



Canadians' Perspectives on Climate Change & Education: 2022



Learning for a
Sustainable Future

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To view the Executive Summary and Infographic, visit:
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Learning for a Sustainable Future (LSF) is a Canadian charity, founded in 1991, whose mission is to promote, through education, the knowledge, skills, values, perspectives, and practices essential to a sustainable future.



Canadians' Perspectives on Climate Change & Education: 2022

Section 1: Introduction

Acknowledgements

We recognize that the lands we live, work, teach and learn from are the traditional territories of Indigenous peoples and that all Canadians benefit from this land. We recognize the importance of Indigenous perspectives and connections to land and place as we work towards reconciliation to address the Calls to Action of the Truth and Reconciliation Commission, particularly the call to "integrate Indigenous knowledge and teaching methods into classrooms" (clause 62) and "build student capacity for intercultural understanding, empathy and mutual respect" (clause 63).

The survey design and data analysis was led by Pamela Schwartzberg, Learning for a Sustainable Future President and CEO; Jennifer Stevens, LSF Manager of Learning, Research and Communication, and LSF consultants Dr. Karen Acton and Dr. Susan Elliott. Leger Research Intelligence Group provided data collection and analysis. Thanks to Elaine Rubinoff, LSF Director of Programs, Samantha Gawron, Manager of Programs, Engagement & Development, Geneviève Gill, Bilingual Marketing and Program Coordinator and Elaine Lok, student for their support.

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Background

The purpose of Learning for a Sustainable Future's (LSF) Canadians' Perspectives on Climate Change & Education:2022 is to assess Canadians' knowledge, understanding and perceptions of climate change and its risks, and to explore views on climate change education in Canada. In addition, the 2022 survey compares current results to our 2019 survey and provides recommendations to all sectors to support climate learning.

The survey results illustrate how the general public, teachers, parents and students view climate change education in Canadian schools. These target groups provide insights on the role schools should play and what supports teachers and students require to address climate change in their classrooms.

This research was conducted by LSF (www.LSF-LST.ca). Leger Research Intelligence Group provided data collection and analysis. This project was undertaken with the financial support of the Government of Canada.

This survey is a follow-up to a climate change education survey that was undertaken in 2019 by Dr. Ellen Field at Lakehead University, Learning for a Sustainable Future and Leger, with funding from the Social Sciences and Humanities Research Council of Canada. Some questions from the 2019 survey were repeated, and the responses were compared to assess changes over time. Highlights of this comparison can be found in Section Two of this report.

There were significant additions to the 2022 survey that include some of the salient issues related to climate change including the mental health impacts of climate change, the inclusion of Indigenous knowledge, the impacts of COVID-19, and the importance of youth engagement.

The report is divided into four main sections. Section One provides the background and demographics of the survey. Section Two provides the analysis of a number of selected questions that were duplicated from the 2019 survey and highlights the results that have changed. Section Three provides a detailed description of the new 2022 findings on how the general public, teachers, parents and students perceive climate change. This third section highlights the results from the portion of the survey that was designed exclusively for educators and includes their perspectives on the issues that impact the teaching of climate change. Section Four examines Canadians segmented into climate audiences based on EcoAnalytics' Canadian Ladder of Engagement as well as gender.



Summary of Findings

As the effects of climate change become increasingly more severe, the sense of urgency to act to mitigate climate change is also mounting. To take effective action, it is imperative to have a comprehensive grasp of Canadians' knowledge about climate change, and their perspectives of risks and impacts. Education, both formal and informal, has a major role to play in the continued fight against climate change. This survey helps to determine how Canadians feel about what the education system is doing well and what still needs to be done. Also included were questions given only to educators to gain their expert insights and learn how to support them to include climate change education in every classroom.

Moving Canada toward resiliency and adaptability for climate impacts today and in the future will require support, education, and action at all levels of Canadian society. The summary of survey findings presented here, nationally and from provincial/regional jurisdictions, helps to gain an understanding of trends over time and current perspectives in 2022. With this knowledge, recommendations based on evidence can be made to fill in gaps, promote strengths, and address misperceptions in order to implement the most effective strategies to support all Canadians in their efforts to combat climate change.

Trends over time: A comparison of 2022 and 2019 Survey Results

This study is the second iteration of a 2019 Canada-wide study with the purpose to once again gather data on different groups' (educators, parents, students, and the general public) knowledge of climate change, their perspectives on the risks of climate change, and their views on the role of schools in climate change education. While many of the survey questions are new to reflect recent changes in societal issues, a number of questions remained the same in order to track changes over time.

A larger sample size was collected in 2022 compared to 2019

In 2022, 4,035 individuals responded to the survey, up from 2,191 in 2019. Proportionately there was an increase in responses obtained from parents (34% in 2022 vs 18% in 2019), students (30% in 2022 vs 15% in 2019) and educators (10% in 2022 vs 4% in 2019). The number of responses from the general public also increased from 28% in 2019 to 32% in 2022.

Also noteworthy was the success of obtaining better representation across Canada from provinces other than Ontario and Quebec, which dominated the 2019 survey. While Ontario and Quebec still had the largest proportion overall, all other provinces showed an increase, including British Columbia (13% in 2022 vs 9% in 2019), Alberta (12% in 2022 vs 7% in 2019), Saskatchewan, (5% in 2022 vs 3% in 2019), Manitoba, (6% in 2022 vs 3% in 2019), and the Atlantic provinces (7% in 2022 vs 5% in 2019). While the data was subsequently weighted during analysis to be proportionately representative of population size, a larger number of responses ensured a more accurate representation from the smaller provinces.

Trends Over Time continued

Canadians are more knowledgeable about climate change

Based on the ten knowledge and understanding questions that were embedded into the survey, the results show that Canadians have become more aware of the facts of climate change. In 2022, 21% of Canadians answered eight or more questions correctly, compared to 14% in 2019. In 2022, only 33% failed the test (answered less than five questions correctly), while the failure rate was ten percent higher in 2019 (43%).

When looking at specific participant groups, educators, parents, students and the general public all answered more questions correctly, and failure rates dropped significantly. The biggest gain in achieving over 80% was seen in the educator group (33% in 2022 vs 10% in 2019). The general public showed the smallest increase (20% in 2022 vs 16% in 2019). Across Canada, the results also showed gains in all provinces and geographic regions. Notable were the significant drops in failure rates in Alberta and Saskatchewan, which were at 60% or higher in both provinces in 2019 (60% and 65% respectively), yet these failure rates fell to 41% in Alberta and 40% in Saskatchewan in 2022.

When looking at specific questions, more Canadians correctly answered that carbon dioxide and other greenhouse gasses are the primary cause of climate change (55% in 2022 vs. 49% in 2019) and correctly answered that oil and gas or transportation sectors are the largest emitters of greenhouse gasses (57% in 2022 vs 46% in 2019). Despite their gains in knowledge, just over half of Canadians continue to feel well informed about climate change and most feel they need more information (80% in 2022 vs 86% in 2019). Students continue to be the group wanting information the most (85% in 2022 and 88% in 2019).

More Canadians acknowledge the impact of human activities on climate change

More Canadians believe that climate change is mostly caused by human activities (54% in 2022 vs. 46% in 2019). This change is especially demonstrated by parents (55% in 2022 vs. 43% in 2019) and students (60% in 2022 vs. 54% in 2019). While fewer Canadians feel that climate change is inevitable (decreased from 37% in 2019 to 30% in 2022), the belief that “humans could reduce climate change, but it’s unclear at this point whether we will do what’s needed” has remained virtually unchanged (44% in 2022 vs. 45% in 2019).

More Canadians believe that Canada will see significant effects of climate change

On average, 59% of respondents in 2022 (compared to 52% in 2019) believe that northern communities in Canada will be harmed a great deal. 61% of Canadians (up from 51% in 2019), believe that coastal communities will be harmed a great deal, and almost three quarters (74%) believe that Canada, as an arctic nation, is particularly affected by climate change (compared to just over half (51%) in 2019).

More Canadians feel climate change education should be a priority

Overall, 67% of Canadians in 2022 think schools need to give climate change education a high priority, compared to 59% in 2019. The largest growth was among parents (increased from 53% in 2019 to 64% in 2022) and students (increased from 57% in 2019 to 66% in 2022). Geographically, the largest shift in opinion in 2022 was found in the Atlantic provinces, where 71% felt climate change education should be a high priority in schools, compared to less than half (47%) in 2019.

Trends Over Time continued

Educators continue to express a need for professional development

The trend continued that about one-third of educators felt they have sufficient knowledge and skills needed to teach climate change education to their students (34% in 2022 and 32% in 2019). However, the request for professional development by educators increased in 2022, as significantly more agreed they needed professional learning opportunities to more effectively include climate change education in their classes (64% in 2022 vs. 50% in 2019).

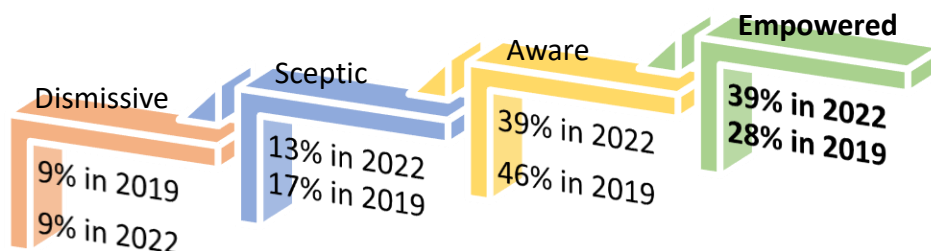
More educators are teaching climate change content, but even more is needed

In 2019 57% of educators admitted that they were not covering (or didn't find it applicable to teach) topics related to climate change in their classrooms. However, in 2022, this percentage dropped significantly to 35%. Of those educators that do teach climate change, significantly more spent 3-5 hours over the school year or semester covering climate change topics in 2022 (17%), compared to 2019 (8%). While more educators overall in 2022 spend time covering topics related to climate change than in 2019, the number of hours dedicated to climate change topics remains low. Only 13 % taught 11 or more hours of climate change content. However, a larger proportion of educators expressed they are teaching the fact that global temperatures have risen in the past 150 years (54% in 2022 vs. 45% in 2019), and more educators are focusing on political actions that can be taken to influence climate change policy in their class (32% in 2022 vs. 26% in 2019).

Students showed growth in the Ladder of Engagement

The ladder of engagement is a conceptual way to categorize individuals based on their responses and is comprised of four audiences: dismissive, skeptics, aware, and empowered. In three of the four participant groups (educators, parents and general public), there was little change since 2019, with educators feeling the most empowered (46%-47%) and parents feeling the least empowered (38-39%). This made the change seen in the student results much more significant. The percentage of students feeling "empowered" in 2019 was 28%; however, this number rose to 39% in 2022, meaning more students felt that human-caused climate change is happening, AND that there are things we can do to change it. The shift came from the "aware category". In 2019, 46% of students ages 12-18 were categorized as "aware," meaning they understand that human-caused climate change is happening, but they do not believe that human efforts will be effective. In 2022, this number dropped to 39%, as more students felt their actions had an impact.

Students are significantly more "empowered" in 2022 compared to 2019.



Summary of 2022 Findings

Perspectives of Canadians

Canadians are concerned about climate change and are certain that it is happening

Most (81%) Canadians are certain that climate change is happening, and 73% of Canadians feel that we are experiencing a climate emergency. 74% are concerned about the impacts. Few (18%) believe the seriousness of climate change is exaggerated.

Canadians understand the human impact on climate change

Most (72%) Canadians think human beings are responsible for climate change, and even more (82%) believe that people have failed to care for the planet. In addition, 55% disagree that humans have little control over the forces of nature such as climate change, indicating that they feel that we have the ability to make an impact on the effects of climate change with our actions.

Knowledge Understanding and Information

33% of Canadians failed the climate change knowledge test

Out of the ten knowledge and understanding questions embedded in the survey, one-third of Canadians did not receive a passing grade, as they only answered four or fewer questions correctly. 21% of respondents did very well on the test, scoring 80% or higher. Educators scored higher than any other respondent group overall, with 33% answering 8-10 questions correctly. When asked how confident they are in their answers, 45% of the total respondents were very certain or certain. Interestingly this dropped to 40% for educators (who had the highest scores on the knowledge test) and rose to 50% for students (although they scored among the lowest).

Canadians seek a greater understanding of climate change

Slightly over half of the survey respondents (55%) feel they are well informed about climate change. This differed by region, where Saskatchewan felt the most informed (61%) and the Atlantic provinces the least (47%). Most (80%) Canadians indicated that they need more information on climate change. Respondents in Quebec are significantly more likely to indicate they need more information (86%), compared to Alberta (76%).

Canadians get climate change information predominantly from television news, except for students who access more social media

When asked which sources of climate change information Canadians trust the most, 68% of Canadians indicated scientists or academics. However, overall Canadians get most climate change information from television news (51%) and newspaper/online news websites (47%). Students are more likely than any other group to get their information from conversations with friends and family (43%), or social media platforms including YouTube (34%), Instagram (22%), and TikTok (20%). In comparison, educators use social media to a much smaller amount (YouTube (15%), Instagram (11%), and TikTok (2%)).

Summary of 2022 Findings continued

Impacts and Action

Canadians acknowledge the impacts of climate change are already happening

While only 36% of Canadians reported that they have personally experienced the effects of climate change, Canadians believe that climate change is already causing and making glacier and sea ice melt (85%) and making extreme weather events worse (80%). Almost half of Canadians (45%) acknowledge that climate change is more significantly impacting Indigenous and marginalized communities.

Most Canadians believe climate change poses risks to Canadians

Over three-quarters of Canadians believe that Climate change poses risks to Canadians. Canadians believe that if we do not do more to address climate change, plant and animal species (86%), and future generations in Canada (85%) will receive a great deal of harm.

Some Canadians believe that humans have the capacity, but have doubts as to whether we will “solve” climate change

44% of Canadians think that humans could reduce climate change but are unclear at this point whether we will do what’s needed. Only 28% of Canadians think that new technologies will solve the problem without individuals having to make big changes. Students feel slightly more strongly (32%) that new technologies will solve climate change.

Climate change is causing negative emotions for Canadians

60% of Canadians indicated that they are feeling more concerned about climate change, having seen the denial expressed by many when faced with an acute global threat during the pandemic. Half of all Canadians (50%) believe climate change is already causing mental health issues or making them worse. Almost one-quarter of educators, parents, and students indicate that their worries about climate change are affecting their daily life. With respect to emotions or feelings that arise when respondents think about climate change, anxiety (37%) was the top response, followed by feeling frustrated (35%) and feeling frightened (25%).

Canadians are taking action to reduce climate change

Most Canadians (71%) don’t think that taking action on climate change is a waste of time and resources, and 69% reported taking actions to reduce their personal contribution to greenhouse gas emissions. In addition, 62% of Canadians feel better about climate change when they are taking actions to reduce their own carbon footprint and 46% feel that their actions to reduce the effects of climate change will encourage others to do the same. Educators (53%) feel more optimistic about the influence of their actions than the general public (45%). When asked which actions they have taken to reduce their personal contribution to greenhouse gas emissions, 76% of Canadians indicate that they maintained proper recycling measures, 57% reduced food waste, and 44% indicate driving less by walking or biking more. Regional variation exists, with Atlantic provinces having the lowest number of respondents who reported taking any action at all (62%), and Saskatchewan and Quebec had the highest number of respondents who reported taking action (76%).

Summary of 2022 Findings continued

Canadians support making changes to reduce climate change

While only 24% of Canadians are willing to do “a lot” to change their life at school, work, or home to help reduce the effects of climate change, 64% of respondents on average are willing to change their life “some” or “a little”. Only 6% of respondents are “not at all” willing to change their life. Those in British Columbia (31%), are most willing to take a lot of action as compared to those in Alberta (15%). 69% of Canadians think the work and voices of young people can inspire important climate action. Perhaps not surprisingly, educators (76%) feel the most strongly about the inspiration provided by youth.

Canadians overwhelmingly feel the government is not doing enough

78% indicated that, while personal actions are important, systemic change is needed to address climate change. Educators (83%) showed the highest agreement, compared to students (77%). Only 17% agreed that the government is doing a good job in their actions to address climate change. Regionally this ranges from a low of 13% in Manitoba to a high of only 20% in British Columbia. As one survey respondent voiced: *“I feel governments need to commit to making the hard decisions. To end the use of fossil fuels and to fund alternative energy rather than oil and gas. Governments need to act instead of talk.”*

Influence of COVID-19 on perspectives on climate change

The pandemic has caused a shift in thinking for many Canadians on global issues. When asked how COVID-19 has influenced their perspective, 68% agreed that they recognize the importance of science to provide society with essential facts & evidence-based knowledge, and 74% realized that no matter where we are in the world, we are all interconnected. However, findings indicate there is still work to be done. 64% of Canadians are feeling more worried that many governments are failing to act on issues that affect all nations, and less than half (47%) are convinced in the positive potential of collective action within countries or globally.

Role of Education – from the viewpoint of all Canadians

Canadians agree that more should be done regarding climate change education

64% of Canadians think the education system should be doing “a lot more” to educate young people about climate change. Educators (71%) felt the most strongly about including climate change in schools. Regionally, support was greatest in Quebec (69%) and lowest in Alberta (58%). When asked: “How do you think education systems should further contribute to climate change education?” the top three suggestions were: climate change education should be included in the curriculum, teach solutions for the problems of climate change, and explain scientific evidence of what causes climate change.

Climate change education should be the role of all teachers

Many Canadians (61%) felt climate change education should be the role of all teachers. Most also believed it should be taught in all grades, as only very few Canadians (15%) felt that the topic of climate change was too complex to be taught in the younger grades. When teaching climate education in schools, most Canadians agreed that climate change education should aim to change the way people behave (75%), and include how to take personal action (70%), as well as how to take collective action in the school and community (70%).

Summary of 2022 Findings continued

Canadians believe in a multifaceted approach to teaching climate change

While most Canadians (72%) understand the importance of teaching the science of climate change in kindergarten to grade 12 classes, they also understand the value of teaching other essential issues related to climate change. 62% believe that classrooms should focus on the social, economic and political aspects of climate change. Many Canadians are aware of the emotional impact of climate change on young people, and 59% believe that it is important to teach students how to address climate anxiety and other emotions brought about by climate change. Canadians are also concerned with inequities as they relate to climate change and believe in incorporating the voices of marginalized groups. For example, 48% believe that the connection between climate change and racial inequity, gender equality, and social justice issues should be addressed in classrooms, and 52% feel that it is essential to incorporate Indigenous knowledge in addition to western science in the classroom.

Regional Differences

Similar to 2019, Alberta continues to frequently diverge from the rest of Canada. In general, levels of certainty that climate change is happening, overall knowledge of climate change, concern about impacts, acknowledgment of risks, and support for a greater focus on climate change education are lowest in Alberta. Saskatchewan also diverges from the other provinces but less often than it did in 2019. In 2022 Atlantic provinces tend to diverge more often than they did in 2019. In 2022, respondents from the Atlantic provinces were least likely to respond correctly that carbon dioxide and other greenhouse gases are the cause of climate change (46%). Atlantic respondents are also least likely to believe that humans can reduce climate change and will do what is needed with only 6% of respondents agreeing.

Role of Education – from the viewpoint of educators

Note: These results are from the part of the survey only given to educators

Educators need support

Only one-third (34%) of educators feel that they have the knowledge and skills needed to teach climate change. And while they would like to include climate change education in their classroom, 64% agreed that they need professional development to learn about how to effectively teach this complex topic. Educators are looking for support including: climate change resources (56%), updated curriculum documents that contain climate change topics (49%), and appropriate instructional strategies, including how to extend classroom learning outdoors (37%). Some educators indicated they would like to have a school-wide culture that promotes climate change education (36%).

Limited class time spent on climate change content

Despite global advocacy for incorporating environmental education in all grades and subjects, 35% of educators report not covering climate change topics in any subject that they teach. 41% of educators provide only between 1-10 hours of instruction per year or semester. Of the educators who do integrate climate change content, most address the content in science class. Half of the educators agreed that a lack of time within the curriculum to teach the topic of climate change is a barrier when attempting to include climate change education within the classroom.

Summary of 2022 Findings continued

Educators see a need for early introduction of climate change topics in school

Educators supported teaching young students in kindergarten to grade 3 about climate change and indicated that suitable topics included: green energy (73%), extreme weather (70%), biodiversity (68%) and overconsumption (66%), carbon footprint of food and agriculture (58%) and threats to physical health (53%).

Many educators have not yet included social justice issues or Indigenous knowledge into their classroom

While almost half of Canadians (48%) feel that kindergarten to grade 12 classes should focus more on the connection between climate change and racial, gender, and social justice inequality, this is not yet widely happening in the classroom. Educators shared that when they teach about climate change, only 23% emphasize aspects of ethics and social justice “a great deal” or “a moderate amount” within climate change impacts. Even fewer educators (16%) incorporate Indigenous knowledge about climate change into their lessons.

Educators encourage students to take action

Student empowerment is a result of students feeling they have a vital part to play in the mitigation of the effects of climate change. As voiced by one survey respondent: “*Educators need to focus on HOPE. We need to foster feelings of hope in our youth in order to empower future climate activists.*” 51% of educators encourage students to take action as part of their learning. Educators most frequently engage students in the following types of action: to make lifestyle/consumer choices (65%), to educate and inform others (64%), and to undertake eco-projects (43%).

However, less than 20% of educators incorporate peaceful dissent (19%) or raising funds (17%) into their lessons. Some educators may not feel this type of action is appropriate. Some survey respondents caution against leaving too much on the shoulders of youth, as adults must not shirk their moral responsibility, and must step up too.

“Youths can influence adults and governments, but the weight of the change needed should not be on the shoulders of the youth/next generation. We do not have time for that, and it is too much to ask them to bear the brunt of that. The adults alive right now today must do everything in their individual power and spheres of influence to bring about the changes necessary.” (survey respondent)

Climate Change and Education Context

Overview

Climate change is one of the most complex and wide-reaching challenges facing humankind today. As of October 2022, 2,279 jurisdictions in 39 countries have declared a climate emergency, including 649 Canadian jurisdictions, encompassing over 1 billion citizens (Climate Emergency Declaration, 2022). Scientific consensus highlights the significant impacts of climate change on our natural and socioeconomic systems: “Rising temperatures fuel environmental degradation, natural disasters, weather extremes, food and water insecurity, economic disruption, conflict, and terrorism” (United Nations Environment Programme, 2019). According to a 2022 report published by the Intergovernmental Panel on Climate Change (IPCC), the planet has already passed a number of crucial tipping points, and some effects of climate change are already irreversible. Although vulnerable populations such as coastal communities are currently most at risk, as average global temperatures continue to rise, projections indicate that risks will significantly increase for all populations. The findings of the Council of Canadian Academies (2022) mirror the report from the IPCC, as Canada has seen a significant increase in climate-related disasters over the past decade. Urgent action using the best data available is necessary to ensure that Canadians will successfully adapt and prosper (Warren & Lulham, 2021). However, found within these dire warnings, there remains hope that the effects of climate change can still be mitigated by taking action based on “scientific, Indigenous, local, practitioner and other forms of knowledge” (IPCC, 2022, p. 29). This emphasizes that increased education about climate change is vital to ensuring our actions are legitimate, relevant, and effective.

Climate Change Education and Policy

The important contribution of the education sector in responding to climate change is recognized globally. According to UNESCO, 95 percent of the 194 reporting countries have included climate change education as part of their national action plans on climate change (Subrahmanyam, 2021). However, this pledge has not yet resulted in subsequent curriculum change, as almost half of the curriculum frameworks from 100 countries contain no climate change content, and furthermore, implementation is not consistent in the countries that include sustainability in their curriculum (Jensen et al., 2021).

In Canada, K-12 education is the responsibility of each province or territory. The result is that where and how climate change is addressed in curriculum varies jurisdiction by jurisdiction. However, it also means that climate change can be presented through a locally-relevant lens, addressing mitigation and adaptation that is geographically applicable. Yet, many jurisdictions have yet to do so, as only 6 of 13 provinces and territories have included climate and sustainability in their curricular documents or education policy (Aikens & McKenzie, 2021).

Across Canada, researchers highlight that provinces seldom emphasize climate change's current and projected impact, mitigation and adaptation strategies, and the scientific consensus on climate science (Wynes & Nicholas, 2019). Climate change is most explicitly connected to curriculum expectations and learning outcomes in science and lacks attention within the arts and language curricula (Bieler et al., 2017). According to a comprehensive overview of climate change education policy, there remains a disconnect between policy and implementation of climate change education: "Whereas climate policies often reference the significance of the education sector in combating climate change, education policies do not seem to have taken up the challenge" (Bieler et al., 2017, p. 79).

It is essential to provide youth with accurate scientific knowledge and strategies to address climate change to promote a sustainable mindset and build a climate-resilient socioeconomic system (Education International, 2021). Integrating climate education across subjects and tying together inequality, citizenship, Indigenous stewardship and discussions of systematic change will foster an informed citizenry and empower students to use their voices and advocate for change in their communities (Schatz, 2021).

Impacts on Youth and the Significance of Youth Action

Climate change is not only causing damage to our natural and socioeconomic systems but is also damaging children's mental health. According to a 2021 report by the United Nations Children's Fund, close to half of the world's 2.2 billion children are at extremely high risk for the impacts of climate change. Vergunst and Berry (2022) found that children's increased exposure to extreme weather events, such as droughts and heat waves, compromised their long-term mental health resilience. Youth who worry about climate change's impacts reported feelings of despair and helplessness. These experiences can increase the risk of PTSD, anxiety, and depression in children. However, Schwartz et al. (2022) found that engaging in collective action, such as activism, can empower citizens by building a sense of agency in addressing the climate crisis.

To address feelings of helplessness and despair towards the climate crisis, empowering youth to participate in climate adaptation and mitigation planning is essential. Schools have a role to play by ensuring climate change and sustainability education includes discussion on behaviour change and youth action, such as reducing carbon footprints or adapting to climate change effects (Kwauk & Winthrop, 2021). Although increasing climate change literacy is essential for youth for disaster risk reduction, their participation in climate action is vital to create a new generation of environmentally engaged citizens (Vergunst & Berry, 2022). Local, provincial, and national environmental organizations are growing in number and provide opportunities for youth to become involved in a wide variety of causes and actions. As one example, organizations such as Fridays for

Future aim to encourage youth leaders to vocalize the needs of their communities (Environmental Journal, 2022). Engaging youth in environmental issues within their communities is but one starting point to further encourage them to undertake collective action through policy, activism, and network building. Yet youth cannot tackle the climate crisis on their own – they require the commitment of previous generations to right cumulative wrongs and change the course of the future.

References

- Aikens, K., & McKenzie, M. (2021). A comparative analysis of environment and sustainability in policy across subnational education systems. *The Journal of Environmental Education*, 52(2), 69–82. <https://doi.org/10.1080/00958964.2021.1887685>
- Bieler, A., Haluza-DeLay, R., Dale, A., & McKenzie, M. (2017). A National Overview of Climate Change Education Policy: Policy Coherence between Subnational Climate and Education Policies in Canada (K-12). *Journal of Education for Sustainable Development*, 11, 63–85. <https://doi.org/10.1177/0973408218754625>
- Climate Emergency Declaration. (2022, October 26). *Climate emergency declarations in 2,291 jurisdictions and local governments cover 1 billion citizens*. <https://climateemergencydeclaration.org/climate-emergency-declarations-cover-15-million-citizens/>
- Council of Canadian Academies. (2022). *Building a Resilient Canada: the Expert Panel on Disaster Resilience in a Changing Climate*. <https://www.cca-reports.ca/wp-content/uploads/2022/01/Building-a-Resilient-Canada-web-EN.pdf>
- Education International. (2021, April 26). *Education International's Manifesto: Education, a tool to fight the threat of the climate crisis*. <https://www.ei-ie.org/en/item/24803:education-internationals-manifesto-education-a-tool-to-fight-the-threat-of-the-climate-crisis>
- Environmental Journal. (2022, September 23). *Fridays for the Future youth climate strikes underway today*. <https://environmentjournal.ca/fridays-for-the-future-youth-climate-strikes-underway-today/>
- Intergovernmental Panel on Climate Change. (2022). *Climate Change 2022: Impacts, Adaptation and Vulnerability: Summary for Policymakers*. https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_SummaryForPolicymakers.pdf
- Jensen, V. et al. (2021). *Getting every school climate-ready: How countries are integrating climate change issues in education*. UNESCO. <https://unesdoc.unesco.org/ark:/48223/pf0000379591>
- Kwauk, C., & Winthrop, R. (2021). *Unleashing the Creativity of Teachers and Students to Combat Climate Change: an Opportunity for Global Leadership*. Brookings. <https://www.brookings.edu/research/unleashing-the-creativity-of-teachers-and-students-to-combat-climate-change-an-opportunity-for-global-leadership/>
- Schatz, K. (2021). *Where We Stand: The Integration of Climate Change Education in Canadian Schools*. British Columbia Council for International Cooperation. <https://www.bccic.ca/wp-content/uploads/2021/11/FINAL-Climate-Change-Education-in-Canada.pdf>
- Schwartz, S. E. O., Benoit, L., Clayton, S., Parnes, M. F., Swenson, L., & Lowe, S. R. (2022). Climate change anxiety and mental health: Environmental activism as buffer. *Current Psychology*. <https://doi.org/10.1007/s12144-022-02735-6>
- Subrahmanyam, G. (2021). *Skills development and climate change action plans: enhancing TVET's contribution*. UNESCO-UNEVOC. <https://unesdoc.unesco.org/ark:/48223/pf0000376163>
- United Nations Environment Programme. (2019, December 31). *UN75: UN Environment Programme's leader shares three actions to save the world*. <https://www.unep.org/news-and-stories/story/un75-un-environment-programmes-leader-shares-three-actions-save-world>
- United Nations Children's Fund. (2021). *The Climate Crisis is a Child Rights Crisis: introducing the Children's Climate Risk Index*. <https://www.unicef.org/media/105376/file/UNICEF-climate-crisis-child-rights-crisis.pdf>
- Vergunst, F., & Berry, H. L. (2022). Climate Change and Children's Mental Health: A Developmental Perspective. *Clinical Psychological Science*, 10(4), 767–785. <https://doi.org/10.1177/21677026211040787>
- Warren, F. and Lulham, N. (Eds.). (2021). *Canada in a changing climate: National issues report*. Government of Canada. https://www.nrcan.gc.ca/sites/nrcan.gc.ca/files/nrcan/files/pdf/National_Issues_Report_Final_EN.pdf
- Wynes, S., & Nicholas, K. A. (2019). Climate science curricula in Canadian secondary schools focus on human warming, not scientific consensus, impacts or solutions. *PLOS ONE*, 14(7), e0218305. <https://doi.org/10.1371/journal.pone.0218305>

Methodology

Population Segmentation

For this survey, the following populations were identified:

- Educators – includes public and private school teachers in formal K-12/cégep education systems, educational assistants, department heads, curriculum leads and curriculum consultants working for school boards, vice-principals, principals, and district leaders/school administrators
- Students – includes current students from grades 7 to 12/cégep in the formal education system
- Parents – includes parents of students in K-12/cégep education system
- General Public – includes participants who do not identify as educators, students, or parents.

Recruitment Procedures

Leger Research Intelligence Group provided data collection and analysis on behalf of Learning for a Sustainable Future (LSF). Leger owns and operates one of Canada's largest online survey panels, LEO, of approximately 400,000 Canadians who have agreed to answer surveys for the company in exchange for a small incentive. Leger ensures that data collection complies with the following practices: 1) ensures that all sample material supplied to Leger meets the legal requirements of relevant data protection and other laws in the countries wherein the potential respondents are resident; 2) complies in all countries to the ESOMAR Code of Conduct and Guidelines; and 3) complies to MRIA standards. All participants were informed of, and agreed to, consent parameters.

Leger panelists received an email invitation to complete the survey with a unique link for each respondent. All respondents from the Leger panel (LEO) are referred to as "panel". This report contains the results for the "panel" data.

Due to the limits of the LEO platform to survey the desired 1000 educators, the survey relied on a multi-sampling approach where additional responses were collected through convenience and snowball sampling through an open survey link hosted on LSF's website. Respondents recruited in this manner also agreed to consent parameters. The Canadian Teachers' Federation assisted



Methodology continued

with the promotion of the survey through their provincial and territorial networks, along with many teacher affiliations and education-related organizations (see Acknowledgements section for organizations that promoted the survey). The Council of Ministers of Education, Canada also promoted the survey through their provincial and territorial Ministers and Deputy Ministers of Education. LSF promoted the survey through their newsletter, social media channels, teacher professional association publications and through digital ads. The survey was circulated through the Territories in Northern Canada by both Leger and LSF, but response rates were too low to be included in this report.

Data Collection and Analysis

From the Leger Web Survey, a total of 4,035 Canadians were surveyed online using Leger's panel, LEO. The survey was conducted from November 9, 2021 to March 6, 2022 in English and French.

As a non-random internet survey, a margin of error is not reported (margin of error accounts for sampling error). Had these data been collected using a probability sample, the margin of error for a sample size of 4,035 would have been ± 1.5 percentage points, 19 times out of 20. Leger sends invitations through the LEO platform to Canadians that meet the demographic focus and provides a small incentive to panelists who complete the survey. As part of the analysis process, the data are weighted by age, gender and province (based on Statistics Canada proportions) to ensure that data are representative of the Canadian public and reflective of Canadian opinion. Demographic data is presented in its unweighted form.

From the sample that was collected through the LSF open-link, a total of 2,461 completed surveys were received from November 9, 2021 to March 6, 2022. Due to the voluntary nature of the survey, a margin of error cannot be calculated. The supplemental open-link data was intended to be used where Leger panel data was insufficient and was only required for a few of the individual regional reports to augment the educator respondent data.

Methodology continued

Response Rate

The survey was sent to 42,500 respondents in the LEO platform and 4,035 respondents completed the survey. The response rate was 9.5%

When Leger conducts online surveys, the system does not send the survey to the entire panel. The system samples within the online panel to reach the sample size that has been agreed upon for the project (in this particular case, n=minimum of 3,100 respondents). The system pulls a random distribution of respondents once audiences are defined and then potential respondents are contacted in batches so that the number of respondents can be monitored to ensure that the targeted sample size is met.

2019 Data Comparisons

This survey is a follow-up to a climate change education survey that was undertaken in 2019 by Dr. Ellen Field at Lakehead University, Learning for a Sustainable Future and Leger, with funding from the Social Sciences and Humanities Research Council of Canada. The nationwide study of 3,196 Canadians entitled, *Canada, Climate Change and Education: Opportunities for Public and Formal Education*, established benchmarks of Canadians' knowledge and understanding of climate change, their perspectives on the importance of climate change and its risks, and views on the role of schools and climate change education.

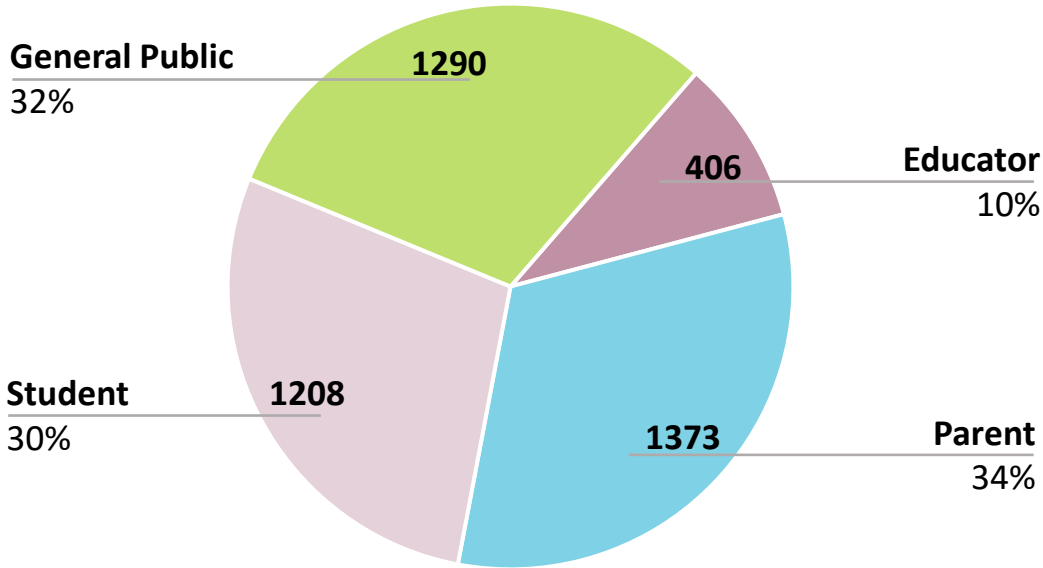
The 2019 survey relied on the same approach as the current 2022 survey which included Leger's panel (LEO) as well as convenience and snowball sampling through an open survey link hosted on LSF's website. In total, 2,191 responses were collected through Leger's panel from October 3 - 25, 2018 in English and French. In this report, only 2019 and 2022 panel (closed sample) data is used for comparison purposes.

There was greater success in 2022 in obtaining better representation across Canada from provinces other than Ontario and Quebec, which dominated the 2019 survey. While Ontario and Quebec still had the largest proportion overall, all other provinces showed an increase. While the data was subsequently weighted during analysis to be proportionately representative of population size, a larger number of responses ensured more accurate representation from the smaller provinces.

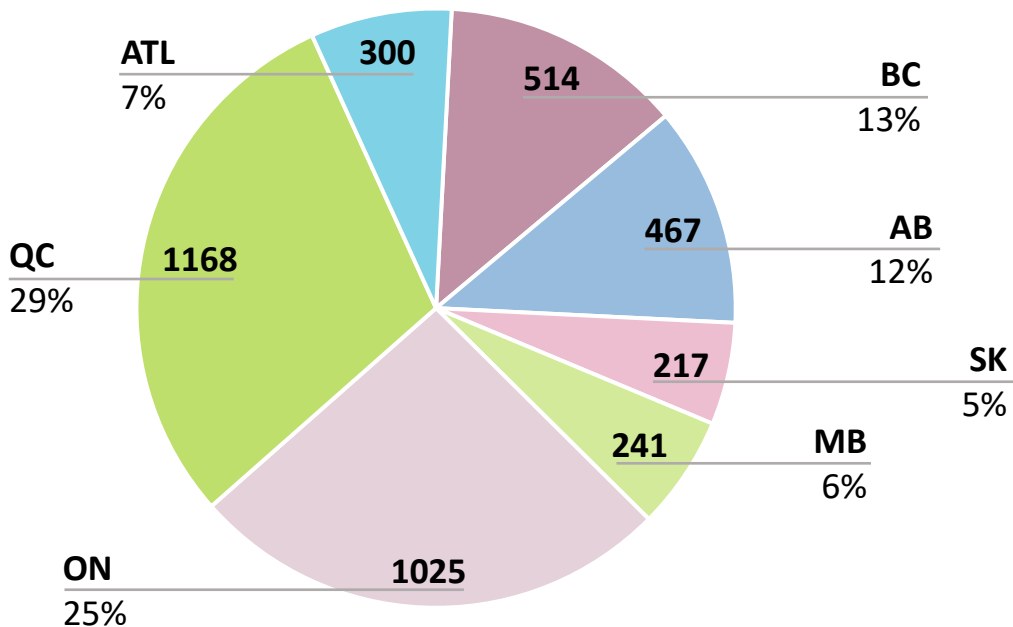
Note: Some of the 10 Climate Change Knowledge questions were modified slightly in 2022 for clarity and readability, but the key message of each question remained the same.

