

## Canadians' Perspectives on Climate Change & Education: 2022 Atlantic Region Provincial Report



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To view the National Report, visit: LSF-LST.ca/research-policy/survey

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Canadians' Perspectives on Climate Change & Education: 2022

Atlantic Region Provincial Report

**Section 1: Introduction** 

### **Climate Change and Education Context**

Climate change is one of the most complex and wide-reaching challenges facing humankind today. 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. Canada has seen a significant increase in climate-related disasters over the past decade and urgent action is necessary using the best data available to ensure that Canadians will successfully adapt and prosper.

### **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. 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. Across Canada, only 6 of 13 provinces and territories have included climate and sustainability in their curricular documents or education policy. In addition, provincial curriculum seldom emphasizes climate change's current and projected impact, mitigation and adaptation strategies, and the scientific consensus on climate science.

### Impacts on Youth and the Significance of Youth Action

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. 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. 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. Formal and informal education of all Canadians is key to achieving success in the fight against climate change.

### **Survey Background**

As the effects of climate change become increasingly more severe, the sense of urgency to act to mitigate and adapt to climate change is also mounting. 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 report *Canadians' Perspectives on Climate Change & Education: 2022* provides results from a national climate change education survey undertaken by Learning for a Sustainable Future (LSF) and Leger Research Intelligence Group. The survey gathered data from across Canada on different groups' knowledge of climate change and its risks, and their views on the role of schools in climate change education.

This Atlantic Region Report provides the highlights from the full national report and gives additional results based on further analysis of Atlantic data. The findings presented here help to gain an understanding of trends over time and current perspectives of educators, students, parents and the general public 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.

### **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.

This survey is a follow-up to a climate change education survey that was undertaken in 2019 by Dr. Ellen Field at Lakehead University (with funding from SSHRC), Learning for a Sustainable Future and Leger. The 2022 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. Elaine Rubinoff, LSF Director of Programs, and Samantha Gawron, Manager of Programs, Engagement & Development provided survey promotion.

Thank you to the Canadian Teachers' Federation and many other teacher organizations, as well as LSF's communication partners for circulating the survey to their members. We would also like to thank the 406 educators, 1,373 parents, 1,208 students and 1,290 members of the general public who participated in the Leger panel, and the 1,237 educators, 462 parents, 586 students and 391 members of the general public who participated through the open survey link on the LSF site.

We would like to thank the Government of Canada for their financial support.



### Methodology

### **Population Segmentation**

For this survey, the following populations were identified:

- Educators public and private K-12/cégep teachers, educational assistants, department heads, curriculum leads and curriculum consultants, vice-principals, principals, and district leaders
- Students includes current students from grades 7 to 12/cégep
- Parents includes parents of students in K-12/cégep
- 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 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". From the Leger Web Survey, a total of 4,035 Canadians were surveyed in English and French. 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. Many teacher affiliations and education-related organizations assisted with the promotion of the survey through their provincial and territorial networks.

#### **Data Collection and Analysis**

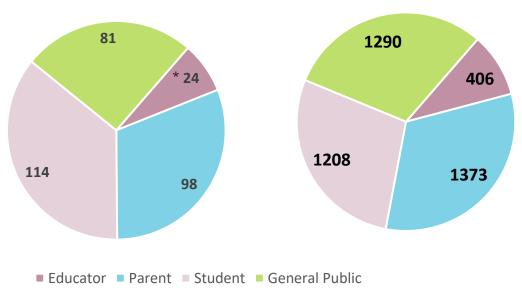
As part of the analysis process, the data are weighted by age, gender and province (based on Statistics Canada proportions) to ensure that data are representative of the Canadian public and reflective of Canadian opinion. Demographic data is presented in its unweighted form.

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. The supplemental open-link data was used where Leger panel data was insufficient, and was thus only needed to augment the educator respondent data for SK, MB and ATL in the provincial reports.

See the methodology section of the full national report for further details.

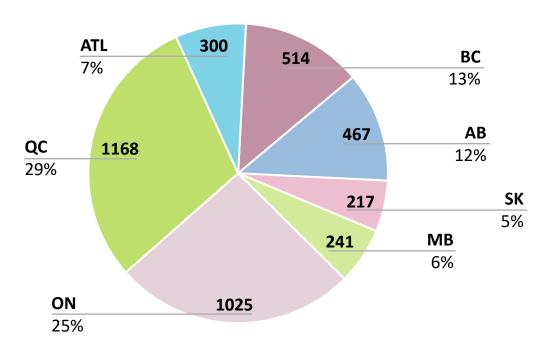
### **2022 Demographics**

### Atlantic Region Respondent Groups National Respondent Groups



Atlantic Region (ATL) includes NS, NB, PEI and NL

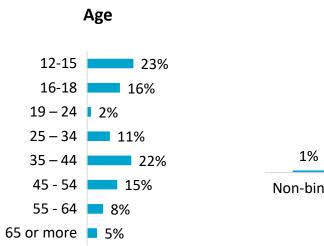
### **National Respondents by Province/Region**

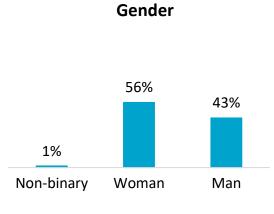


<sup>\*</sup> A sample size of 24 educators was insufficient for data analysis, thus for this report, open-link data of 219 ATL educator responses was used.

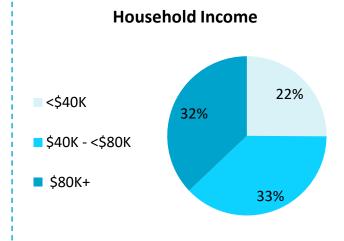
### **2022 Atlantic Region Demographics**

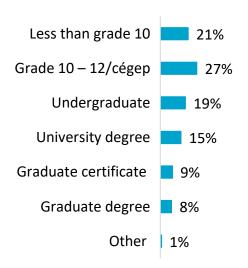






### **Education Level**







Canadians' Perspectives on Climate Change & Education: 2022

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**Section 2: What has changed since 2019?** 

### Overall Climate Change Knowledge

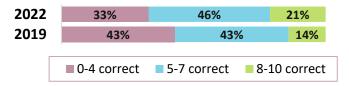
Respondents were asked 10 climate change questions early in the survey, to test their knowledge and understanding. Each question had a correct answer. The number of correct responses per respondent group and province/region are shown on the following slide, and responses from selected questions are shown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

- B1. Do you think climate change is...
  - a. Caused mostly by human activities
  - b. Caused mostly by natural changes in the environment
  - c. About equally caused by both human activities and natural changes
  - d. Not happening
  - e. Don't know
  - f. Other (please specify)
- B2. Which comes closest to your own view?
  - a. Most climate scientists think climate change is happening
  - b. 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
  - d. Don't know enough to say
- B3. Climate change is caused by....
  - a. Emissions from nuclear power plants
  - b. Thinning of the ozone layer
  - c. Particulate air pollution
  - d. Carbon dioxide and other greenhouse gases
  - e. Industrial chemicals
  - f. Natural variability
  - g. Unsure
- B4. The main process behind climate change is...
  - a. Letting more of the sun's heat into the Earth's atmosphere through a thinner ozone layer
  - b. An increase in gases in the Earth's atmosphere that trap heat
  - c. An increase in solar activity
  - d. Particulate pollution in the air reflecting heat back to Earth
  - e. Unsure
- B5. Canada, as an Arctic nation, is particularly affected by the impacts of climate change
  - a. True
  - b. False
  - c. Unsure

