



Lessons learned: The pandemic and learning from home in Canada

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The Future Skills Centre (FSC) is a forward-thinking centre for research and collaboration dedicated to preparing Canadians for employment success. We believe Canadians should feel confident about the skills they have to succeed in a changing workforce. As a pan-Canadian community, we are collaborating to rigorously identify, test, measure, and share innovative approaches to assessing and developing the skills Canadians need to thrive in the days and years ahead. The Future Skills Centre was founded by a consortium whose members are Ryerson University, Blueprint ADE, and The Conference Board of Canada, and is funded by the Government of Canada's Future Skills Program.

The Diversity Institute conducts and coordinates multi-disciplinary, multi-stakeholder research to address the needs of diverse Canadians, the changing nature of skills and competencies, and the policies, processes and tools that advance economic inclusion and success. Our action-oriented, evidence-based approach is advancing knowledge of the complex barriers faced by underrepresented groups, leading practices to effect change, and producing concrete results. The Diversity Institute is a research lead for the Future Skills Centre.

The opinions and interpretations in this publication are those of the author and do not necessarily reflect those of the Government of Canada.



About the Survey on Employment and Skills

The Survey on Employment and Skills is conducted by the Environics Institute for Survey Research, in partnership with the Future Skills Centre and the Diversity Institute at Ryerson University. The initial wave of the study was conducted between late February and early April 2020. This report is based on the second wave of the study, consisting of a survey of 5,351 Canadians age 18 and over conducted between November 24 and December 22, 2020, in all provinces and territories. It was conducted both online (in the provinces) and by telephone (in the territories). The survey includes oversamples of Canadians living in smaller provinces and territories and Canadians who identify as Indigenous, in order to provide a better portrait of the range of experiences across the country. Unless otherwise indicated, the survey results in this report are weighted by age, gender, region, education and Indigenous identity, to ensure that they are representative of the Canadian population as whole (as reported in the 2016 Census).

For the sake of comparison, this report also includes selected results from surveys conducted in the United States by the Pew Research Center.

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Executive summary

The COVID-19 pandemic led to the closure of schools, colleges and universities and a shift to online learning for students across the country. The Survey on Employment and Skills reveals that many households face barriers to accessing the connectivity and tools that students need to learn online. This is especially true for lower-income Canadians, for those who are racialized and for Indigenous Peoples.

Across Canada, in households with school-aged children, children in about three in five households were learning online at least part of the time during the autumn of 2020, while those in two in five households continued to attend school in person (excluding children who were being home-schooled, who were not enrolled in school or whose schooling situation was not known to the person surveyed). The proportion attending school in person was lowest in Ontario and highest in Atlantic Canada and B.C. In most households with children under the age of five or with post-secondary-aged children at home, children were also learning online, at least part of the time, in the autumn of 2020.

The impact of this situation on the ability of parents to do their own jobs effectively is mixed. Overall, about one in three parents say the fact that their child was attending school online made it harder for them to do their own job effectively, while one in four say it made it easier; a plurality (two in five), however, say it made no difference either way. Men and women are equally likely

to say that having children who attended school online made it harder for them to do their own job.

Although most households have internet access, many face challenges paying for their connection. One in three Canadians say that they worry a lot or some about being able to pay for a high-speed internet connection at home over the next few months; a similar proportion worry about being able to pay their cellphone bill over the next few months. Canadians are more likely than Americans to express concerns about the affordability of their internet or cellphone connections.

Not surprisingly, the level of concern in Canada about internet and cellphone affordability is much higher among those with lower household incomes. Younger Canadians are also much more likely than their older counterparts to worry about paying for high-speed internet or cellphone bills. The same is true of immigrants compared to those born in Canada; of racialized Canadians compared to those who identify as white; and of Indigenous Peoples compared to non-Indigenous Canadians.

Students learning online may face other barriers beyond any concerns they or their parents have about the affordability of connectivity. Among those with children at home who were learning online at least some of the time in the autumn of 2020, about three in ten said that it was likely that their

children would have to use public Wi-Fi to finish their schoolwork because there was not a reliable internet connection at home; that their children would not be able to complete their schoolwork because they did not have access to a computer at home; and that their children would have to do their schoolwork on a cellphone. Canadians are slightly more likely than Americans to say that their children faced these barriers when doing their schoolwork online.

As expected, among those with children at home who were learning online at least some of the time in the autumn of 2020, the likelihood that these children faced one or more of these obstacles when doing their schoolwork is higher among those with lower household incomes. Those who identify as racialized are about twice as likely as those who identify as white to say that their children faced one or more of these obstacles while doing schoolwork online. Those who identify as Indigenous are also much more likely than non-Indigenous Canadians to say that their children faced one or more of these obstacles when doing schoolwork online.



*The Survey on Employment and Skills reveals that **many households face barriers to accessing the connectivity and tools that students need to learn online.** This is especially true for lower-income Canadians, for those who are racialized and for Indigenous Peoples.*

Learning situation during the pandemic

Canadians have not only had to adapt to the impact of the pandemic on work; measures to restrict the spread of COVID-19 have also affected child care centres, schools and post-secondary institutions. In many cases, both students and their parents have had to adapt to school closures and the shift to learning online.

The second wave of the Survey on Employment and Skills, which took place in December 2020, asked about children's school situation since the beginning of the school year that September. The results show that, across the country at that time, in about one in two (50%) households with at least one child between the ages of 5 and 18 (the typical ages for primary and secondary school), children had been learning online at least part of the time, while in one in three (34%) households, children continued to attend school exclusively in person. In a small proportion of these households, children were being home-schooled (3%) or were not attending school (5%); 8 percent of those with at least one child between ages 5 and 18 at home could not say how those children were attending school, possibly because they were not the person responsible for that child's education.¹

Among those whose children were *not* being home-schooled, and excluding those who were not attending school or whose schooling situation was not known to the person surveyed, about three in five (60%) children in households with at least one child between the ages of 5 and 18 were learning online at least part of the time in the autumn of 2020, while children in two in five households (40%) continued to attend school exclusively in person. The proportion attending school in person was lower in Ontario (34%) and higher in Atlantic Canada (50%) and B.C. (53%). It was also lower among those living in cities (33%) compared to those living in smaller towns (42%) or rural areas (44%).