2022 Demographics

2022 Respondents by Respondent Group

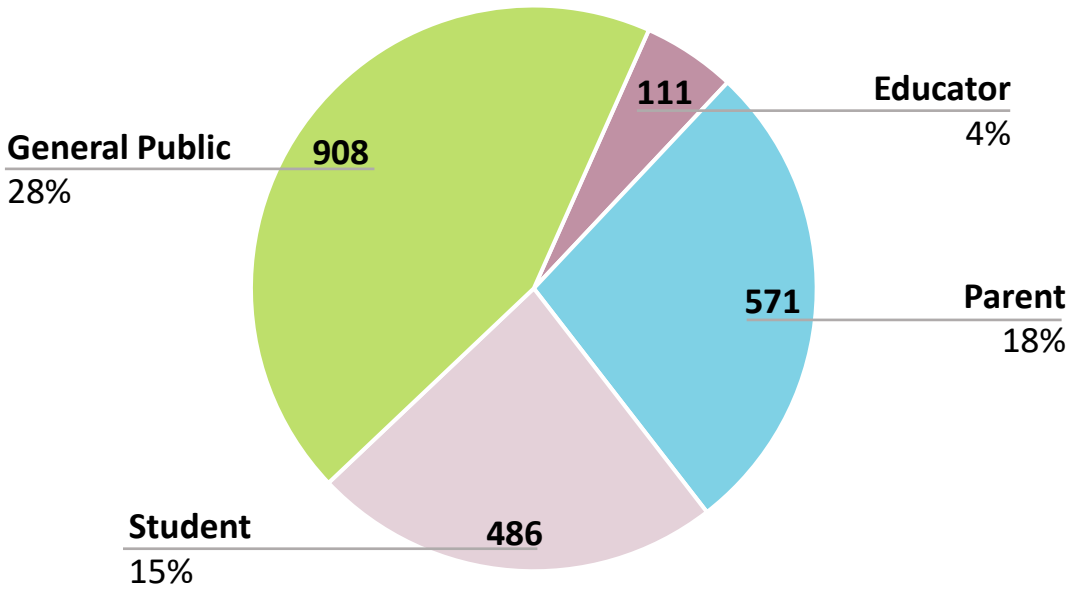


2022 Respondents by Province/Region

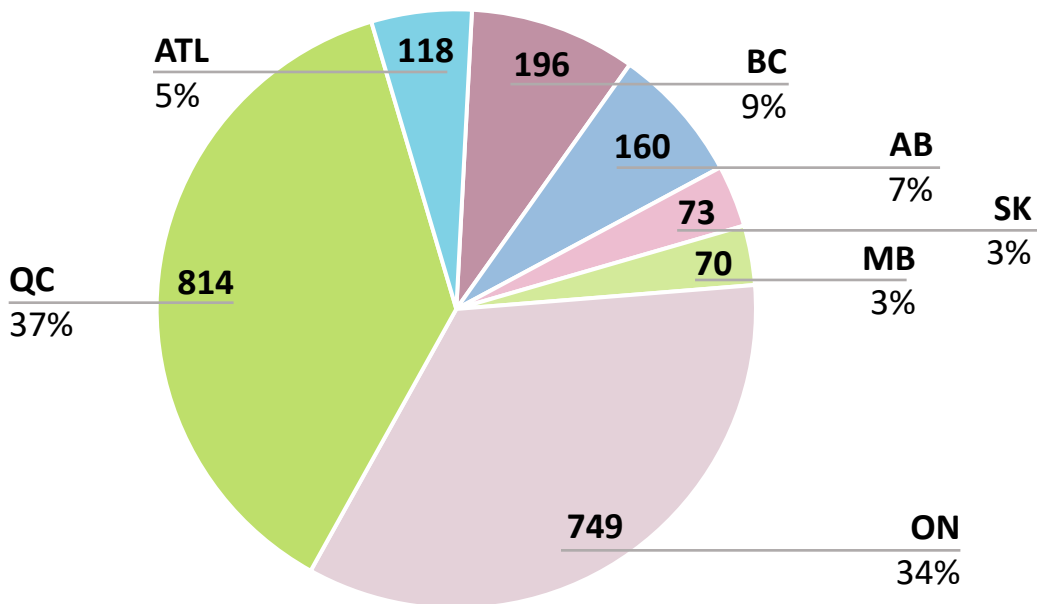


2019 Demographics

2019 Respondents by Respondent Group



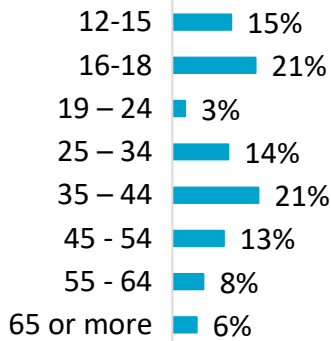
2019 Respondents by Province/Region



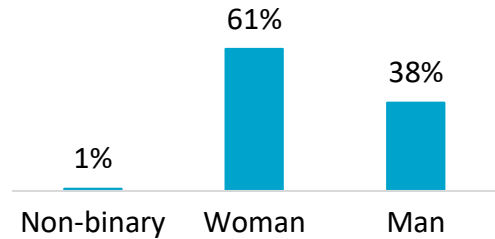
2022 Total Demographics

Total

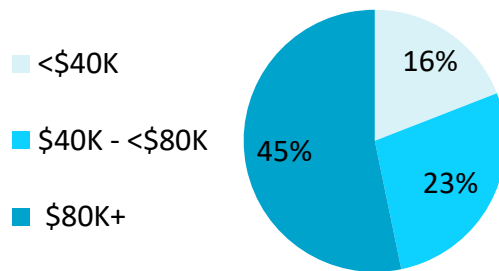
Age



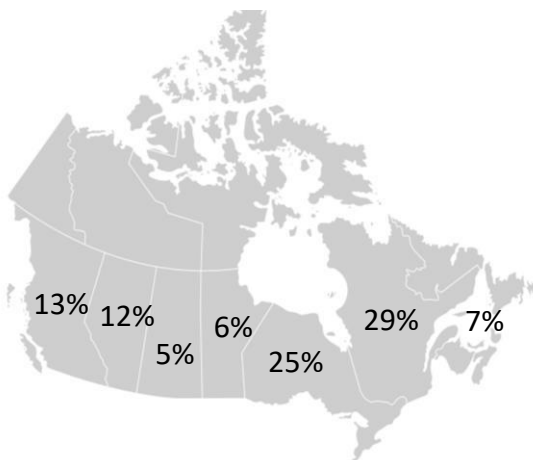
Gender



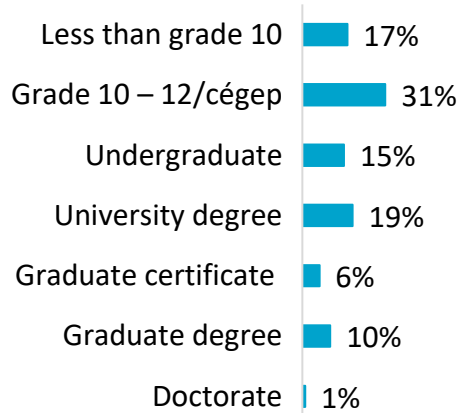
Household Income



Province

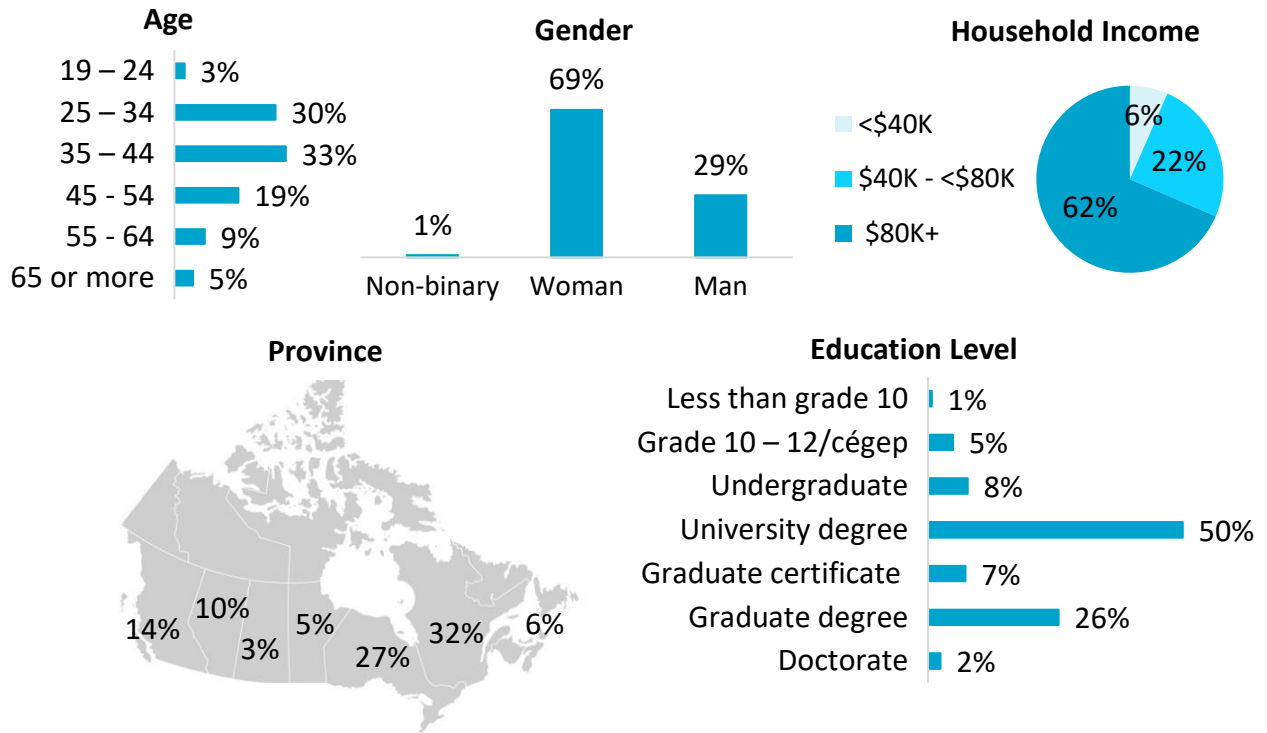


Education Level

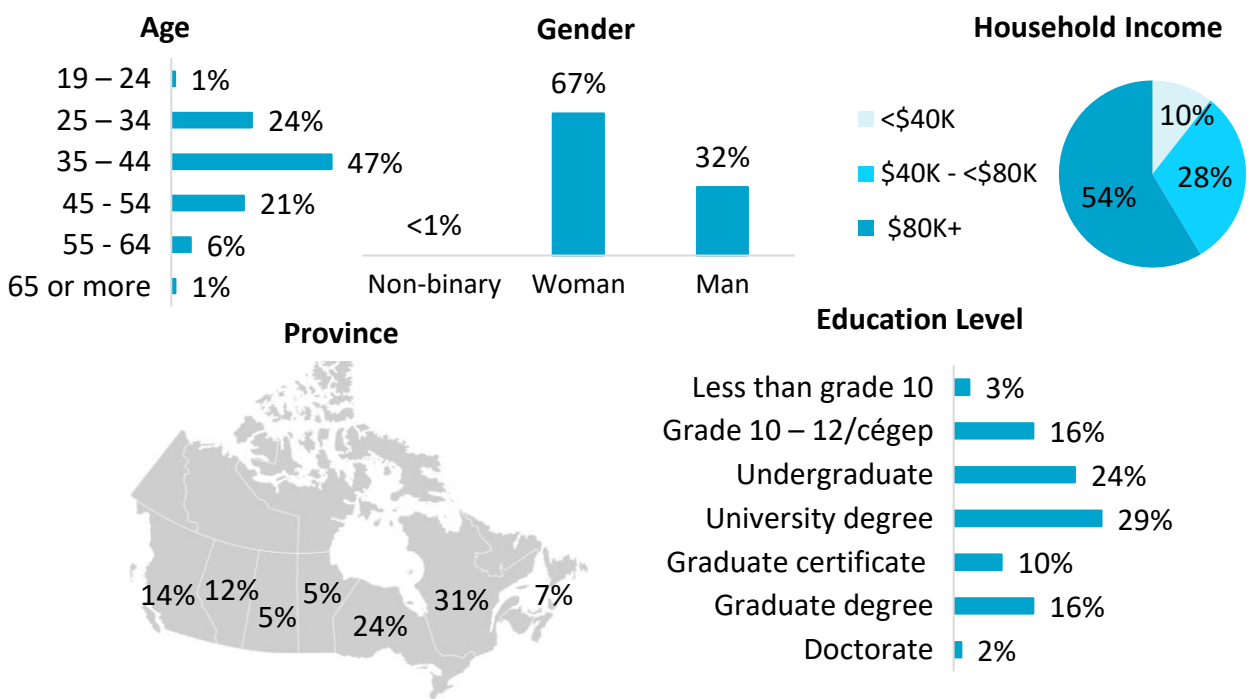


2022 Demographics by Respondent Group

Educators



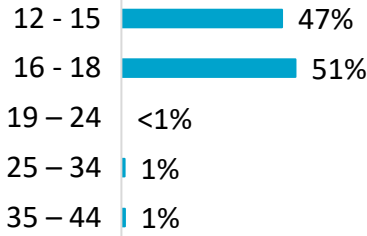
Parents



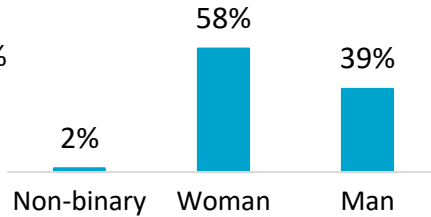
2022 Demographics by Respondent Group

Students

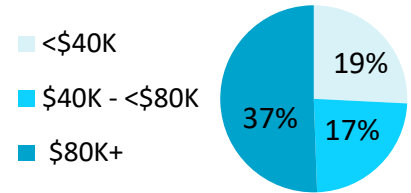
Age



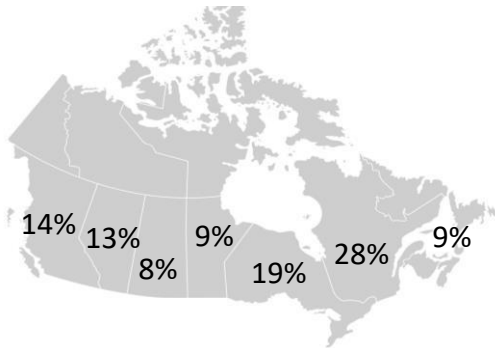
Gender



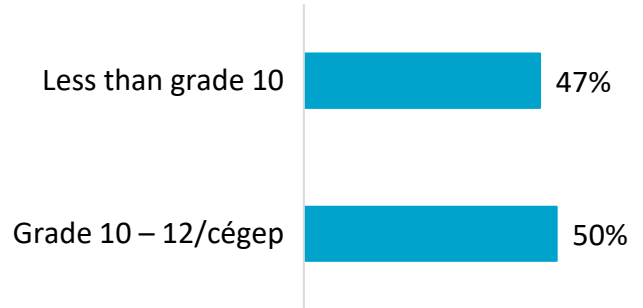
Household Income



Province

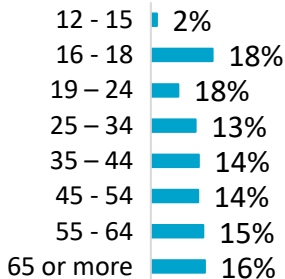


Education Level

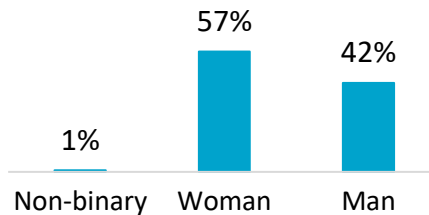


General Public

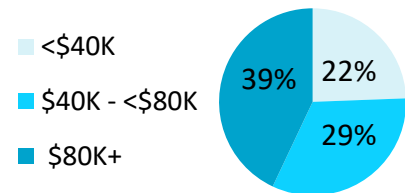
Age



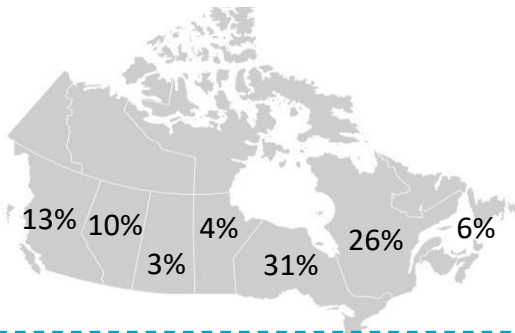
Gender



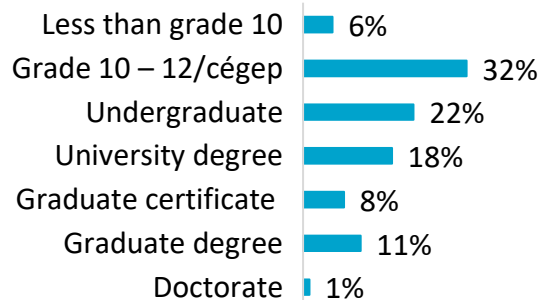
Household Income



Province



Education Level



2022 Demographics by Respondent Group

	EDUCATOR	PARENTS	STUDENTS	GENERAL PUBLIC
Age				
12 - 15	3	4	567	23
16 - 18	5	1	614	233
19 - 24	12	15	5	104
25 - 34	120	324	11	169
35 - 44	132	643	10	181
45 - 54	76	291	-	178
55 - 64	36	78	1	198
65 or more	22	17	-	204
Gender				
Man	119	445	473	541
Woman	282	921	703	732
Non-binary/Other	4	4	22	10
Prefer to self-describe	1	1	5	1
Prefer not to answer	-	2	5	6
Education Level				
Less than grade 10	3	43	566	76
Grade 10 - 12	20	217	606	419
Undergraduate	32	331	5	283
University degree	205	403	5	228
Graduate certificate	30	131	6	105
Graduate degree	105	217	13	148
Doctorate	10	21	1	17
Province				
British Columbia	57	188	166	170
Alberta	41	171	155	130
Saskatchewan	13	70	100	43
Manitoba	19	75	103	51
Ontario	110	332	225	401
Quebec	130	424	344	337
Atlantic	24	98	114	81
Household Income				
<\$40K	24	135	230	287
\$40K - <\$80	91	391	211	332
\$80K+	250	745	451	497

2022 Demographics by Province/Region

	BC	AB	SK	MB	ON	QC	ATL
Age							
12 - 15	78	79	52	53	118	139	68
16 - 18	95	97	53	55	170	312	48
19 - 24	23	16	6	5	33	38	5
25 - 34	61	56	29	24	163	183	33
35 - 44	123	109	40	48	203	259	65
45 - 54	67	64	18	27	162	118	44
55 - 64	42	23	14	16	99	70	23
65 or more	25	23	5	13	77	49	14
Gender							
Man	222	183	86	97	405	349	128
Woman	282	274	121	139	610	813	168
Non-binary/Other	6	7	6	5	4	6	4
Prefer to self-describe	4	-	2	-	1	-	-
Prefer not to answer	-	3	2	-	5	-	-
Education Level							
Less than grade 10	66	69	43	43	100	288	62
Grade 10 - 12	150	161	81	96	297	360	81
Undergraduate	82	64	25	29	170	167	56
University degree	100	81	28	42	228	202	46
Graduate certificate	39	24	18	16	88	37	27
Graduate degree	69	57	18	14	128	85	25
Doctorate	7	7	3	1	10	11	1
Household Income							
<\$40K	63	67	40	46	170	194	65
\$40K - <\$80	130	85	52	65	234	261	98
\$80K+	250	235	79	96	469	543	96

Demographics Compared to 2019

Demographic attributes in 2022 are similar in proportion to 2019. Educators in 2019 were less likely to be between the ages of 35-54 than in 2022. Educators also reported a lower average level of education in 2019 than in 2022.

	EDUCATOR		PARENTS		STUDENTS		GENERAL PUBLIC	
	2019	2022	2019	2022	2019	2022	2019	2022
Age								
12 - 15	-	3	-	4	176	567	6	23
16 - 18	-	5	-	1	310	614	34	233
19 - 24	12	12	6	15	-	5	96	104
25 - 34	12	120	66	324	-	11	97	169
35 - 44	36	132	315	643	-	10	173	181
45 - 54	39	76	180	291	-	-	201	178
55 - 64	6	36	1	78	-	1	156	198
65 or more	6	22	-	17	-	-	141	204
Gender								
Man	32	119	210	445	202	473	466	541
Woman	79	282	360	921	277	703	434	732
Non-binary/Other	-	4	-	4	3	22	-	10
Prefer to self-describe	-	1	-	1	-	5	-	1
Prefer not to answer	-	-	1	2	2	5	4	6
Education Level								
Less than grade 10	3	3	25	43	252	566	29	76
Grade 10 - 12	12	20	148	217	214	606	265	419
Undergraduate	19	32	173	331	16	5	256	283
University degree	43	205	138	403	2	5	224	228
Graduate certificate	5	30	29	131	-	6	59	105
Graduate degree	28	105	49	217	-	13	60	148
Doctorate	1	10	9	21	1	1	12	17
Province								
British Columbia	9	57	49	188	41	166	90	170
Alberta	6	41	40	171	24	155	82	130
Saskatchewan	4	13	16	70	20	100	29	43
Manitoba	7	19	12	75	15	103	36	51
Ontario	33	110	162	332	165	225	352	401
Quebec	47	130	250	424	197	344	268	337
Atlantic	4	24	37	98	22	114	50	81
Household Income								
<\$40K	19	24	84	135	88	230	202	287
\$40K - <\$80	24	91	178	391	57	211	277	332
\$80K+	56	250	265	745	79	451	320	497

Demographics Compared to 2019 by Province/Region

	BC		AB		SK		MB		ON		QC		ATL	
	2019	2022	2019	2022	2019	2022	2019	2022	2019	2022	2019	2022	2019	2022
Age														
12 - 15	21	78	7	79	12	52	8	53	76	118	55	139	8	68
16 - 18	27	95	26	97	12	53	7	55	128	170	162	312	14	48
19 - 24	17	23	8	16	-	6	4	5	49	33	38	38	11	5
25 - 34	20	61	21	56	5	29	5	24	55	163	78	183	10	33
35 - 44	45	123	33	109	16	40	14	48	164	203	232	259	34	65
45 - 54	33	67	32	64	13	18	17	27	153	162	150	118	23	44
55 - 64	17	42	20	23	7	14	8	16	62	99	47	70	12	23
65 or more	16	25	12	23	8	5	7	13	61	77	49	49	5	14
Gender														
Man	86	222	80	183	30	86	29	97	329	405	345	349	58	128
Woman	110	282	78	274	43	121	39	139	416	610	461	813	59	168
Non-binary/Other	-	6	-	7	-	6	1	5	2	4	1	6	-	4
Prefer to self-describe	-	4	-	-	-	2	-	-	-	1	-	-	-	-
Prefer not to answer	-	-	1	3	-	2	-	-	1	5	3	-	1	-
Education Level														
Less than grade 10	24	66	8	69	10	43	8	43	88	100	170	288	12	62
Grade 10 - 12	60	150	53	161	33	81	17	96	216	297	263	360	35	81
Undergraduate	43	82	39	64	13	25	15	29	161	170	170	167	40	56
University degree	39	100	31	81	12	28	23	42	177	228	129	202	17	46
Graduate certificate	16	39	8	24	3	18	3	16	39	88	22	37	10	27
Graduate degree	10	69	19	57	1	18	4	14	63	128	42	85	2	25
Doctorate	4	7	2	7	1	3	-	1	5	10	16	11	2	1
Household Income														
<\$40K	40	63	20	67	14	40	17	46	119	170	185	194	32	65
\$40K - <\$80	55	130	32	85	28	52	15	65	192	234	210	261	36	98
\$80K+	55	250	80	235	13	79	22	96	272	469	275	543	29	96

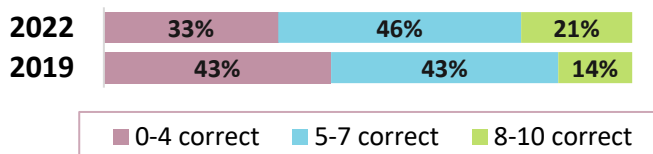


Canadians' Perspectives on Climate Change & Education

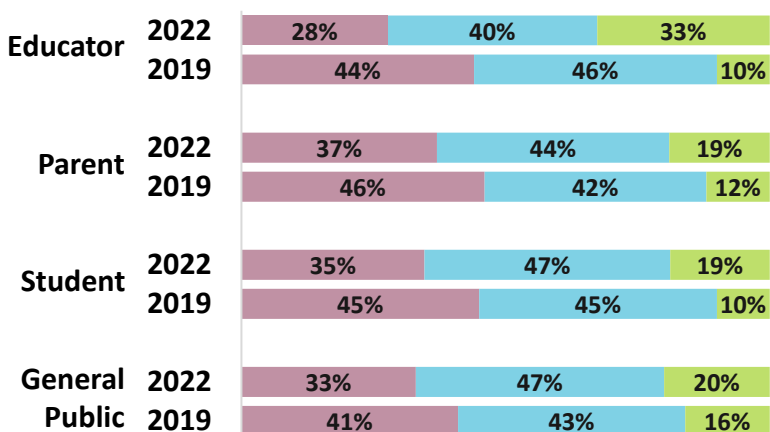
Section 2: What has changed since 2019?

Overall Climate Change Knowledge

Total Correct Answers

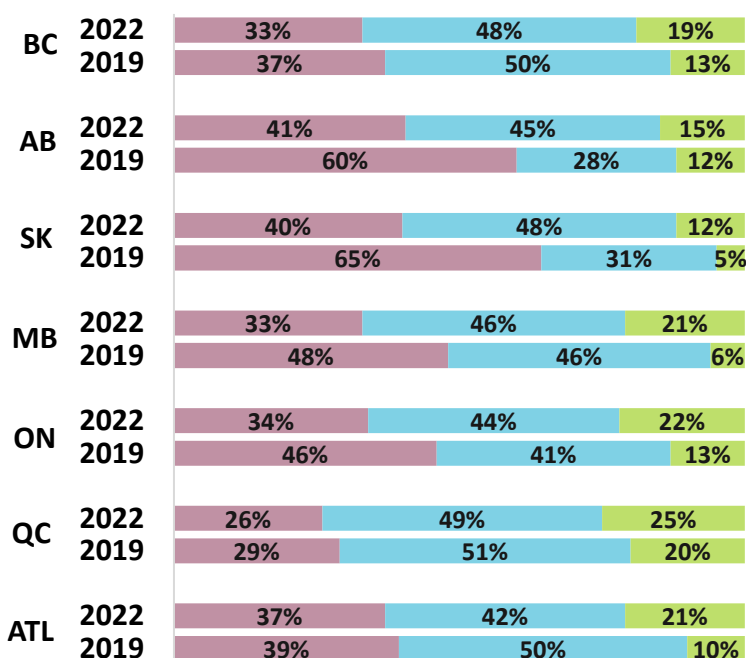


Total Correct Answers – Respondent Group



2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)
 2019: n=2,191 (Educator=111, Parent=571, Student=486, General Public=908)

Total Correct Answers – Province/Region



2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL=300)
 2019: n=2,191 (BC=196, AB=160, SK=73, MB=70, ON=749, QC=814, ATL=118)

Overall climate change knowledge has increased since 2019, as more Canadians passed the 10 question climate change test embedded in the survey (67% passed in 2022 vs. 57% 2019).

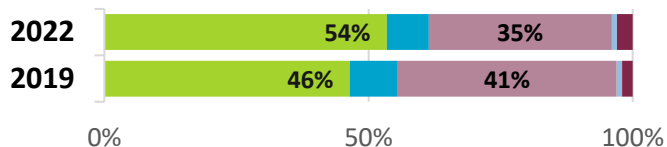
Furthermore, significantly more educators passed with over 80% in 2022 vs. 2019 (33% vs. 10%), as did parents (19% vs. 12%), students (19% vs. 10%), and the general public (20% vs. 16%).

Climate change knowledge has also increased regionally across Canada with the majority showing improvement on the climate change knowledge test. Significantly fewer failed in AB, SK, MB and ON.

Furthermore, significantly more respondents were able to answer 8 or more questions correctly in BC SK, MB, ON, QC and in ATL. While AB and SK have improved, their scores remain lower than the rest of Canada.

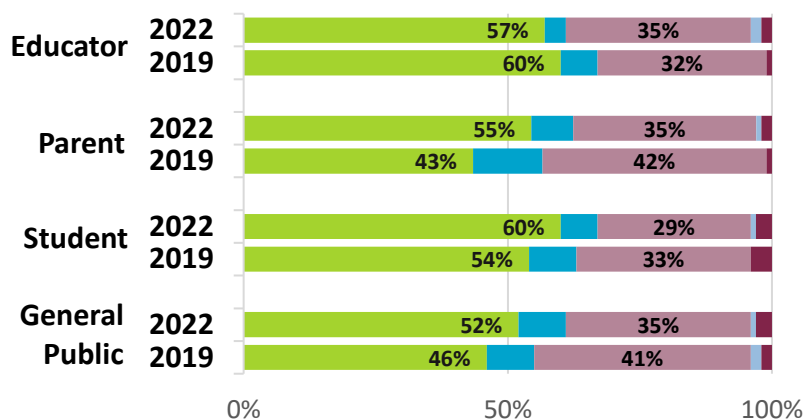
Do you think climate change is...

Total



- Caused mostly by human activities (*correct*)
- About equally caused by both human activities and natural changes
- Caused mostly by natural changes in the environment
- Not happening
- Don't know

Respondent Group



2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)
 2019: n=2,188 (Educator=111, Parent=571, Student=484, General Public=907)

A majority of respondents were correct in their thinking that climate change is caused mostly by human activities. More respondents in 2022 answered correctly (54%) than in 2019 (46%), which is fairly consistent across most respondent groups. Parents showed the largest gains (55% in 2022 vs. 43% in 2019). However, slightly fewer educators answered correctly in 2022 (57%) than in 2019 (60%).

Notably, a proportion (35%) still think climate change is equally caused by both human activities and natural changes, although this number has decreased since 2019 (41%).

Caused mostly by human activities (*correct*)

Province	2019	2022	(+/-)
BC	47%	59%	+12
AB	28%	40%	+12
SK	29%	41%	+12
MB	39%	50%	+11
ON	46%	55%	+9
QC	57%	60%	+3
ATL	51%	44%	-7

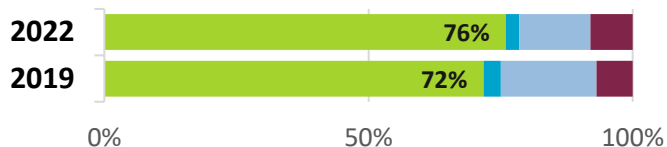
The percentage of respondents who were able to answer this question correctly in 2022 increased across all regions compared to 2019, other than in ATL.

Correct responses increased from +3 percentage points in QC to +12 percentage points in BC, AB, and SK between 2019 and 2022.

2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL=300)
 2019: n=2,188 (BC=196, AB=160, SK=73, MB=70, ON=748, QC=812, ATL=118)

Which comes closest to your own view?

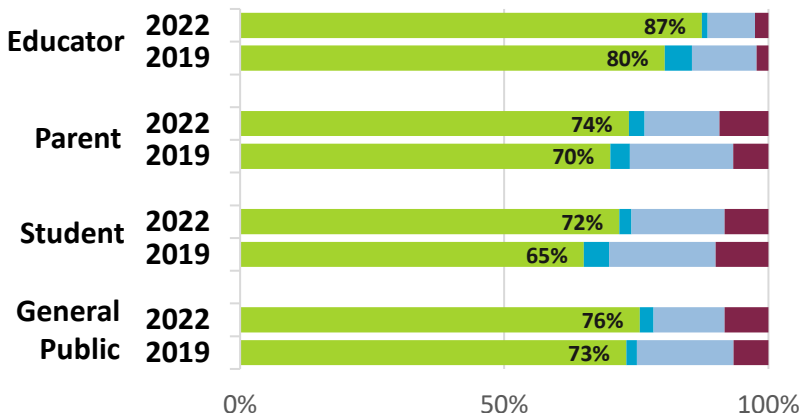
Total



- Most climate scientists think climate change is happening (correct)
- There is a lot of disagreement among climate scientists about whether climate change is happening or not
- Most climate scientists do not think climate change is happening
- Don't know enough to say

A majority of respondents hold the correct belief that most climate scientists think climate change is happening. Slightly more respondents hold this view in 2022 (76%) than did in 2019 (72%).

Respondent Group



Similarly, more respondents from each respondent group in 2022 hold this view, than did in 2019. The largest increase in correct responses from 2019 to 2022 was seen in educators and students, with an increase of +7 percentage points.

2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)
 2019: n=2,189 (Educator=110, Parent=571, Student=486, General Public=907)

Most climate scientists think climate change is happening (correct)

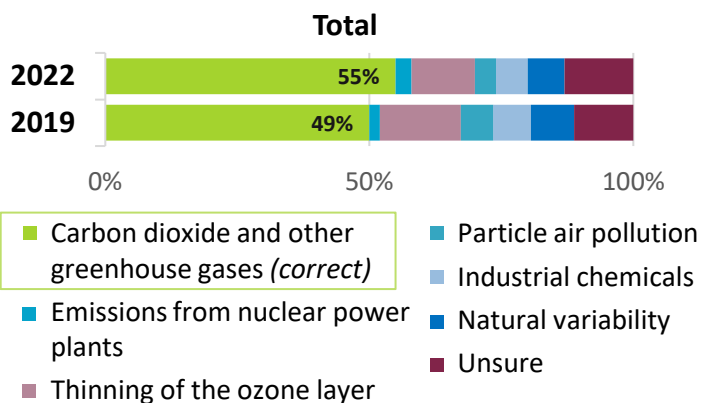
Province	2019	2022	(+/-)
BC	78%	79%	+1
AB	61%	73%	+12
SK	52%	73%	+21
MB	70%	70%	-
ON	70%	76%	+6
QC	81%	77%	-4
ATL	67%	77%	+10

The percentage of respondents who were able to answer this question correctly in 2022 increased across all regions compared to 2019, except for QC, which decreased by 4 percentage points, and MB which stayed consistent with 2019 answers.

Correct responses increased from +1 percentage points in BC to +21 percentage points SK.

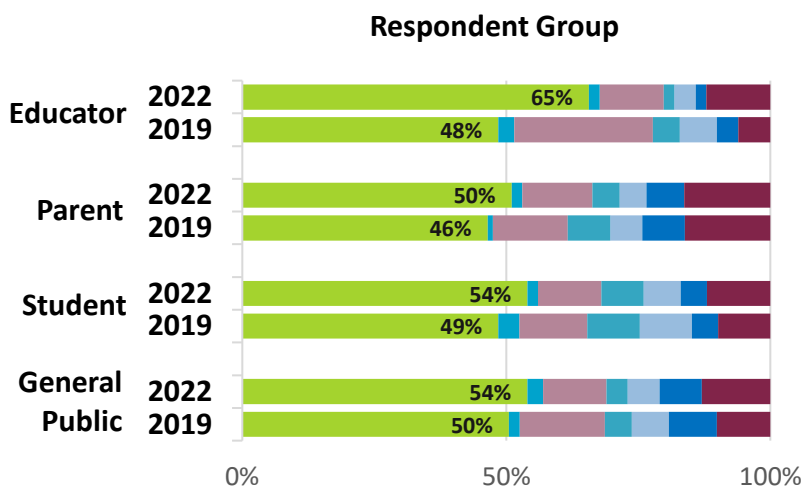
2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL=300)
 2019: n=2,188 (BC=196, AB=160, SK=73, MB=70, ON=749, QC=812, ATL=118)

Climate change is caused by...



In terms of understanding the scientific causes of climate change, just over half (55%) of respondents in 2022 answered correctly, that carbon dioxide and other greenhouse gases are the primary cause of climate change, compared with less than half (49%) in 2019.

Educators showed the largest increase in correct answers to this question (65% vs. 48%). Parents remained the most 'unsure' with only half choosing the correct response.



2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)
 2019: n=2,191 (Educator=111, Parent=571, Student=486, General Public=908)

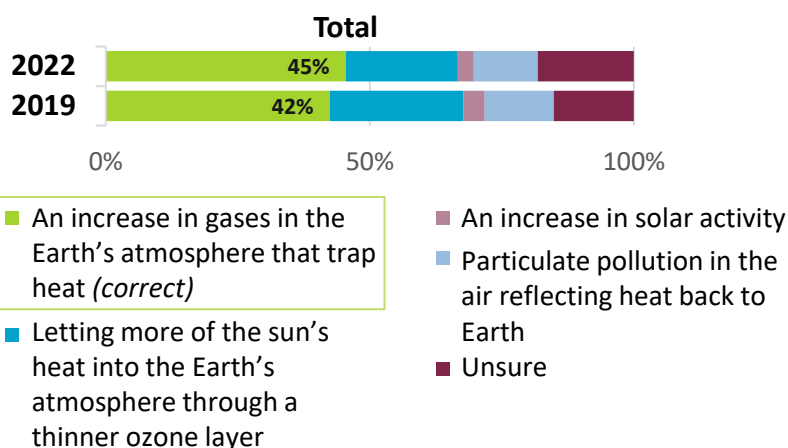
The percentage of correct answers to the cause of climate change increased for respondents in all provinces aside from those in ATL.

SK had the largest increase in correct responses from 2019 to 2022, with significantly more respondents in SK answering this question correctly in 2022 (52%) than in 2019 (34%).

Province	Carbon Dioxide and other greenhouse gases (correct)		
	2019	2022	(+/-)
BC	52%	58%	+6
AB	44%	48%	+4
SK	34%	52%	+18
MB	49%	60%	+11
ON	48%	52%	+4
QC	55%	64%	+9
ATL	49%	46%	-3

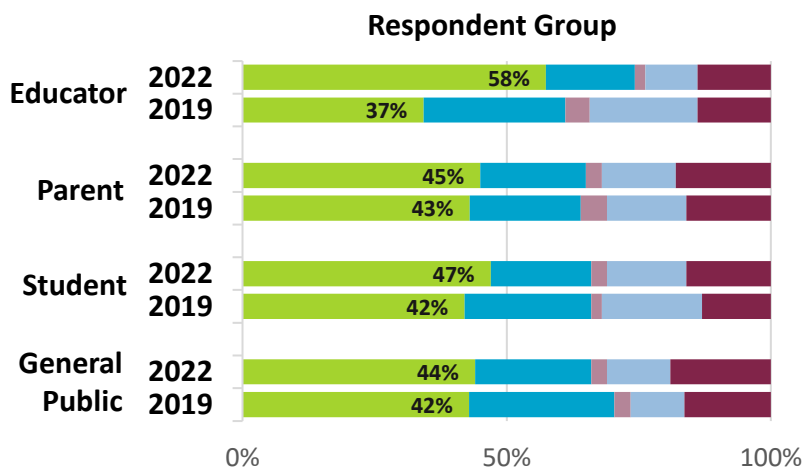
2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL=300)
 2019: n=2,190 (BC=196, AB=160, SK=73, MB=70, ON=749, QC=814, ATL=118)

The main process behind climate change is...



Less than half of all respondents were able to answer correctly that the main process behind climate change is an increase in gases in the Earth's atmosphere that trap heat. The percent of correct answers increased slightly from 2019 (42%) to 2022 (45%).

While all respondent groups showed gains in answering correctly in 2022, educators showed the most improvement in understanding the main process behind climate change (58% in 2022 vs. 37% in 2019).



2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)
 2019: n=2,184 (Educator=110, Parent=571, Student=486, General Public=903)

An increase in gases in the Earth's atmosphere that trap heat (correct)

Province	2019	2022	(+/-)
BC	48%	45%	-3
AB	43%	45%	+2
SK	25%	38%	+13
MB	38%	43%	+5
ON	41%	44%	+3
QC	46%	51%	+5
ATL	39%	42%	+3

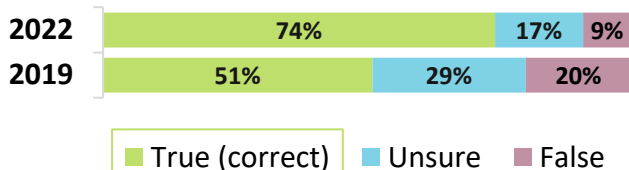
The percentage of respondents who answered this climate change question correctly increased for respondents in all provinces aside from those in BC.

Correct responses increased from +2 percentage points in AB to +13 percentage points in SK between 2019 and 2022.

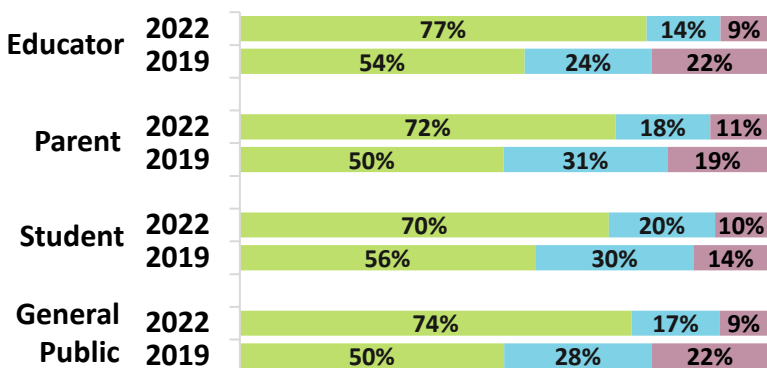
2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL=300)
 2019: n=2,184 (BC=195, AB=160, SK=73, MB=69, ON=748, QC=810, ATL=118)

Canada, as an Arctic nation, is particularly affected by the impacts of climate change.

Total



Respondent Group



2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)
 2019: n=2,187 (Educator=111, Parent=570, Student=486, General Public=905)

When asked if Canada as an Arctic Nation is particularly affected by the impacts of climate change, a large majority of all respondents were able to answer correctly, indicating that it is true. Significantly more respondents answered correctly in 2022 (74%) than in 2019 (51%).

In 2022, significantly more educators (77% vs. 54% 2019), parents (72% vs. 50% 2019), students (70% vs. 56%, 2019), and the general public (74% vs. 50% 2019), were able to answer correctly.

True (correct)

Province	2019	2022	(+/-)
BC	51%	76%	+25
AB	44%	71%	+27
SK	62%	76%	+14
MB	49%	88%	+39
ON	52%	78%	+26
QC	51%	63%	+12
ATL	56%	77%	+21

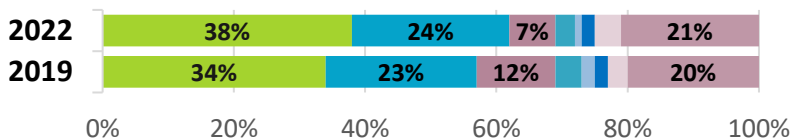
The percentage of respondents who were able to answer this question correctly in 2022 increased significantly across all provinces compared to 2019, with the highest gains seen in MB, AB, ON and BC.

Correct responses increased from +12 percentage points in QC to +39 percentage points in MB.

2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL=300)
 2019: n=2,187 (BC=196, AB=160, SK=73, MB=70, ON=747, QC=813, ATL=118)

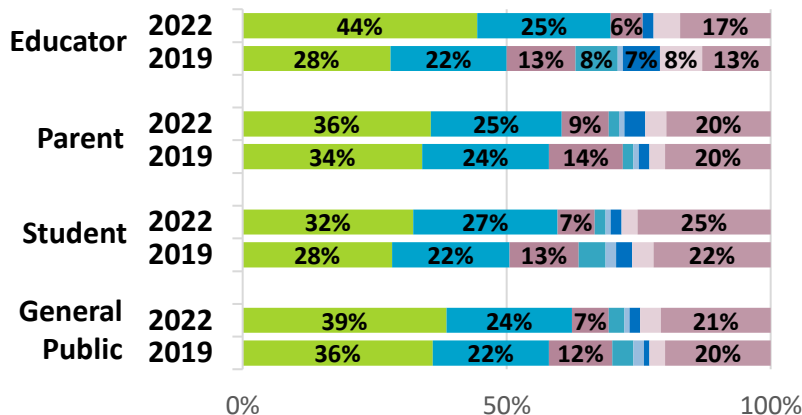
Canada's average temperature has ____ since 1948

Total



- Increased by 1 – 1.5 degrees Celsius (*correct*)
- Increased by 0.5 – 1 degrees Celsius
- Increased by 0 – 0.5 degrees Celsius
- Stayed the same
- Decreased by 0.5 – 0 degrees Celsius
- Decreased by 1 – 0.5 degrees Celsius
- Decreased by 1 – 1.5 degrees Celsius
- Unsure

Respondent Group



2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)
 2019: n=2,187 (Educator=110, Parent=569, Student=485, General Public=908)

When asked how Canada's average temperature has changed since 1948, few respondents were able to answer correctly, that the temperature has increased by 1 – 1.5 degrees Celsius. However, there was a slight increase in correct responses from 2019 (34%) to 2022 (38%). About one-in-five respondents were still unsure about how Canada's temperature has changed in the last 74 years.

Correct responses showed little change across all respondent groups aside from educators, as significantly more educators answered this question correctly in 2022 (44%) than in 2019 (28%).

Increased by 1 – 1.5 degrees Celsius (*correct*)

Province	2019	2022	(+/-)
BC	33%	36%	+3
AB	24%	41%	+17
SK	25%	32%	+7
MB	33%	38%	+5
ON	35%	38%	+3
QC	42%	41%	-1
ATL	30%	32%	+2

More respondents were able to answer this question correctly in 2022 than in 2019 across all provinces other than QC.

Correct responses increased from +2 percentage points in ATL to +17 percentage points in AB.

2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL=300)
 2019: n=2,187 (BC=196, AB=160, SK=73, MB=70, ON=746, QC=813, ATL=118)

What sector is currently the largest greenhouse gas emitter in Canada?

**% Correct (NET) – Total
Transportation/Oil and Gas**



**% Correct (NET) – Respondent Group
Transportation/Oil and Gas**



2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)
2019: n=2,186 (Educator=111, Parent=570, Student=485, General Public=906)

A majority of respondents in 2022 (57%) answered correctly and were aware that both transportation and oil and gas sectors are currently the largest greenhouse gas emitters in Canada, which is significantly more than in 2019 (46%).

More respondents across all respondent groups answered correctly in 2022 than did in 2019. The general public showed the largest increase in correct answers (57% in 2022 vs. 46% in 2019)

**% Correct (NET) – Province/Region
Transportation/Oil and Gas**

Province	2019	2022	(+/-)
BC	46%	49%	+3
AB	42%	56%	+14
SK	42%	47%	+5
MB	45%	43%	-2
ON	42%	57%	+15
QC	60%	65%	+5
ATL	41%	56%	+15

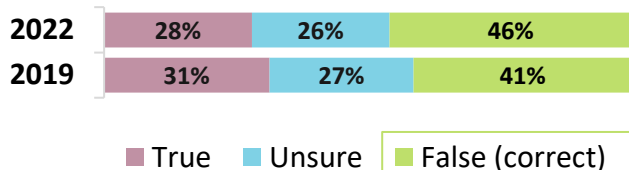
The percentage of respondents who answered this climate change question correctly increased for respondents in all provinces aside from those in MB.

