# Admissions of High School Non-Graduates

## to Post-Secondary Institutions in BC

*Prepared for BCCAT by Patricia Beatty-Guenter, Bob Cowin, and Ted James*
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**BCCAT**

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## *Executive Summary*

One in five youth in British Columbia (BC) does not graduate from Grade 12. Some people later obtain an adult equivalency to high school graduation, but many do not graduate at all. This project examined admissions to the public post-secondary education system in BC of applicants who have not completed high school graduation.

The objectives of the study were

(1)  to review the policies governing admissions of high school non-graduates in BC public post-secondary institutions, including the application of mature student admission policies and what institutional websites generally say about admissions of high school non-graduates, and to examine admissions requirements for high school non-graduates at the program level for selected institutions;

(2)  to assess perspectives of admissions professionals on issues and opportunities for high school non-graduates, and to gather information from admissions professionals, deans and directors of developmental education, and secondary school personnel about practices and policies regarding high school non-graduates;

(3)  to assess the demographic characteristics and programs of choice for high school non-graduates in BC post-secondary institutions; and

(4)  to identify areas for future research and, if appropriate, the development of suggested practices.

A high school non-graduate for the purposes of this study was defined as an applicant to a post-secondary institution who last attended a secondary school in BC but who does not hold a Dogwood Diploma, an Evergreen Certificate, an Adult Dogwood, or a GED credential.

Data for this review were gathered from several sources. A review of existing literature was conducted, primarily including Canadian sources but also some international sources. The formal admissions requirements were collected from the websites of all 25 public post-secondary institutions to identify the options for high school non-graduates (such as upgrading, trades programs and mature student entry). Interviews with 13 admissions professionals at BC public post-secondary institutions were conducted, along with 4 interviews with others in secondary schools and government. Respondents were asked about current practices, assessment tests, "open admission" programs, the use of mature student admission policies, and collection of information about demographic and cultural variables.

An examination of student data from three BC province-wide, annual data collections combined data from the *Central Data Warehouse* (2015/16 enrolments of non-graduates), the *Student Transitions Project* (previous reports and especially

the 2004/05 Grade 8 Entry Cohort (STP2014)), and the *BC Student Outcomes Forum* with data from three of the regular student outcomes surveys that cyclically asked respondents about their high school graduation status.

Two general findings are detailed in this report. First, the key demographic attributes of BC non-graduates presented here are consistent with two previous studies of non-graduates in BC. These consistencies provide evidence that the BC non-graduates can be understood as diverse in many ways, from their demographic profiles to their programs of study. Second, the study found that not all stakeholders see this topic in the same way. The study has made explicit the variety of lenses or philosophies that are used in BC and elsewhere to interpret data about this particular student population.

Findings about admission policies revealed that requirements for high school graduation prior to entry varies in BC first by institutional type and then by program. The research-intensive universities generally require high school graduation, but they do offer some limited alternative pathways for non-graduates as mature students. The teaching-intensive universities tend to have general admission requirements for applicants to have graduated from high school. However, the use of the mature student category and assessment procedures allow non-graduates who have reached a certain age to gain admission. Most teaching-intensive universities offer a comprehensive series of skills upgrading (ABE), reflecting their origins as community colleges. The provincial institutes are somewhat similar in their requirement for high school graduation, but they operationalize that requirement differently. Colleges describe themselves as "very welcoming" to high school non-graduates. The requirement for high school graduation varies, the mature student category is common, and a range of skill upgrading courses or preparatory programs exist as routes of entry for non-graduates. This variety of approaches broadly reflects different institutional mandates and reveals a provincial system of broad options for non-graduates: highly accessible, open pathways with regional access.

The label 'non-graduate" is seen by BC post-secondary institutions as being of variable utility. Research-intensive universities use it the most, since high school graduation is the expected minimum for admission. At other institutions, the concept is less relevant. Instead, non-graduates fall into the category of mature students and, therefore, the key barrier to participation in post-secondary is framed by age, not level of previous education. Indeed, some institutions have neither a high school graduation requirement, nor a mature student policy; instead, they use prerequisites to manage access to courses and programs.

The study also found various upgrading approaches used by BC institutions. The research-intensive universities do not offer upgrading courses per se. Most other institutions provide pathways for students to upgrade deficiencies in academic skills prior to being accepted into a program. These are usually focused on specific subjects – such as math, English and sometimes science. A common general prerequisite – English Grade 12 with C grade – must be satisfied before enrolling in university level courses, but often math and science skills can be upgraded concurrently.

Demographically, non-graduates represent a distinctive population. Non-graduates enrolled in post-secondary institutions are older on average than graduates. Rates of non-graduation from high school vary considerably in BC, with lower rates of high school graduation in rural and northern parts of the province – for example, 12 percent in Lower Mainland to 43 percent in the Cariboo and North regions.

High school non-graduates enrol in developmental education programs at six times the rate of graduates, demonstrating a clear pathway for bringing these students back into formal education. Trades programs offer another route to post-secondary education for students who have not completed their high school diplomas: some trades accept achievement of Grade 10.

Another key finding is that one in three non-graduates are enrolled in programs that are not part of regular institutional programming: these include contract training, partnerships with Indigenous communities, and continuing education. It is not necessarily expected that these enrolments would result in a credential, but may support improvement of specific job skills or contribute to a local community initiative.

# PART ONE: **Introduction**

This project examined how the public post-secondary education system in BC uses various means to admit applicants who have not achieved high school graduation – the normal criterion for admission -- to universities, colleges and institutes in the province.

One in five youth in British Columbia does not graduate from Grade 12 (Heslop, 2016). Some later obtain an adult equivalency to high school graduation, but many do not graduate at all. The criteria by which post-secondary institutions admit non-graduates – and every public post-secondary in the province does enrol such students – reflect not only the institution's mission and educational philosophy, but also the philosophies held about non-graduates.

While some philosophies take into account the life situations of non-graduates (such as chronic illness during the teenage years or chaotic family situations) and developmental considerations (such as the readiness of youngsters in remote settlements to relocate to continue their education), others may apply when non-graduation is viewed as resulting primarily from a lack of academic ability or motivation.

In a similar vein, the model of students applying for admission to institutions and programs before taking courses is not always applicable: some non-graduates access courses through contract training and continuing education, and some institutions permit enrolment in courses without the student ever applying to enter a program for a credential. Finally, the assumptions that the main barriers facing non-graduates concern entry into the institution in order to take courses that are primarily academic in nature, or that the mere availability of support services ensures that the services will be used effectively, or that successful student orientation and transition can be completed in a matter of weeks, are not robust assumptions.

This study contextualized admissions policies not only according to institutional missions but also according to the characteristics of the students and the various ways of framing issues. The report focuses on key findings and conclusions, with supporting evidence and additional data available in the appendices.

## Background

Following the Macdonald Report (1962), BC intentionally developed a post-secondary system that widened access, allowing participation by as many adults as possible. This strategy included the establishment of adult basic education programs in the province's original fourteen community colleges to facilitate the acquisition of the preparatory skills needed for success in subsequent studies. Indeed, not only graduates deficient in marks or courses, but even non-graduates from secondary school were able to attend post-secondary institutions. And that emphasis on widening access has endured:

> *While the mandates of community colleges in British Columbia have evolved over the decades, and some have become teaching-intensive universities, the open access, "second chance" philosophy has endured, enabling high school non-graduates to continue their education at many of the public post-secondary institutions in BC. In addition, research-intensive universities enroll a limited number of high school non-graduates through their mature and other special admission categories.* (Beatty-Guenter & Cowin, 2013, p.2)

> This study contextualized admissions policies not only according to institutional missions but also according to the characteristics of the students and the various ways of framing issues. The report focuses on key findings and conclusions, with supporting evidence and additional data available in the appendices.

How successful has the access strategy been for those who did not graduate from high school? In particular:

- What is known and unknown about the population that did not graduate from high school?

- To what extent is there a clear pathway of access to post-secondary for applicants who did not graduate from high school? Do they experience institutional obstacles? If so, what are the hurdles?

- Are any issues engendered in policies or practices encountered through the admission process, or are they systemically embedded in differential processes based on age, gender, Aboriginal status, financial aid eligibility, or program choice?

- To what extent are applicants who are not high school graduates treated equitably compared with those applicants who possess Grade 12 graduation?

- How relevant are the various ways that mature student admission is defined and treated as a mechanism that can facilitate, or not, the access of non-graduate applicants into post-secondary?

This project built upon earlier work on this topic in BC and elsewhere. Previous research in Canada found that the number of non-graduates from high school eventually participating in post-secondary programs is high and worthy of additional investigation, particularly as completion of a post-secondary credential has become significantly a requirement for entry for most well-paying occupations (Burning Glass, 2014).

In BC, Beatty-Guenter & Cowin (2013) used the Student Transition Project (STP) to analyze data on students in public post-secondary institutions who had not completed Grade 12. Their findings included the following:

- In 2009/10, 34,750 students attended a BC high school, did not graduate from BC Grade 12, and then attended a public post-secondary institution in BC.

- Of that group, 44 percent had only attended high school in Grades 8-11, while 56 percent attended at least some Grade 12.

- Of those in post-secondary institutions, 60 percent attended a community college and 55 percent earned a one-year certificate.

In tracking students of BC 2004/05 Grade 8 Entry Cohort (STP2014), Heslop (2016) found that:

- 9.5 percent of all students from that cohort who entered post-secondary institutions were non-graduates.

- One third of all non-graduates entered a BC public post-secondary institution, with Aboriginal students entering at a higher rate than non-Aboriginal students.

- Roughly half the non-graduates who entered post-secondary institutions began in a program other than adult basic education.

Previous research sponsored by BCCAT regarding mature student admission to post-secondary institutions has highlighted the importance of this category of admission. McQuarrie (2013) found that the use of the mature student admissions category was widespread in BC, and Karpinsky (2016) found that "the match or suitability of an applicant to the post-secondary institution plays a major role in admissions decisions" (p. 21).

> *This examination of how public post-secondary institutions in BC provide high school non-graduates with opportunities to enter and participate in educational programs is important in assessing how well the current system is functioning.*

## Significance of the Topic

The value of acquiring a post-secondary education has become axiomatic in today's world. The lifetime earnings and the lower unemployment levels of post-secondary graduates, compared to others who have not gained a college credential, are strong economic indicators that participation in post-secondary education is a worthwhile goal even though the tuition cost of that participation has also been rising steadily. The BC post-secondary system encourages those who did not complete high school to find ways to gain access to post-secondary programs despite not meeting the normal admission criterion of having completed secondary school.

The value of completing a post-secondary program is more than economic. There are considerable social and civil advantages that benefit both the individual and his/her participation in society. Munro cites studies that identify issues including "an overall lack of basic knowledge and social skills required to function in society, an over dependency on social safety nets such as social assistance income, higher levels of delinquent behaviours, higher levels of depression and anxiety, and prolonged low levels of achievement." (2010, p. 1).

This examination of how public post-secondary institutions in BC provide high school non-graduates with opportunities to enter and participate in educational programs is important in assessing how well the current system is functioning. The study identifies alternative routes of access and explores what recommendations, if any, are needed to advance important societal outcomes and individual educational aspirations.

## Conceptual Framework

Two different philosophies have characterized discourse about non-graduates: (1) assuming the student must first take all the courses required to achieve high school graduation or equivalent, versus (2) requiring the student to take only the preparatory courses needed to succeed in a particular post-secondary program. Both philosophies are evident in the admissions policies of BC post-secondary institutions.

Non-graduates have more than one pathway once admitted to a postsecondary institution. In the direct entry route, students start immediately in their intended program because missing courses are either seen as an insignificant deficiency or are taken concurrently with other courses in the program. In the preparatory route, certain courses must be completed successfully before entering the intended program.

For those non-graduates seeking a baccalaureate degree, entry to an open admissions institution -- and then transferring to a selective admissions institution – is yet another pathway.

# Methodology

Insights for this report were gathered from four sources:

1.  A literature review, primarily focusing on Canadian sources.

2.  A review of formal admissions requirements published on the websites of all 25 public post-secondary institutions in BC to identify the options for high school non-graduates (such as upgrading, trades programs and mature student entry). This was guided by the following coding rubric:

    *   general statement about high school graduation requirements
    *   specific programs for non-graduates
    *   specific statement about meeting prerequisites
    *   mature students
    *   Adult Basic Education (ABE) and other developmental education
    *   assessment tests

3.  Thirteen interviews during early 2018 with admissions professionals at BC public post-secondary institutions and four interviews with others in secondary schools and government. Respondents were asked about current practices, assessment tests, "open admission" programs, the use of mature student admission policies, and about relevant demographic and cultural factors.

4.  An examination of student data from three province-wide annual data collections:

    *   *Central Data Warehouse (CDW) of the Ministry of Advanced Education, Skills and Training.*
        This enabled detailed examination of the particular programs in 2015/16 in which non-graduates were enrolled, programs that sometimes get removed or subsumed in other data collections.

