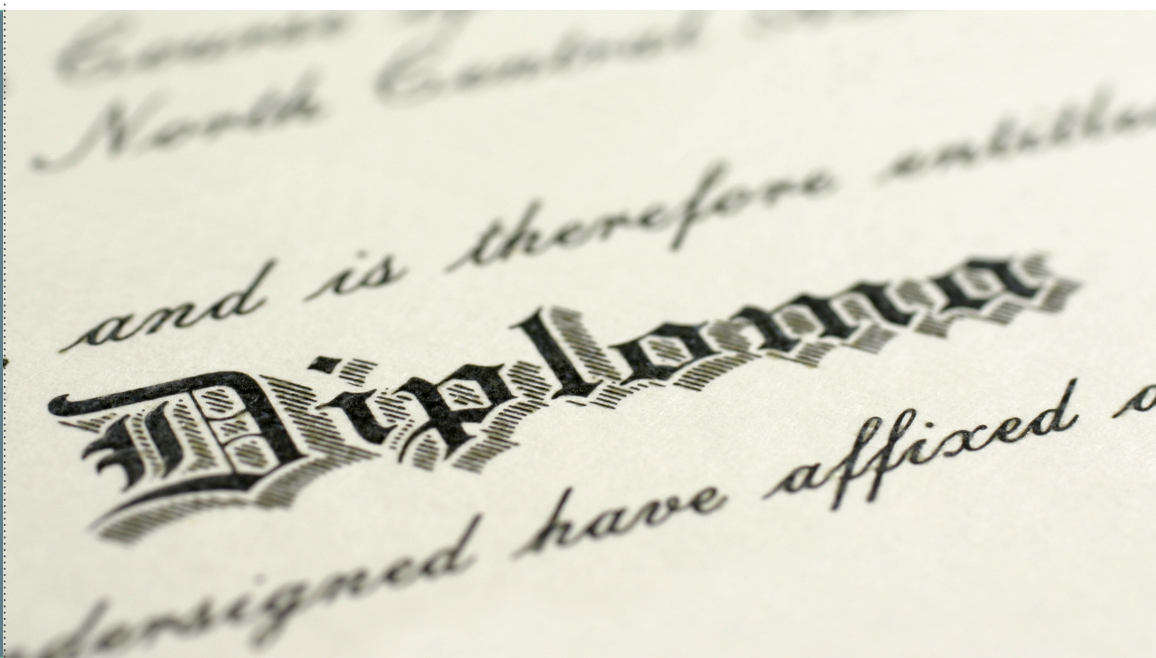


The Growth of Post-Degree Programs in BC

*Prepared for BCCAT by Bob Cowin and Ted James
February 2019*



BCCAT

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Table of Contents

Executive Summary	1
Part One: Introduction	3
Rationale	3
Purpose	3
Scope	3
Conceptual Framework	4
Methodology	4
Part Two: Context	6
Terminology	6
The Programs in Other Jurisdictions	7
United States	7
Australia	7
United Kingdom	7
Canada	8
The Benefits of Graduate Certificates and Diplomas	8
Professional Certification and Short Credentials	9
Previous Attention to Post-Degree Credentials in BC	10
Previous Data about BC Students	11
Part Three: Statistical Portrait	12
Programs	12
Credential Nomenclature	12
Number of Credentials within Institutions	14
Field of Study	15
Enrolment	16
FTE Enrolment	16
Headcount Enrolment	18
Credential Type	19
Field of Study	21
International Students	22
Credentials Conferred	23
Distinctive Characteristics	24
Part Four: Understanding the Growth	25
Demand for Skills Development after Degree Completion	25
Attractive for Laddering into Master's Degrees	26
Attractive to International Students	26
Institutional Incentives	28
Convergence with Professional Certification	28
Relative Importance	29

Part Five: Conclusion	30
What We Have Learned	30
Context Elsewhere	30
Enrolment	30
Programming	31
Explanation	31
Recommendations	32
Conclusion	33
References	34
Appendix A: Survey of Institutions	36
Acknowledgments	44

List of Tables and Figures

Tables

Table 1: Types of Certificates and Diplomas in this Study	4
Table 2: Terminology Used in Different Jurisdictions for Certificates and Diplomas Following a Previous Credential	6
Table 3: Variations in BC Credential Length Noted by Participants of Senior Academic Affairs Forum, February 2014	10
Table 4: Further Education in Baccalaureate Graduates Survey, 2015	11
Table 5: Number of Post-Degree Programs Offered by BC Public Post-Secondary Institutions (October 2017)	13
Table 6: Number of BC Public Post-Secondary Institutions Offering Each Type of Post-Degree Credential	14
Table 7: Number of Types of Post-Degree Credentials Offered by BC Public Post-Secondary Institutions	15
Table 8: Number of Post-Degree Programs by Field of Study	15
Table 9: Five Year Changes in Headcount Enrolment*, 2011/12 – 2015/16	20
Table 10: Headcount Enrolment by Credential Type and Field of Studies, 2015/16	22
Table 11: Change in Domestic and International Enrolment (Headcount) by Credential Type, 2011/12 – 2015/16	23
Table 12: Change in Post-Degree Credentials Conferred, 2011/12 to 2015/16	24
Table 13: “Very Important” Reasons for Developing New Post-Degree Programs	29

Figures

Figure 1: Credential map for certificates and diplomas	5
Figure 2: FTE Enrolment in CDW Institutions Post-Degree and Advanced Certificates and Diplomas	16
Figure 3: Trend in FTEE Enrolments by Program Type at the Four Research-Intensive Universities (UBC, SFU, UVic, UNBC)	17
Figure 4: FTE Enrolment by Program Type and by Research-Intensive University, 2016-17	18
Figure 5: Headcount Enrolment by Credential Type	19
Figure 6: Trend in International Enrolment (Headcount) by Credential Type, 2011/12 to 2015/16	22

The Growth in Post-Degree Programs in BC

Executive Summary



The number of post-degree certificate and diploma programs offered by BC post-secondary institutions, in addition to enrolment in graduate and first professional degrees, is perceived to have grown considerably over the past decade. This growth, however, has not been previously studied in a systematic manner.

Post-degree certificate and diploma programs require an undergraduate degree (or sometimes a diploma) for admission and are relatively short (0.5 – 2 years' duration). They extend or broaden the student's baccalaureate education by adding specialized knowledge or skills for practical and career purposes, sometimes incorporating periods of work experience. Some programs allow for transfer credit, enabling students to complete the program in reduced time.

Post-degree programs consist of courses at the third year, fourth year, or master's level. Although not the focus of this study, a set of upper division programs that offer curricula similar to post-baccalaureate certificates and diplomas, but which require less than a bachelor's degree for admission, are sometimes referenced by way of context. These other programs are known as advanced certificates and advanced diplomas. Certificates at the advanced and post-degree levels are generally one to two semesters in duration, whereas the corresponding diplomas are typically two to four semesters in duration.

Types of Certificates and Diplomas in this Study

Type of Credential	Curriculum Level	Admission Requirement
Advanced	3rd & 4th year	Diploma or Associate Degree
Post-Baccalaureate	3rd & 4th year	Bachelor's degree
Graduate	5th year (Master's)	Bachelor's degree

This study involved conducting a literature review, creating a taxonomy of current programming, analyzing available provincial data on program enrolments and offerings, and surveying all public provincial institutions about the reasons for the growth of these credentials.

Post-degree programs are intended to provide career-related skills development with the potential for enhanced employment and income. Often they are attractive to recent graduates with a general bachelor's degree who want

applied or specialized skills to secure employment. Some post-degree programs facilitate immigration to Canada and these programs are attracting many international students; indeed, some programs are targeted at this population exclusively. Some post-degree programs provide a smooth transition or laddering into master's degrees for students who are not ready, willing, or able to enter a master's program directly.

There are a number of institutional incentives to offer these programs. These offerings can fill empty seats in existing course sections at minor additional cost to the institution, sometimes with higher tuition rates. They can prove stimulating for faculty to teach, especially in institutions where faculty often teach primarily lower-level courses. Institutions can also use these programs to pilot new curricula or to test potential demand for programs of longer duration. The variety of post-degree programs in BC appears to mirror worldwide patterns, including the integration of post-secondary programs and professional employment-based certifications.

Some jurisdictions make extensive use of graduate certificates and diplomas to ladder or transfer into master's degrees, rather than simply using them as parallel, but shorter, tracks of study. The literature about post-baccalaureate certificates and diplomas (consisting of undergraduate courses) is more limited than about master's level credentials. In Canada, much of the writing about non-degree, post-baccalaureate programs either concerns or originates in Ontario, where post-baccalaureate certificates and diplomas (as well as some other undergraduate credentials) fall under its umbrella term of "graduate certificates".

Provincial data reveal that 13 percent of all BC baccalaureate graduates subsequently enter a certificate or diploma program. Almost half of these enrolments are in the types of programs examined in this study.

Different types of institutions offer quite different mixes of credential types, with varying enrolment trends within the same credential. For example, full-time equivalent (FTE) enrolment in post-baccalaureate programs has grown in BC's colleges, teaching-intensive universities and institutes. At research-intensive universities, in contrast, FTE enrolment in undergraduate certificate and diploma programs has been relatively flat, while that in their post-baccalaureate programs has declined slightly.

At the post-baccalaureate level, colleges and teaching-intensive universities together enrol much the same number of students in diplomas as do research-intensive universities but fewer in certificate programs.

Most striking is the growth of international enrolment in a single type of credential, the post-baccalaureate diploma. In 2011/12, international students were a small component of certificate and diploma programming at the level of third year and higher. Four years later, domestic enrolment in post-baccalaureate diplomas had shrunk while international enrolment had grown considerably.

Three fields – business, followed distantly by education and then health – account for most enrolment in post-degree programs. Health is concentrated in advanced certificate programs, business in post-baccalaureate diplomas, education in three credentials, and the smaller number of students in other fields are fairly well distributed across all credential types.

The findings of this study underscored some implications for the BC public post-secondary system, including areas for further attention. Of particular importance are the need for consistent terminology, as well as greater awareness of how federal immigration policy affects enrolment demand from international students in certain types of credentials.

Part One: Introduction

Rationale

The number of post-degree programs offered by post-secondary institutions in British Columbia, in addition to enrolment in graduate and first professional degrees, is perceived to have grown considerably over the past two decades (Cowin 2013; SAAF 2014).

These programs require an undergraduate degree (or sometimes a diploma) for admission and are relatively short (0.5–2 years' duration). They either extend or broaden the student's baccalaureate education by adding specialized knowledge or skills for practical or career purposes, sometimes incorporating periods of work experience for students. Some programs accept transfer credit, enabling students to complete the program in reduced time.

However, this growth has not been formally chronicled and analyzed, and this research project was commissioned to change this situation. The study was prompted by perceptions that:

- The number and variety of post-degree certificate and diploma programs is growing;
- Enrolment trends have not been systematically analyzed; and
- The factors affecting the growth of these programs have not been systematically reviewed.

The project not only assembled data and observations on current offerings, but also offers recommendations about policy development and system-wide consistency in future.

Purpose

This project was designed:

- To review the current array of post-degree programs offered in BC public post-secondary institutions;
- To develop a taxonomy for classifying the range of programming;
- To analyze trends in program and student characteristics;
- To identify any issues that fall within the mandate of the BC Council on Admissions and Transfer; and
- To provide recommendations about implications for policy development and system-wide consistency in future.

Scope

This study concerned programs in British Columbia's public post-secondary institutions that:

- Require a bachelor's degree for admission;
- Are at least the equivalent of three months of full-time study;
- Award a credential other than a degree at a level less than a master's degree; and
- Evaluate student learning; that is, the credential signals mastery of a body of knowledge or skills, not simply that the student was exposed to, or engaged in, the entire curriculum.

