

# Tracking Online and Distance Education in Canadian Universities and Colleges: 2018

## CANADIAN NATIONAL SURVEY OF ONLINE AND DISTANCE EDUCATION

### ONTARIO SUB-REPORT

Sponsored by:



In partnership with:



**PUBLISHED**  
**JANUARY 2019**

# THE 2018 NATIONAL SURVEY RESEARCH TEAM

**Dr. Tricia Donovan**

Executive Director, CDLRA/ACRFL  
Former Director, eCampus Alberta

**Dr. Tony Bates**

CDLRA/ACRFL

Distinguished Visiting Professor, Chang School of Continuing Education,  
Ryerson University; Research Associate, Contact North

**Dr. Jeff Seaman**

Director, Babson Research Group. USA

**Dr. Denis Mayer**

CDLRA/ACRFL

Ancien vice-recteur adjoint, affaires étudiantes, Université Laurentienne

**Eric Martel**

Directeur adjoint - Formation à distance, Université Laval

**Dr. Ross Paul**

Former President, University of Windsor, Laurentian University

**Dr. Brian Desbiens**

Former President, Sir. Sanford Fleming College

**Vivian Forssman**

CDLRA/ACRFL

Former Director, Centre for Teaching and Educational Technologies,  
Royal Roads University

**Russ Poulin**

Director, Policy and Analysis, WCET, USA

# CONTENTS

Acknowledgments .....	4
Executive Summary .....	5
Introduction.....	12
Response from Ontario institutions .....	13
Distance Education .....	14
Online Learning .....	17
Online Course Enrolments .....	21
Blended and Hybrid Learning .....	27
Definitions .....	30
Open Educational Resources .....	37
Continuing Education .....	41
Technologies .....	43
MOOCs .....	48
Strategies and Plans .....	50
Perceptions of Online Learning .....	58
Canada & US Comparison .....	67
Background to the 2018 Survey .....	69
Methodology and Response Rate .....	72
Roster .....	76

Tracking Online and Distance Education in Canadian Universities and Colleges: 2018  
is released by the

Canadian Digital Learning Research Association/Association canadienne de recherche sur la formation en ligne (CDLRA/ACRFL)

under a [Creative Commons Attribution-No Derivatives 4.0 International \(CC BY-ND 4.0\) License](https://creativecommons.org/licenses/by-nd/4.0/)



Attribution-NoDerivs

CC BY-ND

# ACKNOWLEDGEMENTS

As in 2017, the major part of the funding for the 2018 survey was provided by various provincial government organizations mandated to support online learning, plus lesser but significant contributions from the private sector. For 2018 the primary funding agencies were:

- eCampusOntario
- BCcampus
- Campus Manitoba
- Contact North
- OCAS
- Pearson Canada
- Government of Québec
- D2L

Also, in order to provide greater transparency in the management of funds, the survey team established itself in 2018 as a federally registered Canadian Not-for-Profit Corporation called the Canadian Digital Learning Research Association/ Association canadienne de recherche sur la formation en ligne (CDLRA/ACRFL).

Once again, the 2018 survey depended heavily on support from other organizations, including:

- Colleges and Institutes Canada (CICAN)
- Universities Canada
- Canadian Virtual University

Above all, though, this is a voluntary survey for institutions to complete. As in 2017, this year's survey required a good deal of work from many different people within the institutions to provide all the information requested. We are truly indebted to everyone who participated in the survey.

The 2018 Canadian National Online and Digital Education Survey is operated by the Canadian Digital Learning Research Association (CDLRA)/Association Canadienne de Recherche sur la Formation en Ligne (ACRFL), a federally incorporated not-for-profit organization. CDLRA/ACRFL was established to engage in research and publish information regarding online and digital learning in the Canadian education system. Dr. Tricia Donovan serves as the Executive Director, and Dr. Tony Bates and Dr. Denis Mayer serve as Directors of the Board.

# EXECUTIVE SUMMARY

The public report on the results of the 2018 Canadian National Survey of Online and Distance Education conducted in summer, 2018 is available at <https://onlinelearningsurveycanada.ca/>. This sub-report includes the national results from across the country **and focuses on the responses from Ontario's post-secondary institutions. The Ontario specific results are presented in bold text for each area.** Unless otherwise noted, the results presented include those collected from across the country.

The 2018 survey received an 80% response rate from across the country, which represents 187 responses out of our roster of 234 public institutions. Responses were highly representative of institution type, province and size of institution. **The response from Ontario was particularly strong with 96% (46/48) of institutions responding.**

In 2018, the National Survey treated francophone affiliated institutions as separate institutions in order to facilitate responses from these institutions. As such, our survey institution count includes the 45 institutions identified by the Ministry of Training, Colleges and Universities, plus one plus one institution funded through the Ministry of Health. In addition, in 2018, Ontario institutions with francophone colleges would have received two separate questionnaires, independently completed. As a result, the survey roster number of institutions included for Ontario was 48. **100% of Ontario's 24 colleges responded and 91% of Ontario's 22 universities completed the survey.**

**The study's findings highlight the steady growth in online course registrations across the country and demonstrate a maturity in online delivery in Ontario's post-secondary institutions. Students taking at least one online course in universities account for 16% of all course registrations and 22% of students, 7% of students in Ontario's colleges took at least one online course. More than three quarters (78%) of Ontario institutions identified online learning as very or extremely important to their future academic and strategic plans. Just over half (58%) of institutions in Ontario report that they have a plan, while just 27% report their plan is fully implemented.**

**Ontario institutions were more likely to report extensive use of on-demand streamed video, and much higher moderate use of mobile technology and social media. Institutions in Ontario also reported much higher use of adaptive learning and simulation than their counterparts across the country.**

**In recent years, Ontario has invested in and promoted open education and the use of open educational resources across the post-secondary sector. While only a small number of institutions in Ontario responded to these questions, the proportion of institutions offering some form of training in OER is marginally higher than that reported nationally. It will be interesting to watch this area of activity in institutions across Canada as the OER movement continues to gather momentum globally.**

## Extent of Activity

**The response from Ontario was amongst the highest percentage of responses of all provinces and territories, with a response rate of 96% (100% of colleges and 91% of universities. In Ontario, 45 of 46 responding institutions reported that they offer online courses for credit.**

The results of the survey clearly demonstrate that online learning is alive and well with a strong annual growth in online enrolments and more than two-thirds of Canadian public institutions are offering online learning. Nearly all Canadian universities and colleges outside of Quebec offer distance education courses for credit.

## Definitions

The 2017 survey showed a lack of agreement on definitions of the terms used to describe courses that are offered as 'distance education', 'online' or 'blended/hybrid'. For 2018, institutions were asked to identify if they had a definition at their institution and if so, did it match the one presented in the survey.

Across Canada, between a half and two-thirds of the respondents reported that their internal definition matched that provided in the survey. There was more agreement on the definition of online courses and less on the definition of distance education. Perhaps more significantly, between a fifth to a quarter of the institutions have no definitions of these terms.

Colleges were more likely to identify a match with the survey definition (80%); while 65% of universities identified a match. CEGEPs and Small privatized colleges in Quebec were least likely to identify a match with the survey definition (40% and 38% respectively).

**In Ontario, the rate of agreement between an institution definition and the survey definitions was higher than in other jurisdictions. For distance education, nearly three-quarters (70%) of institutions reported that their definition of distance education matched that of the survey, compared to a match of 54% nationally. Even higher agreement was recorded by 38/46 institutions or 83% who indicated that their definition of an online course matched the survey definition and 74% reported a match between their institution definition of blended/hybrid and that presented by the survey.**

## Distance and Online Course Offerings

In 2018, 83% of responding institutions across Canada offered distance education courses for credit, the same percentage as in 2017, and 83% offered online courses for credit, also the same proportion as in in 2017.

**For Ontario, 98% of institutions respondents offered distance education courses for credit.**

Size of institution is very much a determining factor for online offerings Canada wide. Over half of the institutions with fewer than 1,000 students (52%) did not offer online courses, while almost every institution with more than 10,000 students did.

The private subsidised colleges and CEGEPs in Québec were least likely to offer online courses. Universities (including in Québec), and colleges outside Québec, were the most likely.

The 2018 findings show a significant increase in the number of institutions offering online courses between 2010 and 2011 (from 68% in 2010 to 76% in 2011), and then a more gradual increase between 2011 and 2016 (from 76% in 2011 to 79% in 2016).

The main growth has come from the very small institutions. In 2008, only 14 responding institutions with fewer than 2,000 students were offering online programs, but by 2016 this had grown to 26, almost doubling in numbers.

As was first noted in the 2017 study, Canadian post-secondary education appears to be a mature market for online learning. Many have been offering online courses for 15 years or more.

## Online Course Enrolments

In 2016-2017, 18% of all Canadian post-secondary students were taking at least one online course for credit, 19% in universities, and 21% in colleges outside Québec.

Of all credit course enrolments, about 8% were fully online, representing 1,357,000 online course registrations. If the online course enrolments are converted to full time equivalents, this would be equal to about four universities of 27,500 each, four colleges of 10,000 each, and a Cégep of 3,500.

The average course load for students taking online courses was between 3 to 4 online courses a year. Overall course loads ranged from 7-8 courses a year in universities to around 10 courses a year in colleges.

Across the country, there has been a steady growth in online enrolments between 2015-2016 and 2016-2017, with almost two thirds of institutions showing growth in online enrolments from last year, and fewer than a quarter showing a decline. The expectations for next year are even higher, with three-quarters reporting likely growth and only 3% expecting a decline in enrolments.

**In Ontario, the percentage of institutions offering online education grew from 93% in 2008-2010 to 98%, where it has stayed consistent since 2012. More than two-thirds (68%) indicated they anticipate an increase in enrollments in the coming year.**

**In Ontario universities, 16% of students took at least one online course, and 8% of all university credit course enrolments were in online courses. In the colleges, 22% of students took at least one online course, and 7% of all college credit course enrolments were in online courses. In 2016/17, students in Ontario universities took an average of 7.62 courses per year; while students in Ontario colleges averaged 12 courses per year. Online courses are included in that total and the average online course load was 3.7 for**

university students and 3.8 for students in college.

## Blended/hybrid Learning

**Ontario institutions reported that 68% offer between 10-30% of blended/hybrid courses and 25% offer less than 10% in this format.**

Blended/hybrid learning courses are offered by 78% of the reporting institutions, a rate that varies considerably by type of institution:

- 87%: universities
- 84%: colleges outside Québec
- 58%: CEGEPs
- 43%: private subsidised colleges in Québec

The 2018 findings reinforce the conclusion from the 2017 survey that more than three quarters of Canadian institutions are now integrating online with classroom teaching, but no more than one in five have a significant number of courses in this format.

## Open Educational Resources, Practices and Open Textbooks

**26/45 (58%) responding institutions in Ontario use open textbooks. Ontario institutions were also asked if open textbooks were used in face-to-face classes. Of the 26 institutions that responded to this question, 23 reported that they did (51% of the 45 responding Ontario institutions). 22 of 26 responding institutions (49% of the 45) reported that they used open textbooks in online courses, and 17 out of 26 responding institutions (38% of the 45 institutions) reported that they used open textbooks in blended/hybrid courses.**

**Five of the 26 responding institutions indicated they track and calculate cost savings for students as a result of switching to open resources.**

A substantial number of Canadian post-secondary institutions (just over half) are using open textbooks and a further fifth are exploring their use. Universities and larger institutions are most likely to adopt open textbooks. The highest proportions of institutions using open textbooks were in British Columbia (90%) and Alberta (78%). Open textbooks are being used in all modes of delivery, but mostly in face-to-face courses.

## Continuing Education

**The response from the Ontario institutions on continuing education mirrors that of the rest of the country, with the overwhelming majority (91%) indicating their institution offers continuing education and 9% do not.**

Continuing education is offered by 93% of both Anglophone and Francophone responding institutions. Continuing education is offered both for-credit and not-for-credit, and institutions take



advantage of face-to-face, online and blended/hybrid delivery methods. Face-to-face, not-for-credit courses were the choice most selected by responding institutions (87%).

## Technologies

**All of the Ontario's responding institutions (100%) report using an LMS extensively.**

Learning Management Systems (LMS) continue to be the backbone technology used by institutions for their online and blended/hybrid courses. Nearly all institutions are combining various web-based technologies to augment the LMS and support increased interaction and engagement in their courses.

## MOOCs

**In Ontario, seven of 46 institutions (15%) indicated they have offered MOOCs in the last twelve months, and eleven of 41 responding institutions (27%) indicated they may support faculty interest and increase MOOC support in the future.**

There is relatively little MOOC activity in Canadian institutions, with only 18% having offered MOOCs in the previous year, with most offering between one to five MOOCs in the last 12 months. Most institutions either have no interest in offering MOOCs in the future (36%) or are unsure of their future plans for MOOCs (40%). Only 13% reported that they were willing to support the increased use of MOOCs in future, with the remaining 11% leaving it to individual faculty to decide without necessarily providing institutional support.

## Policies and Practices

Online learning is 'very' or 'extremely' important for the institution's long-term strategic or academic plan in 68% of responding institutions across the country. Most institutions recognize the importance of having a plan or strategy for e-learning:

- 65% either had a plan or were developing one;
- Just under a third (30%) did not have a plan, but reported that they needed one;
- Only 5% reported that a plan or strategy was not needed.

Institutions reported that faculty on balance accepted the value and legitimacy of online learning and a clear majority of responding institutions (61%) reported that students were at least as satisfied with online courses as with face-to-face courses. There was also general agreement among the institutions that students need more discipline to succeed in online courses;

Online course learning outcomes are considered by most institutions to be the same as for face-to-face courses, although a few institutions (11%) thought online were inferior. Likewise, most institutions considered blended/hybrid learning outcomes to be of the same quality as face-to-face courses, although a few institutions (19%) thought blended/hybrid were superior.

Institutions reported that the most important strategic reason for online learning was to increase student access, with 95% of institutions rating it as either important (23%) or very important (72%); similarly, online learning was considered important for accessing students from outside the regular catchment area (88% reported this as important or very important).

The most significant barrier to online learning was identified as the additional faculty effort required to develop or deliver online courses (85%), followed closely by inadequate training/pedagogical knowledge available for faculty in online learning (73%), then lack of acceptance of online instruction by faculty (62%).

**More than three-quarter of Ontario institutions (78%) reported that online learning was very to extremely important for their long term strategic or academic plans. Institutions in Ontario were more likely to have an institutional strategic plan, with 26 (58%) identifying that they had a plan and it was either fully implemented (27%) or being implemented (30%) and 13 (28%) indicated they are currently developing one. Six out of 45 (13%) responding institutions reported that while they hadn't started one yet, they were aware that they needed one.**

## Comparisons with the USA

Distance education is more firmly established in the United States than it is in Canada, with 33% of U.S. higher education students taking at least one distance course as of fall 2017, compared with approximately 18% in Canada.

Leaders in the U.S. appear to be further along in actually implementing their strategic plan with a larger proportion of those in the U.S. reporting that they are now implementing a plan (38% compared to only 21% in Canada), while more Canadian institutions report that they need a plan, but they have not yet begun working on it (30% in Canada compared to 13% in the U.S.)

Academic leaders in the United States have a more positive view of the relative learning outcomes for blended/hybrid courses, with 30% thinking they were superior to those of face-to-face instruction, compared to only 19% in Canada.

In all other areas measured, Canadian leaders have a much more positive view of online education than do the leaders in the United States. Only 21% of the U.S. respondents believe that online credentials have the same level of respect as face-to-face credentials, compared to over one-half (54%) of the Canadian respondents. Likewise, Canadian academic leaders are twice as likely to report that students are at least as satisfied with an online course as they are with a face-to-face course (50% compared to only 27% among U.S. leaders).

There is a big difference between Canada and the USA between those who believe learning outcomes in online courses to be inferior - only 6% of the Canadian respondents reported this, while over a quarter (26%) of U.S. leaders thought that this was true.

## Future Directions

The evidence suggests that online and increasingly, blended and hybrid learning are not only a small but important part of Canadian post-secondary education, but they are likely to continue to expand and grow. In particular, most institutions recognize that online learning is critical for their future, and have ensured that it is of generally high quality.

The challenge for institutions is to make sure they are properly prepared for these developments, and especially for the impact of scaling up online and digital learning activities. We hope this report will be of help and assistance to institutions as they increasingly maneuver into digital learning environments.

*This report provides the results of a national survey conducted in the summer of 2018 of all Canadian public post-secondary institutions. The survey universe consisted of 234 institutions and 187 responses. A description of the methodology is presented at the end of this report in an appendix.*

*The National responses are included herein for comparison with the responses from Ontario institutions. Our survey universe is higher than the official count of publicly funded post-secondary institutions in Ontario as we include affiliated institutions in our survey numbers.*

# INTRODUCTION

This report represents the second annual effort at tracking distance and digital learning among publicly funded post-secondary institutions in Canada. This effort began with the construction of a comprehensive roster of all publicly funded post-secondary institutions, which for 2018 includes<sup>1</sup>:

- 82 universities and Francophone colleges affiliated with Anglophone universities
- 80 colleges outside Québec
- 51 CÉGEPs
- 21 private subsidised colleges in Québec

	2017			2018		
	Resp.	Pop.	%	Resp.	Pop.	%
Universities	56	72	77%	75	82	92%
Colleges (except Quebec)	55	81	68%	64	80	80%
CÉGEPs (Québec)	29	50	58%	40	51	78%
Private subsidised (Québec)	n/a	n/a	n/a	8	21	38%
Total	140	203	69	187	234	80%

Resp. = responding institutions; Pop. = all institutions in roster

Table 1.0 Response rate nationally by type of institution response

The overall institutional response rate to the survey was 80% from all types of institutions.

Responses were highest from universities (92%) and lowest from the 21 private subsidised colleges in Québec which were added to the roster this year (38%). If the 21 private subsidised colleges in Québec are excluded, the response rate is 84%, compared with 69% for last year's similar roster base.

<sup>1</sup> A full listing of the Ontario roster is provided at the end of this report, and specific details on how it was developed and differs from that used in 2017 are provided in the methodology section of the report.

# THE RESPONSE FROM ONTARIO INSTITUTIONS

The resulting roster includes 152 colleges and 82 universities for a total of 234 institutions. A total of 48 institutions in Ontario were invited to respond:

- 24 Ontario colleges
- 21 Ontario universities
- 3 affiliated institutions

The 2018 questionnaire was developed, building on prior work of the Babson Survey Research Group in the U.S. and the prior year's Canadian survey and report. All institutions on the roster were invited to participate, with invitations going to the Provost/VP Academic or Vice-President Education or Directeur général at each institution, with copies to other institutional contacts.

Responses were initially submitted online using a unique link for each institution, and later also using a shareable PDF. Members of the project team actively followed up with institutions to address their questions and encourage them to participate. eCampusOntario also encouraged a fulsome response from its member institutions.

Overall, the responses provide an excellent, representative sample of colleges and universities across all provinces, and across all sizes of institution, representing 80% of all institutions and 92% of all students studying for institutional credit at Canadian public post-secondary institutions.

**In Ontario, 46 out of 48 institutions responded, resulting in a 96% completion rate. See Table 1.1 below.**

	2017			2018		
	Resp	Pop	%	Resp	Pop	%
Universities	18	20	90%	20	22	91%
Colleges (Ontario)	21	26	81%	24	24	100%
Affiliated institutions	n/a	n/a	n/a	2	2	100%
Total	39	46	85%	46	48	96 %

Resp. = Responding institutions; Pop. = all institutions in roster

Table 1.1 Type of institution response: **Ontario**

# DISTANCE EDUCATION

A total of 83% of the responding institutions reported that they offer distance education courses for credit. This was the same percentage as in 2017, when 83% answered 'yes'. Nearly all responding institutions with more than 7,500 enrolments (94%) offered distance education courses for credit. See Figure 1.

Small institutions (fewer than 1,000 students) and CÉGEPs and private subsidised colleges in Québec, were least likely to offer distance education courses. Of the 32 institutions that reported that they did not:

- 20 (63%) were CÉGEPs or private subsidised colleges in Québec,
- 6 (19%) were colleges outside Québec, and
- 6 (19%) were universities.

The great majority of Canadian institutions offering distance education courses and programs are using the Internet as the main delivery technology, but this is often supplemented with other technologies, especially conferencing and print. Of those institutions offering distance education courses, 84% used the Internet.

DOES YOUR INSTITUTION CURRENTLY OFFER ANY  
DISTANCE EDUCATION COURSES FOR CREDIT?

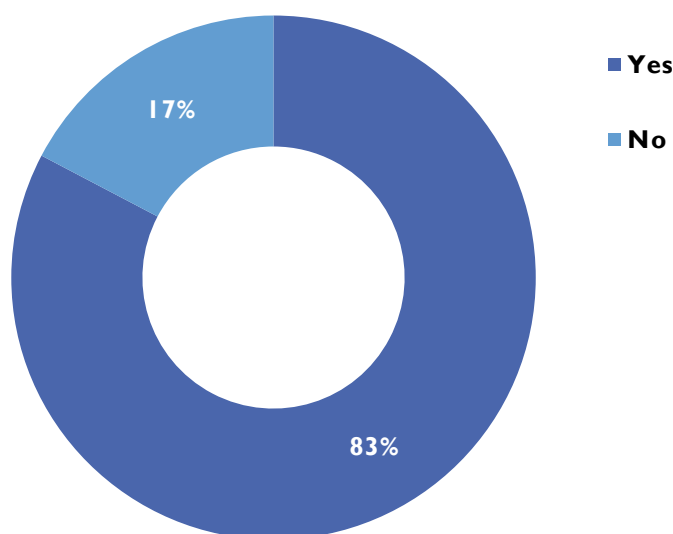


Chart 1.0 Offer Distance education courses: National response

**The results from Ontario institutions are considerably higher than the national average of 83% institutions offering distance education courses for credit. In Ontario, 45 of the 46 (98%) responding institutions indicated they offer distance education courses for credit. See Figure 1.1 below.**

### DOES YOUR INSTITUTION CURRENTLY OFFER ANY DISTANCE EDUCATION COURSES FOR CREDIT?

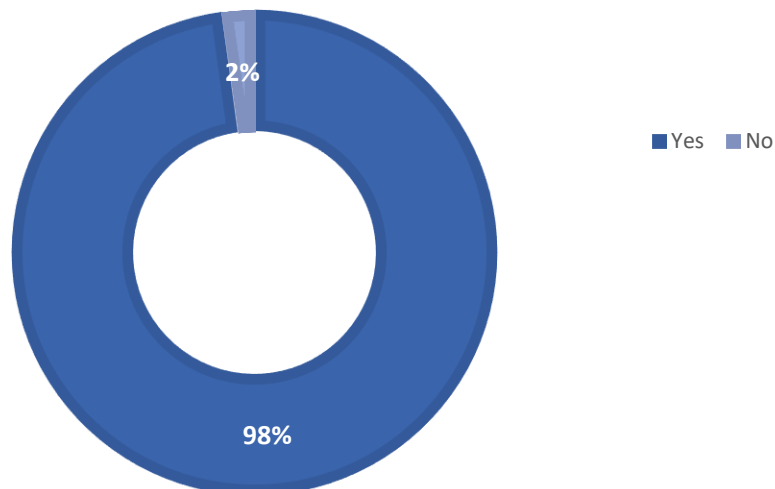


Chart 1.1. Distance education courses: **Ontario**

### Technologies employed in distance education courses

Although the Internet is clearly the main technology used for distance education, this is a lower proportion than in the 2017 survey, where all but two of the institutions offering distance education used the Internet as their primary delivery format. This difference between the two years could be due to the number of small institutions added to the roster in 2018, since institutions with fewer than 1,000 students were less likely to use the Internet for distance delivery.