    *   *Student Transitions Project (STP).* In addition to drawing upon the findings of two previous STP papers, special supplementary data tables were obtained from the 2004/05 Grade 8 Entry Cohort File (STP2014).

    *   *Surveys of former students conducted on behalf of the BC Student Outcomes Research Forum.*
        Until 2014, three of the regular outcomes surveys cyclically asked respondents about their high school graduation status. Data tables made use of surveys of former students from adult basic education 2009-2014 surveys; certificate and transfer programs 2007 and 2009 surveys; and (3) apprenticeship 2005-2010 surveys.[1]

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[1] The surveys are Apprenticeship Student Outcomes (APPSO) Survey; Diploma, Associate Degree, and Certificate Student Outcomes (DACSO) Survey; and Developmental Student Outcomes (DEVSO) Survey. See http://outcomes.bcstats.gov.bc.ca/About-StudentOutcomes.aspx

# PART TWO: **Context**

## Definition of High School Non-Graduate

For the purposes of this study, a high school non-graduate is an applicant to a public post-secondary institution in BC who last attended a secondary school in BC but who does not hold a Dogwood Diploma, an Evergreen Certificate, an Adult Dogwood, or a GED diploma (see below).

Some studies in BC have defined non-graduates as students who have not completed the dozen or so core Grade 11 and 12 courses that are required for secondary school graduation. The list of required courses, and their equivalent courses, can change over time. For our purposes, the credential approach works well but we want to point out that other approaches, based on courses, are possible.

The expression "high school non-graduate" is not the only way of referring to people who have not earned a BC high school graduation credential or its equivalent. Some of the literature we reviewed used the term "early school leaver," although this could imply the students left at a young age rather than aged out. The term "drop out" has fallen from fashion due to its negative connotation, and the term "partial completer" is another possibility with a generally more positive connotation although it is somewhat vague about what is partial and what is completed. While the term "high school non-graduate" has some drawbacks because it defines the group by an absent attribute, we felt the term did not add stigma to the group and was the preferred nomenclature to use.

## BC Secondary School Graduation Credentials

The BC Ministry of Education awards three credentials that attest to the successful completion of secondary studies (BC Ministry of Education, 2017, p.31):

- **Dogwood Diploma** (formally, the Certificate of Graduation) is by far the most common credential. A wide range of courses of varying academic intensity count towards this diploma requiring 80 credits. Most youth (92 percent graduating from Grade 12) receive a Dogwood diploma.

- **Evergreen Certificate** (formally, the School Completion Certificate) is awarded to students with special needs who have followed a curriculum customized to their abilities under an Individual Education Plan (IEP). The IEP, rather than the certificate, signals the nature of the learning achieved. Evergreen certificates constitute about 2 percent of all graduation credentials.

- **Adult Dogwood** (formally, the Adult Graduation Diploma) – is awarded to those aged 18 and older who have earned credits in either secondary schools or post-secondary institutions. The Adult Dogwood (6 percent of graduation credentials) requires a Grade 12 course in English, Communications or First Peoples English; a Math 11 course; and at least three additional Grade 12 electives (or Social Studies 11 and two additional Grade 12 electives).

Requirements for these graduation programs are shown in Appendix 1. Currently, new graduating years' (Grades 10-12) curricula requirements are being developed in BC (https://www2.gov.bc.ca/gov/content/education-training/k-12/teach/curriculum).

# General Education Diploma (GED)

In addition to the three graduation credentials conferred by the BC Ministry of Education, adult students in BC have the option of achieving a high school equivalency credential from an external agency, the General Education Development (GED) diploma.

This GED testing formerly led to the awarding of the BC Secondary School Equivalency Certificate. At the end of 2014, BC discontinued supporting the GED, directing adult students instead to the Adult Graduation program (consisting of 20 credits in the secondary system or five post-secondary courses). Although the provincial government continues to retain GED records from 1973 to 2014, and allows students to order these transcripts through the Ministry of Education, the Adult Dogwood is a more extensive program that allows possible acceptance into university (something not typically possible with only a GED diploma).

# School District Adult Education

BC school districts offer high school courses for adults at secondary schools, adult learning and continuing education centres throughout the province, although districts vary in the emphasis and visibility of programming they offer for adults. These offerings sometimes appear as adult education and sometimes they are subsumed within a continuing education category. These courses are tailored to the needs of adult students by using various learning environments and instructional methods that could include face-to-face, self-paced and/or online learning.

# Open Access Post-Secondary System

One characteristic of the BC post-secondary system is that it facilitates a "second chance" for high school leavers. This system articulates learning levels such that adults can return to learning and access prerequisite course work missed during their youth. That is, through the successful completion of prerequisite courses in specified disciplines at the required grade-level, a student may be admitted to most post-secondary programs in BC. The pathway does not require that they officially complete the Adult Graduation Diploma, although this may be recommended for specific programs and certain careers.

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This post-secondary pathway recognizes that many high school non-graduates had actually completed a significant portion of their secondary school program. Since half (49 percent) of non-graduates in the 2004/05 Grade 8 Entry Cohort (STP2014) had reached Grade 12 (Heslop, 2016, p. 16), the implication is that many of those non-graduates who appear at post-secondary institutions did in fact "almost make it" to graduation.

While the mandates of community colleges in British Columbia have evolved over the decades, and some have become teaching-intensive universities, the open access, "second chance" philosophy has endured, enabling high school non-graduates to continue their education at many of the public post-secondary institutions in BC. In addition, research-intensive universities enrol a limited number of high school non-graduates through their mature and other special admission categories.

## Adult Basic Education

Students who did not graduate from high school have the option of completing adult upgrading in order to access post-secondary level educational pathways. Courses are flexibly delivered through both the secondary and post-secondary system, and differ in cost, length and format (e.g., on-line/classroom, daytime/evening, full-time / part-time).

Of the 25 BC public post-secondary institutions, eighteen[2] offer high school-level courses through the Adult Basic Education (ABE) program. After some years of declining enrolments at the BC public post-secondary institutions, and reports of funding issues combined with affordability barriers for students, the provincial government has recently (August 8, 2017) again made these courses tuition-free.

In all cases, credits earned for ABE courses may be transferred between the participating institutions, either toward a high school completion, or to meet specific course requirements for entry into post-secondary level programs.

## Literature Review

This section presents brief summaries about post-secondary transitions in other jurisdictions. In addition to presenting an overview of some general factors relating to the participation of high school non-graduates in Canada, the review presents a contrast in approaches in Alberta and Ontario. Also included are overviews of open entry admission experiences in the USA and the UK. A full literature review with associated references can be found in Appendix 5.

## General Factors

Early secondary school leaving is a complex process of gradual disengagement, not an event, and is the result of multiple factors:

- *Student-centred factors:* low academic achievement, behaviour issues, gender, immigration status, peer group and friendship networks;

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[2] Appendix 4 contains the full list of these post-secondary institutions.

- *School-related factors:* teacher and curricular lack of cultural competence, large school and class sizes, lack of support services, and a negative school culture with low student engagement; and

- *Community/environmental factors:* rural location, low family socio-economic status, less traditional family composition, socially unstable neighbourhoods.

With often difficult personal and social lives (Munro, 2010) students frequently view their decision to leave school as making sense in terms of their perceptions of the relative payoffs and personal costs of educational attainment. Nevertheless, they may also see further education as important to their future well-being.

Levin (1992) presented two ways in which the issue of non-graduates has been framed, each of which helps in inter-preting subsequent research. One approach comes from a discourse about drop-outs, and the other concerns second chances.

When the discourse is about *dropping-out,* the resulting public policy tends to focus on prevention and encouraging those students who have left to return to secondary schools. Much stress is placed on publicity about the negative consequences for individuals and society of incomplete secondary education. Special secondary school programs are developed for so-called at-risk youth and 'drop-out' becomes a negative term, rather than a neutral descriptor.

Proponents of the *second chance* perspective are more apt to see early secondary school leaving as a rational, if unfortunate, decision by students. The policy emphasis here is on alternative routes for people to improve their formal education, regardless of how, when, or why they left school. However, reduced admissions barriers may simply result in high attrition rates if sufficient support and individualized case management is not provided (perhaps for a semester or two) for the transition into the unfamiliar post-secondary environment.

Across Canada, two thirds of the youth who had interrupted their high school studies returned to education over the following decade. Little research has been devoted to understanding why such students choose to continue their edu-cation, nor about the strategies and programs that need to be in place to support such learners.

Over the past two decades, the educational needs and circumstances of Indigenous people have constituted a grow-ing share of the literature. Counterbalancing the lower high school graduation rates of this population are higher rates of high school completion after age 24.

> Across Canada, two thirds of the youth who had interrupted their high school studies returned to education over the following decade. Little research has been devoted to understanding why such students choose to continue their education, nor about the strategies and programs that need to be in place to support such learners.

# Some Examples from Other Provinces

Across Canada, provincial governments can vary in how they discuss adults who have not completed secondary school. These approaches again reflect the two ways of framing the issue – drop outs versus second chances.

In Alberta, for example, the provincial government's upgrading page on Advanced Education's website emphasizes high school completion. Along with explaining that post-secondary programs require specific high school courses, it states "And for most jobs in Alberta, you need a minimum of a high school diploma or a high school equivalent diploma."

In contrast to the approach in Alberta, the website of the central Application Service for Ontario's Public Colleges highlights direct entry into colleges by non-graduates: "Mature student status may be granted to applicants who are over 19 years old and not have a high school diploma or GED…Mature students are still required to complete course prerequisites."

The upgrading, developmental or Adult Basic Education programs in Ontario colleges are described by the Application Service as pre-college programs. The institutions vary in the labels they attach to these pre-college programs, for example: *College Access* programs at Confederation College, and *College Opportunities* at Seneca.

# United States

The admission of high school non-graduates into post-secondary institutions in the USA is largely determined by the openness of the admissions policy of different institutions and different states, where a variety of terminology is used to describe non-graduates among the wider group of academically underprepared applicants.

Admitting underprepared students into colleges and universities in the USA has a long history. In the 1700s, Harvard University, for example, provided remedial classes in Latin and Greek for those incoming students whose skills were insufficient (Stephens 2001). Yet the most significant impetus to increasing access to higher education generally in the USA was the expansion of a national network of junior and community colleges during the 1960s and 1970s. Almost all of these institutions touted an open admissions policy (or 'open door' philosophy) that set them squarely apart from the selective and competitive admissions practices of the state universities and private colleges, and this openness also included program choice.

Some post-secondary institutions in the USA admit any applicant without requiring a high school diploma or equivalent. Many of these institutions will require high school non-graduates to take one or more placement tests to determine what courses students can commence with. The purpose is to assess the student's current academic skills in order to determine a best fit for the student's first courses.

According to Schak et al. (2017) the majority of applicants who do not possess a high school diploma are systemically steered towards remedial academic skill courses in English, mathematics and introductory science which they must successfully complete before entering college-level courses. These remedial courses are often called Developmental Education. In 2011-12, approximately 1/3 of all first-year undergraduate students in the USA reported enrolling in one or more developmental education courses; for students attending community colleges this rose to approximately 40 percent.

# United Kingdom

The UK serves as a useful example of a country with a historically selective admissions regime that has adjusted to the massification of higher education. The number of unqualified students gaining entry to universities in the UK has been increasing steadily over the past decades from around 160,000 in 1999/10 to 210,000 in 2008/09 – an increase of 31 percent (Coleman & Bekhradnia 2011).

Traditionally, students did not graduate from secondary schools in the UK — they simply left (matriculation) because they reached the age beyond compulsory education or completed the general certificate of ordinary or advanced education examinations (O and A levels) or vocational qualifications from colleges of further education. Entry into university was based on grades achieved in these examinations/qualifications. The examinations were organized by national examination boards and were not available to adults; therefore, attendance at university was almost exclusively for full-time students who had left secondary school or technical college the year before.

The introduction of the Open University made use of communications technology to bring degree-level learning to people who had not had the opportunity to attend campus universities – and to provide open access to courses with no academic prerequisites. Since then, the Open University has grown into the post-secondary institution awarding the largest number of degrees per year in the UK.

Many other universities in the UK also open their doors to "unqualified" students – mature students who did not possess the academic qualifications usually required for entry. Records of the number of students admitted via these routes is limited because the universities do not report statistics differentiating "qualified" from "unqualified" students. Further, the definitions of mature students range from 21 years to 25 years. In addition, institutions vary in how they assess and process mature student admissions, including what entrance examinations or interviews they administer.

> The admission of high school non-graduates into post-secondary institutions in the USA is largely determined by the openness of the admissions policy of different institutions and different states, where a variety of terminology is used to describe non-graduates among the wider group of academically underprepared applicants.

# PART THREE: Admissions Policy

Consistent with the practice in other jurisdictions, most post-secondary institutions in BC consider high school gradu-ation to be the general admission standard for entry into post-secondary. However, to varying extents and in various ways, almost all BC public post-secondary institutions offer some route of access for applicants who did not complete high school prior to entry.

From the data analyzed in this study various findings emerged regarding how admissions policies at BC post-secondary institutions functioned to provide entrance pathways for high school non-graduates.