Conceptual Framework

Post-baccalaureate and graduate credentials are jointly referred to as post-degree credentials in this study. Certificates are shorter than diplomas, typically taking one or two semesters to complete. Programs leading to diplomas often require two to four semesters of full-time study.

Although not the focus of the study, a set of upper division programs that offer curricula similar to post-baccalaureate certificates and diplomas, but which require less than a bachelor’s degree for admission, are sometimes referenced by way of context. These other programs are known as advanced certificates and advanced diplomas.

TABLE 1: Types of Certificates and Diplomas in this Study

Type of Credential	Curriculum Level	Admission Requirement
Advanced	3rd & 4th year	Diploma or Associate Degree
Post-Baccalaureate	3rd & 4th year	Bachelor’s degree
Graduate	5th year (Master’s)	Bachelor’s degree

Post-baccalaureate programs are sometimes known informally as post-degree programs. However, because BC awards associate degrees as well as a considerable number of master’s and first-professional degrees, it is less ambiguous to specify the particular degree under consideration, namely the bachelor’s degree. As mentioned above, this study defines post-degree as a category encompassing two levels of credentials: post-baccalaureate and graduate.

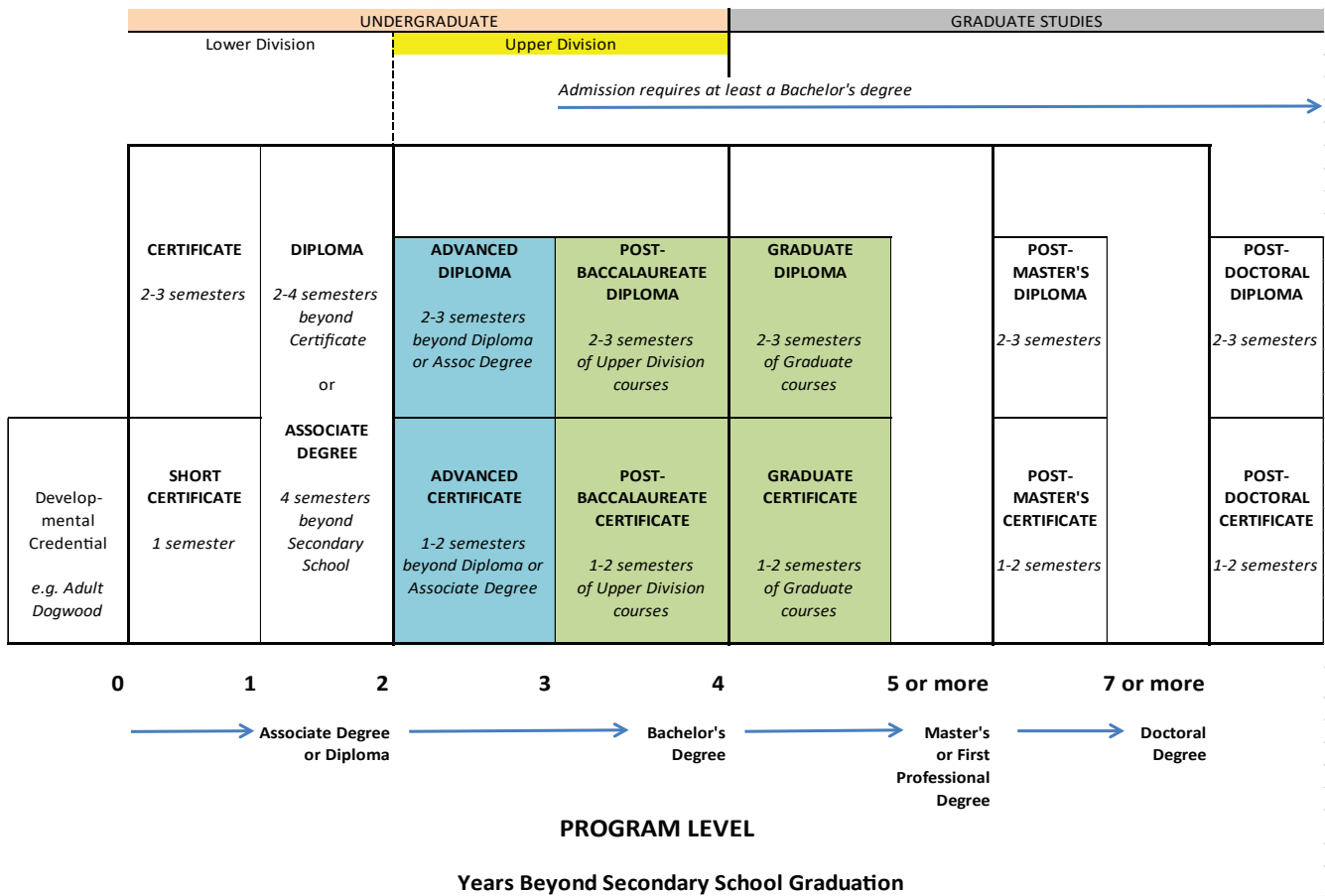
Figure 1 presents the conceptual map that guided this study and shows advanced certificates and diplomas as distinct from other post-degree programs. **Figure 1** only includes certificates and diplomas in programs where student learning is evaluated, and excludes certificates of attendance or completion.

Methodology

The research methodology consisted of four sequential steps:

- A literature review to determine what has already been established on the topic of post-degree programming in BC and elsewhere, and how this is germane to the current BC experience;
- Gathering and analyzing data on post-degree program offerings and enrolments;
- Surveying institutions about recent developments in these credentials and their thoughts about the future; and
- Synthesizing results.

FIGURE 1: Credential Map for Certificates and Diplomas



Part Two: Context

Terminology

A review of credentials offered in several countries revealed that the terminology for certificates and diplomas is quite inconsistent among jurisdictions, and sometimes even among institutions within a single jurisdiction. Given the consensus about the definitions of degree programs and that the awarding of credentials is a central purpose of post-secondary institutions, the variability of certificate and diploma terminology is distressing. Neither students, employers, nor the public can be certain about the level of skills, knowledge and abilities that a certificate or diploma supposedly attests to, especially with respect to ones awarded after a previous post-secondary credential.

TABLE 2: Terminology Used in Different Jurisdictions for Certificates and Diplomas Following a Previous Credential

Caution: For the most part, these are the categories that government recognizes for its purposes. Institutions may use different nomenclature in the actual credentials they award. Comparisons across jurisdictions are presented as rough equivalencies and not exact matches.

British Columbia	Alberta	Ontario – Popular Use	Ontario – Proposed	England	USA	Australia	Scotland
Advanced Certificate	Post-Diploma Certificate	Graduate Certificate	Advanced Diploma	--	--	Advanced Diploma	--
Advanced Diploma	Post-Diploma Certificate	Graduate Certificate	Post-Diploma Certificate	--	--	--	--
Post-Baccalaureate Certificate	Post-Baccalaureate Certificate	Graduate Certificate	Post-Diploma Certificate	Graduate Certificate	--	--	Graduate Certificate
Post-Baccalaureate Diploma	Post-Baccalaureate Diploma	Graduate Certificate	Post-Diploma Certificate	Graduate Certificate or Conversion Degree	--	--	Graduate Diploma
Graduate Certificate	Post-Baccalaureate Certificate	Graduate Certificate	--	Post-Graduate Certificate	Post-Baccalaureate Certificate	Graduate Certificate	Post-Graduate Certificate
Graduate Diploma	Post-Baccalaureate Diploma	Graduate Certificate	--	Post-Graduate Diploma	Post-Baccalaureate Certificate	Graduate Diploma	Post-Graduate Diploma

Even the term ‘credential’ has some ambiguities associated with it. Until the 1980s, for example, "qualification" was often restricted to vocationally oriented programs, either for the professions or the trades (Allais, 2011). Increasingly, all credentials are being viewed as types of qualifications or awards, but some countries still have qualifications frameworks than encompass only vocational programs. Some jurisdictions now employ credentials frameworks to describe the level and duration of credentials, using qualifications frameworks for taxonomies that also incorporate learning outcomes.

A key finding from the frameworks review arises from inconsistent terminology. Graduate certificates and diplomas are offered at the master's level, that is, programming that is often termed graduate in North America and post-graduate in the United Kingdom. In BC, as in many other jurisdictions, graduate certificates and diplomas consist of courses taught at the master's level.

In Ontario, in popular usage, "graduate credentials" refer to what in BC would be post-baccalaureate and advanced credentials. In other words, "graduate" for the public in Ontario means the program is designed for students who have previously completed a program that is at least two years in length, whereas in BC "graduate" signals master's level study. This inconsistency has the potential to create misunderstanding around the nature of the BC credential in other parts of Canada.

Kihn (2017) indicated that in the United Kingdom, a graduate certificate is viewed as undergraduate study (what in British Columbia would be called a post-baccalaureate certificate), whereas a post-graduate certificate goes beyond the bachelor's level. The post-graduate certificate may be foundational or may overlap with curriculum at the master's level.

The Programs in Other Jurisdictions

United States

Gearon (2016) reported that according to the Council of Graduate Schools, American graduate schools awarded 36,000 certificates (i.e. what in BC would be graduate certificates and diplomas) in 2013/14, up five percent over the previous year. Sixty percent were in education, health, and business.

Another magazine article about programs in the USA (Simon, 2012) seemed to encompass both graduate and post-baccalaureate credentials, referencing programs that usually consisted of four to seven courses. Nearly 51,000 such credentials were awarded in 2010 – a 46 percent increase in five years, according to the Institute for College Access and Study.

Australia

In 2014, enrolment in graduate certificates and diplomas accounted for about 20 percent of all Australian postgraduate enrolment (equivalent to graduate studies in Canada) and exceeded doctoral enrolment (Norton, 2016).

The University of Sydney (2017) described a certificate as generally taking six months of full-time study, a diploma one year (roughly as many credits as a student devotes at the undergraduate level to coursework in their major), and a master's degree one to two years. The university said that one-third of the students in its graduate certificate and diploma programs upgrade to a higher degree program, regardless of faculty or starting course. It emphasized that the units studied, and by extension the time and money spent, could all contribute towards the completion of the higher degree.

United Kingdom

In the United Kingdom, the terminology of "conversion degrees" is sometimes used to describe one-year programs that in BC might be known as post-baccalaureate diplomas. King (2013) described conversion degrees as relevant to bachelor's graduates who either were struggling to find employment in their area of study or who wished to work in another sector.

In Britain, 11 percent of employed people (aged 26 – 60) hold a credential beyond the baccalaureate, up from 4 percent in 1996 (Lindly & Machin, 2013). The authors expressed concern that as the educational requirements of the labour market have become more demanding, workers with postgraduate degrees have come disproportionately from privileged family backgrounds, exacerbating educational and societal inequalities.

Canada

In Canada, much of the writing about non-degree, post-baccalaureate programs either concerns or originates in Ontario, frequently in the public press, although some scholarly work has appeared (e.g. Thorsell, 2014). A *Globe and Mail* article reported that the number of university graduates entering college programs in Ontario almost doubled in seven years – from a little under 6 percent in 2000 to almost 11 percent in 2007 (Mehler Paperny, 2009). It also mentioned that 13 percent of incoming students at the BC Institute of Technology already possessed a bachelor's degree. Statistics Canada uses terminology that may not be immediately recognizable to readers from British Columbia. Its three program types that best correspond to the credentials discussed in this study are: (a) post career, technical or professional training program, (b) post-baccalaureate non-graduate program, and (c) graduate qualifying program – second cycle.

