College Baccalaureate Degrees and the Diversification Of Baccalaureate Production in Ontario

Michael L. Skolnik
Professor Emeritus, University of Toronto

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EXECUTIVE SUMMARY

During the last three decades of the twentieth century, it was the policy of many industrialized countries to shift the responsibility for a substantial portion of baccalaureate credit activity to colleges and other non-university postsecondary institutions. In most American states and some Canadian provinces, this was accomplished through assigning colleges the role of providing the first two years of baccalaureate courses, or expanding that role where it was already being performed. The alternative approach, followed in several European countries, was to transform their college sectors into parallel degree granting sectors that offered complete baccalaureate – and in some countries, also postgraduate – programs of a more applied, career-focused nature than those offered by the universities. Although the predominant approach in North America for a long time was for colleges to provide only the first two years of baccalaureate programs, in the 1990s this started to change, as colleges in some states and provinces were given the authority to award baccalaureate degrees on their own. British Columbia and Alberta were among the first places in North America where colleges awarded baccalaureate degrees. Ontario colleges were given the authority to award baccalaureate degrees in 2000, and since then so also have colleges in Manitoba, Prince Edward Island, and the Yukon. South of the border, colleges in 18 states have been authorized to award baccalaureate degrees.

There are several reasons why governments in so many jurisdictions have enabled and encouraged colleges to award baccalaureate degrees. One is the belief that it is more economical to shift some of the responsibility for the production of baccalaureate degrees to colleges rather than to rely exclusively on research-oriented universities for baccalaureate education. Another contributing factor is the belief that many, though certainly not all, undergraduates would have a more productive educational experience in an institution that is primarily teaching-oriented than in one that divides its focus equally between teaching and research. Access also has been a major consideration. Colleges that are located in areas where there is no university, or no university that offers the programs or the kinds of academic support that a student seeks, can meet the needs of “place-bound” students. Also colleges have traditionally served a somewhat different population than universities: a higher proportion of older, lower income, minority, and recent immigrant students, and students who have not performed up to their potential in previous studies. Another factor that has led governments to allow colleges to award baccalaureate degrees has been the inability to develop effective transfer arrangements for students who complete diplomas or associate degrees in college career programs. It has been found that students who complete such programs often face insurmountable barriers when they seek to transfer to a university and complete a related baccalaureate degree in a timely manner.

Of at least equal importance to the factors cited in the previous paragraph has been the interest of governments in the development of baccalaureate programs that are more occupationally focused and give greater emphasis to workforce development than many bachelor’s programs in the university sector. In a related vein, college programs place more emphasis on applied and experiential learning than on the use of academic pedagogy, making these programs more attractive and more conducive to learning than university programs for many students.

Allowing colleges to award baccalaureate degrees has been criticized by some observers who allege that this practice blurs the distinction between colleges and universities and results in duplication of programs between colleges and universities. There is a major flaw in this criticism. It focuses on only one of the many institutional characteristics – type of academic credential awarded – that have differentiated colleges from universities. It ignores the plethora of ways in which colleges are differentiated from universities, such as: the occupational focus of college programs and the fact that they are almost always in different subjects than any university program; the more applied approach to learning in college programs; the difference in the clientele served by colleges and universities; and the more teaching oriented environment of colleges. When colleges offer baccalaureate programs, they extend the opportunity to experience these institutional and program characteristics to students in baccalaureate programs. In so doing, colleges likely make it possible for more people to enrol in and complete baccalaureate programs – and subsequently make more productive contributions to our society and economy - than would otherwise be the case.

Rather than duplicating what universities provide, college baccalaureate programs add something different to the set of postsecondary options for prospective students, something of considerable value both to students and to the provincial economy. Allowing colleges to award baccalaureate degrees is not in conflict with the theme of using differentiation to improve quality and efficiency in postsecondary education; on the contrary, it is one of the most important means for using differentiation to achieve higher quality and greater efficiency in the postsecondary education system.

Colleges offer baccalaureate programs only in fields in which they can demonstrate the capability to offer programs of sufficiently high quality. Often these baccalaureate programs build upon a successful track record in offering related programs at the diploma level. Offering a baccalaureate program in the same field in which a college has already developed considerable expertise in the course of offering a successful diploma or post-diploma program is an efficient use of resources and knowledge.

The baccalaureate degree has become a necessary credential for hiring and advancement in many of the fields in which colleges have been offering diploma programs. Utilizing the expertise of the college to offer baccalaureate programs in these fields is a logical and natural extension of its previous work at the diploma level, and thus is fully consistent with the historic mission of the colleges to help students develop the knowledge, skills and traits that they need in order to have successful careers and contribute to creating a more prosperous society.

College Baccalaureate Degrees and the Diversification of Baccalaureate Production in Ontario[1]

Ontario's colleges became eligible to offer baccalaureate degree programs for the first time through the *Postsecondary Education Choice and Excellence Act, 2000.* Under this Act, when a college seeks to offer a baccalaureate program in a particular field of study, it must submit an application for a Ministerial consent to the Minister of Training, Colleges and Universities. The application is then referred to the Postsecondary Education Quality Assessment Board (PEQAB) which does a quality assessment of the proposed program and makes a recommendation to the Minister. The Act stipulates that colleges may be given consent to offer programs only in "applied fields of study". The applications, which normally must consist of hundreds of pages in order to comply with PEQAB requirements, are assessed by panels of subject matter experts who are drawn mainly from universities in Ontario and other jurisdictions. The process through which colleges may seek approval to offer baccalaureate programs stands in contrast to the process that exists in the university sector. The charter of each Ontario university gives it the authority to offer at its own discretion baccalaureate (and higher) degree programs in any branch of learning – without prior consent from the Minister or a PEQAB review. Moreover, while the college programs are subject to external quality assessment by the PEQAB, in the university sector, the responsibility for quality assessment rests with the individual institution subject only to a procedural audit by an external agency, the Ontario Universities Council on Quality Assurance.

The first programs commenced in Fall, 2002. A Ministerial consent is for a period of five years after which a college must submit an application for renewal of the consent if it wishes to continue offering the program. As of March 9, 2012, there were 71 active programs in 12 of the 24 colleges. Full-time enrolment in the college baccalaureate programs nearly doubled from 3,863 in 2007 to 7,420 in 2011 (data obtained from OCAS).