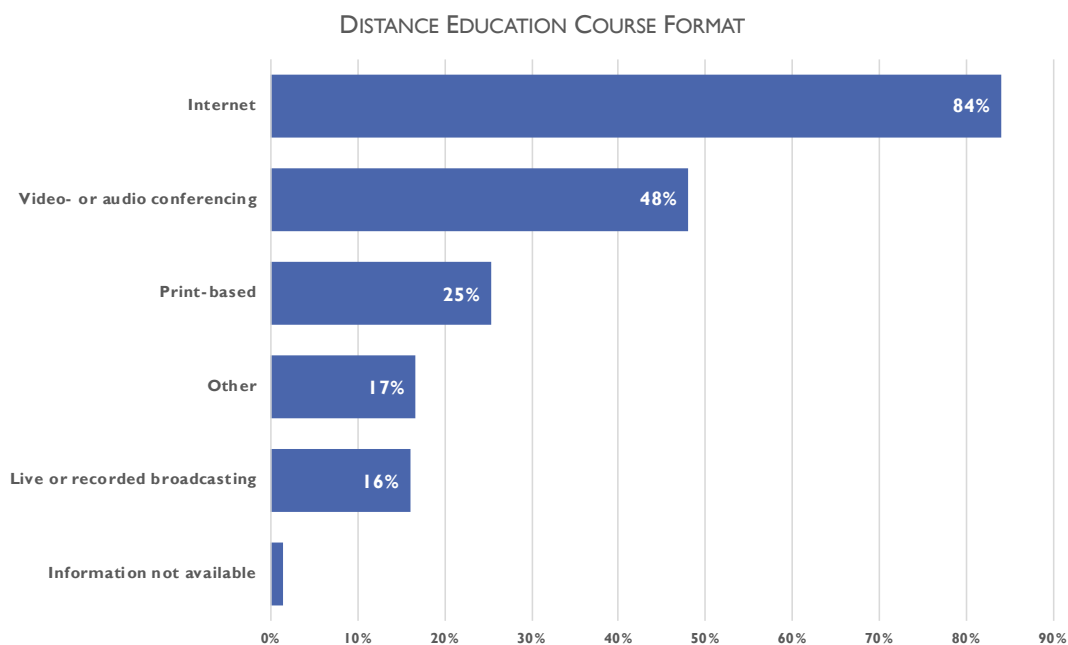


Chart 1.2. Distance education course format: National

The use of conferencing was up slightly from 2017, with 48% in 2018 compared to 44% in 2017. Print is still being used for distance education courses in about a quarter of the responding institutions, similar to 2017. TV or radio is used in a minority of institutions (16%). CÉGEPs and the private subsidised colleges in Québec were the highest users (around 25% of institutions).

**Responses from Ontario institutions indicated a slightly higher response for use of the Internet, 91% indicated their courses and programs are using the Internet as the main delivery technology. The difference is likely due to the inclusion of the smaller institutions in the National calculation. Use of the Internet in Ontario institutions is augmented by video-or audio conferencing (43%), print-based (23%) and live or recorded broadcasting (11%).**

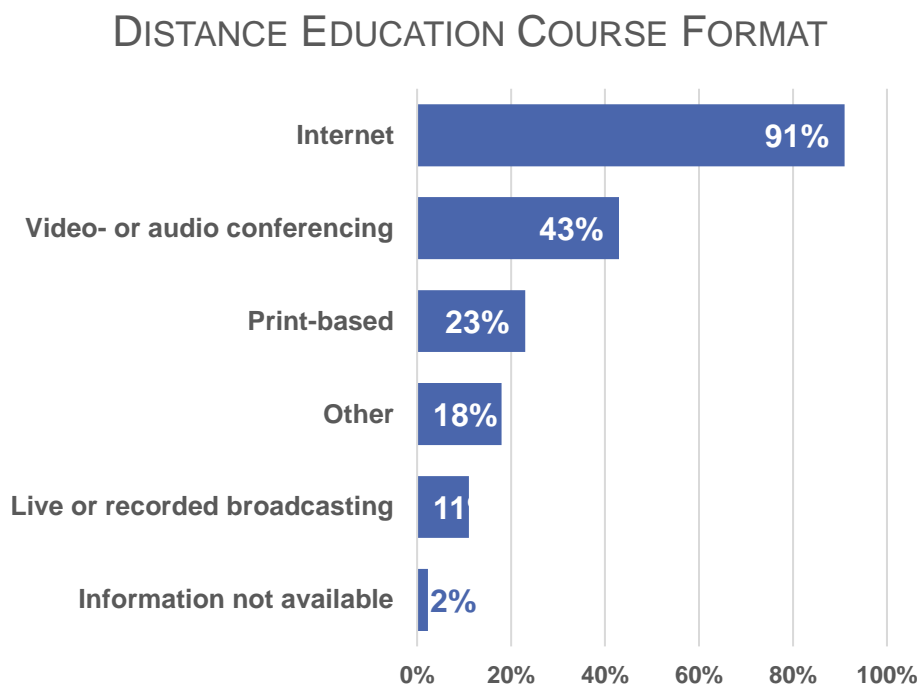


Chart 1.3 Distance Education Format: **Ontario**



# ONLINE LEARNING

*More than three-quarters (82%) of all responding universities and colleges offered online courses for credit in the fall of 2016. The response was much higher for **Ontario universities and colleges**, 98% identified they have been offering online courses for credit since 2013.*

The proportion of institutions reporting that they offer online courses for credit was the same nationally in 2018 (82%) as was reported for 2017. Size of institution is very much a determining factor for online course offerings. Over half the institutions with fewer than 1,000 (52%) did not offer online courses, while almost every institution with more than 10,000 students did (only one did not).

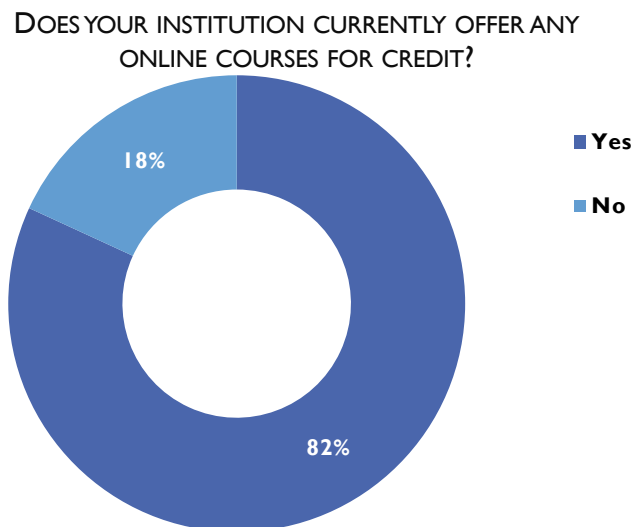


Chart 2.0. Distance Education Format: National

**The response from Ontario institutions was much higher, with 45 of 46 (98%) responding institutions indicating they offer online courses for credit. See Chart 2.1 below.**

DOES YOUR INSTITUTION CURRENTLY OFFER ANY  
ONLINE COURSES FOR CREDIT?

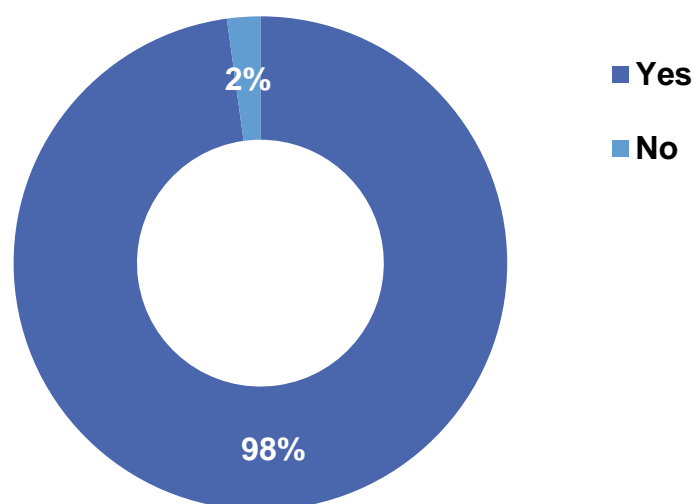


Chart 2.1. Distance Education Format: **Ontario**

The private subsidised colleges in Québec and CEGEPs were least likely to offer online courses, while the universities and colleges outside Québec were the most likely. The following illustrates the differences between institutions in offering online courses.

INSTITUTIONS OFFERING ONLINE COURSES FOR CREDIT?

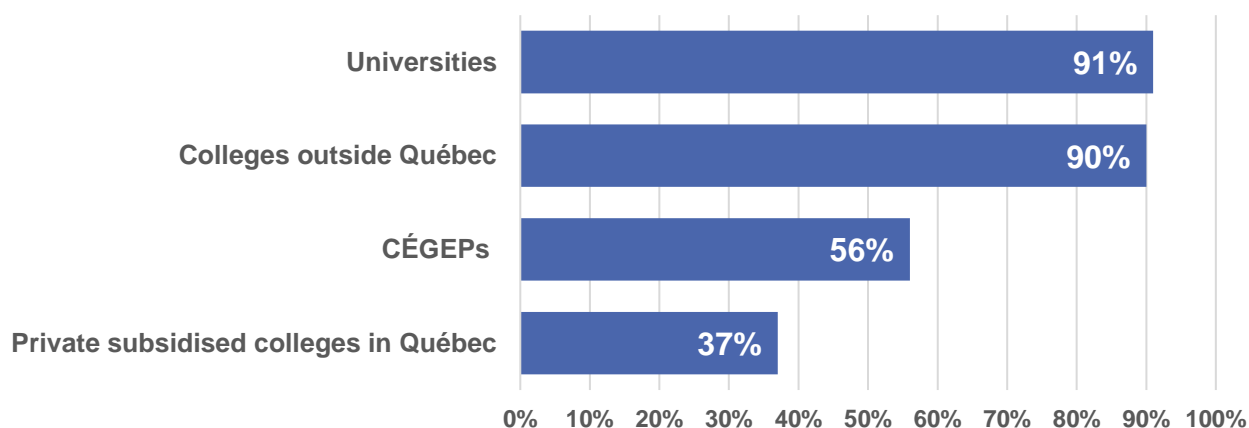


Chart 2.2. Online courses for credit: National

Respondents were asked if their institution offered online courses for credit in any of the years from 2008 to 2016. The results show a significant increase in institutions offering online courses after 2010 (from 68% in 2010 to 76% in 2011), and then a more gradual increase between 2011 and 2015 (from 76% in 2011 to 80% in 2015).

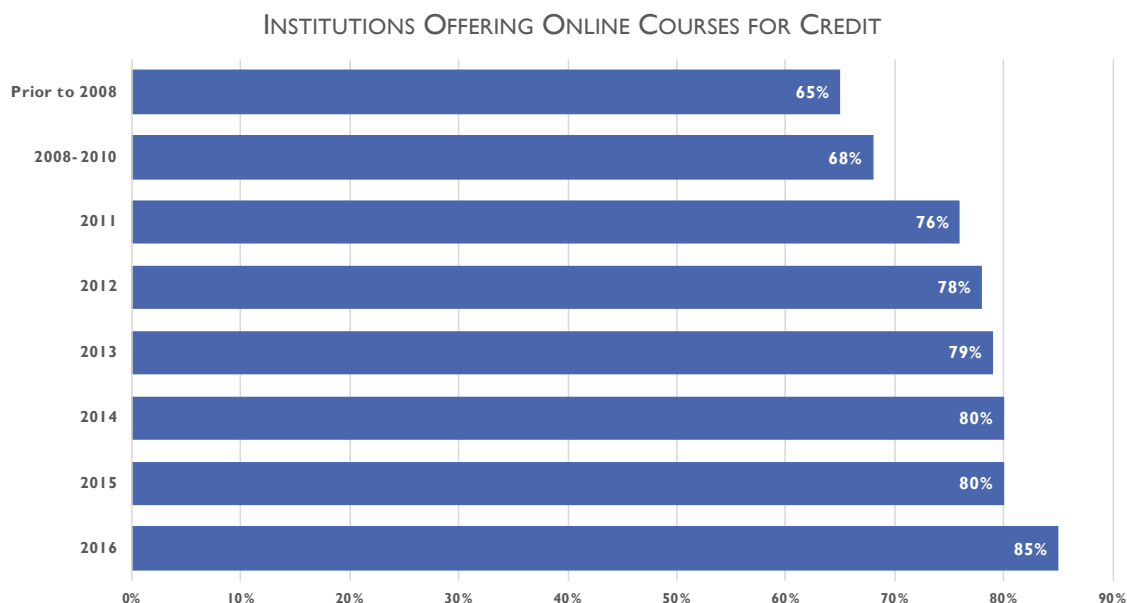


Chart 2.3. Institutions offering online courses for credit: National

Nationally, the main growth has come from the very small institutions. In 2008, only 14 responding institutions with fewer than 2,000 students were offering online programs, but by 2016 this had grown to 26, almost doubling in number. Canadian post-secondary education appears to be a relatively mature and growing market for online learning, with many institutions offering online courses for 15 years or more.

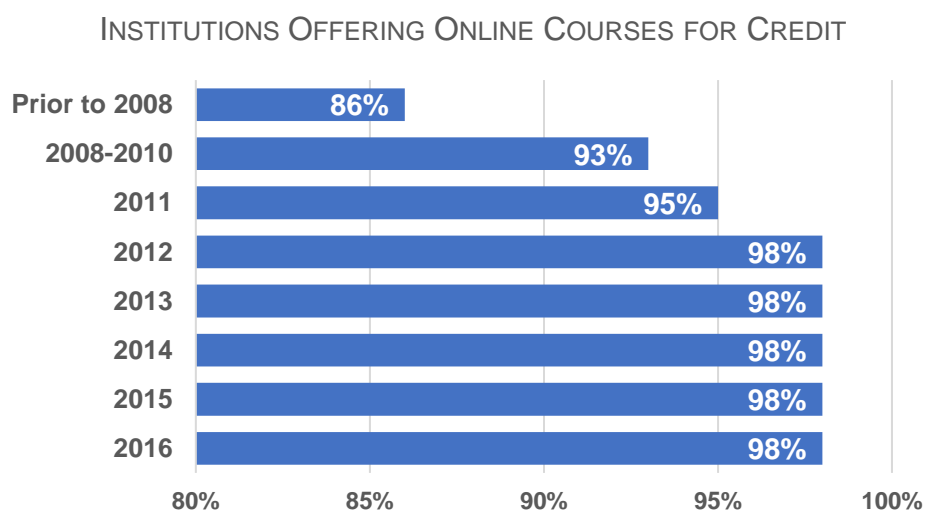


Chart 2.4. Institutions offering online courses for credit: **Ontario**

**The results from Ontario indicate that nearly all institutions have been offering online courses for credit since 2011. The results show an increase from 86% of institutions offering online courses for credit prior to 2008, which grew to 93% between 2008 – 2010, and an increase to 95% in 2011 – 2012. Nearly all, 98% of institutions indicated offering online courses since 2013. This may be due in part to the long history of advocacy for online learning through the early work of OntarioLearn, Contact North and now eCampusOntario.**

# ONLINE COURSE ENROLMENTS

The lack of consistent definitions and national reporting standards makes estimating the number of online course enrolments a daunting task. As noted in our 2017 report, obtaining accurate and reliable online student and course enrolment figures is a major challenge as many institutions do not track enrollments separately for online and distance, while others use different means of defining students and enrolments, making comparisons difficult.

We used a two-step process for 2018 to build reliable enrolment estimates. The first step was an outreach to all institutions on our roster asking them for feedback on the definitions to be used in the survey and what enrolment data they were best able to provide. The second step was to use the revised definitions to collect the enrolment numbers that institutions told us they could reliably report and use these results to build a set of national estimates.

Based on a careful analysis of the reported enrolment results we conclude that:

- For 2016-2017 17% of Canadian post-secondary students were taking at least one online course for credit; 18% in universities, and 19% in colleges outside Québec.
- Of all credit course enrolments, about 8% were fully online, representing 1.36 million online course registrations.
- The average course load for students taking online courses was between 3 to 4 online courses a year. Overall course loads ranged from 7-8 courses a year in universities to around 10 courses a year in colleges.
- 1.36 million online course registrations in terms of full-time equivalent students are equal to four universities each of 27,500 students, four colleges of 12,000 students and one Cégep of 3,500 students.

There are just over 2 million total students (2,072,368) enrolled across the 234 institutions on our roster, with the bulk of these (1,309,185 or 63% of the total) studying at a Canadian university. Our estimate of the total number of these students that took at least one online course is 354,302, or 17% of all enrolled students.

Two-thirds of the online students are at a university (236,917 or 67% of the online student base of 354,302), with most of the remaining at colleges outside of Québec. Only 2% of the online students are at a CÉGEP or private subsidised college in Québec.

## NUMBER AND PERCENTAGE OF STUDENTS TAKING AT LEAST ONE ONLINE COURSE FOR ALL CANADIAN POST-SECONDARY INSTITUTIONS BY TYPE OF INSTITUTION

	Students taking at least one online course	All students	Percent of all students
Universities	236,917	1,309,185	18%
Colleges outside Québec	110,447	566,691	19%
CÉGEPs	6,261	173,081	4%
Private subsidised colleges in Québec	677	23,411	3%
Total	354,302	2,072,368	17%

The 2,072,368 total students represent 17,953,599 total course registrations, with universities again responsible for the majority of these (10,261,104 or 57% of the total). Online courses represent 1,357,225 of the 17,953,599 total course registrations (8%). Online course enrollments at universities and colleges outside of Québec each represented 8% of their total course enrollments, with CÉGEPs and private subsidised colleges in Québec reporting much lower proportions of online course enrolments.

**NUMBER AND PERCENTAGE OF ONLINE COURSE REGISTRATIONS FOR ALL CANADIAN POST-SECONDARY INSTITUTIONS BY TYPE OF INSTITUTION**

	Online course registrations	All course registrations	Percent of all course registrations
Universities	839,673	10,261,104	8%
Colleges outside Quebec	476,232	5,661,687	8%
CÉGEPs	34,364	1,798,790	2%
Private subsidised colleges in Québec	6,956	232,018	3%
Total	1,357,225	17,953,599	8%

The Yukon, Newfoundland and Alberta are the provinces with the highest proportion of online learning at 100% of responding institutions for each province and territory. With 45/46 institutions responding that they do offer online courses, **Ontario has the second highest proportion of online learning at 98%**. The Arctic regions of Nunavut and the North West Territories appear to have almost no online learning, perhaps related to the lack of high-speed Internet in the far north.

A breakdown of students taking at least one online course in **Ontario institutions** is presented below:

**NUMBER AND PERCENTAGE OF STUDENTS TAKING AT LEAST ONE ONLINE COURSE FOR ONTARIO POST-SECONDARY INSTITUTIONS BY TYPE OF INSTITUTION**

	Students taking at least one online course	Percent of online students	Avg. online course load	Online course registrations	Percentage of online enrolments	All course registrations	Average course load	Student nos.
Universities	78,993	16%	3.70	292,260	8%	3,852,579	7.61	506,265
Colleges	69,014	22%	3.77	260,173	7%	3,811,811	12.04	316,604
Total	148,007	18%	<b>3.74</b>	552,436	7%	7,664,390	<b>9.31</b>	<b>822,869</b>

**In Ontario universities, 16% of students took at least one online course, and 8% of all university credit course enrolments were in online courses. In the colleges, 22% of students took at least one online course, and 7% of all college credit course enrolments were in online courses. In 2016/17, students in Ontario universities took an average of 7.61 courses per year; while students in Ontario colleges averaged 12 courses per year. Online**

**courses are included in that total and the average online course load was 3.7 for university students and 3.8 for students in college.**

## Estimation Method

The process that produced these numbers is worth examination in some detail, both to show the multiple checks that were built into the process and to highlight the problems inherent in trying to build reliable national results from incomplete data.<sup>2</sup>

The first step was to identify which institutions did not offer any online courses. This information is combined from:

- institutions that returned the questionnaire and reported that they did not have any online offerings, and
- a web search of non-responding institutions' web sites that did not list any online courses, supplemented by personal knowledge of institutions by members of the research team.

A total of 74 of the 234 institutions (or 32%) of our roster have no online enrolments. While institutions with no online enrolments represent almost one third of our roster, they tend to have lower overall student enrolments, and represent only 10% of all students in Canadian post-secondary institutions.

Next, a multi-step process was used to calculate the number of students taking at least one online course and the number of total online course registrations. A few guiding principles were used to direct this effort:

1. Whenever possible use information reported by the institution in the 2018 survey.
2. Where a specific 2018 survey data element was missing, then use other data reported by the institution (e.g. use data for fall 2017 to estimate the 2016-2017 value).
3. Where no 2018 data exists, use data reported in the 2017 survey.
4. And finally, where there was no 2017 or 2018 data, provide an estimate using information from institutions that are most similar (e.g. type, province, and size).

One way to measure the proportion of teaching that is online is to calculate the total number of student online course registrations as a proportion of all course registrations (online and on campus). Institutions were asked the total number of student course registrations for their online courses and for all of their courses (online and on campus). This data was asked of both the most recent Fall term (Fall of 2017) and for the previous full academic year (2016-2017).

Not all institutions were able to provide all the data requested. In total, 132 institutions (82% of all institutions known to be offering online courses) provided data on online course registrations for

---

<sup>2</sup> The data collection and estimate process is fully detailed in the accompanying technical report, the following is a brief overview to allow the reader to better understand the reported results.

the full year 2016-2017. A somewhat smaller number, 127, provided fall 2017 online course registrations.

Using data from the institutions that provided both online and total course registrations allows the proportion of students studying online in terms of course registrations, to be calculated. These figures suggest that approximately 9%-10% of all courses in Canadian post-secondary education are fully online.

Institutions were also asked to provide data on the number of individual students who took at least one online course for credit (based on individual student records) for Fall 2017 as an optional question. Just over half (52%) of the institutions with online courses provided the number of students taking at least one online course.

Using data from only those institutions that reported the number of unique online students shows that there is a minimum of 255,473 students in 83 Canadian post-secondary institutions taking at least one online course (12% of the total student population). There are a further 89 institutions that offer online courses that did not respond to this question.

Under the assumption that students in similar institutions will take a similar course load, it is possible to estimate the number of students taking at least one online course by dividing the number of online course registrations by the average online course load for that type of institution. This estimate increases the number of students taking at least one course online from 255,473 to 354,302. This constitutes 17% of the total number of post-secondary students in Canada (2,072,368).

A small number of institutions with online offerings (18%) did not provide online course enrolment data. To estimate their likely online course enrolments, calculations were made by identifying course loads. In this case, the ratio of online registrations to all course registrations was calculated for those institutions where data was available, segmented by province and type of institution, and used to estimate the missing data for similar institutions.



# EXPECTATIONS FOR ONLINE ENROLMENTS

Institutions with online offerings were asked to compare their current enrolment level to that of the previous year, and to predict what change, if any, they would expect in those levels for the next year. These results indicate a steady growth in online enrolments, with almost two thirds of institutions reporting a growth in online enrolments from 2015-2016 to 2016-2017 with less than a quarter reporting a decline. Just over a third reported modest growth (up between 1-10%) and almost a third reported fast growth (more than 10% from last year).