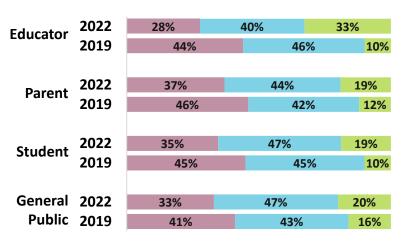
- B6. Canada's average temperature has \_\_\_\_\_ since 1948.
  - a. Decreased by 1 1.5 degrees Celsius
  - b. Decreased by 1 0.5 degrees Celsius
  - c. Decreased by 0.5 0 degrees Celsius
    - d. Stayed the same
  - e. Increased by 0 0.5 degrees Celsius
  - f. Increased by 0.5 1 degrees Celsius
  - g. Increased by 1 1.5 degrees Celsius
  - h. Unsure
- B7. What sector is currently the largest greenhouse gas emitter in Canada?
  - a. Agriculture
  - b. Heavy industry
  - c. Electricity
  - d. Buildings
  - e. Oil and gas
  - f. Transportation
  - g. Waste
  - h. Unsure
- B8. In the next 20 years, Canadian winters are predicted to be colder and to have more snow.
  - a. True
  - b. False
  - c. Unsure
- B9. 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?
  - a. 0 degrees Celsius
  - b. 0.5 degrees Celsius
  - c. 1 degree Celsius
  - d. 1.5 degrees Celsius
  - e. 2 degrees Celsius
  - f. 2.5 degrees Celsius
  - g. Don't know
- B10. What do countries need to do in order to ensure temperatures stay within the range that the Earth system can tolerate?
  - a. Significantly increase emissions
  - b. Moderately Increase emissions
  - c. Do nothing
  - d. Moderately decrease emissions
  - e. Significantly decrease emissions
  - f. Move to net zero emissions Don't know

### Overall Climate Change Knowledge

#### **Total Correct Answers**



### **Total Correct Answers – Respondent Group**

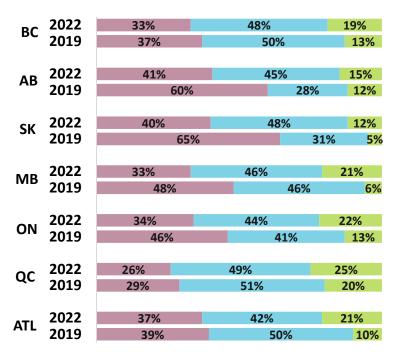


2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290) 2019: n=2,191 (Educator=111, Parent=571, Student=486, General Public=908)

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%).

#### Total Correct Answers – Province/Region



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.

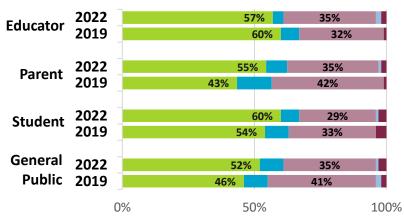
Furthermore, significantly more respondents were able to answer 8 or more questions correctly in BC SK, MB, ON, QC and in ATL. While AB and SK have improved, their scores remain lower than the rest of Canada.

### Do you think climate change is...



- 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) 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%).

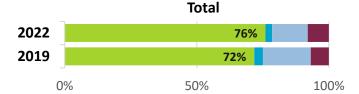
Notably, a proportion (35%) still think climate change is equally caused by both human activities and natural changes, although this number has decreased since 2019 (41%).

	Caused mostly by human activities (correct)					
Province	2019	2022	(+/-)			
ВС	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.

### Which comes closest to your own view?

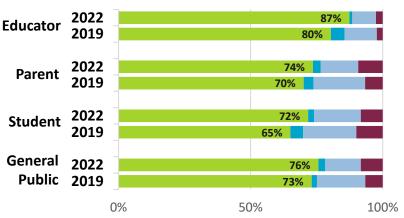


- Most climate scientists think climate change is happening (correct)
- Most climate scientists do not think climate change is happening
- There is a lot of disagreement among climate scientists about whether climate change is happening or not
- Don't know enough to say

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%).

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.





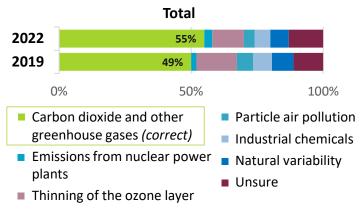
2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290) 2019: n=2,189 (Educator=110, Parent=571, Student=486, General Public=907)

	Most climate scientists think climate change is happening (correct)					
Province	2019	2022	(+/-)			
ВС	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			

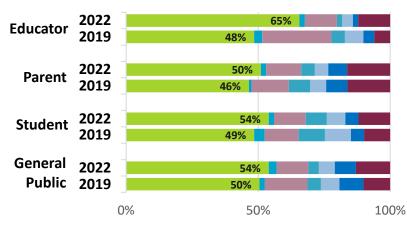
The percentage of respondents who were able to answer this question correctly in 2022 increased across all regions compared to 2019, except for QC, which decreased by 4 percentage points, and MB which stayed consistent with 2019 answers.

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

### 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.

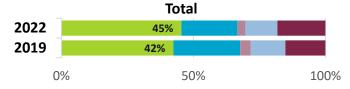
2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290) 2019: n=2,191 (Educator=111, Parent=571, Student=486, General Public=908)

	Carbon Dioxide and other greenhouse gases (correct)						
Province	2019	2022	(+/-)				
ВС	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				

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

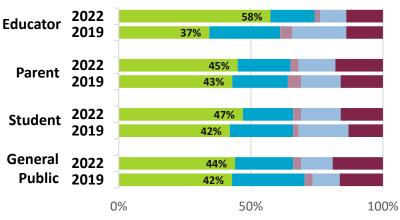
SK had the largest increase in correct responses from 2019 to 2022, with significantly more respondents in SK answering this question correctly in 2022 (52%) than in 2019 (34%).

### 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





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)

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).

	An increase in gases in the Earth's atmosphere that trap heat (correct)								
Province	2019	2019 2022 (+/-)							
ВС	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.

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

Unsure

2022

2019

28%

31%

True

### Total 26% 46% 41%

False (correct)

#### **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)

	False (correct)					
Province	2019	2022	(+/-)			
ВС	38%	37%	-1			
АВ	43%	42%	-1			
SK	37%	42%	+5			
МВ	35%	42%	+7			
ON	41%	43%	+2			
QC	45%	58%	+13			
ATL	41%	48%	+7			

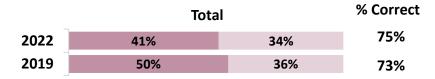
When asked if in the next 20 years, Canadian winters are predicted to be colder and to have more snow, less than half of all respondents answered correctly that the statement was false. Slightly more respondents in 2022 (46%) answered correctly than did in 2019 (41%). Over one-quarter of all respondents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

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**
- Move to Net Zero **Emissions**

% Correct (Significantly decrease emissions or move to net zero emissions)

		Responde	nt Group	% Correct
Educator	2022	41%	38%	79%
Luucatoi	2019	53%	42%	76%
	2022	450/	240/	7.0/
Parent	2022	45%	31%	76%
	2019	51%	36%	73%
Student	2022 2019	45%	30%	76%
Student	2019	46%	31%	65%
General	2022	40%	34%	74%
Public	2019	51%	36%	74%

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)

	% Correct (Significantly decrease emissions or move to net zero emissions)									
Province	2019	2019 2022 (+/-)								
ВС	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							

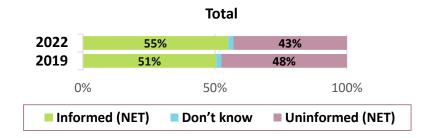
When asked what countries need to do to ensure temperatures stay within a tolerable range, about three-quarters of respondents were able to answer correctly, that countries should either significantly decrease emissions or move to net zero emissions. Responses were similar but slightly improved in 2022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

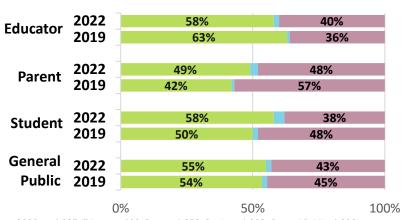
The percentage of correct responses varied across all province/regions from 2019 to 2022. Most had an increase in correct responses, however in MB and QC correct responses decreased by -8 to -4 percentage points, respectively.