## Importance of the System Perspective

Post-secondary institutions in BC function within a provincial system that taken collectively provides a holistic response to handling the admission of high school non-graduates. While not all institutions provide the same level of acces-sibility for high school non-graduates, the panoply provided as a whole allows for a considerable comprehensiveness within BC to offer system-wide solutions for high school non-graduates.

For instance, although a research-intensive university may not provide a direct access pathway for non-graduates, it can nevertheless accept them as transfer students on the basis of their performance at other post-secondary institu-tions in the BC transfer system. In a system that fosters student mobility, focusing narrowly on each institution's admis-sions philosophy in isolation misses an important – and systemic -- part of the picture.

It is also worth noting that admissions criteria generally tend not to single out non-graduates, but rather to group them with other students who do not meet regular admission criteria, e.g., those lacking high enough marks or pre-requisite courses. Mature or flexible admission routes are open to all subgroups of otherwise inadmissible students.

In spite of differences among and within institutions in the ways they accommodate high school non-graduates, most, if not all, of BC public post-secondary institutions exhibit some form of access for these applicants. Interviews identi-fied a widespread willingness in the BC system to be flexible in admissions criteria.

> *"We almost always have an option for non-graduates".*

> *"We focus on mature students and let them know that not having a high school completion is not a barrier to enter."*

Even a selective university such as Simon Fraser University has a category of "Diverse Qualifications" – in addition to its mature student category. Emily Carr University of Art and Design has a very flexible approach to accommodate Aboriginal applicants who may be many highly talented artists yet have limited previous academic success.

# Institution Type and Institutional History

BC has developed a post-secondary system where a variety of different types of public institutions co-exist with characteristically different mandates and purposes. These differences are, not surprisingly, generally reflected in how each institution addresses the admission of high school non-graduates:

## Colleges

- The colleges are all mandated to deliver Adult Basic Education and other related developmental education programs. As such, they are both open and explicitly welcoming to high school non-graduates.

- Most of the colleges provide assessment testing to support the student in beginning their upgrading at a level consistent with their existing skills, regardless of the last grade previously completed.

- Many programs do not require high school graduation, but often will require C+ or higher grades in specific subject areas, especially English and mathematics.

- Many colleges do not require high school graduation, and frequently reported that they do not record whether or not an applicant is a high school graduate.

## Teaching-Intensive/Special Purpose Universities and Institutes

- Upgrading opportunities are often offered to high school non-graduates by institutions that had been colleges before the system changes beginning in the 1990's: for example, NVIT, Capilano University, Kwantlen Polytechnic University, Thompson Rivers University (previously Cariboo College), University of the Fraser Valley, Vancouver Island University (previously Malaspina College)

- Royal Roads University and Emily Carr University of Art & Design have been "special purpose institutions" since inception and have their own specific requirements, without upgrading opportunities, but both have pathways for "non-matriculated students".

- The institutes have differing policies depending on the mandate of each institution. For example, while NVIT has many options for high school non-graduates, BCIT generally sets high school graduation as a requirement, except in trades programs. There are programs at JIBC and BCIT that do not require Grade 12 graduation.

## Research-Intensive Universities

- Admissions to research-intensive universities in BC is competitive: high school students work hard to earn graduating averages that are high enough for admission, and high school graduation is expected.

- Research-intensive universities are not mandated to deliver upgrading programs at the level of high school non-graduates.

- High school non-graduates are generally expected to enrol in other institutions to upgrade and demonstrate post-secondary level success prior to applying.

From interviews conducted with Admissions Officers, we learned that the majority of respondents (9 of 13) ranked their institutions as *Welcoming of non-graduates - Start with us*. This group included all of the colleges. The overall statements about admissions of non-graduates were found to be reflective of institutional mandate and consistent with findings of the website analysis.

## Issues and Opportunities

Within each institution, there can be considerable variation across programs in how high school non-graduates are handled for admission purposes. Some institutions distinguish admission to Arts and Science or General Studies quite differently from career or limited enrolment programs. The question here is not simply, "Is an institution welcoming to non-graduates?" but also "Which parts of an institution are welcoming to non-graduates?"

There is widespread recognition that high school graduation per se is less relevant than an applicant having the minimum levels in the key skill areas of English and math. Admissions officers reported that a predominant interest in prerequisite skills arises from institutional concern for academic success.

Another way that institutions vary is in the relationship between admissions and assessment testing. In this regard, one must be careful of generalizations across the BC system about the role or nature of assessment testing. Some institutions do not use assessment testing for general admissions, but use it subsequently for placement purposes. Others may use assessment testing as a way for otherwise inadmissible students to demonstrate they are likely to succeed in a program. Some institutions have developed their own assessment tests, while others use standardized Canadian or American tests, complete with variable cut-off scores. There is variation in the weight that is given to assessment test results, from compulsory placement based on results through to individual decisions to proceed regardless of results.

In addition, accessibility for non-graduates may depend on more than an institution's educational philosophy. For example, Royal Roads University has an open philosophy that is willing to look at work and life experience as predictors of success. However, because most programs begin at the third year level, the university is actually not accessible to non-graduates with a lackluster track record elsewhere. Thus access is not solely a question of an institution's educational philosophy, but may also reflect other concerns, such as curriculum design, the location of the institution, and the costs of attendance.

## Use of Common Admission Categories

Despite the differences in approach among types of institutions, there are common vehicles or categories used to admit high school non-graduates. These can vary slightly by name, scope and application, but they are generally available in some form at every public post-secondary institution in BC:

> There is widespread recognition that high school graduation per se is less relevant than an applicant having the minimum levels in the key skill areas of English and math.

## Mature Student

- Institutions generally have a category of admission that allows for applicants of a certain age (the general age is 19 but is 23 at Simon Fraser University) to bypass normal admission requirements almost entirely.

- Although mature admission policies vary on such criteria as minimum age, the need to demonstrate success in other aspects of life, and so on, means mature students usually must meet prerequisite course requirements. Often, mature entry students must satisfy some prerequisites (e.g., Grade 12 English at Douglas College and Emily Carr University, among others).

- Sometimes this foundational learning can be achieved or demonstrated in other ways than completing a prerequisite course: through assessment testing, prior learning assessment, or concurrent enrolment in a foundational course. The point is that mature admission is an effort to give the applicant the opportunity to succeed, not a right to try anything and fail.

## Special Admission

- In addition to mature student admission, some institutions, such as Simon Fraser University, have an even broader category of "Diverse Qualifications" that requires a personal information profile and letter of reference. The University of the Fraser Valley has a "special admission category" that is independent of age.

- The College of the Rockies has a "special" admissions category in at least some programs for applicants who do not meet either regular or mature requirements.

## Preparatory Admission

- The colleges accommodate the admission of many high school non-graduates through their Adult Basic Education or developmental program offerings. This is a long standing route of access, and it exists for applicants who have not completed high school as well as for ones who have but who may not have achieved sufficiently high enough grades in particular subjects to satisfy post-secondary course prerequisites.

- One would expect the colleges (such as Douglas College) with their open access mission would permit the admission of non-graduates. In the teaching-intensive university sector, Vancouver Island University offers several pathways into college level in addition to ABE and could be seen as a model institution of plurality.

## Vocational Programs

- Institutions that offer trades and vocational programs, especially those in rural areas, may require that applicants have at least Grade 10 (e.g., Northern Lights College and Vancouver Community College), rather than full high school completion. This is also true for teaching-intensive universities that offer these programs, such as Vancouver Island University and University of the Fraser Valley. This is clearly a pathway for non-graduates to enter post-secondary.

Some institutions require the non-graduate applicant to specify in which category of admission they wish to be considered, but at other institutions admissions criteria are automatically applied. At Thompson Rivers University, and perhaps elsewhere, the institution automatically will apply mature admission criteria if this is relevant.

Another common admission criterion is the trend towards requiring English 12 with a specific grade in addition to high school graduation. Over the past decade or so, institutions have focused on the importance of a specific grade of Grade 12 English for either general or program admission (the justification sometimes based on data). This means that even high school graduates can be stymied with a low English 12 score. Selkirk College modifies this approach by requiring all new applicants to take a College Readiness Tool.

Some institutions (e.g., Douglas College, Okanagan College) operate with a general pre-requisite – English Grade 12 with C grade – which must be satisfied before the student is able to take any university level courses, but math and science skills can be upgraded concurrently. In other cases, institutions have no general pre-requisites and do not restrict the courses a student can take. As one institution indicated: "This is a function of whatever pre-requisites are needed. Provided the student meets the mature student age category, they are admitted... There is no intervention by [the institution] to prevent students from taking whatever courses they want so long as they meet any pre-requisites."

# Taxonomy of Approaches

The various approaches taken by institutions – both collectively and separately – amount to a comprehensive series of options variously available to any applicant who has not completed high school graduation when applying to enter a post-secondary institution in BC:

- **Direct Access**
  Institution or program does not require high school graduation for admission (e.g., some trades/technology programs and access to upgrading (ABE) programs)

- **Exceptional Access**
  Institution allows for direct entry without high school graduation for some applicants (e.g., mature students, Aboriginal students).

- **Combined Access**
  Institution allows for entry into both post-secondary level and upgrading (ABE) concurrently for some students.

- **Limited Access**
  Institution or program limits access to ABE (upgrading) only until minimum prerequisites are satisfied.

- **No Access**
  Institution or program requires high school graduation (or equivalent) and possibly minimum grade achievement. (Applicants must first pursue further education at another institution before they will be considered.)

Most institutions distinguish between general admission requirements and specific program requirements. This means that non-graduates may gain access to an institution but not necessarily to particular programs in that institution. However, at some institutions (Northwest Community College (now Coast Mountain College) and Justice Institute of BC are examples) the notion of a general admission to the institution is not important with one-step direct admission to a particular program.

In a number of institutions and fields of study (e.g., General Studies), students can register for credit courses without ever applying for admission. If they are successful in their courses, they can then later declare program and credential intent and seek formal admission.

# Part Four:
# Features of Students and Institutions

Demographically, non-graduates represent a distinctive, and in some ways marginalized, population. They tend to be older, more likely to have family responsibilities and more likely to be Indigenous peoples than other post-secondary students. These students are more likely found at the colleges and they are concentrated in certain program areas that are not commonly considered "post-secondary level".

The findings below are primarily drawn from the Central Data Warehouse (CDW)[3], unless otherwise stated. The CDW was selected because the availability of detailed data on "Program Title" makes it especially relevant for a study of high school non-graduates, and allows this paper to focus on program of study taken by these students. Data are for Academic Year 2015/16. Student enrolments are for 27,500 individuals at one (or more) of the BC public institutions who had BC high school history but no record of high school completion.

## Age

Non-graduates enrolled in BC post-secondary institutions are on average older than graduates. In the student outcomes surveys, the non-graduates tend to be, on average, two to four years older than those who had graduated from high school. Presumably, they were also older when they began their programs, leading to later ages at completion.

The CDW provides age data for the non-graduates enrolled in the participating 21 institutions during 2015/16 (Figure 1).

**FIGURE 1:** High School Non-Graduates in Post-Secondary 2015/16 Academic Year by Age Group
(21 public post-secondary institutions, n=27,500)
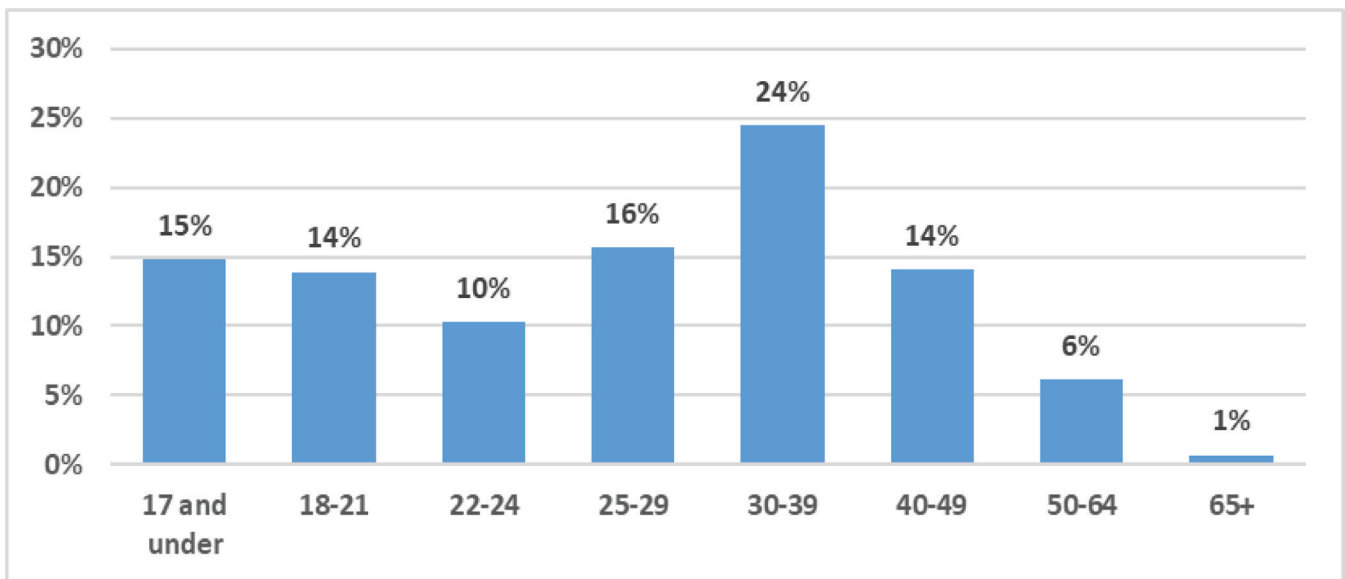


*Source: AEST DW May 2017.*

[3] The Post-Secondary Central Data Warehouse reflects student-llevel data submitted by 21 of BC's public post-secondary institutions, including colleges, institutes and seven universities. University of British Columbia, University of Victoria, Simon Fraser University and University of Northern British Columbia are not included in these reports but through previous studies are known to have few non-graduates.