Correct responses increased from +3 percentage points in BC to +15 percentage points in ON and ATL between 2019 and 2022.

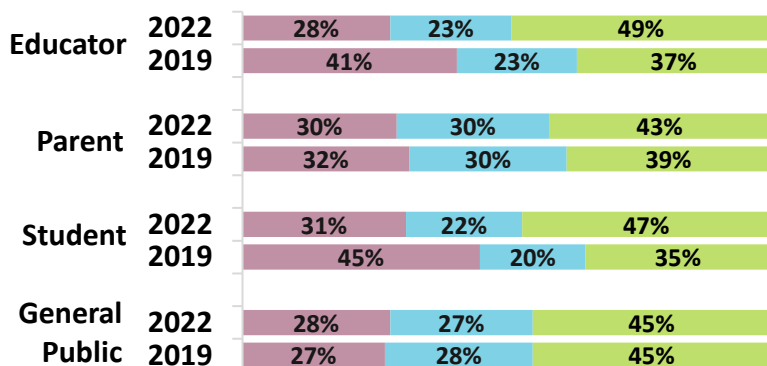
2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL=300)
2019: n=2,186 (BC=196, AB=160, SK=72, MB=70, ON=747, QC=812, ATL=118)

In the next 20 years, Canadian winters are predicted to be colder and to have more snow

Total



Respondent Group



2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)
 2019: n=2,190 (Educator=111, Parent=571, Student=486, General Public=907)

When asked if in the next 20 years, Canadian winters are predicted to be colder and to have more snow, less than half of all respondents answered correctly that the statement was false, although slightly more respondents in 2022 (46%) answered correctly than did in 2019 (41%). Over one-quarter of all respondents remained unsure.

Correct responses increased across all respondent groups other than in the general public, where correct responses stayed consistent between 2022 and 2019 (45%). Significantly more students and educators correctly answered that this question in 2022 (both groups up by 12 percentage points).

False (correct)

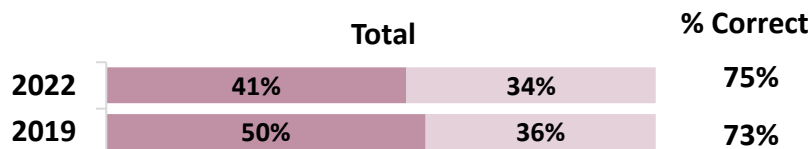
Province	2019	2022	(+/-)
BC	38%	37%	-1
AB	43%	42%	-1
SK	37%	42%	+5
MB	35%	42%	+7
ON	41%	43%	+2
QC	45%	58%	+13
ATL	41%	48%	+7

2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL=300)
 2019: n=2,187 (BC=196, AB=160, SK=73, MB=70, ON=749, QC=813, ATL=118)

The percentage of correct responses increased across all regions other than BC and AB where correct responses in these two provinces each dropped by 1 percentage point from 2019 to 2022.

Correct responses increased from +2 percentage points in ON to +13 in QC from 2019 to 2022.

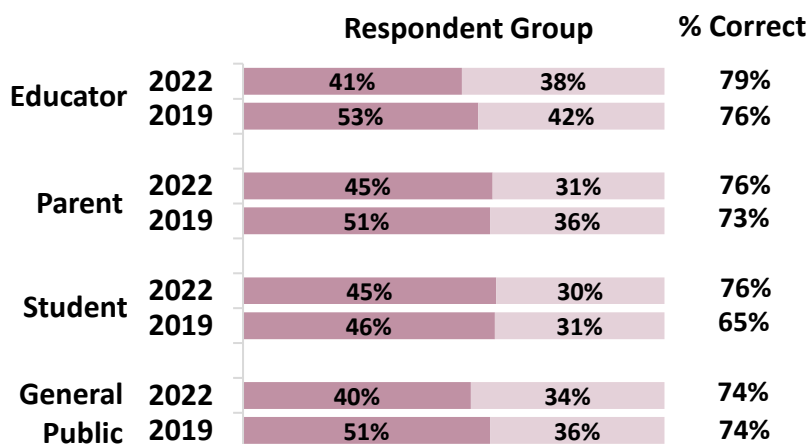
What do countries need to do in order to ensure temperatures stay within a tolerable range?



■ Significantly Decrease Emissions **% Correct** (Significantly decrease emissions **or** move to net zero emissions)
■ Move to Net Zero Emissions

When asked what countries need to do to ensure temperatures stay within a tolerable range, about three-quarters of respondents were able to answer correctly, that countries should either significantly decrease emissions or move to net zero emissions. Responses were similar but slightly improved in 2022 (75%) compared to 2019 (73%).

Correct responses increased across all respondent groups other than the general public, where correct responses stayed consistent between 2022 and 2019 (74%). Students had the largest increase in correct responses from 2019 (65%) to 2022 (76%).



2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)
 2019: n=2,189 (Educator=111, Parent=571, Student=486, General Public=906)

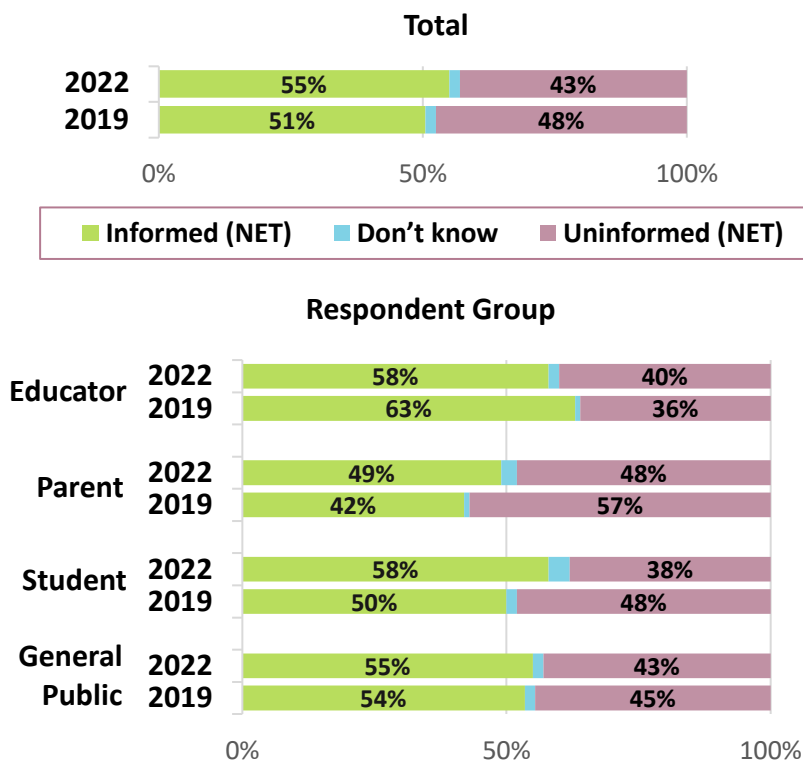
Province	% Correct (Significantly decrease emissions or move to net zero emissions)		
	2019	2022	(+/-)
BC	71%	76%	+5
AB	64%	65%	+1
SK	60%	70%	+10
MB	74%	66%	-8
ON	74%	76%	+2
QC	82%	78%	-4
ATL	68%	75%	+7

The percentage of correct responses varied across all province/regions from 2019 to 2022. Most had an increase in correct responses, however in MB and QC correct responses decreased by -8 to -4 percentage points, respectively.

Correct responses increased from +1 percentage points in AB to +10 in SK from 2019 to 2022.

2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL=300)
 2019: n=2,188 (BC=196, AB=160, SK=73, MB=70, ON=748, QC=812, ATL=118)

How well-informed do you feel you are about climate change?

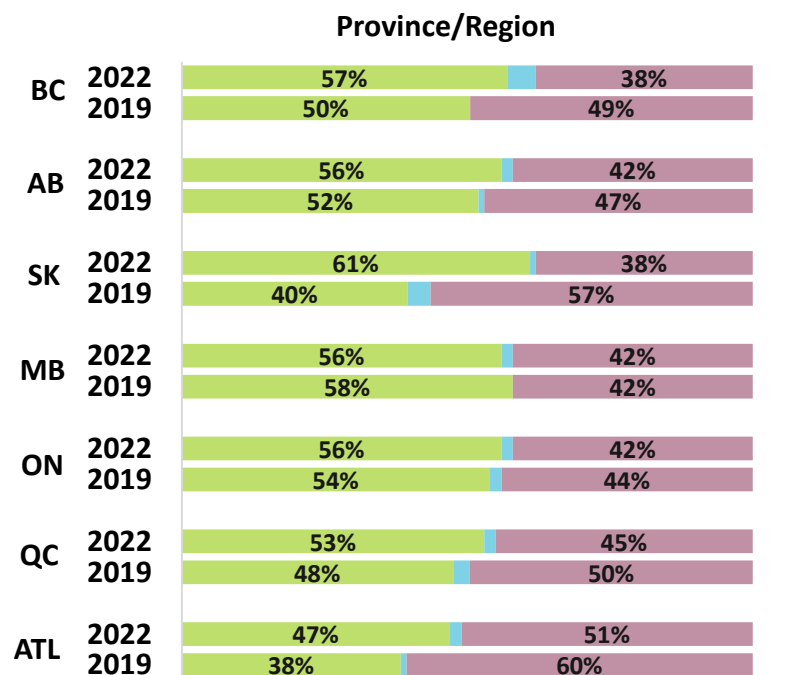


2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)
 2019: n=2,188 (Educator=110, Parent=571, Student=485, General Public=907)

Most respondents (55%) in 2022 felt they were well-informed (very well-informed/fairly well-informed) about climate change, more than in 2019 (51%).

Parents (49%), students (58%), and the general public (55%) indicated feeling more well-informed in 2022 than in 2019 (42%, 50%, 54%, respectively).

Educators were the only group to feel less informed in 2022 than in 2019 (58% vs. 63% in 2019).



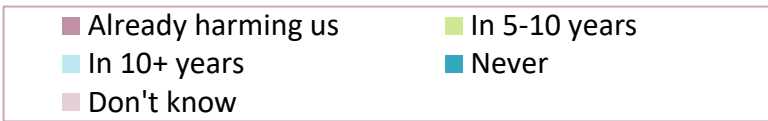
2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL=300)
 2019: n=2,188 (BC=196, AB=159, SK=73, MB=70, ON=748, QC=813, ATL=118)

All respondents in provinces across Canada, other than in MB, indicated feeling more well-informed in 2022 than in 2019.

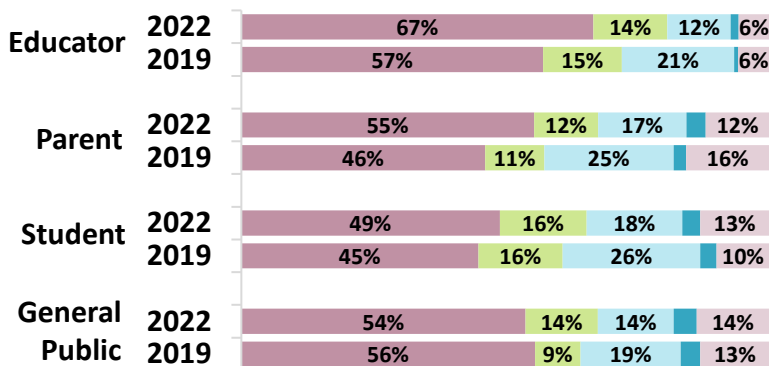
Those in SK felt the most well-informed (61%) in 2022, a significant increase from 2019 (40%). Residents in ATL felt the least well-informed (47%) in 2022, however still notably more than in 2019 (38%).

When do you think climate change will start to harm people living in Canada?

Total

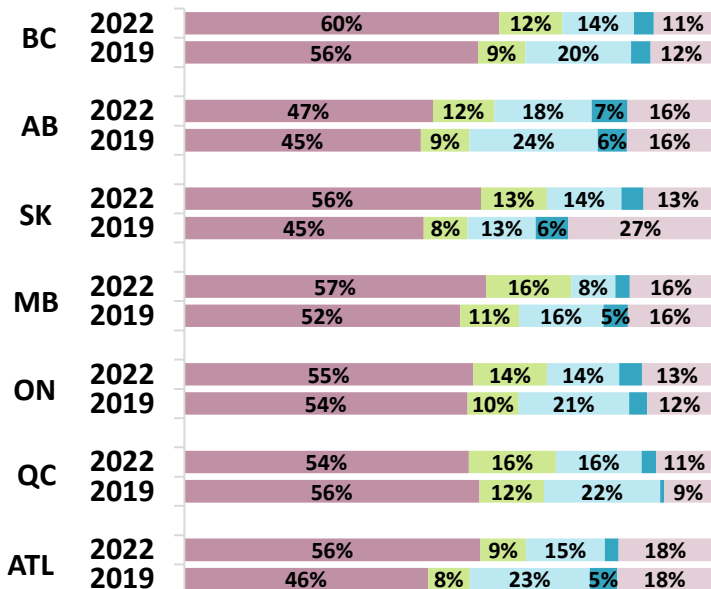


Respondent Group



2022: n=2,166 (Educator=248, Parent=765, Student=572, General Public=714)
 2019: n=2,187 (Educator=111, Parent=571, Student=485, General Public=907)
 Responses 4% or less not labelled.

Province/Region



2022: n=2,166 (BC=328, AB=222, SK=96, MB=123, ON=549, QC=613, ATL=162)
 2019: n=2,187 (BC=196, AB=160, SK=73, MB=70, ON=747, QC=812, ATL=118)
 Responses 4% or less not labelled.

Increasingly, Canadians feel climate change harm is more imminent than before. The majority of respondents across respondent groups believe that climate change is already harming people living in Canada. Slightly more respondents believe so in 2022 (55%) than in 2019 (52%).

Significantly more educators and parents in 2022 think climate change is already harming people in Canada than in 2019 (67% vs. 57% and 55% vs. 46% respectively).

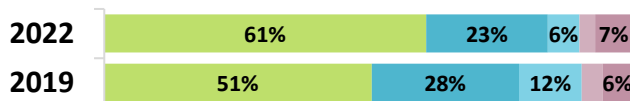
Accordingly, significantly less respondents in 2022 across all groups indicated that they think climate change will start to harm Canadians in 10+ years than in 2019.

Over half of all respondents in various provinces across Canada think that climate change is already harming us. AB remains lower than other jurisdictions (47%)

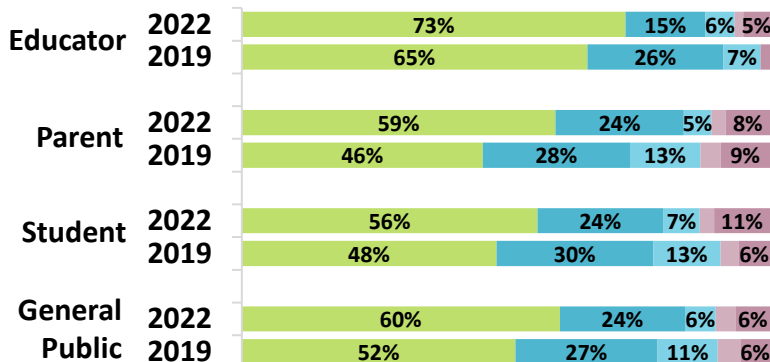
Significantly fewer respondents in SK in 2022 indicated that they did not know when climate change would begin to harm Canadians (13% vs. 27% 2019).

How much do you think climate change will harm Coastal Communities in Canada?

Total



Respondent Group

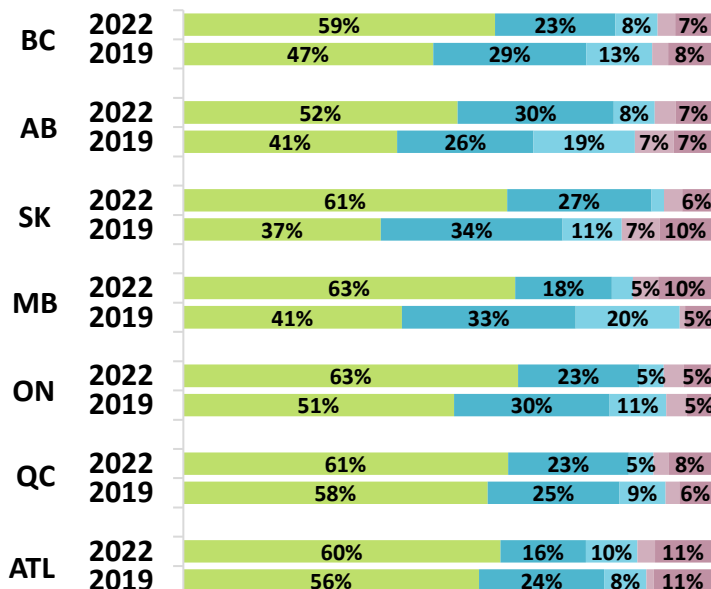


2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)
 2019: n=2,186 (Educator=110, Parent=569, Student=485, General Public=906)
 Responses 4% or less not labelled.

Most respondents believe that climate change will harm coastal communities in Canada a great deal. More respondents in 2022 (61%) indicated this belief than in 2019 (51%).

Educators felt the greatest concern for coastal communities in both 2022 and 2019. However, parents showed the most change, with an increase from 46% in 2019 up to 59% in 2022.

Province/Region



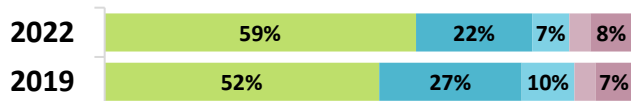
2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL=300)
 2019: n=2,186 (BC=196, AB=160, SK=73, MB=70, ON=745, QC=813, ATL=118)
 Responses 4% or less not labelled.

A majority of respondents across all provinces in Canada believe climate change is harming coastal communities a great deal.

Compared to 2019, respondents in BC (59% vs 47%), AB (52% vs. 41%), SK (61% vs. 37%), MB (63% vs. 41%), and ON (63% vs. 51%) were significantly more likely to think so. AB remains lower than other jurisdictions (52%) in 2022.

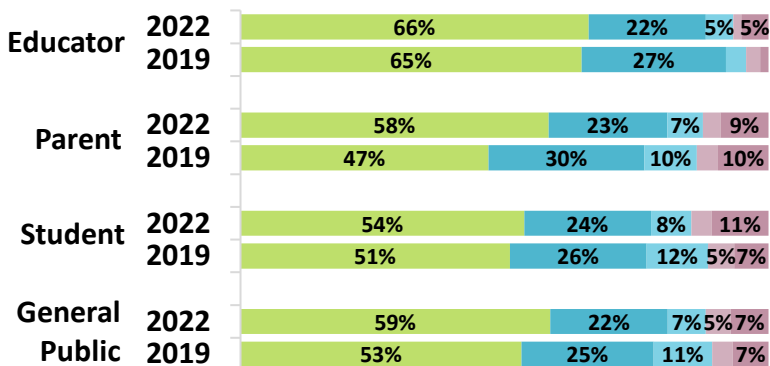
How much do you think climate change will harm Northern Communities in Canada?

Total



Most respondents (59%) in 2022 believe that climate change will harm Northern communities in Canada a great deal, even more so than in 2019 (52%).

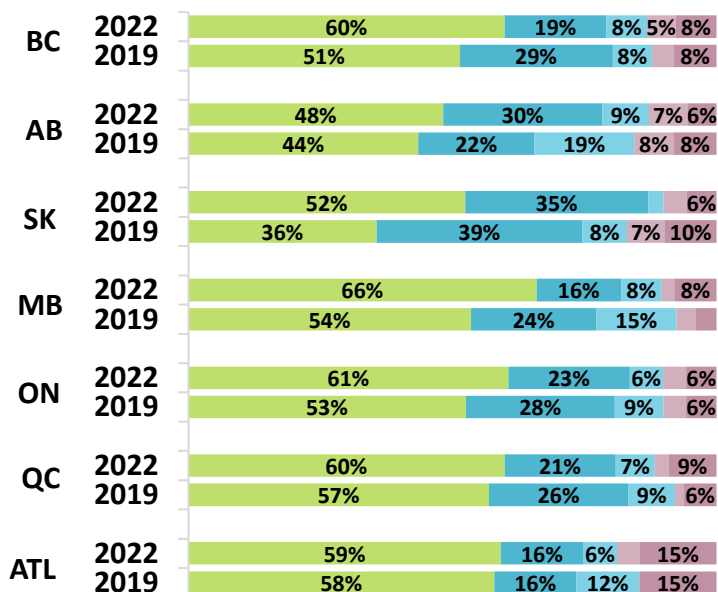
Respondent Group



Parents and the general public were significantly more likely to think so in 2022 than they did in 2019 (58% vs. 47%, and 59% vs. 53%, respectively).

2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)
 2019: n=2,185 (Educator=111, Parent=569, Student=485, General Public=905)
 Responses 4% or less not labelled.

Province/Region

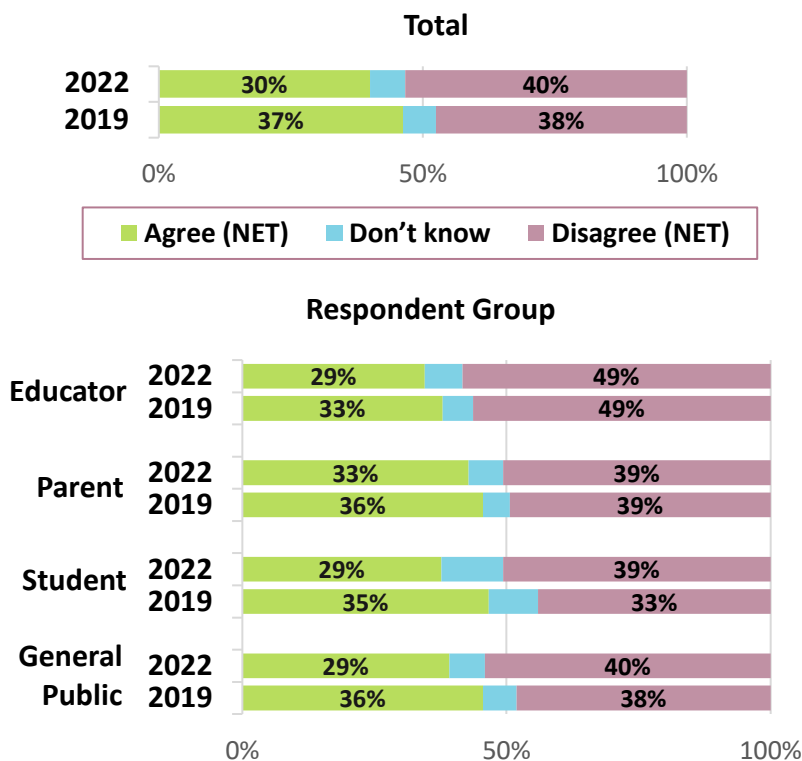


While most respondents in 2022 across various provinces in Canada believe that climate change will harm Northern communities a great deal, those in BC (60% vs. 51%), SK (52% vs. 36%), MB (66% vs. 54%) and ON (61% vs. 53%) were significantly more likely to think so compared to 2019.

In 2022, AB (48%) and SK (52%) continue to be less likely to think climate change will harm Northern communities in Canada.

2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL=300)
 2019: n=2,185 (BC=196, AB=160, SK=73, MB=70, ON=746, QC=811, ATL=118)
 Responses 4% or less not labelled.

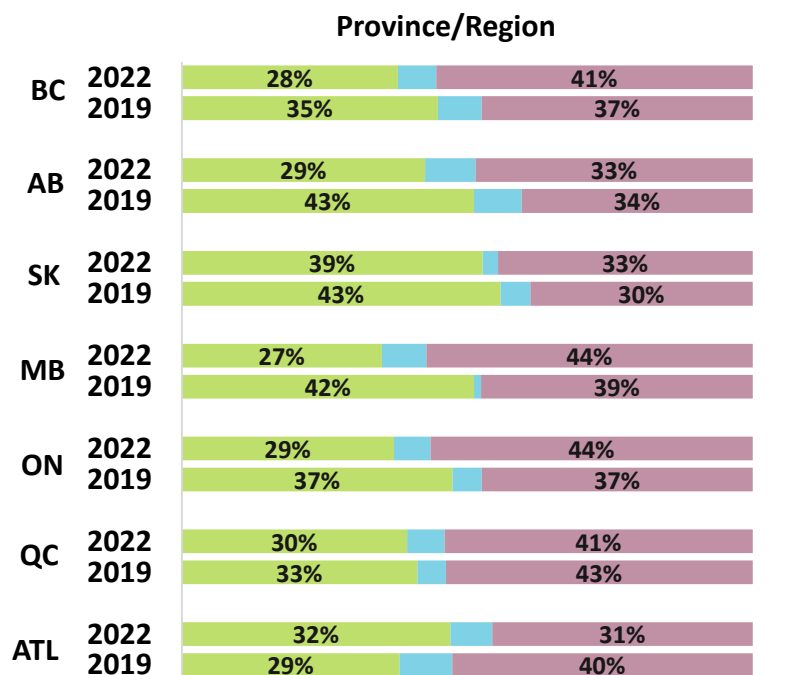
Climate change is inevitable, no matter what we try to do to stop it



When asked if climate change is inevitable (no matter what we try to do to stop it), fewer respondents (30%) in 2022 agreed (strongly agree/agree) than in 2019 (37%).

Similarly, fewer respondents in 2022 than in 2019 across all respondent groups agree.

2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)
 2019: n=2,183 (Educator=111, Parent=571, Student=482, General Public=905)



Respondents in regions across Canada, other than in ATL, were less likely to agree in 2022 than in 2019 that climate change is inevitable, no matter what we try to do to stop it.

These results seem to indicate that increasingly, Canadians feel there is more that can be done to stop climate change.

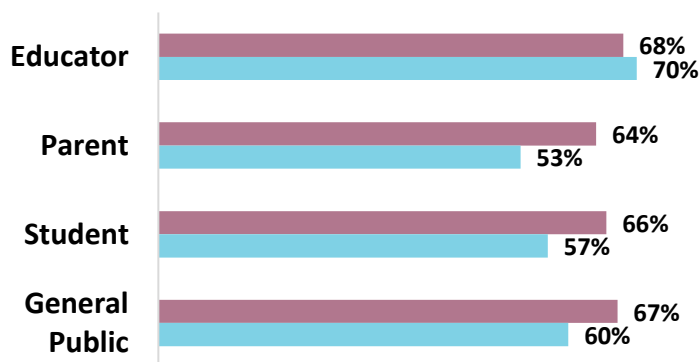
2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL=300)
 2019: n=2,183 (BC=196, AB=160, SK=73, MB=70, ON=747, QC=808, ATL=118)

Climate change education should be a high priority for schooling

Agree (NET)– Total

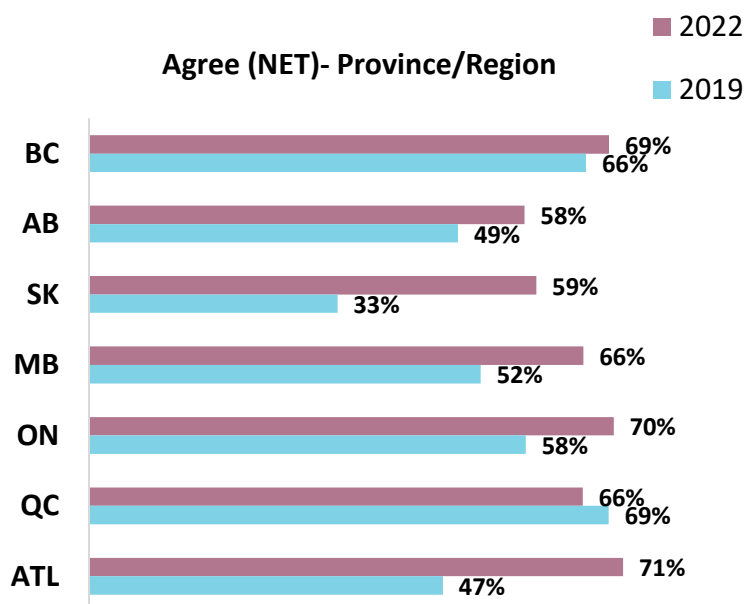


Agree (NET)– Respondent Group



2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)
 2019: n=2,179 (Educator=111, Parent=570, Student=479, General Public=906)

Agree (NET)- Province/Region



2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL=300)
 2019: n=2,179 (BC=196, AB=160, SK=73, MB=70, ON=743, QC=809, ATL=117)

Education is becoming a higher priority for Canadians. When asked if climate change should be a high priority for schooling, more respondents agreed in 2022 (67%) than in 2019 (59%).

Parents (64% vs. 53%), Students (66% vs. 57%) and the general public (67% vs. 60%) agreed significantly more in 2022 than they did in 2019.

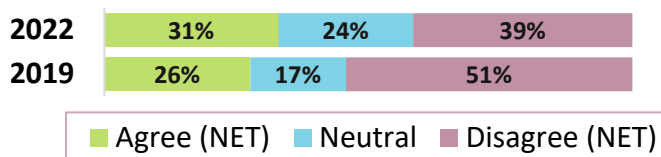
Similarly, when asked if climate change education should be a high priority for schooling, a majority of respondents in 2022 across all regions in Canada agreed. Those in AB (58% vs. 49%), SK (59% vs. 33%), MB (66% vs. 52%), ON (70% vs. 58%), and those in ATL (71% vs. 47%) agreed significantly more than they did in 2019.

Notably, QC is the only region that decreased in agreement from 2019 to 2022.

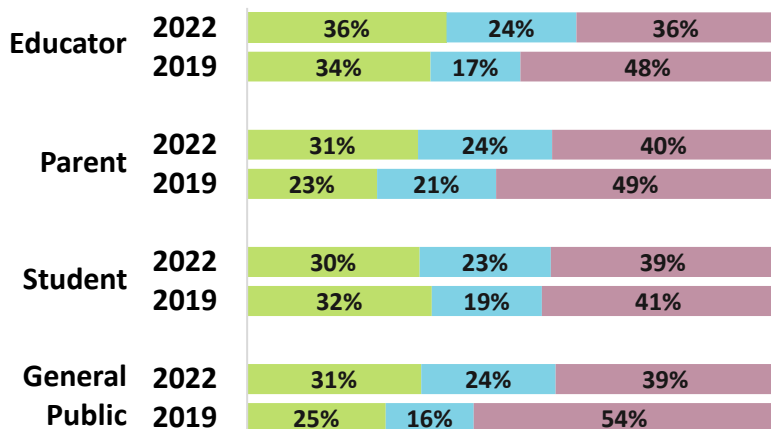
In 2022, respondents in AB (58%) and SK (59%) agreed less than other provinces.

Only one ‘side’ of climate change should be taught (it is happening, and humans are the cause).

Total



Respondent Group

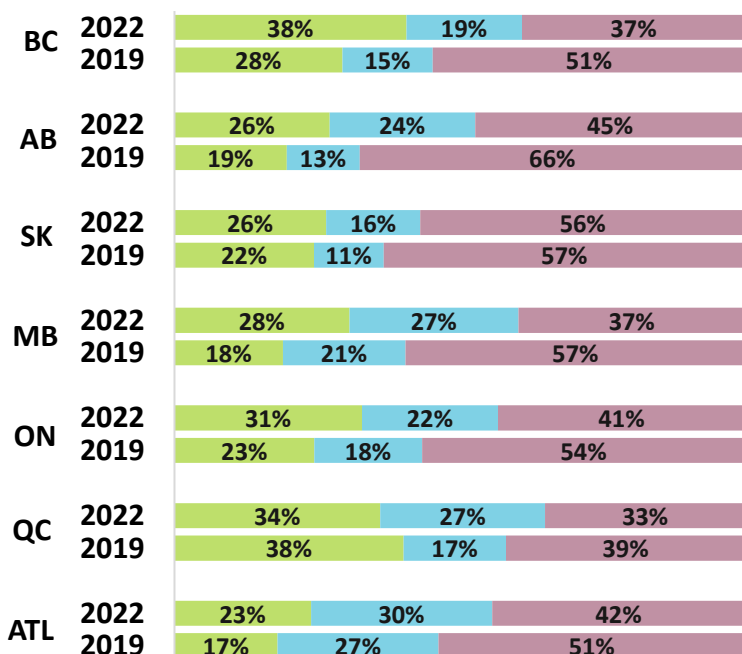


2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)
 2019: n=2,179 (Educator=111, Parent=570, Student=482, General Public=905)

When asked if only one side of climate change should be taught (that it is happening, and humans are the cause), more respondents in 2022 agreed (31%) than did in 2019 (26%). However, the number of respondents that disagreed that only one side be taught remains higher than those that agree.

More parents (31% vs. 23%) and those from the general public (31% vs. 25%) agreed with this statement in 2022 than in 2019. There was, however, little change in the opinion of educators or students.

Province/Region



2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL=300)
 2019: n=2,179 (BC=195, AB=160, SK=73, MB=70, ON=742, QC=811, ATL=117)

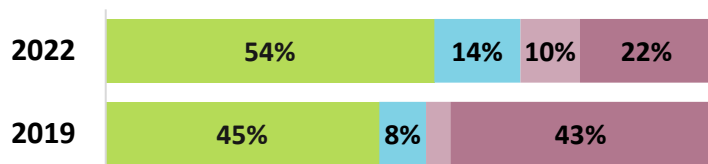
Similarly, most respondents across Canada in 2022 indicated an increase in agreement from 2019, that only one side of climate change should be taught. In QC, however, fewer respondents agreed (34% in 2022 down from 38% in 2019).

Respondents in BC (38%) indicated the highest level of agreement. Those in AB (26%) and SK (26%) showed the least agreement.

In my classes...

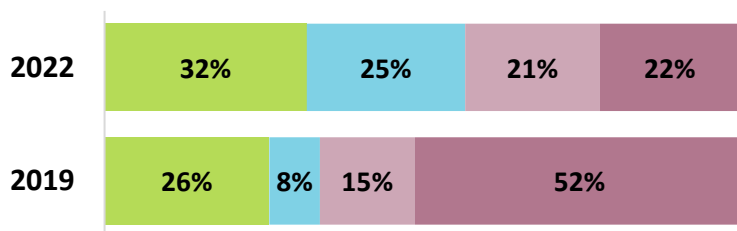
Educator Responses

“I emphasize that average global temperatures have risen in the past 150 years”



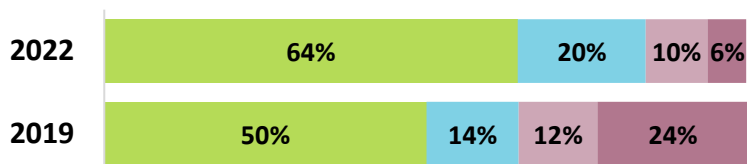
A majority of educators in 2022 (54%) agreed (strongly agree/agree) that they emphasized that average global temperatures have risen in the past 150 years in their classes. This is an increase from 45% in 2019. Significantly less educators indicated this was not applicable/they didn't know in 2022 (22%) compared to 2019 (43%).

“I focus on political actions that can be taken to influence climate change policy in my classes”



In total, 32% of educators in 2022 indicated that they focus on political actions that can be taken to influence climate change policy in their classes. This is an increase from 26% in 2019. Significantly fewer educators indicated they didn't know/was not applicable in 2022 (22%) than in 2019 (52%).

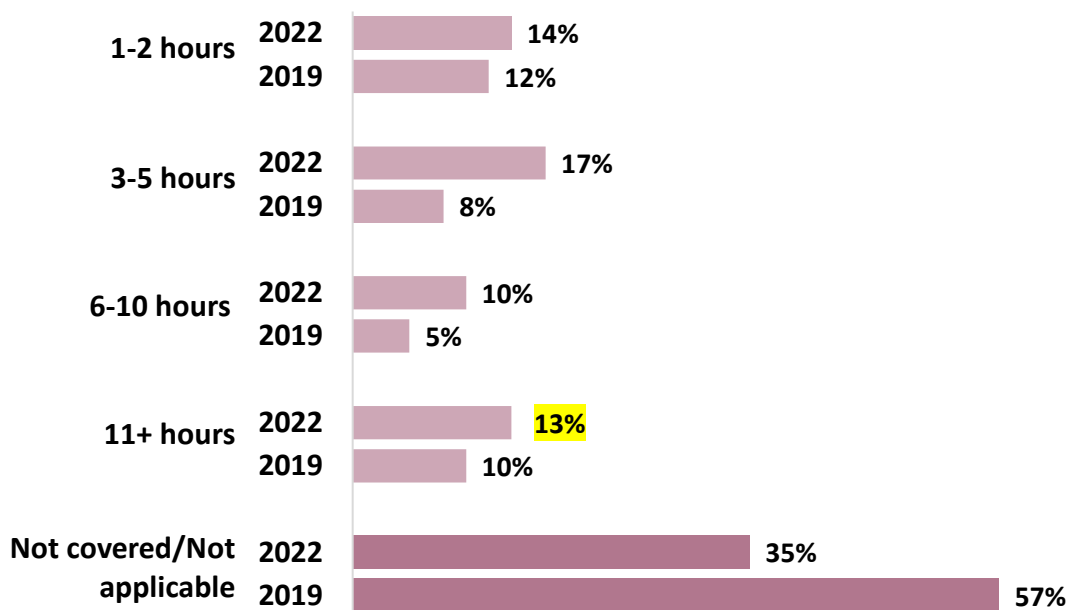
“I would like to include climate change education but need professional development to feel better able to do so”



A majority of educators in both 2022 and 2019, indicated that they would like to include climate change education within their classes but need professional development to feel better able to do so. Significantly more educators in 2022 agreed than did in 2019 (64% vs. 50%).

How many hours over a course/school year would you typically spend on covering topics related to climate change in your classroom?

Educator Responses



2022: Educator=306
 2019: Educator=107
 Don't Know not shown.

In 2022, the majority of educators indicated that they taught topics related to climate change in the classroom. This was a significant difference from 2019, when 57% of educators admitted that they were not covering (or didn't find it applicable to teach) topics related to climate change, as in 2022, this percentage dropped significantly to 35%. Of those educators that do teach climate change, significantly more spent 3-5 hours over the school year or semester covering climate change topics in 2022 (17%), compared to 2019 (8%).

While more educators overall in 2022 indicated they spent time covering topics related to climate change compared to 2019, the number of hours dedicated to climate change topics remains low. In 2022, only 13% taught 11 or more hours of climate change content within the school year or term and 31% spent less than 5 hours.



Canadians' Perspectives on Climate Change & Education

Section 3: What do Canadians think of Climate Change in 2022?

- **Part 1: Knowledge Questions**
- **Part 2: Effects and Action**
- **Part 3: Climate Change Education**
- **Part 4: Teaching Climate Change**



Section 3: What do Canadians think in 2022?

Part 1: Climate Change Knowledge

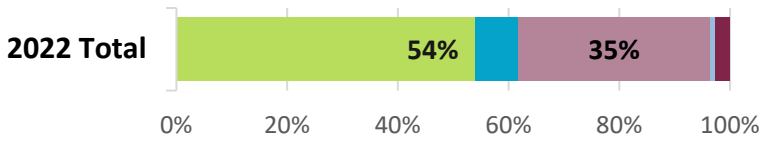
Part 1 highlights the results from the climate change knowledge test. This section assesses respondent knowledge, understanding, and perspectives on the cause, impact, and reality of climate change.

Overall Climate Change Knowledge

Respondents were asked 10 climate change questions early in the survey, to test their knowledge and understanding. Each question had a correct answer. The number of correct responses per respondent group and province/region are shown on the following slide. Below are the questions respondents were asked, with the answers in bold:

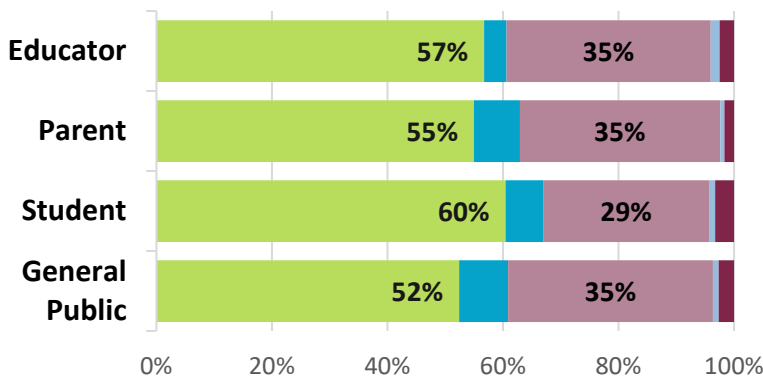
- Do you think climate change is...
 - Caused mostly by human activities**
 - Caused mostly by natural changes in the environment
 - About equally caused by both human activities and natural changes
 - Not happening
 - Don't know
 - Other (please specify)
- Which comes closest to your own view?
 - Most climate scientists think climate change is happening**
 - Most climate scientists do not think climate change is happening
 - There is a lot of disagreement among climate scientists about whether climate change is happening or not
 - Don't know enough to say
- Climate change is caused by....
 - Emissions from nuclear power plants
 - Thinning of the ozone layer
 - Particulate air pollution
 - Carbon dioxide and other greenhouse gases**
 - Industrial chemicals
 - Natural variability
 - Unsure
- The main process behind climate change is...
 - Letting more of the sun's heat into the Earth's atmosphere through a thinner ozone layer
 - An increase in gases in the Earth's atmosphere that trap heat**
 - An increase in solar activity
 - Particulate pollution in the air reflecting heat back to Earth
 - Unsure
- Canada, as an Arctic nation, is particularly affected by the impacts of climate change
 - True**
 - False
 - Unsure
- Canada's average temperature has _____ since 1948.
 - Decreased by 1 – 1.5 degrees Celsius
 - Decreased by 1 – 0.5 degrees Celsius
 - Decreased by 0.5 – 0 degrees Celsius
 - Stayed the same
 - Increased by 0 – 0.5 degrees Celsius
 - Increased by 0.5 – 1 degrees Celsius
 - Increased by 1 – 1.5 degrees Celsius**
 - Unsure
- What sector is currently the largest greenhouse gas emitter in Canada?
 - Agriculture
 - Heavy industry
 - Electricity
 - Buildings
 - Oil and gas**
 - Transportation**
 - Waste
 - Unsure
- In the next 20 years, Canadian winters are predicted to be colder and to have more snow.
 - True
 - False**
 - Unsure
- At what minimum temperature change does scientific consensus predict global warming will result in major consequences to health, livelihoods, food security, water supply, and economic growth?
 - 0 degrees Celsius
 - 0.5 degrees Celsius
 - 1 degree Celsius
 - 1.5 degrees Celsius**
 - 2 degrees Celsius
 - 2.5 degrees Celsius
 - Don't know
- What do countries need to do in order to ensure temperatures stay within the range that the Earth system can tolerate?
 - Significantly increase emissions
 - Moderately increase emissions
 - Do nothing
 - Moderately decrease emissions
 - Significantly decrease emissions**
 - Move to net zero emissions** Don't know

1. Do you think climate change is...



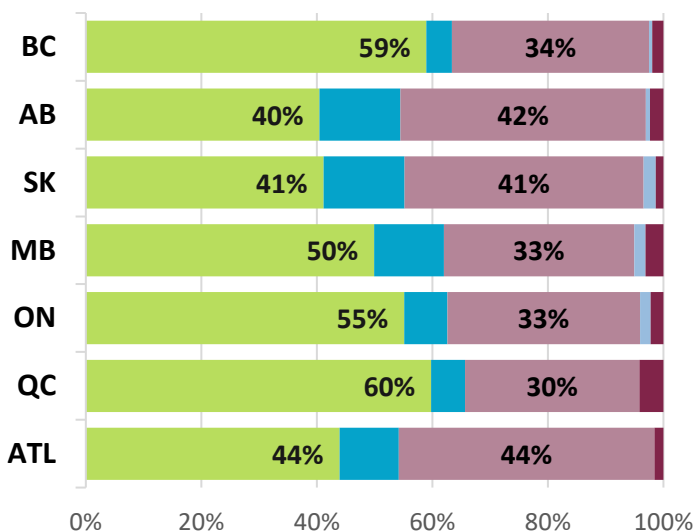
- Caused mostly by human activities (*correct*)
- Caused mostly by natural changes in the environment
- About equally caused by both human activities and natural changes
- Not happening
- Don't know

Respondent Group



2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)

Province/Region



2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL=300)

When asked in the survey what causes climate change, 54% of respondents answered correctly that it is human-caused.