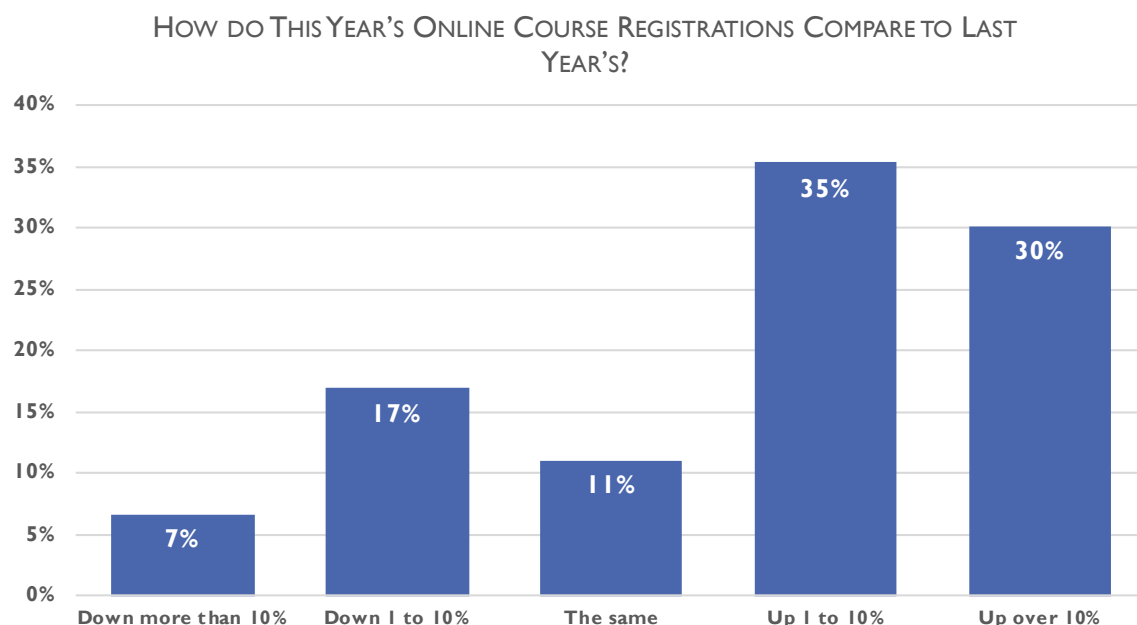


Chart 3.0. Online Registrations comparison last year: National

In British Columbia, eight out of 19 institutions reported a decline in online enrolments in 2017 (although another seven reported an increase). **In Ontario, 79% of institutions reported an increase; and 75% of Alberta institutions reported an increase of between 1 and more than 10%.** In Québec and Saskatchewan, a majority of the institutions also reported increases in enrolments from the previous year.

The expectations of the change in online enrolments for next year were even higher, with three-quarters reporting likely growth and only 3% expecting a decline in enrolments. Most of the institutions in a majority of provinces expected online enrolments to increase, while in British Columbia four institutions anticipated a decline in online enrolments, the only province where this occurred.

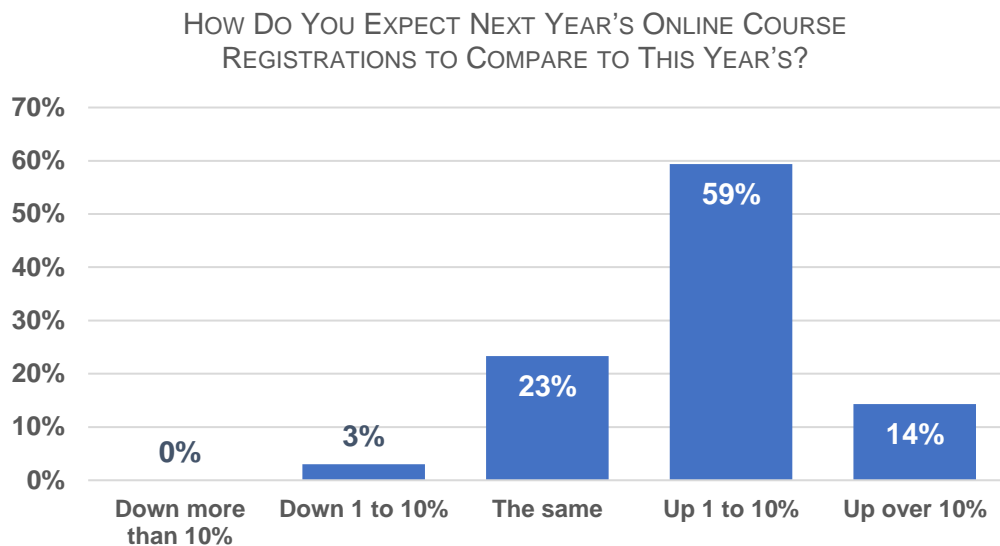


Chart 3.1. Online course registration forecast: National

The smallest institutions (those with fewer than 1,000 students) in general reported lower enrolments in 2016 than the previous year, but were more optimistic about an increase in online enrolments next year. Overall, francophone institutions were slightly more optimistic than anglophone institutions about increased enrolments next year, 76% compared to 68%.

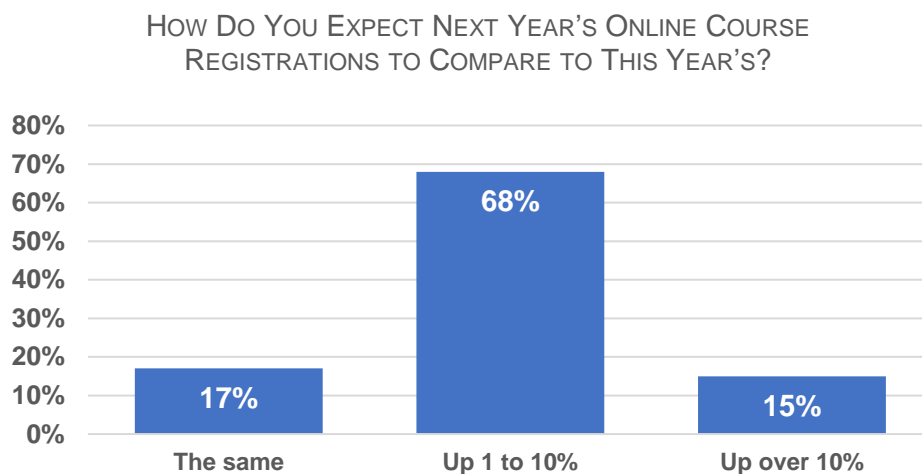


Chart 3.2. Online course registration forecast: **Ontario**

**More than two-thirds (68%) of Ontario institutions indicated they anticipate an increase in enrollments in the coming year of between 1 and 10% in their online course registrations, which is higher than the National average of 59%.**

# BLENDED AND HYBRID LEARNING

Blended/Hybrid courses are designed to combine both online and face-to-face teaching (in any combination). The same definition was used in 2018 as in 2017, counting courses where some, but not all, of the face-to-face teaching has been replaced by online study.

The 2018 responses indicate that all types of institutions are experimenting with blended/hybrid learning in ways that suit the content, student, instructor, geography, discipline, pedagogy and more. In essence, institutions are adapting and adopting the affordance of the technologies available on campus to support a blend of online, face-to-face and learning at a distance.

- Approximately one in five institutions have significant activity in blended/hybrid course offerings
- Over 80% of universities and colleges outside of Québec have integrated blended/hybrid technologies in their offerings
- Between 43-58% of CEGEPs and private subsidized colleges in Québec report some use of blended/hybrid activity
- A number of institutions are using quality assurance models and support their faculty in preparing to teach in blended/hybrid courses.

In the 2017 report, we noted:

- Tracking blended/hybrid counts is difficult. Most institutions do not track classes with reduced face-to-face time, although some are beginning to.
- There are many institutions, but few courses. Almost three quarters of the responding institutions in 2017 reported that this type of teaching was occurring in their institution.
- However, three quarters of the institutions reported that fewer than 10% of their courses were in this format.
- Only a few institutions had a substantial number of courses in this format.

The 2018 results reinforce the conclusions from the 2017 report that more than three quarters of Canadian institutions are now integrating online with classroom teaching, but no more than one in five have a significant number of courses in this format. In other words, blended/hybrid learning is wide but not deep.

### PROPORTION OF COURSES TAUGHT AS BLENDED/HYBRID

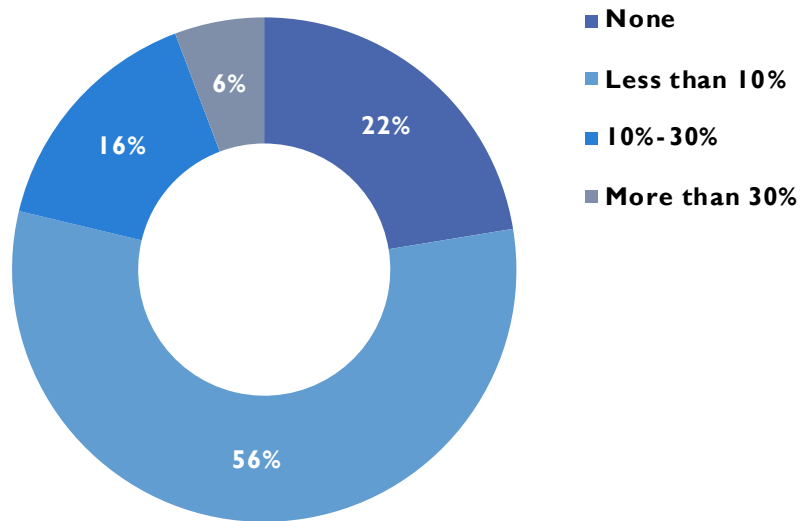


Chart 4.0. Proportion of blended/hybrid courses: National

**Ontario institutions indicated they offer a higher proportion of blended/hybrid courses, 68% offer between 10 -30% of their courses in this format, while the average across the country was 56%.**

### PROPORTION OF COURSES TAUGHT AS BLENDED/HYBRID

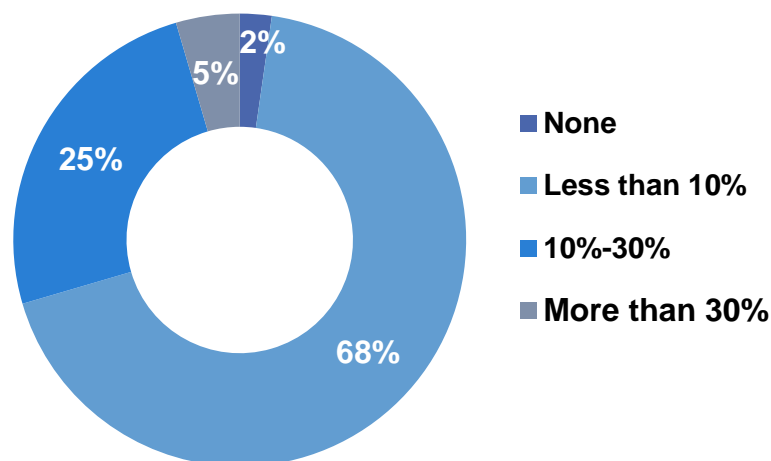


Chart 4.1. Proportion of blended/hybrid courses: **Ontario**

There is considerable variation in the level of adoption of blended/hybrid learning by type of institution. The overall rate 78% across all institutions is composed of higher rates at universities

and colleges outside Québec, and lower rates for CÉGEPs and private subsidised colleges in Québec.

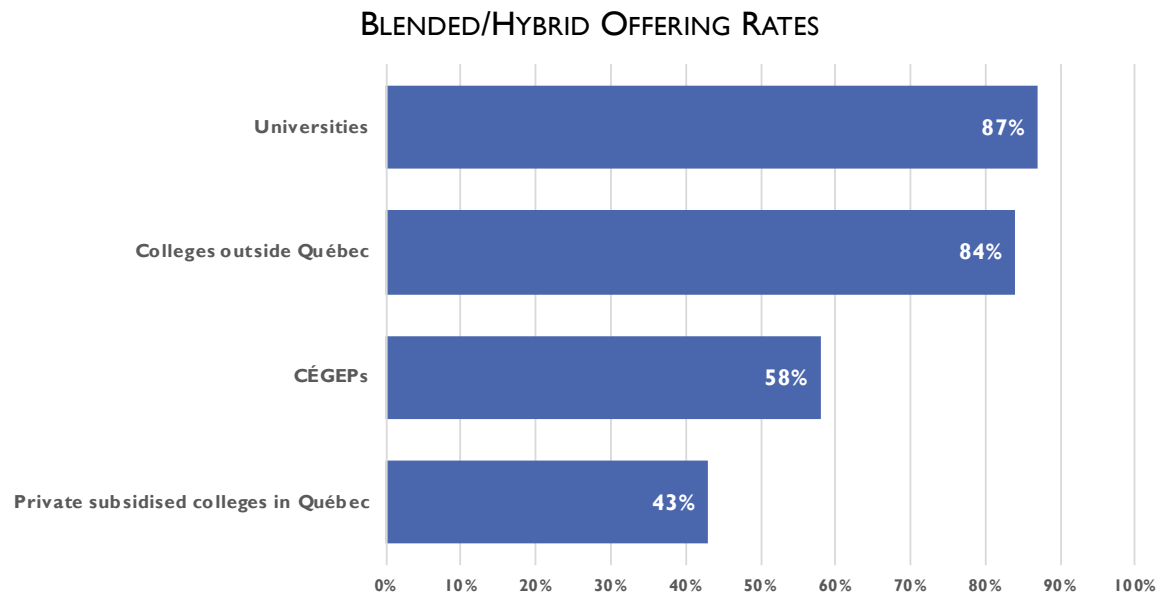


Chart 4.2. Blended/hybrid offering rates: National

# DEFINITIONS

A critical finding from the 2017 report was the level of disagreement on definitions of the terms used to describe courses that are offered as 'distance education', 'online' or 'blended/hybrid'. Clearly, it is difficult to collect data, conduct research, create effective policies, or have meaningful comparison if the terms used differ in meaning depending on each institution's or department's interpretation.

Because of this issue, the 2018 data collection approach was modified to include a pre-survey to get feedback on the ability of institutions to map their internal definitions to those we could use in the survey, and included a refinement of the survey definitions to more broadly capture the variety of activities that may be labeled in another way locally, but do not differ in how the course is conducted.

As a further test of the reliability of the questionnaire definitions, institutions were specifically asked to compare their internal definitions of distance education, online courses, and blended/hybrid courses to those presented in the survey. Institutions were then requested to share their definition if it didn't match the one provided.

For each of the definitions provided: distance education, online and blended/hybrid, a majority of institutions indicated that their institution definitions match. That is a positive sign as institutions across the provinces tend to be classifying the activities in much the same, or at least a comparable way. However, that still leaves disagreement in the terms by a significant minority, showing the need for more work to foster further agreement.

## Defining Distance Education

Institutions were asked if their internal definition for a distance education course matched the one presented in the survey, where they were presented with the following definition:

*Distance education courses are those where no classes are held on campus – all instruction is conducted at a distance.*

Slightly more than half (54%) of the respondents found that the survey definition matched their institutional definition. Just under a quarter of responding institutions (22%) indicated they have no definition of a distance education course. A small group (12% of responders) reported that they have more than one definition at their institution, which could be an issue especially for larger institutions. An additional 12% reported that the survey and institutional definitions do not match.

DOES THE INSTITUTION'S DISTANCE EDUCATION  
DEFINITION MATCH THE ONE IN THE SURVEY

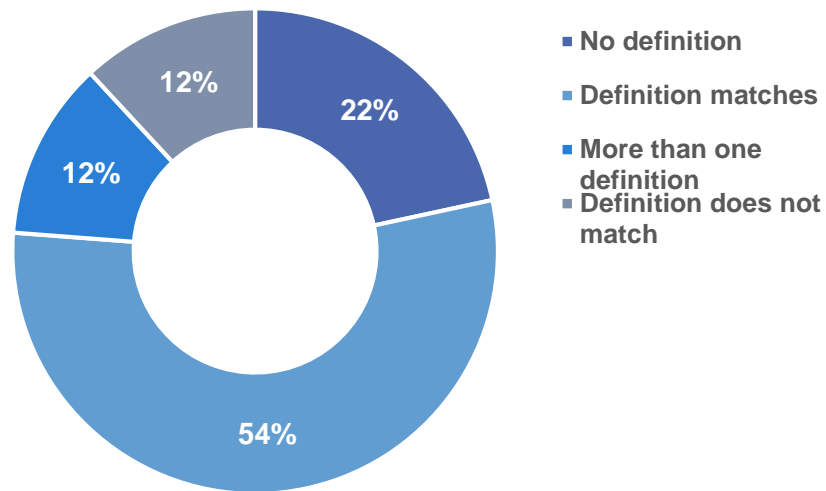


Chart 4.3. Distance education definition match: National

The lowest rate for the definition matching was among Quebec private subsidized institutions and the CEGEPs at just 45%. Given that several of them are just now developing their own distance courses, they may be catching up with the other institutional sectors on this issue.

DOES THE INSTITUTION'S DISTANCE EDUCATION  
DEFINITION MATCH THE ONE IN THE SURVEY

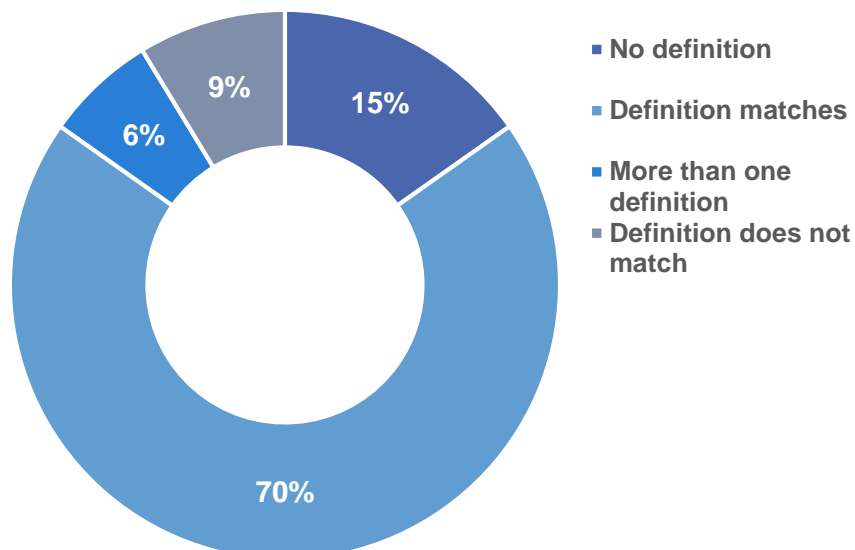


Chart 4.4. Distance Education Definition Match: **Ontario**

The results show that Ontario institutions report a much higher agreement (70%) on the match of institution definition of distance education with the survey definition. Only 7 institutions indicated they do not have a definition for online learning and 4 institutions indicated their definition does not match the survey definition. This may be attributable in part, to the maturity of the online and distance education market in Ontario.

Institutions with a different definition than the survey definition were asked the opportunity to provide their definition(s) or to explain their answer. Many institutions provided detailed descriptions of exactly what is offered by the institution. For the most part, the open-ended responses were essentially a subset of the distance education definition provided in the survey. Chart 4.: Distance education definitions differs from survey definition: National

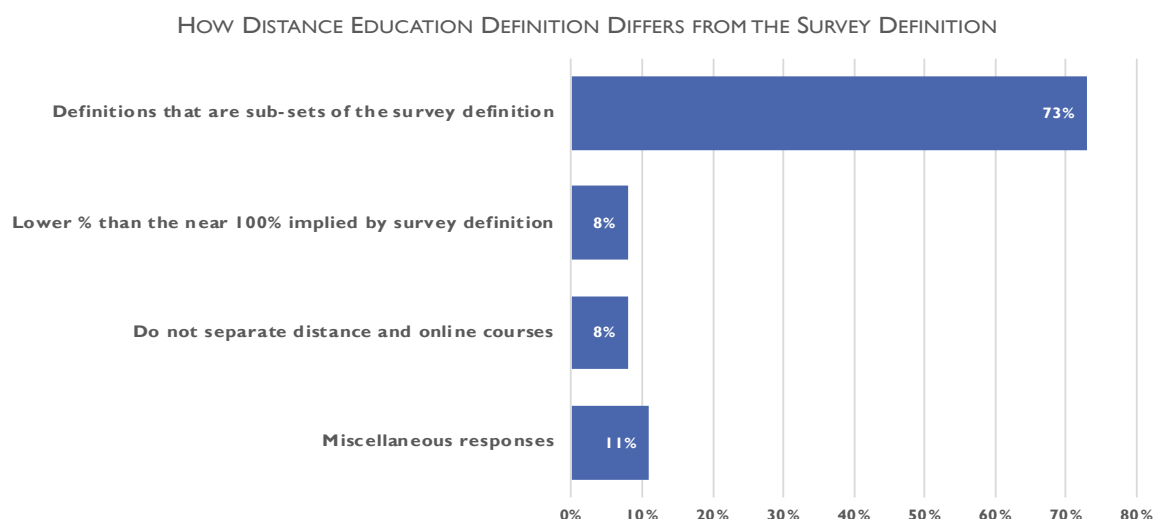


Chart 4.5. Distance Education Definition Differences: National

Whereas the survey definition focuses on what activity is taking place, the text submitted often did not substantially differ in concept. Instead, it provided more details on how distance education is provided, such as listing different modalities. Taking that view, an additional 10-15% of the respondents were generally in agreement with the survey definition.

## Defining Online Learning

Institutions were asked if their internal definition for an online course matched the one provided in the questionnaire:

*A form of distance education where the primary delivery mechanism is via the Internet. These could be delivered synchronously or asynchronously. All instruction is conducted at a distance.*

Nearly two-thirds of the responding institutions (65%) used the same definition as the one provided. A further 6% used more than one definition, 19% had no definition and 10% had a different definition from the one provided.



DOES THE INSTITUTION'S ONLINE EDUCATION DEFINITION  
MATCH THE ONE IN THE SURVEY

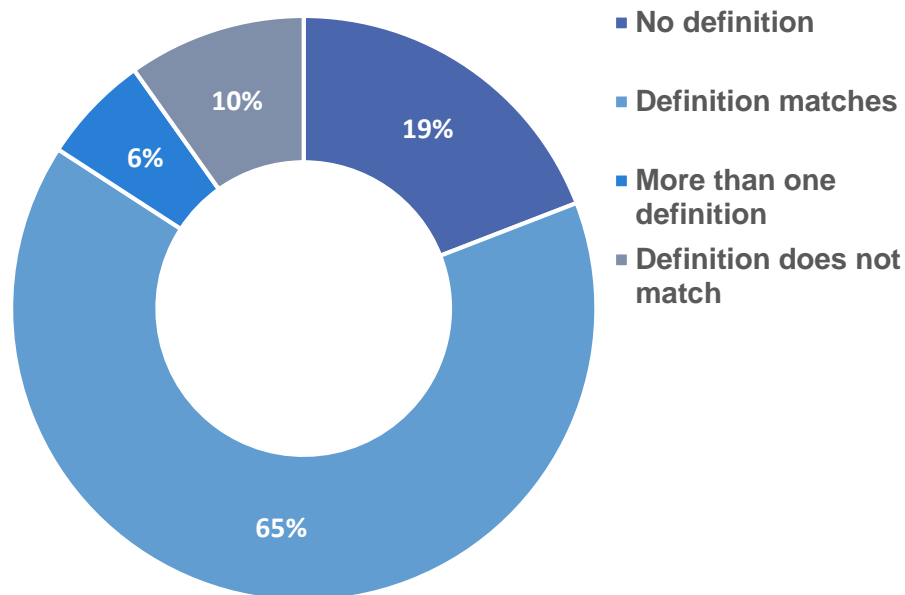


Chart 4.6. Definition of online education match: National

There was a greater level of agreement with this definition than with the one provided for distance education. Among institutions with online course offerings, agreement was even higher at 70%. Colleges have a remarkably high level of agreement (80%), while fewer than half (45%) of CEGEPs have a definition that matches.