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In February, 2012, the government received a recommendation that no new baccalaureate programs should be approved for the colleges. This was one of the recommendations of the Commission on the Reform of Ontario's Public Services, widely referred to as the Drummond Commission, after its Chair, Mr. Don Drummond. In making this recommendation, the Drummond Commission did not refer to any data regarding the outcomes or effectiveness of the programs, but offered a theoretical argument that ceasing to approve any new baccalaureate programs in the colleges would restore differentiation between colleges and universities, which in turn would bring the potential for "reducing inefficiencies and realizing cost savings by minimizing further duplication of programs" (Commission on the Reform of Ontario's Public Services, 2012, p. 247). Later in this paper, I shall examine the soundness of this claim in the context of conventional understandings of the benefits of institutional differentiation in higher education. Although the wording of the recommendation refers only to new baccalaureate programs, its implementation would cast a shadow over existing baccalaureate programs – and possibly other programs of the colleges. That shadow would likely depress enrolment in existing baccalaureate programs, induce faculty turnover, and disrupt patterns of faculty deployment.

The offering of baccalaureate programs by colleges in Ontario is part of a worldwide trend toward diversification of the institutional providers of baccalaureate credit education that dates back to the 1970s. The first section of the paper outlines key developments related to this worldwide trend. Section II describes in some detail the initiatives in certain Canadian and U.S. jurisdictions to enable community colleges to offer baccalaureate degree programs. The next section of the paper deals with the potential benefits and efficiency implications of college baccalaureate granting with respect to institutional differentiation. In that section I argue that while offering baccalaureate programs by colleges reduces their differentiation from universities in one way, colleges and universities remain differentiated from each other in many other ways that may be more important than the credentials that they award. The final section of the paper contains conclusions.

I. DIVERSIFICATION OF BACCALAUREATE PRODUCTION

Two of the most significant trends in postsecondary education during the last third of the twentieth century in countries with well developed economies have been the expansion of the research function in traditional universities, and the establishment or expansion of non-university postsecondary institutions to meet some of the growing demand for postsecondary education, including the demand for baccalaureate production. These two trends are related in the sense that the increasing emphasis on research in traditional universities has raised the cost of producing baccalaureate degrees in these institutions; and by making the universities less teaching-centered than they used to be, has led to questions about the quality of baccalaureate education that they provide (Clark *et al.,* 2009).

At the highest level of generality, two distinct approaches to the diversification of baccalaureate production can be identified, which I will call the European, or parallel, model and the American, or hierarchical, model. The European model of diversification does not exist in all European countries, and is found in some non-European countries such as New Zealand. The American model is found in most American states, a few Canadian provinces, and a few other countries that have emulated certain features of the American higher education.

The European, or parallel, model

As several European nations contemplated how best to meet the growing economic need and social demand for more postsecondary education in the 1970s, they concluded that simply expanding traditional universities was neither the most economically efficient way to proceed nor the approach that would best meet their needs (Grubb, 2003). Rather, nations such as the United Kingdom, Germany, the Netherlands, and Ireland chose to accommodate a substantial proportion of the growth in postsecondary enrolment in a "second sector" of postsecondary institutions that would have more of an applied orientation than the traditional university, be more teaching oriented, be more concerned with occupational preparation and economic development, and have more flexible admission policies. For example, Klumpp and Teichler observed that "The *fachhochschulen* [in Germany] were expected to differ from the universities, by preparing the students more directly for professional work and in having an applied emphasis" (Klumpp & Teichler, 2008, p. 101). Witte *et al*. characterized the difference between degree types in European binary systems as: "theory-oriented versus applied-oriented in Germany, academic versus higher professional in the Netherlands, and general versus professionalized in France" (Witte *et al.,* 2008, p. 222).

Initially, the academic credentials awarded by these institutions – such as polytechnics in the United Kingdom and *fachhochschulen* in Germany – were other than baccalaureate degrees. However, as the institutions matured and the demand for baccalaureate degrees grew, these institutions began to award baccalaureate¸ and subsequently, postgraduate degrees. What developed was a *parallel* sector to the university sector, in which other sector institutions awarded degrees for studies of a more applied nature than was typical in the universities. Later, other nations – e.g., Finland, Norway, Austria, Ireland, and New Zealand – also developed parallel systems of institutions that were allowed to grant degrees. In some counties, the proportion of baccalaureate students enrolled in the newer sector became considerable. For example, presently, about one-third of undergraduate students in Germany enter the *fachhochschulen* (Klumpp & Teichler, 2008), and in the Netherlands, about two-thirds enter the *hogescholen* (Huisman, 2008). In Ireland, 39.9 per cent of undergraduate students were enrolled in the institutes of technology in 2008/09 (derived from statistics of Higher Education Authority, 2012). In recognition of their role in baccalaureate production while at the same time retaining their professional orientation, *fachhochschulen* now go by the name "universities of applied sciences" when referring to themselves in English (Klumpp & Teichler, 2008). In Finland the term university of applied sciences is used interchangeably with the word polytechnic, and in the Netherlands, the *hogescholen* refer to themselves as universities of professional education (Huisman, 2008).

The American, or hierarchical, model

The American model shares with the European model the goal of shifting a substantial portion of enrolment from traditional universities to other postsecondary institutions that are more teaching oriented and/or offer a more applied learning. However, the American model is more complex than the European model as it consists of three distinct facets. One facet has involved differentiation among the

universities according to their emphasis on teaching, involvement in graduate studies, and research intensity. A good example of this characteristic is found in California where the University of California system is differentiated from the California State University system by these three characteristics. In comparison to Ontario where the requirements for how faculty divide their time between teaching and research are similar in all the universities, there is a substantial difference in this regard between the two university sectors in California.

The other two facets of diversification of baccalaureate production in the American model pertain to the two major functions of the community colleges: (1) offering first and second year university-equivalent courses in arts and sciences, designed to enable college students to transfer to university after completing these courses; and (2) offering career education programs, largely in fields in which universities do not offer programs, that prepare students for direct entry to the work force. The first of these functions, sometimes referred to as the "junior college function", first appeared early in the twentieth century in the United States, and to a much lesser extent in Canada, and expanded considerably later in that century. As the junior college offers the first two years of hierarchically sequences of courses in which only the university offers the third and fourth year courses, the relationship of the junior college to the university is by definition hierarchical.