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

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



#### **Respondent Group**



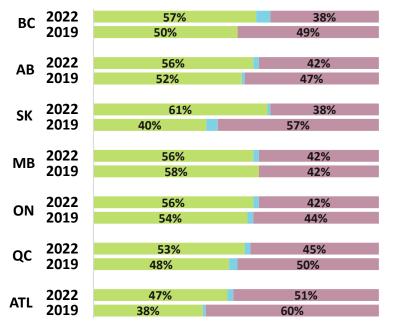
2022: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290) 2019: n=2,188 (Educator=110, Parent=571, Student=485, General Public=907)

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).

### Province/Region



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%)

## Climate change education should be a high priority for schooling

### Agree (NET)— Total

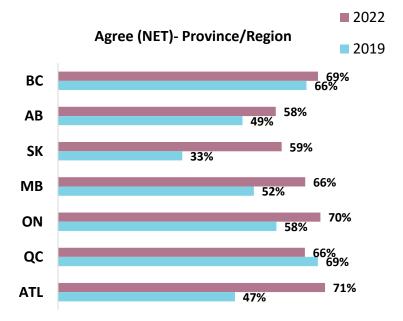


### Agree (NET) - Respondent Group



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)



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.



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

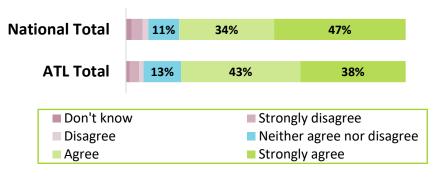
- Part 1: Knowledge Questions
- Part 2: Effects and Action
- Part 3: Climate Change Education
- Part 4: Teaching Climate Change



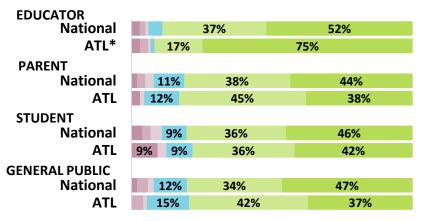
### Part 1: Climate Change Perspectives and Knowledge

Part 1 assesses respondent knowledge, understanding, and perspectives on the cause, impact, and reality of climate change.

### I am certain that climate change is happening.



#### **Respondent Group**



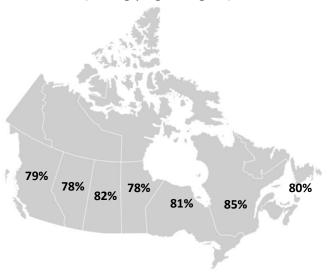
The overwhelming majority of Canadians acknowledge that climate change is a reality. When respondents were asked if they are certain that climate change is happening, 81% of respondents from ATL agreed, the same as the national results.

Responses among parents, students, and members of the general public from ATL are consistent with responses nationally.

ATL\* educator data is from open-source data; thus, caution should be taken to not directly compare it to the Lagerpanel national educator data.

National: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290) ATL: \*Educator=219, Parent=98, Student=114, General Public=81 Responses 5% or less not labelled

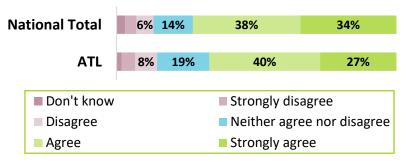
### Province/Region - % Agree (Strongly Agree/Agree)



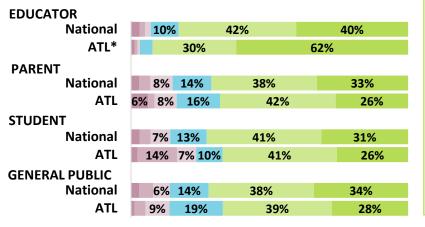
Provinces across Canada are in similar agreement, with a majority being certain that climate change is happening.

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

### We are experiencing a climate emergency

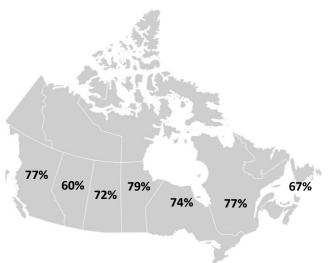


#### **Respondent Group**



National: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290) ATL: \*Educator=219, Parent=98, Student=114, General Public=81 Responses 5% or less not labelled.

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



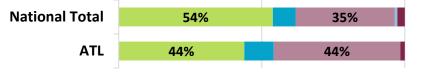
A large majority of Canadians believe that the climate change situation we are facing is extremely urgent. Close to three quarters of respondents nationally (73%) were in agreement that we are currently experiencing a climate emergency. Only 67% of ATL respondents agreed.

Responses among ATL residents are somewhat consistent with national responses. In ATL, parents, students and the general public agree less than the national average: parents (71% nationally, 68% in ATL), students (72% nationally, 67% in ATL), and the general public (72% nationally, 67% in ATL).

ATL\* educator data is from open-source data; thus, caution should be taken to not directly compare it to the Lager-panel national educator data.

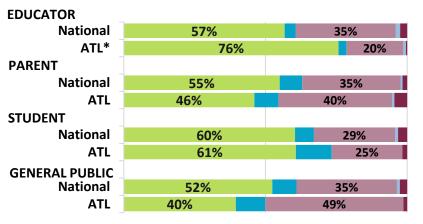
Respondents in ATL were on the lower end of agreement (67%), but not as low as AB (60%). SK (72%), BC (77%), MB (79%) and QC (77%) and ON (74%) had slightly higher levels of agreement overall.

### Do you think climate change is...

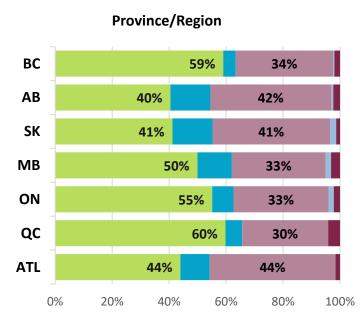


- Caused mostly by human activities (correct)
- Not happening ■ Don't know
- Caused mostly by natural changes in the environment
- About equally caused by both human activities and natural changes

### **Respondent Group**



National: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290) ATL: \*Educator=219, Parent=98, Student=114, General Public=81



When asked early in the survey whether climate change is human-caused, 54% of respondents nationally answered correctly. Significantly less respondents in ATL answered correctly, climate change is caused mostly by human activities (44%).

Significantly more respondents in ATL compared to respondents nationally, answered they think climate change is equally caused by both human activities and natural changes (44% in ATL vs. 35% nationally).

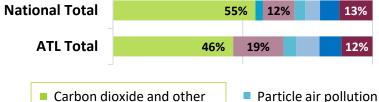
Similarly, members of the general public in ATL were significantly less likely than those nationally to answer correctly (40% in ATL vs. 52% nationally).

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

Similarly, a notable percentage of respondents across all regions indicated that climate change is equally caused by both human activities and natural changes.

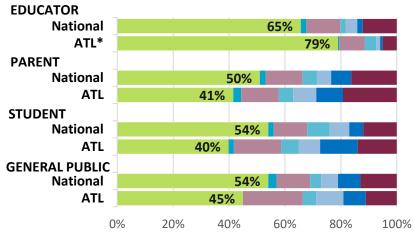
### Climate change is caused by...