In most households that included at least one child under the age of five and where at least one child was attending school,² as well as most households where the youngest child was of post-secondary age, students were also learning online, at least part of the time, in the autumn of 2020. This was the case for 62 percent of households with children under the age of five and 84 percent of those whose youngest child was aged 19 to 24 (excluding those who were being home-schooled, who were not attending school or whose schooling situation was not known to the person surveyed).

1 The question was asked to all those with children living in their households; some of those surveyed may not have been the child's parent or guardian.

2 In one in five households that included children under the age of five, no children were attending school; see Table 1. Note, however, that in households where children were attending school, the child attending school might be an older sibling to the child under five.

TABLE 1**School situation of households with at least one child (percentage), by age of children (autumn 2020)**

Subsample: Those with at least one child under the age of 24 in their household

	At least one child at home under the age of 5	At least one child at home age 5 to 18 (but no younger children at home)	At least one child at home age 19 to 24 (but no younger children at home)	Excluding home-schooled/not attending school/cannot say		
				At least one child at home under the age of 5	At least one child at home age 5 to 18 (but no younger children at home)	At least one child at home age 19 to 24 (but no younger children at home)
Attending in person	22	34	7	38	40	16
Learning online	23	25	26	41	30	58
Combination of in person and online	12	25	11	21	29	26
Home-schooled	8	3	3	--	--	--
Not attending school	21	5	26	--	--	--
Cannot say	14	8	26	--	--	--
Total	100	100	100	100	100	100

Totals may not add to 100% due to rounding.

Q42a. Since the beginning of the new school year this September, *how* have your children been attending school, college or university?

Learning online: Impact on parents

Those living in households where children were learning online at least part of the time in the autumn of 2020 were asked whether this situation had had any effect on their ability to do their own job effectively (or, if they were unemployed and looking for work, on their ability to look for a new job).

Experiences in this regard were mixed. Overall, about one in three (32%) said the fact that their child was attending school online made it harder for them to do their own job effectively, while one in four (24%) said it made it easier, and 41 percent said it made no difference either way. Gender is not a major factor: men and women were equally likely to say that having children attending

school online made it harder for them to do their own job; however, women were slightly less likely than men to say it made it easier for them to do their own job, and slightly more likely to say it made no difference.

Among those with at least one child under the age of five at home, larger proportions say both that shifting to online learning made it harder and that it made it easier for them to do their own job effectively (41 percent in each case), while the proportion saying it had made no difference is much lower (15%). The proportion saying it had made no difference either way is much higher for those whose children are at least five years old.³



3 Sample sizes do not allow for robust analysis, but further exploration could review what factors impact the ease with which parents are able to make the transition. Possible factors could include educational attainment, nature of employment of the parents and age of child.

TABLE 2**Impact of children’s school situation on work (percentage)**

Subsample: Those with at least one child under the age of 24 in their household who was learning online at least some of the time during the autumn of 2020

	Total	Women	Men	At least one child at home under the age of 5	At least one child at home age 5 to 18 (but no younger children at home)	At least one child at home age 19 to 24 (but no younger children at home)	Continued to work at regular workplace during the pandemic	Switched to working from home at least some days during the pandemic
Has made it harder	32	31	33	41	31	25	24	34
Has made it easier	24	20	28	41	18	24	18	29
Has made no difference	41	46	36	15	47	48	56	33
Cannot say	3	3	3	2	3	3	2	3
Total	100	100	100	100	100	100	100	100

Totals may not add to 100% due to rounding.

Q42b. Has the fact that your child is attending school, college or university online had any effect on your ability to do your own job effectively? [If unemployed and looking for work: on your ability to look for a new job?]

Having children attending school online at home was more challenging for those who themselves were also working at home due to the pandemic: 34 percent of those who started working at home (at least on some days) after the pandemic began say that the switch to online learning made it harder for them to do their own job effectively, compared to 24 percent of those who continued to work outside their home.

Workers earning lower incomes, immigrants and racialized workers are all more likely to have more polarized experiences: they are more likely than higher-income workers, non-immigrants and non-racialized workers, respectively, to say that online learning for children made it both harder and easier to do their own jobs, and less likely to say it made no difference.⁴

4 Sample sizes do not allow for further disaggregation of results to explain the variances.

TABLE 3**Impact of children’s school situation on work (percentage)**

Subsample: Those with at least one child under the age of 24 in their household who was learning online at least some of the time during the autumn of 2020

	Total	Annual household income			Immigrant background		Racial/cultural identity	
		\$0–\$59,999	\$60,000–\$99,999	\$100,000+	Immigrant	Non-immigrant	Identify as white	Racialized (do not identify as white)
Has made it harder	32	32	34	28	37	31	27	39
Has made it easier	24	32	26	18	28	23	14	34
Has made no difference	41	36	36	51	31	44	57	24
Cannot say	3	1	5	3	4	3	3	3
Total	100	100	100	100	100	100	100	100