The establishment of junior colleges enabled the shifting of a substantial portion of baccalaureate teaching from the university to the college. In most states, university presidents were the leading advocates for this form of diversification of baccalaureate education, as it enabled universities to concentrate more of their effort on upper division undergraduate courses, graduate studies and research. Proposals that junior colleges should be established in order to "relieve the university of the burden of providing general education for young people" date back as far as 1851 (Cohen & Brawer, 2008, p. 7). In British Columbia the primary impetus for the creation of a network of institutions with the junior college function was the president of the University of British Columbia who submitted a plan for these new colleges to the government (Dennison, 1997). Ontario was one of the few North American jurisdictions in which most university presidents opposed the idea of the junior college (Fleming, 1971; Skolnik, 2010).

The other relevant function of North American community colleges, which over time has been referred to as vocational education, career education, occupational education, para-professional education, or in some cases, professional education, is similar to the function performed by non-university postsecondary institutions in the European model. As in the European model, the expansion of career education programs in the North American community college provided an alternative to the university for increasing enrolment in postsecondary education. Between the 1960s and the 1980s in the United States, there was a substantial increase in the proportion of enrolment within American community colleges that was in the career education stream as opposed to the junior college transfer stream, a trend which has continued since the 1980s. While the explanation for the growth of the career education stream in the community college is commonly thought to lie in changes in the labour market and in student demand, some have attributed it to the desire of colleges be independent of, rather than subordinated to, the university (Brint & Karabel, 1989; Dougherty, 1994).

Unlike the junior college curriculum in community colleges, the curriculum of the college career programs was not designed to mesh with the curriculum in universities, but to prepare students for the work force. Thus, originally the term "transfer" was used only to refer to the junior college function, which consisted of offering courses in arts and sciences (plus, sometimes, teacher education and nursing). The term was not used in conjunction with the career education function because those courses were not intended to prepare students for university (Townsend, 2002; Skolnik, 2010). Many of the courses in a typical college career program are in specialized areas where there is no directly corresponding course in most universities.

The different paths taken by colleges in different jurisdictions

As career education became the predominant function in many American and Canadian community colleges, they came to have more in common with the early European technical institutes. In that it was designed to include *only* the career education function, and not the junior college function, the Ontario college of applied arts and technology in the 1970s was very similar to the German *fachhochschule* or the Dutch *hogeschole*. However, the developmental paths of these institutions diverged subsequently, particularly from about 1990, as the *fachhochschulen* and *hogescholen* increasingly became baccalaureate granting institutions. However, it was quite a while before graduates of bachelor's programs in the Netherlands and Germany could be accepted into university master's programs. The development of professional master's programs in the *hogescholen* was in part a response to the difficulties that graduates of their baccalaureate programs had getting accepted in master's programs in the universities. While there has been increased cooperation between sectors in recent years, in Germany access of *fachhochschulen* graduates to university master's programs was described in 2008 as being "handled rigidly" by the universities (Witte *et al*., 2008., p. 223).

Beginning in the 1990s, a number of community colleges in the United States and Canada began to award baccalaureate degrees, a development which is described in the next section of the paper. While significant in some respects and in some locales, the movement of colleges in North America into baccalaureate granting is quite modest relative to what has occurred in some European countries. Why the paths taken by comparable institutions on different continents have been so different is an interesting and important question which has yet to be researched. As with other types of international differences in social phenomena, answers should probably be sought in both the cultural and the institutional domains. An example of a possible cultural difference relates to the often heard claim that technical or manual work, and the education and training needed to prepare individuals for that type of work, is more respected in Europe than in North America. I mention this example only in a very speculative way, as I am not aware of empirical research into the relationship between societal attitudes toward technical work and the expansion of baccalaureate production in applied fields.

An institutional difference that might help to explain the difference in paths taken by *fachhochschulen* and community colleges is the dual mission of most community colleges. While the community college has been independent of the university in its career education function, its junior college function is closely linked to the university. Even where the junior college function has diminished in terms of enrolment relative to the career education function, the junior college function, with its necessary

linkage with the university, remains significant in the traditions and identity of the community college. That linkage, which the non-university postsecondary institutions that operate in the European model did not have, may have inhibited the transformation of community colleges into parallel degree granting institutions that operate independently of the universities (Skolnik, 2009). It is after all difficult for an institution to have what is effectively a subordinate relationship with another institution in one sphere of its activity, while having an independent, parallel relationship in the other major sphere of its activity.

While the argument of the previous paragraph may apply to the majority of community college systems in North America, it of course does not apply to Ontario, as Ontario was one of the North American jurisdictions in which the junior college function was not part of the college system mission. In fact, until the 1990s, colleges and universities in Ontario were frequently described as two solitudes. Moreover, being the only college sector in North America in which *three year* career education programs were common, Ontario's colleges were in an important way more like European polytechnic institutions than like North American community colleges. In fact, when the college system was established, the government rejected the idea of formally calling them community colleges, opting instead to call them colleges of applied arts and technology. What then accounts for the fact that Ontario colleges did not evolve into a parallel degree granting sector like most of their European counterparts? Part of the explanation is probably that even though the Ontario college sector was not assigned a junior college function, because of geography and frequent interaction with other colleges in Canada and the United States, other North American college systems were more likely to be perceived as their reference group than were European college systems. Yet an even more important factor accounting for the difference between Ontario and Germany or the Netherlands in paths taken by their respective college systems had to do with how willing governments in the respective jurisdictions were to fund the almost unlimited expansion of baccalaureate production in a sector of research oriented universities. In the Netherlands, governmental intention to cut educational expenditure was a major factor in the decision to expand baccalaureate enrolment in the non-university sector (Teichler, 1996). In contrast, governments in Ontario have been willing to provide the funding necessary to concentrate baccalaureate production in an expanding university sector, even if not necessarily at the level of financial support that the universities wanted.

When the government of Ontario did make a modest inroad into the university monopoly on baccalaureate granting in 2000, the move had more in common with similar initiatives that had been taken elsewhere in North America than with the developments in Europe. The next section outlines the trend toward baccalaureate degree granting in North America.