- Carbon dioxide and other greenhouse gases (correct)
- Industrial chemicals
- Emissions from nuclear power plants
- Natural variability
- Thinning of the ozone layer

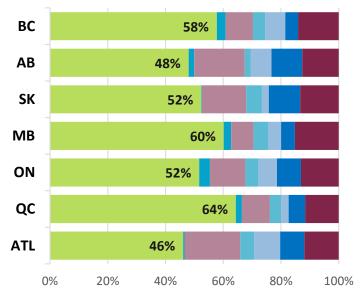
Unsure

### Respondent Group



National: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290) ATL: \*Educator=219, Parent=98, Student=114, General Public=81

### Province/Region



In terms of understanding the scientific causes of climate change, just over half of respondents nationally (55%) answered correctly, that carbon dioxide and other greenhouse gases are the primary cause of climate change. Less than half of the respondents in ATL answered correctly (46%).

However, a notable portion of respondents were 'unsure' of the cause of climate change (13% nationally, 12% in ATL) or believed incorrectly that climate change is caused by the thinning of the ozone layer (12% nationally and 19% in ATL).

ATL parents, students and the general public were all less likely to respond to this question correctly. For instance, students in ATL were significantly less likely to answer that climate change is caused by carbon dioxide and other greenhouse gases (40% in ATL vs. 54% nationally).

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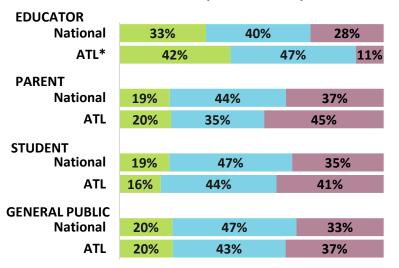
Across provinces, there is a variation in the knowledge that carbon dioxide and other greenhouse gases are the principal cause of climate change. ATL had the lowest average score on this question at 46%. QC scored highest at 64%.

A notable portion of respondents on average, are unsure of the cause of climate change or responded that climate change is caused by the thinning of the ozone layer.

### Number of correct answers to knowledge statements



#### **Respondent Group**



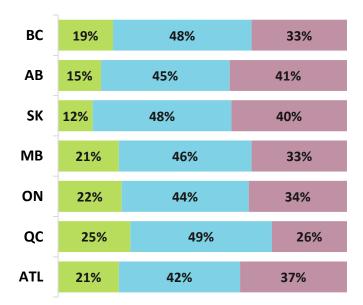
National: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290) ATL: \*Educator=219, Parent=98, Student=114, General Public=81

On average, 67% of respondents nationally, and 63% in ATL, were able to answer 5 or more climate change knowledge questions correctly.

Responses from parents, students, and members of the general public in ATL, are consistent with responses nationally, hovering around 20% scoring 8-10 correctly in each respondent group, save for ATL students who scored slightly lower with only 16% getting 8-10 answers correct.

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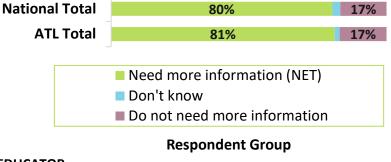
#### Province/Region

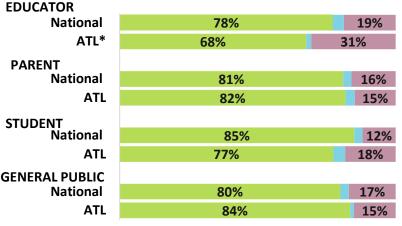


Provinces ranged between a 60% (AB and SK) to 74% (QC) success rate in answering 5 or more of the knowledge statements correctly. ON scored in the middle at 66%.

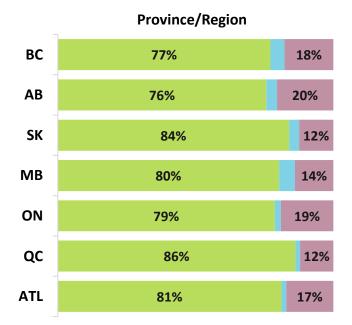
For the over 80% success rate, QC scored the highest with 25% of respondents getting 8 to 10 questions correct, followed closely by ON (22%). AB (15%) and SK (12%) had the fewest residents answering 8 or more questions correctly.

## How much information do you feel you need about climate change to form an opinion?





National: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290) ATL: \*Educator=219, Parent=98, Student=114, General Public=81 Responses 4% or less not labelled.



A large majority of Canadians would like more information about climate change. 80% of respondents nationally indicate they feel they need more information (a lot more, some more, a little more) about climate change to form a firm opinion. Similarly, 81% of respondents in ATL indicate they also need more information.

ATL students are less likely to mention they need more information about climate change to form an opinion (77% in ATL vs. 85% nationally). The ATL general public has slightly higher agreement and parents share views consistent to the national average.

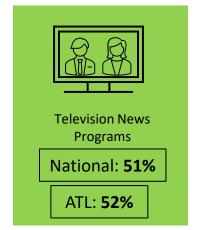
ATL\* educator data is from open-source data; thus, caution should be taken to not directly compare it to the Lagerpanel national educator data.

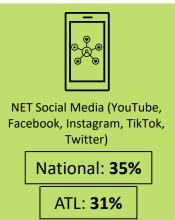
Respondents in all provinces across Canada indicate they feel they need more information about climate change to form a firm opinion.

Respondents in QC are significantly more likely to indicate they need more information (86%), compared to respondents living in BC (77%), AB (76%), and ON (79%). ATL fell in the middle of the other provinces at 81%.

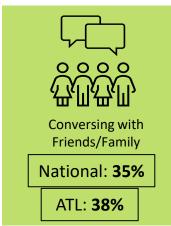
### Which of the following do you use to inform yourself about climate change?

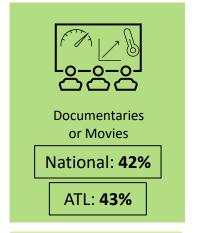
#### 2022 Total













When asked which sources respondents use most to inform themselves about climate change, 51% of respondents nationally and 52% in ATL indicated television news programs. Respondents nationally were significantly more likely to also mention using newspapers/online news websites to inform themselves compared to those in ATL (47% nationally vs. 38% in ATL). Similarities include: 42% nationally and 40% in ATL indicated documentaries or movies, 35% nationally and 31% in ATL indicated a variety of social media platforms, 35% nationally and slightly higher, 38% in ATL indicated conversations with friends/family, and 22% nationally vs. 20% in ATL indicated they listened to radio news programs.

Note: Respondent group and provincial data can be viewed on the following page. There is some variation between ATL and national target group responses. ATL students are much less likely to use social media (43% in ATL vs. 51% nationally). Using social media platforms is most common in BC. Television news programs are significantly more common in BC, ON, and QC than in AB while documentaries or movies are significantly more common in BC, AB, ON, and QC than in MB.

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

### **Respondent Group**

Sources of Information	Educators		rs Parents		Students		General Public	
	Nat.	*ATL	Nat.	ATL	Nat.	ATL	Nat.	ATL
Television news programs	56%	59%	44%	45%	31%	35%	54%	55%
Newspaper and/or online news websites	56%	73%	50%	48%	33%	36%	48%	36%
Documentaries or movies	44%	69%	44%	39%	34%	38%	42%	47%
NET Social Media (YouTube, Facebook, Instagram, TikTok, and Twitter)	35%	51%	36%	44%	51%	43%	33%	27%
Conversations with friends and family	33%	55%	34%	38%	43%	46%	34%	37%
Radio news programs	32%	42%	23%	23%	13%	16%	22%	20%

National: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290) ATL: \*Educator=219, Parent=98, Student=114, General Public=81

### **Province/Region**

Sources of Information	ВС	АВ	SK	МВ	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%

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



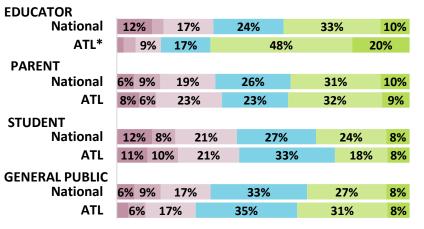
### Part 2: Climate Change Effects and Actions

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

### I have personally experienced the effects of climate change



### **Respondent Group**



National: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290) ATL: \*Educator=219, Parent=98, Student=114, General Public=81 Responses 5% or less not labelled.