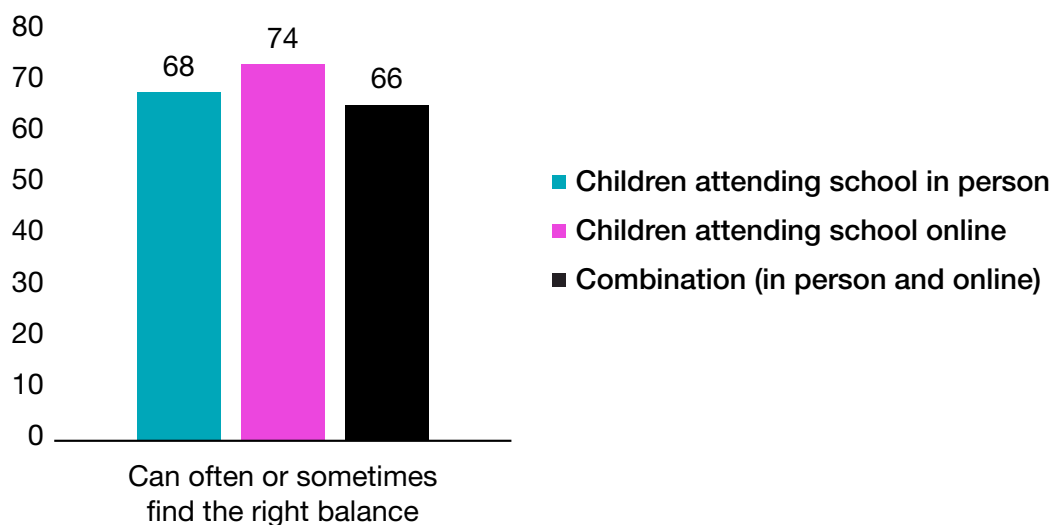
Totals may not add to 100% due to rounding.

Q42b. Has the fact that your child is attending school, college or university online had any effect on your ability to do your own job effectively? [If unemployed and looking for work: on your ability to look for a new job?]



Perception of work-life balance by children’s school situation during the pandemic (autumn 2020)

Subsample: Those with at least one child under the age of 24 in their household



Q10c. Generally speaking, how often do you feel you can find the right balance between the work you do for your job or at school, the work you do around your house or to care for your household, and the things you like to do for recreation?

Perhaps surprisingly, whether children are learning online or attending school in person does not appear to have much effect on the ability of those with children at home to balance their working and family lives. About two in three (67%) of those with children at home say they can often or sometimes find the right balance between the work they do for their job, the work they do to care for

their household and the things they like to do for recreation. This figure is actually slightly higher (74%) for those whose children were learning online during the autumn of 2020, and similar for those whose children attended school in person (68%) or whose children combined online and in-person learning (66%).

Affordability of internet and mobile phones

The ability to work or learn from home depends on access to both the internet and a suitable device, such as a desktop or laptop computer or a tablet.

Statistics Canada reports that, as of 2018, 94 percent of people in Canada had access to the internet at home.⁵ The Survey on Employment and Skills is not a suitable instrument for measuring access to the internet because in most of Canada, the survey was administered online.⁶ In the three territories, however, the survey was administered by telephone. The survey finds that, while the vast majority (88%) of residents of the territories report that they have access to the internet at home, just over one in ten (11%) do not. This reaches one in five (19%) among Indigenous Peoples in the territories. These results show that while overall levels of internet access in Canada are very high, certain communities and specific populations remain disadvantaged in this regard.

Although most people have access to the internet in Canada, many still face challenges paying for a connection. This is the case for about one in three adults:

- > Thirty-four percent say that they worry a lot (15%) or some (19%) about being able to pay for a high-speed internet connection at home over the next few months; 62 percent worry not too much (21%) or not at all (41%) about this.
- > A similar proportion (32%) worry a lot (13%) or some (19%) about being able to pay their cellphone bill over the next few months; in this case, 61 percent worry not too much (21%) or not at all (40%).

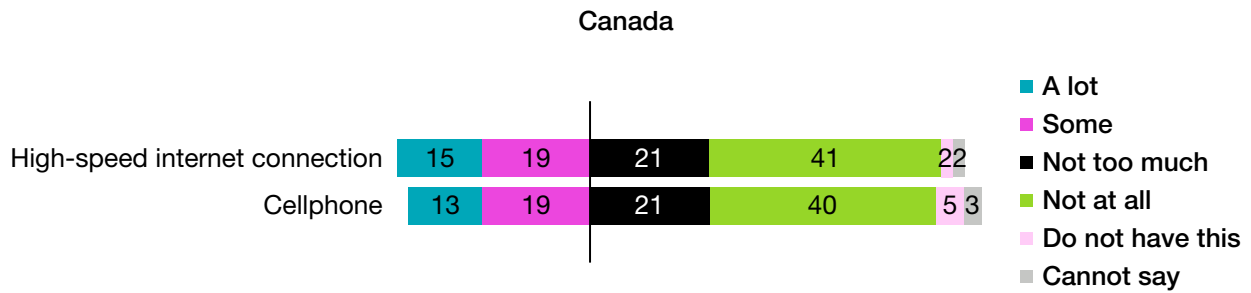
In April 2020, this question was also asked in the United States. The results show that the level of worry in that country at that time was slightly lower, with 28 percent of Americans worrying a lot or some about paying for a high-speed internet connection at home, and 30 percent worrying a lot or some about paying for their cellphone.⁷

5 Statistics Canada, "Canadian Internet Use Survey," *The Daily* (October 29, 2019), <https://www150.statcan.gc.ca/n1/daily-quotidien/191029/dq191029a-eng.htm>.