II. THE COMMUNITY COLLEGE BACCALAUREATE IN NORTH AMERICA

Although some North American institutions that started as junior colleges, for example, Victoria College in British Columbia, evolved over time into universities, the phenomenon of community colleges being

authorized to award some baccalaureate degrees in particular areas of study while continuing to fulfill their community college mission is of recent origin.[2]

British Columbia and the beginning of the community college baccalaureate

The first jurisdiction in North America where this occurred was British Columbia. In the late 1980s, concern about the province's relatively low rate of baccalaureate production led to a review of the factors affecting degree attainment. One of the issues identified in the review pertained to the difficulties which students who completed transfer programs in colleges outside the areas where the universities were located (Vancouver and Victoria) had in continuing their studies (Provincial Access Committee, 1988; see also Dennison, 1997). In order to address this problem, it was decided that third and fourth year university courses should be provided in three of these colleges. Initially, the third and fourth year courses were provided by the colleges in cooperation with universities, and the baccalaureate degrees were awarded by the universities. By the mid-90s, the colleges, which were renamed "university-colleges", had been given the authority to offer the programs and award baccalaureate degrees on their own.

Subsequently, it was recognized that distance from a university was not the only barrier that prevented college students from going on to complete a baccalaureate degree, and that baccalaureate production could be increased much further if other colleges were allowed to award baccalaureate degrees. Also, it was difficult politically to deny the colleges in the most populous region of the province the same opportunity that was given to some colleges in smaller regions. Thus, two other colleges in the vicinity of Vancouver were also given university-college status. Since it could hardly be argued that distance was as much of an access barrier for the university-college that was closest to Vancouver as it was for the most distant colleges, a different rationale was found for giving this college the status of a university-college. The decision was that the authority of the fifth university-college to award baccalaureate degrees would be restricted to "applied" degrees. Thus, what started from an *access* rationale, to reduce disparities in baccalaureate attainment between the largest cities and other regions of the province, was extended to the idea of community colleges offering a new kind of baccalaureate degree, an applied degree. However, the government never defined the term "applied" despite urging by the colleges that it do so (Carr, 2001). Once one of the colleges had been given the authority to award applied baccalaureate degrees, it was not long before the government allowed all of the community colleges to award applied – and only applied - baccalaureate degrees.

In changing some of the colleges into university-colleges, the government was attempting to create a third sector of postsecondary institutions that, as the name implied, embodied characteristics of both colleges and universities. However, the meaning of the term university-college proved difficult to explain. A commission on postsecondary education reported in 2007 that the public did not understand

[2] In summarizing the origins of the community college baccalaureate in Canada, I draw upon an earlier work (Skolnik, 2005) and in regard to recent developments, I draw upon a forthcoming publication (Skolnik, 2012, forthcoming).

what a university-college was, and it recommended that the university-colleges be converted into universities (Plant, 2007). This recommendation was accepted, and by 2008, all but one of the university-colleges had become universities, and the other one became a campus of the University of British Columbia. In addition, at the time that the government announced that the university-colleges would become universities, it also made one of the colleges that had been lobbying for university status into a similar type of university as the university-colleges became. Although the government rejected the name university-college, it did not reject the concept of a hybrid type of postsecondary institution that had characteristics of both a college and a university. The newest universities in British Columbia – three former university-colleges and the former college that became a university at the same time – have both a college and a university mandate, and are called "special focus, teaching-oriented" universities.

Alberta's applied degree

In contrast to British Columbia where the original rationale for allowing colleges to award the baccalaureate degree was to improve access, in Alberta the community college baccalaureate was "designed in response to employer demand in emerging occupations" (Campus Alberta Quality Council, 2010, p. 68). These programs were intended to provide more advanced work force preparation that built upon the two year diploma programs that the colleges offered in the same areas of study as the baccalaureate programs through an additional two semesters of classroom study and two semesters of "directed field study".

As the goal of the applied degree programs was work force preparation, the government indicated that graduates should not expect to be admitted to master's programs and other university programs that normally required an undergraduate degree for admission (Government of Alberta, 2011). In spite of the government's warning to prospective students, anecdotal reports indicated that some graduates have been admitted to master of business administration programs and other university programs that require an undergraduate degree, and there are some agreements between Alberta colleges and universities in Canada to facilitate such transitions. According to a recent government survey, 0.9% of applied degree graduates entered a graduate program within four years of graduation, compared to 7.3% for graduates of university baccalaureate programs (Alberta Advanced Education and Technology, 2011). The survey noted also that applied degree graduates are only one-tenth as likely to apply for graduate study as are graduates of other baccalaureate programs. Two other noteworthy findings of the survey were: applied degree graduates were more satisfied with their educational experience than were graduates of other types of postsecondary programs; and the median salary of applied degree graduates was 8.7% higher than that of other baccalaureate graduates, and 28.2% higher than that of diploma graduates. The survey report concluded that the "applied degrees are meeting the needs of the specific employment markets as originally intended" (Alberta Advanced Education and Technology, 2011, p. 2).

The applied degree programs in Alberta were introduced in 1995-96, and until 2004 proposals for these programs were reviewed only by the Ministry of Advanced Education and Career Development. Colleges were required to show that there was a demand for graduates of an applied degree program beyond

that for the related diploma program and that employers supported the work experience component of the program. By 2003, 27 programs had been approved at nine of the province's sixteen colleges and both institutes of technology. Programs were in such fields as petroleum engineering technology and applied information services technology.

In 2004 proposals for new applied degree programs became subject to review by a new postsecondary education agency, the Campus Alberta Quality Council. The CAQC was given the responsibility for review of all proposed new degree programs of the universities *and* colleges. Perusal of the annual reports of the CAQC shows that there have been applications for only two new applied degree programs - neither of which completed the review process - since the responsibility for review of such programs was given to the CAQC in 2004. This observation stands somewhat in contrast to the 2011 survey report referred to earlier which concluded that the applied degrees were meeting the needs for which they were intended.

One of the major reasons for the virtual cessation of new applications for applied degree programs is that the two colleges that offered the largest numbers of applied degree programs, Mount Royal College in Calgary and Grant MacEwan College in Edmonton, were given the authority to offer "academic" baccalaureate programs in addition to their applied degree programs.[3] After becoming eligible to offer academic baccalaureate programs in 2007, both institutions ceased submitting proposals for new applied degree programs and began converting some of their applied degree programs to academic baccalaureate programs. Similarly, after Northern Alberta Institute of Technology and Southern Alberta Institute of Technology were given the authority to award academic baccalaureate degrees, they also ceased submitting proposals for new applied degree programs.