Province/Region - % Agree



36%

23%

46%

Over one third (36%) of respondents nationally and in ATL (38%) agree that they have personally experienced the effects of climate change, while around onequarter (26% nationally, 23% in ATL) have not.

There are some notable differences among students and the general public. ATL students were less likely to agree (strongly agree/agree) compared to the national average (26% in ATL vs. 32%). Whereas, the general public was more likely to agree (39% in ATL, 35% nationally).

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

Those living in QC are less likely to agree (23%), especially compared to those in BC (51%), MB (46%), and ATL (38%).

34%

Over two-in-five (44%)

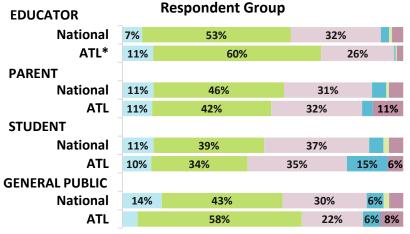
respondents nationally and

significantly more in ATL (54%) have the personal view that

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

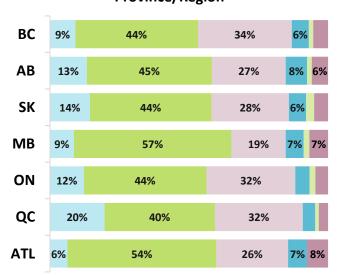


- Humans can reduce climate change and we are going to do so successfully
- Humans could reduce climate change but it's unclear at this point whether we will do what's needed
- Humans could reduce climate change, but people aren't willing to change their behaviour so we're not going to
- Humans can't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



National: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290) ATL: \*Educator=219, Parent=98, Student=114, General Public=81 Responses 5% or less not labelled

Province/Region



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 less than one-third of respondents nationally (31%) and even less in ATL (26%) who believe that humans could reduce climate change, but that people aren't willing to change their behaviours so we aren't going to.

Members of the general public in ATL are significantly more likely than those nationally, to have the personal view that humans could reduce climate change but that it is unclear at this point whether

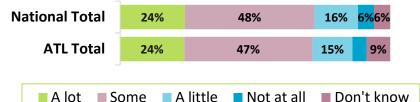
than those nationally, to have the personal view that humans could reduce climate change but that it is unclear at this point whether we will do what is needed (58% in ATL vs. 43% nationally). ATL students are much more likely to believe that humans can't reduce climate change (15% in ATL vs. 5% nationally).

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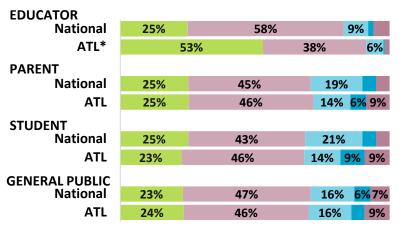
Those in MB (57%) are significantly more likely to believe that humans could reduce climate change but that it is unclear whether we will do what is needed than those in QC (40%).

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

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



#### **Respondent Group**



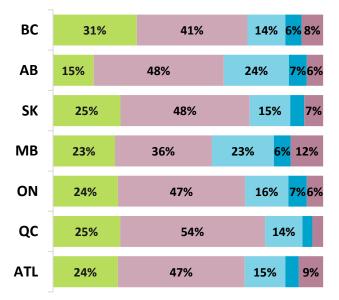
National: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290) ATL: \*Educator=219, Parent=98, Student=114, General Public=81 Responses 5% or less not labelled.

A large majority of respondents nationally (72%) and in ATL (71%) would be willing to change their life either "a lot" or "some" to help reduce the effects of climate change. Only 6% nationally and 5% in ATL are not at all willing to change their life at school, work, or home.

Responses from parents, students, and members of the general public in ATL are very consistent with responses nationally.

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### Province/Region



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 compared to AB (15%).

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



### **Respondent Group**

EDUCATOR							
National	9%	14%	28%		19%	25%	5%
ATL*	7%	14%	37%		13%	19%	9%
PARENT							
National	8%	13%	27%		23%	21%	7%
ATL	14% 10%		31%		20%	10%	14%
STUDENT							
National	10%	11%	23%	2	23%	24%	8%
ATL	159	%	26%	17%	18%	14%	10%
<b>GENERAL PUBLIC</b>							
National	9%	14%	27%		23%	21%	7%
ATL	7%	12%	27%		32%	18	3% <mark>2</mark> %

National: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290) ATL: \*Educator=219, Parent=98, Student=114, General Public=81 Responses 2% or less not labelled

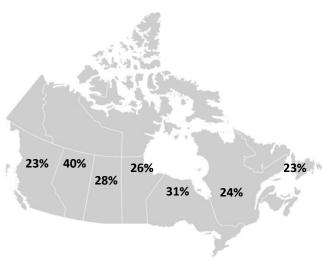
Few respondents nationally (28%) and in ATL (23%) agreed that new technologies can solve climate change without individuals having to make big changes in their lives.

Across all respondent groups, the level of agreement in ATL is lower than the national level. The biggest differences are seen among students (32% nationally vs. 24% in ATL) and the general public (28% nationally vs. 20% in ATL).

Interestingly, students in ATL not only had lower levels of agreement but actively disagreed more than any other respondent group (41% in ATL vs. 21% nationally).

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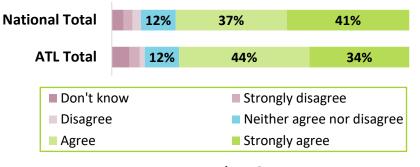
### Province/Region - % Agree (Strongly Agree/Agree)



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%).

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

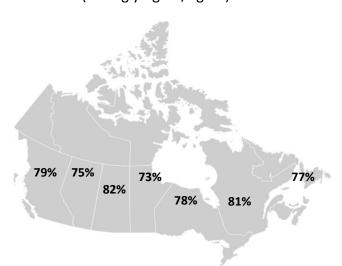


#### **Respondent Group**



National: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290) ATL: \*Educator=219, Parent=98, Student=114, General Public=81 Responses 6% or less not labelled.

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



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

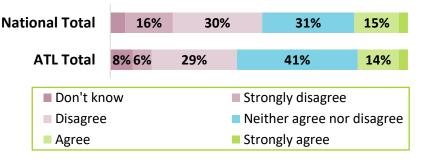
Agreement among parents, students, and members of the general public in the ATL, are consistent with responses nationally. Students agree slightly less (73% in ATL vs. 77% nationally).

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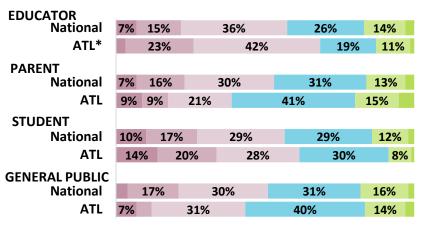
Similarly, respondents across the provinces in Canada agreed that systemic change is needed.

Agreement ranged from 82% in SK to 73% in MB with ATL falling in the middle at 77%.