The first thing to note is the proportion of students aged 17 years and under. Admissions officers confirmed that students this young would not be enrolled unless they were high school graduates, except under partnership with high schools. In other words, some young people in post-secondary institutions only appear to be "non-graduates" because they are still enrolled in high school. (Appendix 3 discusses this information about dual enrolment. Inclusion of these young students confounds results of studies about non-graduates, and they should likely be removed from future studies on this topic.)

Figure 1 reveals that only 24 percent of non-graduates fell in the traditional college age range: 14 percent aged 18 to 21 and 10 percent aged 22 to 24. Those aged 25 to 29 represent 16 percent of the non-graduates, and another quarter of non-graduates (24%) were aged 30 to 39. The remaining 21 percent (one in five) were over age 40 years. Clearly, many years may pass between leaving high school and enrolling in post-secondary for the non-graduates in this study.

## Gender

The overall gender distribution of non-graduates appears to be very even, just about half male (49%) and half female (51%) There are, however, some significant differences by institution, with institutes having more than 60 percent males among their non-graduates, and six institutions (some colleges and some teaching-intensive universities) all having more than 60 percent female, which perhaps reflects their overall population percentage based on the programs they offer.

Of the non-graduates in developmental programs, 58 percent are female (Figure 3). Program areas with the greatest imbalance between genders are the trades, engineering and applied sciences, with greater proportions of males, and in health and human and social services, with greater proportions of females.

## Family Responsibilities

The BC Student Outcomes former student surveys reveal that non-graduates have children and partners more frequently while they are studying than do graduates, complicating the time they can devote to their studies. The surveys generally show that about one third of non-graduate respondents had children. About half of non-graduates were single with no children, compared to two thirds of graduates.

We heard during interviews that mature students without high school graduation come to the institution with family and job responsibilities that limit the length of time they can devote to their studies, especially in anticipation of a "return to work" outcome. For admissions, this can work in the applicant's favour: admissions officers from a variety of institution types reported that work experience, along with maturity, contributed to consideration for admissions of non-graduates. For example, the University of Victoria lists family considerations as a factor in the review for Special Access consideration.

# Indigenous Identity

Using STP data, Beatty-Guenter and Cowin (2013) found that high school non-graduates in 2009 represented at least one-third of Aboriginal students enrolled in BC post-secondary institutions. That study found that 32 percent of Aboriginal students were non-graduates and that almost half of these had last enrolled in BC Grade 12, but had not graduated.

The reporting of Aboriginal identity in the CDW is set to "Yes" if the student has ever been identified as Aboriginal at any point along their BC educational pathway in K-12 or at the post-secondary institutions in the CDW. Using this methodology, the number of Aboriginal non-graduates aged over 18 years in the CDW institutions in 2015/16 was 3,850. A more specific measurement identifies First Nations identity of students. The post-secondary institutions have been collecting First Nations Identity (Yes/No) from their students since 2009/10[4]. There are 3,282 First Nations students over age 18 amongst the 2015/16 non-graduates in this study: 30 percent are in developmental programs.

The institutions with the highest enrolments (200+) of First Nations non-graduates are often rural institutions, where the enrolment numbers can be reflective of the overall higher proportion of First Nations population in those regions.

# Regional Differences

Non-graduation from high school is a regional feature in BC, with lower rates of high school graduation in rural and northern parts of the province. The need to reach out to high school non-graduates is more acute in those areas, especially as they also have higher proportions of Indigenous peoples.

Table 1 shows the regional location of the high school non-graduates in post-secondary, in relation to all the students with former BC high school enrolment. Regional differences are found to be consistent with other studies: the highest percentages of enrolled non-graduates are found in the Cariboo/North region, followed by the Kootenay region.

**TABLE 1:** High School Non-Graduates in Post-Secondary by Region as a Percentage of Former BC High School Students (2015/16 Academic Year; 21 public post-secondary institutions)

| BC Regions | High School Non-Grads Aged 18+ | Former BC High School | % Non-Graduates |
|---|---|---|---|
| Mainland/Southwests | 11,210 | 90,063 | 12.4% |
| Vancouver Island | 3,919 | 19,779 | 19.8% |
| Cariboo/North | 2,987 | 6,917 | 43.2% |
| Thompson/Okanagan | 3,593 | 22,522 | 18.7% |
| Kootenay | 1,725 | 5,929 | 29.1% |
| TOTAL | 23,434 | 145,210 | 16.1% |

*Source: AEST CDW May 2017*

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[4] This is a different methodology from the data matching used to report Aboriginal identity. There are now sufficiently large numbers of self-identified First Nations learners to use these data.

Regional differences are additionally worthy of comment when Indigenous identity is part of the picture. Figure 2 suggests that strategies to support non-graduates need to be especially sensitive to the circumstances of Indigenous people in the central and northern regions of the province where Aboriginal students represent a substantial proportion of the non-graduates continuing their education in post-secondary institutions.

**FIGURE 2:** Proportion of High School Non-Graduates in Post-Secondary by Region and Aboriginal Identity (21 public post-secondary institutions; n=23,434)
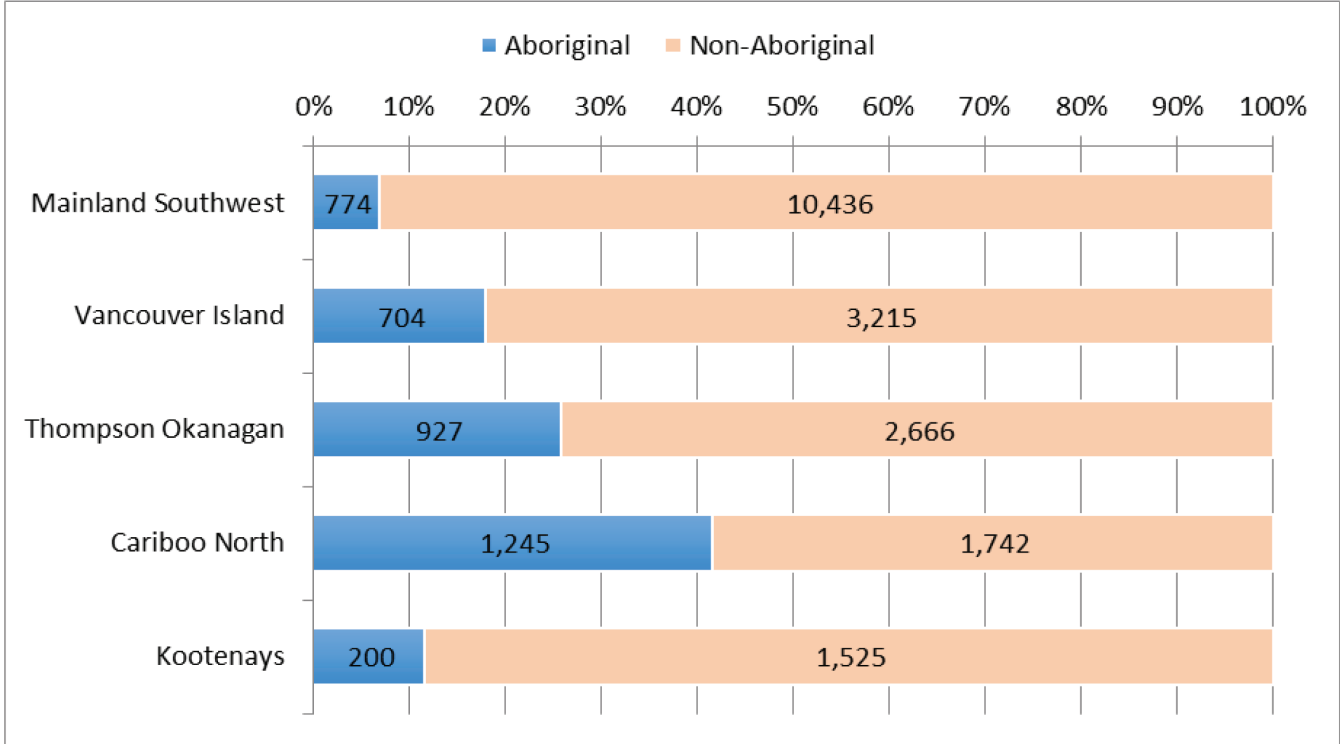


*Source: AEST CDW May 2017*

## Institution Type

About 6 in 10 BC high school non-graduates will be found at a college if they are enrolled at a public post-secondary institution. In 2009/10, there were at least 50 BC high school non-graduates enrolled in each of the 25 public-post secondary institutions but all studies using the STP data have found that the largest proportion of high school non-graduates are enrolled at the BC community colleges (Beatty-Guenter & Cowin 2013).

Table 2 shows the CDW data on non-graduates over age 18 enrolled in 2015/16 as a percentage of all former BC high school students. As expected, the largest percentage of non-graduates are enrolled at the colleges (57.6%) with the remaining percentages split relatively equally between the institutes and the universities in the study. Of the former BC high school students enrolled in 2015/16 at the colleges, 22 percent are non-graduates. Non-graduates made up 15 percent of all former BC high school students at the institutes and less than 10 percent at the universities included in this study.

**TABLE 2:** High School Non-Graduates Aged 18+ in Post-Secondary by CDW Institution Type as Percentages of Former BC High School Students, 2015/16 (21 public post-secondary institutions)

| Institution Type | High School Non-Grads Aged 18+ | % of Non-Grads | All Former BC HS | % of Former BC HS | % Non-Grads of Former BC HS |
|---|---|---|---|---|---|
| College | 13,487 | *57.6%* | 61,159 | *42.1%* | 22.1% |
| Institute | 5,115 | *21.8%* | 33,748 | *23.2%* | 15.2% |
| University* | 4,832 | *20.6%* | 50,303 | *34.6%* | 9.6% |
| **TOTAL** | **23,434** | *100.0%* | **145.201** | *100.0%* | **16.1%** |

*Source: AEST CDW May 2017*

*\* NOTE: Does not include four non-CDW research universities*

The above table obscures some particular institutional circumstances. Specifically, the colleges in the Greater Vancouver area have 10-15 percent high school non-graduates among their enrolled BC students. These differences illuminate the different mandates for these institutions. Of the seven universities with data included in this study (i.e., not including four research-intensive universities), four have fewer than 10 percent non-graduates. The institutions with the highest percentages of non-graduates are rural colleges, each with over 30 percent non-graduates.

## Absence of Special Processes

Institutions of all types do not have different admission processes for considering applications from non-graduates. Students lacking high school graduation generally apply under the mature student or other category, which could involve submitting additional documents such as letters of intent or references. Where these are required, they are reviewed by faculty committee or by the Registrar; otherwise, the admissions staff receive and process all applications from graduates and non-graduates. A key part of the process is reviewing transcripts, and if applicants do not have transcripts they may be handled differently.

# Part Five:
# Findings about Programs

## Distribution by Program

The program enrolment patterns of non-graduates differ from those of high school graduates. Arts and Sciences programs, for example, were the primary destination for nearly half (44.8%) of the Grade 12 graduates, but only 9.7 percent of non-graduates, in Heslop's 2016 longitudinal study of the 2004/05 Grade 8 cohort.

Beatty-Guenter & Cowin (2013, p.7) found three enrolment pathways for high school non-graduate students:

(1)  25 percent enrolled in upgrading programs such as Adult Basic Education or Developmental Education

(2)  41 percent enrolled in post-secondary credits and other credential-bearing programs, and

(3)  35 percent enrolled in non-core community or contract training programs.

Heslop (2016) found the three most popular program areas were Trades, Developmental, and Personal Improvement and Leisure (an unfortunately named category, see discussion below about nomenclature). These three attracted nearly three-quarters (73.9%) of non-graduates, but only one-quarter (24.7%) of the Grade 12 graduates. Most Aboriginal non-graduates (80.6%) were enrolled in these three program areas. In contrast, almost half (48.9%) the non-graduates from the 2004/05 Grade 8 Entry Cohort (STP2014) first enrolled in developmental or upgrading programs if they entered a post-secondary institution.