The other colleges in the province did not become eligible to award academic baccalaureate degrees, so that factor could not explain why they also have nearly ceased submitting applications for new applied degree programs. One possible reason for the virtual disappearance of new applied degree program proposals from these colleges after 2004 is that the approval process for applied degrees may be perceived as more arduous and uncertain since the establishment of the CAQC, whose purview consists almost entirely of conventional university programs, and most of whose members have a conventional university background. On the other hand, the decline in the number of new proposals may be due to diminished prestige of the applied degree resulting from the shift of interest away from that degree by

[3] The applied degree in Alberta is precisely defined with respect to program length, structure, standards and requirements. It is not clear just what term is most appropriate when referring to other baccalaureate degrees. The CAQC Handbook uses the term bachelor's degree when referring to *all* bachelor's degrees, including applied degrees; and the term applied degree when referring specifically to applied degrees. It manages to avoid referring collectively to the subset of bachelor's degrees that excludes applied degrees. Some sources seem to use the term bachelor's degree to refer to all bachelor's degrees except applied degrees. For example, this looks like way the term is used on Mount Royal University's web site (http://www.mtroyal.ca/ProgramsCourses/index.htm). In conversations with Alberta educators, I have often heard the bachelor's degrees that are not applied degrees referred to collectively as academic degrees. This is consistent with the practice in the United States of distinguishing between academic associate degrees and applied associate degrees. Following both practices, I have chosen to use the word academic as the alternative to applied in this paper.

institutions that became eligible to award academic baccalaureate degrees. The Alberta experience suggests that formal differentiation of college baccalaureates from university baccalaureates can be taken so far as to undermine the whole idea of colleges awarding baccalaureate degrees. It was for this reason that the presidents of Ontario's colleges had for several years urged the government to eliminate the requirement that the word "applied" be in the title of all college baccalaureate programs (Colleges Ontario, 2009, p. 5). That requirement was finally dropped in 2009.

In 2007, Grant MacEwan College and Mount Royal College were designated "baccalaureate granting institutions", and the two institutes of technology were designated "polytechnical institutions" (Alberta Ministry of Advanced Education and Career Development, 2007). In 2009, both Grant MacEwan and Mount Royal became universities, though with the understanding that along with degree programs, they would continue to offer certificate and diploma programs, university transfer programs, and preparatory programs that prepare learners for postsecondary education (Government of Alberta, 2012a; 2012b). Another indication that these institutions were intended to be a different type of university than the existing ones is that on its web site, MacEwan University states that its instructors are focused on "teaching first and research second" (MacEwan University, 2011).

In addition to British Columbia and Alberta, colleges in Manitoba recently became eligible to award baccalaureate degrees, the single college in Prince Edward Island has received approval for its first baccalaureate program, and Yukon College now offers one baccalaureate program on its own in addition to the ones in which it collaborates with other institutions and the other institutions award the degrees. The Association of Canadian Community Colleges (ACCC) estimated that as of January 2011, 41 Canadian postsecondary institutions with a community college mandate were offering 230 baccalaureate programs (Association of Canadian Community Colleges, 2011).

Community college baccalaureates in the United States

While a few colleges in Utah and Nevada gained approval to award baccalaureate degrees in the 1990s (Remington & Remington, 2005; Hofland, 2011), the major developments related to the community college baccalaureate in the United States have occurred since 2000. By 2010, according to a report of the American Association of State Colleges and Universities, 54 community colleges in 18 states were offering 465 baccalaureate programs (Russell, 2010). Improving access to the baccalaureate and meeting the needs of industry have been the driving motives for enabling community colleges in the United States to award baccalaureate degrees (Floyd & Walker, 2009). Allowing community colleges to award the baccalaureate degree is thought to help many individuals overcome geographic, financial and programmatic barriers that college students face when trying to continue their studies in a university. Although they fall under the same quality assurance frameworks as do baccalaureate programs in universities, in the United States, baccalaureate degrees awarded by community colleges are in applied fields of study and frequently are referred to as workforce baccalaureates or applied baccalaureates (Walker and Floyd, 2005). Walker & Floyd observed that college baccalaureates "differ from traditional baccalaureates in that they make considerable use of 'applied' and contextual learning methods, and significant learning on the job while traditional baccalaureates depend principally on academic pedagogy" (Walker &Floyd, 2005, p. 96).

Little data are yet available on the characteristics of students who complete baccalaureate degrees in a community college, but if these students are typical of other college students, it would be expected that many would be first generation, low-income, and racial and ethnic minority students (Daun-Barnett, 2009). This is not just an American phenomenon. Klumpp & Teichler reported that in Germany *fachhochschulen* have been "more open than universities to students from lower socioeconomic backgrounds" (Klumpp & Teichler, 2008, p. 107). In Florida, 41% of community college baccalaureate students are aged 34 and older, compared to 5.2% in the state university system (Floyd *et al*., 2012, forthcoming). In a national survey of community college presidents, one quarter of respondents reported that they had received requests from local employers for the college to offer baccalaureate programs because of unmet needs (Floyd & Walker, 2009).

Besides the interest in expanding baccalaureate attainment in order to provide more qualified workers for industry, a major rationale for community colleges to award baccalaureate degrees in the United States has been to address the particular barriers to baccalaureate degree completion that are faced by individuals who complete applied associate degrees in colleges[4]. Earlier I noted the mismatch in curriculum between community college career programs and university bachelor's programs. In part as a consequence of this mismatch, transfer rates for students completing applied associate degree programs are much lower than for students who complete academic associate degree programs. For example, Townsend reported that in the mid to late 1990s, the transfer rate in the state of Washington was 52% for graduates of academic associate degree programs compared to 5% for graduates of applied associate degree programs; and the corresponding rates in Texas were 36% and 6%; Missouri, 41% and 9%; and Oregon, 55% and 11% (Townsend, 2002). A report by the Association of Colleges of Applied Arts and Technology of Ontario (the predecessor of Colleges Ontario) showed a comparable differential for British Columbia (41% for academic programs versus 8% for applied programs), and a comparably low rate for Ontario in applied programs (5.6%), along with a higher rate – but one that is much lower than that of other jurisdictions - for the relatively small segment of arts & sciences programs in Ontario colleges, 21-26% (Association of Colleges of Applied Arts and Technology, 2005). While part of the difference in transfer rates for graduates of academic and applied programs is probably due to differences in the educational aspirations of these two groups, a large part is likely due to the greater barriers that graduates of applied programs face when attempting to transfer to universities.

Other research on transfer differentials in the United States showed that while three-fourths of liberal arts courses in colleges earn transfer credit in four-year institutions, only about one-third of vocational courses do (Roksa, 2006). Chase found that credit transfer policies frequently result in substantial credit loss for students in technical programs, and that this penalizes minority students who are disproportionately enrolled in technical programs (Chase, 2011).