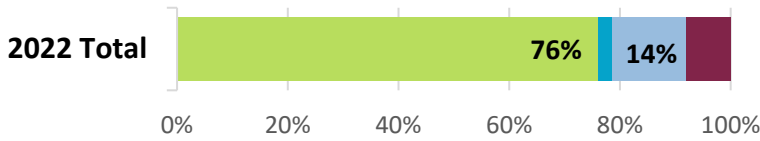
Over one-third (35%), however, believed that climate change is equally caused by both human activities and natural changes.

Students scored highest on this question (60%), followed by educators (57%), parents (55%) and the general public (52%).

The understanding that climate change is human-caused varies across regions. Half or more in QC (60%), BC (59%), ON (55%), and MB (50%) agree that climate change is mostly caused by human activities. Less than half agree in AB (40%), SK (41%), ATL (44%).

AB (14%) and SK (14%) were the provinces with the highest percentages believing that climate change is natural, compared to BC (4%).

2. Which comes closest to your own view?



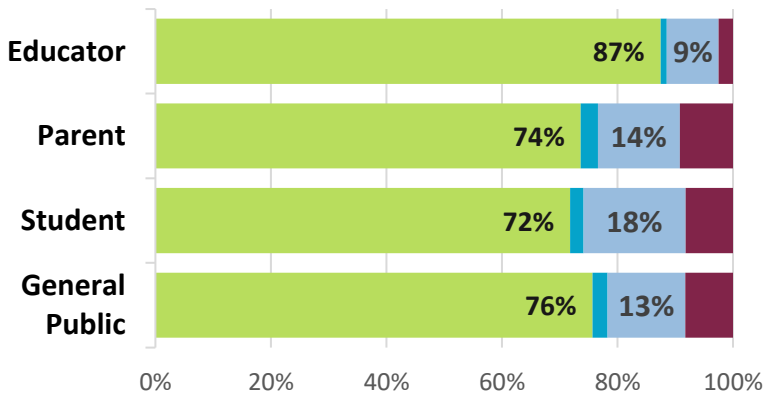
- Most climate scientists think climate change is happening (correct)
- There is a lot of disagreement among climate scientists about whether climate change is happening or not
- Don't know enough to say
- Most climate scientists do not think climate change is happening

Three quarters of respondents (76%) were in agreement that most climate scientists think climate change is happening. However, some remain uncertain, as 22% either believe there is disagreement among scientists or 'don't know enough to say'.

When respondents were asked about the scientific agreement, educators were most likely to agree (87%) compared to parents (74%), students (72%), and the general public (76%).

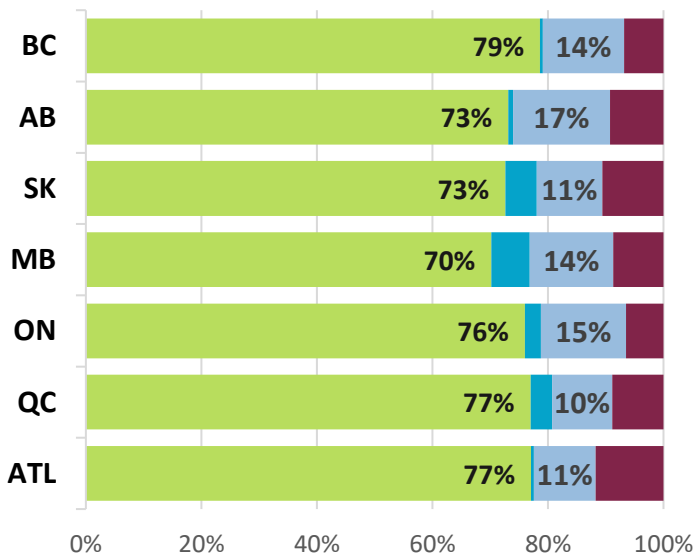
Students showed the highest percentage (18%) who believed that there is disagreement amongst scientists.

Respondent Group



2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)

Province/Region

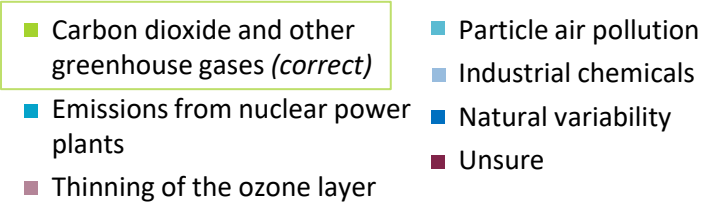
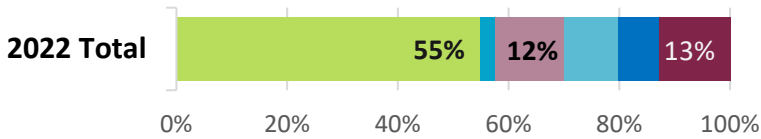


2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL=300)

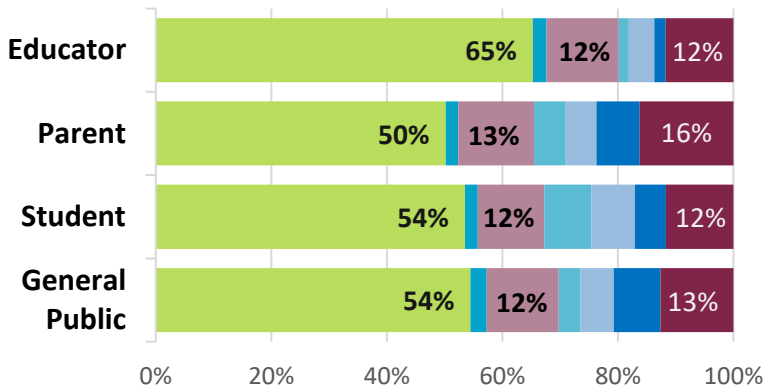
Across various provinces, the majority of respondents recognized that there is a scientific consensus on climate change, with percentages ranging from 70% in MB to 79% in BC.

AB showed the highest percentage (18%) who believed that there is disagreement amongst scientists, compared to QC with the lowest (10%).

3. Climate change is caused by...

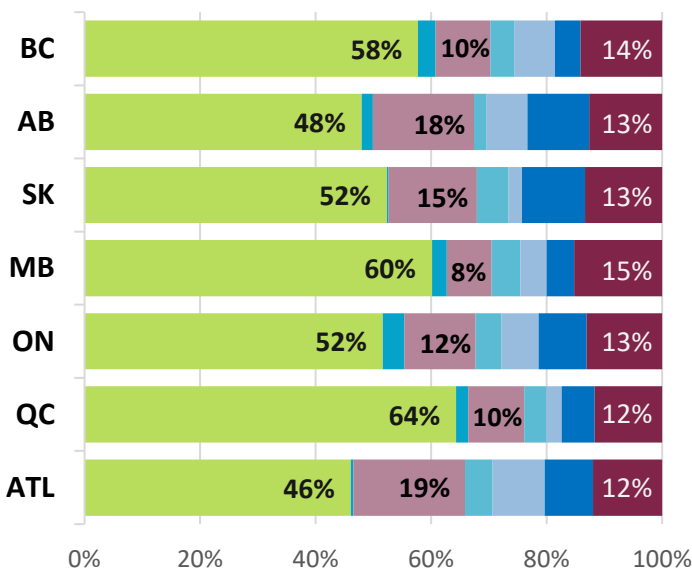


Respondent Group



2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)

Province/Region



2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL=300)

In terms of understanding the scientific causes of climate change, just over half (55%) of respondents answered correctly, that carbon dioxide and other greenhouse gases are the primary cause of climate change.

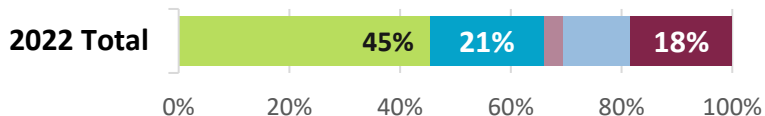
However, a notable portion of respondents were 'unsure' of the cause of climate change (13%) or believed that climate change is caused by the thinning of the ozone layer (12%).

Educators were significantly more likely to answer correctly (65%) compared to parents (50%), students (54%), and the general public (54%).

Across provinces, there is a variation in the knowledge that carbon dioxide and other greenhouse gases are the principal cause of climate change, ranging from 46% in ATL up to 64% in QC.

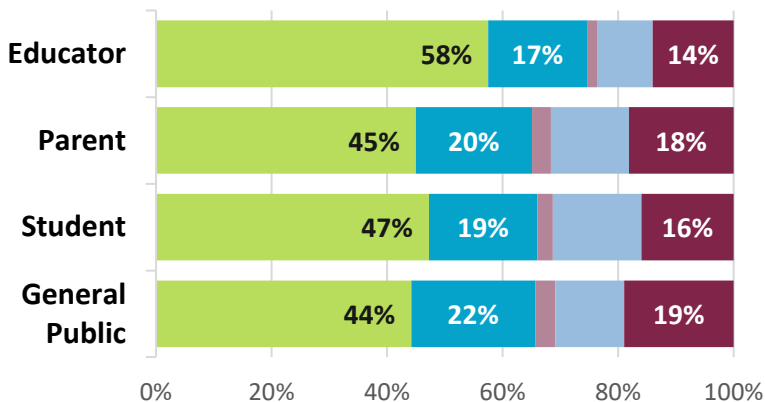
ATL (19%) and AB (18%) were the regions that had the most respondents who believed that climate change is caused by the thinning of the ozone layer.

4. The main process behind climate change is...



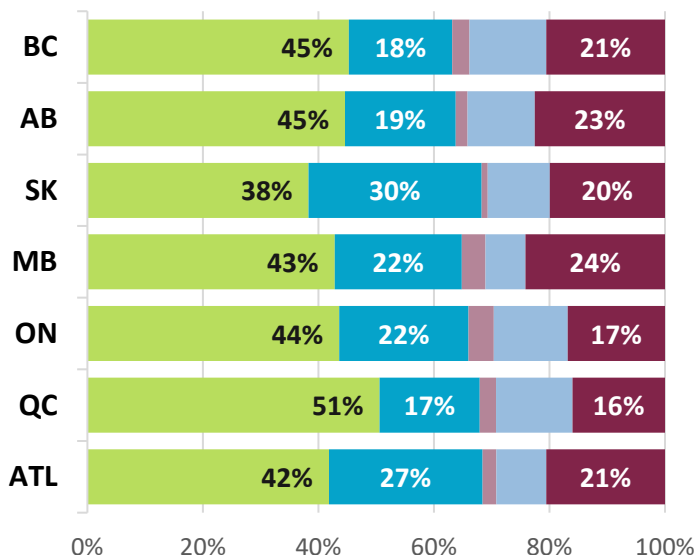
- An increase in gases in the Earth's atmosphere that trap heat (*correct*)
- Letting more of the sun's heat into the Earth's atmosphere through a thinner ozone layer
- An increase in solar activity
- Particulate pollution in the air reflecting heat back to Earth
- Unsure

Respondent Group



2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)

Province/Region



2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL=300)

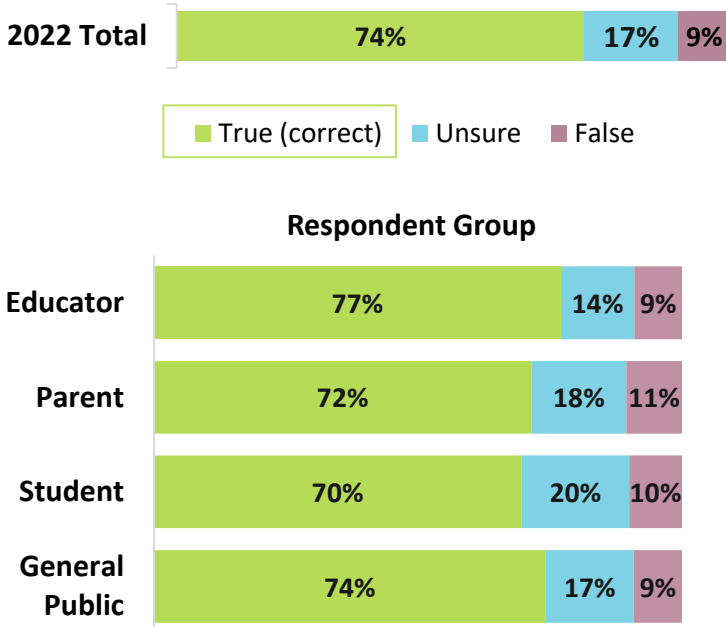
When asked about the main scientific process behind climate change, less than half (45%) of respondents answered correctly, that an increase in gases in the Earth's atmosphere trap heat. Educators were significantly more likely to respond correctly (58%) when compared to parents (45%), students (47%), and the general public (44%).

A notable portion of respondents were either unsure (18%), or answered that letting more of the sun's heat into the Earth's atmosphere through a thinner ozone layer is the main process behind climate change (21%).

Regionally, there was some variance in the understanding of the main process behind climate change, ranging from 38% in SK to 51% in QC.

Similarly, a notable portion of respondents indicated they were either unsure (especially in MB at 24%) or believed that letting more of the sun's heat into the Earth's atmosphere through a thinner ozone layer is the main process behind climate change (especially in SK at 30%).

5. Canada, as an Arctic nation, is particularly affected by the impacts of climate change

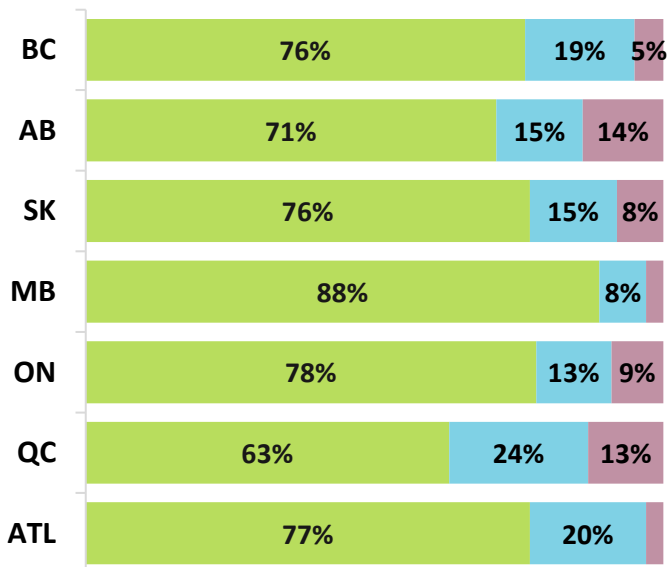


2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)

Most Canadians are aware that climate change is impacting their country. When asked if Canada, as an Arctic nation, is particularly affected by climate change, close to three quarters of respondents answered correctly (74%), that it is true.

The majority of respondent groups similarly answered correctly, ranging from 77% of educators to 70% of students.

Province/Region

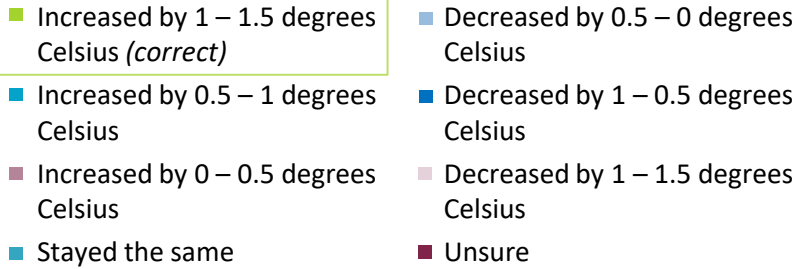
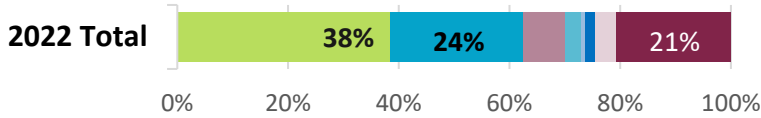


2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL=300)
Responses less than 4% not labelled

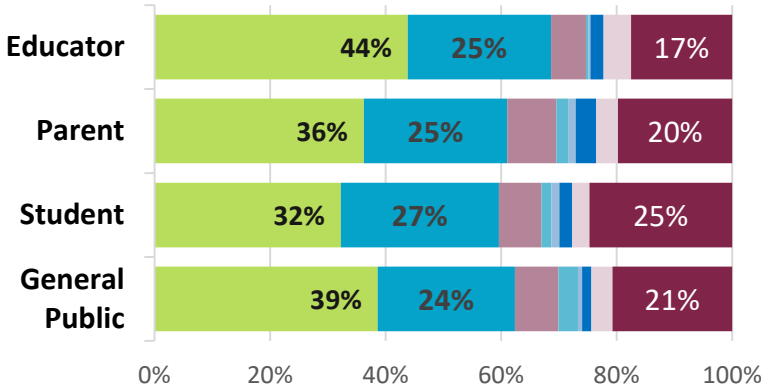
Regionally, there was more variance in the understanding that Canada, as an Arctic nation is particularly affected by climate change.

Respondents in MB were significantly more likely to answer correctly (88%). Respondents in QC were the least likely to answer correctly (63%), and correspondingly were the most unsure (24%) of the answer.

6. Canada's average temperature has _____ since 1948...

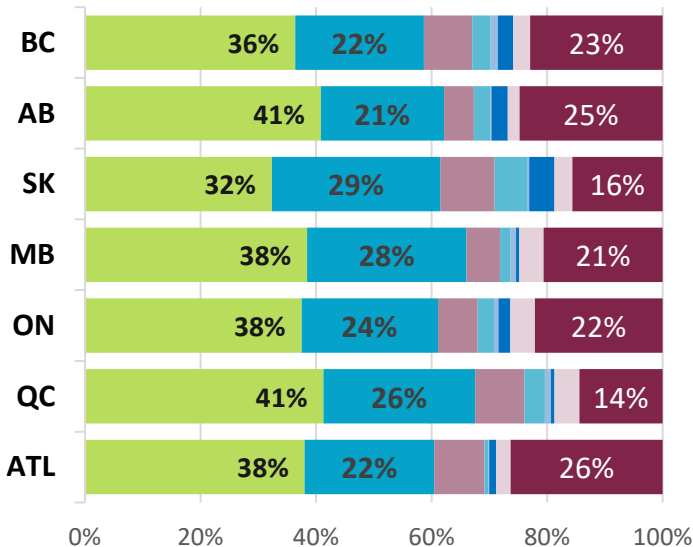


Respondent Group



2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)

Province/Region



2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL=300)

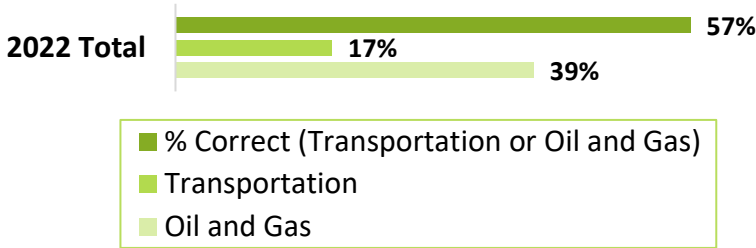
When asked about Canada's average temperature trends since 1948, only 38% answered correctly that the temperature has already increased by 1-1.5 degrees Celsius. The rest of the respondents were split between unsure (21%), and the temperature has increased by 0.5-1 degrees Celsius (24%).

Educators (44%) and the general public (39%) were significantly more likely to answer correctly than students (32%).

Similarly, there is some uncertainty in understanding how much Canada's average temperature has changed between provinces, with less than half of respondents across each region answering correctly. SK scored the lowest (32%), while AB and QC tied for highest correct scores (41%).

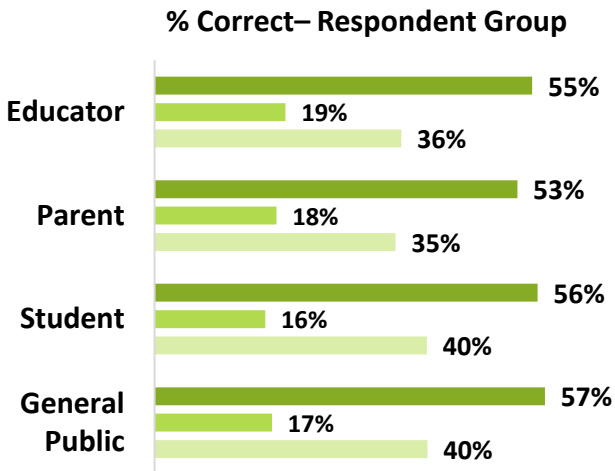
Close to half of the regions were either unsure of the correct answer or believed temperature has only increased by 0.5-1 degrees Celsius.

7. What sector is currently the largest greenhouse gas emitter in Canada?



The majority of respondents (57%) were aware that the transportation (17%) and oil and gas (39%) sectors are currently the largest greenhouse gas emitters in Canada. *(Both answers were deemed correct.)*

There was very little difference in correct scores between educators (55%), parents (53%), students (56%), and the general public (57%).

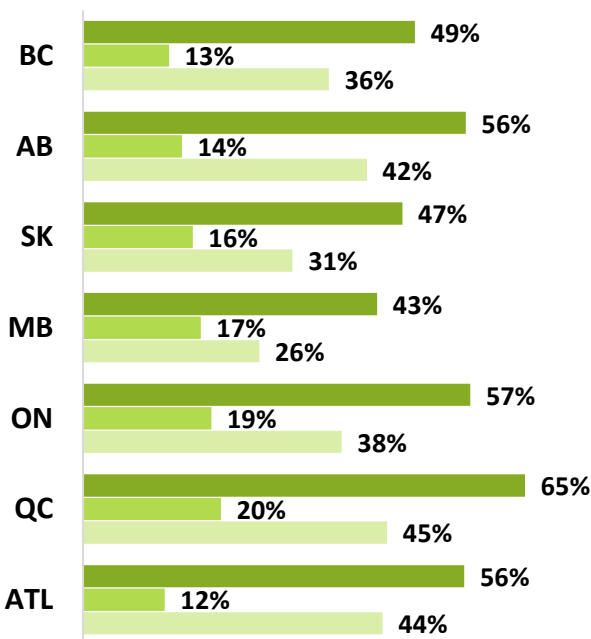


2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)

Regionally, there was some variance in the understanding of what sectors are the largest greenhouse gas emitters in Canada.

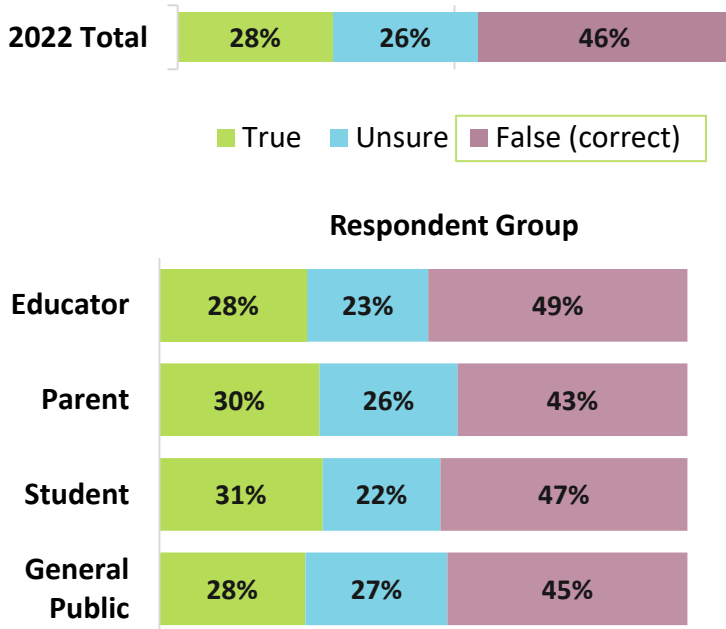
Respondents in QC (65%) were significantly more likely to respond correctly than respondents living in BC (49%), SK (47%), and MB (43%).

% Correct— Province/Region



2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL=300)

8. In the next 20 years, Canadian winters are predicted to be colder and to have more snow.



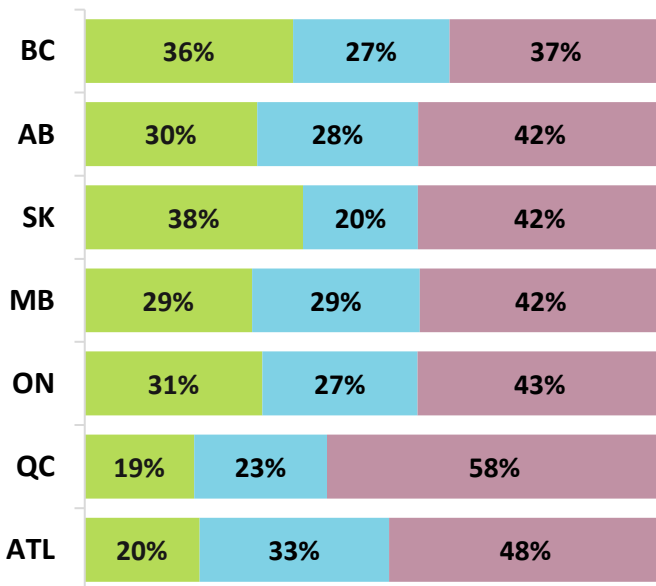
When asked if in the next 20 years Canadian winters are predicted to be colder and to have more snow, less than half of respondents correctly indicated the statement was false (46%).

Similarly, less than half of respondents in each respondent group answered correctly, ranging from 49% of educators to 43% of parents.

Close to one quarter of all respondents (26%) indicated they were unsure.

2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)

Province/Region

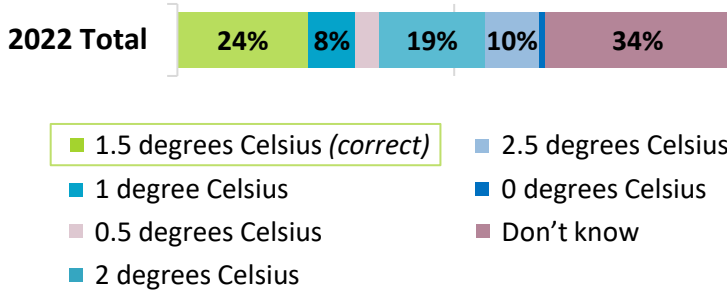


There was some variance in responses across Canada. QC was significantly more likely to respond correctly that it is false that Canadian winters are getting colder (58%) when compared to BC (37%).

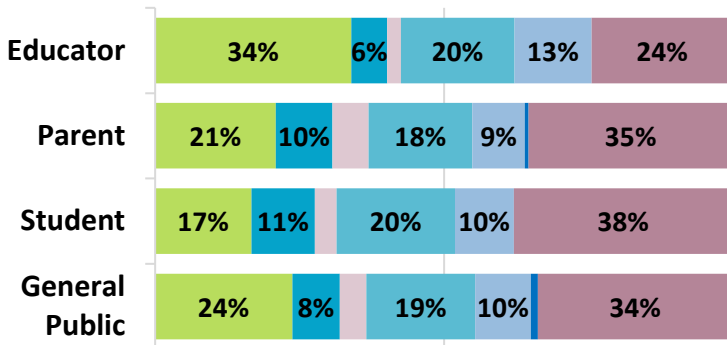
One third of respondents in ATL (33%) were unsure of the correct answer.

2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL=300)

9. At what minimum temperature change does scientific consensus predict global warming will result in major consequences?

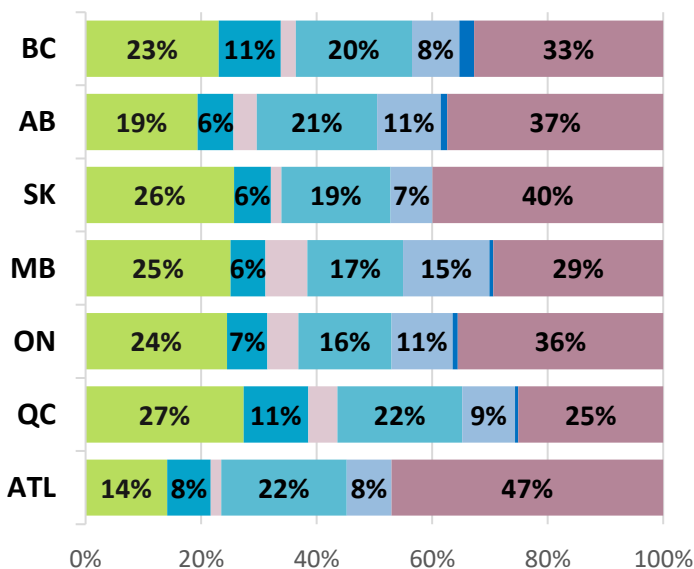


Respondent Group



2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)
Responses 4% or less not labelled.

Province/Region



2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL=300)
Responses 4% or less not labelled.

Most respondents (34%) were unsure (indicated they "don't know") at what minimum temperature change scientific consensus predicts global warming will result in major consequences. Only about one quarter (24%) of respondents answered correctly, that a temperature change of 1.5 degrees Celsius will result in major consequences.

Educators were significantly more likely to answer correctly (34%) than parents (21%), students (17%), and the general public (24%).

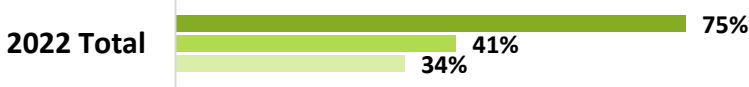
Students were most likely to indicate they did not know the answer (38%).

Across various provinces, the majority of Canadians indicated they "don't know" what minimum temperature change scientists predict global warming will result in major consequences.

The percentage for those that "don't know" ranged from almost half (47%) in ATL to one quarter (25%) in QC.

Regional responses for those that answered 1.5 degrees Celsius (correct answer) ranged from 27% in QC to 14% in ATL.

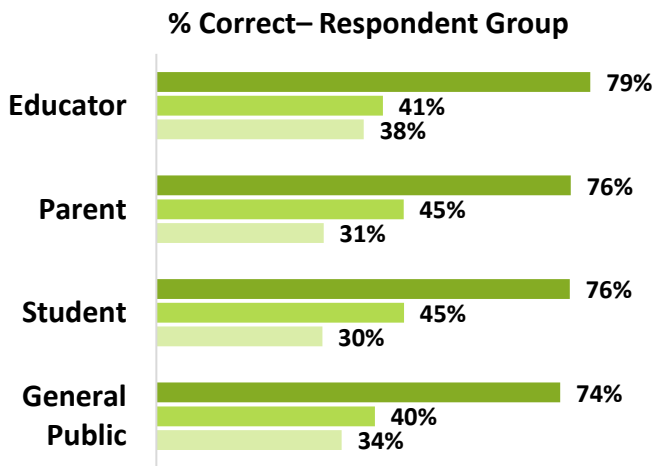
10. What do countries need to do in order to ensure temperatures stay within a tolerable range?



- % Correct (Significantly decrease emissions or move to net zero emissions)
- Significantly Decrease Emissions
- Move to Net Zero Emissions

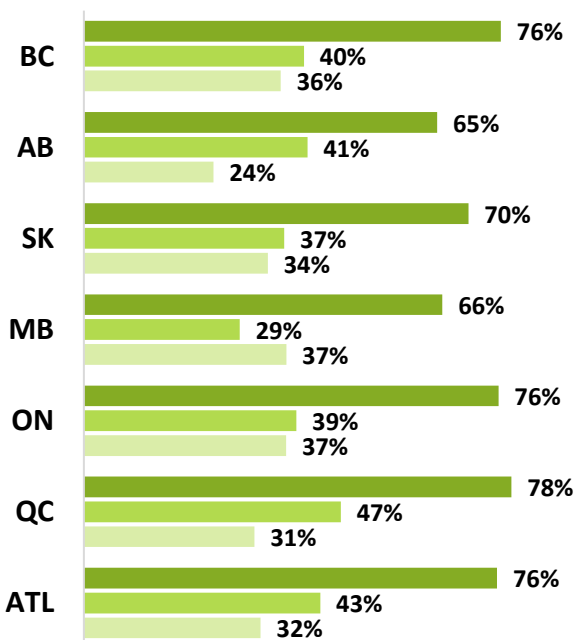
When asked what Countries need to do in order to ensure temperatures stay within a tolerable range, 75% of respondents on average answered correctly, that countries should significantly decrease emissions (41%) or move to net zero emissions (34%). *(Both answers were deemed correct.)*

The majority of respondent groups responded similarly and correctly, educators (79%), parents (76%), students (76%), and the general public (74%).



2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)

% Correct- Province/Region

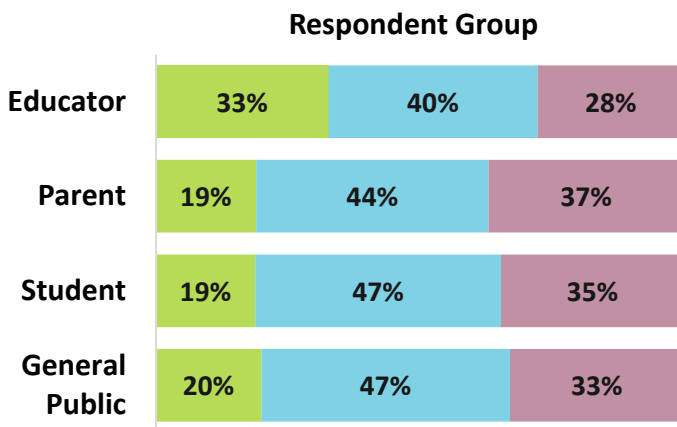
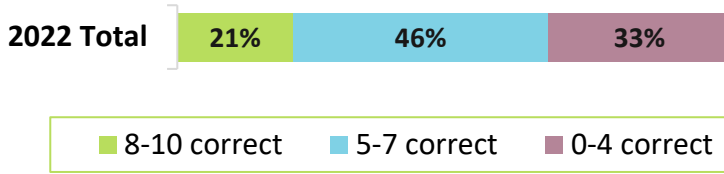


2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL=300)

Across various provinces, the majority of Canadians answered correctly that we need to significantly decrease emissions or move to net zero.

Respondents in BC (76%), ON (76%), QC (78%), and ATL (76%) were more likely to answer correctly than respondents in AB (65%), and MB (66%).

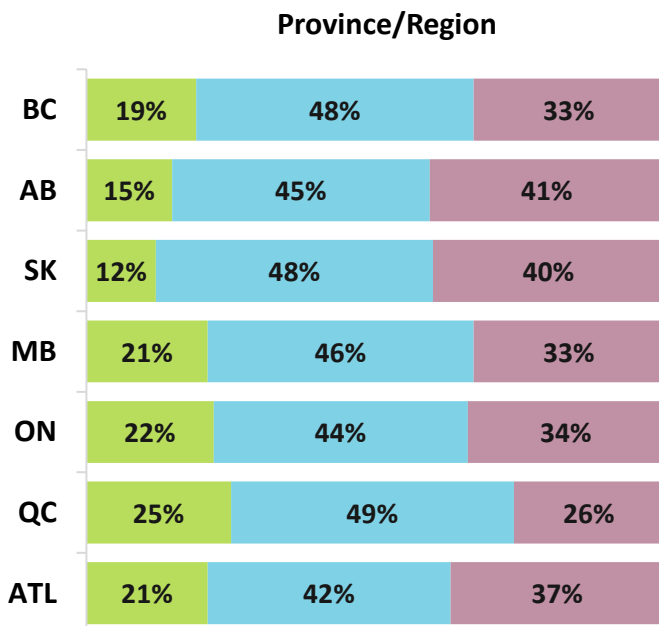
Number of correct answers to knowledge statements



2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)

On average, 67% of respondents answered 5 or more of the knowledge questions correctly.

Educators were significantly more likely to answer 8 or more of the knowledge statements correctly (33%) than were parents (19%), students (19%), and the general public (20%).

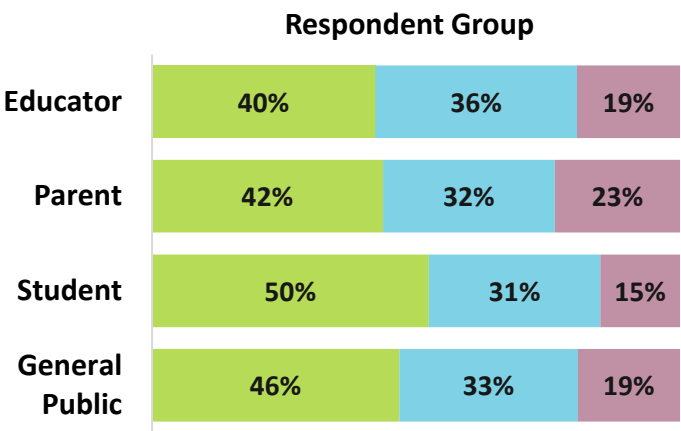
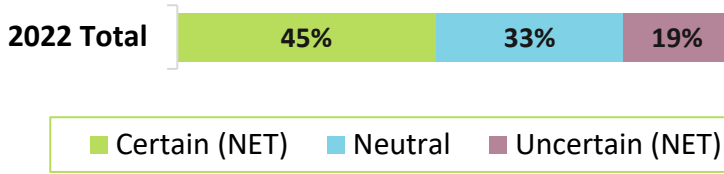


2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL=300)

Provinces ranged between a 60% (AB and SK) to 74% (QC) success rate in answering 5 or more of the knowledge statements correctly.

For the over 80% success rate, QC scored the highest with 25% of respondents getting 8 to 10 questions correct, followed closely by ON (22%). AB (15%) and SK (12%) had the fewest residents answering 8 or more questions correctly.

How confident are you in the answers you have given the preceding knowledge questions?



2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)

Province/Region



2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL=300)

When respondents were asked to self-evaluate their answers to the preceding knowledge questions, 45% indicated they were certain (very certain/certain). However, perceptions did not match outcomes, as only 21% of respondents answered 8 or more questions correctly.

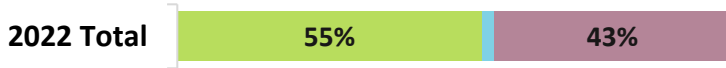
Students indicated the highest certainty (50%), however, only 19% of students answered 8 or more questions correctly. Educators indicated the least confidence (40%), yet were the most likely to answer 8 or more correctly (33%).

42% of parents and 46% of the general public were certain in their answers, however only 19% of parents and 20% of the general public were able to answer 8 or more knowledge questions correctly.

Responses across Canada varied when reporting certainty in their answers to the knowledge questions. SK residents were the most likely to be certain (54%), however they were the least likely to answer 8 or more correctly (12%) and they had one of the lowest success rates (60%).

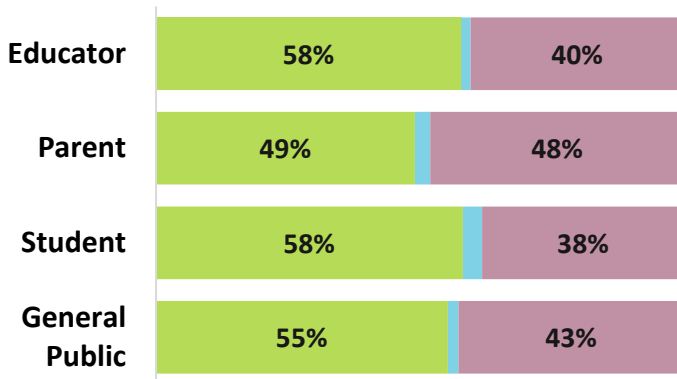
QC had the second-lowest confidence certainty (40%), yet had the highest knowledge question success rate (74%).

How well-informed do you feel you are about climate change?



■ Informed (NET) ■ Don't know ■ Uninformed (NET)

Respondent Group



2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)
Responses 4% or less not labelled.

The majority of respondents (55%) indicated they felt well informed (very well informed /fairly well informed) about climate change, however, far fewer than that (21%), were able to answer 8 or more questions correctly.

Educators (58%), students (58%) and the general public (55%) were significantly more likely to feel informed than parents (49%).

While students and educators felt equally well-informed about climate change (58%), it was educators (33%) who were most likely to answer 8 or more of the knowledge questions correctly, as opposed to only 19% of students.

Province/Region

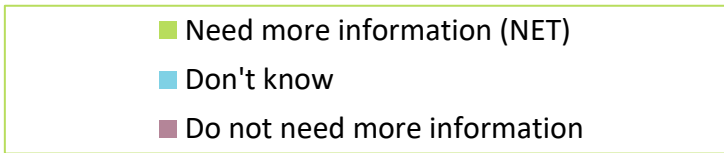


2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL=300)
Responses 5% or less not labelled.

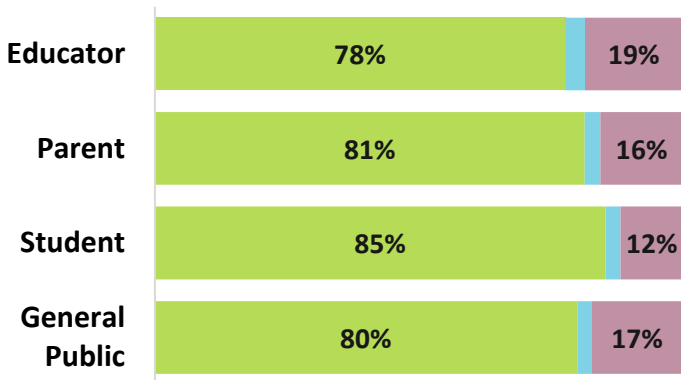
Most provinces felt they were well informed about climate change, ranging from 61% in SK to 47% in ATL.

Respondents in BC, AB, SK, MB, and ON felt more informed, however those in QC, ON, MB, and ATL were more likely to answer 8 or more knowledge and understanding questions correctly.

How much information do you feel you need about climate change to form a firm opinion?