The Benefits of Graduate Certificates and Diplomas

The international literature lists the benefits for students of graduate certificates and diplomas as including:

- Less cumbersome and demanding admission process than in a master's program (Daughton, 2007);
- A stepping stone into a master's programs for those who might not otherwise be admitted (Simon, 2012). In other words, certificates and diplomas can serve as qualifying programs;
- A gentler transition back to academics for learners who have been away from formal education for a period, that is, a pilot test before the student commits to an extensive and costly degree-program (Donovan, 1998);
- The ability for master's students to simultaneously earn a credential in a sub-specialty of their area of study (Simon, 2012);
- An opportunity for working professionals to upgrade their qualifications (Daughton, 2007), whether for a promotion or a lateral shift; and
- Greater geographical accessibility in that the programs are more likely to be offered through distance education than are master's programs (Murray, Long, Elrod, & Akula, 2011).

The benefits for institutions include the following:

- If the program ladders into a graduate degree, evidence beyond test scores and other predictive measures that the student is capable of succeeding in the degree program (Daughton, 2007);
- Generally greater autonomy for the faculty or school to develop new programs and then to manage admissions (Murray et al., 2011);
- New revenue stream by repacking the same content into smaller bundles to serve new students or markets (Kahn, 2013; Tibbo, 2006); and
- A way of sharing the institution's prestige with the masses (Kahn, 2013).

Certification differs from a certificate: certification refers to a credential issued by a professional, occupational, or government body rather than by a post-secondary institution.

In short, some jurisdictions make extensive use of graduate certificates and diplomas to ladder into master's degrees, rather than simply using them as parallel, but shorter, tracks of study.

Professional Certification and Short Credentials

Although tangential to the central concern of this paper, it is worth mentioning that discussion about post-baccalaureate programs often occurs in the context of a discourse about credentialing in general, and particularly about the role of professional certification and the unbundling of learning.

Certification differs from a certificate: "certification" refers to a credential issued by a professional, occupational, or government body rather than by a post-secondary institution (Gallagher, 2016). A 2012 US Census Bureau analysis found that 22 percent of the US adult population held a professional certification or license – often in addition to a degree (Ewert & Kominski, 2014). An article in the *Financial Times* (Moules, 2015) asserted that certification for executive education is on the rise and that many top business schools have created additional levels of study to foster an even more exclusive credential.

In considering the future of university credentials, Gallagher (2016) concluded that more programs and types of credentials beyond the traditional degree or certificate are likely in the future, even though, "historically, the US higher education system has been a degree production machine with certificates, diplomas, and other credentials representing an important but relatively small segment" (p. 4). He estimated that all forms of certificates from the undergraduate to the post-master's currently represent only 21 percent of all credentials conferred (plus another 22% for associate degrees). It is clear that job openings largely favour credentials at the four-year level and above, even if the job does not actually require this level of education – the credential signals a level of student perseverance, determination, and other attractive attributes (although the lack of a more standardized taxonomy for non-degree credentials weakens their signaling utility).

Two other observations that Gallagher made were (1) the lack of standardization in the terminology, depth, and scope for non-degree credentials can exist even within the same educational institution, and (2) employers place a greater emphasis on credentials for less experienced, earlier-career candidates. The screening and signaling function of credentials, and not only their curriculum, are important for employers.

Both Kahn (2013) and DeRue (2017) used iTunes as a metaphor for assessing trends in post-secondary education. Kahn argued that universities are under pressure to unlock new revenues but high fees are prohibitive for many would-be students. Wary of diluting their traditional degrees, universities are responding by creating smaller coinage: sequences, certificates, and the like. Rather than purchasing a whole degree, DeRue foresees students being attracted to micro-credentials that are affordable, aligned with career paths, and earned over time as needed.

Previous Attention to Post-Degree Credentials in BC

The growth of post-degree programs in BC has not occurred arbitrarily. Each new program has been deliberate and approved by institutional governance in the BC post-secondary system. However, there has been no shared taxonomy to guide nomenclature over time and across institutions, nor any previous systematic overview in BC of how and why this growth in programming is occurring.

The most recent discussion was part of the *Discussion of a Non-Degree Credential Framework for British Columbia* organized by the Senior Academic Affairs Forum (SAAF, 2014) in February 2014. The forum considered how to pin down definitions of non-degree credentials in a province currently demonstrating a wide variety of definitions. While this discussion was not limited to post-degree programs alone, these were clearly a part of the conversation. Presenters at the forum pointed out:

- The BC Ministry's *Post-Secondary Data Definitions and Standards* document (the current version is available on the Ministry's Central Data Warehouse webpage) provides reporting guidelines for credential lengths but institutions sometimes depart greatly from these guidelines.
- The Ministry sets certificate parameters at "normally between 3 and 12 months of full time equivalency study." Programs across this range are likely to have very different learning outcomes, yet currently they have the same name.
- Institutions have struggled with nomenclature on credentials such as Advanced Certificates/ Diplomas, Post-degree Certificates/ Diplomas, Post-Baccalaureate Certificates/ Diplomas and Graduate Certificates/ Diplomas.

The forum illustrated a number of credentials that varied from the established norms in the province:

TABLE 3: Variations in BC Credential Length Noted by Participants of Senior Academic Affairs Forum, February 2014

CUSTOMARY CREDENTIAL LENGTH	VARIATIONS IN BC PUBLIC SYSTEM
Certificate: 3 to 12 months	No set minimum to 12 months (or more)
Diploma: 2 years (60 credits)	A 4-year, 343 credit co-op diploma program
Advanced Certificate: 3 to 12 months; diploma required for entrance	A certificate required for entrance AND called a Post-Diploma Certificate
Post-Degree Certificate/ Diploma	Post Baccalaureate Certificate/ Diploma AND Post-Graduate Diploma
Graduate Certificate: 3 to 12 months	Graduate Certificate: 3 to 12 months
Graduate Diploma: > 12 months	Graduate Diploma: 3 to 24 months

Cowin (2013) provided an overview of the landscape of the haphazard emergence of post-degree programs in BC and described certificates and diplomas as the “wild west” of the post-baccalaureate world. He noted they have represented a growing component of the BC post-secondary environment over the previous decade. He raised the issue of inconsistent terminology, a problem that was more acute in the recent past than today.

Previous Data about BC Students

Almost one in every eight baccalaureate graduates in BC enters a certificate or diploma program within two years of receiving a bachelor’s degree. This is a student population that has received very little attention – part of the rationale for conducting the present study.

According to BC’s Baccalaureate Graduates Survey (BC Student Outcomes Research Forum, 2017), 47 percent of survey respondents in 2015 reported that they had continued their formal education within two years of receiving their undergraduate degree. Of these who continued their education, 12 percent entered a post-graduate certificate or diploma program. In other words, 6 percent (= 12% of 47%) of all baccalaureate graduates promptly entered a post-degree certificate or diploma program.

TABLE 4: Further Education in Baccalaureate Graduates Survey, 2015

Of the 47% of survey respondents who had pursued further education in the two years since receiving a bachelor’s degree:

14%	Certificate or diploma below bachelor’s level
19	Another undergraduate degree
16	Professional association certification
12	Postgraduate certificate or diploma
26	Master’s degree
4	Doctorate
9	Other
100%	Total

Source: BC Student Outcomes Research Forum (2017).

Part Three: Statistical Portrait

This section of the report begins by cataloging what is known about the distribution of different types of post-degree programs in BC and then looks at where the relative growth in different types of credentials has occurred. Different types of institutions offer quite different mixes of credential types. This, combined with different enrolment trends across credential types, makes a simple summary of trends difficult to provide.

Programs

Currently, 355 post-degree programs are offered at public post-secondary institutions in BC (**Table 5**). The number, however, is continually changing. The 355 programs reported here are the researchers' assessment based on both institutional websites and provincial data sets as of October 2017. It is unlikely to be entirely accurate and will quickly become dated, but it provides a useful representation. Both the Central Data Warehouse (CDW) and the Student Transitions Project (STP)¹ collect data about every program offered each year in public institutions. However, the way in which they are categorized and reported depends on coding at each institution.

The majority of these programs are offered by research-intensive universities, but with Thompson Rivers University being the largest provider in the province with 52 different programs. As a sector, the colleges come next even though an institute, BCIT, is the institution that offers the second largest number of programs. It is notable that some of the colleges – Douglas and College of the Rockies -- currently offer more post-degree programs than either the University of British Columbia or Simon Fraser University.

Credential Nomenclature

Table 6 shows that public post-secondary institutions in British Columbia have given a wide variety of names to their post-degree credentials, ranging from Advanced Certificate to Professional Specialization Certificate. Many of these credential names are used by only one or two institutions. A note of caution when reading **Table 6** is that the numbers may partially reflect different ways of classifying programs and reporting enrolment, and may not be due solely to curricular differences.

The most common credential type is the graduate certificate, accounting for 15 percent of the 67 entries in the table. Graduate certificates are offered largely by the research-intensive universities. In second place is the graduate diploma – also offered by the research-intensive universities – and the advanced certificate offered primarily by the colleges.

Research-intensive universities offer many programs awarding the same credential, whereas the other institutions offer a much wider variety of credential types that account for 60 percent of all the post-degree programs.

¹.Information about the Student Transitions Project can be found at <https://www2.gov.bc.ca/gov/content/education-training/post-secondary-education/data-research/student-transition-project>

TABLE 5: Number of Post-Degree Programs Offered by BC Public Post-Secondary Institutions (October 2017)

Institution	Number of Programs
Colleges	108
College of the Rockies	34
Douglas College	30
Langara College	10
Selkirk College	8
North Island College	6
Okanagan College	6
Camosun College	5
Northern Lights College	4
Vancouver Community College	4
College of New Caledonia	1
Northwest Community College	0
Institutes	50
BC Institute of Technology	45
Justice Institute of BC	5
Nicola Valley Institute of Technology	0
Teaching-intensive Universities	29
Vancouver Island University	12
Capilano University	9
Kwantlen Polytechnic University	6
University of the Fraser Valley	2
Emily Carr University of Art and Design	0
Research-intensive Universities	168
Thompson Rivers University	52
University of Victoria	30
Simon Fraser University	28
Royal Roads University	27
University of BC	27
University of Northern BC	4
TOTAL	355

TABLE 6: Number of BC Public Post-Secondary Institutions Offering Each Type of Post-Degree Credential

Type	Credential	Colleges	Institutes	Teaching-intensive Universities	Research-intensive Universities	Total
Advanced	Certificate	5	1	1	1	8
	Diploma	3	2	1	1	7
Post Diploma	Certificate	2	0	0	0	2
	Diploma	1	0	0	1	2
Post Baccalaureate	Certificate	0	0	1	1	2
	Diploma	2	0	2	3	7
Post Degree	Certificate	2	0	0	0	2
	Diploma	6	0	1	0	7
Post Graduate	Certificate	1	0	0	1	2
	Diploma	3	0	0	1	4
Graduate	Certificate	0	2	2	6	10
	Diploma	1	0	2	5	8
Other	Transition	2	0	0	0	2
	Advanced Specialty Certificate	0	1	0	0	1
	Accelerated Post Graduate Diploma	1	0	0	0	1
	Post Graduate Externship	1	0	0	0	1
	Professional Specialization Certificate	0	0	0	1	1
Total		30	6	10	21	67

Notes: The following institutions do not offer any of these credentials: Northwest Community College, Nicola Valley Institute of Technology and Emily Carr University of Art and Design.

Data presented as of October 2017.

Number of Credentials within Institutions

Given the variety of post-degree credential names across BC, how much variety is found within individual institutions? The answer is that although institutions each most commonly offer only two or three post-degree credentials, there is little consistency in the number and types of credentials offered (**Table 7**).

While some of the colleges and institutes offer a small range of post-degree programs, and all of the teaching-intensive and research-intensive universities offer at least one or two programs, there are, nonetheless, colleges and a research-intensive university that offer six or seven different types of post-degree programs.