In their study of applied baccalaureate programs, Townsend, Bragg, and Ruud noted that the most effective arrangements for transfer for students in college career programs involve the creation of

[4] Applied associate degree programs in the United States are workforce oriented and are similar to two-year diploma programs in Ontario colleges. Academic associate degree programs are mainly in arts and sciences and are intended to prepare students for transfer to a university.

special types of degree completion programs by universities (Townsend, Bragg, and Ruud, 2009). They identified three such program types which they called: (1) career ladder; (2) inverse degree; and (3) management ladder. In the career ladder type of program, transferring students take a substantial number of upper-level courses in the technical major of the applied associate's degree. In the inverse, or "upside-down" degree (Townsend, 2004), the occupation-focused courses taken in the associate's degree are accepted by the university as satisfying much of the specialization requirement for the major, and the emphasis in the university portion is on general education courses sufficient to meet the university's general education requirement. The resulting baccalaureate is typically titled a Bachelor of General Studies, Bachelor of Professional Studies, or Bachelor of Applied Studies. The management ladder type of program is designed to provide the degree recipient with the applied management skills sufficient to prepare for a managerial position. While some universities in the United States have instituted degree completion programs of these types for transferring students (Townsend, Bragg, and Ruud, 2008), the number of such opportunities is small in relation to the numbers of students who annually complete applied associate degrees in American colleges. The shortfall in opportunities for degree completion in universities leaves fertile ground for community colleges to offer baccalaureate programs. That ground may be even more fertile in Canada because of the rarity of specially designed programs in universities to enable graduates of college career programs to complete a baccalaureate degree that further develops their career related knowledge and skills.[5]

The state in which awarding baccalaureate degrees by colleges is most prominent is Florida. The first legislation in Florida pertaining to the community college baccalaureate, which enabled St. Petersburg College to award baccalaureate degrees, was enacted in 2001 (Furlong, 2005). Broader legislation which enabled all the colleges to award baccalaureate degrees, and also allowed a college to drop the word "community" from its name or refer to itself as "state college", was enacted in 2008. In 2011, 119 baccalaureate programs were being offered by 18 of the state's 28 colleges (Floyd *et al*., 2012, forthcoming). Enrolment in these programs increased from 2,834 in 2006 to 8,155 in 2009. A 2007 report prepared for the Board of Governors of the state university system of Florida observed that the community college baccalaureate could provide a cost effective pathway for significantly increasing Florida's low rate of baccalaureate attainment (Pappas Consulting Group, 2007). The report noted that Florida ranked 43rd in the United States in bachelor's degrees per thousand residents aged 18-44. The report suggested also that Florida universities seemed to emphasize graduate studies more than undergraduate, noting that in the previous ten years the output of master's and doctorate programs increased by nearly 60%, while baccalaureate production increased just over 40%. The overemphasis on postgraduate relative to undergraduate programming is particularly problematic when considered in conjunction with the size of the Florida university system. With a population about 50% greater than Ontario's, Florida has just 11 public universities compared to Ontario's 20.

[5] Seneca College has recently obtained Ministerial approval for a Bachelor of Interdisciplinary Studies which enables students to combine occupation specific courses with general education courses in the manner described by Townsend, Bragg & Ruud. This appears to be the first program of this kind in any Canadian postsecondary institution, and the first offered by a college in North America.

While there has been some expansion of community college baccalaureate activity recently in a few other states – particularly Washington and Texas – the movement of community colleges into baccalaureate degree granting in the United States has proceeded unevenly, perhaps even idiosyncratically, and it has been the subject of considerable controversy (Wattenbarger, 2000; Townsend, 2005; Skolnik, 2011). Grubb observed that "the political battles over granting baccalaureate degrees to community colleges have been ferocious, with public universities resisting any encroachment on their turf and community colleges just as fiercely inveighing against the elitism and protectiveness of universities" (Grubb, 2006, p. 37). One of the principal focuses of critics has been the concern that colleges might neglect their traditional clientele in their pursuit of higher status. To stave off this possibility, the Florida legislation prohibits colleges from offering master's programs and makes continued fulfillment of the community college mission a condition of awarding baccalaureate degrees. While it is difficult to predict the future course of the community college baccalaureate in the United States, two current concerns could help foster an expansion of this phenomenon. One is national concern about the decline in the rate of baccalaureate attainment in the United States relative to other nations. The other is the concern about the high costs of university education and the perception that it would be less costly to produce baccalaureate degrees of equivalent quality in a community college.

III. DIFFERENTIATION, DUPLICATION, AND CHOICE

The Drummond report alleges that when community colleges offer baccalaureate programs it blurs the distinction between colleges and universities and results in duplication of programs. The report recommends the curtailment of college baccalaureate programs in the name of institutional differentiation.

In making this recommendation, the report focuses exclusively on only one of the *many* characteristics that may differentiate postsecondary institutions from one another, the academic credentials that they award. However, the literature on institutional differentiation emphasizes that institutional identity is defined by many characteristics, and any judgment about the extent of differentiation between institutions depends upon which of the many institutional characteristics are considered (Birnbaum, 1983).

As I have elaborated on elsewhere, there are many other characteristics that differentiate colleges from universities besides the awarding of degrees (Skolnik, 2011). College programs are more focused on specific occupations than are university programs; the approach to learning in colleges is more applied, experiential, and inductive than is typically the case in universities; colleges are more teaching oriented institutions than universities; and colleges serve a somewhat different clientele than universities: college students are more likely to come from lower income families; to be new Canadians or minorities; to have been less successful in previous academic experiences; and to live in areas where there is no university. If one focuses on these *substantive* characteristics that are central to the student experience, then there is considerable differentiation between colleges and universities irrespective of whether or not colleges award baccalaureate degrees. In fact, these other factors are more important sources of difference between colleges and universities than whether or not colleges award degrees.

The mere fact that colleges and universities both offer baccalaureate programs does not necessarily mean that there is duplication of programs. Because college baccalaureate programs share the characteristics described above that differentiate colleges from universities, the baccalaureate programs of colleges are quite different than the baccalaureate programs of universities. Thus, in general there is far more duplication between the baccalaureate programs of different universities than there is between university baccalaureate programs and college baccalaureate programs.