### DOES THE INSTITUTION'S ONLINE EDUCATION DEFINITION MATCH THE ONE IN THE SURVEY

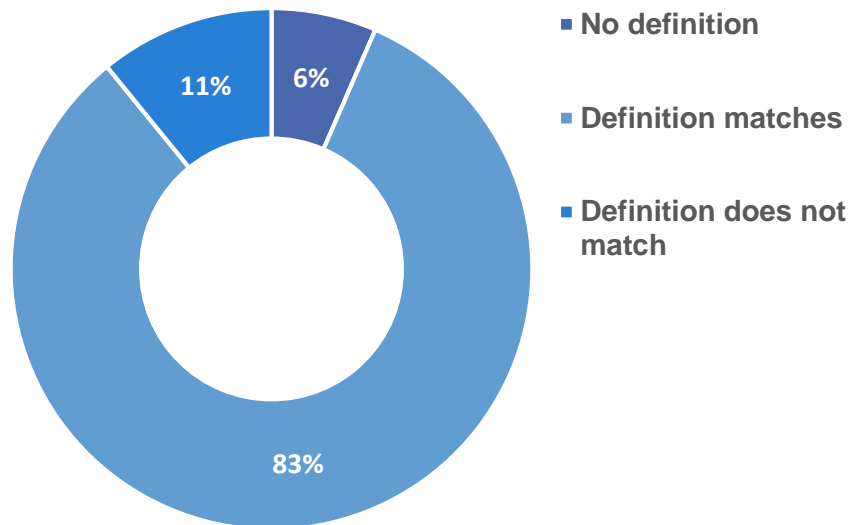


Chart 4.7. Definition of online education match: **Ontario**

**Ontario institutions show a higher match of institution definition of an online course to the one presented by the survey. More than three-quarters (83%) of responding institutions in Ontario indicated that their institution definition of online education matches the definition presented in the survey.**

### HOW ONLINE LEARNING DEFINITION DIFFERS FROM THE SURVEY DEFINITION

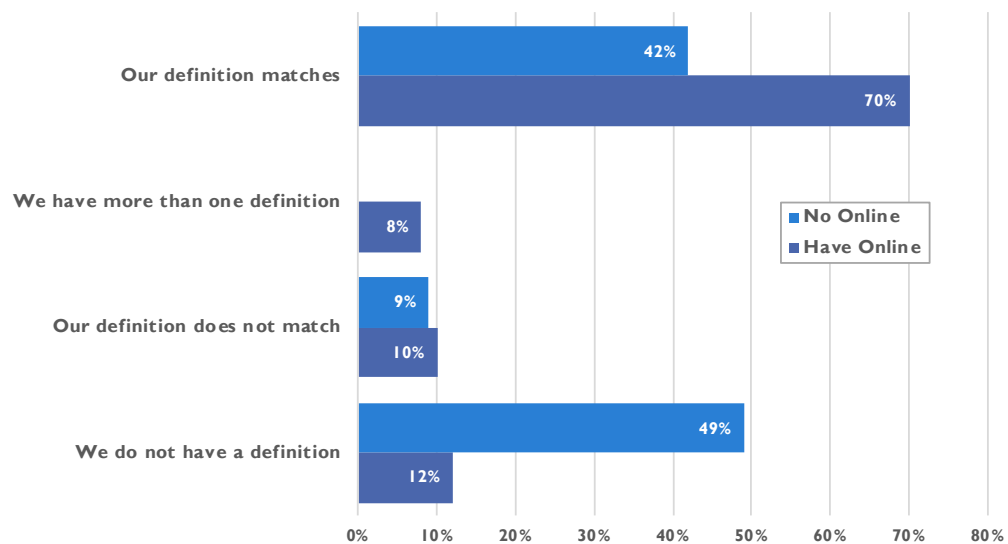


Chart 4.8. Definition of online education differences: **National**

Almost one-in-five institutions (19%) have no definition of an online education course with this

percentage being much higher for CEGEPs and the private subsidized colleges. As mentioned previously, CEGEPs are just beginning to offer or are greatly expanding their online offerings. Meanwhile, colleges outside of Québec have a very high (79%) match rate on this definition. Relatively few (6%) of institutions reported having more than one definition for an online course.

The survey provided the opportunity for respondents to provide their definition(s) or to explain their answer. Whereas the survey definition focuses on what activity is taking place, similar to the results for the distance education definition, the text submitted typically did not substantially differ in concept. Instead, it provided more details on how online education is provided, such as listing different modalities.

## Defining Blended/hybrid Learning

The term blended/hybrid has been around for a very long time, yet there is still either confusion or disagreement on what is or is not included. The definition, as provided by the survey:

*A blended/hybrid course is: designed to combine both online and face-to-face teaching in any combination. For the purposes of this questionnaire, we are interested in those courses where some, but not all, of the face-to-face teaching has been replaced by online study.*

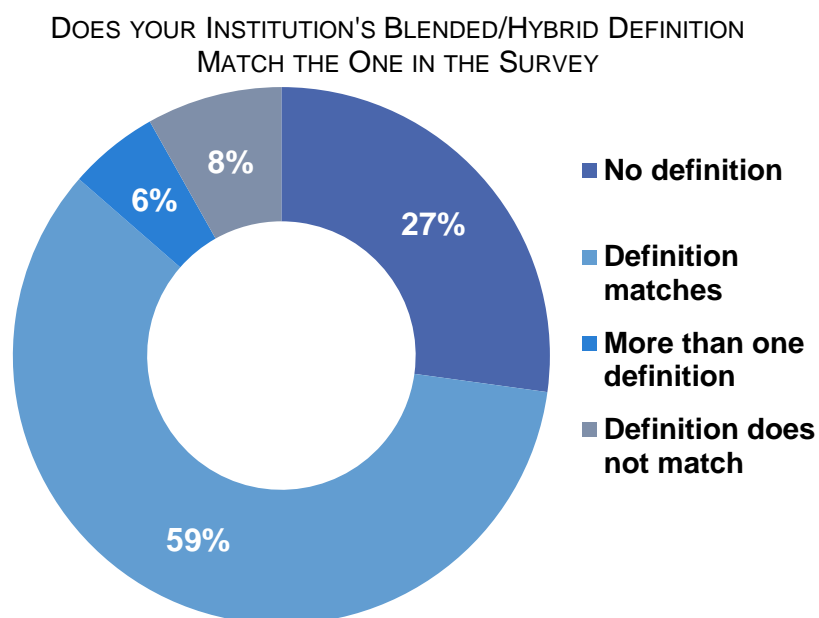


Chart 4.9. Definition of blended/hybrid education match: National

More respondents agreed (59%) with the blended/hybrid definition than was found with the distance definition, but not quite as many as found a match with the online definition. A quarter (25%) of all reporting institutions do not have a definition, which may be due to this variation of distance education being the most recent.

For CEGEPs, there are more respondents who say this definition matches the one they use than is found for either the distance or online definitions. This model may be a better match for the students they serve. The college sector again has the highest rate of agreement with the survey definition.

Open-ended comments on this definition show that there is a great variation among those not in agreement. The variance may be higher due to the fact that the survey had combined both blended and hybrid in defining this activity. Some use one term, some use the other, some use both interchangeably, and others use different terms.

For the distance and online definitions, comments often tended to be lists of specifics that actually were detailed subsets of the survey definition. This was less the case for blended/hybrid. A few institutions use the blended and/or hybrid terms to describe activities that do not reduce face-to-face instruction, such as “flipped” classrooms, where students are expected to view lectures outside face-to-face time and the in-class experience is more interactive. The others used the term for videoconference classes in which students are synchronously participating in a course via voice and video, but in different locations.

DOES YOUR INSTITUTION'S BLENDED/HYBRID  
DEFINITION MATCH THE ONE IN THE SURVEY

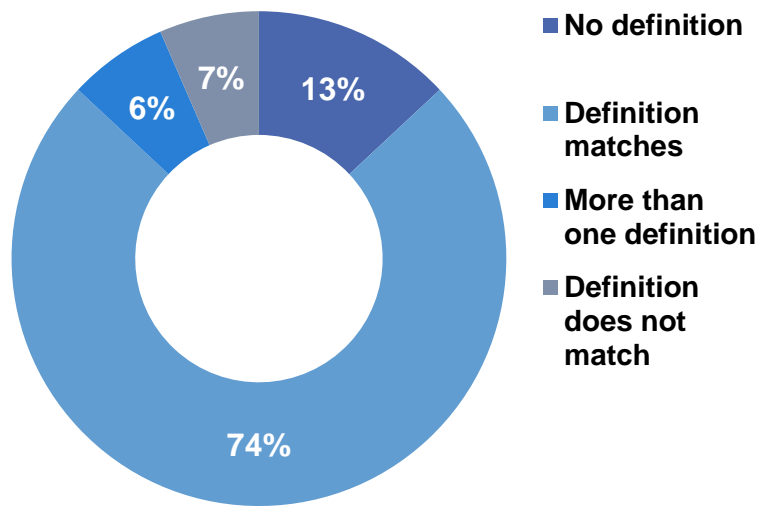


Chart 4.9.1. Definition of blended/hybrid education match: **Ontario**

**Nearly three quarters, 74% of Ontario institutions reported a match between their institution definition of blended/hybrid and the survey definition. This high level of agreement across Ontario institutions suggests further opportunity for research and potentially advocacy for similar definitions across the sector.**

# OPEN EDUCATIONAL RESOURCES

Open educational resources (OER) are freely accessible, openly licensed text, media, and other assets that are useful for teaching and learning. Several Canadian provincial governments are supporting the development and use of locally produced OER. Open textbooks, a specific form of open educational resources, are licensed under an open copyright license and made available online to be freely used by students, teachers and members of the public. Government agencies in British Columbia, Alberta, Saskatchewan, and Ontario currently have projects to support the use of open textbooks.

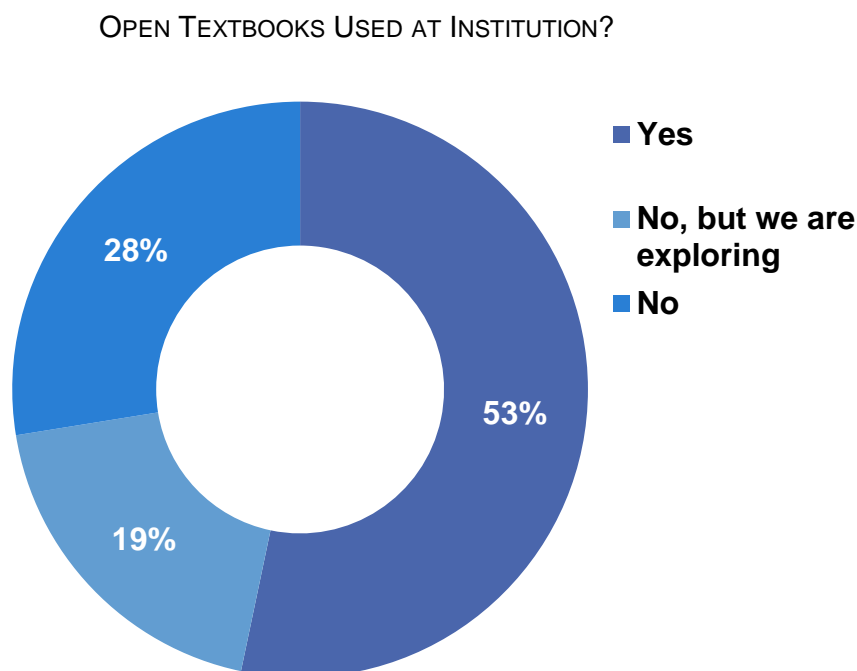


Chart 5.0. Open Educational Resources: National

A substantial number of Canadian post-secondary institutions (just over half) are using open textbooks and a further fifth are exploring their use. Approximately 60% of universities use them, while colleges in Québec have a lower rate of utilization (just over a third of institutions). A further 19% of institutions are exploring their use, particularly in colleges outside Québec (27%).

The highest proportions of institutions using open textbooks were in British Columbia (90%), Alberta (78%) which reflects the impact of the BC Open Textbook project that has now been running for five years. In Nova Scotia, 63% of institutions indicated they are using open textbooks and **in Ontario, nearly two-thirds (58%) of responding institutions reported using open textbooks**. The provinces with the lowest reported use were New Brunswick (none), and Saskatchewan and Québec (33%). Smaller institutions were much less likely to use open textbooks than larger ones.

### OPEN TEXTBOOKS USED AT INSTITUTION?

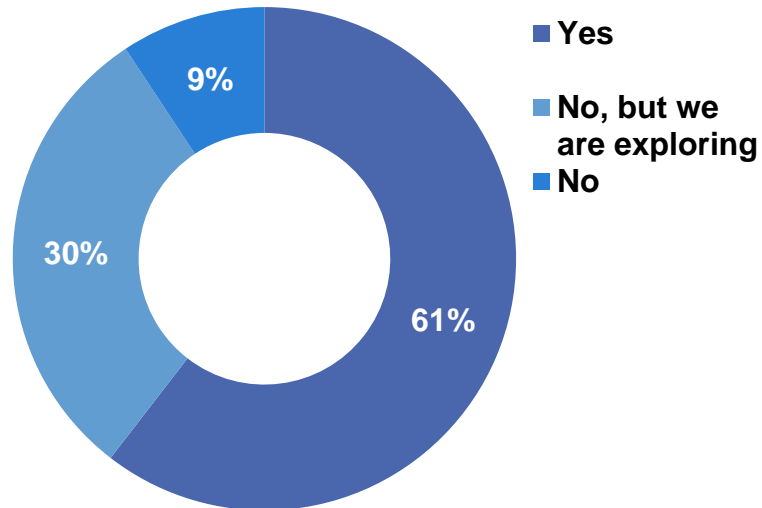


Chart 5.1. Open Educational Resources: Ontario

A very small percentage (20%) of institutions using open educational resources report that they track cost savings. Only 5 out of 25 institutions responding to this question indicated they track cost savings.

### TRACK SAVINGS FOR STUDENTS FROM SWITCHING FROM COMMERCIAL TO OPEN

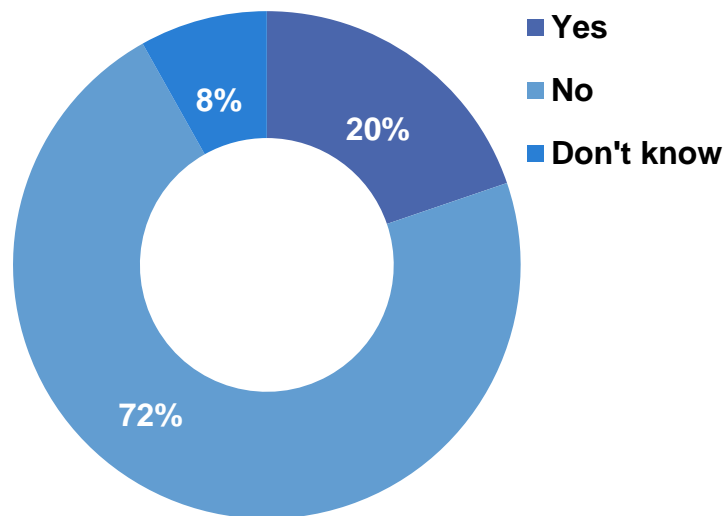


Chart 5.2. Track cost savings from adopting OER materials. National

A number of institutions are offering different forms of training for instructors regarding the use of OER, but these still represent a relatively small. Some Ontario universities and colleges have emergent interest in OER/OEP, but most do not have training.

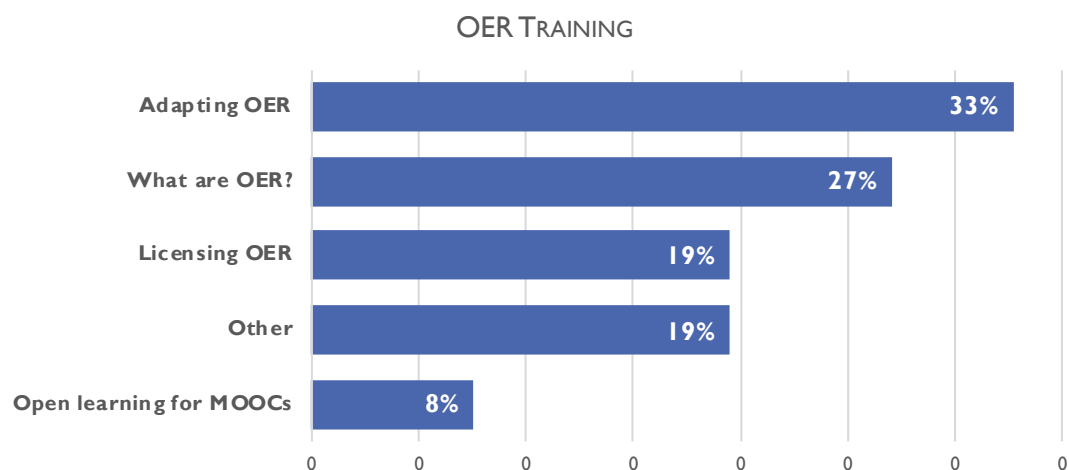


Chart 5.3. OER training: National

A review of the open-ended comments to these questions show that Ontario universities and colleges are utilizing provincial funding through eCampusOntario, which is “helpful for open text creation, adoption, adaptation and the creation of open ancillary resources.” However even as OERs are developed, “the value proposition for university administrators and for many faculty members may not be well understood.”

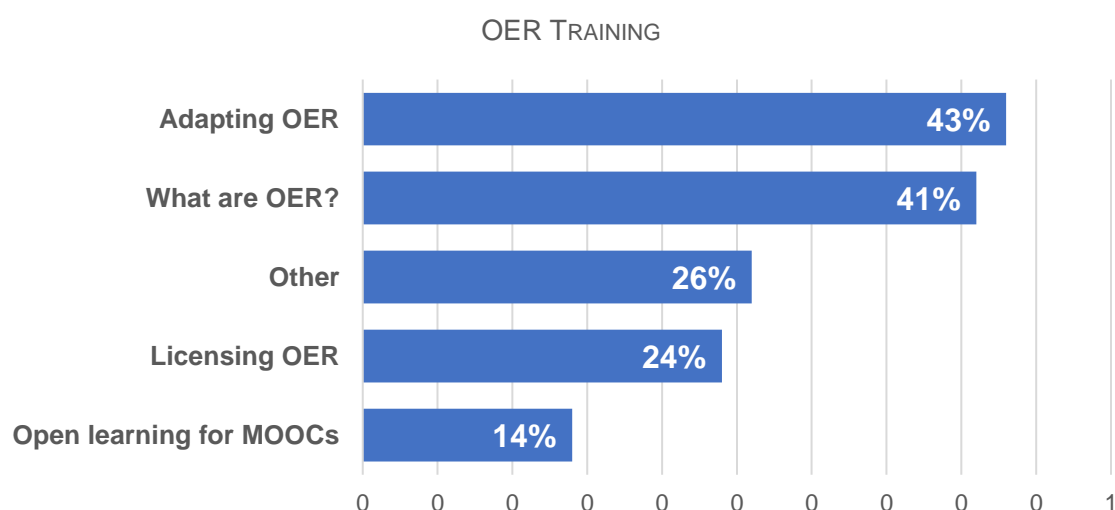


Chart 5.4. OER Training offered by institutions: **Ontario**

Several Ontario colleges are creating institutional awareness about OER and are planning on “utilizing funding from eCampusOntario to initiate development and

**adaptation of open textbooks”. As institutions explore wider use, there is also some “concern regarding reliability and validity of OER resources when assessing their use. In addition, one institution suggested there are other issues to consider - such as “remixing OER content, licensing and citations - that can make OER adoption (at least initially) cumbersome. As such, a strategy regarding faculty professional development to prepare for their use of OER will be required.”**

**In recent years, Ontario has invested in and promoted open education and the use of open educational resources across the post-secondary sector. While only a small number of institutions in Ontario responded to these questions, the proportion of institutions offering some form of training in OER is marginally higher than that reported nationally. It will be interesting to watch this area of activity in institutions across Canada as the OER movement continues to gather momentum globally.**



# CONTINUING EDUCATION

Continuing education is offered by the vast majority of institutions in each sector and in every province and territory that responded. Continuing education courses were offered by 93% of the Anglophone institutions and by 92% of the Francophone institutions. A higher percentage of Colleges and CÉGEPs offer continuing education than universities, but all types of institutions offer continuing education courses.

## OFFER CONTINUING EDUCATION COURSES

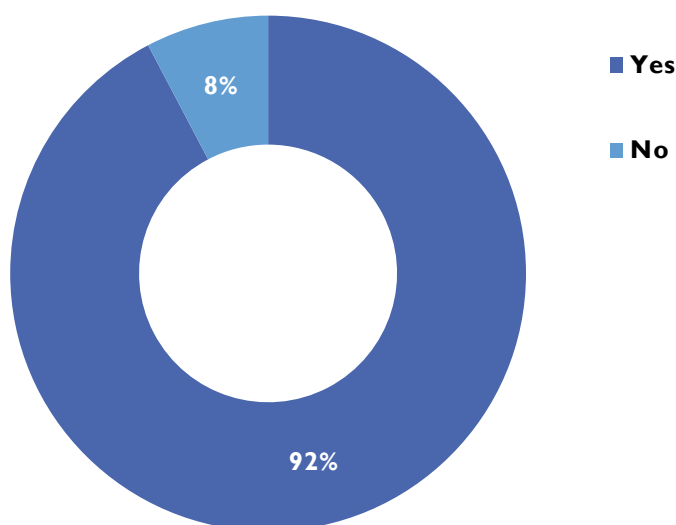


Chart 6.0. Continuing education courses: National

Continuing education is offered as both for-credit and not-for-credit, and institutions take advantage of face-to-face, online and blended/hybrid delivery methods. Face-to-face, not-for-credit courses were the most common offering of the responding institutions (87%). Less than half of the institutions use blended/hybrid delivery for their continuing education and the response for not-for-credit courses was higher for both face-to-face and online delivery. Not-for-credit courses were offered by slightly more institutions than for-credit courses, but the majority of responding institutions offer courses both for-credit and not-for-credit.

**The response from the Ontario institutions on continuing education mirrors that of the rest of the country, with the overwhelming majority (91%) indicating their institution offers continuing education and 9% do not.**

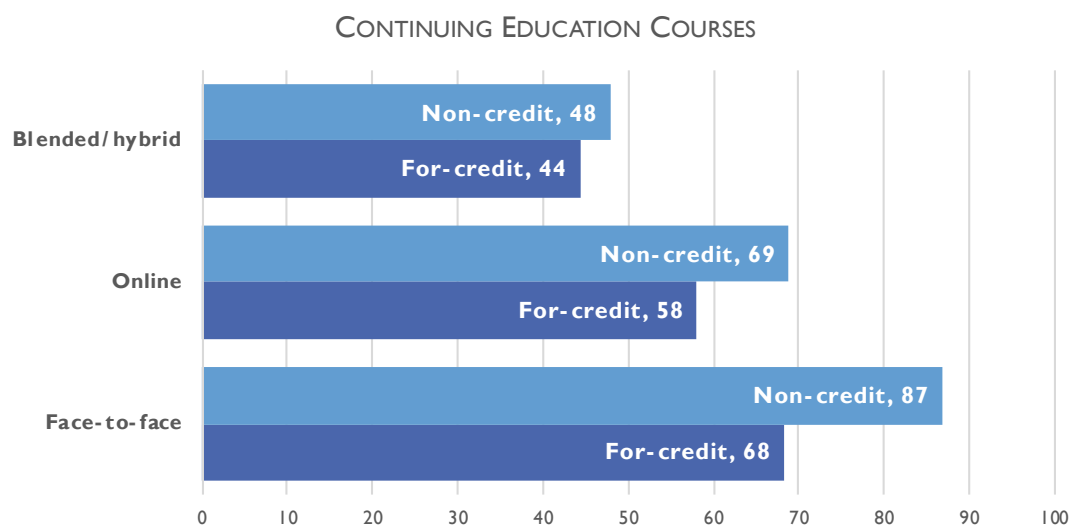


Chart 6.1. Continuing Education courses: National

# TECHNOLOGIES

Learning Management Systems (LMS) continue to be the backbone technology used by institutions for their online and blended/hybrid courses. Nearly all institutions are combining various web-based video technologies to augment the LMS and support increased interaction and engagement in their courses. Many are increasing the use of video, lecture capture and video-conferencing and some are developing 360-degree photos and videos to support student engagement.

The 2018 survey included select technologies used in the 2017 survey (LMS, video streaming, social media) and expanded the choices to include emerging innovative technologies such as virtual and augmented reality, learning analytics/ artificial intelligence and simulations.

As in 2017, the responses indicate that nearly all of the responding institutions use the Internet for their online and blended/hybrid delivery. Of the institutions that responded to this question, (95%) indicated that they use a LMS extensively, an increase from 87% in 2017.