TABLE 7: Number of Types of Post-Degree Credentials Offered by BC Public Post-Secondary Institutions

Number of Credential Types	Colleges	Institutes	Teaching-Intensive Universities	Research-Intensive Universities	Total
None	1	1	1	0	3
One	3	0	1	0	4
Two	2	0	1	2	5
Three	2	2	1	2	7
Four	1	0	1	1	3
Five	0	0	0	0	0
Six	1	0	0	0	1
Seven	1	0	0	1	2

Field of Study

Business programs are the most frequent post-degree offering across the province, followed by health and then education (**Table 8**) Constituting one third (35%) of all post-degree programming, the number of business programs exceeds the combined total of the next two programs, health (16%) and education (13%).

TABLE 8: Number of Post-Degree Programs by Field of Study

Program Area	Number of Programs Offered	Percentage of Total
Business	124	35%
Health	55	16%
Education	47	13%
Technology	33	9%
Humanities	25	7%
Social Services	21	6%
Tourism	21	6%
Environment	10	3%
Sport	3	1%
Tradesperson	2	1%
TOTAL	355	100%

Note: Data presented as of October 2017.

Enrolment

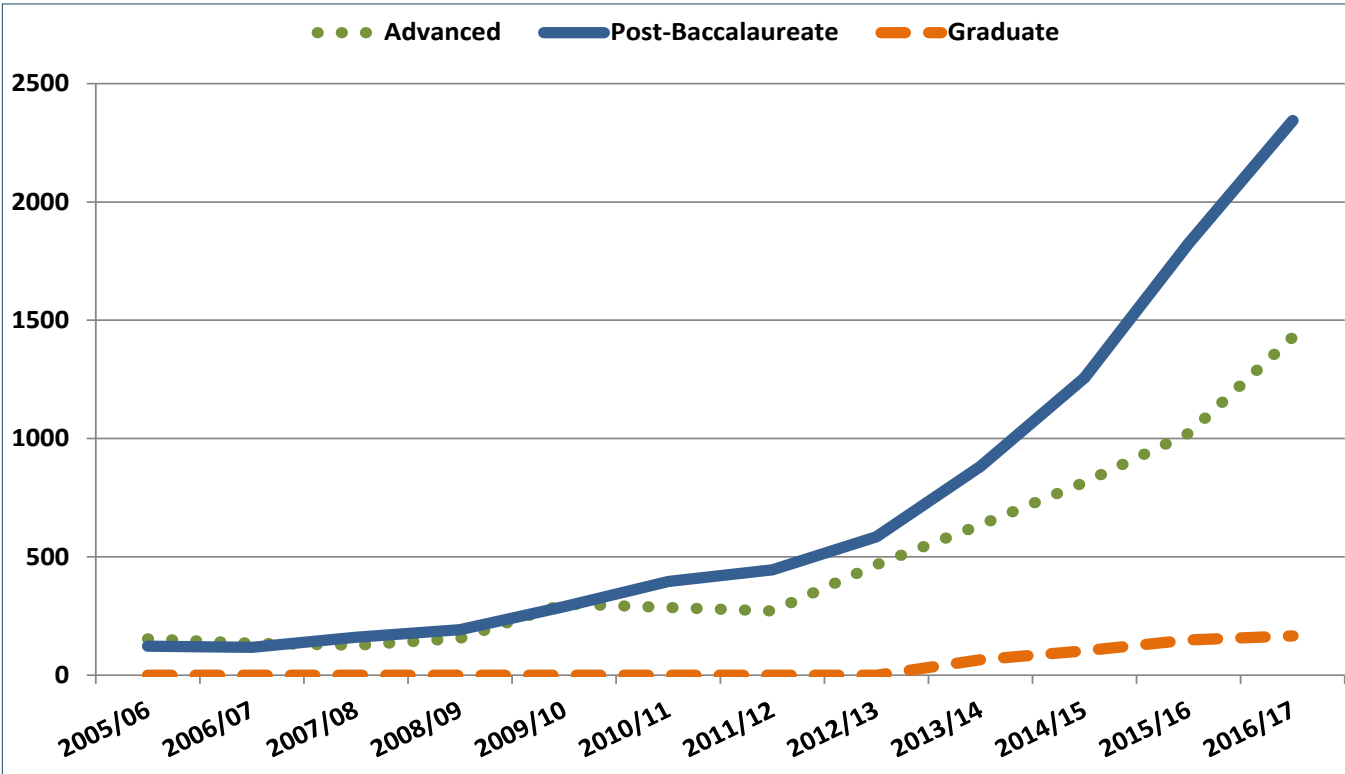
Full-time equivalent (FTE) enrolment is a better measure of the amount of instructional activity than is headcount enrolment (the number of students, regardless of their course load). Unfortunately, BC does not have a single source of FTE data with consistent definitions and categories that could be used for this study.

Such FTE data as are available from two sources are briefly reported below. The analysis then turns to headcount enrolment because a unified data set does exist for this measure of enrolment. The section concludes with a table about the number of credentials conferred.

FTE Enrolment

All public institutions in BC, except for the four research-intensive universities, contribute data to the province's post-secondary Central Data Warehouse (CDW). The FTE data in the CDW show that enrolment patterns vary by type of credential, with post-baccalaureate programs enrolling the most students and showing the fastest rate of growth (Figure 2).

FIGURE 2: FTE Enrolment in CDW Institutions Post-Degree and Advanced Certificates and Diplomas



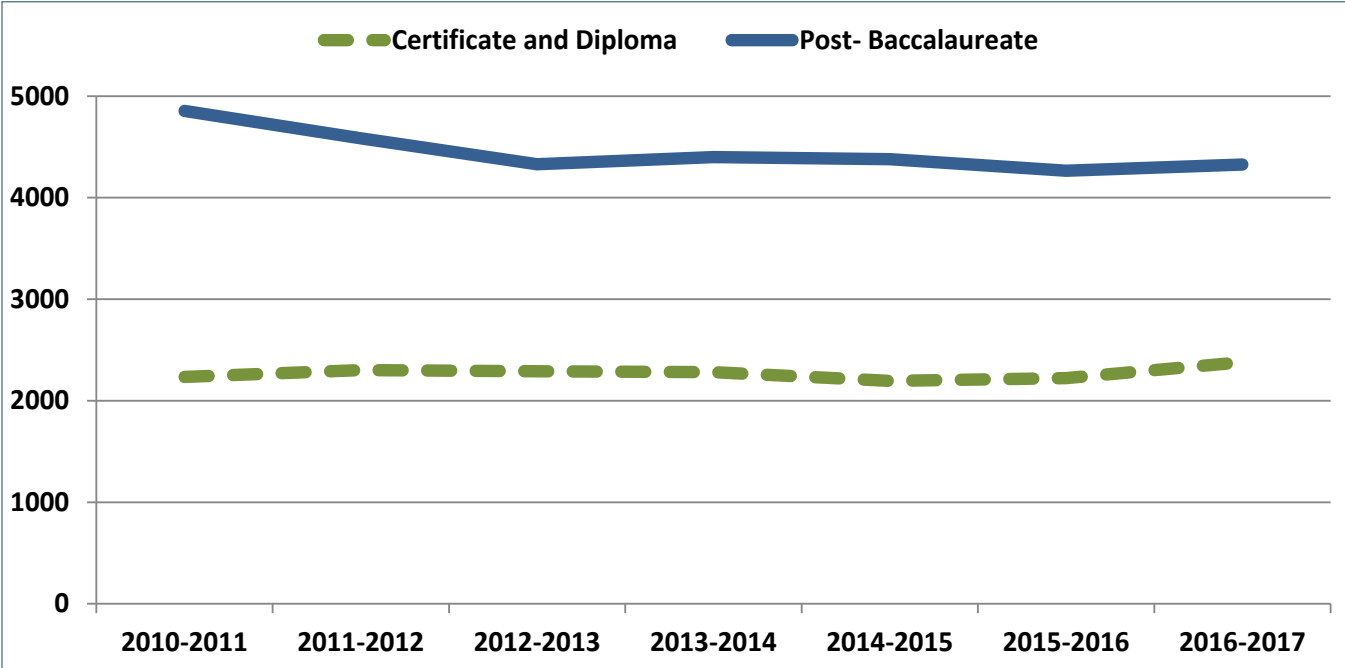
Source: AVED CDW, 2017

FTE data for the four non-CDW institutions is available through BC HEADset, a dataset administered by the Research Universities' Council of BC. Unfortunately, their categories for reporting enrolment in certificate and diploma programs differ from those used by the CDW and are less fine grained. In BC HEADset, all undergraduate certificates and diplomas are grouped together, whereas the CDW separates advanced credentials from basic certificates and diplomas. BC HEADset also combines the CDW's two categories of post-baccalaureate and graduate credentials.

Overall, FTE enrolment in undergraduate certificate and diploma programs in the non-CDW institutions has been relatively flat, while that at the post-baccalaureate level has declined slightly (Figure 3).

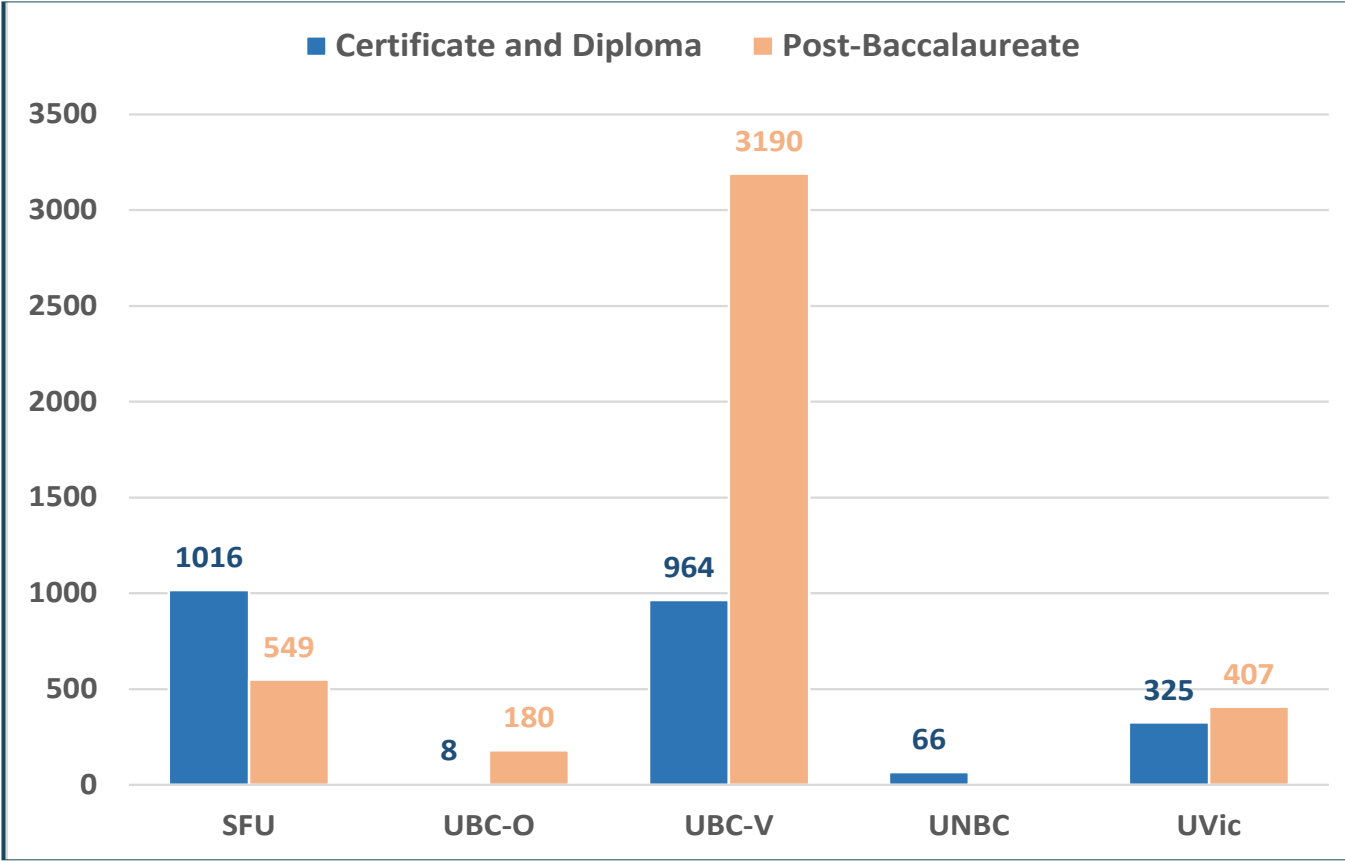
Enrolment patterns vary considerably across these universities, with post-baccalaureate enrolment at UBC accounting for almost half the total FTE enrolment in this group of credentials (Figure 4).