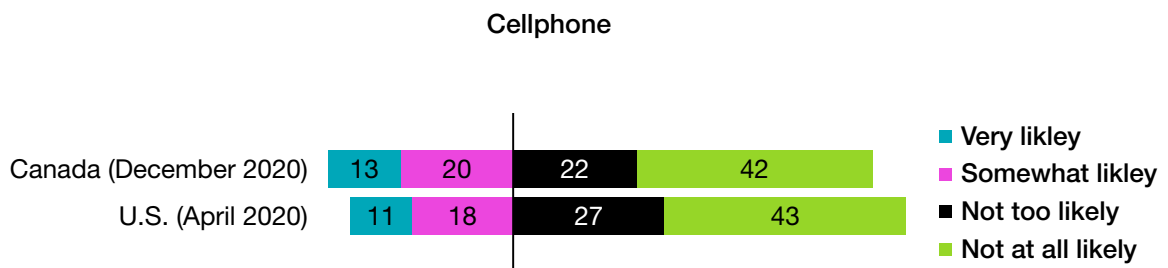
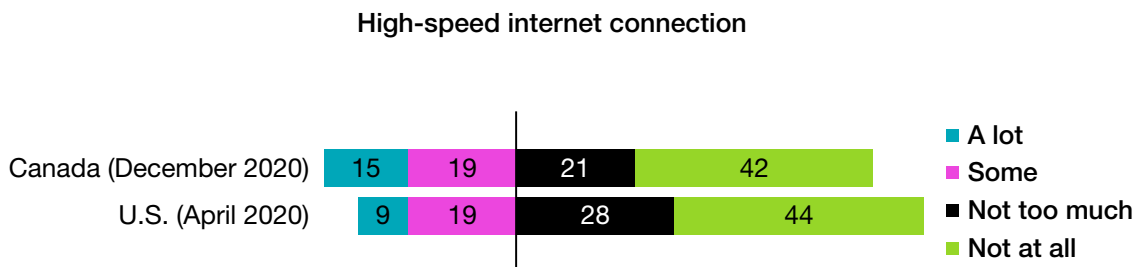
6 Even though the survey could be completed on a mobile phone in households without internet access, the fact that the survey was administered online introduces a potential bias in questions relating to this topic.

7 U.S. data is from the Pew Research Center; see Emily Vogels, Andrew Perrin, Lee Rainie and Monica Anderson, "53% of Americans Say the Internet Has Been Essential During the COVID-19 Outbreak," Pew Research Center (April 30, 2020), <https://www.pewresearch.org/internet/2020/04/30/53-of-americans-say-the-internet-has-been-essential-during-the-covid-19-outbreak/>. The U.S. data excludes those who do not use high-speed internet or do not have a cellphone. Excluding the small number of non-users from the Canadian data does not significantly affect the results: the adjusted figures are 34 percent who worry a lot or some about paying for high-speed internet and 33 percent who worry a lot or some about paying their cellphone bill.

Concern about paying for internet and cellphone



Subsample: Excluding those who do not have this connection or device⁸



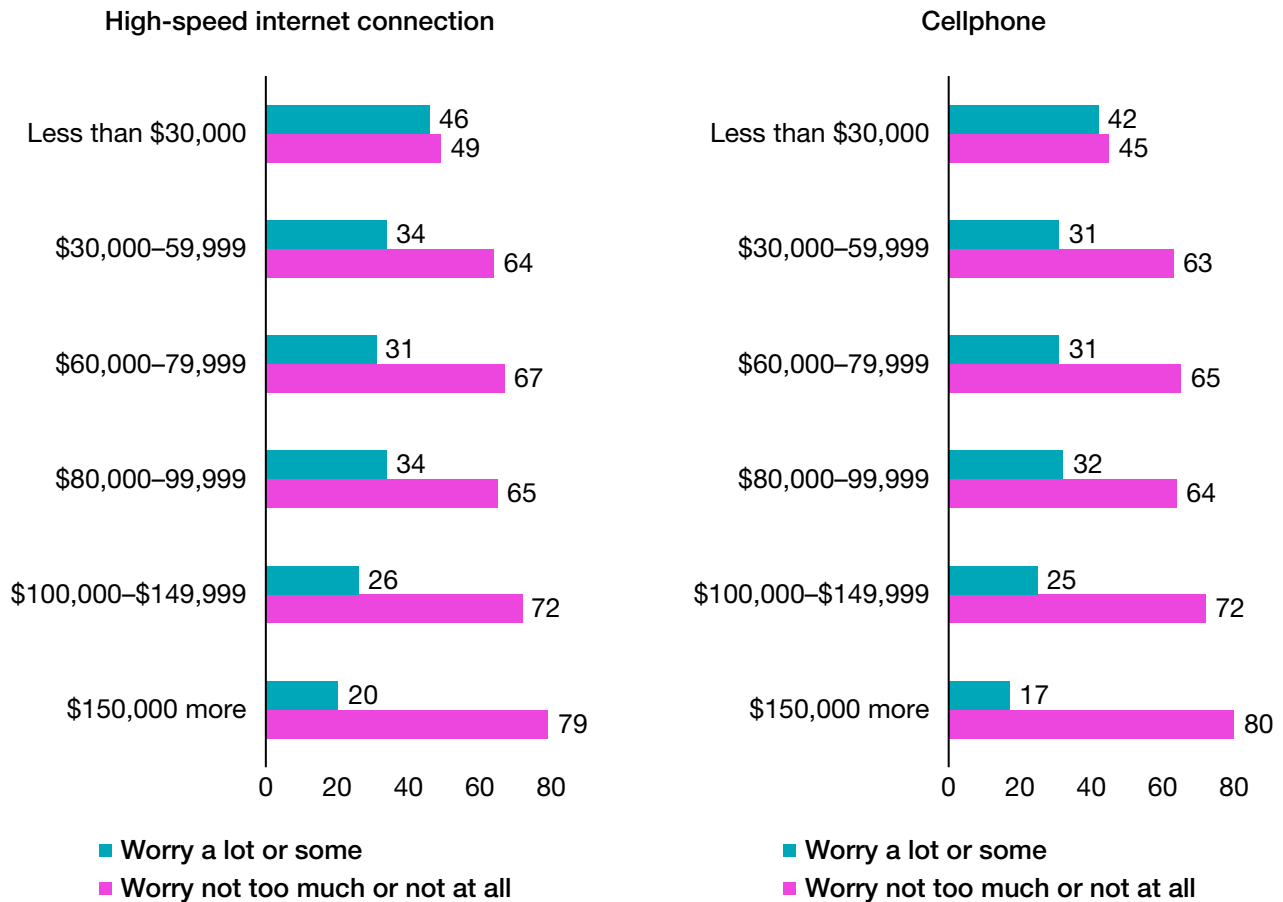
Q42h. How much, if at all, do you worry about being able to pay for each of the following over the next few months?