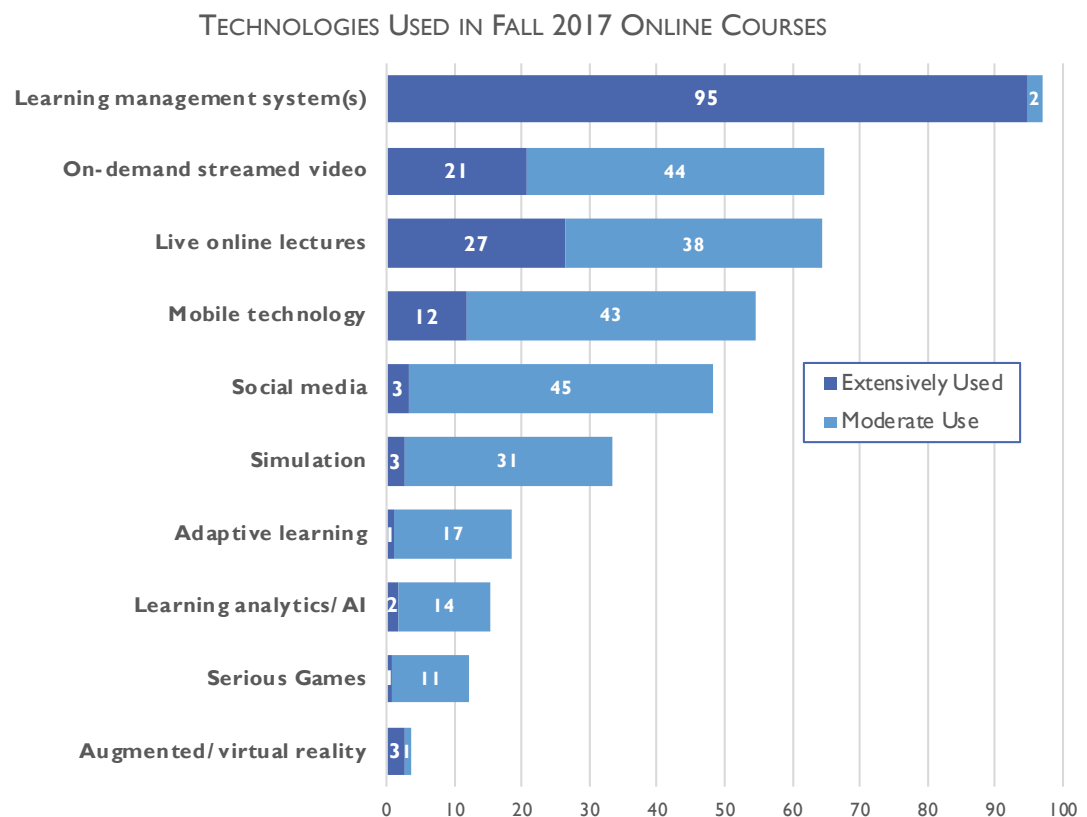


Chart 7.0. Technologies used in online courses: National

A majority of institutions (65%) report moderate to extensive use of on-demand streamed video and also live online lectures. This is consistent with the 2017 result of 62% indicating moderate to extensive use.

The addition of the questions on innovative technologies in higher education illustrate that just over half of institutions report moderate use of mobile technology (55%), and social media such as blogs and wikis are being used in about half the responding institutions. Simulations are being used in about one third of the responding institutions.

There is also some experimentation being done with emerging innovative technologies such as adaptive learning (20%), learning analytics (16%) and serious games (12%). However, very few responding institutions are using augmented and virtual reality (less than 5%).

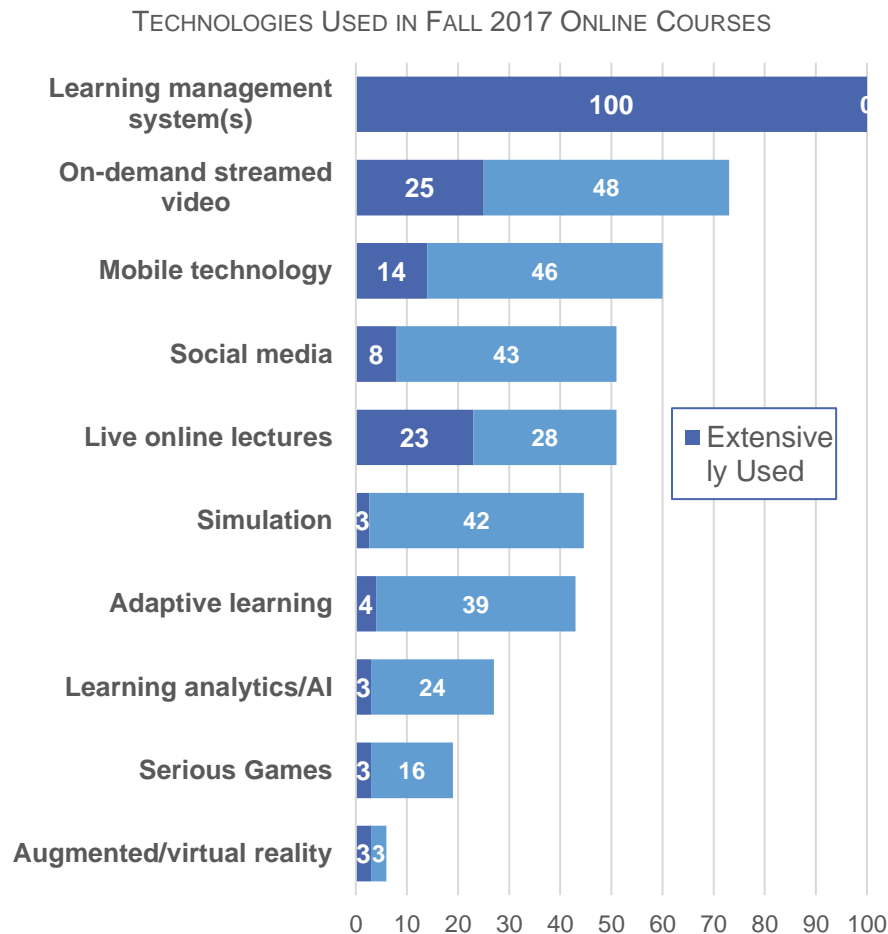


Chart 7.1. Technologies used in online courses: **Ontario**

**All of the Ontario's responding institutions report using a LMS extensively.**

**Responses from Ontario institutions to the question of which technologies are used in their online courses show a higher percentage of reported use of on-demand streamed video (73%), simulation (45%), serious games (19%) and adaptive learning (43%).**

Similar questions were asked about the use of technologies in blended/hybrid courses. There are few differences between the use of technologies for blended/hybrid learning courses and for fully online courses, the main difference being a slightly higher percentage of institutions using streamed video for blended/hybrid courses (71%) than for fully online courses (65%).

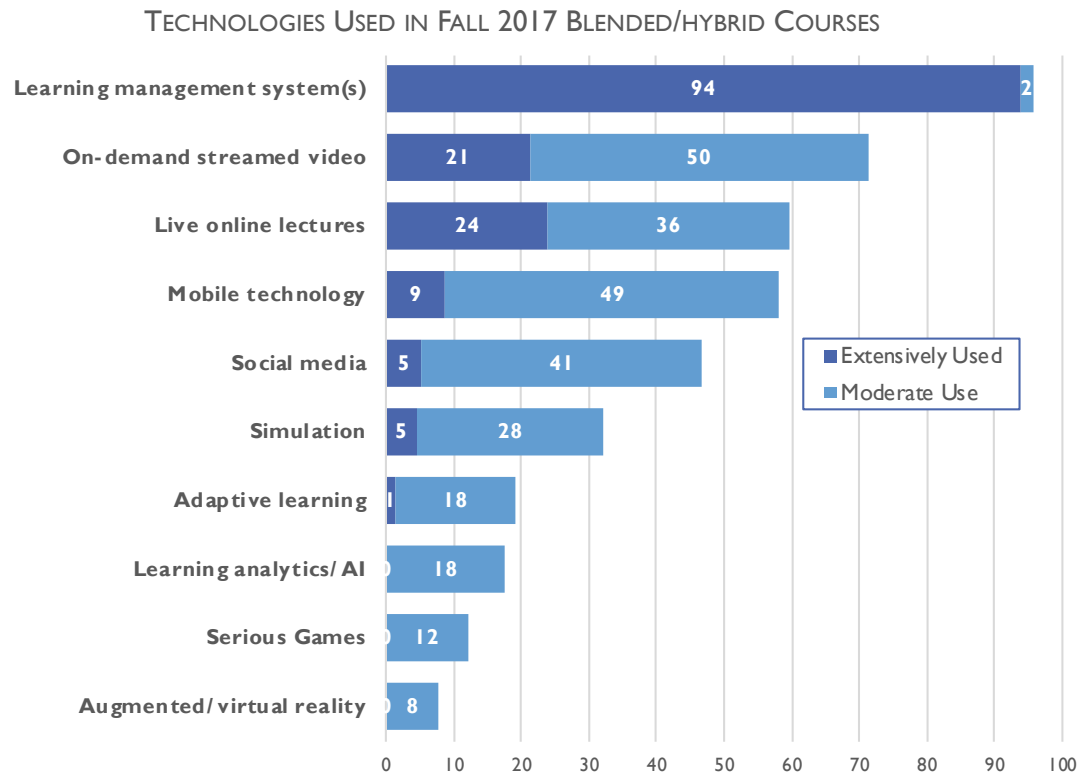


Chart 7.2. Technologies used in blended/hybrid courses: National

As we speculated in 2017, it may be that some of the more experimental applications of technologies by individual faculty members are not known by the institutional respondent(s). It may be even more difficult for institutions to know what technologies are being used for blended/hybrid learning, as illustrated by a comment from one Ontario university:

*Blended courses utilize a wide array of technologies often chosen (and managed) by the instructors due to personal preference, familiarity and a perceived limitation of campus tools. There are a variety of tools out there in use by instructors that we may or may not be aware of centrally.*

**Responses from Ontario institutions show interesting differences in the use of some of the technologies. Ontario institutions were more likely to report extensive use of on-demand streamed video, and much higher moderate use of mobile technology and social media. Institutions in Ontario also reported much higher use of adaptive learning and simulation than their counterparts across the country.**

### TECHNOLOGIES USED IN FALL 2017 BLENDED/HYBRID COURSES

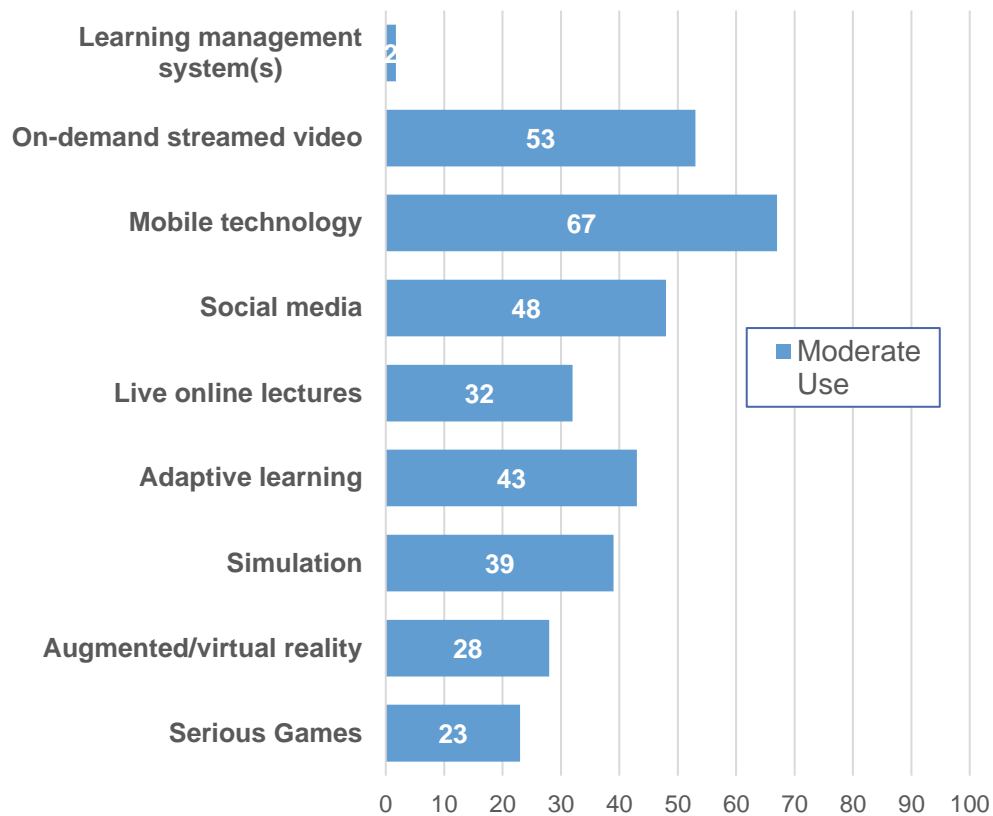


Chart 7.3. Technologies used in blended/hybrid courses: **Ontario**

We invited institutions to share further thoughts on the technologies being considered for the future, and 56 institutions provided open-ended responses.

Technology	Mentions
Virtual, Augmented Reality	10
Adding/improving video/audio conferencing	7
More extensive use of video and lecture capture	5
Data Analytics	4
Mobile	3
ePortfolios	3
Adaptive Learning	2
e-Textbooks/OERs	2
Makerspace	1
Grading tools	1
Tools for collaboration	1

While the reported usage of adaptive learning, augmented reality and virtual reality was low, responses in the open-ended comments illustrate experimentation in courses using virtual reality simulation and augmented reality. Others respondents identified using e-portfolios, 3D printing, 360-degree videos, and drone technologies as well as virtual learning through game-based simulations. A number of the comments indicate that experimentation is occurring in face-to-face classes as well as in online and blended/hybrid courses.

The institutions responding to the survey are at varying levels of maturity in the adoption of technologies for teaching and learning. For some, planning of integration of faculty video and/or video-conferencing is on the horizon, while others are experimenting with virtual reality, simulation, serious games and adaptive learning.

# MOOCs

Only a few post-secondary institutions in Canada (18%) offered MOOCs in the previous year. Of the institutions responding to this question, 14% indicated they offered between one and five MOOCs; while 3% indicated they offered six or more MOOCs in the last year. Universities (29%) were more likely to offer MOOCs than colleges outside Québec (13%) or CEGEPs (7%)

## OFFERED ANY MOOCs IN THE LAST 12 MONTHS?

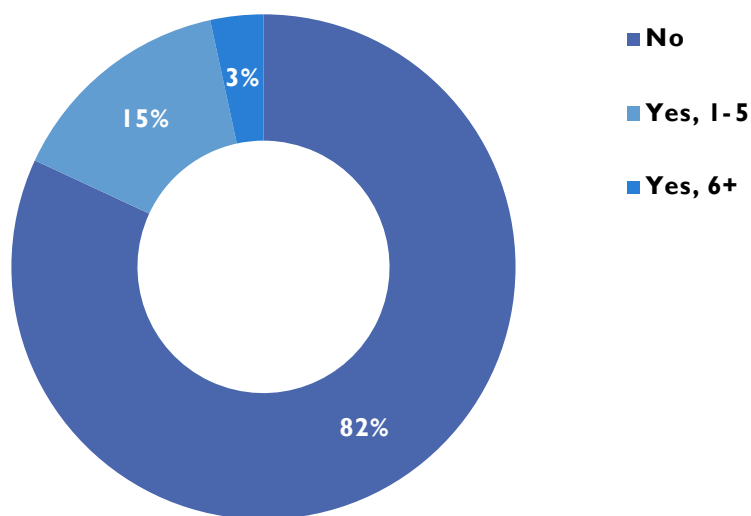


Chart 8.0. Offer MOOCs in last twelve months: National

## INSTITUTION'S PLANS FOR MOOCs IN THE FUTURE

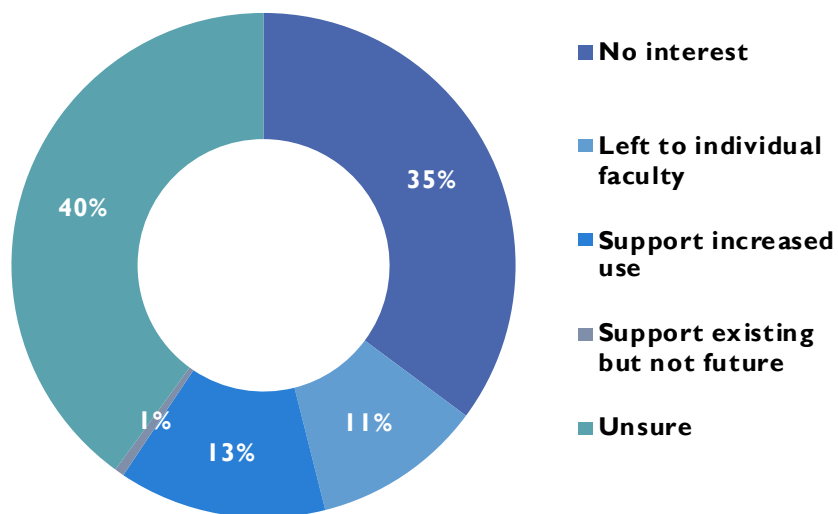


Chart 8.1 Institution plans for MOOCs in the future



There appears to be little future interest in offering MOOCs with 40% unsure of their future plans for MOOCs, and 36% indicating they have no interest in offering MOOCs in the future. The remaining 25% were split, with 13% willing to support the increased use of MOOCs in future, and 11% leaving it to individual faculty to decide without necessarily providing institutional support.

**In Ontario, seven institutions (15%) indicated they have offered MOOCs in the last twelve months, and eleven institutions indicated they may support faculty interest and would be willing to increase MOOC support in the future.**

# STRATEGIES AND PLANS

Online learning is very or extremely important for the institution's long-term strategic or academic plan in 68% of responding institutions. Most responding institutions recognize the importance of having a plan or strategy for e-learning:

- 65% either had a plan or were developing one;
- Just under a third (30%) did not have a plan, but reported that they needed one;
- Only 5% reported that a plan or strategy was not needed;

Institutions cited the ability to increase student access as the most important reason for implementing online learning, with 95% of institutions rating it as either important (23%) or very important (72%); second in importance was accessing students from outside the regular catchment area (88% reported this as important or very important). The most significant barrier was identified as the additional faculty effort required to develop or deliver online courses (85%), followed closely by inadequate training/pedagogical knowledge available for faculty in online learning (73%), then the lack of acceptance of online instruction by faculty (62%).

## The importance of online learning for the future of the institution

Over two-thirds (68%) of responding institutions reported that online learning was very or extremely important for their long-term strategic or academic plan (compared to 66% in the 2017 survey). Larger institutions placed more importance on online, with 81% of those with 10,000 or more students reporting online learning very or extremely important for their future, compared with 56% of the institutions with fewer than 1,000 students.

IMPORTANCE OF ONLINE LEARNING FOR LONG-TERM STRATEGIC OR ACADEMIC PLAN

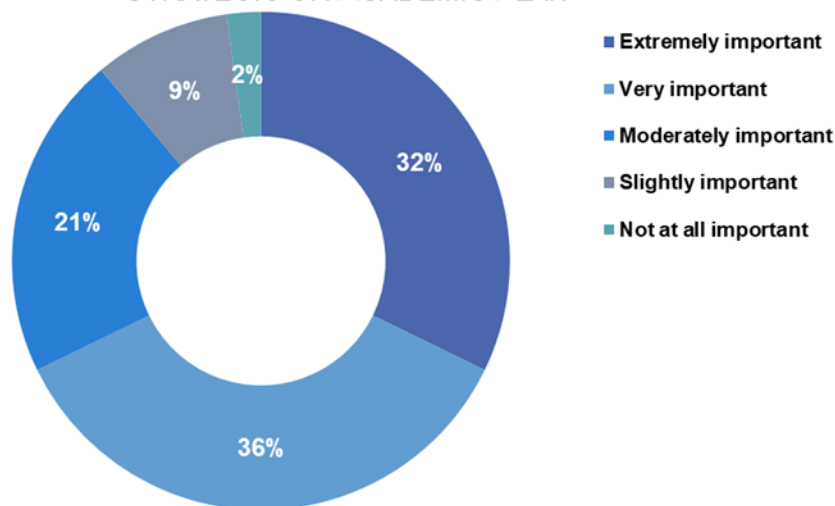


Chart 9.0 Importance of online learning for institutions plans: National

In particular, 81% of colleges outside Québec, and 68% of universities, reported that it was very or extremely important. Somewhat surprisingly, given that there is a central service for online learning for CEGEPs, 50% agreed. Less than 12% of all responding institutions reported that it was slightly or not at all important.

**Ontario and Nova Scotia tied with the highest provincial percentage (80%) of institutions that considered online learning strategically important for their future.** British Columbia and Alberta were close behind at 76% and 75% respectively. The prairie provinces of Manitoba (38%) and Saskatchewan (50%) were the area with the lowest numbers in terms of strategic importance of online learning.

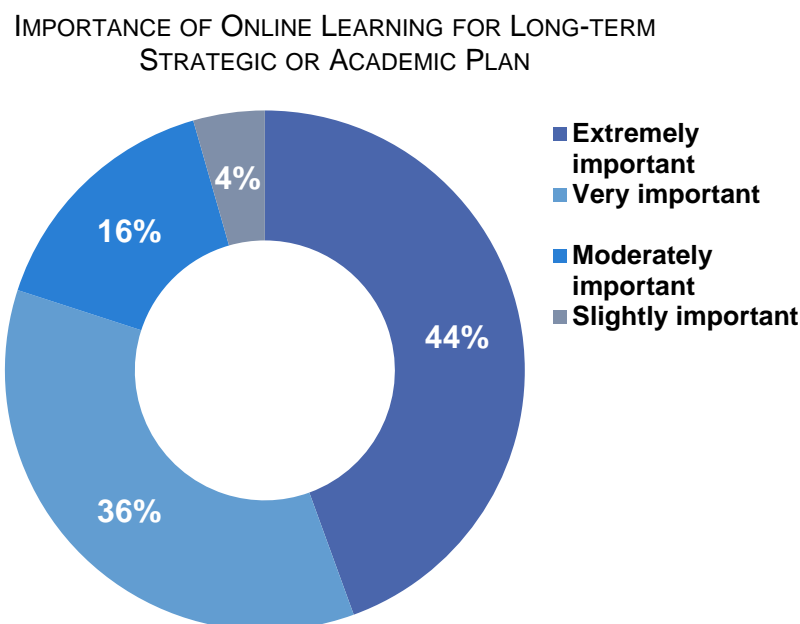


Chart 9.1. Importance of online learning for institutions plans: **Ontario**

### Strategic plans for online learning

Most responding institutions recognize the importance of having a plan for e-learning. Only 5% reported that a plan or strategy was not needed, and almost two thirds either had a plan or were developing one. Just under a third (30%) did not have a plan, but reported that they needed one.

Nearly half (45%) of the institutions in the size range of 1,000-4,000 did not have a plan but reported that they needed one. Very small institutions (fewer than 1,000 students) were most likely to report that they did not need a strategy.