FIGURE 3: Trend in FTE Enrolments by Program Type at the Four Research-Intensive Universities (UBC, SFU, UVic, UNBC)



Source: BC HEADset, 2017

FIGURE 4: FTE Enrolment by Program Type and by Research-Intensive University, 2016/17



Source: BC HEADset, 2017

In summary, FTE data reveal little or no enrolment growth in graduate certificates and diplomas, nor in any program groupings, at research-intensive universities. It is post-baccalaureate programs in non-research-intensive institutions, which have shown the most growth, outpacing even the comparison set of programs offered at the advanced level.

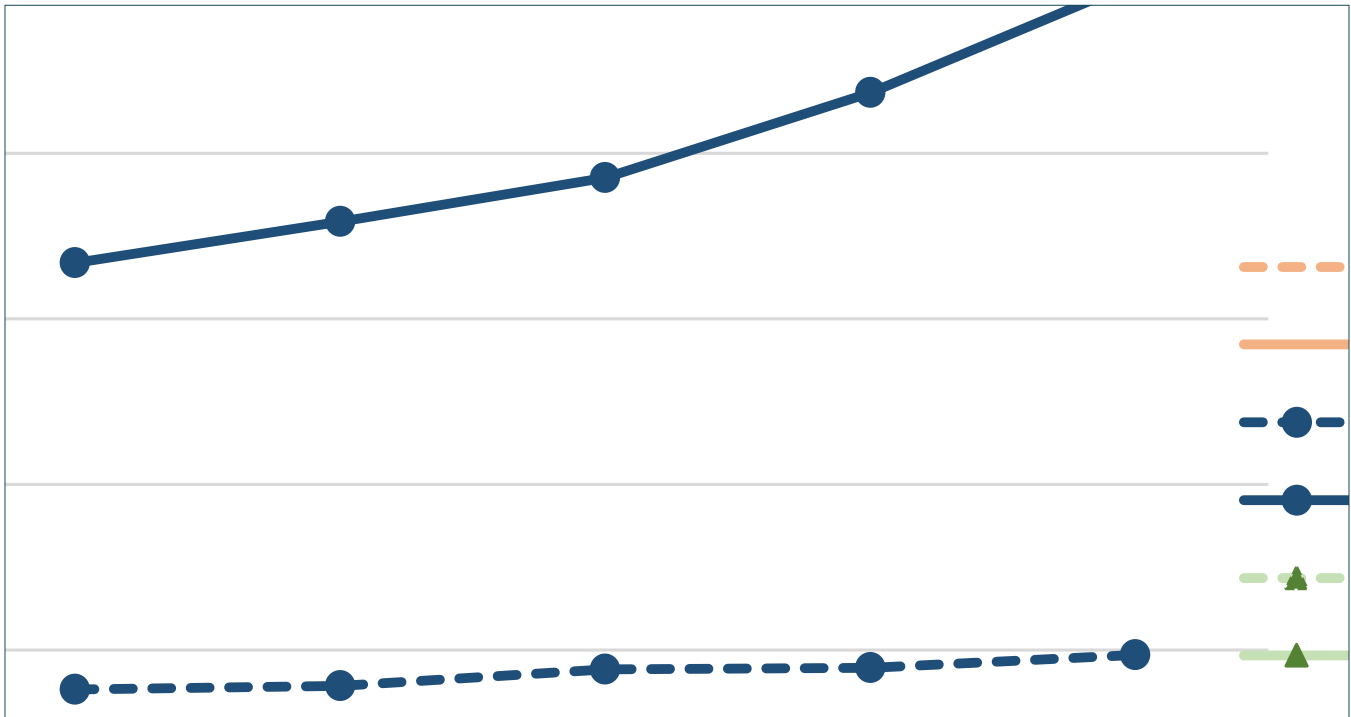
Headcount Enrolment

The headcount enrolment reported here is drawn from a single source, the Student Transitions Project (STP). STP obtains much of its data from a portion of the CDW, with data for the four non-CDW institutions submitted directly to the STP by those institutions. The STP specifications call for the non-CDW institutions to use the same certificate and diploma categories as the CDW institutions, but the extent to which they are able to comply is unknown. (Institutional submissions to the CDW may also vary in their adherence to the data definitions.)

Credential Type

Different messages emerge depending on whether the focus is on rates of growth or absolute growth. In terms of rates of growth, enrolment in graduate certificates grew 112 percent (from a very small base) between 2011/12 and 2015/16, while enrolment in graduate diplomas declined a little (- 14%). In absolute terms though, post-baccalaureate diplomas showed the most growth – almost 1,700 students – over that period, compared to only 450 students in the graduate certificates which had the fastest rate of increase.

FIGURE 5: Headcount Enrolment by Credential Type



Source: Student Transitions Project, 2017

At the post-baccalaureate level, colleges and teaching-intensive universities together enrol approximately the same number of students in diplomas as do research-intensive universities. In contrast to the research-intensive universities, they have only small enrolments in post-baccalaureate certificates.

Table 9 elaborates the information on the enrolment growth. A noteworthy exception to the general growth pattern is the 14 percent decline in headcount enrolment in graduate diplomas at research-intensive universities.

TABLE 9: Five Year Changes in Headcount Enrolment*, 2011/12 - 2015/16

Credential Type	Years	Colleges	Teaching-intensive Universities	Research-intensive Universities	Institutes	Total	Five Year Growth
Advanced Certificate	2011/12	150	5	63	512	730	709
	2015/16	135	79	72	1153	1,439	97%
Advanced Diploma	2011/12	269	34	391	81	775	606
	2015/16	952	69	421	239	1,381	78%
Post Baccalaureate Certificate	2011/12	21	80	1,663	0	1,764	208
	2015/16	63	121	1,788	0	1,972	12%
Post Baccalaureate Diploma	2011/12	294	577	3,467	0	4,338	1694
	2015/16	1,669	1,129	3,234	0	6,032	39%
Graduate Certificate	2011/12	0	319	30	51	400	447
	2015/16	0	614	135	98	847	112%
Graduate Diploma	2011/12	0	16	939	0	955	-137
	2015/16	0	43	775	0	818	-14%
Totals	2011/12	734	1,031	6,553	644	8,962	3472
	2015/16	2,969	2,000	6,425	1,545	12,434	39%
Five Year Growth Rate by Institution Type		2,235 304%	969 94%	-128 -2%	901 140%	3,472 39%	

Source: Student Transitions Project, 2017

* Totals include advanced credentials.

Enrolment trends vary considerably by credential and institution type:

- Advanced Certificate – notable growth at the institutes (140%) and not much change elsewhere in the province.
- Advanced Diploma – notable growth in the college (142%) and institute (195%) sectors.
- Post-Degree Certificate – not much change over the five-year period (12% growth province-wide) with the research-intensive universities dominant (91% of total enrolments).
- Post-Baccalaureate Diplomas – extensive growth among the college sector (468%) and notable growth among the teaching-intensive universities. Slight decline (-7%) at the research-intensive universities.
- Graduate Certificate – largest percentage growth of all credential types (112%) but still modest proportion of all types (7%).
- Graduate Diploma – Notable growth at the teaching-intensive universities (169%) but proportion of enrolments is still small (5%). Decline at the research-intensive universities (-14%).

Field of Study

The same three fields with the most programs offerings – business, followed distantly by education and then health – also account for most enrolment (**Table 10**). Business enrolment (52% of all enrolment), however, is even more dominant than the number of programs (35% of all program) would indicate.

The mix of programs varies by credential type. Health is concentrated in advanced certificate programs, business in post-baccalaureate diplomas, education in three credentials, and the smaller number of students in other fields fairly well distributed across credential types.

TABLE 10: Headcount Enrolment by Credential Type and Field of Studies, 2015/16

(Sorted by Credential's Share of Total Enrolment)

	Business	Education	Health	Other	Total	Credential's Share of Total
Post-Baccalaureate Diploma	4,420	1,015	150	447	6,032	48%
Post-Baccalaureate Certificate	817	889	127	139	1,972	16%
Advanced Certificate	51	26	1,140	222	1,439	12%
Advanced Diploma	501	188	162	530	1,381	11%
Graduate Certificate	489	98	1	259	847	7%
Graduate Diploma	268	481	1	68	818	7%
Total	6,546	2,697	1,581	1,665	12,489	100%
Field of Study's Share of Total	52%	22%	13%	13%	100%	

Source: Student Transitions Project, 2017

Enrolment patterns have shifted over time in the three dominant fields of study:

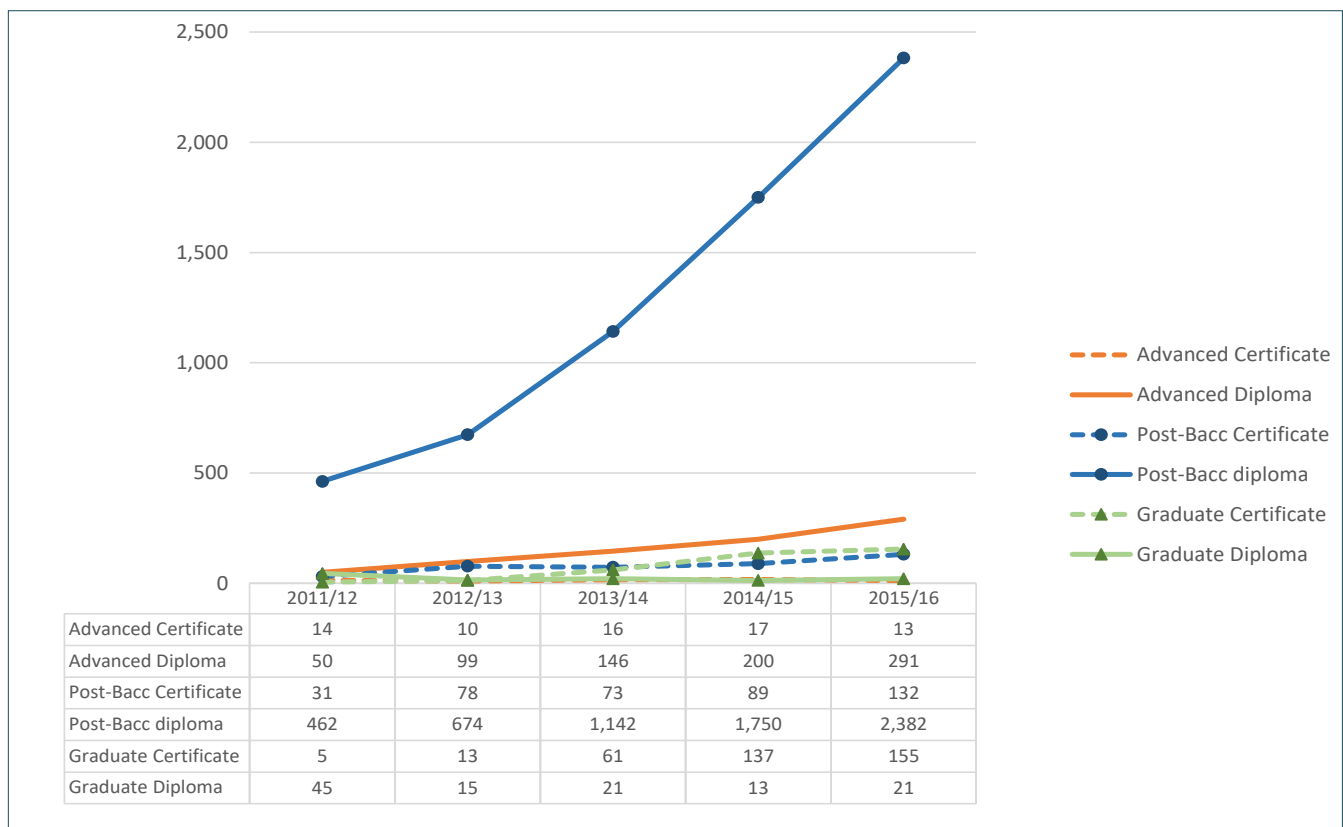
- Business is largest by far with over half of all headcount enrolments in the province (52%) in 2015/16 and an increased share from 43 percent in 2011/12. Business programs grew enrolment by 68% over the five-year period. This growth has occurred in all credential categories with post-baccalaureate diploma still being the largest category of business enrolment (also by 68% in 2015/16).
- Education is the next largest with under a quarter of all enrolments in the province (22%) in 2015/16 and a decreased share from 34 percent in 2011/12. Education programs declined in overall enrolments by 12% over the five-year period. Most of that decline has been in the post-certificate and graduate diploma programs.
- Health programs grew enrolment by 155% over the five-year period, going from seven percent of all enrolments in the province in 2011/12 to 13 percent in 2015/16. Most of this growth has occurred in the advanced certificate category (72% in 2015/16).
- These three areas combined have slightly increased their dominance over the five-year period: going from 85 percent of all enrolments in 2011/12 to 87 percent of all enrolments in 2015/16.