The CDW provides the ability to analyze the program enrolments of non-graduates in greater detail than other data sources and is the data source for this section of the report. Figure 3 shows program area enrolments by program area and gender for the 23,434 non-graduates over age 18 in 2015/16. Results by program area are supportive of findings in the two previous studies, with minor differences and more detail now available: the discussion that follows focuses on the three largest categories of Trades, Developmental, and Personal Improvement and Leisure.

## Personal Improvement and Leisure (Occupational and Personal Skills)

One in three non-graduates are enrolled in programs that are not part of regular institutional programming: these might include contract training, partnerships with Indigenous communities, and continuing education (Beatty-Guenter and Cowin, 2013, p. 8). It is not generally expected that these enrolments would result in a credential, but they may support improvement of specific job skills or contribute to a local community initiative.

Community training partnerships with local Indigenous communities are one common type of contract programming. Many Indigenous students are gaining access to post-secondary education through specially funded, non-core programming, possibly related to partnerships with Indigenous communities.

Many BC post-secondary institutions, especially the community colleges, partner with local organizations and agencies to deliver specialized targeted programs. These programs may be funded using a combination of sources and may adjust program admissions requirements (such as by using assessment tests) to ensure participation of community members, even if they are non-graduates. Registrations might sometimes be targeted for specific selected individuals or categories (e.g., unemployed). These programs are included in the regular data collection for the CDW, often grouped with other contract and continuing education activity, resulting in enrolments under the heading Personal Interest and Improvement, Contract Training or Other.

The detailed examination done for this study reveals that this category Personal Improvement and Leisure covers enrolments in a broad range of continuing and community education, little of it having to do with "leisure" and much of it to do with job skills. Program titles in this category include Occupational First Aid, Fire Suppression, Traffic Control, Customer Service, and Workforce Training, in addition to Contract Training and Continuing Education. Given the enrolment activities of the non-graduates that have been revealed, a more appropriate label might be 'Occupational and Personal Skills' (Figure 3).

The Other category (3,417 non-graduates) is used primarily to include programs titled General Studies and Unclassified, referring to students studying part-time with an undeclared program of studies. As a result of our findings, we have grouped these enrolments in Figure 3 with Occupational and Personal Skills.

**FIGURE 3:** High School Non-Graduates Aged 18+ in Post-Secondary 2015/16 by Program Area* and Gender (21 public post-secondary institutions, n=23,428)
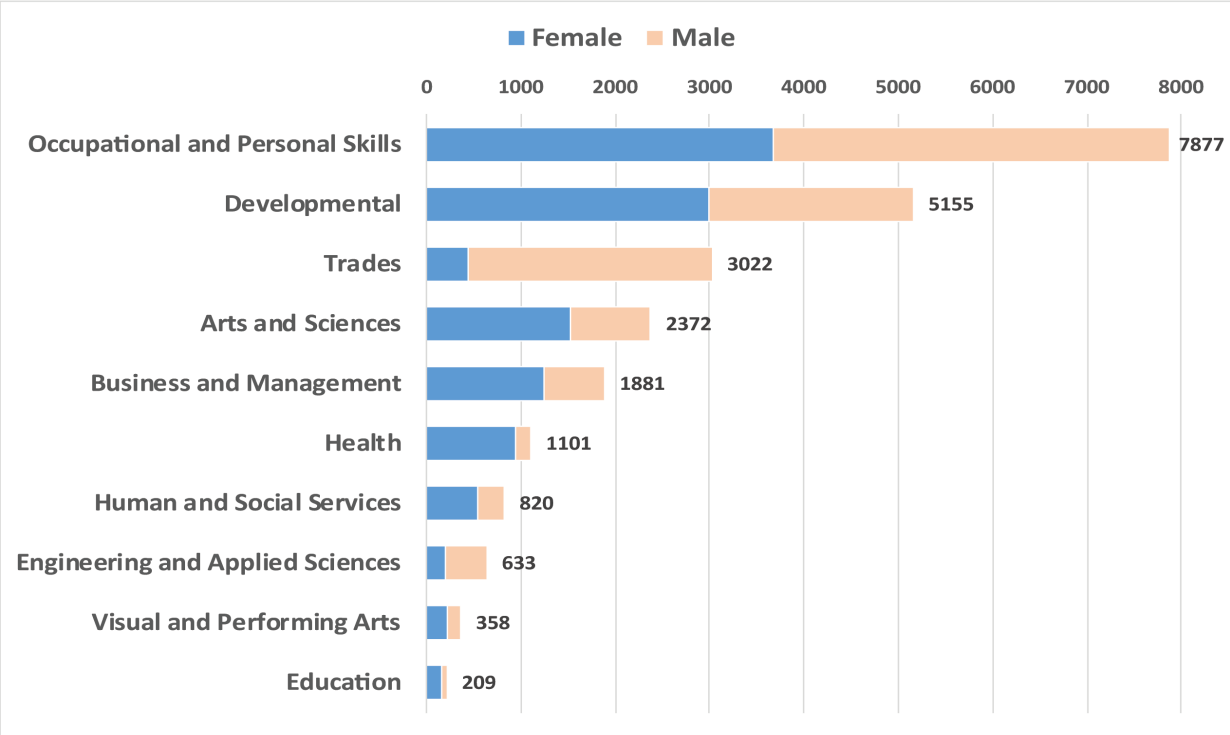


*Source: AEST CDW May 2017*

*\*Note: "Occupational and Personal Skills" includes students enrolled in programs in "Other" category and "Personal Improvement & Leisure".*

# Developmental Education

Developmental programs – primarily those of Adult Basic Education (ABE) or college preparatory courses — are designed to serve students who lack high school level skills and knowledge. This category also includes programs in English as a Second Language, Adult Special Education, Job Search programs, Bridging to Trades, and Workplace Essentials. Each of these provides a particular approach to upgrading or job skills to address various challenges faced by non-graduates, as well as other students in need of such skills development.

Non-graduates enrol in developmental programs at six times the rate of graduates, demonstrating a clear pathway for returning these students to formal education.

Most post-secondary ABE programs, in contrast to ABE programs offered by school districts, are not intended to provide high school graduation. Rather, they focus on specific prerequisite skills and knowledge to prepare students for further post-secondary study. Thus, non-graduates are not the only registrants in developmental programs during 2009/10, making up only 19 percent of all students in these programs.

Despite the importance of developmental programs for non-graduates, the CDW reports[5] a decrease of almost 10,000 students in developmental programs between the years 2013-14 to 2015/16. It is beyond the scope of this study to examine the reasons for this decline, but the conventional wisdom has been that it had more to do with policy decisions (such as the re-instating of free tuition for ABE courses in 2017) than need or student demand.

The small and rural institutions had the highest percent of non-graduates among the ABE survey respondents. As expected, the largest number of non-graduate respondents had been enrolled at the larger institutions.

The surveys of former ABE students found that half the non-graduate respondents hoped to continue their studies beyond ABE, and most of these did so: 42 percent were still studying in another program at the time of survey, and 26 percent of those not currently enrolled had taken more courses since leaving their ABE program. This finding explains the primary route by which high school non-graduates access research-intensive universities.

# Trades and Apprenticeship Programs

Trades programs offer a route to post-secondary education for students who have not completed their high school diplomas. Generally, courses at the Grade 11 level are pre-requisites for entering the trades. Some trades will accept Grade 10: Baking, for example, requires Grade 10 or equivalent including English 10, Mathematics 10 and Science 10 (with Grade 12 preferred). Some trades prefer Grade 12 completion but will take Grade 10. The trend is toward more trades requiring Grade 12.

In 2009/10, 12 percent of the high school non-graduates were enrolled in trades program (Beatty-Guenter & Cowin 2013). In the current study of 2015/16 non-graduates, 13 percent were in trades, with the majority being male. The specific trades included Welding (525 students), Carpentry (518 students), Electrical (513 students), Automotive (343

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[5] https://www2.gov.bc.ca/assets/gov/education/post-secondary-education/data-research/standard_reports_program_area_totals.pdf

> *It might be commonly understood that when the admissions and enrolments of high school non-graduates are compared with graduates, the focus is on post-secondary level programs. Much of the information provided during interviews seemed more focused on these applicants, as opposed to development or contract training applicants. Together, this grouping comprises one in three (32%) of all non-graduates.*

students), and Heavy Duty (329 students) but also includes programs of study not always understood as trades, such as Culinary Arts/Cook Training (269 students) and Hairdressing/Aesthetician (104 students). Almost half (48%) of the non-graduate females in the trades programs are in these latter two trades.

At the Trades Foundation level (entry to a trade including basic workplace skills) programs often do not require high school graduation. Prerequisite entry levels of English and mathematics can be demonstrated through placement testing. These programs offer direct entry to employment for high school non-graduates, and depending on the program of study, can lead to apprenticeships. There were 1,135 non-graduates enrolled in Foundation Certificate programs and 1,546 in Apprenticeship programs during 2015/16.

Trades was the largest area of study for the high school non-graduates who completed the survey of former students in certificate and diploma programs (40%). If trades training was taken, 70 percent of the non-graduates sought an apprenticeship afterwards, and 71 percent of those obtained an apprenticeship.

## Post-Secondary Level Programs

It might be commonly understood that when the admissions and enrolments of high school non-graduates are compared with graduates, the focus is on post-secondary level programs. Much of the information provided during interviews seemed more focused on these applicants, as opposed to developmental or contract training applicants. Together, this grouping comprises one in three (32%) of all non-graduates.

While Arts and Sciences programs are the primary destination for nearly half of the Grade 12 graduates, only 10 percent of non-graduates are enrolled in this program areas. All other program areas generally considered post-secondary level together enrolled 21% of non-graduates. In decreasing order of enrolment numbers, there are: Business, Health, Human and Social Services, Engineering and Applied Sciences, Visual and Performing Arts and Education. A detailed review of program titles revealed that some of these enrolments are in programs having lower levels of admission criteria than high school graduation. For example, within the business area are programs called Business Essentials and Business Pathway. In the health area are programs of Health Care Assistant, with admissions requirements of Grade 11.

# Program Credentials

A complication in making statements about credentials earned by high school non-graduates arises from the fact that many of the programs taken by high school non-graduates have certifications that are externally awarded. Apprentices, for example, receive their Red Seal from the Industry Training Authority and many certificates in the Occupational and Personal Skills area are awarded by WorkSafeBC, the BC FoodSafe Secretariat, Transport Canada and related organizations. The CDW and STP, however, only record credentials awarded by post-secondary institutions.

Although credential completion is not always a goal nor even possible in some programs, Heslop (2016, p. 20) reported that almost one in five non-graduates who enter a public post-secondary institution do earn a credential (compared to two in five graduates). She found that the type of credential sought by the 3,293 high school non-graduates was most frequently "none" (38%) or a developmental program credential (31%). Enrolment in programs awarding certificates stood at 14% and only 4% of non-graduates enrolled in a bachelor's degree program.

# Another Pathway: Career Colleges

The private career colleges offer non-graduates access to post-secondary education. Examination of websites of the larger career colleges reveals that they seek to be accessible to non-graduates. These institutions are potentially a significant route for high school non-graduates to enter post-secondary education.

The extent to which private career colleges offer non-graduates access to post-secondary education may be better understood under a new data collection initiative. With new legislation providing for a Provincial Education Number to be assigned to students in private training institutions, trustworthy enrolment data may start becoming available in the near future – data which would permit linkages with Ministry of Education databases regarding high school graduation status. Nevertheless, this sector clearly does provide educational access for non-graduates and needs to be taken into account when assessing policy and practices at the provincial level.

# Conclusion

Since approximately 20% of the BC population does not graduate from Grade 12, it is important to assess the characteristics of these non-graduates, what pathways exist for non-graduates to enter post-secondary institutions in the province, and what programs they access. This study has provided some answers to those questions and raised areas for further investigation.

## Overall

*Consistent findings –* The findings of the current study are consistent with the two previous studies of non-graduates in BC in terms of key demographic attributes. These consistencies provide evidence that BC non-graduates can be understood as diverse in many ways, from their demographic profiles to their programs of study. Nevertheless, this consistency does not mean that similar policies will emerge (as elaborated in the next paragraph). Furthermore, with considerable variation across institutions and fields of study, one must be wary of across-the-board generalizations about non-graduates in post-secondary education. Any change in government or institutional policy is likely to be especially significant for ABE and the trades, Indigenous students, and rural colleges.

*Various perspectives -* Not all stakeholders see the topic in the same way. The study has made explicit the wide variety of lenses or philosophies that are being used in BC and elsewhere to interpret data about a certain student population. (Indeed, these models shape what data are collected in the first place and then what questions are directed to it.) We merely highlight these differences to make them explicit, rather than argue for any particular set of lenses to be favoured. Our rationale is that it is difficult for parties to have constructive discussions if they are unaware that some of their members are viewing the world from quite different perspectives, which is a form of cross-cultural miscommunication, as it were. A good example of this is the Adult Dogwood Diploma which may be more significant in the view of those who work in K-12 system or who are concerned with labour force development, than in the view of those who work in the post-secondary system.

