

# Strategic planning: Review of external data/information

## Briefing theme: Educational Attainment & Post-Secondary Demand Projections

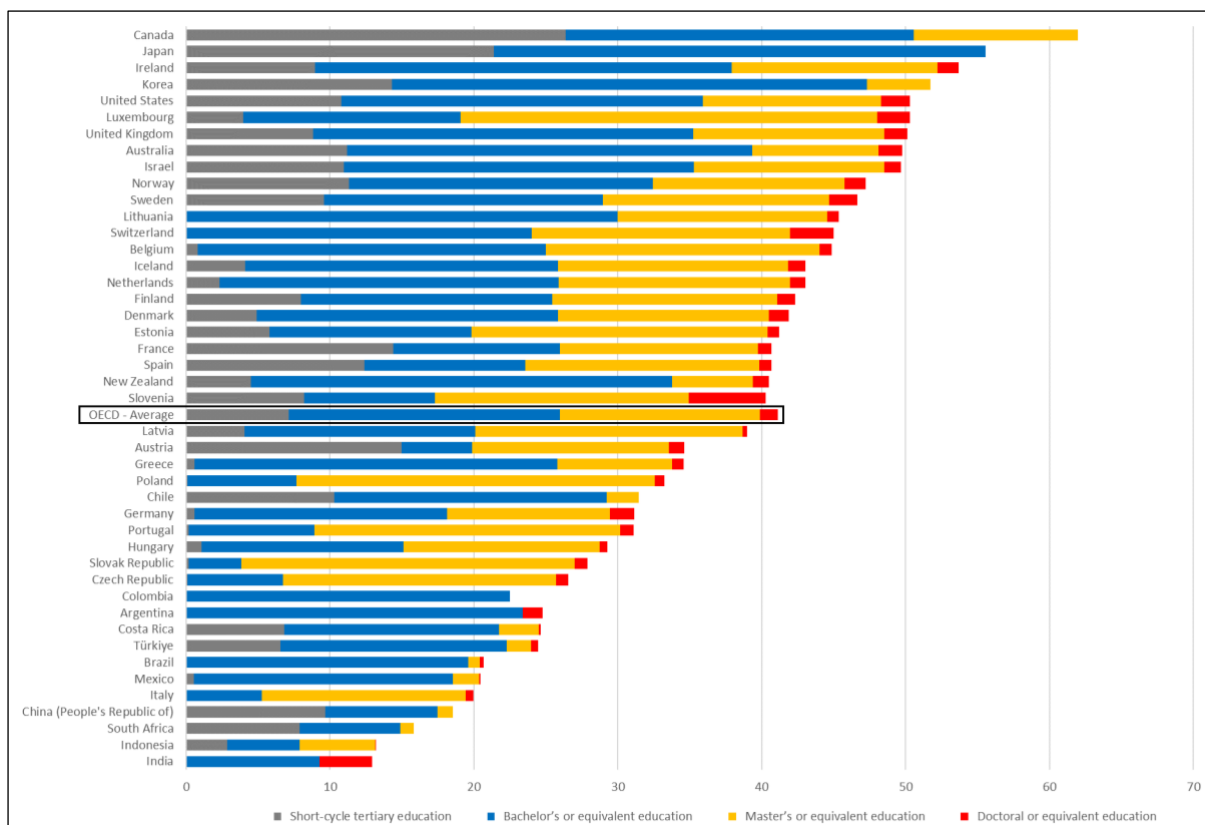
### Background:

- Canada's, Alberta's, and Calgary's education attainment rates can be used alongside population growth projections to understand future demand projections for the post-secondary sector. This is pertinent for the University of Calgary to consider as we embark on the development of our next strategic plan.

### Key Trends Identified:

- Canada has one of the most educated populations in the world, although this is largely due to our strong college sector, not our undergraduate or graduate education attainment rates.** It has become a well stated fact that Canada has the most educated population in the world. While it is true that we have a larger share of our population with a college or university credential than any other country in the OECD, this statistic is largely driven by the proportion of our population with a college certificate or diploma (24.6% in 2021).<sup>i</sup> This is considerably higher than most comparable countries (e.g. 10.8% in the United States in 2021).