8 U.S. data is from the Pew Research Centre; see Emily Vogels, Andrew Perrin, Lee Rainie and Monica Anderson, "53% of Americans Say the Internet Has Been Essential During the COVID-19 Outbreak," Pew Research Center (April 30, 2020), <https://www.pewresearch.org/internet/2020/04/30/53-of-americans-say-the-internet-has-been-essential-during-the-covid-19-outbreak/>.

Not surprisingly, the level of concern in Canada about the affordability of internet and cellphone connections is much higher among those with lower household incomes. Almost half (49%) of those with annual incomes under \$30,000 report worrying a lot or some about paying for a high-speed internet connection at home, and

45 percent worry a lot or some about paying their cellphone bill. Younger Canadians are also much more likely than their older counterparts to worry about paying for high-speed internet or their cellphone bill: the level of concern among those aged 18 to 24 is about twice that of those age 55 or older.

Concern about paying for internet and cellphone, by household income

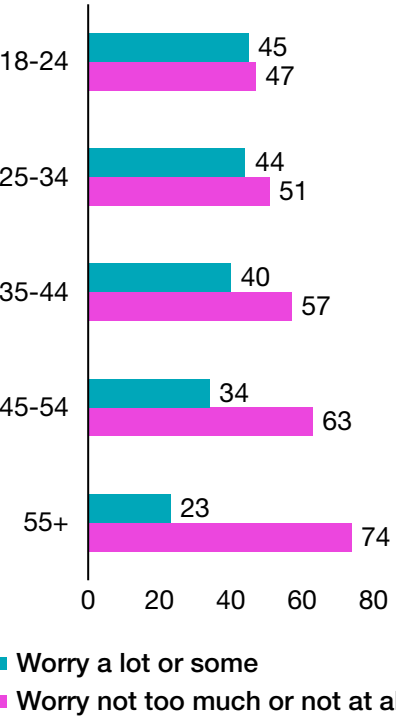


Q42h. How much, if at all, do you worry about being able to pay for each of the following over the next few months?