## Admissions

*Provincial system of pathways –* The study found high school non-graduates gain access to post-secondary education through a variety of pathways. Each of these appropriately involves different approaches to admissions, and students likely require different levels of support to reach their goals. The requirement for high school graduation prior to entry varies in the province first by institutional type and then by program. The research-intensive universities generally require high school graduation, but they do offer some alternative pathways for non-graduates (mature students). Some of the teaching-intensive universities have general admission requirements that emphasize the need for applicants to have graduated from high school. However, the use of the mature student category allows non-graduates who have reached a certain age to gain admission to the teaching-intensive university. Unlike the research-intensive universities, these institutions offer a comprehensive series of skills upgrading (ABE), reflecting their origins as community colleges. The institutes are somewhat similar in their requirement for high school graduation but operationalize that requirement differently. At the colleges, the requirement for high school graduation varies somewhat; although the mature student category is also commonly used, and a range of skill upgrading or preparatory courses

exist as routes of entry for non-graduates. However, high school graduation is mandatory in some health sciences such as nursing, because high school graduation is required by employers. The variety of approaches broadly reflects different institutional mandates and reveals they reflect a provincial system of options for non-graduates offering highly accessible, open pathways and regional access.

**Non-graduate versus mature students –** The label 'non-graduate' is seen by post-secondary institutions as being of variable utility. Research-intensive universities use it the most, using high school graduation as the expected minimum for admission. In other institutions, the concept is largely irrelevant. Instead, non-graduates fall into the category of mature students and, therefore, the key barrier to participation in post-secondary is framed by age, not by level of previous education. Some institutions do not require high school graduation nor do they have a mature student policy; instead, they admit everyone and use prerequisites to manage enrolment. There seems to be an implicit assumption that people mature with age and that the value of previous secondary school skill levels retreats over time.

**Various upgrading approaches -** The research-intensive universities do not offer upgrading courses per se, although some provide upgrading courses for students who have already been admitted. Most other institutions provide pathways for students with deficiencies in academic skill levels prior to being accepted into a program that requires higher levels of these skills. These are usually focused on specific skills areas – such as math, English and sometimes science courses. Sometimes upgrading is required and sometimes it is discretionary.

**Use of assessment tests –** Most institutions use skill assessment tests in English and math as alternative routes for applicants to demonstrate sufficient competency to satisfy program and course prerequisites. These provide non-graduates an entry pathway without having to return to secondary school to obtain the necessary skills. The tests used vary widely, as does the compulsory placement as a result of test results.

# Demographics

High school non-graduates in some senses represent a distinctive population. STP data shows that delayed entry into post-secondary is significant for students from rural locations and Aboriginal students who have lower immediate transition rates into post-secondary education than urban and non-Aboriginal students.

- **Age –** High school non-graduates enrolled in post-secondary institutions are older on average than graduates.

- **Family -** Former student surveys reveal that high school non-graduates have children and partners more frequently than do graduates, complicating the time they can devote to their studies.

- **Indigenous Peoples -** At least one-third of self-identified Aboriginal students enrolled in BC post-secondary institutions are non-graduates from high school and almost half of these had last enrolled in BC Grade 12, but had not graduated. Many Indigenous students are gaining access to post-secondary education through specially funded, non-core programming, possibly related to partnerships with Indigenous communities. Most high school non-graduates are enrolled at the colleges. However, that the identity of Aboriginal students relies on students self-identifying limiting the validity of these statistics.

# Institution Type

High school non-graduates are more likely to be found at the BC colleges, followed by the institutes, and make only 10 percent at the seven universities of the data in this study (and even less at the BC research-intensive universities). Of all the former BC high school students enrolled at the colleges, 22 percent are non-graduates. Some of the Lower Mainland BC institutions have the largest number of non-graduates, but the rural colleges have the largest proportions of non-graduates.

# Programs

**Developmental Education (ABE) -** High school non-graduates enrol in developmental education programs at six times the rate of graduates, demonstrating a clear pathway for bringing these students back into formal education. Of the non-graduates in developmental programs, 58 percent are female. Of the Indigenous non-graduate students over age eighteen, 30 percent are in developmental programs. Most post-secondary ABE programs, in contrast to ABE programs offered by school districts, are not intended to provide high school graduation. Rather, they focus on specific pre-requisite skills and knowledge to prepare students for further post-secondary study.

**Trades -** Trades programs offer a route to post-secondary education for students who have not completed their high school diplomas: some trades accept Grade 10 or Grade 11. Of 2015/16 non-graduates in this study, 13% were in trades, with the majority being male and most commonly enrolled in Welding, Carpentry or Electrical. Almost half of the female high school non-graduates in trades programs are in Culinary Arts/Cook Training or Hairdressing/ Aesthetician.

**University Level -** Some high school non-graduates enter post-secondary level programming directly but at much lower rates than graduates. For example, Arts and Sciences programs, for example, are the primary destination for nearly half of the Grade 12 graduates, but only 10% of non-graduates.

**Other -** One in three non-graduates are enrolled in programs that are not part of regular institutional programming: these include contract training, partnerships with Indigenous communities, and continuing education. These enrolments may not result in a credential, but they support improvement of specific job skills or contribute to a local community initiative. Much of this programming includes non-credit job skills training such as Occupational First Aid, Fire Suppression, Traffic Control, Customer Service, and Workforce Training.

**Private colleges -** The private career colleges offer non-graduates access to post-secondary education. Examination of websites of the larger career colleges reveals that they seek to be accessible to non-graduates.

# Suggestions for Future Studies

This project illuminated several areas where further research may be valuable. These are either areas where gaps in our knowledge were found or where questions were raised that were outside the scope of this research.

First, the study identified the role of career colleges in meeting admitting non-graduates for post-secondary train-ing. As students in these colleges are now receiving a Provincial Education Number, consideration should be given to incorporating some data elements from career colleges in the submissions to the Student Transitions Project.

Second, the data fields of Program Title and First Nations Identity provided some additional information about non-graduates that has not so far been available. These two attributes in the CDW are certainly worthy of further study.

Third, the STP created a variable called the Inclusive GPA (Helsop, 2016) calculated by averaging 12 high school course grades required for graduation. Comparing students who enrol in post-secondary programs without grades in each of these twelve courses with those who do provides a more expansive definition of a non-graduate for the purposes of understanding subsequent student success of the high school non-graduate. Further studies of this sort (after removing high school partnership students) would be useful to enrich our understanding on this subject.

Fourth, both the CDW and the STP use program categories derived from Statistics Canada's *Classification of Instructional Programs*. The categories grouped as "Personal Interest and Improvement," can be problematic and misleading. In particular, personal interest implies only general interest or recreational courses but this is not accurate; often these categories include occupationally-oriented training or essential skills development. The names of programs within these categories are the best clue as to the curriculum and purpose of the offerings.

Where possible, it would be helpful to distinguish general interest courses from what we have called Occupational and Personal Skills in this study. Given the contingent, fluid, and non-standard constellation of courses that contract training and continuing education departments are called upon to deliver, it can be tempting to code offerings using catch-all categories such as Other or the existing Personal Interest and Improvement label. In doing so, however, the nature of the offerings and their contribution to society may not be fully appreciated by those viewing the resulting data reports. It is recommended that other projects consider using this title as a better reflection of the post-second-ary programming taking place and to reduce differences due to institutional coding practices.

Finally, little research has been directed towards understanding why those who left high school prematurely decided later to return to education. Although the impetus for these actions was outside the scope of this project, additional attention should be focused on studying the dimensions of student motivation. As one interviewee informed us, the assessment of motivation is clearly a central part of the decision to admit a non-graduate into some programs:

> *I looked at applicants' transcripts and supporting documents to determine if the applicants had enough life experience to benefit. There were general criteria I used but mostly it was a holistic assessment. I looked at prior academic performance and [whether] did the applicant make any attempt to return to education via ABE or go back to secondary education as an adult. I looked at their record of employment and letters of ref-erence. Most applicants were women 30-45 years of age. I was most concerned with evidence of motivation.*

Research on why high school non-graduates seek to enter postsecondary education may shed light on policy alterna-tives for institutions who wish to be as fair and welcoming as possible to these students.

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# Acknowledgements

# Appendix 1:
# BC High School Graduation Requirements

## A: Certificate of Graduation

The BC Certificate of Graduation or "Dogwood Diploma" is awarded to students who successfully complete the provincial graduation requirements. In order to graduate from high school, students must pass specific courses. Overall, each student must acquire 80 credits from a combination of required courses (48 credits as shown below), elective courses (28 credits) and the Graduation Transitions program (4 credits setting education, career and life goals.

Required Courses (48 credits):

Planning 10 (4 credits)
- a Language Arts 10 (4 credits)
- a Language Arts 11 (4 credits)
- a Language Arts 12 (4 credits)
- a Mathematics 10 (4 credits)
- a Mathematics 11 or 12 (4 credits)
- a Fine Arts and/or Applied Skills 10, 11 or 12 (4 credits)
- a Social Studies 10 (4 credits)
- a Social Studies 11 or 12 (4 credits)
- a Science 10 (4 credits)
- a Science 11 or 12 (4 credits)
- Physical Education 10 (4 credits)

## B: Adult Graduation Program

To complete the Adult Graduation Program, students (18 or older) must earn at least 20 credits in the secondary system or complete five courses in the post-secondary system. Courses and credits can be counted from the BC School System and/or the College ABE Program.

| British Columbia School System Qualifying Courses | College or ABE Program Qualifying Courses |
|---|---|
| A Language Arts 12* course | A provincial or post-secondary level English course |
| AND | AND |
| A Mathematics 11 or 12** course | An advanced or provincial or post-secondary level Mathematics course |
| AND EITHER | AND EITHER |
| OPTION 1: Three 4-credit Grade 12-level Ministry Authorized courses, including External Credential Courses | OPTION 1: Three additional courses at the provincial or post-secondary level |
| OR | OR |
| OPTION 2: Social Studies 11, BC First Nations Studies 12, or Civic Studies 11 (4 credits each) AND Two 4-credit Grade 12-level Ministry Authorized courses, including External Credential Courses | OPTION 2: Advanced Social Sciences and two provincial or post-secondary level course |
| **Total 20 credits** | **Total 5 courses** |

From: http://www2.gov.bc.ca/gov/content/education-training/k-12/support/graduation/certificate-of-graduation and http://www2.gov.bc.ca/gov/content/education-training/adult-education/adult-upgrading

# APPENDIX 2:
# Summary Characteristics - Three BC Studies of Non-Graduates

| Authors (Date) | Beatty-Guenter & Cowin (2013) | Heslop (2016) | Beatty-Guenter, Cowin & James (2018) – current study |
|---|---|---|---|
| Data Source | Student Transitions Project (STP) | Student Transitions Project (STP) | Central Data Warehouse (CDW) |
| Description | All BC high school non-graduates in BC public post-secondary 2009/10 | Cohort of students enrolled in BC Grade 8 in 2004/05 | BC high school non-graduates at 21 BC post-secondary institutions in 2015/16 |
| Focus | Point in time: Understanding enrolment patterns of non-graduates | Cohort: Longitudinal (10 year) comparison of transitions for one group of BC students | Point in time: Program area analysis to support admissions questions |
| Number of Non-Graduates in Study | 34,750 | 3,293 | 27,500 |
| Non-Grads as a % of All Students | 10% | Not in scope | 8% |
| Non-Grads as a Percent of "BC Students" | 17% | 9.5% of cohort | 19% |
| Non-Grads Aged 18-29 | NA: Included aged 17 and under | 100% of cohort | 40% |
| Non-Grads Gender | 49% Female | 41% Female | 51% Female |
| Non-Grads % Aboriginal | 22% | 22% | 16% |
| % of Non-Grads at a BC College | 60% | 54% | 58% |
| % of Non-Grads in Developmental Programs | 25% | 49% | 22% |

Sources: Beatty-Guenter, P., & Cowin, B. (2013). Post-secondary pathways of non-graduates from BC Grade 12. Retrieved from https://files.eric.ed.gov/fulltext/ED561321.pdf

Heslop, J. (2016) Education pathways of high school graduates and non-graduates: A longitudinal study from the Student Transitions Project. Retrieved from http://www2.gov.bc.ca/assets/gov/education/post-secondary-education/data-research/stp/educ_pathways_of_grads_and_nongrads.pdf

# Appendix 3:
# The High School Partnerships Pathway

Many of the 27,500 high school non-graduates in CDW institutions in AY 2015/16 are likely still enrolled in high school as almost 15% (4,066) of them were aged 17 and under. Admissions officers confirmed that students this young would not be enrolled unless they were high school graduates, except under partnership with high schools (dual credit). In other words, some young people in post-secondary institutions only appear to be "non-graduates" because they are still enrolled in high school.

Initiatives for dual registration between high schools and post-secondary have grown in recent years, especially for students identified as being at risk and those on a fast track program into some trades programs. Some institutions have high levels of participation with their local school districts on such initiatives. Over 300 non-high school graduate students aged under 17 were enrolled in 2015/16 at each of Camosun College, College of the Rockies, Douglas College, North West Community College, Okanagan College and Selkirk College.