Respondent Group

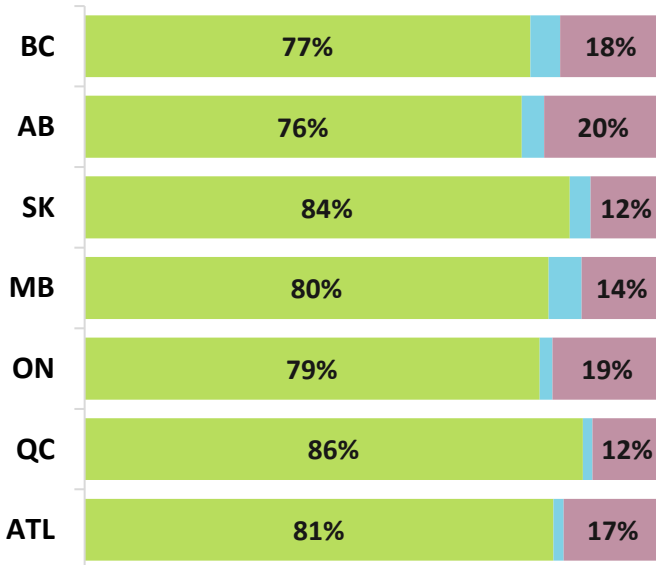


2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)
Responses 4% or less not labelled.

A large majority of Canadians would like more information about climate change. 80% of respondents indicated they felt they need more information (a lot more /some more/a little more) about climate change to form a firm opinion.

Students were more likely to feel they need more information to form a firm opinion (85%) than educators (78%), parents (81%) and the general public (80%).

Province/Region



2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL=300)
Responses 4% or less not labelled.

Provinces across Canada indicated they felt they needed more information about climate change to form a firm opinion.

Respondents in QC (86%) and SK (84%) were significantly more likely to indicate they need more information, compared to respondents living in BC (77%), AB (76%), and ON (79%).

While respondents from QC gave a higher indication than other regions that they needed more information, they scored highest in the knowledge quiz.

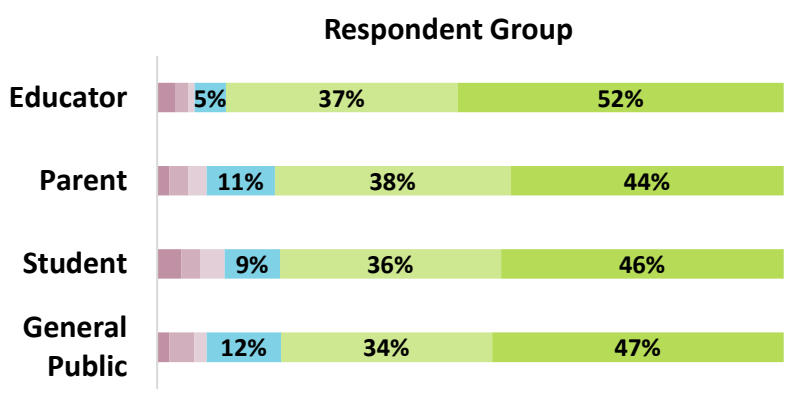
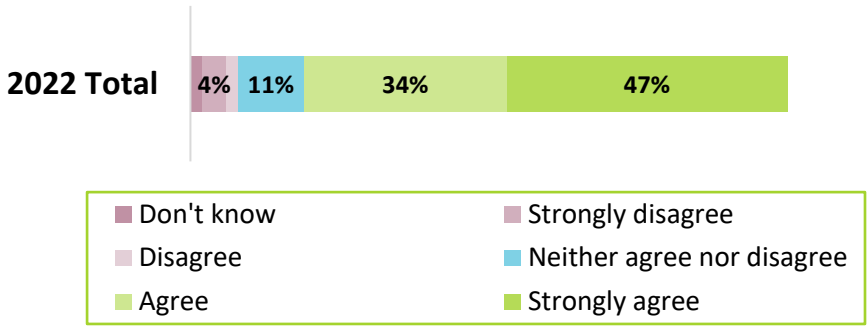


Section 3: What do Canadians think in 2022?

Part 2: Climate Change Effects and Actions

Part 2 highlights respondent knowledge, understanding, and perspective on the impact of climate change and actions that can be taken.

I am certain that climate change is happening.

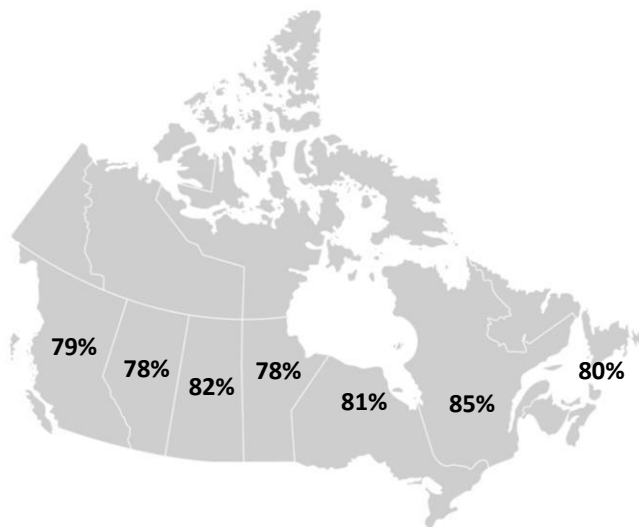


The overwhelming majority of Canadians acknowledge that climate change is a reality. When respondents were asked if they are certain that climate change is happening, 81% agreed (strongly agree/agree) with this statement.

Educators were significantly more likely to agree (89%) than parents (82%), students (82%), and the general public (80%).

2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)
Responses less than 4% not labelled

Province/Region - % Agree (Strongly Agree/Agree)

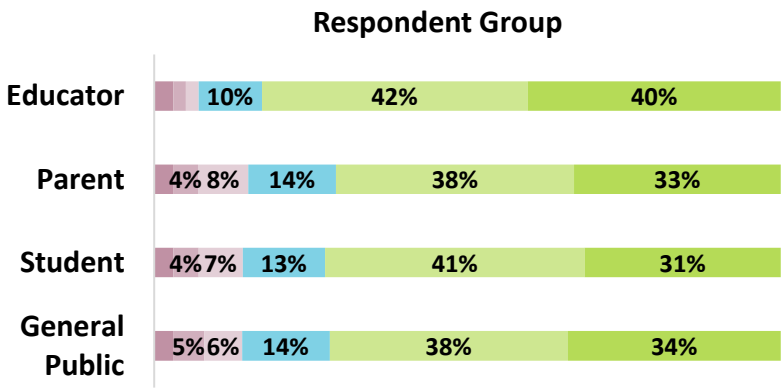
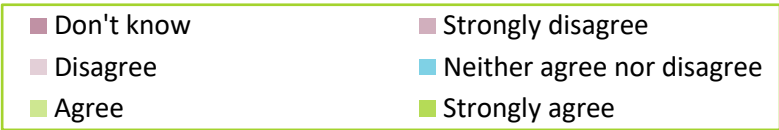
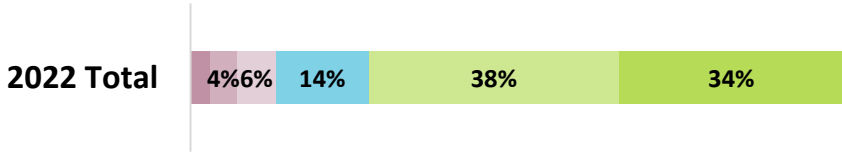


Provinces across Canada are in similar agreement, with a majority being certain that climate change is happening.

Regional agreement ranges from 85% in QC to 78% in AB and MB.

2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL=300)

We are experiencing a climate emergency

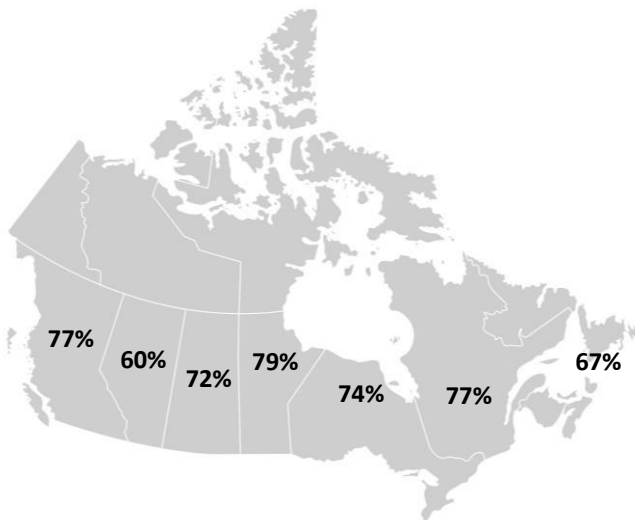


2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)
Responses 4% or less not labelled.

A large majority of Canadians believe that the climate change situation we are facing is extremely urgent. Close to three quarters of respondents (73%) were in agreement that we are currently experiencing a climate emergency.

Educators were most likely to agree with this statement (82%) compared to parents (71%), students (72%), and the general public (72%).

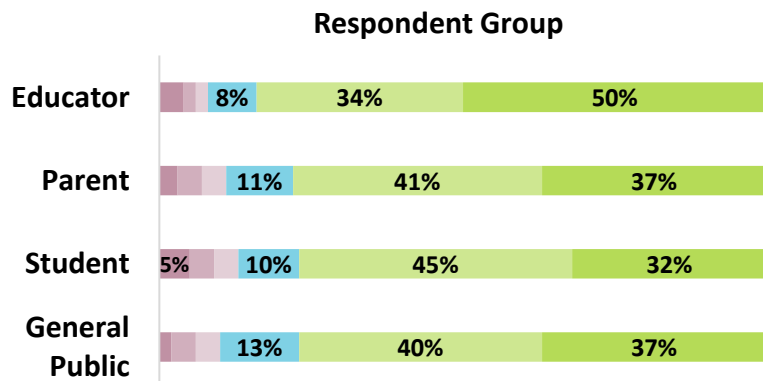
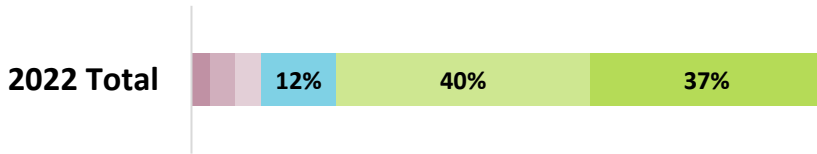
Province/Region - % Agree (Strongly Agree/Agree)



While most provinces are in agreement that we are experiencing a climate emergency, respondents in BC (77%), MB (79%), ON (74%), and QC (77%) are more likely to agree than those living in AB (60%), SK (72%) and ATL (67%).

2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL=300)

Climate change poses risks to Canadians

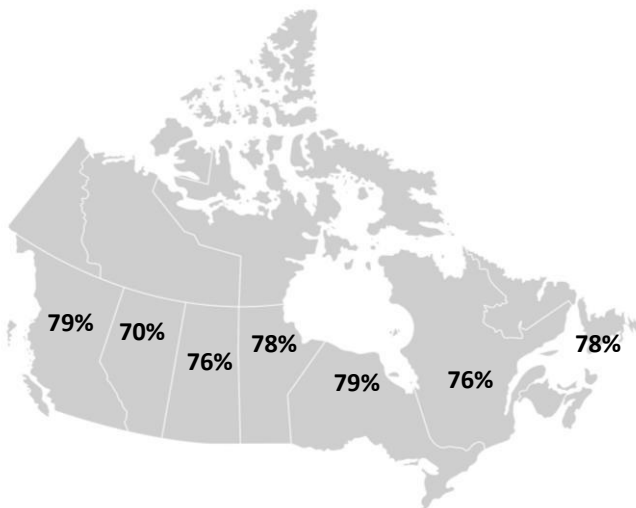


2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)
Responses less than 5% not labelled

A large majority of respondents are aware that climate change poses a risk to Canadians, as 77% of respondents agree.

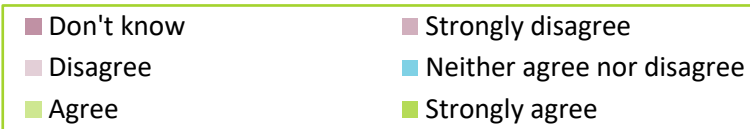
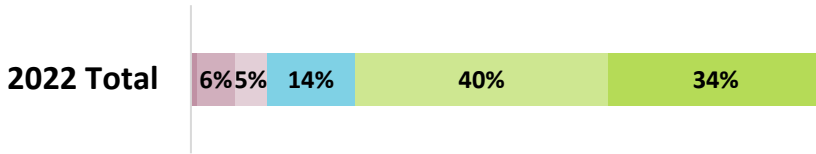
Educators demonstrated the highest awareness as 84% agreed climate change poses a risk to Canadians.

Province/Region - % Agree (Strongly Agree/Agree)

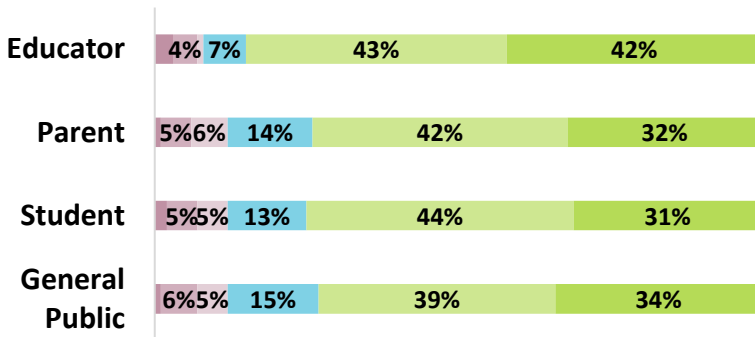


Provinces across Canada were in agreement that climate change poses a risk to Canadian citizens with scores ranging from 79% in BC and ON, to 70% in AB.

I am concerned about the impacts of climate change



Respondent Group

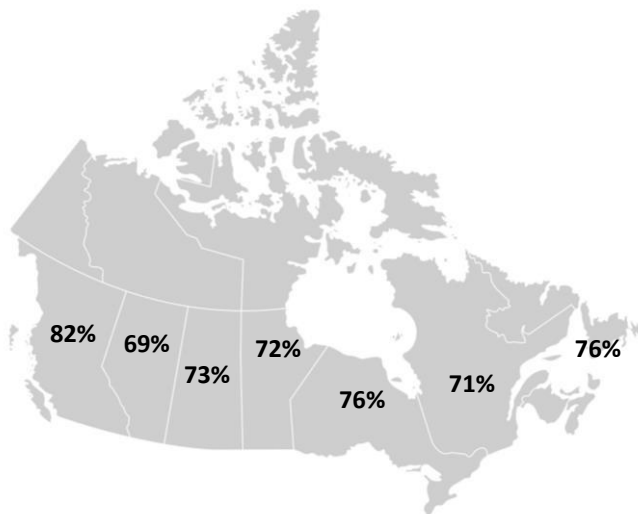


2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)
Responses less than 4% not labelled.

A majority of Canadians are worried about the effects of a warming planet. Close to three quarters of all respondents (74%) agreed they are concerned about the impacts of climate change.

Educators were significantly more likely to agree they are concerned (85%) compared to parents (74%), students (75%), and the general public (73%).

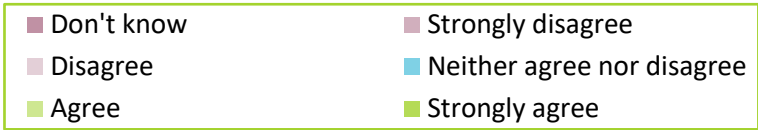
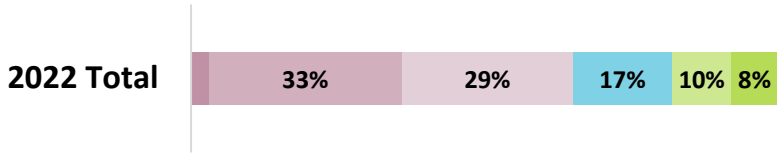
Province/Region - % Agree (Strongly Agree/Agree)



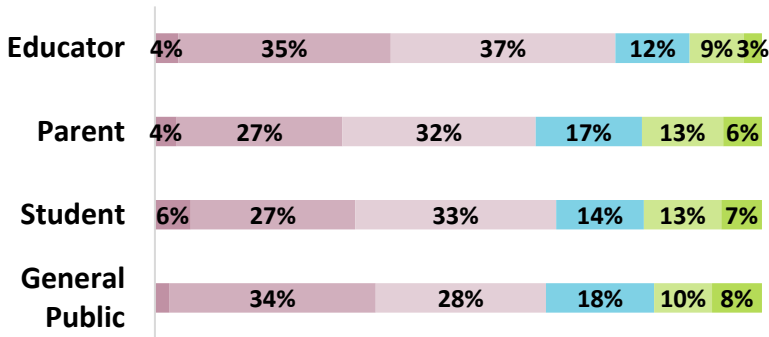
Similarly, respondents in provinces across Canada agreed they were concerned about the impacts of climate change. Those living in BC were significantly more concerned (82%) than those living in AB (69%) and QC (71%).

2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL.=300)

The seriousness of climate change is exaggerated



Respondent Group



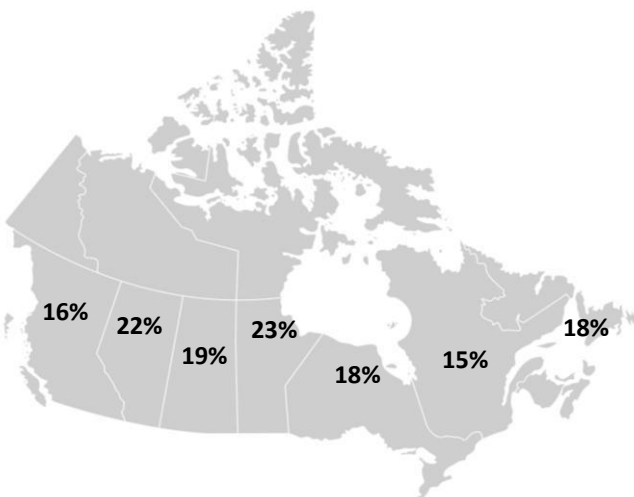
2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)
Responses less than 4% not labelled.

Most respondents (62%) disagreed that the seriousness of climate change is exaggerated. However, close to one-in-five (18%) Canadians do think the seriousness is exaggerated.

Educators were the most likely to disagree (72%) about the exaggeration.

Only 12% of educators agreed that the seriousness of climate change is exaggerated which is significantly less than parents (20%) and students (19%).

Province/Region - % Agree (Strongly Agree/Agree)

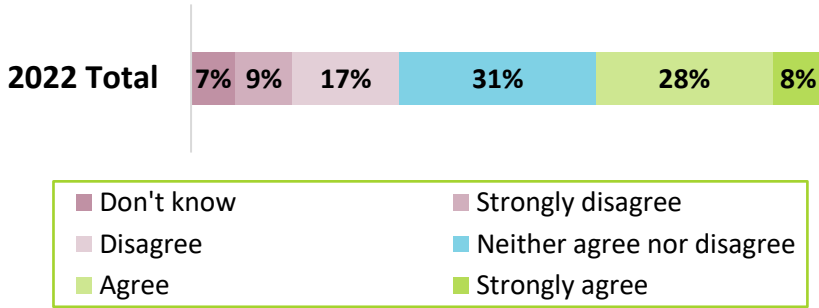


2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL.=300)

Fewer than one-quarter of respondents in each province agreed that the seriousness of climate change is exaggerated. Agreement ranges from 23% in MB to 15% in QC.

Those in BC (68%), ON (65%), and QC (62%) were significantly more likely to disagree than those in AB (51%) and SK (47%) (not shown).

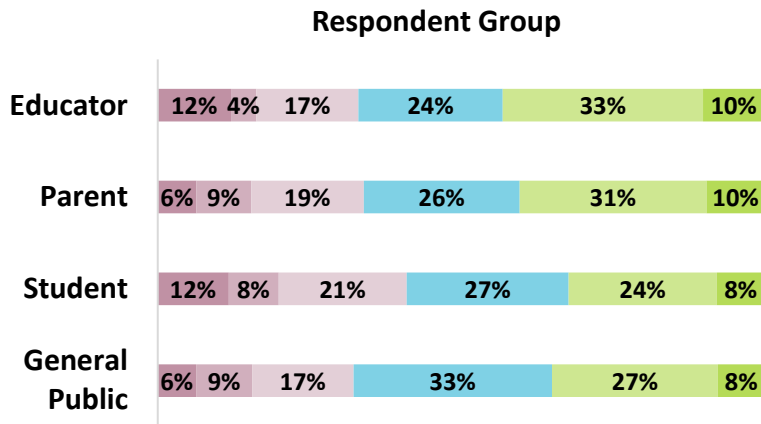
I have personally experienced the effects of climate change



Over one third (36%) of respondents agreed they have personally experienced the effects of climate change, while just over one-quarter have not.

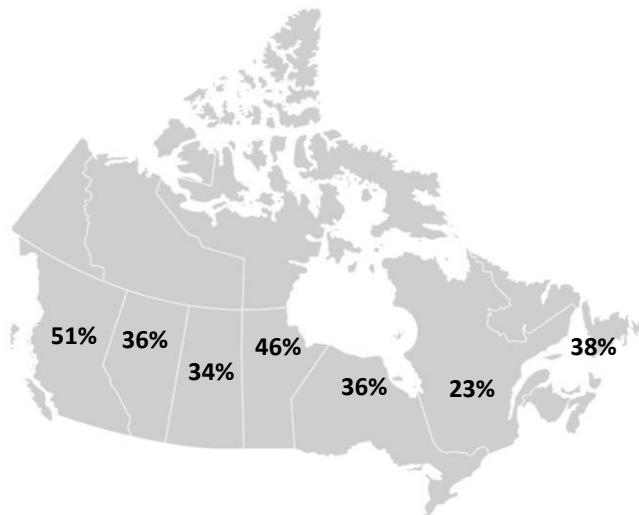
Educators (43%) and parents (40%) were significantly more likely to agree that they had experienced effects than students (32%).

Students were most likely to indicate they have not personally experienced effects (29%).



2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)

Province/Region - % Agree (Strongly Agree/Agree)

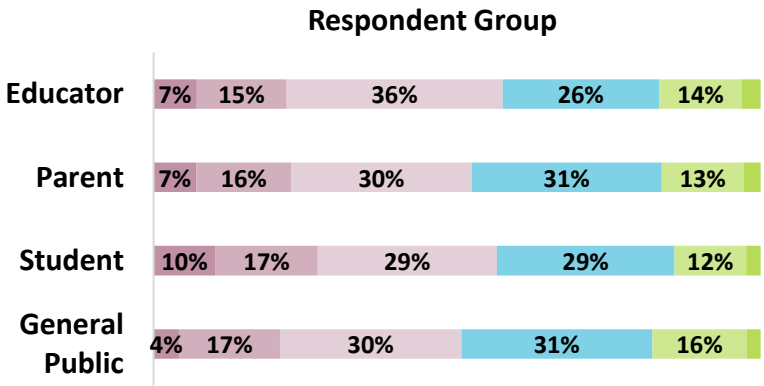


Regionally, with regards to having personally experienced the effects of climate change, respondents in BC (51%) agreed the most.

Those living in QC were significantly less likely to indicate that they had experienced effects (23%), when compared to all other regions.

2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL.=300)

The government is doing a good job in their actions to address climate change

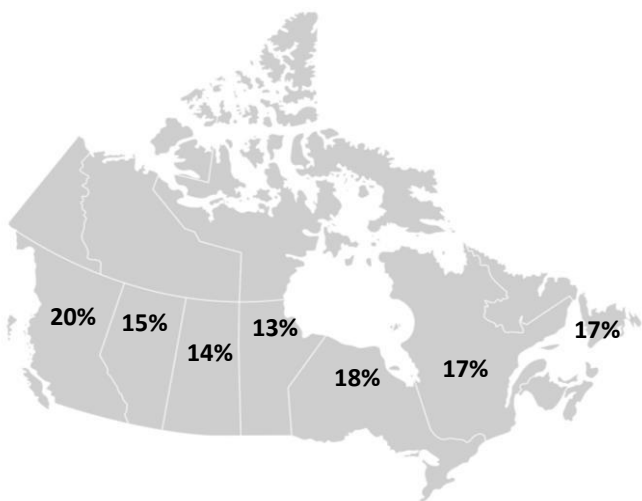


2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)
Responses less than 4% not labelled.

Most Canadians are not satisfied with the actions the government is taking to mitigate the effects of a warming planet. Very few respondents (17%) agreed that the government is doing a good job in their actions to address climate change.

Dissatisfaction with the job the government is doing was fairly consistent across respondent groups, ranging from 12% of students to 16% of the general public.

Province/Region - % Agree (Strongly Agree/Agree)

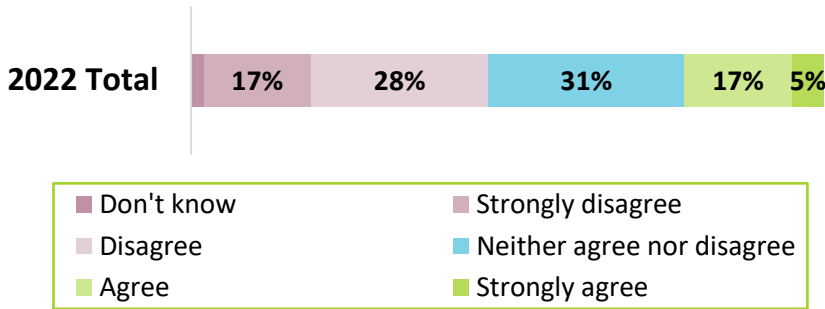


Similarly, there were few residents of the provinces across Canada who agreed the government is doing a good job.

Regional agreement was low, ranging from 13% agreement in MB to 20% in BC.

2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL.=300)

My worries about climate change are affecting my daily life



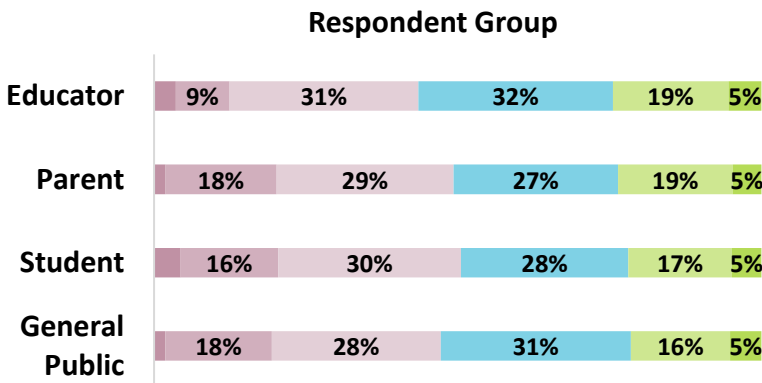
Many Canadians are not yet feeling that their daily activities are being impacted by their concerns over climate change. Just over one-in-five (22%) respondents on average had worries about climate change affecting their daily life.

Agreement is fairly consistent across respondent groups, ranging from 21% of the general public to 24% of educators and parents.

A large proportion of respondents choose a neutral response about whether their worries affected their daily life, ranging from 27% of parents to 32% of educators who neither agreed nor disagreed.

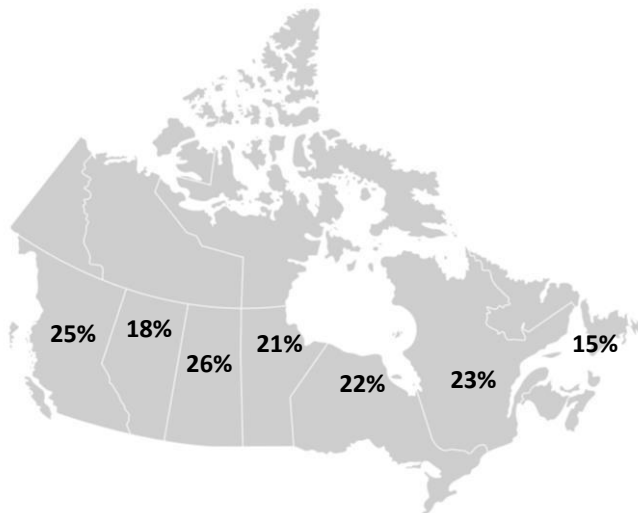
Responses varied across provinces for those who agreed that they worry about climate change affecting their daily life.

Responses ranged from few in ATL (15%) whose worries impacted their lives, to a quarter of residents in both BC (25%) and SK (26%) whose worries had more of an effect.



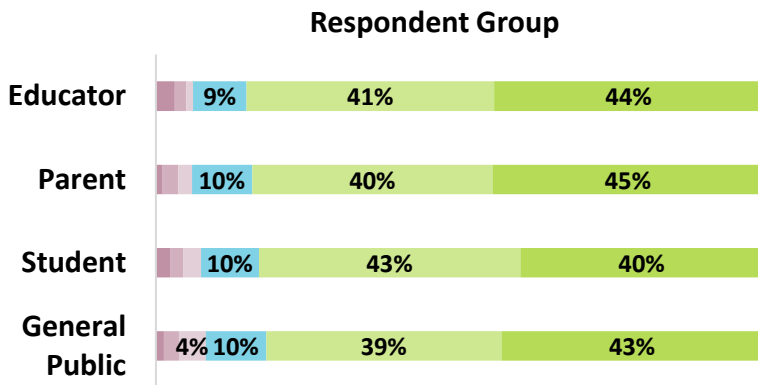
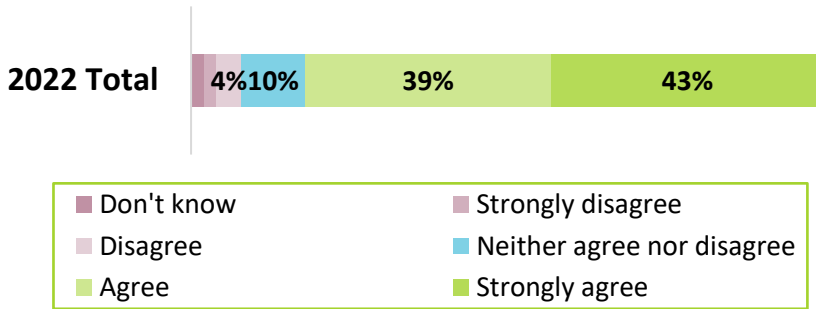
2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)
Responses less than 4% not labelled.

Province/Region - % Agree (Strongly Agree/Agree)



2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL=300)

People have failed to care for the planet

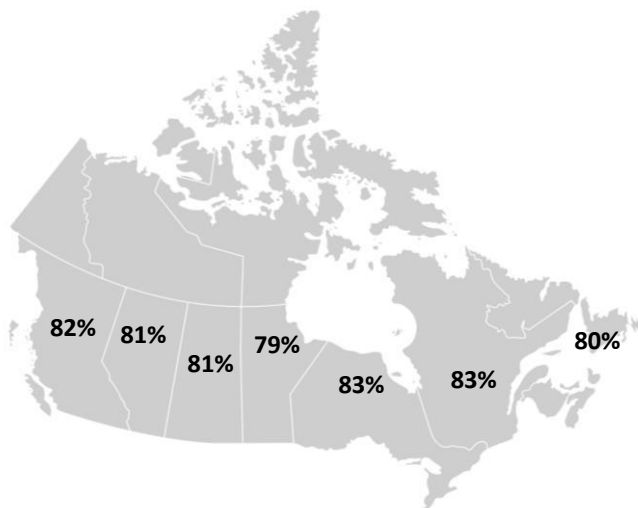


An overwhelming majority of Canadians (82%) agreed that people have failed to care for the planet.

Responses were very consistent across respondent groups, ranging from 85% of both educators and parents, to 82% of the general public.

2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)
Responses less than 4% not labelled.

Province/Region - % Agree (Strongly Agree/Agree)



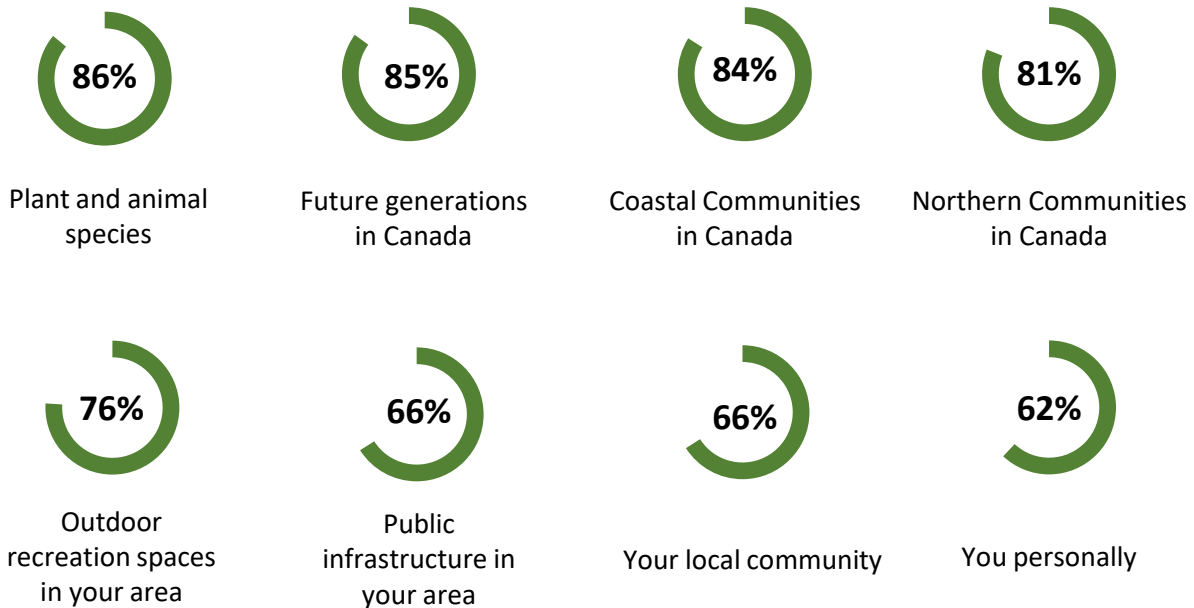
Similarly, a majority of respondents from provinces across Canada agreed, showing little variation between provinces.

Responses ranged from 83% in both ON and QC, to 79% in MB.

2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL=300)

If we don't increase our actions to address climate change, how much do you think climate change will harm each of the following?

(Total - % A great deal/A moderate amount)



The majority of Canadians were concerned that the effects of climate change would do significant harm in many contexts if there is no increase in actions to address climate change.

86% of Canadians indicated they believed plant and animal species will be harmed (a great deal/a moderate amount) due to climate change, and many also felt future generations in Canada would be harmed (85%), as well as coastal communities (84%). Fewer felt that they personally (62%) or their local community (66%) would be harmed.

Similarly, 90% of educators indicated that they felt plant and animal species would be harmed, as did 86% of parents, 83% of students, and 85% of the general public. With respect to regional differences, ATL was the least concerned that coastal communities would be harmed (76%), compared to SK, who was the most concerned (89%). Another significant regional difference was found in AB, where less than half (49%) felt that they personally would be harmed, compared to 69% in BC. (Data shown on next page.)

How much do you think climate change will harm each of the following?

Respondent Group
(% A great deal/A moderate amount)

	Educator	Parent	Student	General Public
Plant and animal species	90%	86%	83%	85%
Future generations in Canada	89%	86%	84%	85%
Coastal communities in Canada	88%	84%	80%	84%
Northern communities in Canada	88%	81%	78%	81%
Outdoor recreation spaces in your area	81%	75%	76%	76%
Your local community	78%	69%	65%	68%
Public infrastructure in your area	71%	68%	61%	66%
You personally	70%	63%	60%	61%

2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)

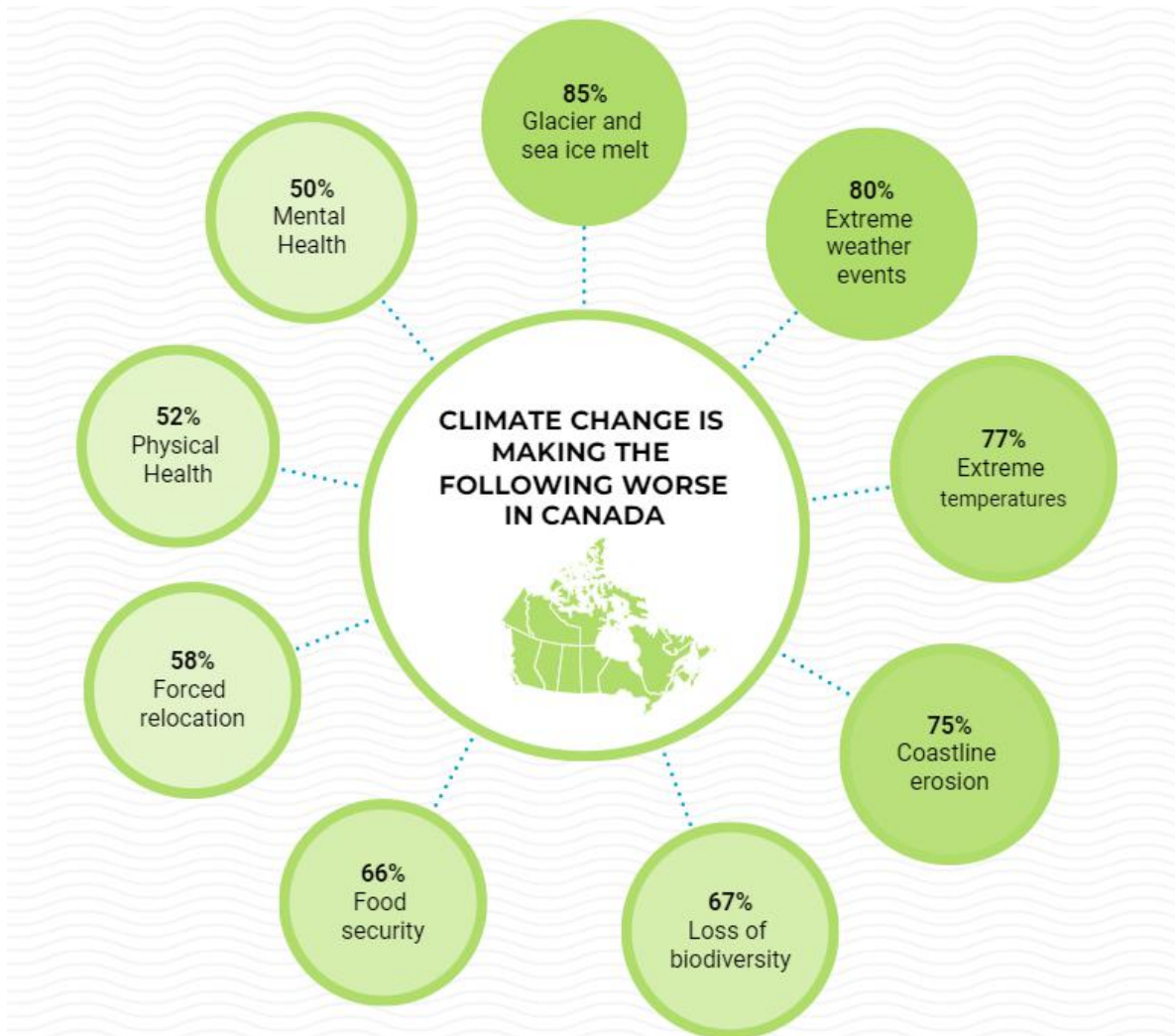
Province/Region
(% A great deal/A moderate amount)

	BC	AB	SK	MB	ON	QC	ATL
Plant and animal species	84%	83%	83%	82%	87%	87%	80%
Future generations in Canada	85%	80%	84%	78%	87%	88%	85%
Coastal communities in Canada	82%	81%	89%	81%	86%	84%	76%
Northern communities in Canada	79%	78%	87%	82%	84%	81%	75%
Outdoor recreation spaces in your area	75%	67%	77%	69%	78%	79%	76%
Your local community	71%	55%	73%	66%	70%	71%	63%
Public infrastructure in your area	68%	53%	61%	68%	69%	69%	64%
You personally	69%	49%	63%	56%	63%	63%	59%

2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL=300)

To what extent do you agree that climate change is already causing or making the following worse in Canada?

(Total - strongly agree/agree)



Canadians are aware that climate change is already having significant effects in Canada. A majority of respondents (85%) agreed that climate change is already causing or making the melting of glacier and sea ice worse in Canada, followed by extreme weather events (80%) and extreme temperatures (77%). Half or more recognize the impacts on mental health (50%) and physical health (52%).

While there were some variances between respondent groups (educators, parents, students, and the general public) or between regions across Canada, most of these differences were minor. *(Data shown on next page.)*

To what extent do you agree that climate change is already causing or making the following worse in Canada?

Respondent Group - % Agree
(strongly agree/agree)

	Educator	Parent	Student	General Public
Glacier and sea ice melt	89%	84%	85%	85%
Extreme weather events	82%	81%	79%	80%
Extreme temperatures	81%	79%	76%	76%
Coastline erosion	79%	73%	70%	75%
Loss of biodiversity	77%	70%	66%	66%
Food security	69%	68%	63%	65%
Forced relocation	65%	59%	60%	56%
Physical health	54%	53%	49%	52%
Mental health	52%	48%	47%	50%

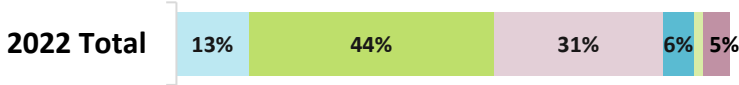
2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)

Province/Region- % Agree
(strongly agree/agree)

	BC	AB	SK	MB	ON	QC	ATL
Glacier and sea ice melt	86%	78%	83%	86%	85%	88%	83%
Extreme weather events	80%	69%	69%	79%	82%	83%	83%
Extreme temperatures	82%	69%	74%	77%	77%	79%	74%
Coastline erosion	72%	68%	74%	66%	76%	79%	74%
Loss of biodiversity	69%	55%	65%	60%	68%	76%	57%
Food security	70%	55%	61%	66%	69%	65%	59%
Forced relocation	58%	48%	52%	55%	59%	61%	57%
Physical health	54%	41%	42%	43%	53%	58%	44%
Mental health	54%	48%	50%	48%	56%	40%	50%

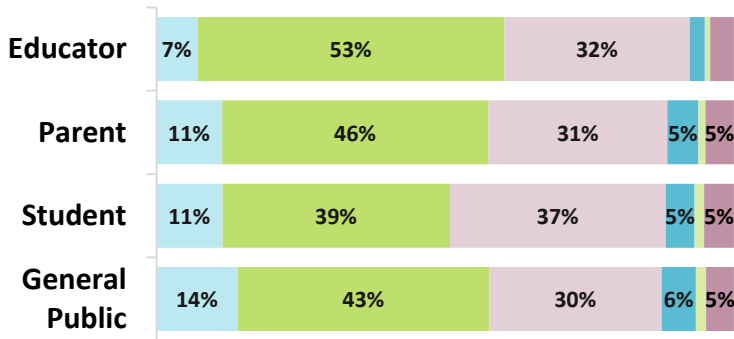
2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL=300)

Which of the following statements comes closest to your personal view?