### STATUS OF STRATEGIC PLAN FOR E-LEARNING, HYBRID LEARNING AND/OR ONLINE LEARNING

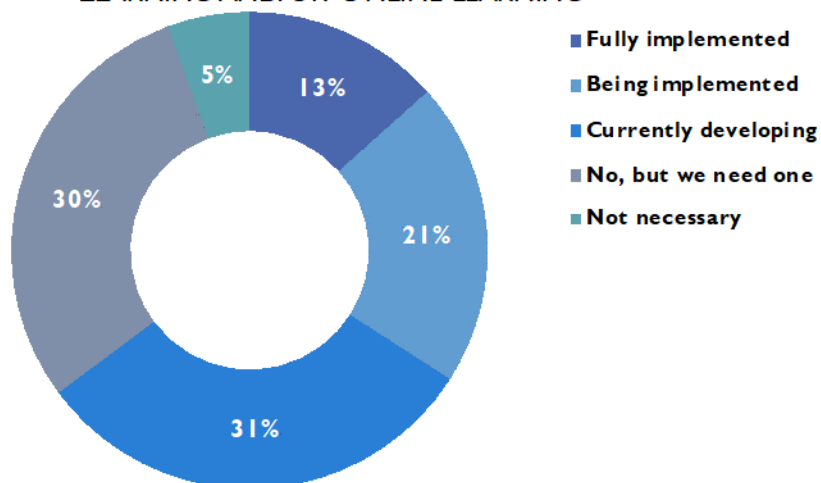


Chart 9.2. Status of strategic plan: National

### STATUS OF STRATEGIC PLAN FOR E-LEARNING, HYBRID LEARNING AND/OR ONLINE LEARNING

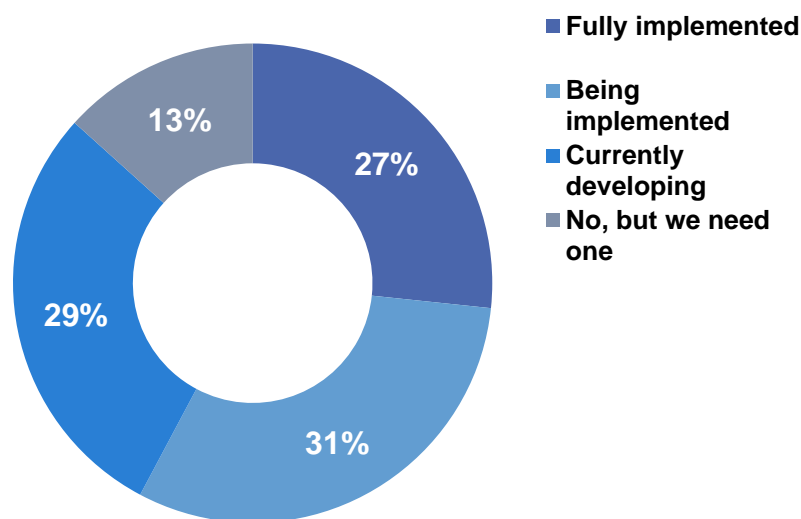


Chart 9.3. Status of strategic plan: Ontario

The response from Ontario institutions mirrored the national response: 12 (27%) indicated they had a plan that was fully implemented; 14 (30%) were in the process of implementing their plan; 13 (28%) reported that they were currently developing a plan and 6 institutions (13%) reported that they do not yet have a plan, but do recognize that they need one. One out of 46 institutions, one did not respond to this question.

## The Strategic Importance of Online Learning for Institutions

Institutions were queried about the reasons why they considered online learning strategically important. The most important reason for online learning for most institutions was to increase student access, with 95% of institutions rating it as either important (23%) or very important (72%).

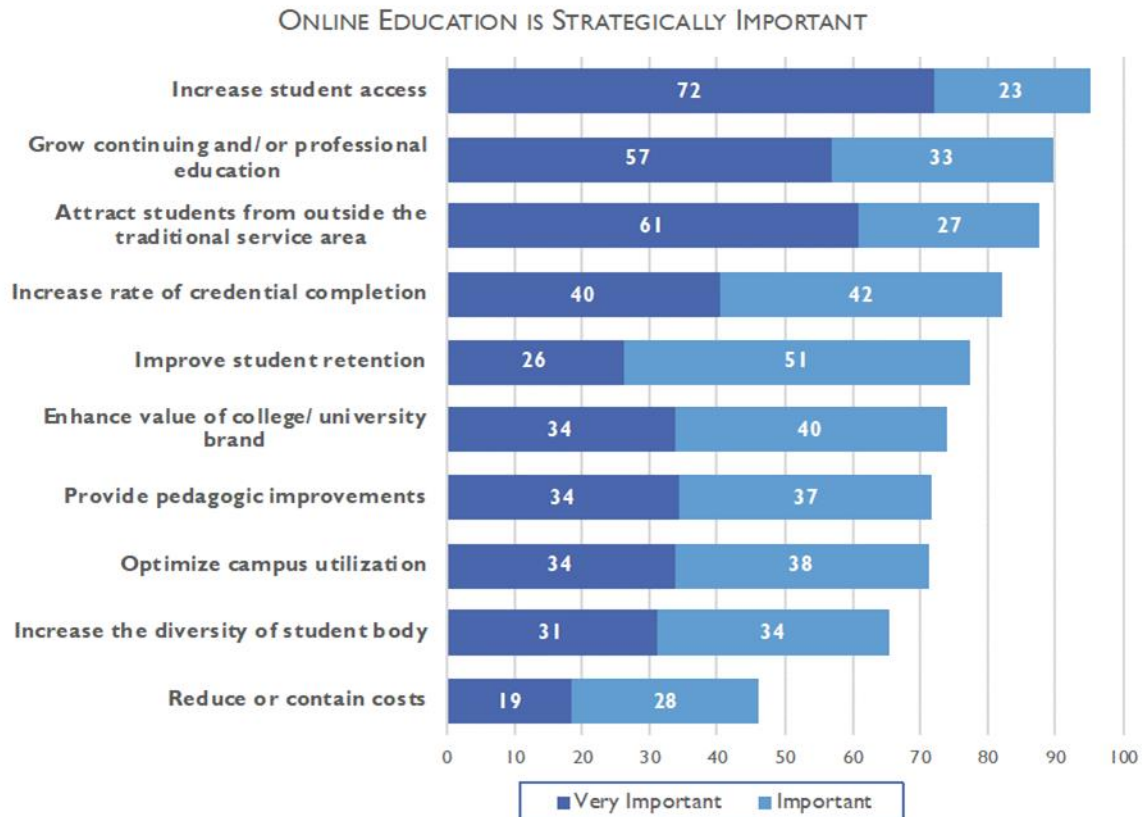


Chart 9.4. Strategic importance of online learning: National

Closely linked in second place was the opportunity to access students from outside the regular catchment area. For 61% of institutions, this was very important and for another 27%, it was important. This was particularly so for institutions in the Maritime provinces, where almost two thirds of the institutions rated this as important or very important. For 57% of institutions online learning was very important for growing continuing/professional education.

For most institutions, using online education to contain or reduce costs was not considered as important as the other reasons, with only 19% rating it as very important.

In general, universities and colleges were similar in their rating of each of these reasons for importance, except that universities and CEGEPs both rated it more important for pedagogical improvement than colleges outside Québec. Colleges outside Québec were also more inclined to rate the importance of online learning higher for reducing/containing costs and for optimizing

campus utilization. CEGEPs also rated the importance of online learning for increasing student diversity.

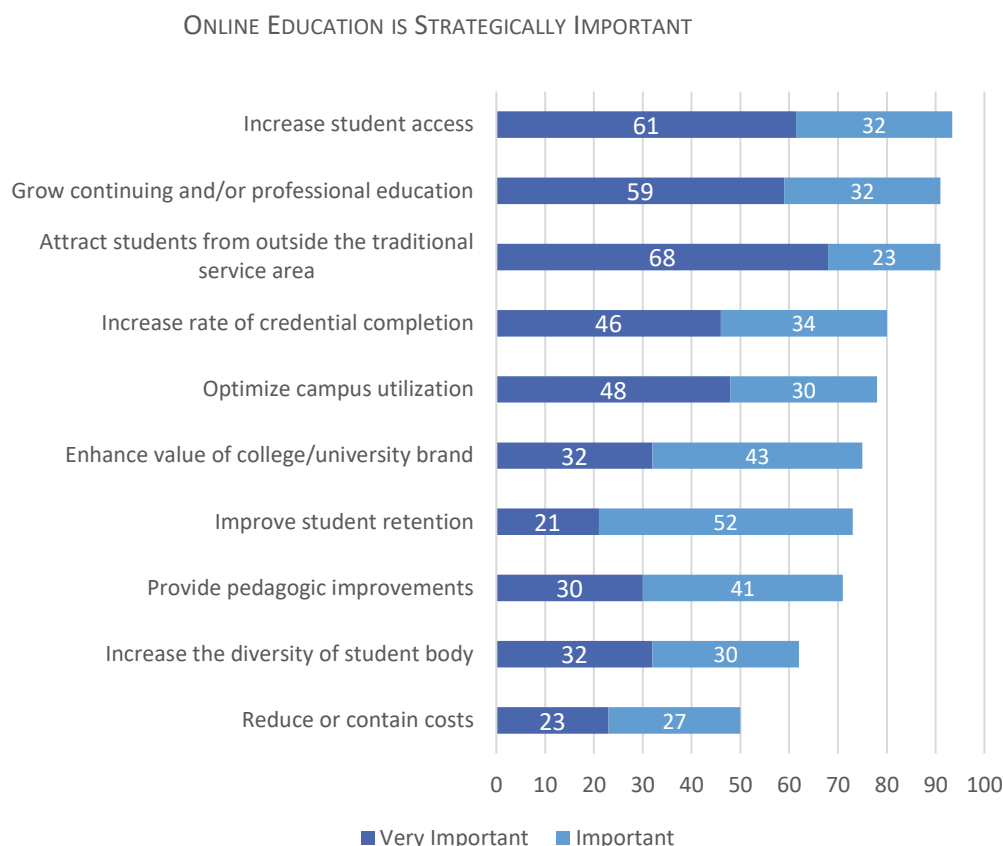


Chart 9.5 Strategic importance of online learning: **Ontario**

The response from Ontario institutions to questions on the strategic importance of online learning mirror those of institutions across the country. Institutions in Ontario were slightly more likely (68% compared to 61%) to identify online learning as strategically important as a means to attract students from outside the traditional service area. The proportion of Ontario institutions that identified increasing student access as strategically important was lower than the national response with 61% of Ontario institutions rating it as very important; and 72% of institutions across the country rating it as very important strategically.

## Barriers to the adoption of online learning

Institutions reported that the most significant barrier to the adoption of online learning was the additional faculty effort required to develop or deliver online courses. This was considered important or very important by 85% of responding institutions. This was followed closely by inadequate training/pedagogical knowledge available for faculty in online learning, rated important or very important by 73% of institutions. The third most significant barrier was also related, lack of acceptance of online instruction by faculty (62% of institutions).

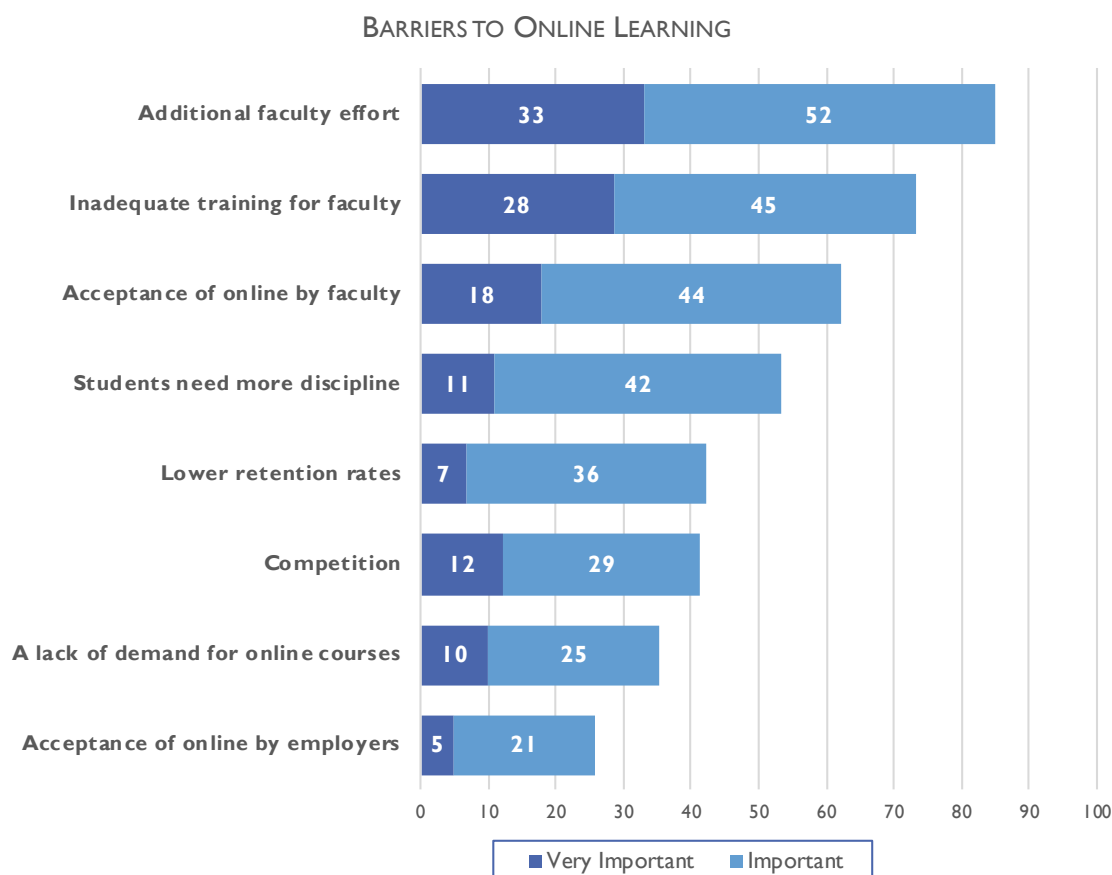


Chart 9.6. Barriers to online learning: National

The least significant barriers identified were lack of acceptance of online learning by employers, 59% did not think this was an important reason; and lack of demand for online courses (54%).

**There was very little difference in the responses from Ontario institutions to the question of barriers to online learning. Chart 9.7 below provides the Ontario results.**

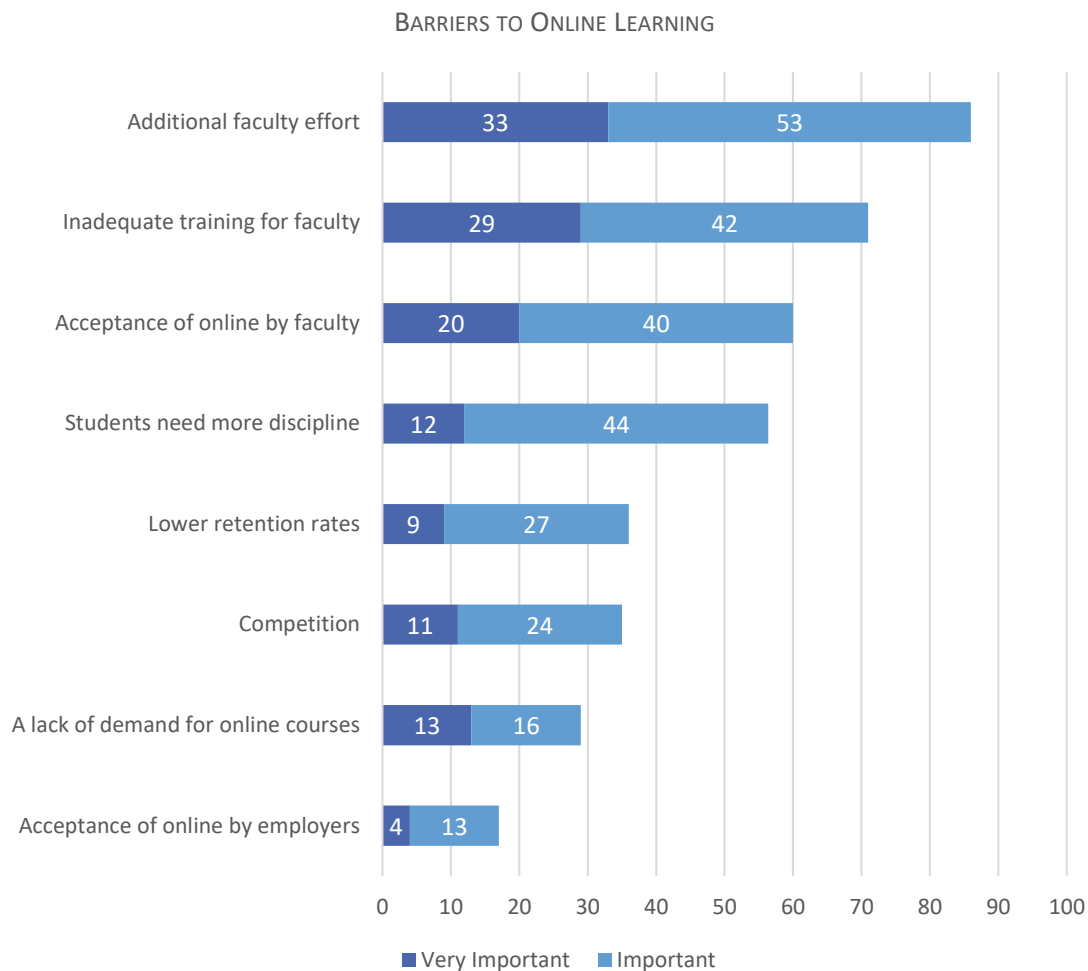


Chart 9.7. Barriers to online learning: Ontario

## Future Developments:

As in 2017, institutions were invited to share their insight into areas they were considering for future developments., by responding to the question:

*Are there any comments you would like to share on likely future developments regarding e-learning, hybrid learning and/or online learning?*

A couple of institutions highlighted their thoughts on how hybrid learning was the way of the future:

A number of Ontario institutions shared areas they were currently engaged in:

*Continuous improvements including simulations; virtual and augmented reality; access to emerging technology. Ontario College*

*The College has implemented its Digital Strategy which set guiding principles for the inclusion of hybrid and online learning as seminal activities at the College. We are now working on a*



*dedicated plan for online learning to further build on the activities that we undertook under the Digital Plan. Ontario College*

*We have committed to technology enhanced learning and providing access through technology in the University Academic Plan. Our institution supports innovation in teaching and learning through annual funding that is provided to faculty members to integrate technology in courses and programs. We are continually providing resources and professional development support through Teaching Commons and centralized University Information Technology and Faculty IT units. Ontario University*

*The pattern of increased demand for online and hybrid courses is likely to continue. Currently interest in hybrid learning is on the rise. Ontario University*

*Continuous improvements including simulations; virtual and augmented reality; access to emerging technology. changing dynamics of the learners. Ontario College*

# PERCEPTIONS OF ONLINE LEARNING

Canadian public post-secondary institutions generally hold positive views on online learning:

- Institutions reported that faculty on balance accepted the value and legitimacy of online learning; acceptance was greatest in the colleges outside Québec, then in universities, but less in the CEGEPs, tending towards rejection.
- Online credentials are as respected as face-to-face credentials;
- A clear majority of responding institutions (61%) reported that students were at least as satisfied with online courses as with face-to-face courses;
- Online course learning outcomes are considered by most institutions to be the same as for face-to-face courses, although a few institutions (11%) thought online were inferior;
- Blended/hybrid learning outcomes are considered by most institutions to be the same as for face-to-face courses, although a few institutions (19%) thought blended/hybrid were superior;
- Respondents share a belief that online, blended/hybrid learning can lead to and influence innovative teaching practices.

However, institutions also indicated that:

- A majority of institutions (55%) agreed that retaining students is a greater problem than it is for face-to-face students; this feeling was strongest in CEGEPs, where 79% of CEGEPs agreed with the statement;
- There was general agreement that students need more discipline to succeed in online courses.

## Faculty Acceptance of Online Learning

In general, institutions reported that faculty on balance accepted the value and legitimacy of online learning.

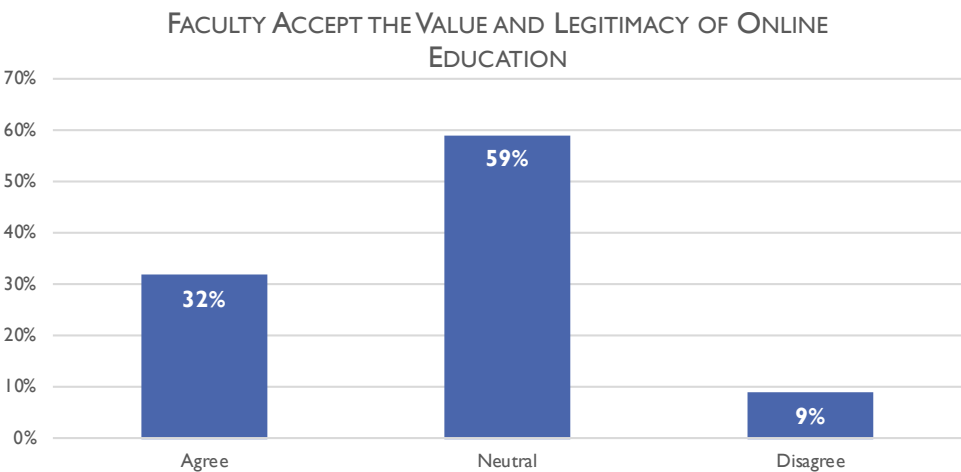


Chart 10.0. Barriers to online learning: Ontario

However, acceptance varied considerably between type of institution, and tended to cluster just above neutral (i.e. slightly more to acceptance). Acceptance was greatest in the colleges outside Québec, then in universities and highest in Alberta, British Columbia and Nova Scotia. Acceptance was less in the CEGEPs, tending towards rejection. The semi-private colleges in Québec were completely split, but the number of institutions responding was very low. **One third of Ontario institutions (32%) agreed that faculty accept the value and legitimacy of online education.**

## Online Credentials

Just under one-half of all institutions see online credentials as having the same level of respect as face-to-face credentials (47%), with most of the remaining being neutral on the issue.

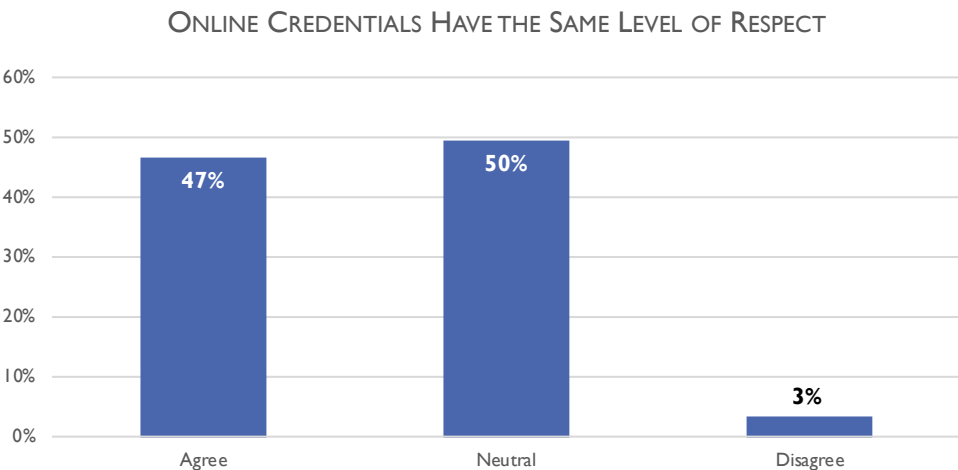


Chart 10.1. Barriers to online learning- Respect: National

### ONLINE CREDENTIALS HAVE THE SAME LEVEL OF RESPECT

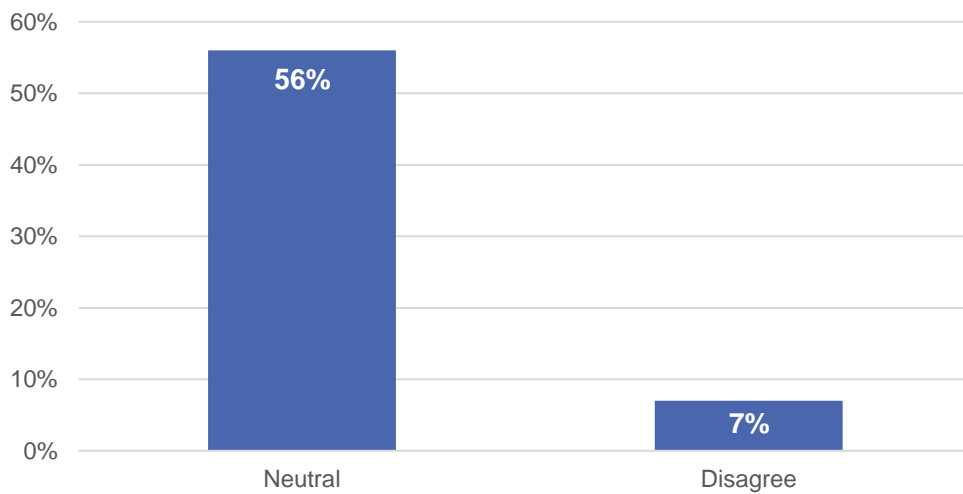


Chart 10.2. Barriers to online learning- Respect: Ontario

**Institutions in Ontario reported a slightly lower acceptance of online credentials than the national average: 38% compared to 42% nationally. And a higher proportion of institutions (7%) reported they disagree with the statement.**

## Retention Rates for Online Students

About one quarter of responding institutions (27%) agreed with the statement that retaining online students is a greater problem than it is for face-to-face students. This tendency was strongest in CEGEPs. However, it should be noted that CEGEPs in general have less experience with online courses than other post-secondary institutions in Canada.