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



### **Respondent Group**



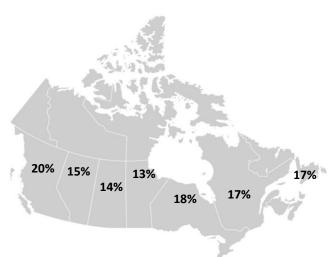
National: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290) ATL: \*Educator=219, Parent=98, Student=114, General Public=81 Responses 5% or less not labelled.

# Atlantic Canadians, like most other 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. Students strongly agreed the least (12% nationally, 8% in ATL).

ATL\* educator data is from open-source data; thus, caution should be taken to not directly compare it to the Lagerpanel national educator data.

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



Similarly, there are few respondents across Canada who agree the government is doing a good job. Regional responses range from 13% agreement in MB to 20% in BC.

## 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, 180 individuals from the Atlantic provinces 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 collective action, lifestyle changes, and increased education, among other suggestions to address climate change.

1

## Everybody must do their share 18%

"I think every person in every country in every part of the world needs to start making at least small changes in their everyday lives." (Student)

3

## Cooperation/responsibility from industries/companies 13%

"A small percentage of the wealthiest companies and institutions, have contributed the most to climate change." (Parent)

6

## Reduce consumption of products/reduce waste 8%

"We need to reduce the gases given off, move to clean cars, electricity grids, recycle, compost, reduce waste and consumption as both individuals and business." (Parent) 2

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

"I feel that on an individual level, people need to become more conscientious of their carbon footprint and how their daily choices negatively affect the planet. By carpooling, switching to natural energy sources etc., we can make small steps forward." (Student)

4

# Educate the public/Teach in schools/Profession al development 13%

"Each person needs to be more educated on what in particular they could do." (Member of the General Public) ( 5

## Government legislation/ regulations/action 13%

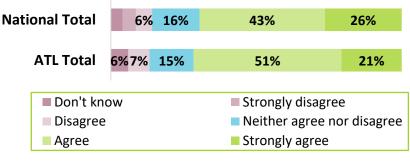
"We need systemic change, government and businesses need to become more efficient." (Parent)

rgy/renewahle e

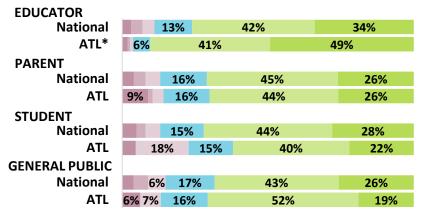
## Adapt to green energy/renewable energy 8%

"Renewable energy (like residential solar panels and wind turbines; geothermal energy storage units) need to be more affordable." (Parent)

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



#### **Respondent Group**



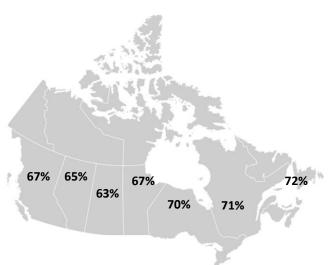
National: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290) ATL: \*Educator=219, Parent=98, Student=114, General Public=81 Responses 5% or less not labelled.

Many Canadians are counting on youth to help win the fight against climate change. The majority (69%) of respondents nationally and in ATL (72%) agreed that the work and voices of young people can inspire important climate action.

ATL students had the lowest level of agreement to this statement at only 62%. Otherwise, parents and the general public shared similarly high levels of agreement to the national average.

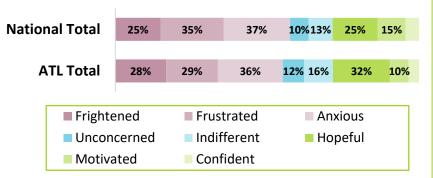
ATL\* educator data is from open-source data; thus, caution should be taken to not directly compare it to the Lagerpanel national educator data.

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



A majority of respondents across various provinces in Canada agree with this statement, ranging from 72% of those in ATL to 63% in SK.

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



### Feelings on Climate Change – Respondent Group

<b>EDUCATOR</b>						
National	31%	35%	38%	10% 30	9%	
ATL*	31%	51%		57%	31%	27%
PARENT						
National	27%	32%	39% 10	0%16% <mark>22</mark>	<mark>% 14%</mark> 9%	
ATL	21% 2	2% 39	<b>% 12%</b> 2	29% 3:	1% 13%	
STUDENT						
National	32%	33%	41%	13%13%	21% 15%	
ATL	34%	34%	39%	23% 2	0% 22% 99	%
GENERAL PUBLIC						
National	24%	35%	36% 1 <mark>0</mark>	%3% 25%	<b>6 16%</b>	
ATL	28%	30%	35% 119	<b>1</b> 45% <b>3</b> 4	% 11%	

National: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290) ATL: \*Educator=219, Parent=98, Student=114, General Public=81 Responses 8% or less not labelled.

### Feelings on Climate Change - Province/Region



When ATL respondents were asked to think about climate change and the emotions or feelings that arise when they do, 36% indicated they feel anxious, similar to 37% of respondents nationally. Significantly more respondents in ATL mention they feel hopeful compared to respondents nationally (32% vs. 25%). Further, significantly less respondents in ATL mention feeling frustrated (29%) compared to those nationally (35%).

Parents nationally reported being less hopeful (22% nationally and 31% in ATL) and more frustrated (32% nationally, 22% in ATL) compared to ATL parents. The general public in ATL also reporting feeling more hopeful than the national average (34% in ATL, 25% nationally).

ATL\* educator data is from open-source data; thus, caution should be taken to not directly compare it to the Lagerpanel national educator data.

Respondents in ATL were the most hopeful among all the other provinces (32%).
Respondents in BC (45%) are significantly more likely to feel anxious about climate change than those in MB (31%), ON (36%), and QC (36%). SK respondents are most likely to feel frustrated. Residents in BC have the highest combined negative feelings while those in AB and QC have the lowest.

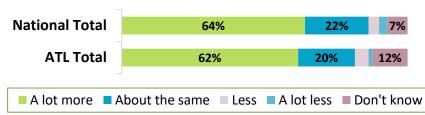
Those in QC (14%) are significantly more likely to feel confident about climate change. 16% of those in AB feel unconcerned, which is significantly more than those in SK (6%), ON (9%), and QC (9%).

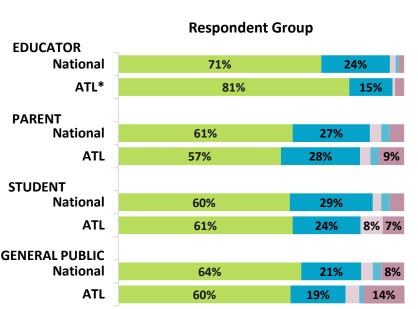


# Part 3: Climate Change Education

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

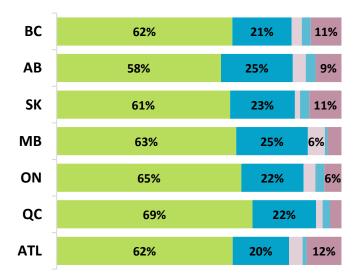
# Should education systems do more, less, or about the same as they do now to educate young people about climate change?





National: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290) ATL: \*Educator=219, Parent=98, Student=114, General Public=81 Responses 5% or less not labelled.

**Province/Region** 



Many Canadians understand the importance of education in the fight against climate change, as 64% nationally and 62% in ATL indicated they think that 'a lot more' should be done to educate young people.

Many students (60% nationally and 61% in ATL), and the general public (64% nationally and 60% in ATL) share a belief that the education system should be doing more. Parents mostly agree (61% nationally but slightly less in ATL at 57%).

ATL\* educator data is from open-source data; thus, caution should be taken to not directly compare it to the Lagerpanel national educator data.