International Students

International students accounted for much of the 39 percent enrolment growth in the post-degree certificate and diploma programs from 2011/12 to 2015/16. Whereas international students comprised only seven percent of headcount enrolments in 2011/12, they had risen to 24 percent in 2015/16. The percentage of international students grew in all of the credential types except for the graduate diploma, where it declined.

A striking finding is the growth of international enrolment in the post-baccalaureate diploma: 80 percent of all international enrolment growth from 2011/12 - 2015/16. This credential type also has the highest percentage of international enrolment province-wide, with 39 percent in post-baccalaureate diploma programs in 2015/16. Domestic enrolment post-baccalaureate diplomas, in contrast, shrunk slightly (**Figure 6; Table 11**).

FIGURE 6: Trend in International Enrolment (Headcount) by Credential Type, 2011/12 to 2015/16



Source: Student Transitions Project, 2017

TABLE 11: Change in Domestic and International Enrolment (Headcount) by Credential Type, 2011/12 to 2015/16

		2011/12	2015/16	Change from 2011/12	
Advanced Certificate	Domestic	716	1,426	710	99%
	International	14	13	-1	-7%
Advanced Diploma	Domestic	725	1,090	365	50%
	International	50	291	241	482%
Post-Baccalaureate Certificate	Domestic	1,733	1,840	107	6%
	International	31	132	101	326%
Post-Baccalaureate Diploma	Domestic	3,876	3,650	-226	-6%
	International	462	2,382	1,920	416%
Graduate Certificate	Domestic	395	692	297	75%
	International	5	155	150	3000%
Graduate Diploma	Domestic	910	797	-113	-12%
	International	45	21	-24	-53%

Source: *Student Transitions Project, 2017*

Most of the growth in international student enrolment occurred in the college sector. In 2011/12, colleges enrolled 18 percent of international students in the programs examined in this study. By 2015/16, the percentage increased to 57 percent. Furthermore, most of that growth was concentrated in post-baccalaureate diplomas, which saw growth from 55 students (headcount) to 1,389 students in the college sector.

During the five-year period from 2011/12 to 2015/16, the growth of international student enrolments in the research-intensive and teaching-intensive university sectors was overshadowed by growth in the college sector. This resulted in each university sector having a declining share of international students enrolled in post-degree programs: the research-intensive universities declined from a 41 percent share in to only 10 percent while the teaching-intensive universities declined from a 41 percent share in to 32 percent.

Credentials Conferred

The completion of programs lags enrolment growth, and thus the rapid enrolment growth in some types of programs is imperfectly reflected in the awarding of credentials. The largest absolute growth in credentials occurred at the post-baccalaureate level, followed by advanced certificates and graduate certificates. The number of conferred graduate diplomas has declined, in contrast to the pattern for other credentials (**Table 12**).

TABLE 12: Change in Post-Degree Credentials Conferred, 2011/12 to 2015/16

	2015/16	Growth since 2011/12	
		Absolute	Percentage
Advanced Certificate	667	186	39%
Advanced Diploma	518	87	20%
Post-Baccalaureate Certificate	332	113	52%
Post-Baccalaureate Diploma	1,204	288	31%
Graduate Certificate	432	183	73%
Graduate Diploma	110	-45	-29%

Source: *Student Transitions Project, 2017*

Distinctive Characteristics

The growth of post-degree certificate and diploma programs differs from BC's typical post-secondary patterns in at least two respects. The first difference concerns consistency in credential nomenclature. Whereas the meaning of degrees and of lower division certificates and diplomas is well accepted and understood by the general public, the varying taxonomies for post-degree credentials within BC and across other jurisdictions is, at best, confusing and, at worst, dysfunctional. This has the potential to devalue perceptions of educational standards in the eyes of external audiences.

The second difference is the highly individualistic enrolment patterns across institutions and credential types. Although variations across fields of study have long been a characteristic of BC post-secondary education, many enrolment trends in BC have affected groups of institutions offering similar programs and credentials. Whether the idiosyncratic patterns of post-degree credentials simply reflect start-up conditions or whether they will endure remains an open question.

Part Four: Understanding the Growth

Each BC institution identified a contact person for this research project. In February 2018, the contact persons were invited to participate in an online survey consisting of open and closed questions about recent developments and any future considerations for post-degree certificates and diplomas. Fifteen of twenty-five institutions responded, skewed slightly towards those institutions that have been the most active in this programming.

The results of this survey appear in the Appendix. The highlights from the survey are integrated with information from the literature review and from institutional websites in the following section.

Feedback from current and former students would have rounded out the information from, and perceptions of, institutional employees, but the collection of such information was beyond the scope of this study.

Demand for Skills Development after Degree Completion

With the transition into what they consider to be good employment being a challenge for some baccalaureate graduates, many choose to continue their education to improve their job prospects. Indeed, BC's Baccalaureate Graduates Survey reveals that almost half return to their studies within two years of graduation, although labour market considerations are not their sole motivation. While some graduates choose more advanced studies, others seek relatively short "top-ups" in applied skills that could help with securing suitable employment.

By way of illustration, Capilano University advertises its International Management Graduate Diploma clearly as an applied technical program that supplements a more general degree:

This program is designed for students with a business undergraduate degree, or a degree that is closely related to a business degree (i.e. Bachelor of Tourism). If you wish to pursue a career in companies where international activities play an important role, this one-year program will provide you with an opportunity to gain valuable high level business skills that are beneficial to an international career in any industry or sector. Unlike many MBA programs, this program is open to students who have little or no work experience. (Source: <http://www.capilanou.ca/INMA/>)

Positioning the programming at a post-degree level is attractive to potential students because it is perceived to be more advanced than other applied credentials at the undergraduate level. As one institutional representative observed:

*Post-degree programs allow returning learners who have completed undergraduate studies to complete programs at the second and third year level yet feel that their studies...offer succession...rather than regression to diploma level studies.
(College Respondent)*

With the transition into what they consider to be good employment being a challenge for some baccalaureate graduates, many choose to continue their education to improve their job prospects.

Attractive for Laddering into Master's Degrees

Some post-degree programs are specifically designed to provide smooth transitions into full master's degree programs for students who are not ready, willing or able to enter directly into a master's program. These may be students who have recently completed undergraduate degrees but who are not in a position to bridge into a master's due to financial, time or other constraints. These may also be students who are hesitant to commit to a master's programs, such as an MBA, and wish to hedge their bets by taking courses that can ladder into the master's degree later:

Every program is expected to prepare students for alignment with industry need and/or further study, with exit points at appropriate junctures. We look at laddering pathways whenever possible and practical. (Institute Respondent)

However, the laddering needs to be well designed to ensure that it does provide pathways that function as intended, and does not create barriers:

This can get messy if first year is advanced and second year is graduate or post-degree. Students expect to ladder if they complete first year yet they may not have the degree for admission to graduate level. (Teaching-intensive University Respondent)

Furthermore, laddering is a benefit of the structure of the program and is secondary to the purpose of the program:

We always look at the possibility for laddering, but this is not a requirement. The graduate certificate is viewed as a valuable standalone credential in its own right. (Institute Respondent)

Attractive to International Students

As previously observed, another factor in the growth in post-degree programming has been their popularity with international students. Some commentators have observed that the popularity of post-secondary programs for this population of students is impacted by federal policies regulating work permits and immigration (Smith, 2017).

One account of how and why post-degree programming can provide a pathway to residency is told in the sidebar about Maria (name changed) who came to Canada and enrolled in a 1.5 year program at a teaching-intensive university after completing a bachelor's degree in Brazil.

Attracting more international students has been a strategic priority at most institutions in BC. For former students to remain in Canada under the federal Post Graduation Work Permit Program (PGWPP), they must have studied full-time in a program of at least eight months in duration, making short-term graduate programming attractive for international students with previous post-secondary education.

Some institutions have clearly responded to this demand:

Our current post-graduate diploma is offered on a cohort basis to international students only. (College Respondent)

And even where the programs are not exclusively intended for international students, the needs of those students have been closely considered by institutions:

Because we are focusing on international students for the post-graduate diploma, we consider the admission requirements, which will enable them to be most successful e.g. English language proficiency, mastery of content to the bachelor's level. (College Respondent)

Maria's Story

I wanted to come to Canada after finishing the equivalent of a bachelor's degree in petroleum engineering in Brazil. This is a common goal for young people in Brazil, and everyone knows that education is the fastest way to achieve it. (High school students are the only people who actually come to Canada for the experience of living abroad and learning English. They need to really want the experience, as they lose a year of high school in Brazil and have to complete it when they return.)

I had a Brazilian friend who was living in Vancouver, doing a program at [college], so I started to research similar programs. In Brazil, it's most common for international programs to be advertised at school conferences in booths and presentations, and on social media (through influencers – people sharing articles and blogging about their own experiences – rather than through banner ads or pop-ups).

I found a 1.5-year program at [teaching-intensive university] that I describe as a pre-MBA program with a five month practicum. I heard others describe the program as both a post-baccalaureate diploma and a graduate diploma, though, to be honest, I still have no idea what post-baccalaureate means. The duration and level of the program mattered to me because that affects how many education points you get towards your immigration visa or permanent residency. As long as the institution is on the approved list, it doesn't matter which one you attend.

My motives were purely for immigration, and everyone in my class was the same. We all knew that our program was the fastest program (1.5 years classes and 5 months practicum versus a two year program with a 3 month practicum at the college). My class had people from such countries as Mexico, Russia, and Germany, all with the same motivation as me. I did have a couple of friends who came to Canada for purely educational reasons, but they attended [research-intensive university], which they did not find as challenging as they were hoping.

I had a regular student visa during my program, but had to get a work permit for the practicum. After graduating, I was able to get a Post Graduation Work Permit (PGWP). Normally, you need a longer program to get a PGWP but mine was accepted because it was a two-year program condensed into 1.5 years.

I'm now working in Vancouver for an IT company. This Canadian educational and work experience should help with getting permanent residency. I had initially hired a Canadian consulting firm with offices in Brazil to help with my move to Canada, but only because I ended up needing to move quickly. My long term goal is to help other members of my family resettle here.