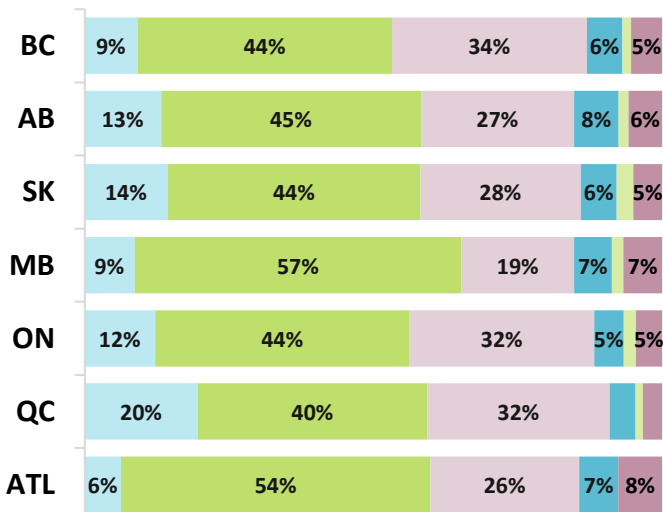
- Humans can reduce climate change and we are going to do so successfully
- Humans could reduce climate change but it's unclear at this point whether we will do what's needed
- Humans could reduce climate change, but people aren't willing to change their behaviour so we're not going to
- Humans can't reduce climate change
- Climate Change isn't happening
- Don't know

Respondent Group



2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)
Responses 4% or less not labelled

Province/Region



2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL.=300)
Responses 4% or less not labelled

Over two-in-five (44%) had the personal view that "humans could reduce climate change but that it is unclear at this point whether we will do what is needed". This personal view is followed by the view held by close to one-third (31%) of respondents who believe that "humans could reduce climate change, but that people aren't willing to change their behaviours so we're not going to".

Educators (53%) and parents (46%) were significantly more likely than students (39%) to believe "humans could reduce climate change but that it is unclear whether we will do what is needed".

Those in MB (57%) were significantly more likely to believe that humans could reduce climate change but it's unclear whether we will do what's needed than those in QC (40%).

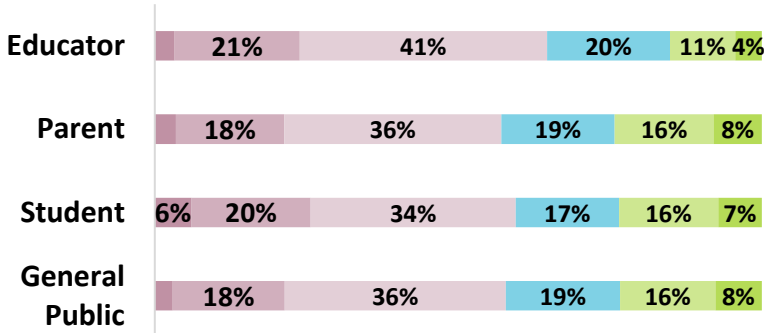
Those in BC (34%), ON (32%), and QC (32%) were significantly more likely to believe than those in MB (19%), that we could reduce climate change, but people aren't willing to change.

QC was the most optimistic, where 20% believed that can and we will reduce climate change.

Humans have little control over the forces of nature such as climate change



Respondent Group

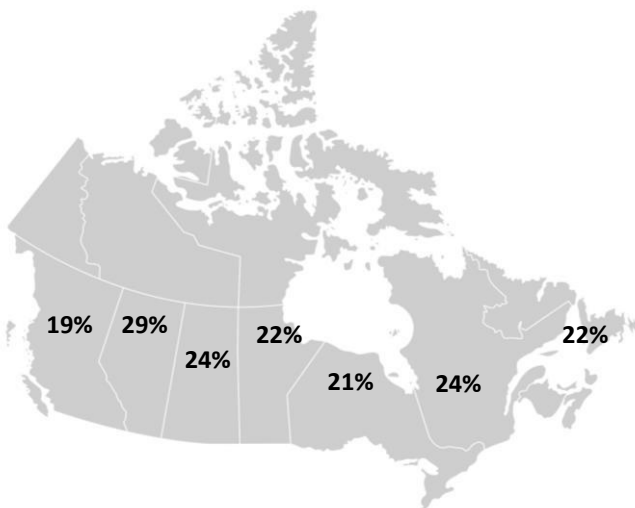


Over half of Canadians (55%) don't agree that humans have little control over forces of nature such as climate change. Only 23% of respondents agreed that humans have little control, and 19% felt neutral.

Educators were the most optimistic about humans having control (62% disagreed that humans had little control).

2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)
Responses less than 4% not labelled

Province/Region - % Agree (Strongly Agree/Agree)

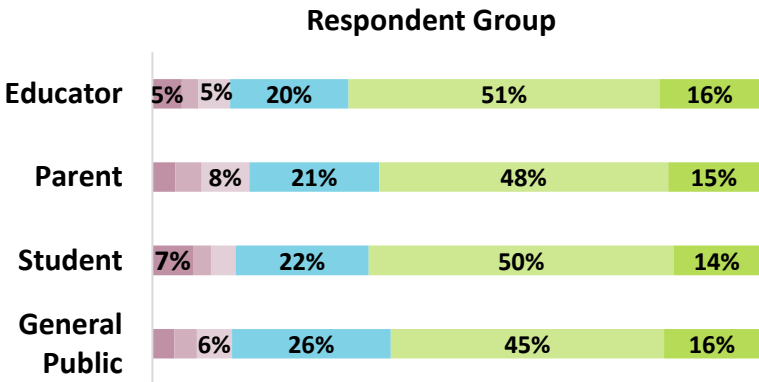
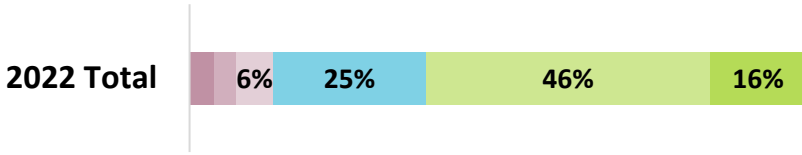


Regionally, responses were similar to the national results, where few respondents agreed that humans have little control.

Respondents in AB (29%) were significantly more likely to agree that humans have little control over climate change than those in BC (19%).

2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL.=300)

I feel better about climate change when I am taking actions to reduce my own carbon footprint

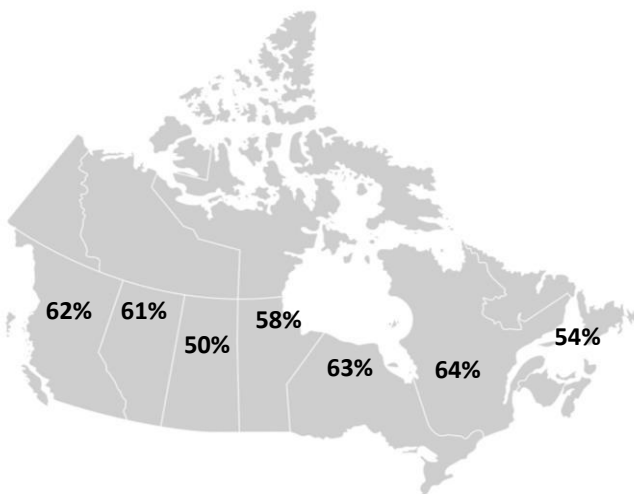


2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)
Responses less than 5% not labelled

Most respondents (62%) agreed that they feel better about climate change when they are taking actions to reduce their carbon footprint.

Agreement across respondent groups was fairly consistent, ranging from 67% agreement in educators and 61% in the general public.

Province/Region - % Agree (Strongly Agree/Agree)

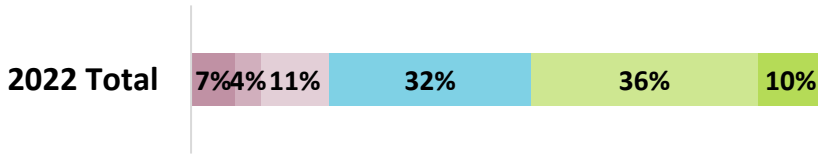


2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL=300)

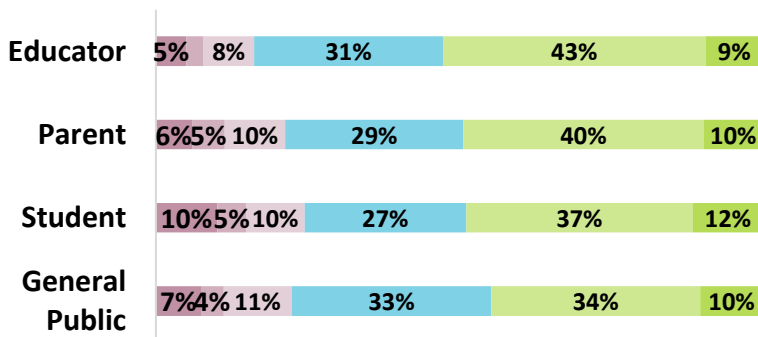
Agreement about feelings towards taking action across the provinces showed a little more variation.

Residents in QC (64%) agreed the most that taking action made them feel better about climate change, while only half of the respondents from SK (50%) felt this way.

My actions to reduce the effects of climate change will encourage others to do the same



Respondent Group

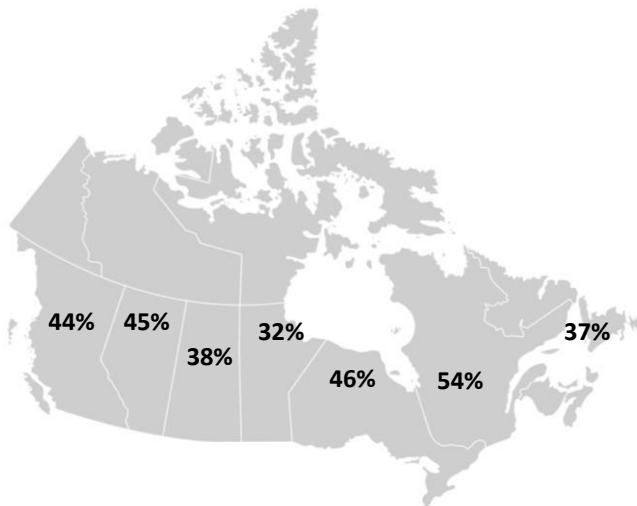


2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)
Responses less than 4% not labelled.

Under half (46%) of respondents agreed that their actions to reduce the effects of climate change will encourage others to do the same.

Educators (52%) and parents (50%) were significantly more likely than the general public (44%) to agree.

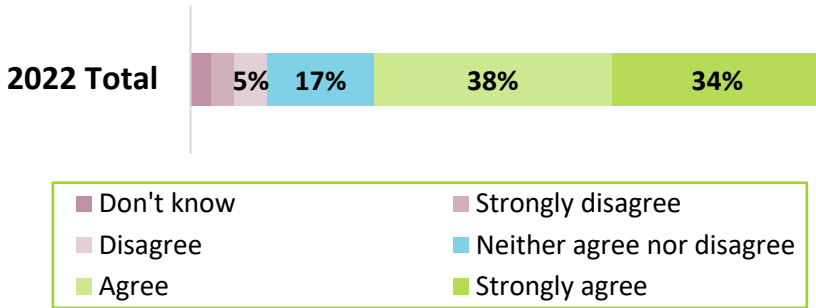
Province/Region - % Agree (Strongly Agree/Agree)



Respondents in QC (54%), ON (46%), AB (45%), and BC (44%) agreed more than those in SK (38%), MB (32%), and ATL (37%) that their actions to reduce the effects of climate change will encourage others to do the same.

2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL=300)

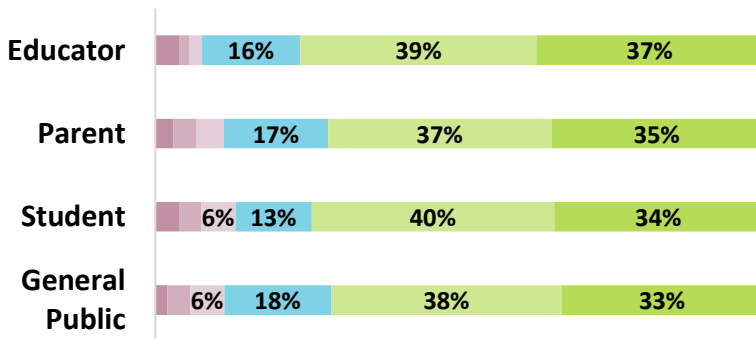
Human beings are responsible for climate change



Most Canadians have little doubt that the warming of the planet is caused by humans. When asked if human beings are responsible for climate change, 72% of respondents agreed.

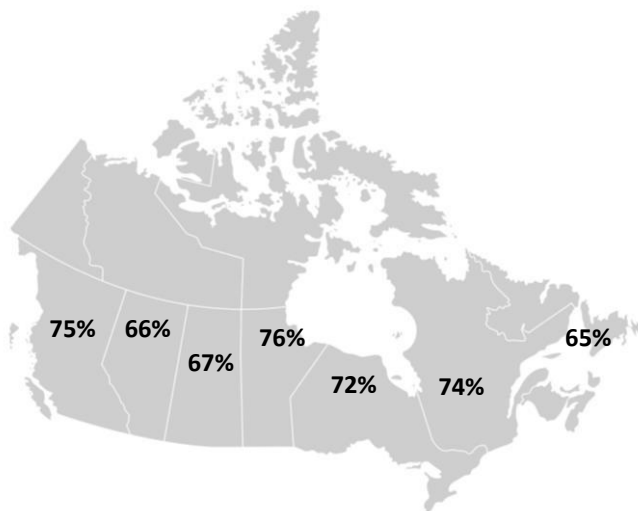
Similar levels of agreement were reported across respondent groups, ranging from 76% of educators to 72% of parents and the general public.

Respondent Group



2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)
Responses less than 5% not labelled.

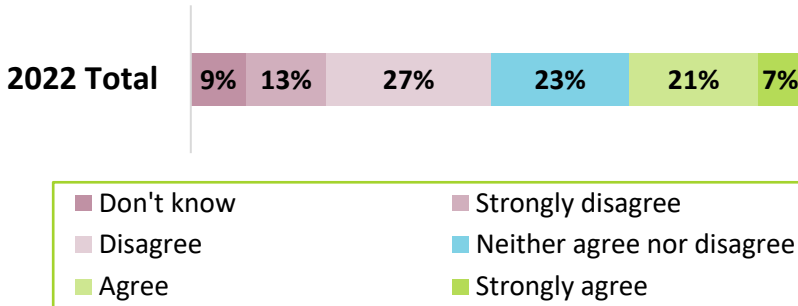
Province/Region - % Agree (Strongly Agree/Agree)



Similarly, levels of agreement that human beings are responsible for climate change across respondents in various provinces were also fairly consistent, ranging from 76% in MB to 65% of respondents in ATL.

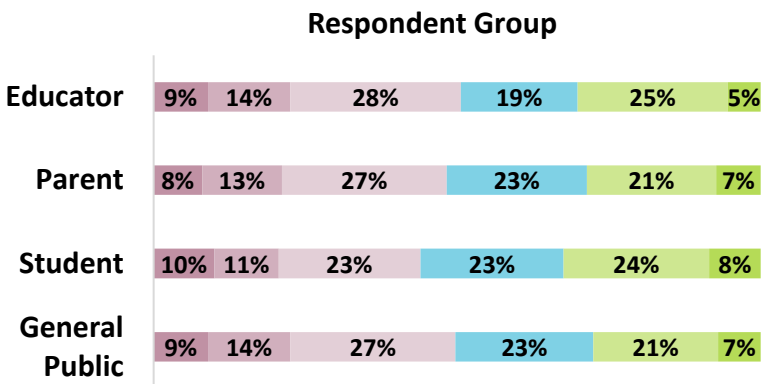
2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL=300)

New technologies can solve climate change without individuals having to make big changes in their lives



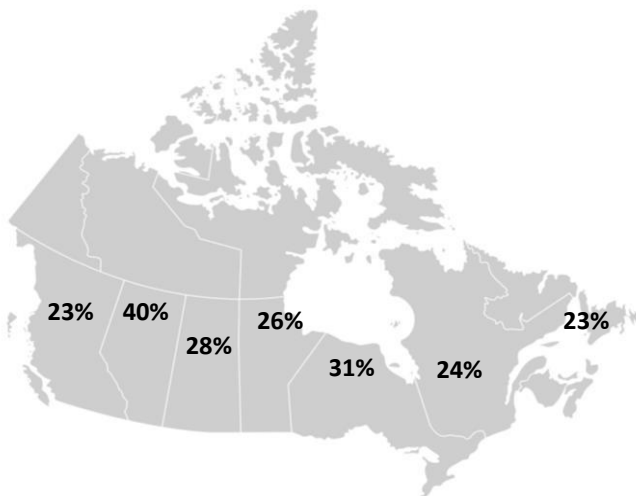
Few respondents (28%) agreed that new technologies can solve climate change without individuals having to make big changes in their lives.

Similar levels of agreement were seen across respondent groups agree, with students being the most optimistic about the role of technology (32%).



2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)

Province/Region - % Agree (Strongly Agree/Agree)

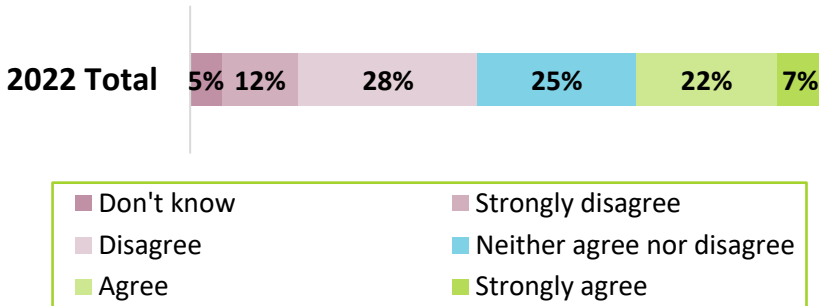


Regionally, respondents differed in their belief that new technologies can solve climate change.

Those living in AB (40%) were significantly more likely to believe in technology as a solution without sacrifices needing to be made, than those in BC (23%), ATL (23%), QC (24%), and MB (26%).

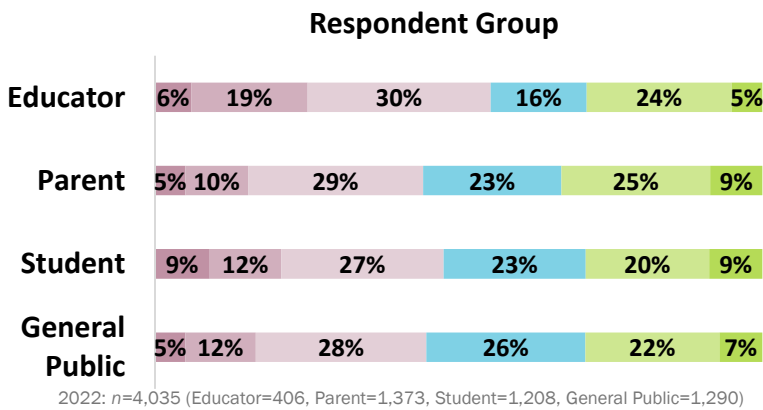
2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL=300)

Climate change is inevitable, no matter what we try to do to stop it

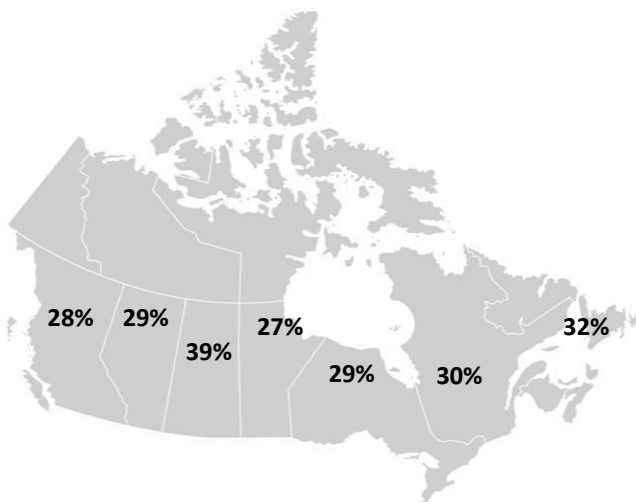


A significant proportion of respondents seemed to be hopeful about our ability to stop climate change. Only 29% agreed that climate change is inevitable, no matter what we try to do to stop it.

Parents (34%) were most likely to agree that climate change is inevitable, more so than the general public, educators and students (29% each).

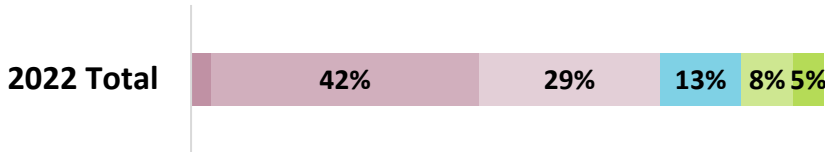


Province/Region - % Agree (Strongly Agree/Agree)

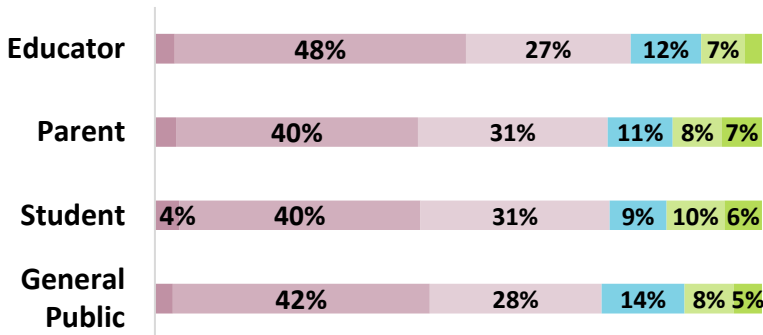


There is a range of agreement from respondents across Canada about whether climate change is inevitable, with the highest level of agreement coming from SK respondents at 39%, compared to a smaller percentage (27%) in MB.

Taking action on climate change is a waste of time and resources

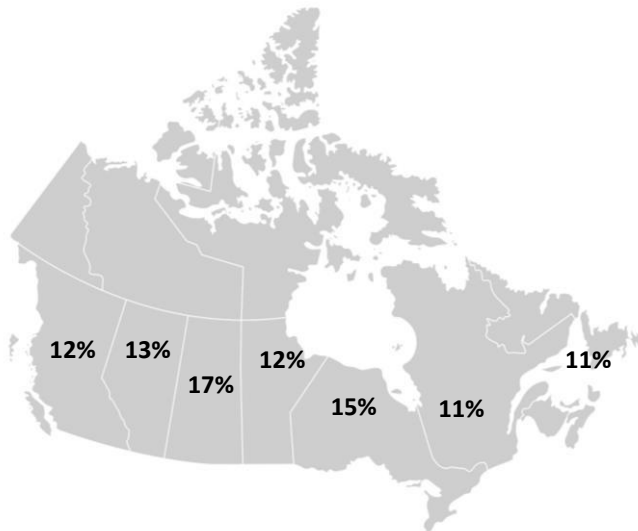


Respondent Group



2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)
Responses less than 4% not labelled

Province/Region - % Agree (Strongly Agree/Agree)



2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL=300)

A majority of respondents (71%) disagreed that taking action on climate change is a waste of time and resources.

Similar levels of disagreement were seen across respondent groups, ranging from 75% disagreement in educators to 70% in the general public.

More students (16%) thought that taking action was a waste of time, as compared to educators (10%).

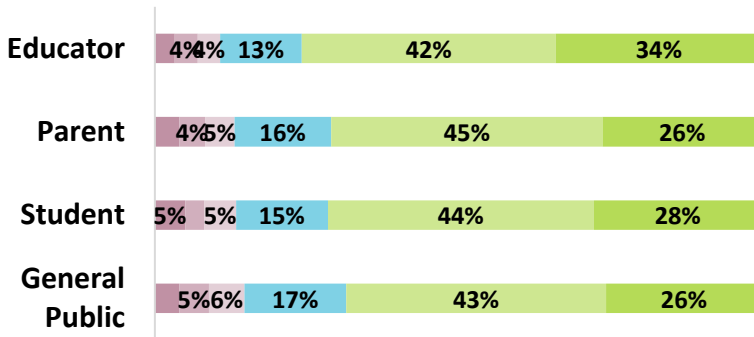
Few respondents across provinces in Canada agreed that taking action on climate change was a waste of time and resources.

Agreement levels ranged from 17% of those in SK to 11% in QC.

The work and voices of young people can inspire important climate action



Respondent Group

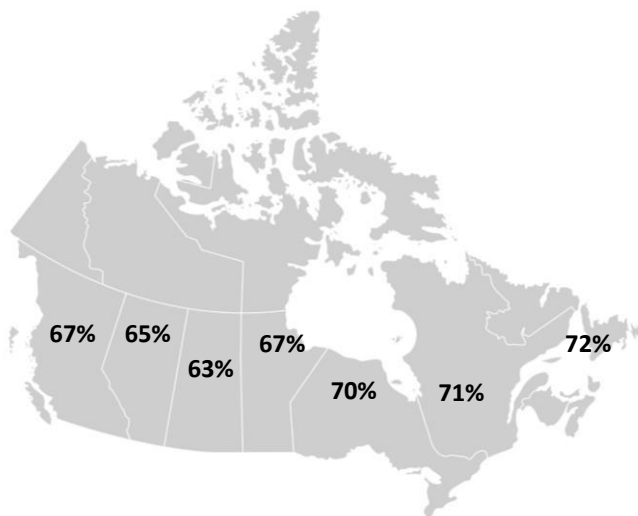


2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)
Responses less than 4% not labelled.

Many Canadians are counting on our youth to help win the fight against global warming. The majority (69%) of respondents agreed that the work and voices of young people can inspire important climate action.

Educators (76%) were significantly more likely to agree that young people can inspire climate action compared to the general public (69%).

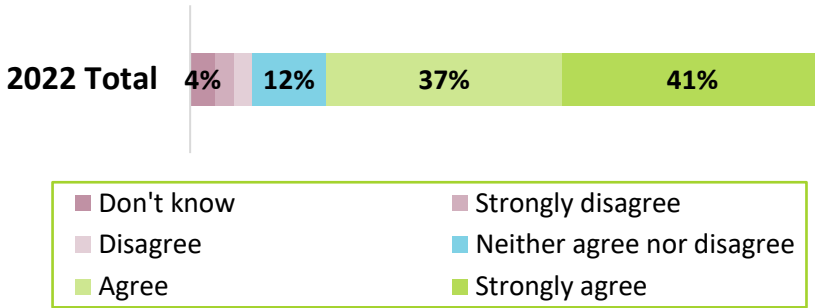
Province/Region - % Agree (Strongly Agree/Agree)



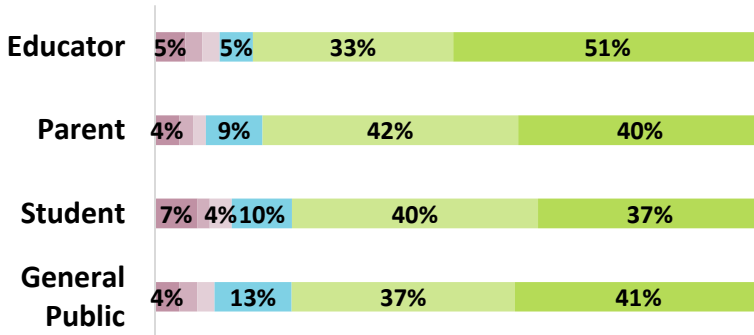
All regions across Canada agreed that young people can be inspirational in the fight against climate change, ranging from 72% of those in ATL to 63% in SK.

2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL=300)

Personal actions are important, but systemic change is required to address climate challenges

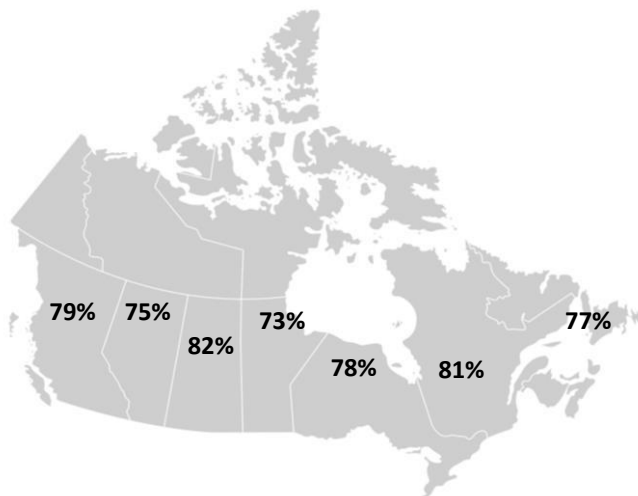


Respondent Group



2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)
Responses less than 4% not labelled.

Province/Region - % Agree (Strongly Agree/Agree)



2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL.=300)

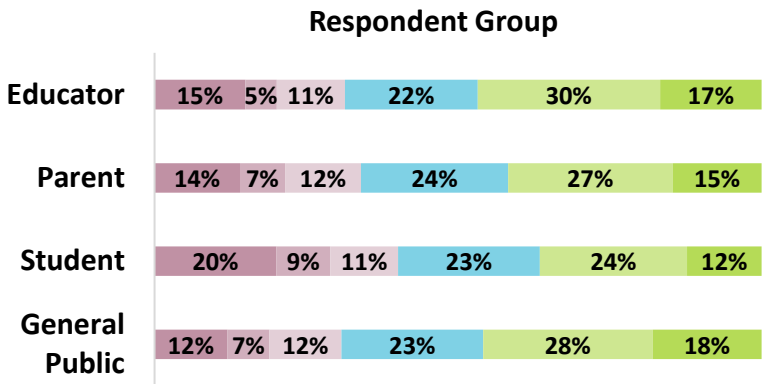
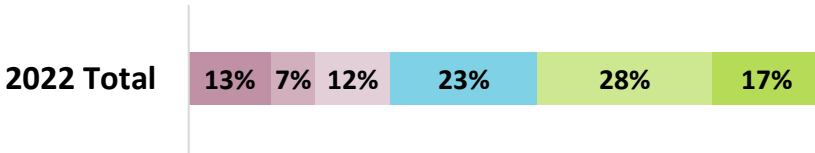
Most Canadians feel individual efforts must be supported by a whole-system response to mitigate the effects of rising temperatures. A majority of respondents (78%) agreed that while personal actions are important, systemic change is required to address climate challenges.

Educators (84%) and parents (82%) were more likely to agree that systemic change is required to address climate change compared to students (77%) and the general public (78%).

Similarly, respondents across the provinces in Canada agreed that systemic change is needed.

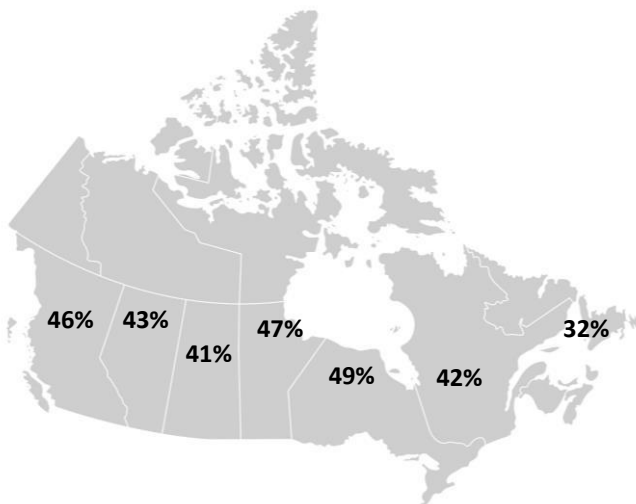
Agreement ranged from 82% in SK to 73% in MB.

Climate change is more significantly impacting Indigenous and marginalized communities”



2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)

Province/Region - % Agree (Strongly Agree/Agree)



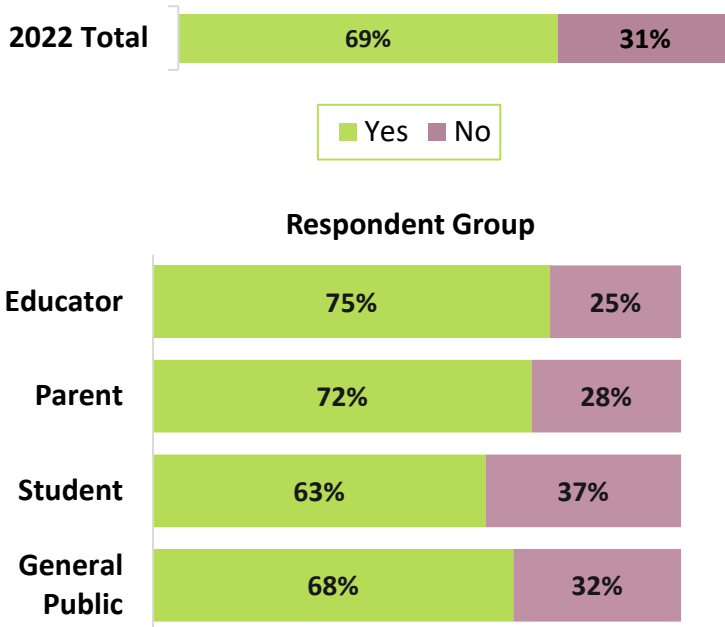
2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL=300)

Almost half of all respondents (45%) believe that climate change is more significantly impacting Indigenous and marginalized communities.

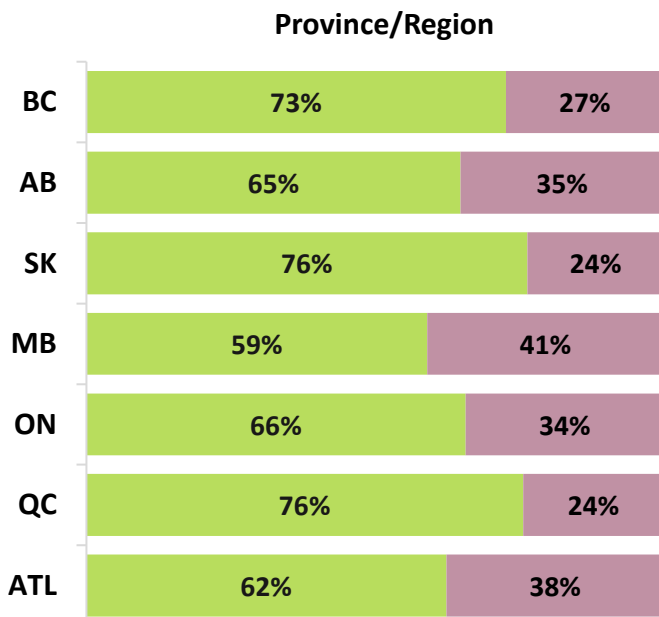
Students were least likely to agree (36%), compared to other respondent groups: 47% of educators, 42% of parents, and 46% of the general public.

Respondents across Canada differed in their agreement that climate change impacts Indigenous and marginalized communities more than others, ranging from the highest level of agreement in ON (49%) to the lowest level of agreement in ATL (32%).

Have you taken any actions to reduce your personal contribution to greenhouse gas emissions?



2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)



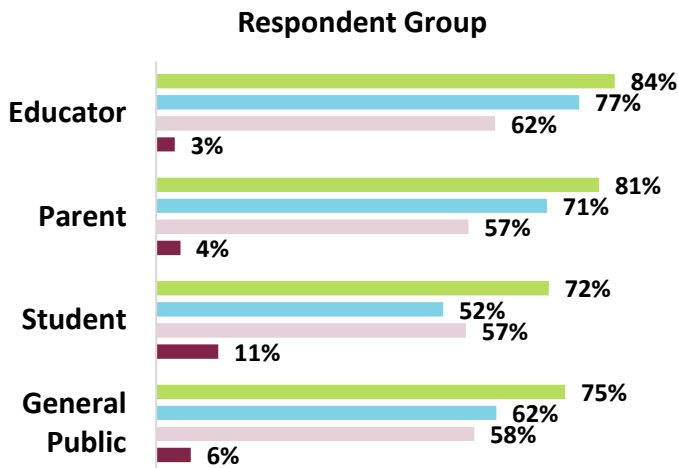
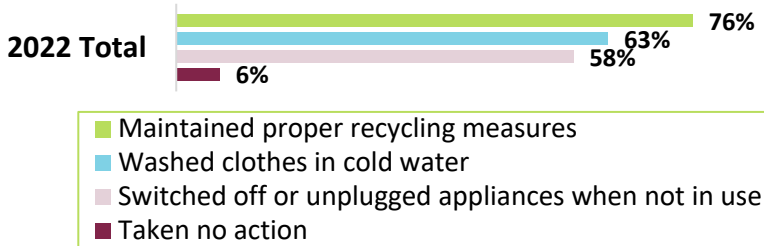
2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL=300)

When asked if they have taken any actions to reduce their personal contribution to greenhouse gas emissions, a majority (69%) of respondents indicated that they had. However, almost one-third of respondents reported not taking *any* actions.

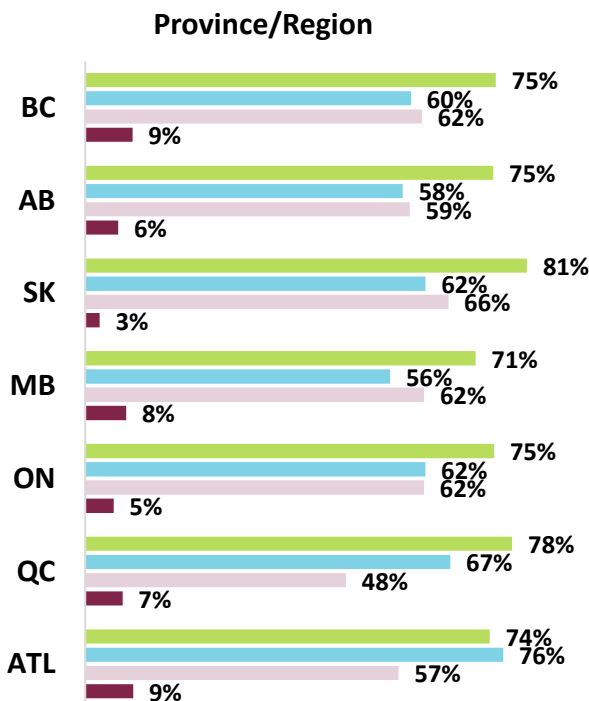
Students (63%) were the least likely group to have taken action, compared to 75% of educators who were the most likely group to reduce their personal contribution greenhouse gas emissions.

Respondents in QC and SK (76%) were significantly more likely to have taken actions to reduce their contributions to greenhouse gas emissions compared to those in AB (65%), MB (59%), and ATL (62%)

What actions have you taken in renewable energy and conservation?



2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)
Top 3 actions shown.



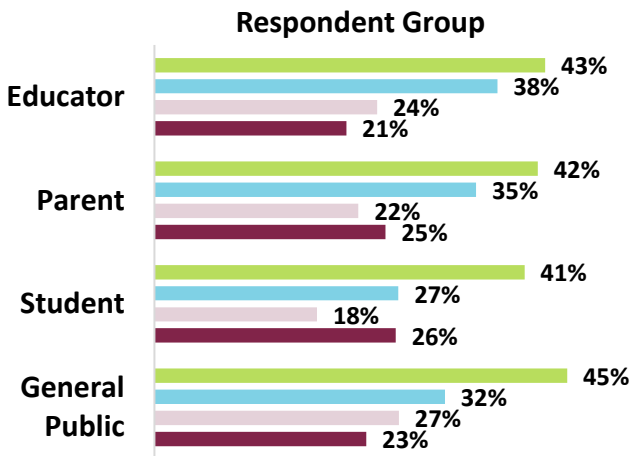
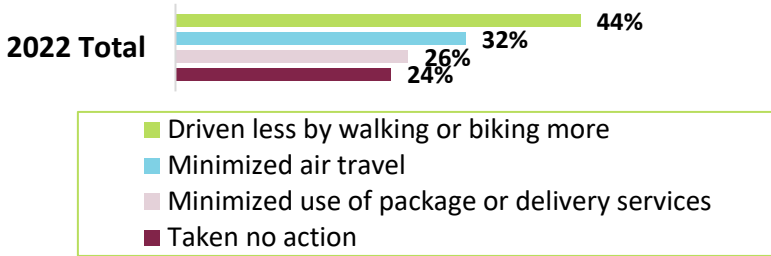
2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL=300)
Top 3 actions shown.

When respondents were asked which actions they have taken to reduce their personal contribution to greenhouse gas (GHG) emissions in **renewable energy and conservation**, maintaining proper recycling measures (76%) was the top response, followed by washing clothes in cold water (63%), and switching off or unplugging appliances when not in use (58%). Only 6% of respondents indicated they had taken no action.

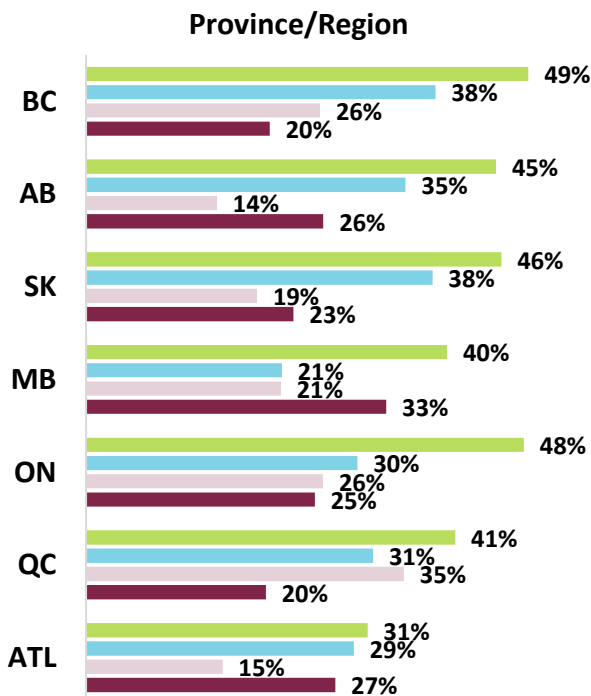
Educators (84%) and parents (81%) were significantly more likely to have maintained proper recycling measures compared to students (72%) and the general public (75%). Similarly, educators (77%) and parents (71%) were significantly more likely to indicate washing clothes in cold water compared to students (52%) and the general public (62%). Students were the most likely to have taken no action (11%).

A majority of respondents across various provinces in Canada also indicated maintaining proper recycling measures and washing clothes in cold water to reduce their contribution to GHG emissions. However, respondents in BC (62%), AB (59%), SK (66%), MB (62%), and ON (62%) were significantly more likely to indicate switching off or unplugging appliances when not in use compared to those in QC (48%).

What actions have you taken in transportation?



2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)
Top 3 responses shown.



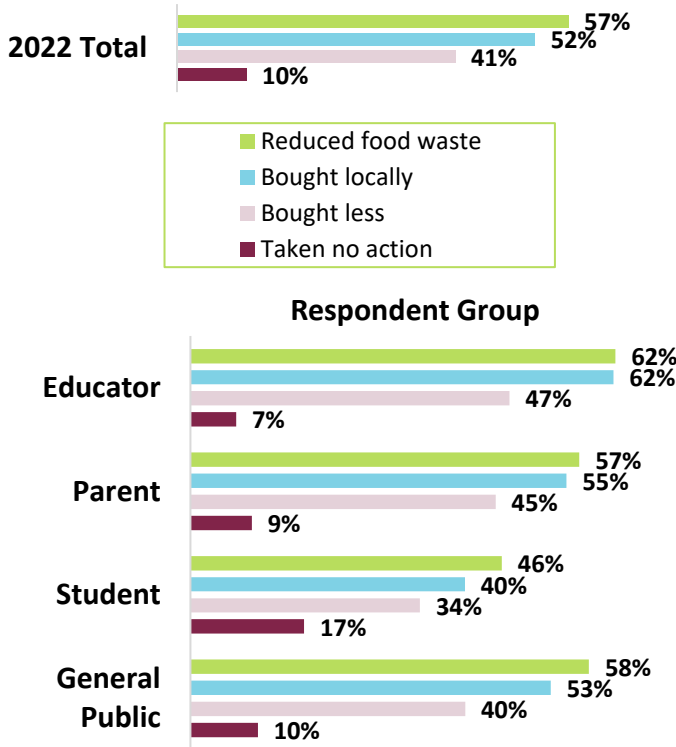
2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL=300)
Top 3 responses shown.