One of the recommendations of the Drummond Report is that postsecondary institutions "need to devote more resources to experiential learning" (Commission on the Reform, 2012, p. 248). Although experiential learning can be found in the universities, it is more prominent and pervasive in the colleges. Indeed, one could say that experiential learning is in the colleges' DNA. Thus, a very good way to ensure that more baccalaureate students get the benefit of experiential learning is to increase enrolment in college baccalaureate programs. This is an example of a larger point: allowing colleges to award baccalaureate degrees does not conflict with the Drummond Commission's goal of using "differentiation to improve postsecondary quality and achieve financial sustainability" (p. 244); on the contrary, it is one of the most important means to the achievement of that goal.

Recognition of the differentiation between college and university baccalaureates was illustrated in a few decisions made by university leaders in Florida that I related in an earlier publication (Skolnik, 2011). In one case, officials at Florida Gulf Coast University (FGCU) agreed to transfer its bachelor of applied science degrees in computer technology and public services management to Edison College, because they felt that with the heavy emphasis on workforce skills in these programs there would be a better fit at Edison College than at the University (Reed, 2004). In return for FGCU's help in starting these two baccalaureate programs, Edison agreed to open its Charlotte campus to FGCU as the University attempted to move the catchment area for its traditional programs northward. In a similar move, the University of Central Florida encouraged Valencia College to take over its baccalaureate programs in engineering technology and radiology imaging, which the college did so that these programs would be available in the region, even though Valencia College had not intended to get into offering baccalaureate programming (Moltz, 2010). In these cases, a university and a college agreed that the important differentiation between them was not in the academic credentials that they awarded but in the nature of the programs they offered and the types of students that they served.

One of the principal benefits of, and rationales for, institutional differentiation in postsecondary education is that it provides more choice for students. Because of the differences between the baccalaureate programs of colleges and universities, allowing colleges to award baccalaureate degrees adds a significant element of choice to the postsecondary system. Moreover, because of the more applied nature of college programs, the more teaching oriented setting, and the more flexible admissions policies of colleges, college baccalaureate programs may attract or admit many students who would not be attracted to or admitted by university programs; and such students may perform better academically in a college environment than they would in a university environment. Insofar as college baccalaureate programs may attract new baccalaureate students who would not otherwise have enrolled in a baccalaureate program, the existence of college baccalaureate programs would result in a net increase in the number of baccalaureate-educated persons in the province's workforce. It is not just

that more people would have baccalaureate degrees, but that the additional baccalaureate graduates would have undergone a type of education that would enhance their knowledge and skills and prepare them for more productive roles in society.

Even with ideal data it would be difficult to determine how many of the students who are enrolled in college baccalaureate programs would have enrolled in university if there had been no college baccalaureate programs – and the available data on students in college baccalaureate programs is far short of ideal. However there is some data that sheds a little bit of light on this question. A study by Higher Education Strategy Associates (HESA), done for HEQCO, included a survey in which university students were asked about their attitudes toward studying in a college baccalaureate program relative to their present university program. Almost none of the respondents would have been interested in enrolling in a college program. While it is difficult to draw strong conclusions from this survey without the benefit of a corresponding survey of students who are enrolled in a college baccalaureate program, the data suggest that university and college baccalaureate students may to some extent constitute different populations. Of course, as prospective students come to know more about college baccalaureate programs, these programs might attract more of the type of students who previously have gone to university – similarly to the way that many university graduates and students who have attended university subsequently enroll in colleges.

According to the HESA report, data from the provincial key performance indicator (KPI) survey "suggest that college degrees serve a different demographic than do universities" (Higher Education Strategy Associates, 2012, p. 25). For example, the report stated that compared to university students, students in college baccalaureate programs were more likely to be older and male, and 80 per cent indicated that preparing for employment or for a career was their main goal in enrolling in their program. Other data from the KPI survey show that the primary language of 21 per cent of students in college baccalaureate programs was other than English or French. By collating data from the 2011 University and College Applicant Survey (UCAS) with data from the Ontario College Application Service (OCAS), researchers at Colleges Ontario were able to determine other characteristics of a random sample of college baccalaureate students. Just over 21 per cent of the students were not born in Canada; nearly two-thirds of the students were working full or part time, with another quarter looking for work; and one-third indicated that their ethnicity was other than Caucasian/White.

Perhaps the most important rationale for differentiation in postsecondary education is that the resultant concentration enables institutions and programs to reach higher levels of quality and efficiency than would be likely with a broader focus. The implications of this rationale for the community college baccalaureate differ depending upon whether the purview is generic aspects of offering baccalaureate programs or the delivery of specific occupationally-focused programs. An institution that offers a large number of baccalaureate programs, including programs in the arts and sciences, has the ability to offer a wide range of high quality breadth courses that complement the specialized courses in a student's major field of study. Providing the appropriate breadth courses may be more difficult for an institution that offers fewer baccalaureate programs, and those only in applied fields of study. Yet this is not an insurmountable obstacle. One of the standards in the assessment of proposals from colleges to offer baccalaureate programs pertains to the range and quality of breadth courses. The colleges that have

received Ministerial consents to offer baccalaureate programs have demonstrated to the PEQAB that the range and quality of their breadth courses meets its standard. Having met that standard, these colleges would not incur significant additional costs in regard to this factor if they were to offer additional baccalaureate programs. In fact, increasing the number of baccalaureate programs in these colleges may result in greater efficiencies.

The larger factors that contribute to the quality and efficiency of each program are program-specific. Chief among these is the potential complementarity that may exist between programs at different levels, particularly between a diploma program and a baccalaureate program within the same specialized area of study. In most cases where colleges have applied to offer baccalaureate programs, the colleges had already developed much of the expertise necessary for offering the baccalaureate program in the course of operating a related diploma program. The opportunity and the challenge of participating in a baccalaureate program helps faculty to develop and realize their academic and professional potential, which enhances the baccalaureate and related diploma programs as well as post-diploma programs which frequently enrol many university graduates. Curtailing baccalaureate programs in the colleges would eliminate the benefits for students and the economy that result when a unique diploma or post-diploma program with a strong track record in an area of high demand can serve efficiently as a foundation for the development of a related baccalaureate program.

Yet another benefit of institutional differentiation is that it enables potential clients of postsecondary institutions to find more effective matches between their needs and the characteristics of the institution. An extension of this principle applies to the purchase of services by government. The Drummond Commission expressed concern about many university research centres “effectively taking money from undergraduate tuition revenues to further support research” and urged that there be a better balance between teaching and research (Commission on the Reform, 2012, p. 242). Suppose that as part of its approach to dealing with this concern, the government wishes to purchase more baccalaureate teaching without at the same time purchasing an equivalent increase in research. The present funding arrangements for universities do not enable the implementation of this type of government purchasing preference. However, by directing a portion of its growth in expenditures on baccalaureate teaching to colleges, the government can achieve an increase in baccalaureate teaching without an equivalent increase in expenditure on research.