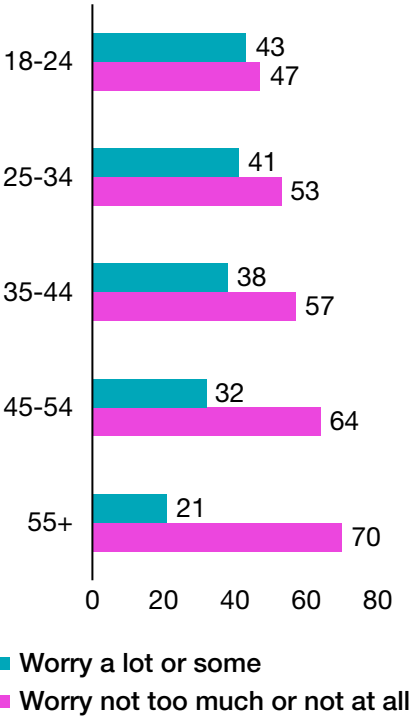


Concern about paying for internet and cellphone, by age group

High-speed internet connection

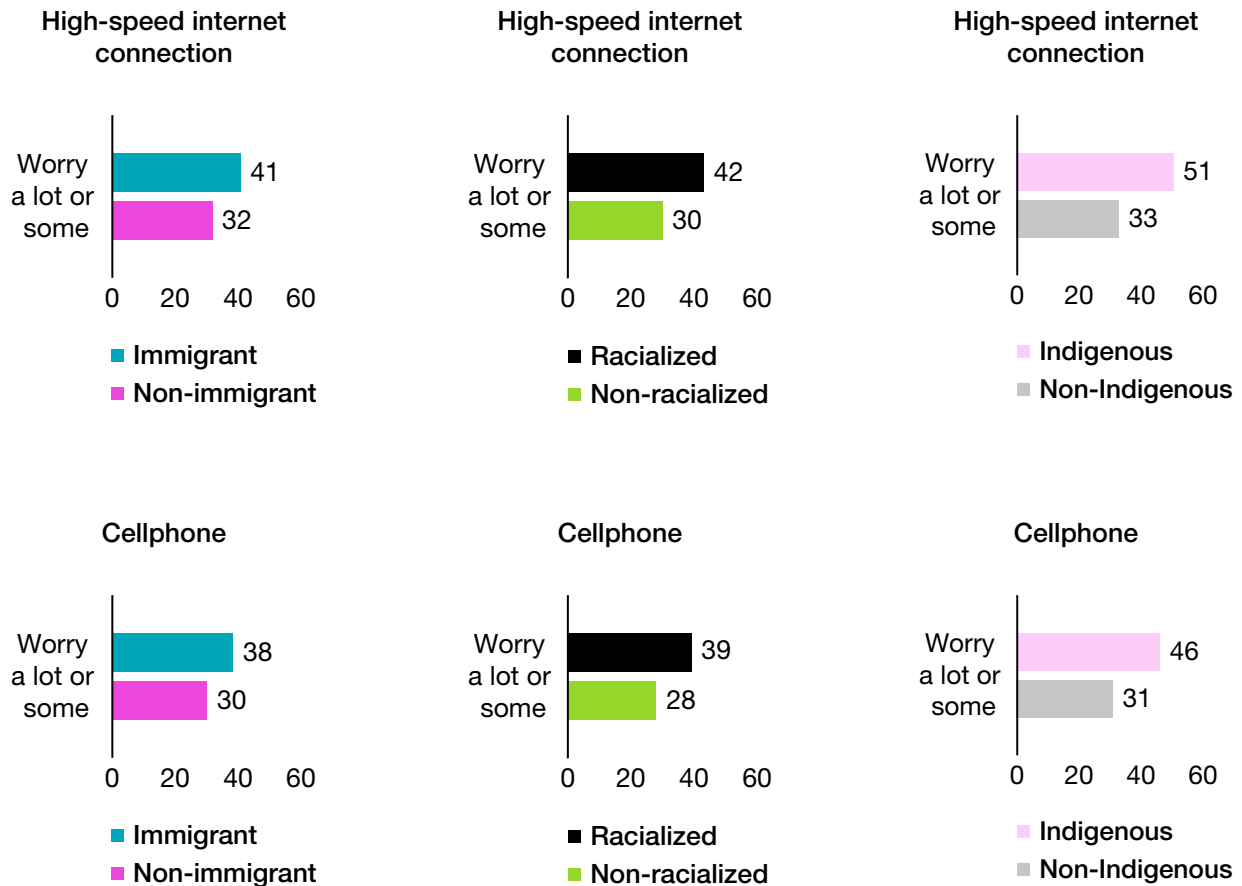


Cellphone



Q42h. How much, if at all, do you worry about being able to pay for each of the following over the next few months?

Concern about paying for internet and cellphone, by background and identity



Q42h. How much, if at all, do you worry about being able to pay for each of the following over the next few months?

Other notable differences include that:

- > Immigrants are more likely than non-immigrants (those born in Canada) to be worried about paying for home internet or cellphone access. Recent immigrants⁹ are especially likely to be worried: 51 percent of recent immigrants worry a lot or some about paying for a high-speed internet connection at home, and 48 percent worry about paying their cellphone bill.
- > Racialized Canadians are more likely than those who identify as white to be worried about paying for home internet or cellphone access. The proportion who worry a lot or some about paying for their high-speed internet connection at home is

9 In this report, recent immigrants are those who have been in Canada for 10 years or less.

especially high among those who identify as South Asian (60%) and Black (44%).

- > Those who identify as Indigenous are more likely than non-Indigenous Canadians to be worried about paying for home internet or cellphone access. The proportion who worry a lot or some about paying for their high-speed internet connection at home is especially high among First Nations individuals who currently live in their traditional Indigenous community (67%).

Finally, there are two regional differences of note. Quebecers are somewhat less likely

than other Canadians to worry about paying for either high-speed internet at home or their cellphone bill (28 percent of Quebecers, compared to 35 percent of those outside of Quebec, worry a lot or some about paying for their high-speed internet connection at home; in the case of paying for their cellphone bill, the figures are 24 percent and 34 percent respectively). Residents of the territories are not more worried than average, but they are much more likely to say that the question is not applicable because they do not have high-speed internet at home (19%) or a cellphone (15%).



Schoolwork and access to computers

Students learning online may face other barriers, beyond their or their parents' concerns about the affordability of connectivity. For instance, families may face challenges in ensuring that each child has access to a computer to do their schoolwork or that the household's internet connection is reliable enough to support online learning.

Those with children at home who were learning online at least some of the time during the autumn of 2020 were asked if they were likely to face any of the three types of obstacles described below when doing their schoolwork. Roughly half said it was not at all likely that their children would face these types of obstacles, and about seven in ten said it was either not at all or not too likely. However, about three in ten said it was at least somewhat likely, including about one in ten who said it was very likely.

Specifically, among those with children at home who were learning online at least some of the time in the autumn of 2020:

- > Thirty-one percent said that it was likely that their children would have to use

public Wi-Fi to finish their schoolwork because there was not a reliable internet connection at home; this includes 11 percent who said this was very likely;

- > Twenty-eight percent said it was likely that their children would not be able to complete their schoolwork because they did not have access to a computer at home; this includes 8 percent who said this was very likely;
- > Thirty-one percent said it was likely that their children would have to do their schoolwork on a cellphone; this includes 11 percent who said this was very likely.

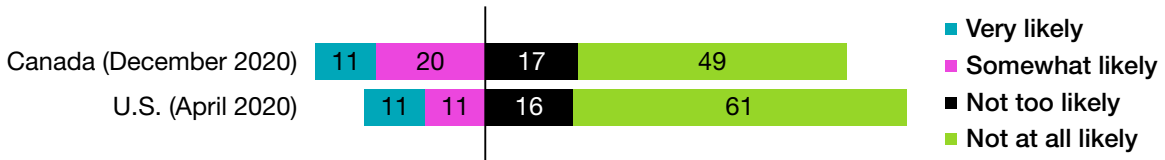
Comparing these numbers with results from a U.S. survey from April 2020 shows that Americans were slightly less likely than Canadians to face these barriers. For instance, 22 percent of Americans, compared to 31 percent of Canadians, said that it was likely that their children would have to use public Wi-Fi to finish their schoolwork because there was not a reliable internet connection at home.¹⁰

10 U.S. data is from the Pew Research Center; see Emily Vogels, Andrew Perrin, Lee Rainie and Monica Anderson, "53% of Americans Say the Internet Has Been Essential During the COVID-19 Outbreak," Pew Research Center (April 30, 2020), <https://www.pewresearch.org/internet/2020/04/30/53-of-americans-say-the-internet-has-been-essential-during-the-covid-19-outbreak/>. In the U.S. survey, the question was asked to parents of children whose schools were closed due to the pandemic.

