs	Students, staff, community	Call for info
Sheridan	7:30am-6:00pm	18 mo – 5 yrs	-	Toddler 1245/m Preschool 1080/m

[a]On campus information or referral services for child care