Source: personal communication with one of the authors. Permission given by informant to publish story.

Institutional Incentives

Responses to the survey indicate that the growth of post-degree programming has been encouraged by fiscal considerations. Post-degree credentials, along with other credential types that can be offered on a cost-recovery basis or even at premium rates of tuition, are attractive to many institutions.

Often the marginal costs of expanding such programming are small because the faculty personnel and expertise already reside in-house and the programming can be offered at evenings or weekends when unused space exists. Similarly, some of the courses offered may actually be undergraduate courses repackaged into post-degree programs with students at different levels sitting in the same class. This helps to fill otherwise empty seats in upper-division classes. The mixing of students among different programs into the same course can happen in a variety of ways:

Advanced and post-baccalaureate students may be mixed with each other and with bachelor degree students. Graduate certificate students may be mixed with master's students. (Institute Respondent)

These programs may also have pedagogical benefits beyond the administrative advantages:

The graduate certificates enable students in the program to interact with students from other programs. (Research-intensive University Respondent)

The development of new programming in existing departments at a level beyond undergraduate courses is also stimulating to existing faculty – especially in the colleges where opportunities to teach upper-level courses may be infrequent. Faculty are attracted to a different calibre of student with perhaps more life and work experience.

Institutions can also use the relatively short-term programming at the post-degree level to pilot new curricula which, if successful, can later be developed into longer programs or even into full degree programs.

Convergence with Professional Certification

The growth of post-degree programming can also be viewed as part of a larger global shift toward expanding the ecosystem of professional certification. One trend involves offering a gamut of new mini-credentials – such as badges, boot camps, software certifications, and Massive Online Open Courses (MOOCs) – which can be aggregated into larger credentialing (Florentine, 2017). Another trend among large companies involves offering in-house skills training for existing employees, such as the corporate ‘universities’ at McDonald's, Apple, General Electric, Shell, and IKEA (Rademakers, 2014).

Against this backdrop, post-secondary institutions in BC are responding by modifying credentialing processes. For example, BCIT's School of Business has developed a Centre for Advanced Placement and Prior Learning (APPL) which provides credit for the prior learning, training, and experience of members of the Canadian military and first responders, such as firefighters, police and paramedics, as well as mature students with management experience and industry training certificates (Leszczynski, 2017).

In addition, the Canadian Professional Accountant (CPA) designation has reengineered the training of accountants that it provides in partnership with coursework delivered by post-secondary institutions (McMahon, 2013).

This is all part of what Gallagher (2016) calls the “zone of growing convergence” where post-secondary programs and professional employment-based certifications are integrated into a larger symbiotic whole – the notion that the difference between what post-secondary institutions offer as postgraduate programming and the skills that professional bodies require recent inductees to acquire is narrowing. Some post-degree programming is focusing on precisely this niche.

Relative Importance

Which of the above-mentioned reasons for the growth of post-degree programming do institutions themselves rate as most important? The results of the survey of public post-secondary institutions in BC identify the highest motivations for developing new post-degrees programs (Table 13). Recruiting students (especially international students), helping with student transitions into the labour force, and developing curriculum are three key themes. Generating revenue is also an important additional consideration, but does not seem to be a key driver on its own.

TABLE 13: "Very Important" Reasons for Developing New Post-Degree Programs

	Number of BC Institutions (Of 15 survey respondents)
Recruit International students	10
Test market or enrolment demand	10
Upgrade labour force	9
Help recent grads enter labour force	9
Generate net revenue	9
Curriculum flexibility	9
Attract students into existing courses	8
Ladder credentials	7
Expand institutional scope	6
Career change for students	5
Give faculty new areas in which to work	3
Flexibility in fee structures	2
Other	1

In practice, more than one motivation often leads to an institution’s decision to develop new programming or expand existing offerings:

The main motivation to create any new program is to fill a gap that is not currently being met (e.g. laddering pathway for students/returning graduates, programming in a new field or new level to align with evolving industry need). (Institute Respondent)

Our institution is working to develop [post degree] credentials to contribute to our strategic vision and solidify our mandate while looking for fiscal security, internationalization and preparing labour market ready graduates. We would also ensure our proposals are distinctive, avoid duplication (where necessary), and ensure sector relevance. (Teaching-intensive University Respondent)

It is often a perceived need with multiple dimensions that launches discussion of developing new programs. This multiplicity of reasons may be more pronounced with the decision about post-degree programs.

Part Five: Conclusion

What We Have Learned

This study broke new ground by formally researching the growth of post-degree programs in BC. While others in the BC system have discussed the topic (Cowin, 2013), speculated on its features, and even raised some concerns (SAAF, 2014), this is the first research report to systematically document and analyze this topic. The key findings are summarized below.

Context Elsewhere

- Terminology for certificate and diploma programs varies greatly and is not standardized. Whereas degree nomenclature informs, that for other credentials may confuse and mislead.
- Some jurisdictions make extensive use of graduate certificates and diplomas to ladder into master's degrees, rather than simply using them as parallel, but shorter, tracks of study.
- The literature about post-baccalaureate certificates and diplomas is smaller than for those credentials offered at the master's level.
- In Canada, much of the writing about advanced and post-degree programs either concerns or originates in Ontario, where post-degree certificates and diplomas fall under its umbrella term of "graduate certificates". Terminology in that province is at odds not only with that in British Columbia but also with some other English-speaking countries.

Enrolment

- Thirteen percent of all BC baccalaureate graduates subsequently entered a certificate or diploma program, half of which are at the level described in this study.
- Different types of institutions offer quite different mixes of credential types, making it difficult to generalize about enrolment trends and patterns. Advanced certificates, for example, are found mainly in the institute sector. At the graduate level, teaching-intensive universities offer mainly certificates, whereas research-intensive universities offer mainly diplomas
- FTE enrolment in undergraduate certificate and diploma programs in research-intensive universities has been relatively flat, while that at the post-baccalaureate level has declined slightly. This stands in marked contrast to trends in other types of institutions.
- Most striking is the growth of international headcount enrolment in a single type of credential, the post-baccalaureate diploma. In 2011/12, international students were a small component of certificate and diploma programming at the level of third year and higher. Four years later, domestic enrolment in post-baccalaureate diplomas had shrunk while international enrolment had grown considerably.
- Three fields – business, followed distantly by education and then health – account for most enrolment in post-degree programs. Health is concentrated in advanced certificate programs, business in post-

baccalaureate diplomas, education in three credentials, and the smaller number of students in other fields fairly well distributed across credential types.

Programming

- The variety and diversity of these programs is so extensive that it is hard to encompass them under the single umbrella term of “post-degree.”
- The nomenclature is inconsistent within British Columbia. Similar diploma or certificate programs offered at different institutions may be variously referred to as post-graduate, post-degree, post-baccalaureate, post-basic and even advanced.
- The level of curriculum content may vary: sometimes the courses are offered at the graduate or 5th year level, while other programs reposition undergraduate content (usually taught at 3rd or 4th year level) to students now in their 5th year of study.
- Diplomas at the lower division level usually require 60 credits but many post-degree programs offer diplomas after only 30 credits of coursework.
- The format of instruction varies dramatically: some programs are delivered in traditional classroom formats for full-time students, while many combine hybrid elements of short residential experiences with the remainder taken on-line. Some offer compressed or accelerated formats.

Explanation

- This programming provides a niche for marketing career-related skills development with the potential for enhanced employment and income. Often they are attractive to those who recently graduated with a general bachelor’s degree and are seeking applied or specialized skills to secure employment.
- Some post-degree programs provide a smooth transition for laddering into master’s degrees for students who are not ready, willing, or able to enter a master’s program directly.
- These programs are attracting many international students and are sometimes targeted at this population exclusively. Immigration and work permit policies may influence student decision-making, including considerations around program duration.
- There are institutional incentives to offer these programs. They can potentially charge premium rates of tuition fees. They can fill empty seats in existing course sections at minor additional cost. They can prove stimulating for faculty to teach, especially in institutions where faculty often teach primarily lower-level courses. And institutions can use these programs to pilot new curricula to test demand for potential programs of longer duration.
- The variety of post-degree programs in BC appears to mirror worldwide patterns, including the integration of post-secondary programs and professional employment-based certifications.
- The most important reasons given by survey respondents from BC institutions for the growth of post-degree programming are serving international students and helping recent graduates enter the labour force.

Recommendations

Future developments in this complex field will need to be monitored because enrolment and programming patterns vary so much by credential type, institutional type, and the extent to which international students are targeted.

In particular, two findings from this study, and one consideration that lay beyond its scope, suggest areas for further work:

1. Use of Consistent Terminology

In BC, as in many other jurisdictions, graduate certificates and diplomas consist of courses taught at the master's level. In Ontario, in popular usage, graduate credentials refer to what in BC would be post-baccalaureate and advanced credentials. In other words, "graduate" for the public in Ontario means the program is designed for students who have previously completed a program that is at least two years in length, whereas in BC "graduate" signals master's level study. This inconsistency has the potential to devalue the BC credential in other parts of Canada. Establishing common terminology within BC could be a step in addressing this issue.

Within BC, nomenclature has become more consistent across and, especially, within institutions, but further attention is needed. The data definitions used by the Central Data Warehouse have fostered a shared taxonomy and should be a consideration in any discussion of more standardized nomenclature.

2. Variability of Growth and Demand

This study has illustrated significant variability in the rate of growth of some post-degree programs relative to others. This is an important finding to guide future quantitative research respecting post-degree programs in BC, as aggregate analysis of these program types may obscure important trends. In addition, the varying proportions of domestic and international students across some post-degree credential types suggests that further research examining the demand for the full range of undergraduate and graduate programming, and the factors influencing that demand, may yield important insights.

3. Student Perspective

It would be valuable to obtain the perspectives of students by posing open and closed questions of current and former students who enrolled in post-degree programs. The current study has suggested that students enrol for a variety of reasons, ranging from career advancement and career change to facilitating immigration. It has also revealed that patterns vary extensively across institutions and credentials. Furthermore, the significant variation in practices and philosophies in other English-speaking jurisdictions makes it difficult to assess how the experience elsewhere might inform or even anticipate developments in British Columbia. In such a complex and unpredictable environment, a better understanding of why students choose certain types of credentials, certain institutions, and certain fields of study would be helpful to institutional personnel responsible for academic planning and risk management.

Conclusion

Post-degree certificates and diplomas offer a myriad of boutique-style programming that is often innovative and responsive. Some programs are intended to provide career-related skills and knowledge, while others offer a laddering route into master's degrees.

Although the number of BC baccalaureate graduates subsequently entering a post-degree certificate or diploma program is still relatively small (around six percent), these programs are nonetheless of mounting interest because of their growth in recent years. Some fields and credentials have grown rapidly, such as ones tailored to attracting international students, while others have remained relatively stable. With different types of institutions offering quite different mixes of credential types, and with varying enrolment trends, general patterns can be difficult to discern.

Given this context, the distinctive characteristics of post-degree programming will be well worth monitoring over the next few years. New possibilities for further study as well as additional programming are likely to emerge – ones that can assist all stakeholders in understanding, planning and participating in these specialized programs.

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Appendix: Survey of Institutions

An online survey of institutions was launched in February 2018, asking for one response per institution. Depending on the number of programs offered and how decentralized the administration of these programs might be, the institutional contact person may have had to consult with a number of colleagues over a period of weeks in order to complete the questionnaire.

Caution: Some institutions had more than one person answer some questions. Hence the total number of responses is slightly inconsistent across questions.

Instruction to institutional contact person: "Please make a reasonable effort to answer these questions, but don't spend too much time on them. We are seeking to identify general trends across the province, not precise details."

1. Name of institution

Not reported here

2. Type of institution:

- 2 Research-intensive universities
- 4 Teaching-intensive universities
- 8 Colleges
- 1 Institute

15 Total number of institutions (out of 25) responding to the survey

3. In recent years, to what extent have these types of certificates and diplomas been discussed in your institutional planning (regardless of whether any programs were actually launched)?