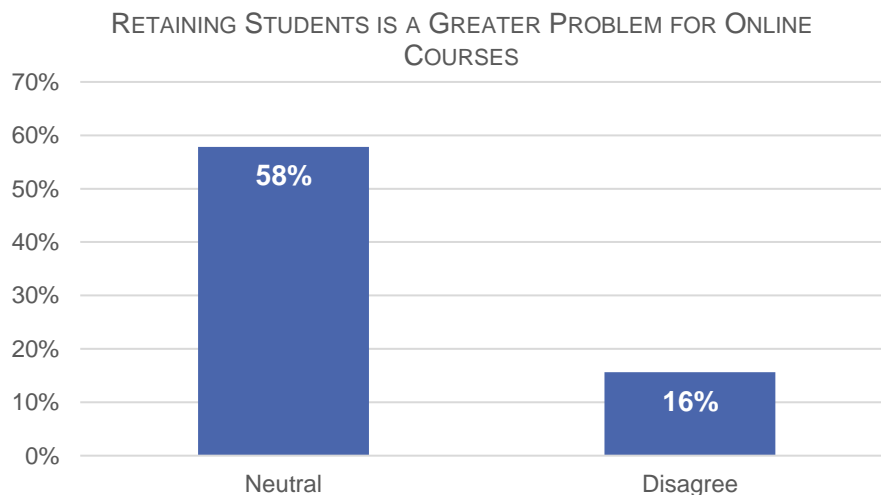


Chart 10.2. Barriers to online learning- Student retention: National

**Responses from Ontario institutions indicate a slightly higher proportion (36%) believe that student retention is a greater problem for online classes compared to face-to-face courses; 49% were neutral and 16% disagree.**

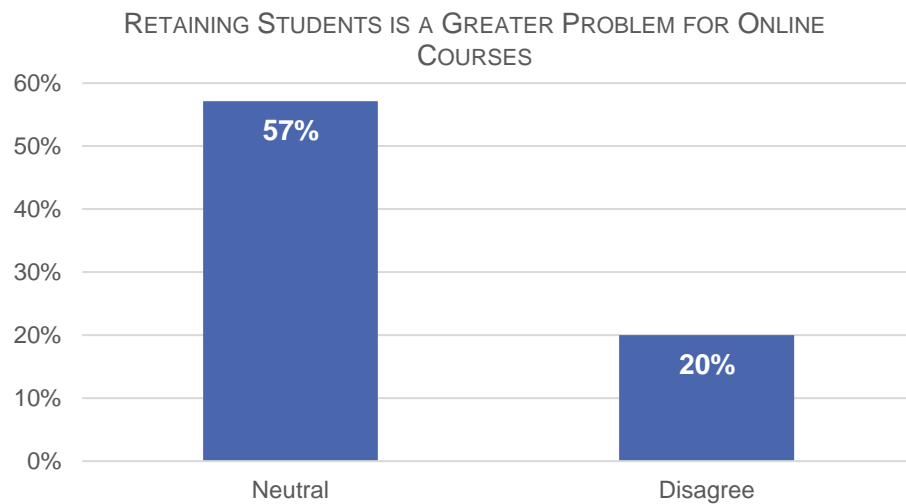


Chart 10.2. Barriers to online learning - Student retention: Ontario

## Student Satisfaction with Online Courses

First, it should be made clear that this question reflects institutional responses, not student responses, to the question of if students are at least as satisfied with an online course as they are with a face-to-face course. A majority of responding institutions (54%) were neutral on this issue, with 42% agreeing and only 3% that disagreed.

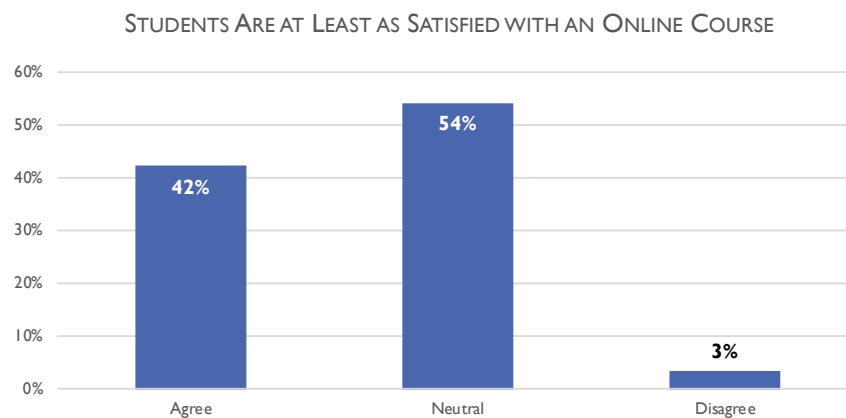


Chart 10.2. Barriers to online learning- Student Satisfaction: National

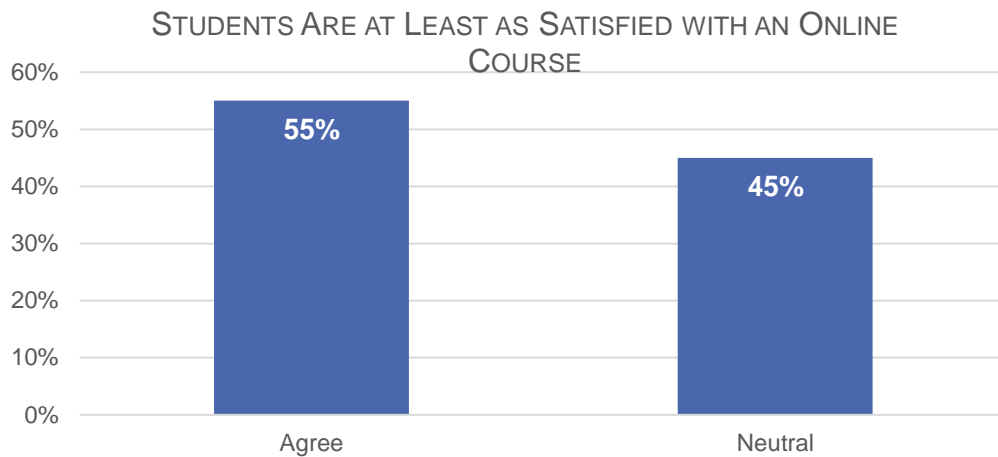


Chart 10.3. Barriers to online learning- Student Satisfaction: Ontario

**Institutions in Ontario were more likely to agree that students are at least as satisfied with an online course (55%), than the National Response which shows just 42% agreement with this statement.**

## The Need for More Student Discipline in Online Courses

Half of the responding institutions agreed (50%) that students do need more discipline to succeed in online courses, with only 2% disagreeing.

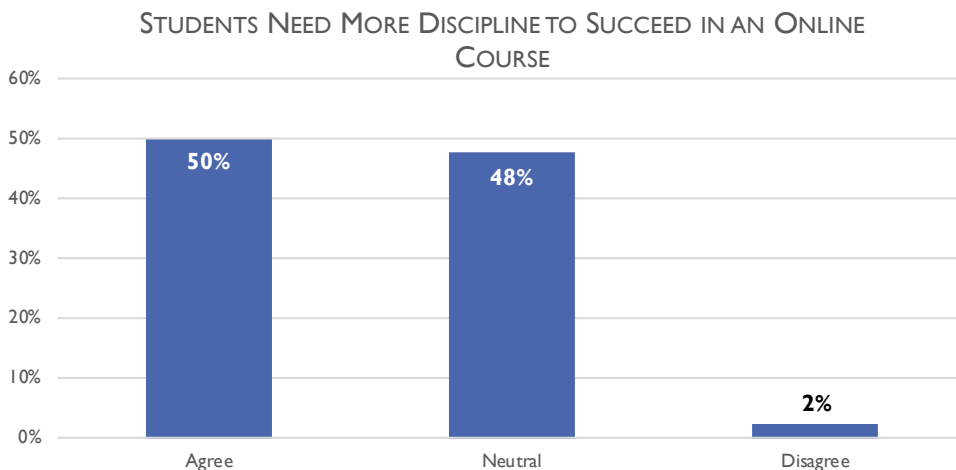


Chart 10.4. Barriers to online learning: Student discipline: National

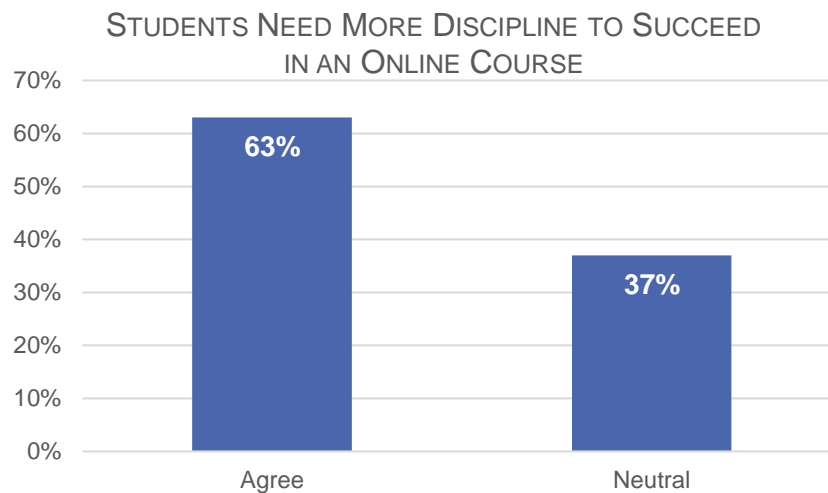


Chart 10.4. Barriers to online learning: Student discipline: **Ontario**

**Institutions in Ontario had the strongest agreement on this statement of all provinces and territories. Only 6% disagreed with the statement and 63% of responding institutions indicated they agree that students need more discipline in an online course.**

## Learning Outcomes

Institutions were also asked to compare the learning outcomes of online and blended/hybrid courses with those of face-to-face courses. Over three-quarters (78%) of the responding institutions considered the learning outcomes of online courses to be the same as those for face-to-face courses. Thirteen per cent ranked online courses inferior, but nine per cent ranked them superior.

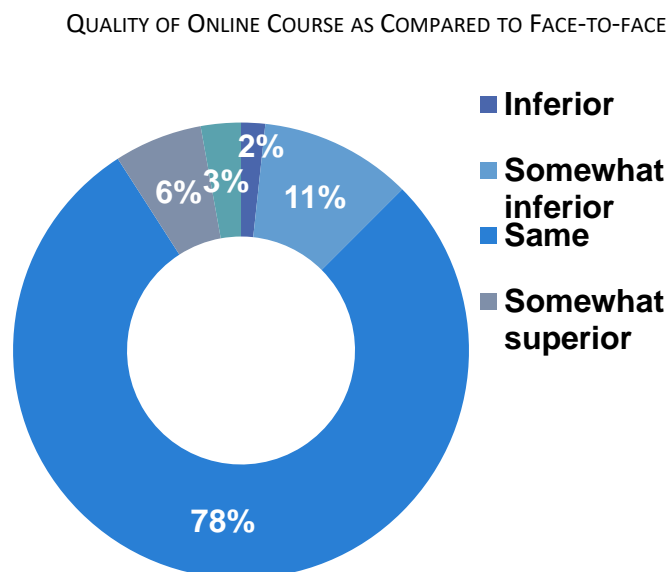


Chart 10.5. Learning outcomes in an online course compared to face-to-face: **National**

Most institutions across the country (78%) reported that learning outcomes from online courses were either the same or superior to face-to-face courses. **The proportion was even higher in Ontario, where 89% of responding institutions reported a perception that learning outcomes as the same as face-to-face.**

QUALITY OF ONLINE COURSE AS COMPARED TO FACE-TO-FACE

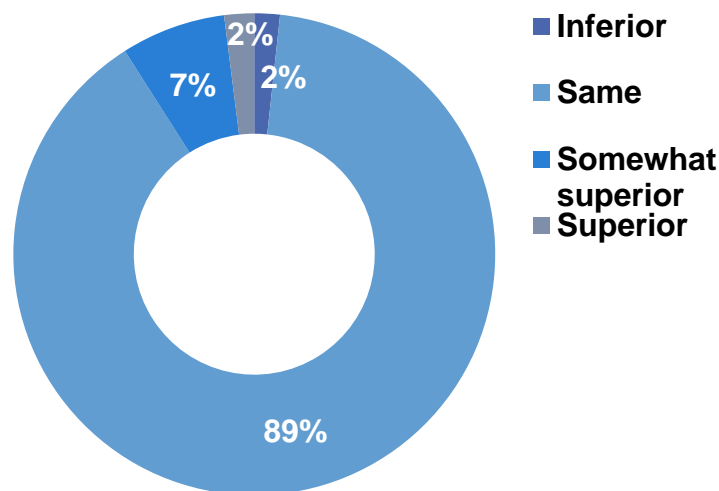


Chart 10.6. Learning outcomes in an online course compared to face-to-face: **Ontario**

A similar proportion (78%) of the responding institutions across the country considered blended/hybrid learning outcomes to be the same as face-to-face learning outcomes. However, in the case of blended/hybrid, 19% considered their outcomes to be superior to face-to-face, while only 3% considered them to be inferior. Once again, there was relatively little difference

QUALITY OF BLENDED/HYBRID COURSE AS COMPARED TO FACE-TO-FACE

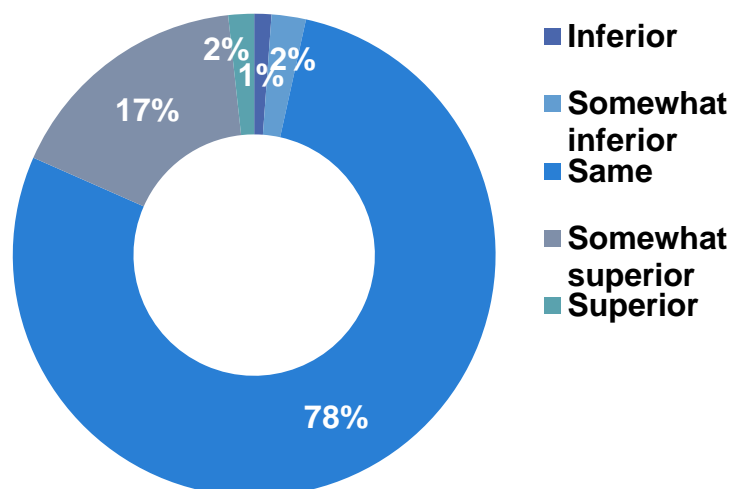
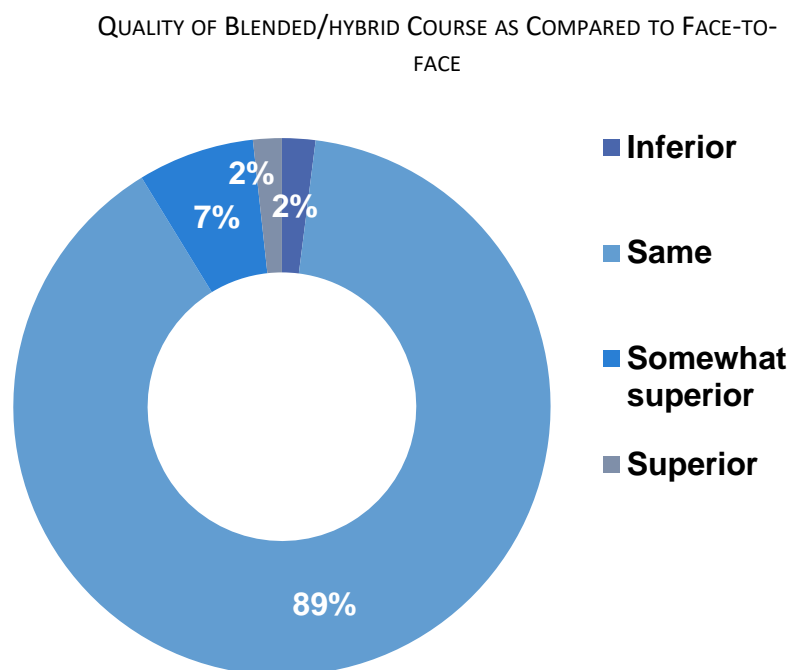


Chart 10.8. Learning outcomes Blended/hybrid courses: National



between CEGEPs, colleges outside Québec, and universities on this question

Chart 10.8. Learning outcomes Blended/hybrid courses: **Ontario**



The results for Ontario were similar to the rest of the country on this question of perception of learning outcomes in blended/hybrid courses, 85% of Ontario institutions indicated they felt the learning outcomes were the same as face-to-face, while a small percentage (9%) reported they believe learning outcomes to be somewhat superior to superior.

### Online, Blended/hybrid Innovative Teaching Practice:

We asked institutions the following question:

*Do you believe that offering online or blended/hybrid courses can lead to more innovative teaching? Why or Why not?*

Nationally, nearly all (103) responses to this question indicate a belief that that yes, online, blended/hybrid teaching can influence and lead to innovative teaching practice. The majority of responses included references to the importance of sound pedagogy, good planning and course design to support faculty. Some Ontario institution responses are shared below:

*It can and has led to more innovative teaching on our campus. Primarily, because the process can provide instructors an opportunity to reimagine course content, delivery, assessment and pedagogy. Ontario University*

*Yes, as doing something differently that leads to changes in how students learn can result in better learning/improved student performance. Ontario College*

*Blended courses have both face-to-face and online instruction, as well as on-campus exams. These course offerings are clearly identified by designated section numbers in the undergraduate academic calendar and lecture timetable. In the identified blended courses, at least 30% of student learning integral to the course occurs in the online interactive learning environment. For example, in a half (0.5) course at the undergraduate level, at least 8 of the required 26 contact hours will occur online. Ontario University*

*No – course delivery method does not lead to pedagogical improvements. Ontario University*

**Some responses highlighted the advantages they believe inherent in moving to online education:**

*When faculty go through our online course development program, they strengthen their pedagogical thinking and skills because they are scaffolding each week's work on the previous week's learning. Ontario College*

*Offering online and blended courses supports achievement of strategic priorities including a commitment to quality educational experience, a high-performing teaching culture, and providing flexible learning options for students. Adoption of innovative online technologies such as virtual reality, simulation, open source technologies and virtual collaboration engage our students in developing skills of the future. Ontario College*

*Online technologies have the potential to make learning more engaging, flexible, collaborative, interactive, and responsive. Ontario University*

**The majority of the comments shared perspectives on how online and blended courses can support teaching growth and help faculty grow their practice with good designs and supports in place. Only four institutions specifically indicated they did not think that online, blended/hybrid courses lead to innovations in teaching practice:**

*Online and hybrid courses afford opportunities to re-think the ways that teaching is delivered. Ontario University*

*Yes, offering on-line or blended/hybrid course can lead to more innovative teaching. By the very nature of this types of offering the setting in which instruction and therefore learning takes place has changes. This in turn means that some more traditional methods of instruction are not as effective or not even possible, as such, should an instructor wish to provide quality education and have students succeed consideration to alternative methods of instruction are a must. Additionally, the resources available to instructor of these courses is growing at a much faster rate than traditional classroom-based resources. With technology at the centre of these delivery models, it is only natural that the innovations provided by said technology will lend themselves to innovations in their application (teaching). Exposure to new technologies and experimenting with new techniques and strategies was identified as catalyst for faculty to examine their teaching and course design: Ontario College*

# CANADA & US COMPARISON

Distance education is more firmly established in the United States than it is in Canada. The latest data for U.S. higher education institutions shows that 33 percent of all students took at least one distance course as of fall 2017, a rate double that of Canada. Given this longer history and higher concentration of online activity, do the academic leaders in the U.S. and those in Canada share the same views about the role and success of distance education?

To test this question, we administered the policy and practice portions of the 2018 Canadian survey to a representative sample of chief academic officers (the highest-ranking individual responsible for the academic programs, typical titles are provost, academic vice president, etc.) in the United States. The objective was to compare the experiences and opinions of those at institutions with for-credit distance course offering, so the responses from the 172 Canadian institutions that have for-credit online offerings were compared to a representative random sample of US academic leaders from 112 institutions with for-credit online offerings.

In general, the pattern of responses between the two countries is very similar, and where there are differences, it is the Canadian respondents that are the more positive towards online education.

## Importance of Online Learning for Long-Term Strategic Plan

More than two-thirds of the respondents from both countries believe that online learning is either "Extremely" or "Very" important for their institution's long-term strategic plan (see Figure 14.1). Very few Canadian leaders believe that online education is only "Slightly" important (6% as compared to 9% for the U.S.), and no Canadian institutions reported the online was "Not at all important".

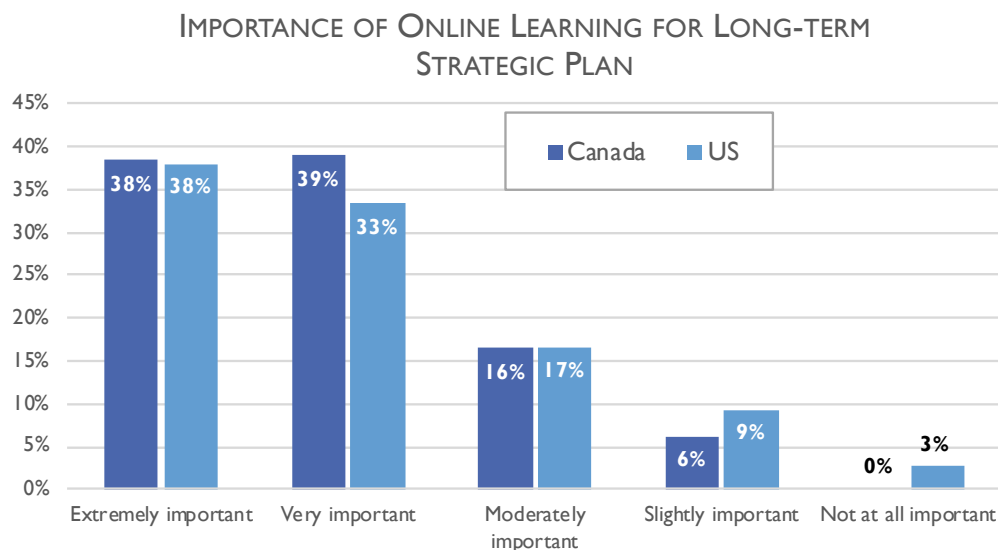


Chart 11.0. Importance of online learning to long-term strategic plan: National

While Canadian academic leaders are slightly more likely to believe that online learning has a high degree of importance for their institution, leaders in the U.S. appear to be further along in actually implementing their strategic plan incorporating "e-learning, hybrid learning and/or online learning." Roughly 15 percent of the respondents from both countries report that these are part of the plan and that the plan is fully implemented.