More direct evidence of high school partnerships is available where institutions have submitted student enrolments to the CDW using program titles that identify their high school status rather than the actual name of the program of studies. For example, a significant BC Industry Training Authority initiative called "ACE-IT" (now called Youth Train in Trades) appears in some trades program titles. Other program titles implying such partnerships include "High School on Campus" and "Secondary School Headstart Program".

As this report was designed to study the high school non-graduate in a more traditional sense, those students aged 17 years and under were removed from the data discussed above, under the assumption that most of them are in high school at the same time as being enrolled in post-secondary institutions. This exclusion encompassed 213 First Nations non-graduates aged 17 or under, presumably enrolled in high school partnership programs.

For many research purposes, it can be confusing to include these dual credit students, most of whom will likely soon become graduates, in an analysis. They call for a different type of study with differently focused research questions. Appearing in many different program areas from the trades to university level courses, they pepper the data and confound the results. It may be useful in the future to consider whether to remove these young students from certain kinds of comparative studies done using STP or CDW data.

# APPENDIX 4:
# BC Public Post-Secondary Institution Type

| Government Designation Institution Type | Name | Acronym | Offers Adult Basic Education/ Upgrading |
|---|---|---|---|
| College | Camosun College | | Yes |
| | College of New Caledonia | CNC | Yes |
| | College of the Rockies | COTR | Yes |
| | Douglas College | | Yes |
| | Langara College | | Yes |
| | North Island College | NIC | Yes |
| | Northern Lights College | NLC | Yes |
| | Northwest Community College* | NWCC | Yes |
| | Okanagan College | | Yes |
| | Selkirk College | | Yes |
| | Vancouver Community College | VCC | Yes |
| Institute | British Columbia Institute of Technology | BCIT | Yes |
| | Justice Institute of British Columbia | JIBC | |
| | Nicola Valley Institute of Technology | NVIT | Yes |
| Teaching-Intensive University | Capilano University | CAPU | Yes |
| | Emily Carr University of Art & Design | ECUAD | |
| | Kwantlen Polytechnic University | KPU | Yes |
| | Royal Roads University | RRU | |
| | Thompson Rivers University | TRU | Yes |
| | University of the Fraser Valley | UFV | Yes |
| | Vancouver Island University | VIU | Yes |
| Research-Intensive | | | |
| University | Simon Fraser University | SFU | |
| | University of British Columbia | UBC | |
| | University of Northern British Columbia | UNBC | |
| | University of Victoria | UVIC | |
| | | | |

# Appendix 5:
# Full Literature Review

The following presents a review of the literature pertaining to high school non-graduates in other jurisdictions outside BC in Canada, particularly Alberta and Ontario, as well as the USA and the UK.

## Canadian Literature

Across Canada between 1999 and 2007, 17% of youth interrupted their high school at some point (Statistics Canada, 2010). A decade later, two thirds had returned to education and either completed high school or entered post-secondary studies directly. The same study found that, nationally, 43% of those who interrupted high school eventually entered post-secondary education. Of these, most (79%) did complete high school first, but some (21%) entered postsecondary without high school graduation. The study concluded with a call for further research on the types of post-secondary institutions and programs pursued by early high school leavers, the challenges they faced, and the progress they made.

Another Statistics Canada study, focusing on a single year, found that whereas only 81% of BC residents aged 19 years had graduated from high school in 2009/10, the graduation rate was 93% for 24 year olds (McMullen& Gilmore, 2010). Both figures were above the Canadian average of 77% and 90%.

Despite extensive Canadian literatures about secondary education, at-risk youth, and adult education, the Canadian literature directly pertinent to this study is rather limited. Focusing on dropouts aged 18 to 24, MacGregor and Ryan (2011) concluded that little research has been directed towards understanding why such students decide to re-enroll, nor about the strategies and programs that need to be in place to support these learners (especially given that they often mistrust the educational system).

Over the past two decades, the educational needs and circumstances of Aboriginal people has constituted a growing theme within the literature. Aboriginal students represented 11% of the BC public school population in 2015/16 (BC Ministry of Education, 2016). The six-year completion rate for Aboriginal students rose from 57% in 2011/12 to 64% in 2015/16.

Levin (1992) presented two ways in which the issue of non-graduates has been framed, each of which helps in interpreting subsequent research. One approach comes from a discourse about drop-outs and the other concerns second chances.

When the discourse is about dropping-out, the resulting public policy tends to focus on prevention and encouraging those who have left to return to secondary school. Much stress is placed on publicity about the negative consequences for individuals and society of incomplete secondary education. Special secondary school programs are developed for so-called "at-risk" youth in an attempt to raise graduation rates. Drop-out becomes a negative term, rather than a neutral descriptor, and can encourage the viewing of drop-outs as victims (Alberta Learning, 2001).

Proponents of the second chance perspective are more apt to see early secondary school leaving as a rational, if unfortunate, decision by students. Referencing Inbar (1990), Levin describes second chance as essentially providing more and better opportunities for would-be students to enter or re-enter educational programs. The policy emphasis here is on alternative routes for people to improve their formal education, regardless of how, when, or why they left school. "Indeed we might well want to stop trying to keep students in school, and work towards a system that made it much easier for people to leave, but also much easier for them to resume their education" (Levin, 1992, p.264).

Writing at much the same time as Levin, Davies (1994) observed that although rates of early-leaving were not increasing, dropping-out was increasingly perceived as a problem because labour market opportunities for these youth were eroding, potentially condemning a sizable proportion to permanent marginality. "Policy makers regard drop-outs as a potential social menace, threatening taxpayers with lost revenues and heightened welfare, unemployment, and crime prevention" (Davies, 1994, p.332). Although the 1980's and 1990's were producing abundant, and consistent, research into the social correlates of dropping out, Levin claimed that the empirical findings had failed to generate an overarching theoretical framework with causal links among key variables.

Early secondary school leaving is complex, the result of multiple factors (Alberta Learning, 2001). It is a process of gradual disengagement, not an event. The factors are sometimes grouped in three categories, for example:

- *Student-centred:* low academic achievement, behaviour issues, gender, immigration status, peer group and friendship networks (Ellenbogen & Chamberland, 1997; Winton, 2013)

- *School-related:* teacher and curricular lack of cultural competence, large school and class sizes, lack of support services, and a negative school culture with low student engagement (Community Health Systems Resource Group, 2005)

- *Community/environmental factors:* rural location, low family socio-economic status, less traditional family composition, socially unstable neighbourhoods (Community Health Systems Resource Group, 2005; Davies, 1994; Richards, 2009)

With often difficult personal and social lives, students frequently view their decision to leave school as making sense in terms of their perceptions of the relative payoffs and personal costs of educational attainment (Alberta Learning, 2001). Nevertheless, they may also see further education as important to their future wellbeing:

*Ironically, despite the negative feelings early school leavers frequently attribute to their schools, many early school leavers remain committed to the value of education and intend on returning to school one day if the required supports are available. Furthermore, students who have left school often come to see the education system as the future solution to the employability needs.* Alberta Learning, 2001, p.4

Aboriginal youth face additional challenges beyond the experiences they share with many other non-graduates, such as a lack of attention from teachers, social exclusion by peers, and alienation from the suburban middle class values that typify public schools in Canada. The interplay of historical and cultural factors makes formal education especially challenging for this population and "For Aboriginal students since the arrival of Western forms of education, schooling has been fraught with difficulties" (Wishart, 2009, p.469). Much recognition, in Wishart's view, has been given in recent years to meeting the educational needs of disenfranchised urban youth, particularly those who are Aboriginal, but progress has been considerably slower than the growing attention.

Winton (2013) examined some secondary school initiatives in Ontario since 2003, noting in her literature review that creating caring environments and relationships are two recommended, universal practices. Some initiatives focused on incoming students whereas others were designed for those who had already left school or were close to doing so. In both cases, the initiatives were seeking to foster a culture of individualized attention and caring.

Second chance strategies draw upon models already used in post-secondary, adult, and workplace education (Levin, 1992). They pay less attention to previous formal education, instead attempting to assess the levels of motivation and need of potential students. The rationale is that even the best predictors of academic success are not particularly accurate, and that genuinely motivated students, with appropriate support, can achieve much more than anyone expects. The second chance approach questions whether students always need a basic grounding in all aspects of a discipline (that can come later if the student is interested). Rather, it promotes a focus on those topics that are critical to the achievement of the student's educational goal.

In terms of the likelihood of initiatives to bring non-graduates back into formal education being successful, Winton (2013) emphasized that policies interact. The corollary is that standalone initiatives may not suffice. Thus Levin (1992), while commending the many Canadian universities that have a mature student admissions category for those over age 21, noted that mature students have high attrition rates because they often do not receive sufficient support in making the transition into the new educational environment.

Governmental websites in Alberta and Ontario differ in how they address adults who have not completed secondary school. These approaches reflect the two ways of framing the issue – drop outs versus second chances (finish high school first versus a direct, alternative route into postsecondary education.)

In Alberta, the provincial government's upgrading page on Advanced Education's website emphasizes high school completion. Along with explaining that post-secondary programs require specific high school courses, it states "And for most jobs in Alberta, you need a minimum of a high school diploma or a high school equivalent diploma."

High School Equivalency Diplomas are available in Alberta to those who have been out of school for at least ten consecutive months and are age 18 or older. The two routes to this diploma are:

1. Accumulate credits – from high school courses, credits for maturity and life experience, and credits for adult education. (Sixty of the required 100 credits must have been obtained through classroom instruction form a school or other institution acceptable to Alberta Education.)

2. Write the five exams for the General Educational Development (GED) diploma – These exams can be written without having taken courses. However, the Alberta website cautions that colleges, universities and technical institutes might not accept the GED for entrance to post-secondary studies.

Upgrading is presented in terms of academic courses, available from three sources: (1) through a post-secondary institution, (2) through a school board, and (3) through distance learning via the Alberta Distance Learning Centre.

The Alberta government's website does not mention that applicants who have not attained a high school equivalency diploma can apply to post-secondary institutions as mature students. The institutions vary in their definitions of mature students, as shown in the following examples from institutional websites where the age threshold ranges from 19 to 21:

- *University of Calgary (*a research-intensive university) – Applicants who are at least 21 and lacking the five high school courses or at least 12 post-secondary units required for admission are automatically considered for admission as an Adult Student.

- *Grant MacEwan University* (a teaching-intensive university) – At least age 20 and out of full-time high school for at least one year.

- *Lethbridge College* (a community college) - At least age 19 and out of school for one or more years.

In contrast to the approach in Alberta, the website of the central Application Service for Ontario's Public Colleges highlights direct entry into colleges by non-graduates: "Mature student status may be granted to applicants who are over 19 years old and not have a high school diploma or GED…Mature students are still required to complete course prerequisites."

Unlike British Columbia, where the term post-secondary tends to be used to describe the status of the student (that is, adults who are beyond the age range of secondary school attendance), Ontario is more likely to think of post-secondary in terms of the curriculum. Thus the upgrading, Developmental or Adult Basic Education programs in Ontario colleges are described by the Application Service as pre-college programs. The institutions vary in the labels they attach to these pre-college programs, for example: *College Access* programs at Confederation College and *College Opportunities* at Seneca.

At York University, the definition of a mature student seems to vary slightly by program (in addition to requiring varying secondary school prerequisite courses). Anthropology provides a representative example: age 20, out of full-time high school for at least two years, and having attempted less than one full year of post-secondary studies.

Carleton University does not specify a minimum age for mature students but does stipulate that the applicant has been away from full-time study for at least two calendar years and has never attended a college or university as a full-time student. A statement of 500 to 1,000 words is required about what the applicant has done since leaving full-time studies, their goals, their expectations of what a university education will provide, and reasons why the applicant is likely to be successful in their studies.

Carleton also has a Special Student category for those who have not been admitted to a degree program but who are taking degree-credit courses to qualify for admission, to improve professional qualifications, for transfer credit, or for personal interest. Applicants to Carleton degree programs who did not graduate from secondary school, and who lack other relevant academic or work experience, must successfully complete one credit as a Special Student to be eligible to apply as a mature student.

# USA Literature

The admission of high school non-graduates into post-secondary institutions in the USA is largely determined by the openness of the admissions policy of different institutions, where a variety of terminology is used to describe non-graduates among the wider group of academically underprepared applicants.

Admitting underprepared students into colleges and universities in the USA has a long history. In the 1700s, Harvard University provided remedial classes in Latin and Greek for those incoming students whose skills were insufficient (Stephens 2001), and in 1840 the University of Wisconsin became the first to create a preparatory department teaching content commonly taught in secondary schools for those who were deficient (Brubacher & Ruby 1976).

The Morrill Acts of 1862 and 1890 — creating and expanding the land-grant universities — dramatically increased access to higher education and concomitantly produced more underprepared applicants to be handled. The result was the introduction of a high school diploma as the minimum requirement for post-secondary entry, emulating the entrance standard of the Gymnasium in Germany, and was first introduced in 1870 by the University of Michigan (Brubacher & Rudy 1976).