Across Canada, the majority of respondents think the education system should be doing more to educate about climate change. ATL responses fell in the middle of the other provinces at 62% agreement. 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%).

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

% Agree (Strongly Agree/Agree) - Total

Nationa	l Total	ATL Total	
---------	---------	-----------	--

Climate change education should aim to change the way people behave.	75%	71%
Climate change education should be a high priority for schooling.	67%	71%
Climate change education should be the role of all teachers.	61%	57%
Only one 'side' of the climate change debate should be taught (it is happening, and humans are the cause).	31%	23%
The topic of climate change is too complex and should not be discussed in younger grades.	15%	15%
It is not the role of schools to teach students about climate change.	13%	9%

National: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290) ATL: \*Educator=219, Parent=98, Student=114, General Public=81

Most respondents agreed that climate change education should aim to change the way people behave (75% nationally and 71% in ATL).

National respondents are significantly more likely than respondents in ATL to agree that only one side of the climate change debate should be taught (31% vs. 23%). Very few Canadians (13%) and even fewer ATL respondents (9%) agree and that it is not the role of schools to teach about climate change.

Perceptions of teaching climate change in schools varies regionally, ATL had the highest level of agreement that climate change should be a high priority for schooling (71%) and the lowest level of agreement that it is not the role of schools to teach about climate change (9%).

### % Agree (Strongly Agree/Agree) – Province/Region

	ВС	АВ	SK	МВ	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%

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

Most respondents agree that climate change education should aim to change the way people behave, that it should be a high priority for schooling, and that climate change education should be the role of all teachers.

Parents (74% nationally and a little less 69% in ATL), the general public (75% nationally, 70% in ATL) shared a similar belief that behaviour change was important when teaching climate change. However, students in ATL differ from the national average with only 62% agreement vs. 72%.

Parents in ATL are significantly less likely than parents nationally to agree that only one 'side' of the climate change debate should be taught (it is happening, and humans are the cause) (19% vs. 31%). Students in ATL are significantly less likely to agree that climate that climate change education should be the role of all teachers (48% in ATL vs. 61% nationally).

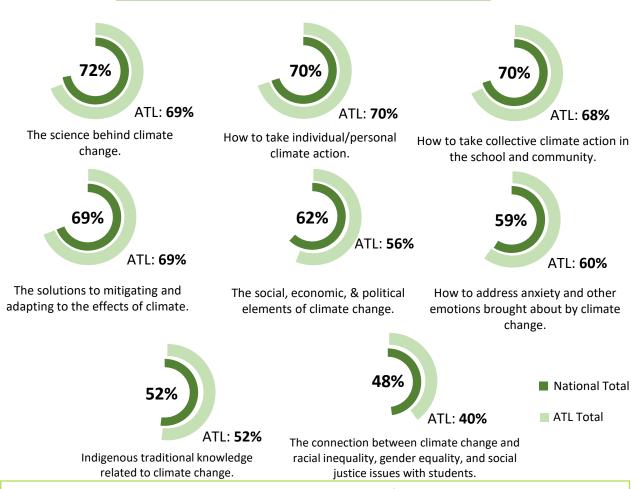
#### % Agree (Strongly Agree/Agree) – Respondent Group

	Educ	cator	Pare	ents	Stud	ents	General Public	
	Nat.	ATL*	Nat.	ATL	Nat.	ATL	Nat.	ATL
Climate change education should aim to change the way people behave.	78%	82%	74%	69%	72%	62%	75%	70%
Climate change education should be a high priority for schooling.	68%	82%	64%	63%	66%	66%	67%	71%
Climate change education should be the role of all teachers.	61%	71%	60%	51%	61%	48%	61%	56%
Only one 'side' of the climate change debate should be taught (it is happening, and humans are the cause).	36%	40%	31%	19%	30%	26%	31%	21%
The topic of climate change is too complex and should not be discussed in younger grades	12%	5%	17%	17%	16%	17%	15%	15%
It is not the role of schools to teach students about climate change.	10%	7%	15%	19%	14%	17%	14%	8%

National: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290) ATL: \*Educator=219, Parent=98, Student=114, General Public=81

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

% Agree (Somewhat more/A lot more)



Most respondents agree that Kindergarten to Grade 12 classes should focus on the science behind climate change (72% nationally, 69% in ATL), as well as how to take individual and collective action (70% nationally, 70% in ATL). Respondents in ATL were less likely to agree that the social, economic & political elements of climate change should be taught (62% nationally, 56% ATL) and the connection between climate change and racial inequality, gender equality, and social justice (48% nationally, 40% ATL).

Note: Respondent group and provincial data can be viewed on the following page. Students in ATL are less likely than students nationally to think the solutions to mitigating and adapting to the effects of climate should be addressed (53% in ATL vs. 63% nationally). The general public in ATL is also less likely to agree that there should be a focus on racial inequality, gender equality, and social justice (37% in ATL vs. 48% nationally).

The regions that were the least likely to believe in a connection to racial inequality, gender equality and social justice issues were ATL (40%) and MB (44%). Responses diverge across the country on many questions, but the highest unanimous agreement was related to the science of climate change and how to take personal and collective action.

# 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

	Educ	ators	Parents		Stud	lents	Gen Pul	eral blic
	Nat.	ATL*	Nat.	ATL	Nat.	ATL	Nat.	ATL
The science behind climate change	76%	85%	72%	75%	70%	69%	72%	66%
How to take individual/personal climate action	74%	87%	70%	72%	69%	66%	70%	70%
How to take collective climate action in the school and community	73%	88%	68%	66%	68%	63%	70%	67%
The solutions to mitigating and adapting to the effects of climate	73%	87%	69%	65%	63%	53%	69%	71%
The social, economic, & political elements of climate change	66%	81%	61%	63%	61%	53%	62%	52%
How to address anxiety and other emotions brought about by climate change	62%	76%	58%	63%	57%	56%	59%	58%
Indigenous traditional knowledge related to climate change	51%	78%	50%	55%	48%	45%	52%	52%
The connection between climate change and racial inequality, gender equality, and social justice issues with students	55%	74%	46%	40%	47%	42%	48%	37%

National: n=4,035 (Educator=406, Parent=1,373, Student=1,208, General Public=1,290) ATL: \*Educator=219, Parent=98, Student=114, General Public=81

### Province/Region

% Somewhat more/A lot more

	вс	АВ	SK	МВ	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%

## 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, 162 individuals in the Atlantic provinces 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 awareness, and solution-based approaches.

1

## Include with curriculum in school 46%

"Make it part of the curriculum and get kids involved in activities that are related to climate change." (Educator)

3

## Empower individuals so they feel they can make a difference 12%

"We need to inspire kids to come up with genius solutions through the school STEM programs." (Member of the General Public)

6

## Make people aware of consequences to their actions 9%

"Should be discussions at all grade levels to understand the impact and actions we can and cannot do to further prevent climate change." (Parent) 2

## Educate people more/ Increase awareness 15%

"Educate kids with the truth of climate change and what they can do to help." (Member of the General Public)

4

## Start teaching them at a young age 11%

"The younger children learn, the more likely they are to just naturally do what is best for the planet." (Member of the General Public)

5

## Offer solutions to the problem (e.g., reduce your carbon footprint, less pollution) 10%

"They should be teaching us how to help more." (Student)

7

## Hands-on activities (e.g. projects, workshops, clubs, field trips) 7%

"We could have clubs towards climate change and preventing or fixing any damage that is causing it or will cause it." (Member of the General Public)