When respondents were asked which actions they have taken to reduce their personal contribution to GHG emissions in **transportation**, driving less by walking or biking more (44%) was the top response, followed by minimizing air travel (32%) and minimizing use of package or delivery services (26%). Close to one quarter (25%) of respondents indicated they have taken no action.

While results varied somewhat across respondent groups, driving less by walking or biking, was consistently the top response.

Respondents across various provinces in Canada also indicated driving less to reduce their contribution to GHG emissions. However, respondents in BC (38%), AB (35%), SK (38%), were significantly more likely to indicate minimizing air travel compared to those in MB (21%). Furthermore, respondents in QC (35%) were significantly more likely to indicate minimizing package/delivery services compared to those in AB (14%), SK (19%), MB (21%), and ATL (15%). Respondents in MB (33%) were significantly more likely to have taken no action than those in BC (20%) and QC (20%).

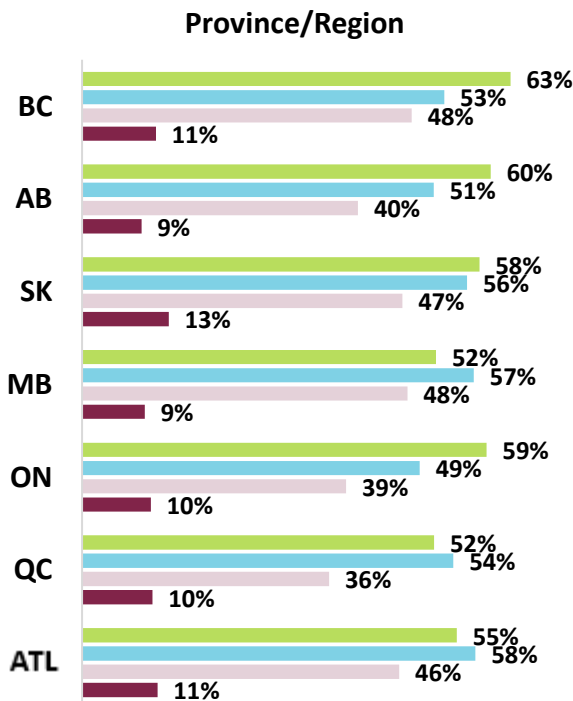
What actions have you taken in lifestyle/consumer choices?



2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)
Top 3 Responses Shown.

When respondents were asked which actions they have taken to reduce their personal contribution to GHG emissions in **lifestyle and consumer choices**, reducing food waste (57%) was the top response, followed by buying locally (52%) and buying less in general (41%). 10% of respondents indicated they have taken no action.

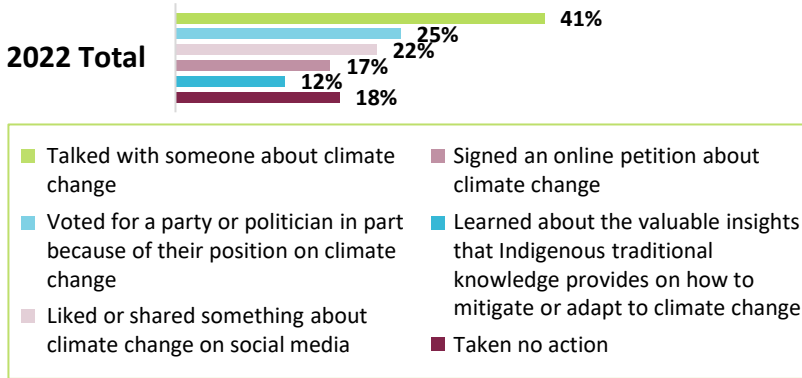
Results varied across respondent groups. However, students were most likely to have taken no action (17%) and least likely to have reduced food waste (46%), buying locally (40%), and buying less (34%). Parents were significantly more likely to indicate they bought less (45%) compared to the general public (40%).



2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL=300)
Top 3 Responses Shown.

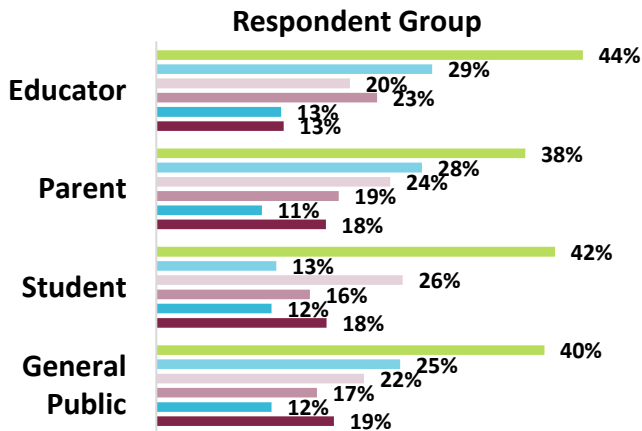
Respondents across provinces in Canada also indicated reducing food waste, buying locally, and buying less to help reduce their personal contribution to GHG emissions. Respondents in BC (63%) and AB (60%) were more likely to reduce food waste compared to those in QC (52%) and MB (52%). Those in BC (48%), MB (48%) and SK (47%) were more likely to buy less compared to those in ON (39%) and QC (36%).

What actions have you taken to discuss or learn about climate change with others?

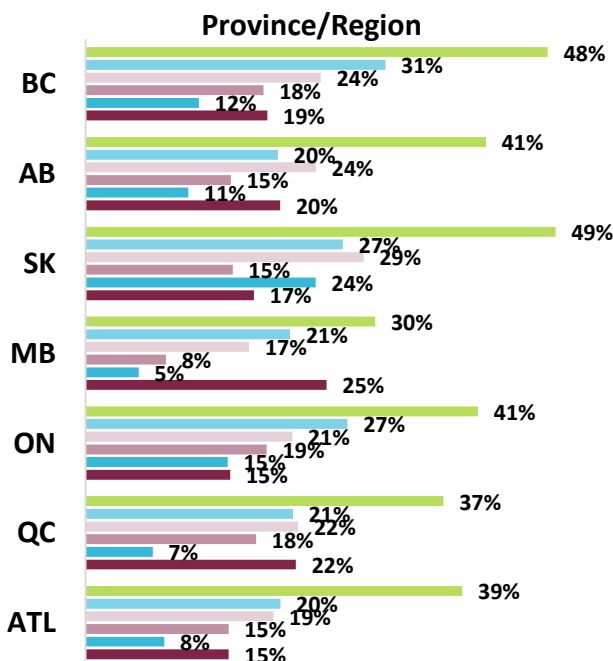


When respondents were asked which actions they have taken to discuss or learn about climate change with others, talking with someone about climate change (41%) was the top response, followed by voting for a party or politician because of their position on climate change (25%), and liking/sharing something on social media about climate change (22%). Close to one-in-five (18%) have taken no action.

Similar results were seen among the four respondent groups, however, students were more likely to use social media (26%) as compared to educators (20%).



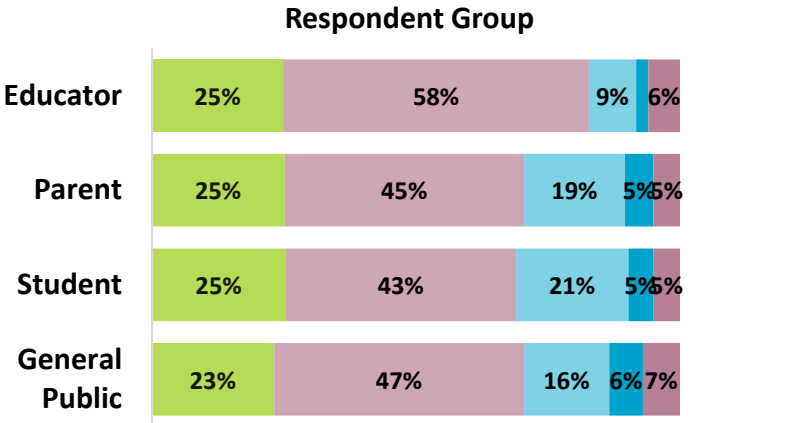
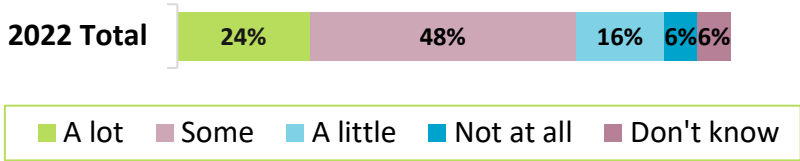
2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)
Top 5 Responses Shown.



2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL=300)
Top 5 responses shown.

Respondents across various provinces in Canada also indicated talking with someone about climate change, voting for a specific party or politician, and liking or sharing something on social media to discuss or learn about climate change with others. Respondents in BC (48%) and SK (49%) were more likely to indicate talking with someone about climate change than respondents in MB (30%) and QC (37%). Those in BC (31%) were also more likely to vote for a specific party or politician compared to other provinces.

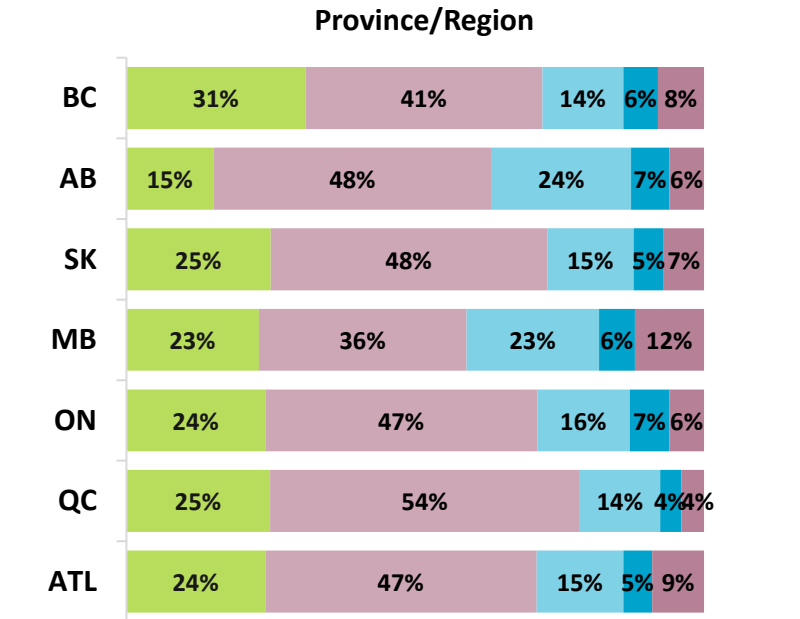
Would you be willing to change your life to help reduce the effects of climate change?



2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)
Responses 4% or less not labelled.

A large majority of respondents (72%) would be willing to change their life either "a lot" or "some" to help reduce the effects of climate change. Only 6% of respondents were not at all willing to change their life at school, work, or home.

Educators were significantly more willing to take "some" action (58%) while parents, students, and the general public were significantly more willing to take "a little" action (19%, 21%, 16%, respectively).



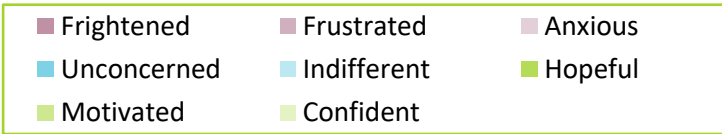
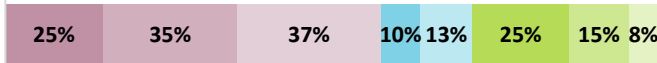
2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL=300)

Respondents across the provinces in Canada were also willing to take "some" action to help reduce the effects of climate change, ranging from 54% in QC to 36% in MB.

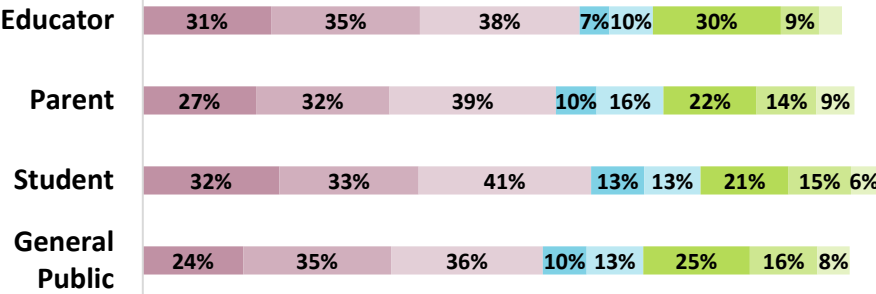
Those in BC (31%), were more willing to take "a lot" of action than those in other provinces, especially AB (15%).

When you think about climate change, what main emotions or feelings arise?

2022 Total

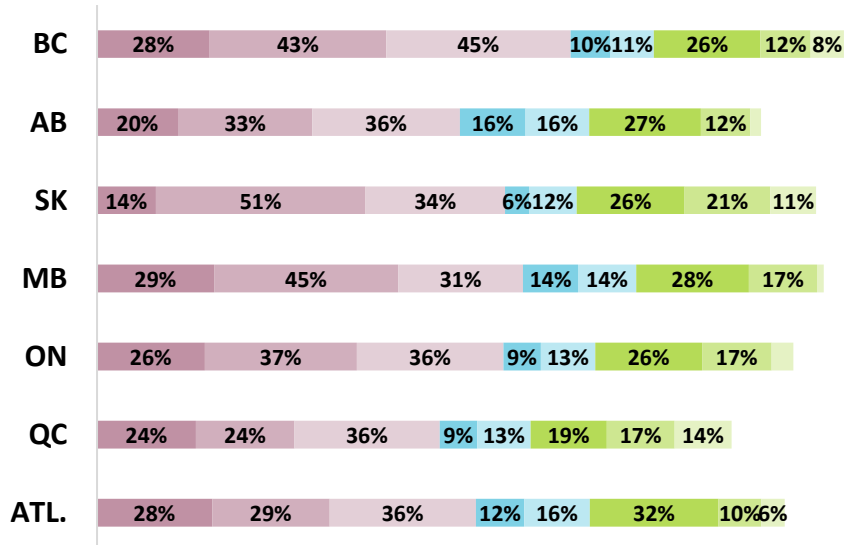


Feelings on Climate Change – Respondent Group



2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)
Responses 5% or less not labelled.

Feelings on Climate Change - Province/Region



2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL.=300)
Responses 5% or less not labelled.

When asked to think about climate change and the emotions that arise, anxiety (37%) was the top response, followed by feeling frustrated (35%) and frightened (25%). However, one quarter of all respondents are feeling hopeful (25%). Few respondents are feeling confident (8%) or unconcerned (10%).

Feeling anxious was the top emotion felt by educators (38%), parents (39%), students (41%), and the general public (36%). Students were more likely than any other group to report feeling anxious (41%) and frightened (32%) and had the highest combined negative feelings towards climate change.

Respondents in BC (45%) were more likely to feel anxious about climate change than those in other provinces, especially MB (31%). SK respondents were most likely to feel frustrated (51%). Residents in BC had the highest combined negative feelings while those in AB and QC had the lowest.

Those in QC (14%) were significantly more likely to feel confident about climate change. In AB, 16% of respondents felt unconcerned, which is significantly more than those in SK (6%), ON (9%), and QC (9%).

To what extent do you agree that the COVID-19 pandemic has influenced your perspective?

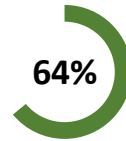
(Total - Strongly Agree/Agree)



Realizing that no matter where we are in the world, we are all interconnected.



Recognizing the importance of science to provide society with essential facts & evidence-based knowledge.



Feeling more worried that many governments are failing to act on issues that affect all nations.



Feeling more concerned by the widening equity gaps in our society.



Feeling more concerned about climate change, having seen the denial expressed by many when faced with an acute global threat.



Making me more hopeful about the human ability to develop novel technological solutions.



Changing the way I think about the positive potential of collective action (within countries/globally).

When asked to think about how the COVID-19 pandemic has influenced their perspective, "realizing that no matter where we are in the world, we are all interconnected" was the top agreed-with response (74%). This was also the top response for educators (79%), parents (73%), students (72%), and the general public (74%).

Similarly, this was also the top agreed-with response for those living in BC (76%), AB (71%), QC (76%), and ATL (71%). However, this response was tied as the top response with "recognizing the importance of science to provide society essential facts and evidence-based knowledge" in SK (73%) and ON (74%). The top response in MB (72%) was "feeling more worried that many governments are failing to act on issues that affect all nations". (Data shown on next page.)

To what extent do you agree that the COVID-19 pandemic has influenced your perspective?

Respondent Group - % Agree (strongly agree/agree)

	Educator	Parent	Student	General Public
Realizing that no matter where we are in the world, we are all interconnected.	79%	73%	72%	74%
Recognizing the importance of science to provide society with essential facts & evidence-based knowledge.	73%	66%	66%	68%
Feeling more worried that many governments are failing to act on issues that affect all nations	63%	63%	63%	64%
Feeling more concerned by the widening equity gaps in our society	63%	61%	52%	61%
Feeling more concerned about climate change, having seen the denial expressed by many when faced with an acute global threat.	66%	57%	57%	60%
Making me more hopeful about the human ability to develop novel technological solutions.	55%	47%	45%	47%
Changing the way I think about the positive potential of collective action (within countries/globally).	50%	45%	42%	47%

2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)

Province/Region- % Agree (strongly agree/agree)

	BC	AB	SK	MB	ON	QC	ATL
Realizing that no matter where we are in the world, we are all interconnected.	76%	71%	73%	71%	74%	76%	71%
Recognizing the importance of science to provide society with essential facts & evidence-based knowledge.	68%	66%	73%	71%	74%	60%	66%
Feeling more worried that many governments are failing to act on issues that affect all nations	67%	56%	69%	72%	71%	54%	56%
Feeling more concerned by the widening equity gaps in our society	63%	57%	68%	55%	64%	56%	59%
Feeling more concerned about climate change, having seen the denial expressed by many when faced with an acute global threat.	66%	52%	55%	58%	62%	60%	59%
Making me more hopeful about the human ability to develop novel technological solutions.	39%	44%	50%	51%	47%	54%	46%
Changing the way I think about the positive potential of collective action (within countries/globally).	48%	37%	40%	45%	49%	49%	48%

2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL=300)

Please elaborate on what you feel needs to be done to address climate change

Survey respondents were given the opportunity to answer this open-ended question in their own words. Out of the survey population, 2,484 individuals chose to answer this optional question.

The results were coded and grouped according to themes. The 6 most common themes are shown below, and indicate suggestions for government regulation, lifestyle changes to reduce carbon footprint, reduced consumptions and waste, among other suggestions to address climate change.

1

**Government
legislation/regulations/action**
19%

“Change from the top. Government should make laws, encourage development of alternate technologies, tax benefits, punishments of non compliers, partake in international consensus of change.”
(Member of the general public)

2

**Reduce carbon footprint/lifestyle change to
become more environmentally friendly**
15%

“We all need to reduce our carbon footprint, reduce, reuse, recycle, use less packaging, buy local or from socially conscious businesses.” (Member of the general public)

5

Everybody must do their share
10%

“I truly believe it requires global change and each society to do their part, in whatever way that looks like to reduce their own emissions and work towards a greener way of living.” (Parent)

3

**Reduce consumption of
products/reduce waste**
10%

“Consumerism needs to be overhauled. We are a society that needs the next new thing, creating constant waste. Toys need to be recyclable. Learn the value of reuse and restore” (Parent)

4

**Cooperation/responsibility from
industries/companies**
10%

“Business & industry NEED to take steps to reduce their carbon footprint, oil & gas wells, pipelines etc. need to be closed, more 'green' energy needs to be utilized such as solar & wind” (Parent)

6

**Reduce greenhouse
emissions/pollution**
9%

“Reduce greenhouse gas emissions by switching from fossil fuels to renewable energy.” (Student)

Which of the following do you use to inform yourself about climate change?

2022 Total



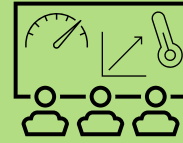
51%

Television News Programs



47%

Newspaper/Online News Websites



42%

Documentaries or Movies



35%

NET Social Media (YouTube, Facebook, Instagram, TikTok, Twitter)



35%

Conversing with Friends/Family



22%

Radio News Programs

When asked which sources respondents used most to inform themselves about climate change, 51% of respondents indicated television news programs, 47% indicated newspaper/online news websites, 42% indicated documentaries or movies, 35% indicated a variety of social media platforms, 35% indicated conversations with friends/family, and 22% indicated they listened to radio news programs.

Students were most likely to use various social media platforms to inform themselves about climate change (51%) and have conversations with family or friends (43%) compared to all other respondent groups. Regionally, using social media platforms was most common in BC (42%). Television news programs were more common in BC (51%), ON (53%), QC (58%) and ATL (52%) than in AB (36%). Using documentaries or movies were more common in BC (46%), and AB (44%) than in MB (28%). (*Data shown on next page.*)

Which of the following do you use to inform yourself about climate change?

Respondent Group

Sources of Information	Educators	Parents	Students	General Public
Television news programs	56%	44%	31%	54%
Newspaper and/or online news websites	56%	50%	33%	48%
Documentaries or movies	44%	44%	34%	42%
NET Social Media (YouTube, Facebook, Instagram, TikTok, and Twitter)	35%	36%	51%	33%
Conversations with friends and family	33%	34%	43%	34%
Radio news programs	32%	23%	13%	22%

2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)
Top 6 responses shown.

Province/Region

Sources of Information	BC	AB	SK	MB	ON	QC	ATL
Television news programs	51%	36%	46%	46%	53%	58%	52%
Newspaper and/or online news websites	49%	45%	53%	44%	47%	50%	38%
Documentaries or movies	46%	44%	40%	28%	40%	43%	43%
NET Social Media (YouTube, Facebook, Instagram, TikTok, and Twitter)	42%	32%	32%	33%	36%	32%	30%
Conversations with friends and family	38%	37%	42%	29%	36%	28%	38%
Radio news programs	19%	20%	22%	21%	19%	29%	20%

2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL=300)
Top 6 responses shown.

How much do you trust...

2022 Total % Trust (completely/a lot)



When asked which sources of climate change information respondents trust the most, 68% of respondents indicated scientists/academics, 32% indicated traditional media, 26% indicated non-governmental organizations, and 25% indicated federal government.

Students indicated they have a higher level of trust in their friends and family (39%) when compared to other respondent groups. Regionally, those from AB and SK indicated they have a lower level of trust in their provincial government (11% and 10%, respectively) than other regions such as BC (25%) or QC (32%). *(Data shown on next page.)*

How much do you trust...

Respondent Group

% Trust (completely / a lot)	Educators	Parents	Students	General Public
Scientists and academics	74%	67%	69%	68%
Traditional Media	36%	30%	28%	33%
Non-government organizations	32%	24%	23%	25%
Federal government	25%	24%	22%	25%
Provincial government	25%	22%	21%	22%
Friends and family	19%	19%	39%	21%
Municipal government	24%	22%	19%	21%
Social media	4%	7%	12%	7%

2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)
Don't Know responses not shown. Responses 4% or less not labelled.

Province/Region

% Trust (completely / a lot)	BC	AB	SK	MB	ON	QC	ATL
Scientists and academics	62%	67%	72%	59%	71%	69%	66%
Traditional Media	30%	26%	25%	29%	30%	41%	34%
Non-government organizations	21%	21%	27%	21%	29%	28%	19%
Federal government	21%	21%	20%	28%	24%	29%	27%
Provincial government	25%	11%	10%	24%	19%	32%	23%
Friends and family	17%	20%	18%	22%	25%	22%	24%
Municipal government	21%	16%	11%	19%	21%	26%	22%
Social media	6%	6%	8%	11%	10%	6%	2%

2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL=300)
Don't Know responses not shown. Responses 4% or less not labelled.

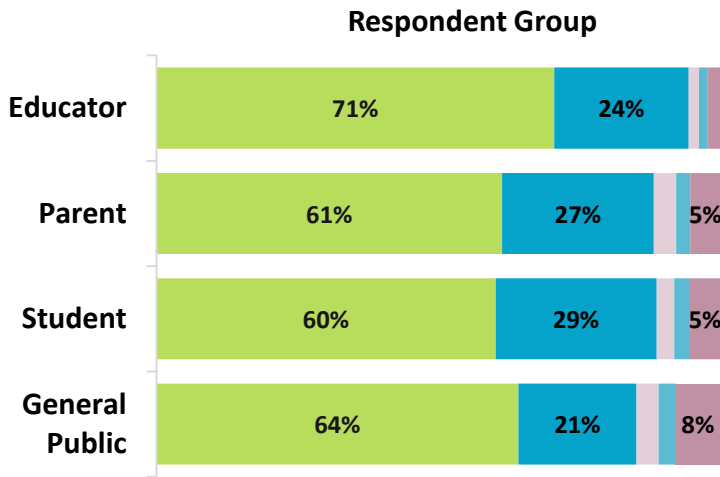
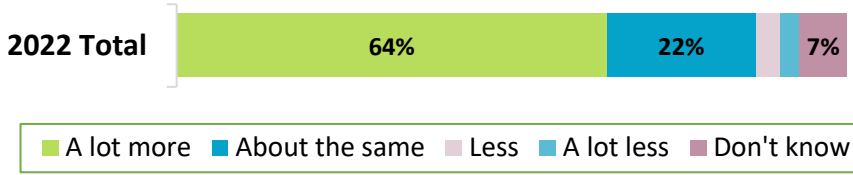


Section 3: What do Canadians think in 2022?

Part 3: Climate Change Education

Part 3 highlights respondent's opinions and perspectives of climate change education in schools.

Should education systems do more, less, or about the same as now to educate young people about climate change?

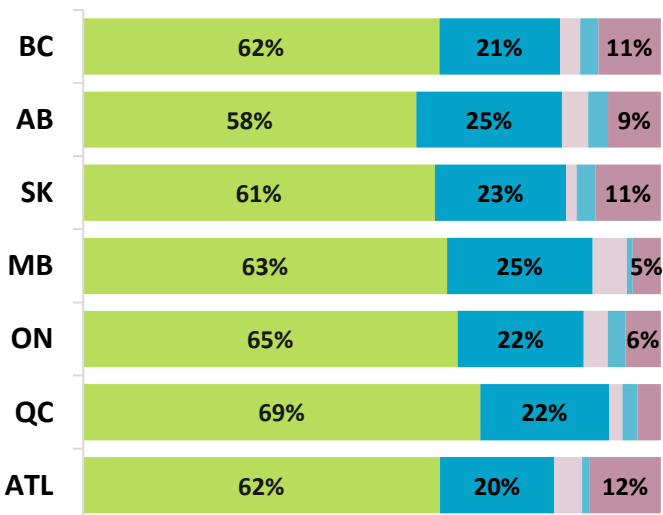


2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)
Responses 4% or less not labelled.

Many Canadians understand the importance of education in the fight against climate change, as 64% indicated they think that 'a lot more' should be done to educate young people.

Educators (71%) strongly believe that schools should be doing a lot more to teach students about climate change. The majority of parents (61%), students (60%), and the general public (64%) share a similar belief.

Province/Region



2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL=300)
Responses 4% or less not labelled.

Across Canada, the majority of respondents think the education system should be doing more to educate about climate change. AB (58%) had the lowest levels of support for the schools doing more to educate young people about climate change, while QC had the highest (69%).

How do you think education systems should further contribute to climate change education?

Survey respondents were given the opportunity to answer this open-ended question in their own words. Out of the survey population, 2,241 individuals chose to answer this optional question.

The results were coded and grouped according to themes. The 9 most common themes are shown below, and indicate suggestions for an enhanced curriculum, increased awareness, and a hands-on, solution-based approach.

1

Include with curriculum in school
34%

“Make it part of the curriculum in science and social studies. Teachers should educate students about what’s happening, and also the why and how it’s happening too.” (Member of the General Public)

2

Offer solutions to the problem (e.g., reduce your carbon footprint, less pollution)
17%

“Show examples for kids by reducing, reusing, and recycling at school and in the classroom. It will also help conserve energy, minimize pollution, and reduce greenhouse gases.” (Member of the General Public)

3

Explain scientific evidence of what causes climate change
11%

“Focus on the scientific method and how facts are obtained through research and analysis and then peer review to ensure they actually are facts. Science is the key and we need to focus more on the research methods and scientific method.” (Former Educator)

4

Educate people more/ Increase awareness
11%

“Increasing the awareness between the students and teachers and teach them how climate change is affecting our planet.” (Parent)

5

Make people aware of consequences to their actions
10%

“Students should be taught about the consequences of their action on the planet and how to reduce their carbon emissions.” (Student)

6

Empower individuals so they feel they can make a difference
9%

“In the classroom, young people can be taught the impact of global warming and learn how to adapt to climate change. Education empowers all people, but especially motivates the young to take action.” (Educator)

7

Hands-on activities (e.g. projects, workshops, clubs, field trips)
8%

“They could bring guest speakers for presentations or do workshops or field trips to give students hands-on experiences to learn about climate change.” (Student)

To what extent do you agree (or disagree) with the following on teaching climate change in schools?

	Total
Climate change education should aim to change the way people behave.	75%
Climate change education should be a high priority for schooling.	67%
Climate change education should be the role of all teachers.	61%
Only one 'side' of the climate change debate should be taught (it is happening, and humans are the cause).	31%
The topic of climate change is too complex and should not be discussed in younger grades.	15%
It is not the role of schools to teach students about climate change.	13%

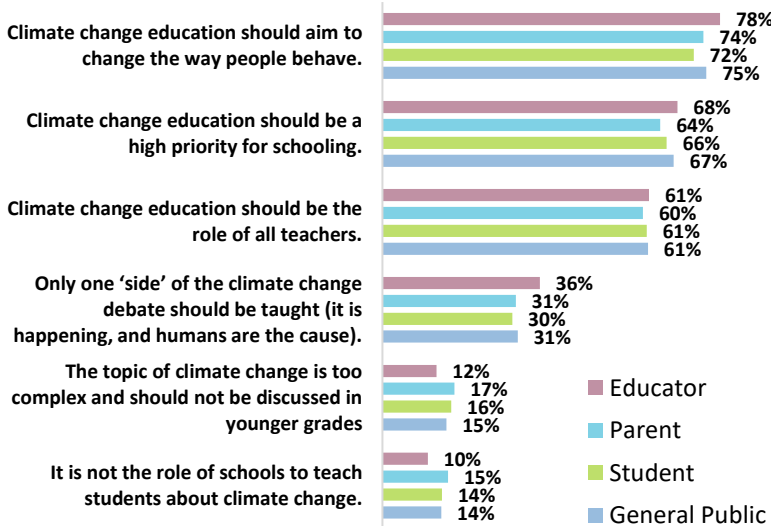
Most respondents agreed that climate change education should aim to change the way people behave (75%).

Educators especially agreed (78%) behaviour change was important. Parents (74%), students (72%) and the general public (75%) shared a similar belief.

Very few Canadians (15%) agreed that the topic of climate change is too complex and should not be discussed in younger grades. Even less (13%) agreed that it is not the role of the school to teach students about climate change.

Perceptions of teaching climate change in schools varies regionally, with AB and SK showing the greatest differences from other provinces.

% Agree (Strongly Agree/Agree) – Respondent Group



2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)

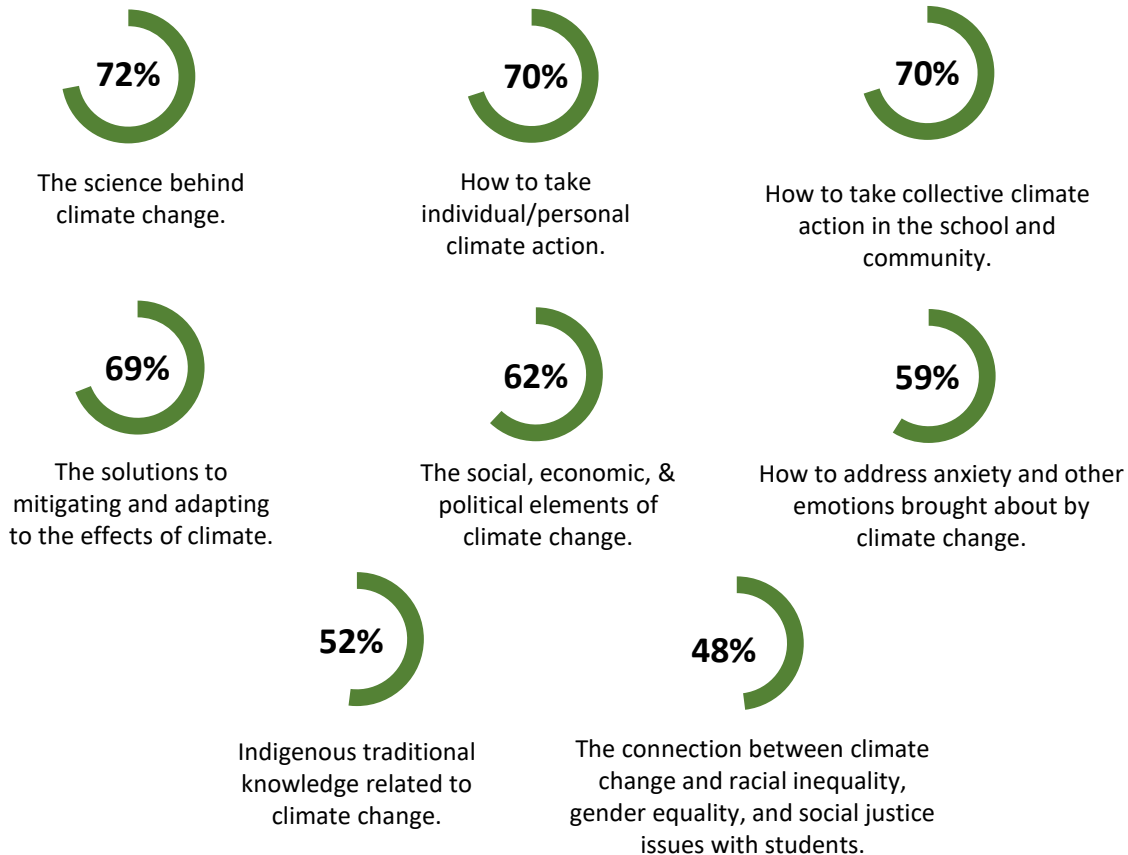
% Agree - Province/Region

	BC	AB	SK	MB	ON	QC	ATL
Climate change education should aim to change the way people behave.	75%	67%	65%	68%	76%	78%	71%
Climate change education should be a high priority for schooling.	69%	58%	59%	66%	70%	66%	71%
Climate change education should be the role of all teachers.	62%	49%	52%	63%	65%	62%	57%
Only one 'side' of the climate change debate should be taught (it is happening, and humans are the cause).	38%	26%	26%	28%	31%	34%	23%
The topic of climate change is too complex and should not be discussed in younger grades.	13%	20%	21%	14%	15%	13%	15%
It is not the role of schools to teach students about climate change.	18%	15%	14%	15%	13%	12%	9%

2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL=300)

To what extent do you feel that the Kindergarten to Grade 12 classes should focus on the following?

2022 Total (% – Somewhat more/A lot more)



Most educators (76%) agreed that Kindergarten to Grade 12 classes should focus on the science behind the climate change. Parents (72%), students (70%), and the general public (72%) share a similar belief. Educators were significantly more likely to agree that classes should focus on how to take individual/personal climate action (74%), how to take collective climate action in the school and community (73%), and the solutions to mitigating and adapting to the effects of climate (73%), compared to students in these categories (69%, 68% and 63% respectively).

Across Canada, the province that most strongly believed that school should focus on the science of climate change was ON (76%). The regions that were the least likely to believe in a focus on the social, economic, & political elements of climate change were QC (58%) and ATL (56%). (Data shown on next page.)

To what extent do you feel that the Kindergarten to Grade 12 classes should focus on the following?

Respondent Group
% Somewhat more/A lot more

	Educators	Parents	Students	General Public
The science behind climate change	76%	72%	70%	72%
How to take individual/personal climate action	74%	70%	69%	70%
How to take collective climate action in the school and community	73%	68%	68%	70%
The solutions to mitigating and adapting to the effects of climate	73%	69%	63%	69%
The social, economic, & political elements of climate change	66%	61%	61%	62%
How to address anxiety and other emotions brought about by climate change	62%	58%	57%	59%
Indigenous traditional knowledge related to climate change	51%	50%	48%	52%
The connection between climate change and racial inequality, gender equality, and social justice issues with students	55%	46%	47%	48%

2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290)

Province/Region
% Somewhat more/A lot more

	BC	AB	SK	MB	ON	QC	ATL
The science behind climate change	71%	72%	71%	67%	76%	69%	69%
How to take individual/personal climate action	67%	67%	66%	72%	71%	73%	70%
How to take collective climate action in the school and community	66%	66%	68%	68%	71%	72%	68%
The solutions to mitigating and adapting to the effects of climate	71%	64%	70%	65%	70%	69%	69%
The social, economic, & political elements of climate change	66%	62%	63%	66%	65%	58%	56%
How to address anxiety and other emotions brought about by climate change	57%	57%	60%	55%	60%	57%	60%
Indigenous traditional knowledge related to climate change	48%	46%	51%	52%	57%	48%	52%
The connection between climate change and racial inequality, gender equality, and social justice issues with students	49%	45%	51%	44%	52%	46%	40%

2022: n=4,035 (BC=514, AB=467, SK=217, MB=241, ON=1,025, QC=1,168, ATL=300)

If you could decide what you would learn in school about climate change, what would you tell your teacher?

Students were given the opportunity to choose to answer this open-ended question in their own words. Out of the survey population, 692 students chose to answer this optional question.

The results were coded and grouped according to themes. Offering solutions to the problem and explaining the scientific evidence behind climate change are the top themes students would like to learn about in school.

1

Offer solutions to the problem (how to reduce your carbon footprint)

31%

“Definitely solutions and steps we can take to solve the problem” (Student)

2

Explain the scientific evidence behind climate change

24%

“I want to be able to understand the science behind climate change, and I want to learn to take steps to reverse the harmful effects.” (Student)

3

Empower individuals so they feel they can make a difference

15%

“Teaching how to each do our own part and that we can make a difference and be optimistic” (Student)

4

Make people aware of consequences to their actions

12%

“I would say that we need to learn every point of climate change from nature to human affects and we should learn how to help our world and what the consequences will be if we don't help right now” (Student)

5

Educate people more/Increase awareness

11%

“I need a lot more education on climate change. I would like to know how I can do my part” (Student)

If you could decide what your child would learn in school about climate change, what would you tell their teacher?

Parents were given the opportunity to choose to answer this open-ended question in their own words. Out of the survey population, 709 parents chose to answer this optional question.

The results were coded and grouped according to themes. Offering solutions to the problem and explaining the scientific evidence behind climate change are the top themes parents would like their children to learn about in school.

1

Offer solutions to the problem (how to reduce your carbon footprint)
25%

“Give them tools to make small changes in their own lives and leaving smaller carbon footprints.” (Parent)

2

Explain the scientific evidence behind climate change
21%

“I would tell their teacher to focus on the science, show the proof through scientific channels.” (Parent)

3

Empower individuals so they feel they can make a difference
14%

“Empower kids to know their decisions matter and they can inspire others and even get involved at local, provincial, national and even global scales. Every action counts.” (Parent)

4

Make people aware of consequences to their actions
12%

“My child should learn how our actions could detrimentally affect the environment and what we can do to reduce the impact of or reverse the effects of climate change.” (Parent)

5

Educate people more/increase awareness
11%

“I want them to learn what climate change means, how it’s a problem, what will happen if things continue in this direction, how we can slow it and if it’s possible to stop it.” (Parent)



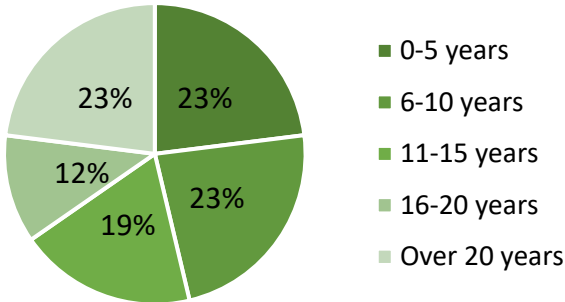
Section 3: What do Canadians think in 2022?

Part 4: Teaching Climate Change

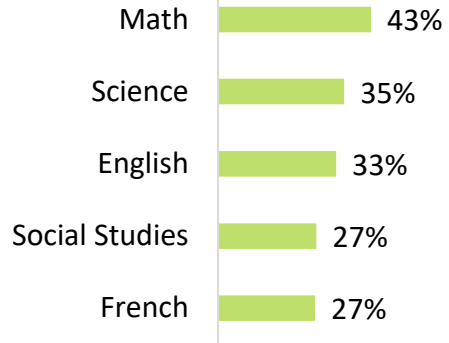
Part 4 highlights the results from the portion of the survey designed exclusively for educators. This section includes their perspectives on the issues that impact the teaching of climate change. 406 Educators responded to the survey with representation from each province across Canada.