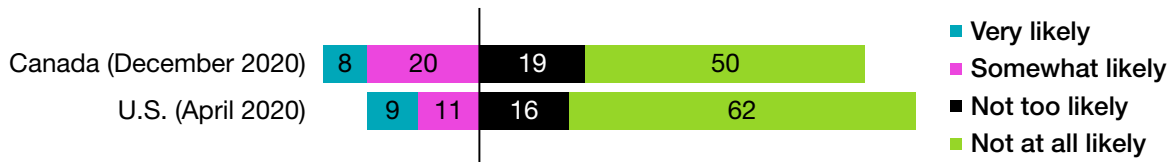
Barriers children face when completing schoolwork at home during the pandemic

Subsample: Parents in households with children learning online¹¹

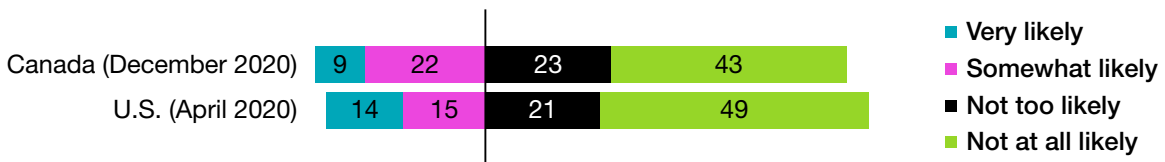
Have to use public Wi-Fi to finish their schoolwork because there is not a reliable internet connection at home



Not be able to complete their schoolwork because they do not have access to a computer at home



Have to do their schoolwork on a cellphone

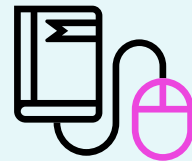


Q42c. As your children do their schoolwork at home due to the coronavirus outbreak, how likely, if at all, is it that they will...

11 U.S. data is from the Pew Research Centre; see Emily Vogels, Andrew Perrin, Lee Rainie and Monica Anderson, "53% of Americans Say the Internet Has Been Essential During the COVID-19 Outbreak," Pew Research Center (April 30, 2020), <https://www.pewresearch.org/internet/2020/04/30/53-of-americans-say-the-internet-has-been-essential-during-the-covid-19-outbreak/>.



As expected, among those with children at home who were learning online at least some of the time during the autumn of 2020, the likelihood that these children faced one or more of these obstacles when doing schoolwork is higher among those with lower household incomes. For instance, those with annual household incomes below \$60,000 were twice as likely as those with household incomes of \$100,000 or more to say that their children would have to use public Wi-Fi to finish their schoolwork because there was not a reliable internet connection at home. Those without a post-secondary education were also more likely than those with a college or university credential to say that their children faced one or more of these obstacles when doing their schoolwork online.

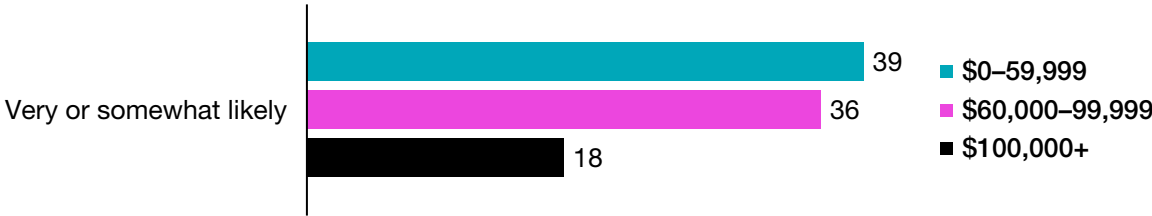


*Those with annual household incomes below \$60,000 were **twice as likely** as those with household incomes of \$100,000 or more to say that their children would have **to use public Wi-Fi to finish their schoolwork.***

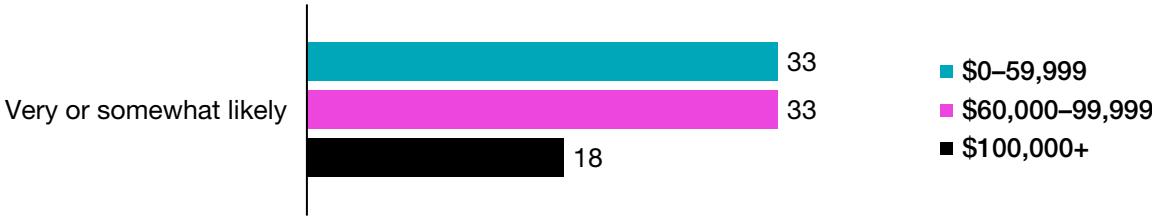
Barriers children face when completing schoolwork at home during the pandemic, by household income

Subsample: Parents in households with children learning online

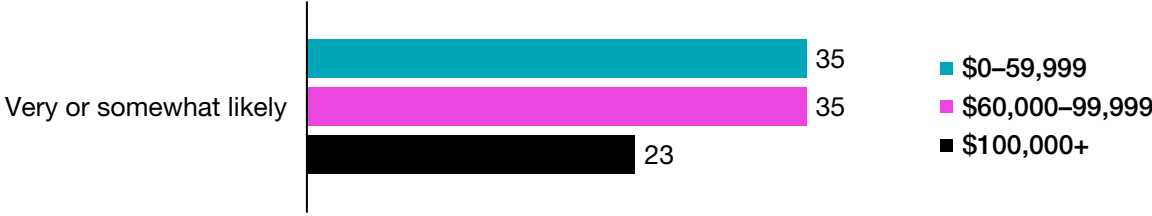
Have to use public Wi-Fi to finish their schoolwork because there is not a reliable internet connection at home



Not be able to complete their schoolwork because they do not have access to a computer at home



Have to do their schoolwork on a cellphone



Q42c. As your children do their schoolwork at home due to the coronavirus outbreak, how likely, if at all, is it that they will...