Canada is in the middle of the pack in terms of the share of the population with a bachelor's degree or higher, ranking 17th in the OECD. Canada lagged other countries in the share of our population with a graduate degree, ranking 28th in the OECD. An average of 15.1% of the working age population (those aged 25-64 years) have a graduate education among OECD countries, while in Canada only 11.5% of our working age population has a graduate education.<sup>ii</sup>



**Figure 1.** Education Attainment Rates of Working Age Population (Age 25-64) in OECD Countries, 2021<sup>iii</sup>

- **Alberta’s workforce has proportionately fewer people with a graduate education than the national average and comparator provinces.** Alberta’s working age population (aged 25-64 years) has proportionately the same number of people with an undergraduate education as the national average and comparator provinces, but fewer people with a graduate education than the national average and comparator provinces (9.4% in AB, compared to 13.1% in ON, 12.3% in BC, and 11.4% in QC).<sup>iv</sup>

**Table 1.** Educational attainment of working age population, by province/territory, 2021<sup>v</sup>

	QC	ON	AB	BC	CAN
<b>Bachelor’s degree</b>	<b>18.1%</b>	<b>23.7%</b>	<b>21.7%</b>	<b>22.7%</b>	<b>21.3%</b>
<b>Post-Bachelor’s (graduate) education</b>	<b>11.4%</b>	<b>13.1%</b>	<b>9.4%</b>	<b>12.3%</b>	<b>11.5%</b>
<i>University certificate or diploma above bachelor level</i>	2.7%	2.3%	1.5%	2.4%	2.2%
<i>Degree in medicine, dentistry, veterinary medicine or optometry</i>	0.8%	0.9%	0.9%	0.9%	0.9%
<i>Master’s degree</i>	6.8%	8.7%	6.1%	7.9%	7.4%
<i>Doctorate</i>	1.1%	1.2%	0.9%	1.1%	1.1%
<b>Total Bachelor’s degree or higher</b>	<b>29.5%</b>	<b>36.8%</b>	<b>31.1%</b>	<b>35.0%</b>	<b>32.9%</b>

- **Calgary’s workforce has proportionately fewer people with a graduate education than comparator cities (except for Edmonton).** There are six census metropolitan areas in Canada that have a population of 1 million people or more and tend to serve as Calgary’s most comparable cities. All of these cities, except Edmonton, have a higher proportion of their working age population that have a graduate education than Calgary (13.0% in Calgary, compared to 17.0% in Toronto, 17.3% in Ottawa-Gatineau, 15.3% in Vancouver, and 14.7% in Montreal).<sup>vi</sup>

**Table 2.** Educational attainment of working age population, by census metropolitan area, 2021<sup>vii</sup>

	Montreal	Ottawa-Gatineau	Toronto	Calgary	Edmonton	Vancouver
<b>Bachelor’s degree</b>	<b>21.8%</b>	<b>26.3%</b>	<b>29.5%</b>	<b>28.2%</b>	<b>21.9%</b>	<b>27.9%</b>
<b>Post-Bachelor’s (graduate) education</b>	<b>14.7%</b>	<b>17.3%</b>	<b>17.0%</b>	<b>13.0%</b>	<b>9.9%</b>	<b>15.3%</b>
<i>University certificate or diploma above bachelor level</i>	3.6%	2.5%	2.9%	2.1%	1.5%	2.9%
<i>Degree in medicine, dentistry, veterinary medicine or optometry</i>	0.9%	0.9%	1.2%	1.1%	1.0%	1.1%
<i>Master’s degree</i>	8.8%	11.9%	11.6%	8.7%	6.3%	9.9%
<i>Doctorate</i>	1.4%	2.0%	1.3%	1.2%	1.1%	1.4%
<b>Total Bachelor’s degree or higher</b>	<b>36.5%</b>	<b>43.7%</b>	<b>46.5%</b>	<b>41.2%</b>	<b>31.8%</b>	<b>43.2%</b>

- **Education attainment rates are growing across Canada, but the rate of growth varies significantly, with Calgary having one of the slowest rates of growth.** Over the last five years (2016-2021), the proportion of working age population with an undergraduate education is growing annually by 0.48% in Canada and 0.36% in Alberta (this compares to 0.54% in ON, 0.61% in BC, and 0.36% in QC). Similarly, over the last five years (2016-2021), the proportion of working age population with a graduate education is growing annually by 0.39% in Canada and 0.22% in Alberta (this compares to 0.44% in ON, 0.41% in BC, and 0.43% in QC). In other words, our comparator provinces are increasing the graduate education attainment levels of their working age population at about twice the rate of Alberta.<sup>viii</sup> This same trend is seen when you look at Calgary and other comparator cities (Table 3).

**Table 3.** Change in educational attainment of working age population, by census metropolitan area, 2016-2021<sup>ix</sup>

	Proportion of Working Age Population with Bachelor’s Degree or Higher			Proportion of Working Age Population With a Graduate Degree		
	2016	2021	% Increase from 2016 to 2021	2016	2021	% Increase from 2016 to 2021
<b>Montréal</b>	31.9%	36.5%	<b>4.6%</b>	12.1%	14.7%	<b>2.6%</b>
<b>Ottawa - Gatineau</b>	39.2%	43.7%	<b>4.5%</b>	15.0%	17.3%	<b>2.3%</b>
<b>Toronto</b>	40.9%	46.5%	<b>5.6%</b>	14.2%	17.0%	<b>2.7%</b>
<b>Calgary</b>	38.3%	41.2%	<b>2.9%</b>	11.7%	13.0%	<b>1.3%</b>
<b>Edmonton</b>	28.9%	31.8%	<b>3.0%</b>	8.9%	9.9%	<b>1.0%</b>
<b>Vancouver</b>	37.5%	43.2%	<b>5.7%</b>	12.9%	15.3%	<b>2.4%</b>