EDUCATOR DEMOGRAPHICS

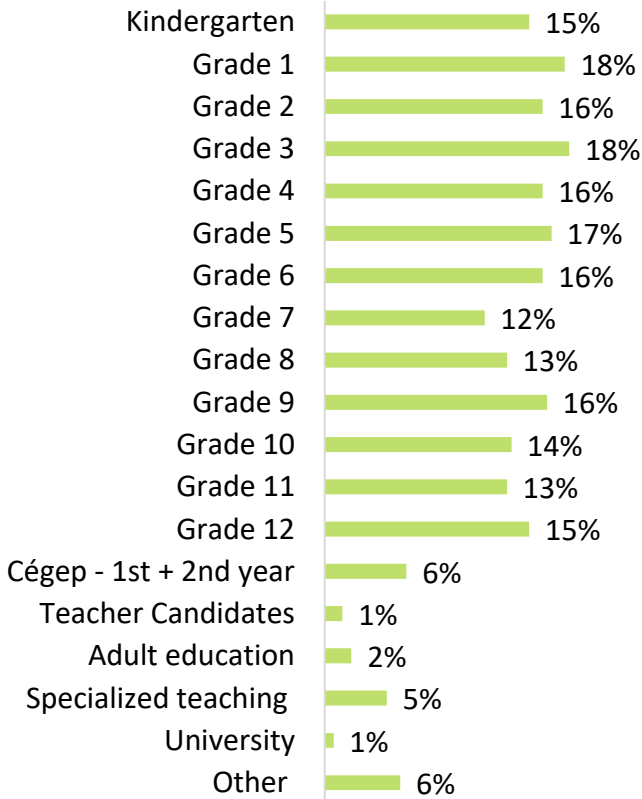
Years of Teaching Experience*



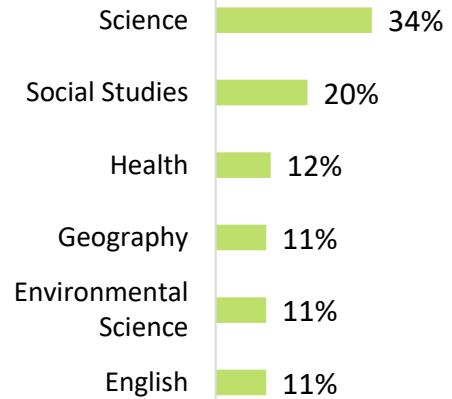
Subjects Taught



Grades Taught

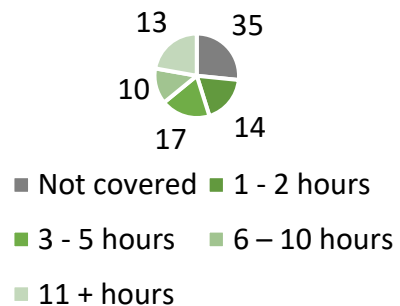


Courses Taught that Address Climate Change



35% do not cover climate change topics

Hours in a School Year or Term Spent Covering Climate Change



Educator Gender Identity

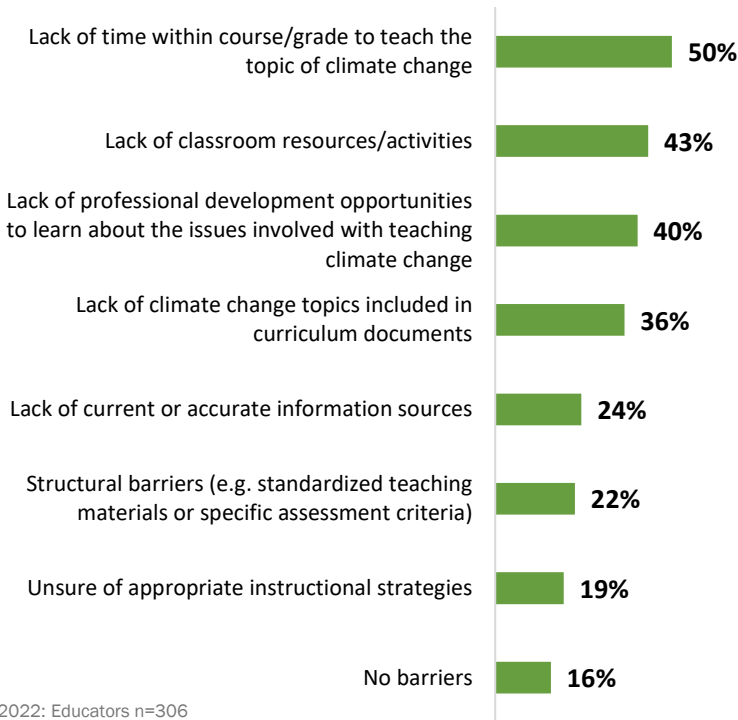
- **69%** women
- **29%** men
- **1%** non-binary

EDUCATOR DEMOGRAPHICS BY PROVINCE

	BC	AB	ON	QC
Years of Teaching Experience*				
0-5 years	9%	20%	23%	30%
6-10 years	35%	32%	18%	22%
11-15 years	26%	27%	17%	18%
16-20 years	12%	5%	14%	11%
Over 20 years	18%	15%	28%	20%
Grades Taught				
Junior Kindergarten / Kindergarten	10%	11%	17%	18%
Grade 1	23%	26%	17%	16%
Grade 2	18%	29%	16%	12%
Grade 3	23%	14%	19%	15%
Grade 4	15%	11%	21%	13%
Grade 5	23%	3%	27%	14%
Grade 6	15%	9%	19%	14%
Grade 7	13%	9%	15%	6%
Grade 8	25%	14%	12%	7%
Grade 9	23%	9%	23%	8%
Grade 10	20%	9%	15%	7%
Grade 11	15%	6%	15%	8%
Grade 12	18%	23%	20%	3%
Cégep - 1st + 2nd year	3%	6%	2%	10%
Teacher Candidates	3%	3%	1%	1%
Adult education	3%	6%	-	3%
Specialized teaching (e. g. adaptation, resource)	-	3%	1%	8%
University	-	-	-	2%
Other	3%	-	6%	8%
Top Five Subjects Taught				
Math	25%	43%	44%	43%
Science	35%	51%	37%	27%
English	45%	40%	43%	15%
Social Studies	40%	43%	31%	11%
French	18%	14%	17%	47%
Top Courses Taught that Address Climate Change				
I do not cover climate change topics in any subjects that I teach	15%	23%	27%	40%
Science	25%	60%	37%	27%
Social Studies	43%	29%	17%	8%
Health	5%	31%	10%	6%
Geography	10%	9%	15%	11%
Environmental Science	18%	11%	6%	11%
English	20%	11%	14%	5%
Hours in a School Year Spent Covering Climate Change				
Not covered	10%	14%	20%	28%
1 - 2 hours	8%	11%	15%	21%
3 - 5 hours	8%	11%	16%	17%
6 – 10 hours	25%	6%	12%	9%
11+ hours	33%	29%	22%	4%
Don't know	10%	14%	9%	8%
Not applicable	8%	14%	6%	13%

What barriers have you experienced when attempting to include climate change education within your classroom?

Barriers when attempting to include climate change education within the classroom



2022: Educators n=306
Total Responses less than 10% not shown.

Half of educators (50%) agreed that a lack of time within their course/grade to teach the topic of climate change is a barrier when attempting to include climate change education within the curriculum.

Regionally, almost half of BC educators felt that lack of curriculum (48%) and lack of information sources (48%) were a barrier. In comparison, just over a quarter of educators from QC felt that curriculum was a barrier (28%). Even fewer from QC felt there was a lack of accurate information sources (19%).

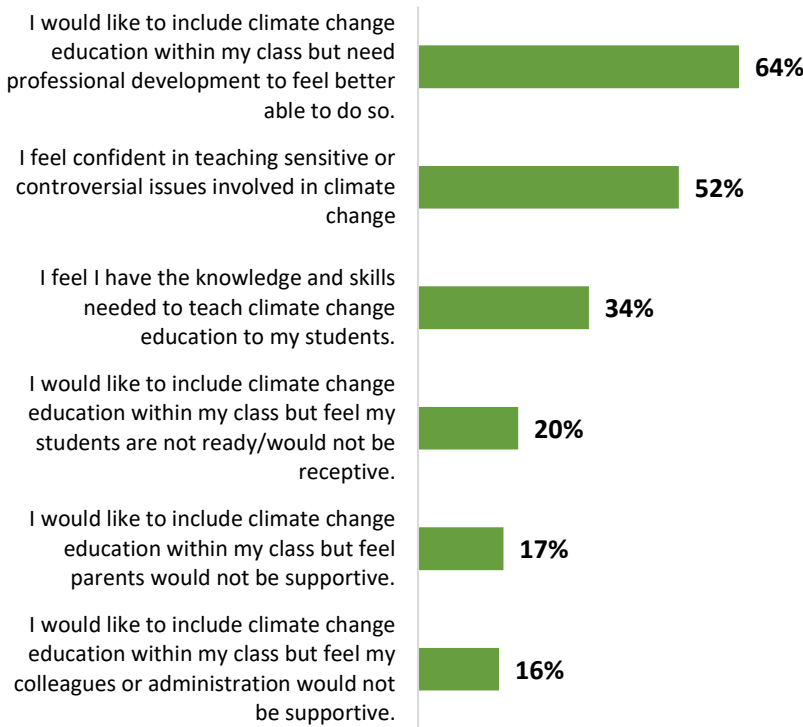
Province/Region

	BC	AB	ON	QC
Lack of time within course/grade to teach the topic of climate change	69%	57%	43%	48%
Lack of classroom resources/activities	53%	34%	52%	38%
Lack of professional development opportunities to learn about the issues involved with teaching climate change	59%	42%	48%	28%
Lack of climate change topics included in curriculum documents	48%	42%	44%	28%
Lack of current or accurate information sources	48%	32%	22%	19%
Structural barriers (e.g. standardized teaching materials or specific assessment criteria)	18%	27%	21%	24%
Unsure of appropriate instructional strategies	14%	30%	23%	13%
No barriers	8%	18%	14%	17%

2022: Educators (BC=40, AB=35, ON=81, QC=109)
Total Responses less than 10% not shown. Provinces/Regions with base sizes (n<30) not shown, small sample size.

To what extent do you agree/disagree with the following statements?

% Agree (Strongly Agree/Agree)



2022: Educators n=306

Educators expressed the need for professional development (64%) to feel comfortable teaching climate change but over half (52%) did express confidence teaching the controversial issues involved in this subject matter. Only one-third (34%) agreed that they had the knowledge and skills to teach climate change education to their students.

Educators in BC varied in their perceptions of climate change education compared to their counterparts in AB, especially in their need for PD (89% in BC vs. 40% in AB) and confidence in teaching sensitive issues (65% in BC vs. 34% in AB).

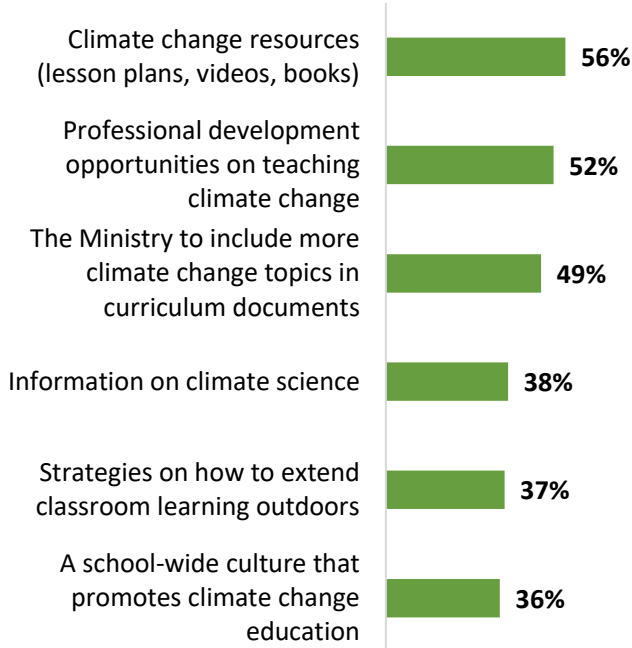
% Agree - Province/Region

	BC	AB	ON	QC
I would like to include climate change education within my class but need professional development to feel better able to do so.	89%	40%	68%	65%
I feel confident in teaching sensitive or controversial issues involved in climate change	65%	34%	54%	49%
I feel I have the knowledge and skills needed to teach climate change education to my students.	51%	30%	46%	29%
I would like to include climate change education within my class but feel my students are not ready/would not be receptive.	30%	13%	20%	28%
I would like to include climate change education within my class but feel parents would not be supportive.	28%	17%	29%	21%
I would like to include climate change education within my class but feel my colleagues or administration would not be supportive.	33%	7%	28%	20%

2022: n=314 (BC=42, AB=35, ON=85, QC=110)
Provinces/Regions with base sizes (n<30) not shown, small sample size.

What support do you need to teach climate change?

Top 6 “Things” Needed to Teach Climate Change



2022: Educators n=306
Top 6 Responses Shown.

Some survey topics were included in different questions to confirm findings. Again, educators substantiated that some of the most needed items were climate change resources (56%) and professional development opportunities on teaching climate change (52%)

Similar to a previous question, few QC educators felt they needed more curriculum (40%) or climate science information (34%).

BC educators were most likely to request a school wide culture to support climate change (50%), and ON was most likely to want strategies on outdoor learning (40%).

Province/Region

	BC	AB	ON	QC
Climate change resources (lesson plans, videos, books)	61%	39%	57%	54%
Professional development opportunities on teaching climate change	83%	58%	52%	42%
The Ministry to include more climate change topics in curriculum documents	43%	48%	59%	40%
Information on climate science	38%	39%	42%	34%
Strategies on how to extend classroom learning outdoors	36%	38%	40%	33%
A school-wide culture that promotes climate change education	50%	32%	46%	23%

2022: Educators (BC=40, AB=35, ON=81, QC=109)
Top 6 Responses Shown. Provinces/Regions with base sizes (n<30) not shown, small sample size.

Describe in more detail the key challenges you face when teaching climate change.

Educators were given the opportunity to choose to answer this open-ended question in their own words. Out of the survey population, 149 educators chose to answer this optional question.

The results were coded and grouped according to themes. Lack of time and resources are the top challenges faced when teaching climate change education.

1

Not included in the curriculum/ Not enough time
36%

“Lack of time in the curriculum to spend an appropriate amount on climate change” (Educator)

“Limited time with a content heavy curriculum” (Educator)

2

Lack of resources/materials
28%

“More resources would be nice” (Educator)

“Material needed to teach the students.” (Educator)

3

Professional development/ Lack of knowledge
19%

“I need to educate myself more about climate change and some resources to teach young children about it” (Educator)

4

Students not receptive/ Emotional readiness of students
10%

“Having students that are receptive to the learning.” (Educator)

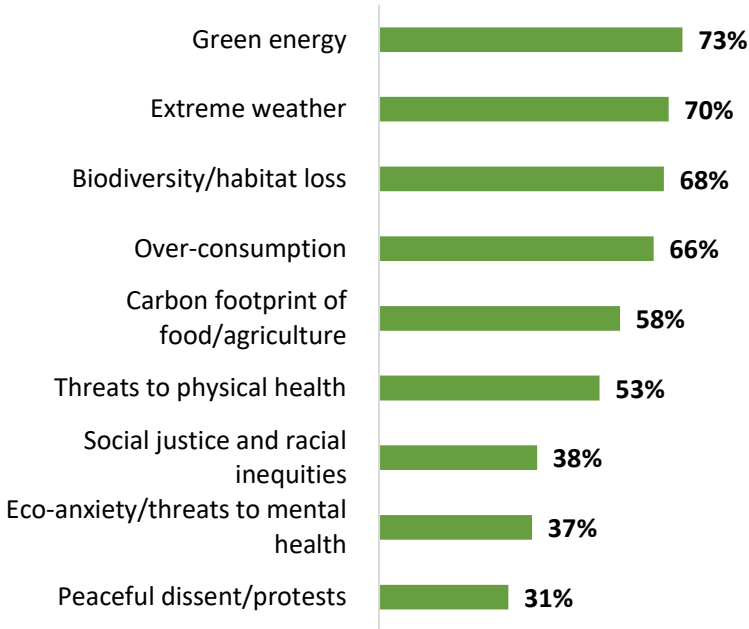
5

Lack of support (e.g., parent, political climate, school administrators)
9%

“Teachers are often hesitant to teach hot button topics that are vitally important due to parent and community push-back. They need curriculum that backs up the need along with board and admin support when tackling tough topics.” (Educator)

To what extent do you agree (or disagree) that climate change should be addressed in grades Kindergarten to Grade 3?

% Agree (Strongly Agree/Agree)



Educators highly agreed that green energy (73%) and extreme weather (70%) should be addressed in Kindergarten to Grade 3.

Educators were less likely to agree that social justice and racial inequities (38%), eco-anxiety/threats to mental health (37%), and peaceful dissent/protests (31%) should be addressed in K to Gr 3.

BC (67%) and ON (72%) ranked teaching green energy highest in K to Gr 3. AB (70%) ranked biodiversity highest, and QC (77%) ranked over-consumption highest.

2022: Educators n=406

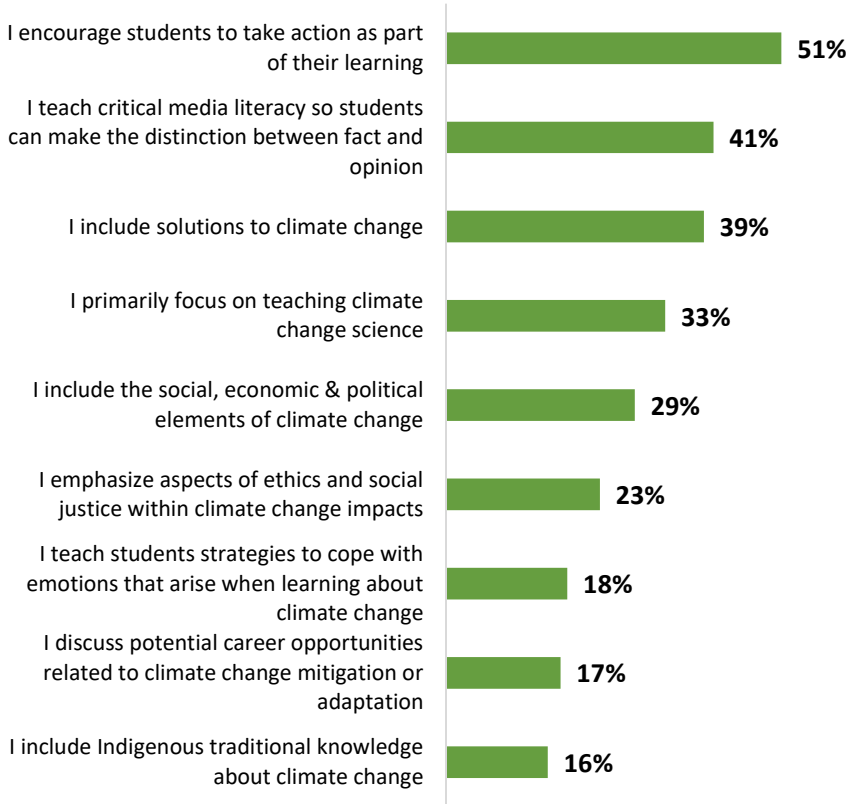
Province/Region

	BC	AB	ON	QC
Green energy	67%	63%	72%	75%
Extreme weather	65%	62%	71%	72%
Biodiversity/habitat loss	64%	70%	66%	63%
Over-consumption	48%	66%	66%	77%
Carbon footprint of food/agriculture	59%	60%	64%	53%
Threats to physical health	59%	38%	54%	53%
Social justice and racial inequities	26%	38%	31%	42%
Eco-anxiety/threats to mental health	21%	19%	36%	43%
Peaceful dissent/protests	19%	21%	28%	34%

2022: Educators (BC=57, AB=41, ON=110, QC=130)
Provinces/Regions with base sizes (n<30) not shown, small sample size.

When I teach about climate change...

A Great Deal/ A Moderate Amount



2022: Educators n=306

Half (51%) of educators encouraged students to take action as part of their learning when teaching about climate change. Many (41%) also taught media literacy.

Educators from ON were the most likely to adopt many of the listed actions and AB was the least likely. Educators from QC (11%) were the least likely to include Indigenous traditional knowledge about climate change when teaching climate change, as compared to their counterparts in AB (26%) who were the most likely.

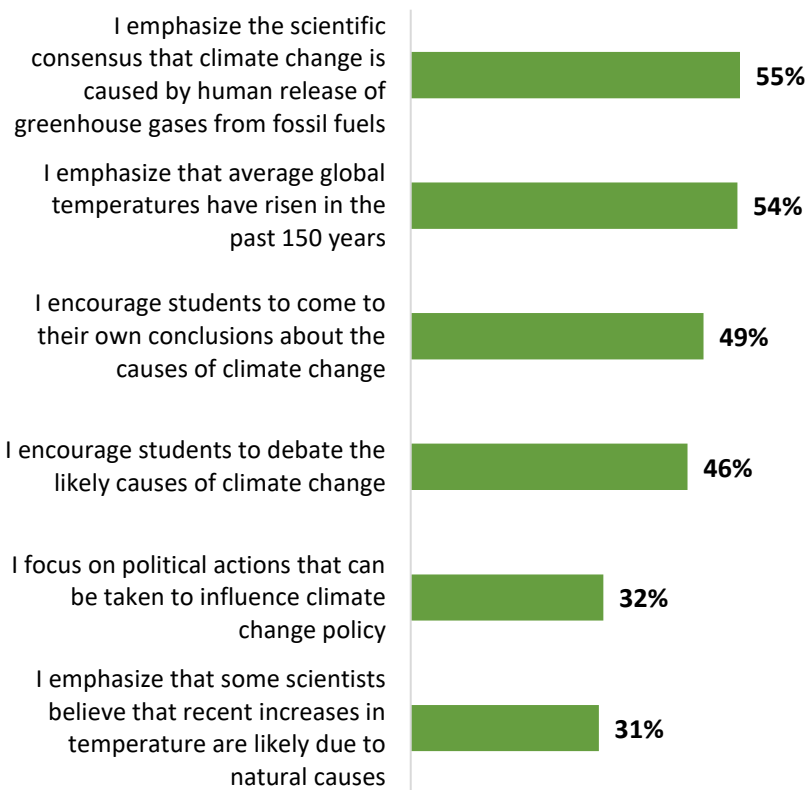
Province/Region

	BC	AB	ON	QC
I encourage students to take action as part of their learning	45%	30%	60%	50%
I teach critical media literacy so students can make the distinction between fact and opinion	41%	26%	45%	45%
I include solutions to climate change	40%	26%	42%	41%
I primarily focus on teaching climate change science	25%	27%	38%	32%
I include the social, economic & political elements of climate change	31%	28%	30%	29%
I emphasize aspects of ethics and social justice within climate change impacts	25%	16%	27%	22%
I teach students strategies to cope with emotions that arise when learning about climate change	12%	18%	24%	15%
I discuss potential career opportunities related to climate change mitigation or adaptation	23%	16%	21%	12%
I include Indigenous traditional knowledge about climate change	13%	26%	20%	11%

2022: Educators (BC=40, AB=35, ON=81, QC=109)
Provinces/Regions with base sizes (n<30) not shown, small sample size.

In my classes...

% Agree (Strongly Agree/Agree)



Over half of educators agreed that they emphasize the scientific consensus that climate change is caused by human release of greenhouse gases from fossil fuels (55%) and that the average global temperatures have risen in the past 150 years (54%).

Regionally, BC and ON were the most likely to agree with the top two statements. Educators from AB were least likely to agree with all statements, especially those focused on political actions against climate change.

2022: Educators =306

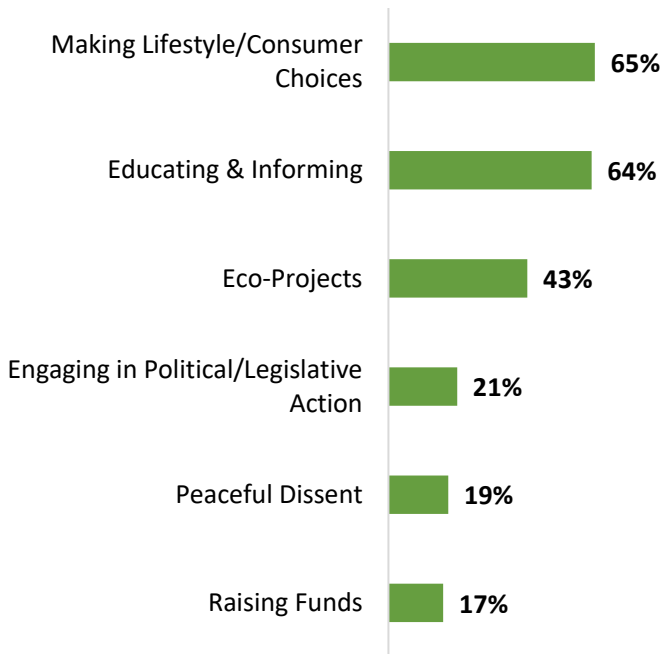
Province/Region

	BC	AB	ON	QC
I emphasize the scientific consensus that climate change is caused by human release of greenhouse gases from fossil fuels	73%	37%	60%	50%
I emphasize that average global temperatures have risen in the past 150 years	71%	39%	59%	48%
I encourage students to come to their own conclusions about the causes of climate change	37%	39%	53%	46%
I encourage students to debate the likely causes of climate change	50%	34%	44%	48%
I focus on political actions that can be taken to influence climate change policy	43%	16%	34%	32%
I emphasize that some scientists believe that recent increases in temperature are likely due to natural causes	34%	37%	29%	27%

2022: n=314 (BC=40, AB=35, ON=81, QC=109)
Provinces/Regions with base sizes (n<30) not shown, small sample size.

How frequently do you engage students in taking the following types of actions to address climate change?

Frequently / Occasionally



Educators most frequently engaged students in actions to make lifestyle/consumer choices (65%) and to educate and inform others (64%). Few engaged in peaceful dissent (19%) or raising funds (17%).

Educators from AB less frequently engage students in all actions that address climate change than those from BC, ON or QC.

Educators in BC (71%) and ON (70%) are the most likely to engage students in making lifestyle/consumer choices.

2022: Educators n=306

Province/Region

	BC	AB	ON	QC
Making Lifestyle/Consumer Choices	71%	39%	70%	65%
Educating & Informing	65%	48%	65%	65%
Eco-Projects	37%	34%	46%	45%
Engaging in Political/Legislative Action	24%	16%	24%	18%
Peaceful Dissent	13%	11%	26%	14%
Raising Funds	25%	13%	25%	10%

2022: Educators (BC=40, AB=35, ON=81, QC=109)
Provinces/Regions with base sizes (n<30) not shown, small sample size.

Please include any additional comments on climate change education that you would like to add.

Educators were given the opportunity to answer this open-ended question in their own words. Out of the survey population, 100 educators chose to answer this optional question.

The results were coded and grouped according to themes. The 7 most common themes are shown below, and indicate suggestions for an enhanced curriculum, increased professional development/training, and empowering students so they feel they can make a difference.

1

Needs to be incorporated into curriculum
18%

"I believe a separate short course in climate change and the climate itself should be taught as part of the curriculum for students of grade 1 through to 12."
(Educator)

2

Professional development/training is needed
18%

"Teachers require more professional development as there are knowledge gaps when it comes to climate change."
(Educator)

3

Empower students so they feel they can make a difference
16%

"Empowerment of students to take control of making changes" (Educator)

4

Broad scope of content/clear and current information
13%

"If municipalities could come out with a very clear mandate for well informed climate action, it would be a great way for schools to join a body that is political." (Educator)

5

Provide solutions/actions that can be taken
11%

"Supporting student-level actions. Working in the school gardens and learning about food security. Local letter writing (MLA, City Council, School Principals..)"
(Educator)



Canadians' Perspectives on Climate Change & Education

Section 4: Climate Audiences

Ladder of Engagement

Over the last few years, social science research into public climate change knowledge, attitudes, policy preferences, and behaviour, as well as the underlying psychological, cultural, and political factors that influence how the public perceives climate change, has developed a robust evidence-based and powerful method to conduct this type of research.

The group EcoAnalytics has been mapping Canadian public opinion on climate change since 2016 and provided additional analysis on specific segmented audiences in order to provide insights for communicators, educators, and policymakers for better targeting and engagement. Within this body of work, EcoAnalytics has put forward a Canadian ladder of engagement, which is a conceptual map to help groups engage audiences with more success (LaChappelle, Mahéo, & Nadeau, 2016)¹. The map is comprised of four audiences: dismissive, sceptics, aware, and empowered. This is a simplified model of engagement, as the authors cite: “In reality, the engagement process is non-linear, but for analytical purposes it helps to present groups of Canadians in a ranking from least to most likely to be “engaged” (p. 7).

The four audiences, as paraphrased from the EcoAnalytics report, are:

- **Dismissives** - disagree that climate change is happening
- **Sceptics** - agree that climate change is happening and do not think it’s caused by humans OR, neither agree nor disagree that climate change is happening
- **Aware** - agree that climate change is happening and do think it’s caused by humans AND indicated that there is nothing that we can do to change it
- **Empowered** - agree that climate change is happening and do think it’s caused by humans AND indicated that there are things we can do to change it

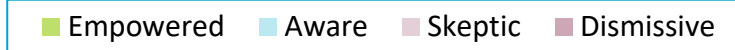
We chose to apply the ladder of engagement to segmented groups², to help policy makers, administrators, educators, and non-profit groups have a better understanding of how Canadians perceive and engage with climate change at a broad level

We made some adjustments from the EcoAnalytics methodology in order to analyze our data for engagement. Due to the differences in conditions between our methodology and that of EcoAnalytics, the datasets are not directly comparable.

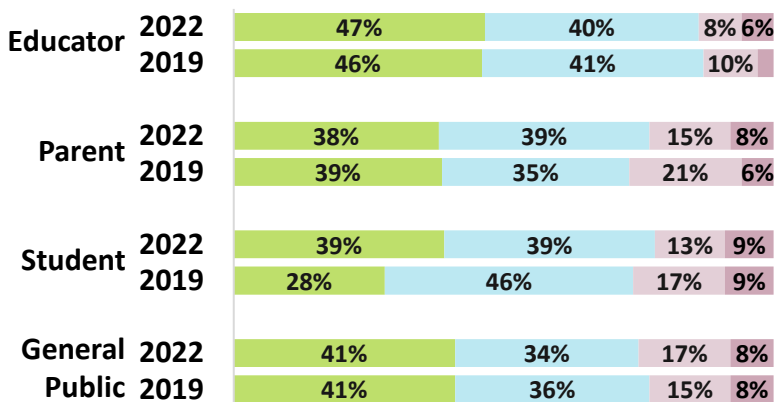
1. LaChappelle, E., Mahéo, V., & Nadeau, R. (2016). *Climate of Change: Analysis of a national survey of Canadian opinions about climate and energy issues*. EcoAnalytics

2. Ten respondents were excluded from reporting as they belonged to both the Dismissive and the Skeptic category, their responses were not consistent with their views towards climate change.

Ladder of Engagement 2022 vs. 2019



Respondent Group

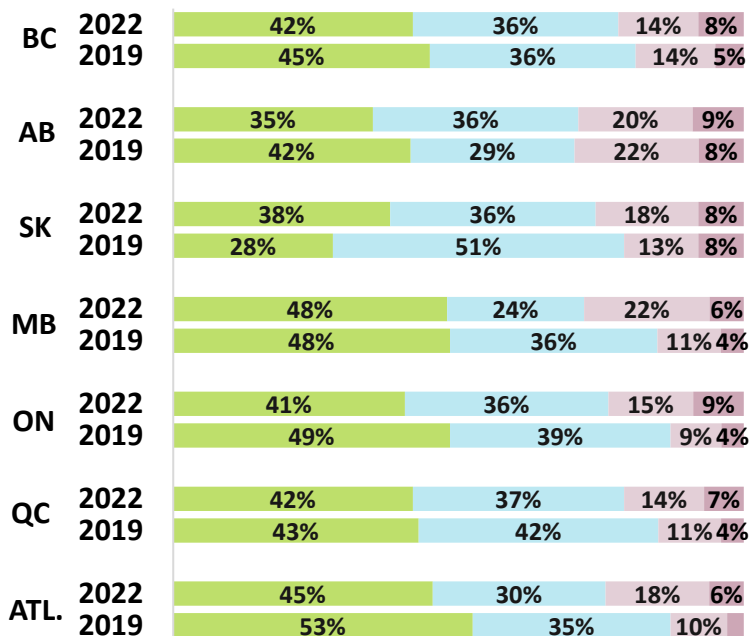


2022: n=4,025 (Educator=404, Parent=1,368, Student=1,207, General Public=1,288)
 2019: n=3,196 (Educator=111, Parents=571, Student=486, General Public=908)
 Responses less than 4% not labelled.

In three of the four participant groups (educators, parents and general public), there was little change in the ladder of engagement in 2022 vs. 2019, with educators remaining the most empowered (47% vs. 46%) and parents feeling the least empowered (39% vs 38%).

This lack of movement in other groups made the change in the student results much more significant. The percentage of students feeling “empowered” in 2019 was 28%. However, this number rose to 39% in 2022, meaning more students felt that human-caused climate change is happening, and that there are things we can do to change it.

Province/Region



2022: n=4,025 (BC=513, AB=464, SK=217, MB=240, ON=1,021, QC=1,168, ATL.=299)
 2019: n=2,180 (BC=196, AB=160, SK=73, MB=70, ON=749, QC=814, ATL=118)
 Responses 4% or less not labelled.

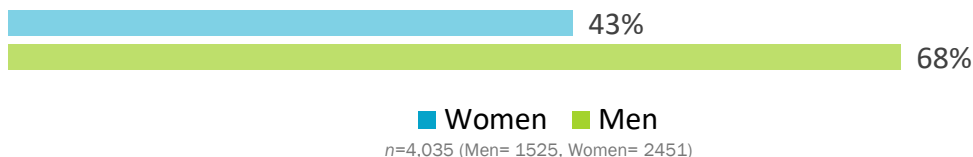
When the ladder of engagement is applied regionally, most provinces are largely either empowered and aware. In 2022 in some regions (BC, AB, ON, QC, and ATL) there were fewer respondents in the empowered group than in 2019. SK, however, showed significant gains in the empowered group in 2022 vs. 2019 (38% vs. 28%).

Gender Differences

Climate Change Knowledge

Across Canada, men felt that they are more informed about climate change than women. However, both men and women performed similarly on the survey knowledge quiz (69% of males passed, getting 5+/10 correct vs. 65% of women)

Personally, how well-informed do you feel you are about climate change? (Very well informed/Fairly well informed)



Climate Change is Happening

Fewer men believe that climate change is happening. More women believe that humans are responsible for climate change and that people have failed to care for the planet.

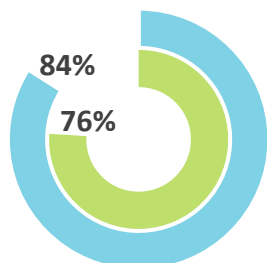
To what extent do you agree with the following statements:



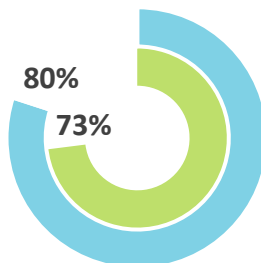
Canada is at Risk

More women than men believe that Climate Change poses risks to Canadians (80% vs. 73%), including exposure to extreme weather events, and extreme temperatures. More women also indicate that plant and animal species are at risk of harm (71% vs. 58%).

To what extent do you agree that climate change is already causing or making the following worse in Canada?



Extreme Weather Events



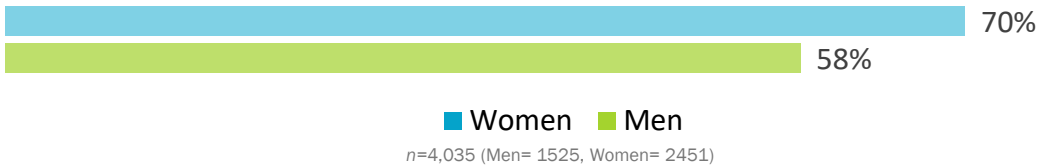
Extreme Temperatures

Gender Differences continued

The Role of Education

More women feel that the education system should be doing ‘a lot more’ about climate change compared to men, and that it was not too complex a topic to start teaching in younger grades.

Do you think the education system should be doing more, less, or about the same as now to educate young people about climate change? (A lot more)



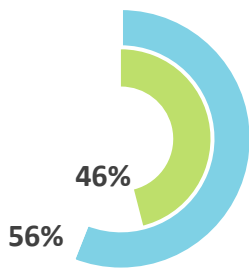
The topic of climate change is too complex and should not be discussed in younger grades (NET agree)



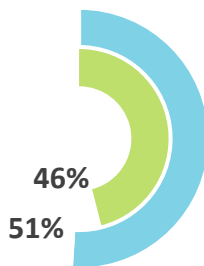
What Topics to Teach

More women felt it was important to include **Indigenous knowledge and social justice issues into climate change education**, but men and women felt the same about the inclusion of social, economic and political elements.

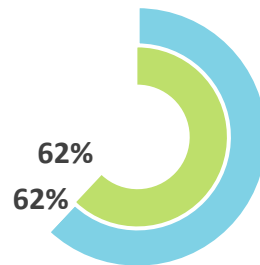
To what extent do you agree that K-12 classes should focus on the following (in relation to climate change) (NET Agree)



Indigenous Traditional Knowledge



Racial inequality, gender equality and social justice issues

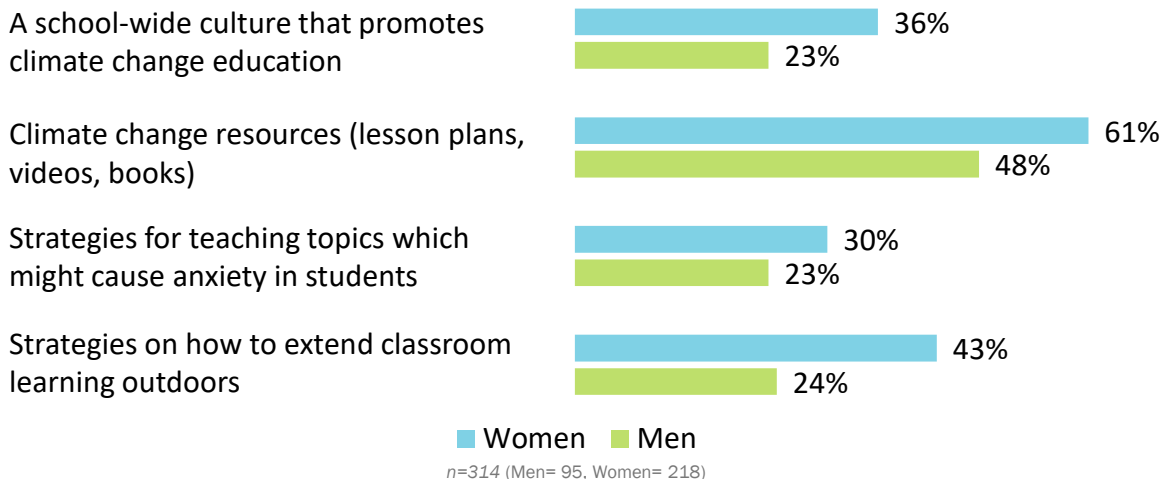


Social, economic & political elements

Gender Differences continued

Supports to Teach Climate Change

Male educators were less likely to ask for supports for teaching climate change such as:



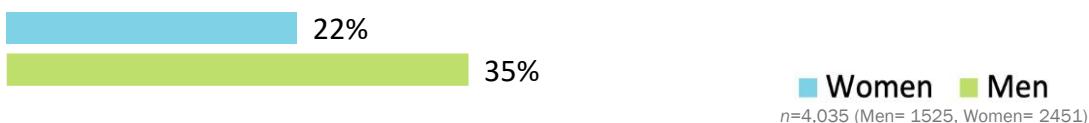
Taking Action

More women than men are willing to change their behaviors to help mitigate climate change. More men have faith in technology as a solution to climate change

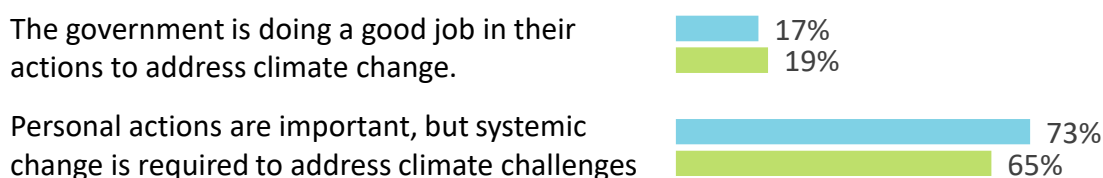
In the next few years, how much would you be willing to change in your life (at school, work or home) to help reduce the effects of climate change? (Some/A lot)



New technologies can solve climate change without individuals having to make big changes in their lives (NET agree)



Both men and women feel similarly that systemic change is needed but that the government isn't doing a good job





Canadians' Perspectives on Climate Change & Education

Section 5: Recommendations

Recommendations

The analysis of the survey data revealed a series of opportunities to strengthen climate change education in Canada, both in formal and informal education settings. Overall, Canadians wish to be better informed about climate change. In addition, educators call for enhanced professional learning and resources. The following recommendations provide a roadmap for governments, policymakers, universities, school boards, teachers' unions, community organizations, corporations, educators, and youth to address the importance of climate change education and recognize the urgency of acting now.

Formal Education

- Ministries of Education should revise curricula to incorporate climate change expectations across all subjects and in all grades, from kindergarten to grade 12/CÉGEP
- Curriculum expectations should address the following:
 - climate science and the scientific consensus that climate change is human caused
 - critical media literacy on climate change so students can make the distinction between fact and opinion
 - the social, economic, and political aspects of climate change
 - connections between climate change and racial inequity, gender equality, and social justice issues
 - Indigenous climate change knowledge
 - solutions to mitigating and adapting to the effects of climate, consequences of actions, and the need for behaviour change
 - individual/personal and collective climate action in order to foster feelings of hope and empowerment (e.g. lifestyle/consumer action, educating and informing others, eco-projects)
 - how to address anxiety and other emotions brought about by climate change
 - career opportunities related to climate change mitigation or adaptation
 - kindergarten to grade 3 climate change topics such as green energy, extreme weather, biodiversity, overconsumption, carbon footprint of food and agriculture, and threats to physical health

Recommendations continued

- In addition to customary education stakeholders, Ministries of Education should also consult with and seek input on curriculum content from:
 - Youth
 - Indigenous educators
 - Marginalized communities
- Ministries of Education, school boards, and teachers' unions should provide professional development and resources to enhance teacher knowledge, skills, and confidence in teaching climate change, and should include:
 - climate science, causes of climate change, climate change impacts, climate change mitigation, and adaptation strategies
 - transformative pedagogies such as effective instructional strategies for teaching climate change, including inquiry, active learning, systems, and future thinking, alternative perspectives, experiential learning, acting on learning, engaging local partners, and media literacy
 - strategies to help students cope with emotions that arise when learning about climate change
 - equity, diversity, and inclusion strategies to address the links between climate change and racial inequity, gender equality, and social justice issues
 - strategies to embed Indigenous climate change knowledge
 - access to current national/provincial climate data and locally relevant climate change classroom resources including lesson plans, videos, books, and games
 - information on green jobs and career pathways (especially important for not only teachers but also guidance counselors)
- Faculties of Education, in implementing the *Accord on Education for a Sustainable Future* adopted by the Association of Canadian Deans of Education in 2022 should:
 - highlight the importance and urgency of climate change education
 - ensure that climate change education (including the curriculum expectation recommendations listed previously) is a central and required component of course offerings in pre-service, in-service, and graduate-level teacher education curricula
 - support faculty and students in implementing transformative pedagogies that facilitate teaching, learning, and acting on climate change

Recommendations continued

Informal and Non-formal Education

- Canadians should be provided with information, from trusted sources including scientists and academics, about the process and causes of climate change, climate change impacts, opportunities for mitigation and adaptation, and personal, higher-impact actions they can implement to reduce their greenhouse gas emissions
- Sources of information about climate change need to target different population groups more purposefully and effectively. Television and radio news programming, online news, documentaries, and movies should be used as informal communication vehicles for Canadian adults, and properly monitored social media sites (YouTube, Facebook, Instagram, TikTok, and Twitter) for K-12/CÉGEP students
- Informal education sources should provide resources and strategies to help parents, grandparents, children, and youth cope with emotions that arise when learning about climate change, with a focus on solutions, actions, and hope
- Canadians should hear positive stories of climate action and learn about collaborative approaches that create systemic change
- Informal education sources should provide resources for teachers including current national/provincial climate data, information on green jobs, and locally relevant climate change classroom resources
- Informal education sources should provide professional learning opportunities for teachers to share their expertise on climate change knowledge and opportunities for action

In summary, the results of the climate change survey emphasized the need for enhanced climate change education, both in the formal school setting, as well as through informal education channels. Using this two-pronged, targeted approach will help to reduce climate change knowledge gaps and work towards the positive outcome of active citizenship for all Canadians.

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