Later, the Serviceman's Readjustment Act (aka the GI Bill) of 1944 was another milestone in expanding access, this time to returning veterans from the Second World War, many of whom had not completed high school. This situation led to the creation of the General Education Development (GED) series of examinations in 1942 to provide high school equivalency diplomas. The resulting academic success of these veterans was salutary and prescient because in college they "systematically outperformed their younger, selectively admitted classmates, and demonstrated a model of educational success that could come with greater maturity and a second chance." (McCabe & Day 1998, p. 3)

Yet the most significant impetus to increasing access to higher education generally in the USA was the expansion of a national network of junior and community colleges during the 1960s and 1970s. Almost all of these institutions touted an open admissions policy (or open door philosophy) that set them squarely apart from the selective and competitive admissions practices of the state universities and private colleges, and this openness also included program choice:

> *Membership in the student body is completely open to the general public. Once within the doors, students choose courses and majors within wide ranges, although the college attempts to exercise some control through counselling and guidance. But overall the college is directly shaped by virtually unlimited student choice of admission and participation.* (Clark 1960a, p. 128)

However, despite the label "open door," the door was generally only open to those applicants who already possessed a high school diploma. That situation remains largely true today where the high school diploma or its equivalents are generally the minimum requirement for access to any post-secondary institution, including the community colleges.

Nonetheless, there are ways for high school non-graduates to enter colleges and universities in the USA. Among these are the following:

- *Obtain a GED High School Equivalency Diploma* – either through self-study or by taking exam preparation courses, for example ones offered by local schools

- *Take the Scholastic Aptitude Test (SAT) or American College Testing (ACT)* — Many US postsecondary institutions will view these scores (among others such as *Accuplacer*) as equivalent measures to a high school diploma, usually if the scores are recent (e.g., within last 2 years).

- *Qualify as a mature student* – Most post-secondary institutions, including some selective universities will permit adults who have reached a certain age to qualify for admission simply on the basis of age although they may be subject to some placement testing in cores subject areas and may be limited to what courses they can begin with.

- *Apply under a special admissions category – T*hese can cover a variety of applicant subsets such as under-aged students, veterans, applicants with disabilities, visiting students, non-degree students, seniors and homeschooled students

- *Request a waiver –* At some institutions the admissions decisions are made by faculty or Deans who have the authority to waive admission requirements or course prerequisites for applicants who make a case that they can succeed in college due to previous work or life experiences.

Some post-secondary institutions in the USA admit any applicant without requiring a high school diploma or equivalent. Many of these institutions will require high school non-graduates to take one or more in a battery of placement tests which determine what courses students can commence with. The purpose is to assess the student's current academic skills in order to determine a best fit for the student's first courses. A few institutions will provide full open admission to college courses for high school non-graduates although they may limit the initial choice of courses available to the student. For example, here is the requirement at Sitting Bull College in South Dakota:

> *If an applicant for admission is NOT a current high school student, a graduate of an accredited high school or has not received a GED certificate, the applicant is eligible to enroll for one semester in up to eight credit hours with a course requirement of PSYC 100 First Year Learning Experience for three of the eight credits, providing they have successfully completed three of the four official GED tests. However, the applicant will be required to work with the GED Director on obtaining a GED by the end of the semester. Students are not eligible to enroll a second semester until proof of GED completion is submitted to the Registrar's office.* (https://sittingbull.edu/admissions/)

The majority of applicants who do not possess a high school diploma are systemically steered towards remedial academic skill courses in English, mathematics and introductory science which they must successfully complete before entering college-level courses – these remedial courses are often called Developmental Education courses – although the exact labelling can depend upon which instructional department offers the courses. In 2011-12, approximately 1/3 of all first-year undergraduate students in the USA reported enrolling in one or more developmental education course – and for students attending community colleges this rose to approximately 40% (Schak et al. 2017).

Although participation in developmental programs is generally associated with 2 year public institutions, such as community colleges, the numbers enrolled at other types of institutions are still extensive, as shown in Figure A1.

The lack of a consistent definition of developmental education, combined with no standard screening by which students are placed into such programs, creates difficulties in comparing numbers across states in the USA. Estimates suggest the numbers can vary from 2% in Montana to 93% in Florida, whereas the majority of states appear to have rates between 30% and 55% (Schak et al., 2017).

The large numbers of students taking developmental courses in post-secondary institutions in the USA has been a political and academic issue for decades, and garnered a variety of state and local responses. Many point to the failure of a secondary system that ill-prepares students for post-secondary studies and some researchers even suggest that a large proportion of students with high school graduation are ill-prepared for the rigors of post-secondary courses.  Others suggest that the problem is with the developmental courses themselves which — because they are either unmotivating or poorly taught – do not advance students in expected numbers. Either way, administrators and legislators have balked at the ongoing cost of delivering at a postsecondary institution coursework that is high school level, with some arguing vicariously that the public is paying twice for the same educational provision.

**FIGURE A1:** Enrolment in Developmental Coursework by Postsecondary Sector in USA among New Students 2010-11
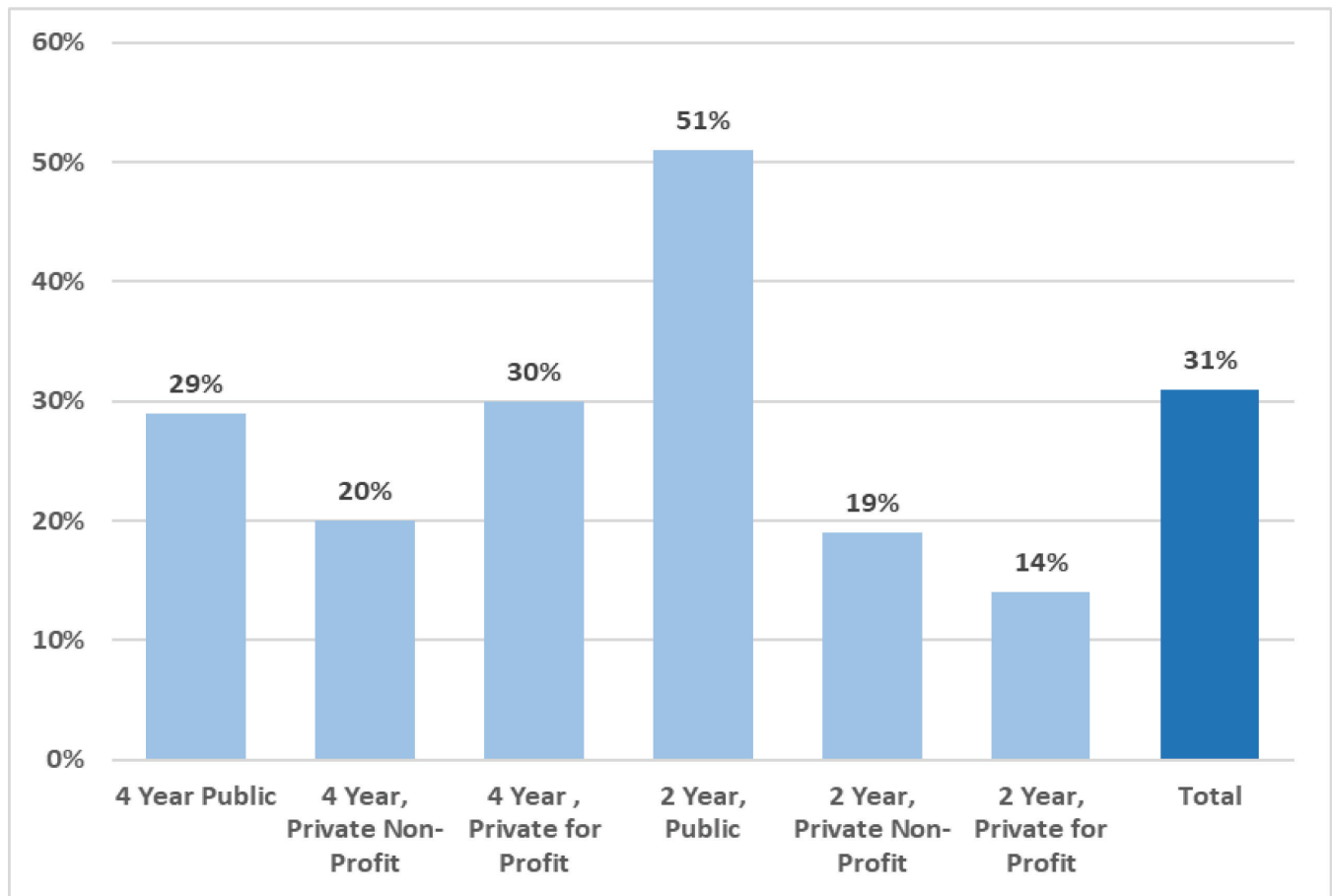


Source: Schak et al. (2017)

For some time, educators in the USA have struggled to reduce the number of students taking remedial courses in college (Schak et al. 2017), and to improve the number of students successfully completing their remedial programs (CCCSE 2016). Various strategies have been employed to achieve this, such as:

- *Multiple placement assessments* – rather than relying on a single test score which can be a poor predictor of college readiness and subsequent success (Scott-Clayton 2012).

- *Corequisite courses* – students taking a remedial class co-enrol in a college-level course typically taught by the same instructor, creating paired courses which have increased the progression rate through developmental programs (Complete College America 2015).

- *Accelerated courses* – collapsing multiple levels of English and Math courses to condense the time taken to progress to college-level courses (Jaggers et al. 2015).

- *Link to workplace skills* – remedial courses co-taught by developmental instructors and technical program faculty to provide more relevance and in situ context for the learning (Wachen 2012).

These innovations can have notable improvements in the success rates of students in developmental programs (Bailey *et al.* 2016). For example, the Accelerated Study in Associate Programs (ASAP) at City University of New York waives tuition fees and provides academic supports such as free textbooks and block-scheduled classes. It also provides other supports such as advising, career services and free transit cards. ASAP participants graduated with a degree at twice the rate of a control group (Scrivener *et al.* 2015).

# UK Literature

The admission of secondary school non-graduates into post-secondary institutions is particularly interesting in the UK which serves as a useful example of a country with a historically selective admissions regime which has adjusted to the massification of higher education.

Traditionally, students did not graduate from secondary schools in the UK – they simply left. This was either because they reached the age beyond compulsory education or completed the general certificate of ordinary or advanced education examinations (O and A levels) or vocational qualifications from colleges of further education. Entry into university was based on grades achieved in these examinations/qualifications. The examinations were organized by national examination boards and were not available to adults; therefore, attendance at university was almost exclusively for full-time students who had left secondary school or technical college the year before.

The first major reform was carried out by the Labour government in the 1960s with the introduction of the Open University which strove to use communications technology to bring degree-level learning to people who had not had the opportunity to attend campus universities – and provide open access to courses with no academic prerequisites. The Report of the Planning Committee in 1966 stated: "We took it as axiomatic that no formal academic qualifications would be required for registration as a student. Anyone could try his or her hand" (p.1). Since then, the Open University has grown into the post-secondary institution awarding the largest number of degrees per year in the UK.

Many other universities in the UK also open their doors to "unqualified" students – mature students who did not possess the academic qualifications usually required for entry. For example, the Joint Matriculation Board (JMB) has provided an entry route for unqualified adults for a consortium of the universities of Birmingham, Leeds, Liverpool, Manchester and Sheffield. Records of the number of students admitted via these routes is limited because the universities either do not report statistics differentiating "qualified" from "unqualified" students and the definitions of mature students. For example, the JMB universities use an age of 21 years whereas Scottish universities and the University of Wales use 23, and some English universities use an age of 25 years. In addition, institutions vary in how they assess and process mature student admissions, including what entrance examinations or interviews they administer.

The number of unqualified students gaining entry to universities in the UK has been increasing steadily over the past decades from around 160,000 in 1999/10 to 210,000 in 2008/09 – an increase of 31%. In contrast, during the same period the number of qualified students attending university full-time rose from 270,000 in 1999/10 to 345,000 in 2008/09 – an increase of only 28% (Coleman & Bekhradnia 2011).

Not surprisingly, attention has been focused on how well unqualified students fare in their studies (Roderick & Bell 1981, Smithers & Griffen 1986). Rates of degree completion generally at the Open University are 22% after 11 years which compare unfavourably with a rate of 82% for full-time students at other UK universities of 82% over the same time period (Simpson 2010). However, some of this discrepancy is probably due to the distance education nature of

the programs which generally have much lower completion rates worldwide. Indeed, an even lower average completion rate of 13% is reported for MOOCs (Jordan 2011).

Nonetheless, the completion rate at the OU lowers consistently the less previous education the incoming OU student possesses. And this situation is worsening as 50% of new students to the OU are unqualified applicants compared to nearer 30% previously (Simpson 2010). Nonetheless, previous education seems to be more of an issue than the maturity of the students. For example, Richardson (1995) found that mature students studying at the OU were as academically successful as traditional age students.

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