The view of the postsecondary system that is reflected in the Drummond Commission recommendation is that of a hard binary structure where the activities in which postsecondary institutions may engage are restricted by their sector. The fact that there has been a worldwide trend away from such a hard binary structure is indicative of its drawbacks. Some higher education scholars have argued that such binary systems “suffer from inflexibility and that the response to diverse needs could be most adaptive and dynamic” if institutions weren’t restricted by sectoral boundaries (Teichler, 1998, p. 482; see also Scott, 1996). The creativity that colleges in Ontario and other jurisdictions have shown in developing baccalaureate programs that meet student and employer needs is illustrative of this type of adaptive and dynamic response.

The baccalaureate degree has become a necessary credential for hiring and advancement in many of the fields in which colleges have been offering diploma programs. Utilizing the expertise of the college to offer baccalaureate programs in these fields is a logical and natural extension of its previous work at the diploma level, and thus is fully consistent with the historic mission of the colleges to help students develop the knowledge, skills and traits that they need in order to have successful careers and contribute to creating a more prosperous society.

IV. OTHER CONSIDERATIONS AND CONCLUDING COMMENTS

In contrast to many other jurisdictions, Ontario did not make any move toward diversification of the production of baccalaureate degrees before the 21st century, and to date has made only quite small moves in that direction. It would make sense now for the province to make more substantial moves toward diversification of the production of baccalaureate degrees (Clark *et al*., 2009; 2011; Jones & Skolnik, 2009). Such moves include increasing the proportion of undergraduate students in Ontario that is in college baccalaureate programs. These programs are more accessible than university programs for some students, and they serve needs that are not being met the universities, by being more employment focused, by employing more applied learning methods, and by being offered largely in fields that are not offered in universities.

In regard to diversifying baccalaureate production, it is one thing for current policy decisions to be constrained by decisions made in the past; but it is quite another to simply keep making the same policy decisions over and over. The latter appears to be the case with respect to reports that the government intends to establish three new campuses of existing universities in order to meet an anticipated increase in the demand for places in baccalaureate programs (Richardson, 2011). Expanding baccalaureate granting capacity by creating new campuses of research oriented universities does not address what some regard as one of the principal problems with the present approach to the delivery of baccalaureate education in Ontario. That is that unlike almost all other jurisdictions of comparable size and economic development, Ontario relies almost exclusively on research oriented universities for the production of baccalaureate degrees (Clark *et al*., 2009).

As Clark *et al*., (2011) argue in a more recent book, the problem with this approach is that it is very expensive and it fails to deliver a consistently high quality of undergraduate education. Clark and Trick have suggested that the decision to create three new university campuses provides an opportunity to diversify the production of baccalaureate degrees by instead creating three new teaching-oriented universities as exist already in the United States, British Columbia, and Alberta (Clark & Trick, 2012; Trick, 2011). Miner also has questioned the wisdom of creating three new university campuses, suggesting that other options that provide a larger role for colleges in baccalaureate production – though he doesn't specifically mention increasing the number of college baccalaureate programs - would make more sense (Miner, 2012).

The recommendation to curtail the provision of baccalaureate programs by colleges has been presented to the government in the name of efficiency by a commission whose primary concern is efficiency and cost containment in publicly funded enterprises. That the government should be considering this recommendation at the same time as it considers the creation of three new university campuses is of the utmost irony. In many other jurisdictions, having colleges provide baccalaureate programs is viewed as an important element of responding efficiently to the types of student and employment sector needs that are prominent as the demand for baccalaureates continues to increase. The potential for addressing these needs in part by an increase in the number of college baccalaureate programs is strengthened by the fact the regions that have been mentioned most frequently as possible locations for the new university campuses – from the north of the GTA to Barrie, and from the west and northwest of the GTA to Milton and Brantford– are regions of colleges that have demonstrated the capacity to offer baccalaureate programs. Encouraging and facilitating a significant increase in enrolment in college baccalaureate programs in areas of excess demand for places in baccalaureate programs would likely be more economical than building new universities or campuses of existing universities.

Earlier it was noted that one of the factors contributing to the expansion of college baccalaureate programming in many jurisdictions has been the lack of adequate transfer arrangements that enable students in occupational programs in colleges to complete related baccalaureate programs in universities. Because Ontario lags behind many other jurisdictions in the availability of effective college-to-university transfer arrangements, the need for colleges to offer baccalaureate programs in order to overcome this barrier is particularly strong in Ontario. While it is commendable that efforts are now under way to improve transfer opportunities in the province, it is impossible to predict how much or how soon progress will result from these efforts. Moreover, the experience of jurisdictions that have more experience than Ontario in addressing this issue shows that there are some fundamental problems in trying to create pathways from a sector in which experiential learning is highly valued to one in which it is much less valued. The lesson from that experience is that there are significant limits on the extent to which opportunity for attainment of career-focused baccalaureate degrees can be achieved through college-to-university transfer. While the creation of better pathways between sectors is an important goal, it is not a substitute for the further development and expansion of parallel opportunities for degree-level study in a more career-focused postsecondary sector. Also, while the object of this paper is the baccalaureate programs that are provided in that career-focused sector, it is reasonable to expect that in the not too distant future some of the institutions in that sector should begin offering career-focused master's, and eventually doctoral, programs, as is the practice in several other jurisdictions.

In 2002, the first year in which applications from colleges to offer baccalaureate programs were considered, consents were given for 35 programs. By 2012, the net increase in the number of college baccalaureate programs had been just 36 programs, an average of 3.6 per year. As Ontario may be the only jurisdiction in the world that has relied so exclusively on research oriented universities for baccalaureate education, the real issue is not whether an increase of three or four college programs a year is too many, as the Drummond Commission seems to believe, but whether it is too small a movement toward diversification of the production of baccalaureate degrees. College degree programs

add an important element of choice and diversity to our system of baccalaureate education and likely serve many students whose needs have not been met by university baccalaureate programs. Therefore, continued expansion of baccalaureate programming in the colleges should be an important component of any strategy to increase baccalaureate degree attainment in Ontario in an equitable and efficient manner.

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