	Little	Some	Much	Don't Know
Advanced	3	7	4	1
Post-Baccalaureate	2	8	7	0
Graduate	6	4	3	2

Comments/Explanation (selected/excerpts):

- By the terms of the act under which my institution is constituted, we do not offer graduate programs. While we have discussed both advanced and post-baccalaureate programming, with our current need to increase the enrolment of international students, we have implemented our first post-baccalaureate program.
- Advanced certificates and diplomas are longstanding credentials at our institution, and we have been developing programs using the credential type when appropriate. Post-baccalaureate credentials were only approved this past June, and we are now identifying opportunities for this type of programming. We have been developing graduate certificate programs for several years, with some implemented and a number

under development. As there is potential overlap in at least the advanced and post-baccalaureate levels, we currently consider which is the right credential based on the programming and the intended student audience.

- International students are interested in graduate level programming. Approval process is shorter and less demanding than for degrees. Domestic students want job-ready credentials.
- Certificate and diploma programs at the undergraduate and graduate level are not a focus of academic programming at our university.
- One school has amended post-degree diplomas to include a few 100 level courses to lay a stronger foundation for students from which to springboard to higher level courses as their program progresses.

4. In your existing offerings, to what extent have new courses been developed, in contrast to repositioning existing courses?

3 Few new courses	
7 Some new courses	0 Don't know
7 Many new courses	0 Not applicable: too few programs offered

Comments (selected/excerpts):

- In general, a lot of "re-packaging" is happening: additional credentials are added without much cost. Students can get two-for-one credentials for the same programming.
- Only three graduate certificate programs have been developed within the past five years. One, designed for professionals with work experience, includes no new courses, whereas the other two include some new courses.
- Usually new courses for graduate certificates.
- Business courses have been repurposed for international students. The advanced diplomas are new courses.
- Varies depending on the program.

5. To what extent are students in these programs mixed with students from other programs?

4 Few courses	
5 Some courses	0 Don't know
6 Many courses	1 Not applicable: too few programs offered

Comments (selected/excerpts):

- Our current post-graduate diploma is offered on a cohort basis to international students only. We have a second post-graduate diploma in the planning stages which will use the first year of our existing post-graduate programming as core courses.
- It's possible that advanced and post-baccalaureate students may be mixed with each other and with bachelor degree students, but likely graduate certificate students. Graduate certificate students may be mixed with master's students.

- If the courses are new, they tend to be for the new program only. For existing courses, students may be mixed with multiple programs.
- Some courses are specific for students in the program, with the exception of elective courses. The post-degree students are fully mixed with diploma students.
- The graduate certificates enable students in the program to interact with students from other programs.
- In one program, yes. In another program, no.
- For the most part the response would be one, but this depends on whether the credential is a standalone credential with its own programming or whether the curriculum incorporates courses that are part of other programs.

6. To what extent are these programs offered online?

9 Few courses
 4 Some courses 0 Don't know
 1 Many courses 1 Not applicable: too few programs offered

Comments (selected/excerpts):

- While there is extensive use of instructional technology, there is no plan to offer the program online.
- This will likely grow over time.
- Offers first level courses online.
- A graduate certificate, consisting of four courses, is entirely online. Most of the other certificates have both online and face-to-face courses.

What considerations are important when deciding:

7. Whether to position a new program as an advanced credential (lower admission requirement) rather than as a post-degree credential?

- Because we are focusing on international students for the post-graduate diploma, we consider the admission requirements which will enable them to be most successful e.g. English language proficiency, mastery of content to the bachelor's level.
- The most important considerations are the pool of applicants that we are trying to reach and their likely academic background, and what knowledge/competencies the program is building on so students will be successful. Another important consideration is what level is aligned with industry need.
- The market we are attempting to attract/serve.
 - Stakeholder feedback (internal and external)
 - Curriculum content
 - External accreditation bodies
 - Student experience and needs
- International students lean toward graduate level (degree or diploma); in general, admission requirements are becoming more lax with more special circumstances (waive degree requirement).

- Mostly based on target student group for program offering, the level of studies and the learning outcomes of graduates.
- International student interest. Job prospect capabilities.
- Target audience: advanced for domestic students, and post-degree for international students. This depends on factors such as the intended target market for the credential (and its needs and/or wants), and the capability of the home area/department to deliver a credential at a specific level.

8. Whether to offer a shorter (certificate) or longer (diploma) version of the program?

- Because of the focus and context in which this programming is being developed, considerations around length of programming and relationship to visa requirements are important.
- Every program is expected to prepare students for alignment with industry need and/or further study, with exit points at appropriate junctures. We look at laddering pathways whenever possible and practical.
- Cost, labour market demand, student interest/marketability, fit with other programs.
- Length often determined by our interest in attracting international students.
- Fulfilling intention of program
 - Cost
 - Stakeholder feedback (internal and external)
 - Curriculum content
 - External accreditation bodies
 - Student experience and need
- We consider laddering options (very important) and immigration and funding requirements.
- Certificates may be an exit point for diplomas. We need to create a policy around this. This depends on the target market for the program and the resources/capabilities of the home area/department. Professional requirements may also be a consideration, e.g. if progress in the relevant profession requires a certain number of credit hours or a specific level of credential.
- In the context of post-baccalaureates, our institution is leaning more to diplomas rather than certificates but the length is determined by the student learning outcomes and what courses are required to meet those outcomes.
- Students' target market.
- Requirements for job readiness and prospects for international students.

9. If your institution offers graduate certificates and diplomas, do they ladder into master's degrees?

- 1 Not really
- 7 To some extent
- 1 Extensively
- 6 Question is not applicable

Comments (selected/excerpts):

- We always look at the possibility for laddering, but this is not a requirement. The graduate certificate is viewed as a valuable standalone credential in its own right.

- This can get messy if first year is advanced and second year is graduate or post-degree. Students expect to ladder if they complete first year yet they may not have the degree for admission to graduate level.
- Our university offers no master's degrees at this time.

10. In the next five years, what priority is your institution likely to give to developing new certificate and diploma programs at the advanced level or higher?

	Little	Some	Much	Don't Know
Advanced	5	5	0	3
Post-Baccalaureate	2	7	3	2
Graduate	2	2	3	3

Comments/explanation (selected/excerpts):

- By offering advanced and the others, we can attract two different target markets.
- Two new graduate diplomas in Business are being launched in 2019. Other curriculum is under consideration or development.
- International students are attracted to post-degree diplomas for study permit eligibility. In addition, post-degree programs allow returning learners to complete programs at the second and third year level but feel that their studies in a post-degree program offer succession to their learning for those who have completed undergraduate studies rather than regression to diploma level studies.
- This is not a significant focus for future program development at our university.
- Ministry and other funding opportunities. Potential post-secondary institutional partners (public or private). Program review and college-wide strategic planning may all instigate some of these types of conversations or plans.
- Institutional planning documents indicate areas in which program development is likely to occur. However, new programs are proposed by the home area/department, so the development of new programs partly depends on the capabilities and resources of areas and departments. Institutional priorities are considered.

11. How important are the following considerations when contemplating new certificate and diploma programs at the level of third year or higher? (On average, recognizing that individual proposals may depart from the norm)

	Unimportant	Somewhat Important	Very Important	Don't Know
Test the market or assess demand for a longer version of the program	0	3	10	1
Ladder into an existing degree program	1	5	7	1
Recruit international students	2	3	10	0
Upgrade people in labour force (e.g. to qualify for higher pay grade, enter a specialty)	0	4	9	1
Help recent grads enter labour market	0	5	9	0
Help people change careers (lateral move)	2	6	5	1
Attract more students into existing courses	0	6	8	0
Give faculty new areas in which to work	3	8	3	0
Generate net revenue	0	4	9	1
Allow more curricular flexibility	0	5	9	0
Achieve more flexibility in fee structures	0	10	2	2
Expand institutional scope	2	5	6	1
Other	0	0	1	3

Comments (selected/excerpts):

- We want to have at least one post-graduate diploma in every school or faculty within the next five years.
- This is a good list of potential considerations used by the various institutions!

12. What, if anything, do you hope our report will tell you about trends or developments at other institutions?

- Why institutions might choose an advanced credential rather than a post-baccalaureate offering; who the target audience(s) may be for these credentials; to what extent are the needs of international students influencing development of advanced or post-baccalaureate programming.
- The extent of other institutions' openness in terms of accepting graduate certificates from other institutions as a laddering credential into their own master's programs. This would be a good outcome for student mobility.

- Hard numbers showing growth of credential types. Also, in what areas/disciplines is growth greatest/least?
- What is happening across the system and how we might complement what others are doing?
- Comparative trends
- Understanding what other institutions consider
- It will be interesting to compare reasons for the increase in these credentials to determine if we all have similar challenges and goals.
- Headcount reporting will offer insight to the student population attracted to these programs. Previous academic history, student type, satisfaction of studies and skills obtained, how the program has benefited students' employability and earnings. Hopefully surveying past graduates will elaborate on how these programs are serving students and meeting labour force needs.
- It will be useful to identify the level of demand for, and students' satisfaction with, post-baccalaureate and graduate certificate and diploma programs in general.
- We were hoping that this report would showcase best practices, standardized nomenclature for students and post-secondary education which would facilitate transfer and laddering for students and produce a repository of options available.
- Trends within the sector and specifically at college-level
- I think it will validate the direction and initiatives in international recruitment. I hope it will establish the "normal" for these types of credentials.
- How programming priorities are determined; how program proposals are developed and/or approved.
- We are very interested in having some support to determine the track and trend our students take and whether there can be any advancement to our current programs/courses to assist our students being successful in transferring within the system.

13. What, if anything, would you like other institutions or government to understand about developments or motivations at your institution?

- Addressing needs of international students; providing more options for our faculty; moving into areas where the institution has been absent; diversifying our student body even further.
- The main motivation to create any new program is to fill a gap that is not currently being met (e.g. laddering pathway for students/returning graduates, programming in a new field or new level to align with evolving industry need).
- How much of a driver international markets are for post-baccalaureate and graduate program development.
- We would like to ensure that clear consistent guidelines for admission are available.
- We would like the Ministry to know that the degree approval process is very cumbersome and restrictive.
- The focus of academic programming at our institution is on maintaining quality appropriate to a research-intensive university.
- Our institution is working to develop credentials to contribute to our strategic vision and solidify our mandate while looking for fiscal security, internationalization and indigenization of our campus, and preparing labour market ready graduates. We would also ensure our proposals are distinctive, avoid duplication (where

necessary), and ensure sector relevance.

- We strive to meet students' needs and connect them to industry professionals to excel their potentials and bring further economic development to our region.
- The value of ladderred credentials for career and personal growth.

14. Other comments, if any:

- It would be helpful to have a provincial credential framework with clear parameters for each credential type to provide all stakeholders with a common understanding of post-secondary credential types.
- Need system-wide standardization of credential types (definitions) to ensure quality and to protect the reputation of BC institutions in international markets.
- I have always wondered if the student in post-degree programs realize they are taking the same courses 1 to 3 year students working towards diploma or undergraduate degree. Does the name of post-degree viewed by employers as a higher level of studies vs. 2 year diploma. Would students enrol in a diploma program after their undergraduate degree or does the reference to a post-degree important in their decision to make application?
- Are post-degree programs mostly focused on offering a program of study that is attractive to international students due to increased approval of study permit?
- In our discussions, an inventory or the various advanced, post-baccalaureate, and graduate offerings would be a desirable outcome.

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The bottom portion of the page features a dark teal background with a perspective view of a road. Several light-colored arrows are overlaid on the road, all pointing towards the center of the page, creating a sense of direction and forward movement.

BCCAT

Your guide through post-secondary education.