The survey also reveals important differences by racial identity and by Indigenous identity. Among those with children at home who were learning online at least some of the time during the autumn of 2020:

> Those who identify as racialized were about twice as likely as those who identify as white to say that their children faced one or more of these obstacles when doing their schoolwork online at home. For instance, 41 percent of those who are racialized, compared to 21 percent of those who identify as white, said that it was very or somewhat likely that their children would have to use public Wi-Fi to

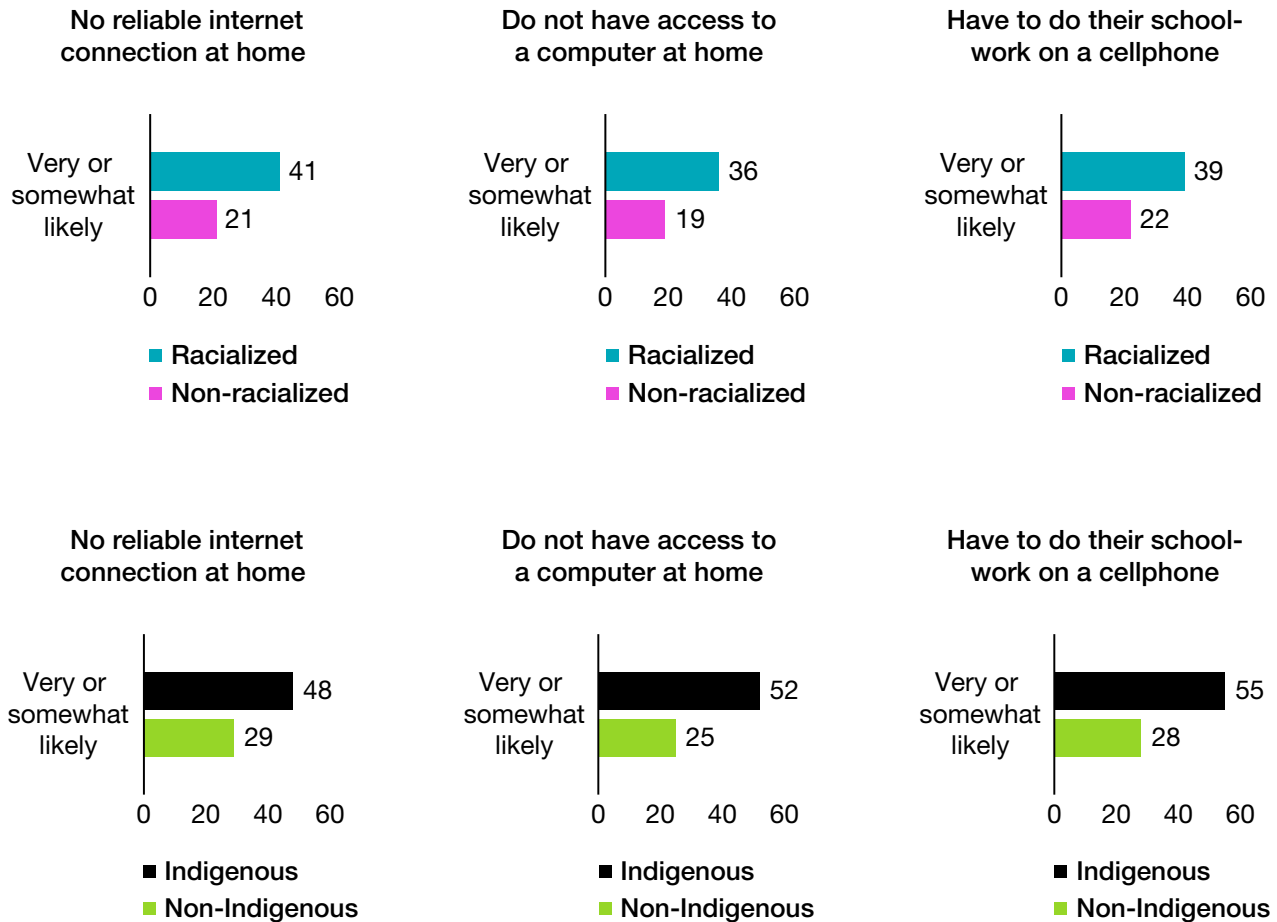
finish their schoolwork because there was not a reliable internet connection at home.

> Those who identify as Indigenous were much more likely than non-Indigenous Canadians to say that their children faced one or more of these obstacles when doing their schoolwork online at home. For instance, 48 percent of those who are Indigenous, compared to 29 percent of non-Indigenous Canadians, said that it was very or somewhat likely that their children would have to use public Wi-Fi to finish their schoolwork because there was not a reliable internet connection at home.



Barriers children face when completing schoolwork at home during the pandemic, by identity

Subsample: Parents in households with children learning online



Q42c. As your children do their schoolwork at home due to the coronavirus outbreak, how likely, if at all, is it that they will...

Finally, men were more likely than women to say that the children in their household faced one or more of these obstacles when doing their schoolwork online—the difference in the proportion saying it was very or somewhat likely that their children would face these

obstacles is just over 10 points higher in the case of men than in the case of women for each of the three obstacles mentioned in the survey. It is not immediately clear, however, why this might be the case.

Concluding reflections

One of the great strengths of Canada's systems of public education has been their ability to promote equality of opportunity. Through publicly funded education, students from different backgrounds can benefit from well-trained teachers and well-equipped classrooms. For many students, the short-term effect of the COVID-19 pandemic, through the switch to online learning, has been to effectively "privatize" our educational infrastructure, as families have had to rely on their own resources to provide the spaces, tools and connections needed for ongoing learning. But, as this report shows, access to these resources is unequal throughout Canadian society.

If the online learning experiences of the past 18 months quickly come to an end and in-classroom learning resumes in September 2021, then the challenge for educators will be ensuring that those most adversely affected receive the support they need to catch up. Should the pandemic linger and in-classroom learning be disrupted for a third academic year, the challenge of providing equitable access to learning opportunities will become even more formidable.