- **Demand for post-secondary education in Alberta is forecasted to grow significantly, particularly in Calgary.** The Government of Alberta models the projected demand for post-secondary education over the next ten years, using population growth projections and current educational attainment levels. The number of Full-Learning Equivalents (FLEs) in Alberta’s post-secondary system is expected to grow by 34,206. This rate of growth over the coming seven years represents approximately twice the rate of growth Alberta’s post-secondary system experienced over the past seven years (i.e. average of 2.2% annual growth in FLEs projected between 2023-2030, compared to average of 1.3% annual growth in FLEs experienced between 2016-2022).<sup>x</sup>

Further, 45% of this growth is expected to occur in the Calgary region.<sup>xi</sup> An estimated 60% of the growth in the Calgary region expected to occur at the University of Calgary – equating to more than 9,000 new FLEs.<sup>xii</sup> In the 2021-22 academic year, the University of Calgary had 32,775 FLEs, thus this would represent growth in the number of FLEs at the University of Calgary by more than 27% by 2030.

**Table 4.** Full-Load Equivalent Demand Projections, Alberta and Calgary, 2022-2030<sup>xiii</sup>

Year	Alberta FLEs	Cumulative Increase in Alberta FLEs from 2022	Calgary FLEs	Cumulative Increase in Calgary FLEs from 2022
2022	179,960		67,711	
2023	181,808	1,848	68,704	993
2024	184,532	4,572	70,260	2,549
2025	188,386	8,427	72,179	4,468
2026	193,496	13,537	74,479	6,768
2027	199,131	19,171	76,932	9,221
2028	204,779	24,819	79,308	11,597
2029	209,813	29,853	81,383	13,672
2030	214,165	34,206	83,118	15,407

<sup>i</sup> Statistics Canada (2022). Canada leads the G7 for the most educated workforce, thanks to immigrants, young adults and a strong college sector, but is experiencing significant losses in apprenticeship certificate holders in key trades. Retrieved from <https://www150.statcan.gc.ca/n1/daily-quotidien/221130/dq221130a-eng.htm>.

<sup>ii</sup> OECD (2021). Educational attainment and labour-force status. Retrieved from <https://stats.oecd.org/>.

<sup>iii</sup> OECD (2021). Educational attainment and labour-force status. Retrieved from <https://stats.oecd.org/>.

<sup>iv</sup> Statistics Canada (2022). Census 2021. Database: Highest level of education by census year - Canada, provinces and territories, census metropolitan areas and census agglomerations. Retrieved from <https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=9810042901>.

<sup>v</sup> Statistics Canada (2022). Census 2021. Database: Highest level of education by census year - Canada, provinces and territories, census metropolitan areas and census agglomerations. Retrieved from <https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=9810042901>.

<sup>vi</sup> Statistics Canada (2022). Census 2021. Database: Highest level of education by census year - Canada, provinces and territories, census metropolitan areas and census agglomerations. Retrieved from <https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=9810042901>.

<sup>vii</sup> Statistics Canada (2022). Census 2021. Database: Highest level of education by census year - Canada, provinces and territories, census metropolitan areas and census agglomerations. Retrieved from <https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=9810042901>.

<sup>viii</sup> Statistics Canada (2022). Census 2021. Database: Highest level of education by census year - Canada, provinces and territories, census metropolitan areas and census agglomerations. Retrieved from <https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=9810042901>.

<sup>ix</sup> Statistics Canada (2022). Census 2021. Database: Highest level of education by census year - Canada, provinces and territories, census metropolitan areas and census agglomerations. Retrieved from <https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=9810042901>.

<sup>x</sup> Government of Alberta (2022). Alberta Post-Secondary Enrolment (FLE) Projections. Retrieved from <https://open.alberta.ca/opendata/alberta-post-secondary-enrolment-file-projections>.

<sup>xi</sup> Government of Alberta (2022). Alberta Post-Secondary Enrolment (FLE) Projections. Retrieved from <https://open.alberta.ca/opendata/alberta-post-secondary-enrolment-file-projections>.

<sup>xii</sup> Government of Alberta (2022). Conversations with Ministry of Advanced Education Officials.

<sup>xiii</sup> Government of Alberta (2022). Alberta Post-Secondary Enrolment (FLE) Projections. Retrieved from <https://open.alberta.ca/opendata/alberta-post-secondary-enrolment-file-projections>.