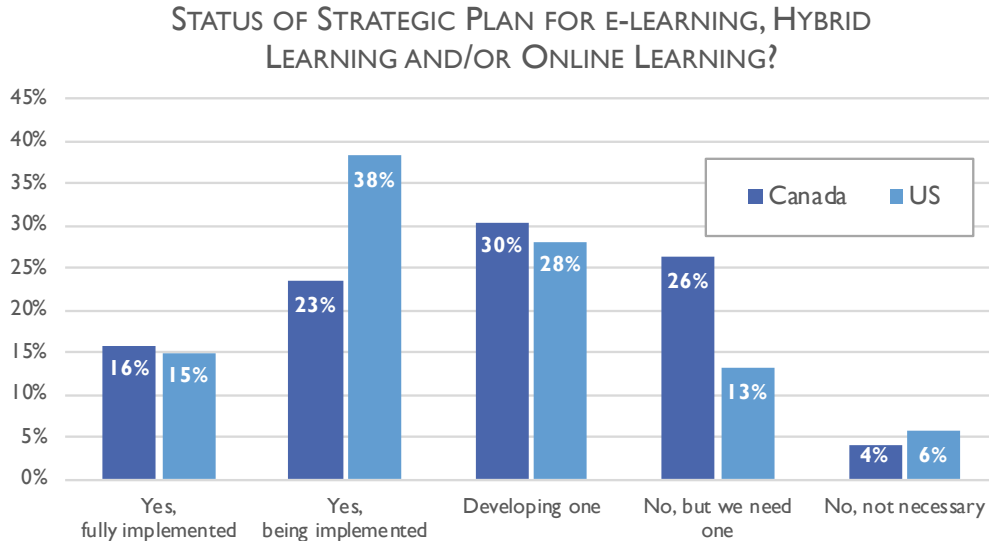
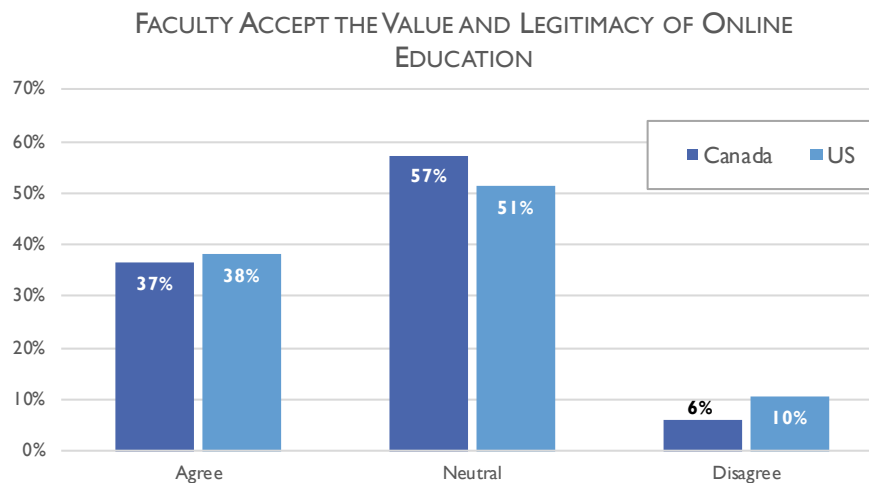


Chart 11.1. Importance of online learning to long-term strategic plan: National

However, a far larger proportion of those in the U.S. report that they are now implementing such a plan (38% compared to only 21% in Canada). Far more Canadian institutions report that they need a plan, but they have not yet begun working on it (30% in Canada compared to 13% in the U.S.).

Another area of agreement is that slightly over one-third of the leaders in both countries think that faculty at their institution "accept the value and legitimacy of online education." The other two-thirds of both groups are either neutral or believe that their faculty do not accept.



# BACKGROUND TO THE 2018 SURVEY

In 2017, a team of independent researchers secured funding and developed a national survey of online learning and distance education in Canadian public post-secondary education. There had been isolated studies of parts of the Canadian system before, and similar studies had been done in the USA, originally by the Babson Survey Research Group (a partner in our study) and later by the United States Department of Education's Integrated Postsecondary Education Data System survey (IPEDS). However, the 2017 Canadian survey was the first comprehensive survey of online learning in Canadian publicly funded universities and colleges.

Funding was raised primarily from provincial government agencies established to support online and digital learning, such as eCampus Ontario, BCcampus, Campus Manitoba and Contact North along with contributions from Pearson Canada, D2L and the Ministère de l'Éducation et de l'Enseignement supérieur (Quebec). A main report and several sub-reports, were published in the fall of 2017. Reports are available in English and French<sup>3</sup>.

Although the survey was both new and voluntary, there was an excellent institutional response, with 69% of institutions covering 82% of the student population responding. The 2017 survey indicated that online learning was alive and well in Canadian post-secondary institutions, with 85% of all responding institutions offering at least some online learning for credit in 2016, and with courses offered in almost all subject areas. Two-thirds of responding institutions stated that online learning was considered very or extremely important for their long-term future.

## Goals of the 2018 Survey

Although the response rate in 2017 was good, there were still some significant institutions that did not respond. In 2018, a response rate goal was set at 75%, which was surpassed with a response rate of 80%, with 187 institutions out of 234 responding. Many of the non-responders probably did not have any online or distance education programs for credit. However, there were some non-responders that were known from other sources to have strong online programs.

In 2017, we learned that different questions usually required responses from a number of people within the same institution. Thus, we also invested time in 2018 in improving our database of contacts at each institution, ensuring that the questionnaire went to the right people in each institution.

---

<sup>3</sup> See: <https://onlinelearningsurveycanada.ca/> for the English reports and <https://formationenligne canada.ca/> for the French report.

The 2017 results also highlighted the inconsistent and unreliable reporting of online course enrolments. The main reason for this was the variety of definitions being used across the country. In many cases there was a mismatch between the definitions in our questionnaire, and the way institutions collected their data. Many institutions did not track online enrolments separately or tracking was decentralized across the institution and different definitions were being used.

Indeed, each province uses its own method to collect data and count overall post-secondary student enrolments. Some count only full-time students, some count full-time equivalents that include a fraction for each part-time student, others count all part-time students the same as full-time students. Some provinces exclude international students (since most are self-funding) while others include them.

There are good reasons for each of these practices within each province, and institutions are set up to give priority to data requested by the provincial government in the format requested. However, it causes major problems when trying to produce consistent national data across provinces and territories.

Actions taken to address the issue for the 2018 survey included:

- considerable feedback from multiple sources on how to improve the definitions,
- work from the entire research team to draft a revised approach to definitions,
- feedback from key players in Canadian higher education on the re-drafted definitions,
- conduct a preliminary survey where institutions were asked about the 'new' definitions, and what data they could reliably report.

The result was a revised and clearer set of definitions that hopefully would match those used by the majority of institutions in the country. Also, the survey asked only for the enrolment data that most institutions told us they could reliably provide.

To obtain a deeper understanding of the unique context of francophone institutions, particularly in Québec, a consultant from Québec was added to the research team. A decision was also made to treat the francophone colleges within anglophone institutions as separate, independent entities with their own francophone questionnaire. Private subsidised colleges in Québec that receive funding from the provincial government were added to the 2018 roster, thus widening the base of institutions in Québec.

## Obtain New Information

The scope of the survey was widened, to include questions on:

- how online, hybrid and digital learning were being defined within institutions,
- more detailed questions on open education/open educational resources,
- emerging technologies such as learning analytics, simulations, virtual reality and artificial intelligence,
- online learning /non-credit programming in preparation for a more detailed set of questions in 2019,
- a question about the perceived quality of online learning compared with conventional classroom teaching,
- the impact of benefits, and strategies to reduce barriers, to online learning.

## Plans for the Future

The 2018 survey remains focused on online learning in provincially funded (public) institutions in Canada. However, we recognize that we will still need to include other areas that have not been covered, or not covered in depth, such as:

- digital learning in post-secondary institutions managed by First Nations;
- digital learning in non-credit programming;
- emerging pedagogies in digital learning;
- online learning in private post-secondary colleges;
- growth of digital learning;
- adoption of open educational practices;
- further exploration of the impact of benefits and solutions to minimize barriers.

To do this, we will need to reach out to more stakeholders in these areas, and find additional sources of funding, and these will be our priorities for 2019. This may also mean widening our research approach to include case studies and more qualitative research.

# APPENDIX 1

## METHODOLOGY AND RESPONSE RATE

The universe of interest for this study is all publicly funded post-secondary institutions in Canada.

Almost all universities in Canada are provincially funded. As a result of feedback from Québec following the 2017 survey, three Québec institutions that were previously treated as constituent components of the Université de Montréal were added as independent institutions. Also, in 2018 the scope was expanded to include federally funded post-secondary institutions, adding the Royal Canadian Military College (which has university status) to the 2018 roster.

A further change from 2017 was the decision to treat francophone colleges within anglophone universities as a separate roster entry, as they offer separate academic programs and require a separate questionnaire in French. This resulted in an additional five university-type institutions compared to those included in the 2017 survey. Finally, one provincially funded institution changed its status from a college to a university between 2017 and 2018.

As a result, there are 82 universities listed in the 2018 roster, compared to 72 in 2017.

Canadian private for-profit universities, most of which are very small, are not included in either the 2017 or the 2018 rosters. Likewise, private, not-for-profit universities in Canada, mainly religious-based universities with provincial legal status are not included. Fully private career colleges and institutes are also not included.

Québec's college system, although publicly funded, is fundamentally different from the rest of Canada. Although CÉGEPs (Collèges d'Enseignement Général et Professionnel) provide both academic programs that prepare students for university as well as vocational programs, the CÉGEPs often offer a different mix of programs and age ranges than those found in colleges in other provinces.

Thus in 2017 a distinction was made between colleges (anglophone and francophone) outside Québec, and the CÉGEPs. In 2017 we included 50 CÉGEPs in our roster. Again, as a result of feedback from the 2017 study, we added two more fully funded provincial professional colleges to the 2018 CÉGEPs roster, and reduced two separate CÉGEP entities to one, as the distance education entity was part of the main institution, making a total of 51 for 2018.

Another difference from 2017 is the treatment of Québec 'private subsidized colleges are establishments recognized as a public interest and approved for subsidies by the Minister responsible for Higher Education' that are fully accredited within the province. Thus, for 2018 we added these 21 publicly subsidised colleges to the roster.

A number of aboriginal communities/First Nations also manage their own post-secondary technical colleges. In 2017 we included two First Nations' managed colleges in the roster, as they received provincial funding. There are several other colleges managed by First Nations with a variety of funding arrangements. These colleges are usually small and on reserves. However, we



feel that we need to reach out to First Nations to learn more about these colleges, how they are managed and their interest or otherwise in online learning, but for 2018 we have excluded any colleges or institutes managed by First Nations until we have a better understanding of their needs and interests. This is a priority for 2019.

By extending the scope to federally funded post-secondary institutions, we added the Canadian Coast Guard College to the 2018 roster. Also, a provincially funded specialist language college was added to the roster in 2018.

Thus the 2018 roster includes:

- 82 universities and Francophone colleges of Anglophone universities
- 80 colleges outside Québec
- 51 CÉGEPs
- 21 private subsidised colleges in Québec

The resulting roster includes 152 colleges and 82 universities for a total of 234 institutions, compared with 203 in 2017.

## Questionnaire Design and Distribution

The 2017 questionnaire design was initially based on the design of the Babson Surveys, but was modified to meet the Canadian context. For comparison purposes several key questions remain common to both the Canadian and U.S. surveys.

For 2018, a number of questions in the 2017 survey where the information was not likely to change significantly from year to year were dropped. As noted elsewhere in this report, definitions were revised to reflect feedback received after the 2017 study and a question was added to allow institutions to compare their definitions with those of the survey team.

Questions on enrolments in the 2018 survey were also modified to take account of the new definitions and the feedback received from institutions regarding the 2017 study.

New sections specifically on open educational resources, continuing education courses, and a comparison of the perceived quality of online, blended and face-to-face courses were also added.

The most important changes to the 2018 survey (the definitions and the enrolment questions) were tested in a pre-survey that went to all potential participating institutions for feedback and comment. This outreach was also used to update the contact information for each institution.

A survey invitation was sent to the Provost/VP Academic or Vice-President Education or Directeur général at each institution, with copies to the other institutional contacts in our roster. The questionnaire content was identical in both anglophone and francophone versions of the questionnaire.

The questionnaire itself was online and was accessed using a link unique for each participant institution. Members of the project team actively followed up with institutions to encourage them to participate. The project was also promoted through post-secondary educational networks or provincial organizations. The invitations began in late June, 2018 and continued until the end of July. In response to requests from responding institutions in late summer, a pdf that allowed for responses to be entered was made available to requesting institutions, after which the majority of responses were submitted using the pdf. The eventual cut-off date for return of the questionnaire was set at August 31, although the survey team was able to accommodate additional responses on an exception basis after that date.

## Comparing the Roster with Statistics Canada

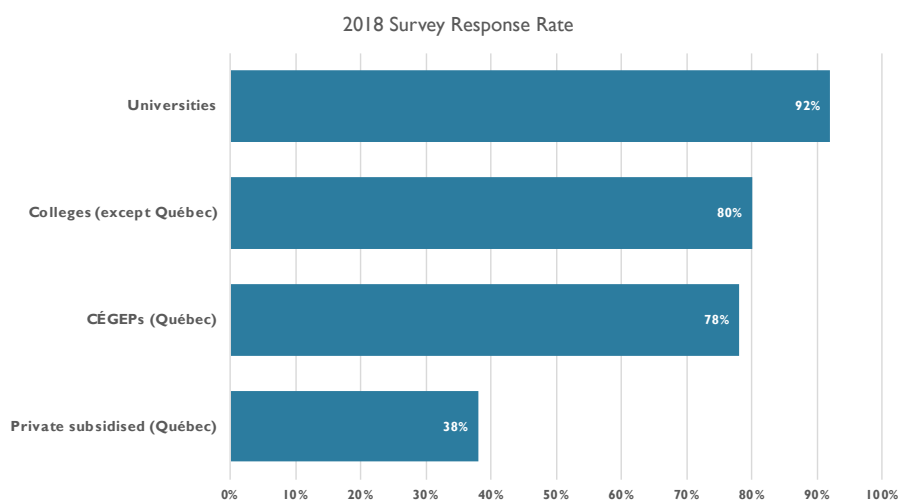
Statistics Canada (StatCan's) provides Canadian post-secondary student enrolments for the fall of the 2015/2016 academic year<sup>4</sup>. Comparing the population base of enrolment data from the questionnaires, supplemented where questionnaire data was missing or unreliable with estimates of an institution's enrolments, showed a high level of agreement with the number of students studying for institutional credit at Canadian public post-secondary institutions, as reported by StatCan for 2015-2016.

	Universities	Colleges/CÉGEPs/S-P	Total
Survey (2017)	1,309,185	763,183	2,072,368
StatCan (2015)	1,307,277	727,680	2,034,957
Difference	1,908	35,503	37,411
% difference	0.15%	4.88%	1.84%

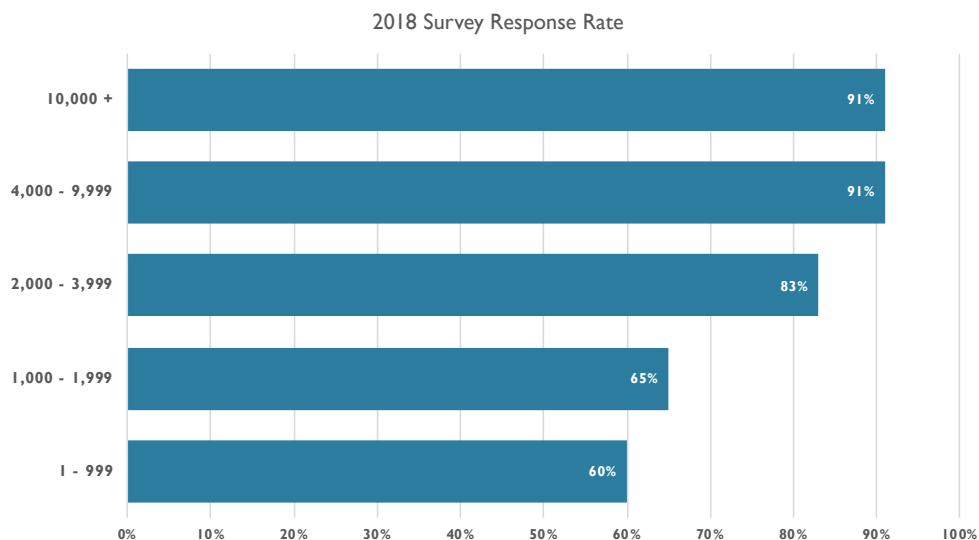
## Institutional Response Rates

The overall institutional response rate was 80% for all types of institutions.

Responses were highest from universities (92%) and lowest from the 21 private subsidised colleges in Québec added to the roster this year (38%). If the 21 private subsidised colleges in



<sup>4</sup> <https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=3710001101>



Québec are excluded, the response rate is 84%, compared with 69% for last year's similar roster base.

The response from francophone institutions was higher in 2018 than the 2017 survey (73% compared with 65% in 2017). Even though the low response rate from the newly added private subsidized colleges (38%) pulled the overall francophone average down to 73% for 2018, this is still higher than the 65% in 2017. Without the private, subsidized colleges, the francophone response rate was 83%, almost identical to the anglophone response rate of 85%.

The response rate tended to be lower from the smaller institutions, nevertheless, well over half of even the smallest institutions responded. Since there was a higher response from the larger institutions, the questionnaire responders represent institutions with 92% of the student population base.

Overall, especially considering that this was a voluntary questionnaire, the responses provide an excellent, representative sample of colleges and universities across all provinces, and across all sizes of institution, representing 80% of all institutions and 92% of all students studying for institutional credit at Canadian public post-secondary institutions.

## APPENDIX 2

# ROSTER OF ONTARIO COLLEGES AND UNIVERSITIES

Note: The institutions listed below were the population base for the survey in 2018. The Ministry of Training, Colleges and Universities has an official count of 45 institutions: 24 colleges and 21 universities. The National Survey 2018 roster includes all 45 of the institutions included under MTCU plus one affiliated institution. In addition, the Survey 2018 provided independent surveys to Ontario institutions with affiliated Francophone colleges. Of the 48 institutions in our roster, two universities did not respond. Some questions in the survey were not answered by everyone who did respond.

### Universities

Algoma University  
Brock University  
Carleton University  
Lakehead University  
Laurentian University  
Université de Hearst\*  
McMaster University  
Nipissing University  
OCAD University  
Queen's University  
Royal Military College of Canada  
Ryerson University  
Trent University  
University of Guelph  
University of Ontario Institute of Technology  
University of Ottawa  
University of Toronto  
University of Waterloo  
University of Windsor  
Western University  
Wilfrid Laurier University  
York University

### Colleges

Algonquin College  
Cambrian College  
Canadore College  
Centennial College  
Collège Boréal  
Conestoga College  
Confederation College of Applied Arts and Technology  
Durham College  
Fanshawe College  
Fleming College of Applied Arts and Technology  
George Brown College of Applied Arts and Technology  
Georgian College of Applied Arts and Technology  
*Glendon College\**  
Humber College  
La Cité  
Lambton College  
Loyalist College of Applied Arts and Technology  
*The Michener Institute of Education at UHN\**  
Mohawk College  
Niagara College  
Northern College  
Sault College  
Seneca College  
Sheridan College  
St. Clair College  
St. Lawrence College of Applied Arts and Technology

\*These institutions were identified as institutions for the purpose of survey distribution

## Roster (cont'd)

Note: The institutions listed below informed the population base of institutions that were invited to participate in the survey. A total of 187 of 234 publicly funded institutions responded to the survey.

### Universities

#### **Alberta**

Athabasca University  
MacEwan University  
Mount Royal University  
University of Alberta  
Campus Saint-Jean  
University of Calgary  
University of Lethbridge

#### **British Columbia**

Capilano University  
Emily Carr University of Art + Design  
Kwantlen Polytechnic University  
Royal Roads University  
Simon Fraser University  
Thompson Rivers University  
The University of British Columbia  
University of Northern British Columbia  
University of the Fraser Valley  
University of Victoria  
Vancouver Island University

#### **Manitoba**

Brandon University  
Canadian Mennonite University  
University College of the North  
The University of Winnipeg  
University of Manitoba  
Université de Saint-Boniface

#### **New Brunswick**

Mount Allison University  
St. Thomas University  
Université de Moncton  
University of New Brunswick

#### **Newfoundland**

Memorial University of Newfoundland

#### **Nova Scotia**

Acadia University  
Cape Breton University  
Dalhousie University  
Mount Saint Vincent University  
NSCAD University  
Saint Mary's University  
St. Francis Xavier University  
Université Sainte-Anne

#### **Prince Edward Island**

University of Prince Edward Island

#### **Saskatchewan**

University of Regina  
University of Saskatchewan

#### **Québec**

Bishop's University  
Concordia University  
École nationale d'administration publique  
École Polytechnique de Montréal  
École de technologie supérieure  
HEC Montréal  
Institut national de la recherche scientifique  
McGill University  
TÉLUQ  
Université de Montréal  
Université de Sherbrooke  
Université du Québec à Chicoutimi  
Université du Québec à Montréal  
Université du Québec à Rimouski  
Université du Québec à Trois-Rivières  
Université du Québec en Abitibi-Témiscamingue  
Université du Québec en Outaouais  
Université Laval

#### **NT**

Collège Nordique francophone

## Colleges and CEGEPS

### Alberta

Alberta College of Art & Design  
Bow Valley College  
Grande Prairie Regional College  
Keyano College  
Lakeland College  
Lethbridge College  
Medicine Hat College  
Norquest College  
Northern Alberta Institute of Technology  
Northern Lakes College  
Olds College  
Portage College  
Red Deer College  
SAIT Polytechnic

### British Columbia

British Columbia Institute of Technology  
Camosun College  
Collège Éducacentre  
College of New Caledonia  
College of the Rockies  
Douglas College  
Justice Institute of British Columbia  
Langara College  
Nicola Valley Institute of Technology  
North Island College  
Northern Lights College  
Northwest Community College  
Okanagan College  
Selkirk College  
Vancouver Community College

### Manitoba

Assiniboine Community College  
Manitoba Institute of Trades and Technology  
Red River College

### New Brunswick

Collège communautaire du Nouveau-Brunswick  
Maritime College of Forest Technology  
New Brunswick College of Craft + Design  
New Brunswick Community College

### Nova Scotia

Nova Scotia Community College (NSCC)  
Gaelic College  
Nunavut  
Nunavut Arctic College

### Prince Edward Island

Collège de l'Île-du-prince-Edouard  
Holland College

### Saskatchewan

Carlton Trail College  
Collège Mathieu - Saskatchewan  
Cumberland College  
Great Plains College  
North West Regional College  
Northlands College  
Parkland College  
Saskatchewan Polytechnic

### Québec: CEGEPS

Cégep André-Laurendeau  
Cégep Beauce-Appalaches  
Cégep de Baie-Comeau  
Cégep de Chicoutimi  
Cégep de Drummondville  
Cégep de Granby Haute-Yamaska  
Cégep de Jonquière  
Cégep de l'Abitibi-Témiscamingue  
Cégep de l'Outaouais  
Cégep de la Gaspésie et des Îles  
Cégep de La Pocatière  
Cégep de Lévis-Lauzon  
Cégep de Matane  
Cégep de Rimouski  
Cégep de Rivière-du-Loup  
Cégep de Saint-Félicien  
Cégep de Saint-Hyacinthe  
Cégep de Saint-Jean-sur-Richelieu  
Cégep de Saint-Jérôme  
Cégep de Saint-Laurent  
Cégep de Sainte-Foy  
Cégep de Sept-Îles

**Newfoundland**

College of the North Atlantic

**Québec: Private subsidized colleges**

Campus Notre-Dame-de-Foy  
Collège André-Grasset  
Collège Bart  
Collège Centennial  
Collège Ellis  
Collège international des Marcellines  
Collège international Marie de France  
Collège Jean-de-Brébeuf  
Collège Laflèche  
Collège LaSalle  
Collège Marianopolis  
Collège Mérici  
Collège O'Sullivan de Québec et Montréal  
Cégep Garneau  
Cégep Heritage College  
Cégep John Abbott College  
Cégep Limoilou  
Cégep Marie-Victorin  
Cégep régional de Lanaudière  
Cégep Vanier College  
Cégep@distance  
Champlain Regional College  
Collège Ahuntsic  
Collège d'Alma  
Collège de Bois-de-Boulogne  
Collège de Maisonneuve  
College de Valleyfield  
Collège Gérard-Godin  
Collège Lionel-Groulx  
Collège Montmorency  
Collège Shawinigan  
Dawson College  
Institut de tourisme et d'hôtellerie du Québec  
Centre Matapédien d'études collégiales  
Institut de technologie agroalimentaire

Cégep de Sorel-Tracy  
Cégep de Sherbrooke  
Cégep de Thetford  
Cégep de Trois-Rivières  
Cégep de Victoriaville  
Cégep du Vieux Montréal  
Cégep Édouard-Montpetit  
Québec et Montréal  
Collège Stanislas  
Collège TAV  
Collège Universel - Campus Gatineau  
Collégial international Sainte-Anne  
École de musique Vincent-d'Indy  
École de sténographie judiciaire  
École nationale de cirque  
Séminaire de Sherbrooke

**Yukon**

Yukon College

**Northwest Territories**

Aurora College  
Collège Nordique francophone

**Federal**

Canadian Coast Guard College