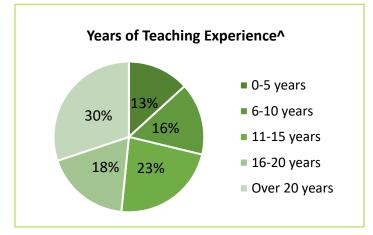


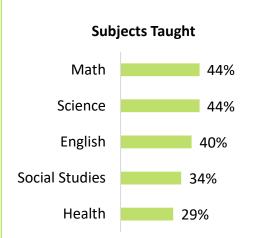
# Part 4: Teaching Climate Change

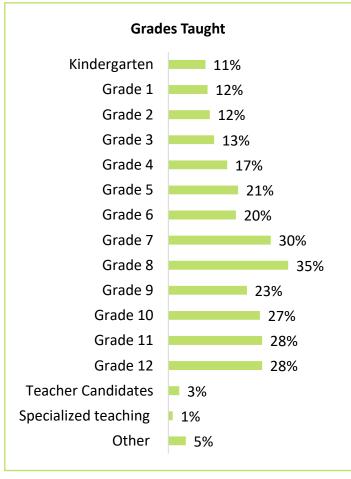
Part 4 highlights the results from the portion of the survey designed exclusively for educators. This section includes their perspectives on the issues that impact the teaching of climate change. 406 Educators responded to the survey with representation from each province across Canada.

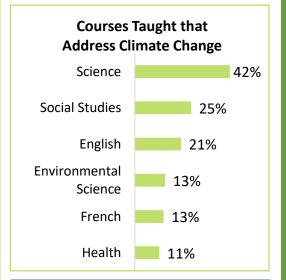
NOTE: MB, SK and ATL educator data in this report were obtained from the open-link survey promoted by LSF and its partner groups due to insufficient Leger panel data. Caution should be taken when making direct comparison of open-link findings with Leger-panel data, as the responses using open-link data are often different due to the type of individuals who respond to requests to participate in volunteer surveys of this nature. Therefore, provincial data has been grouped according to the method of sampling in the tables in this section for comparison purposes.

## **Atlantic Educator Demographics**









23% do not cover climate change topics in any subjects they teach

**Hours in a School Year Spent** 

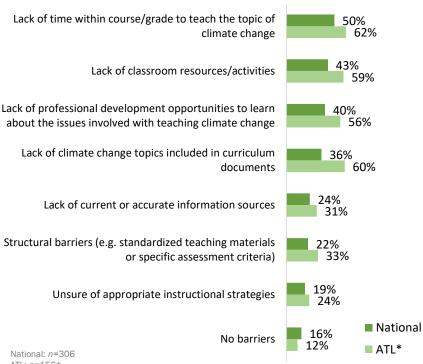
52%^ feel students are developmentally ready to learn about the concept of climate change and its impacts starting in <u>Junior</u>
<u>Kindergarten/Kindergarten</u>

# Covering Climate Change 12% 7% 16% Not covered • 1 - 2 hours • 3 - 5 hours • 6 - 10 hours

■ 11 + hours

# 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



The results shown on the bar graph illustrate similar overall trends nationally and in MB. Educators feel that a lack of time within a course/grade to teach the topic of climate change is their biggest barrier when attempting to include climate change education within their classrooms followed by lack of classroom resources and activities. Other challenges include lack of PD and inadequate curriculum documents. Very few educators faced no barriers when teaching climate change.

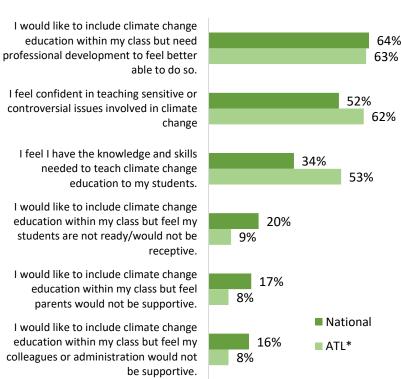
Educators from QC do not feel that lack of accurate information sources or instructional strategies are barriers compared to BC, AB and ON. ATL\*, MB\* and SK\* have similar trends overall.

ATL: n=156\*
National Responses less than 10% not shown.

	ВС	АВ	ON	QC	ATL*	SK*	MB*
Lack of time within course/grade to teach the topic of climate change	69%	57%	43%	48%	62%	55%	55%
Lack of classroom resources/activities	53%	34%	52%	38%	59%	62%	54%
Lack of professional development opportunities to learn about the issues involved with teaching climate change	59%	42%	48%	28%	56%	45%	49%
Lack of climate change topics included in curriculum documents	48%	42%	44%	28%	60%	59%	51%
Lack of current or accurate information sources	48%	32%	22%	19%	31%	45%	36%
Structural barriers (e.g. standardized teaching materials or specific assessment criteria)	18%	27%	21%	24%	33%	31%	25%
Unsure of appropriate instructional strategies	14%	30%	23%	13%	24%	21%	25%
No barriers	8%	18%	14%	17%	12%	-	10%

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

### % Agree (Strongly Agree/Agree)



The results shown on the bar graph illustrate similar overall trends nationally and in ATL. Educators expressed the need for professional development to feel comfortable teaching climate change, and very few educators agree that unsupportive parents, colleagues and administration are a barrier.

Similar trends are seen in the data across the country. Educators from BC are most likely to express that they need professional development opportunities compared to AB, ON & QC. Among open-link respondents, SK\* was much more likely to agree that parents would not be supportive (41% vs. 8% in ATL\* and 9% in MB\*).

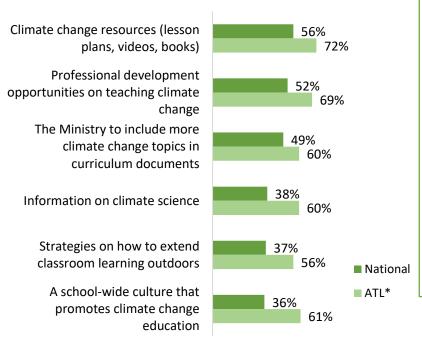
National: *n*=306 ATL: *n*=156\*

#### % Agree - Province/Region

	вс	АВ	ON	QC	ATL*	SK*	МВ*
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%	63%	63%	52%	61%
I feel confident in teaching sensitive or controversial issues involved in climate change	59%	34%	51%	51%	62%	83%	65%
I feel I have the knowledge and skills needed to teach climate change education to my students.	41%	30%	41%	25%	53%	86%	54%
I would like to include climate change education within my class but feel my students are not ready/would not be receptive.	16%	13%	18%	24%	9%	17%	9%
I would like to include climate change education within my class but feel parents would not be supportive.	14%	17%	19%	16%	8%	41%	9%
I would like to include climate change education within my class but feel my colleagues or administration would not be supportive.	20%	7%	18%	15%	8%	24%	6%

## What support do you need to teach climate change?

### Top 6 "Things" Needed to Teach Climate Change



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

Educators from BC are most likely to express that they need professional development opportunities compared to AB, ON and QC. Among the open-link responses, ATL\* educators reported wanting slightly more information on climate science compared to SK\* and MB\*. All provinces express a need for more climate change topics in curriculum documents.

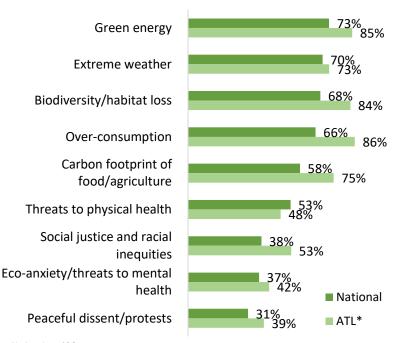
Strategies for how to take learning outdoors, and information on climate science were less likely to be requested in most provinces.

National: n=306 ATL: n=156\* Top 6 Responses Shown.

	ВС	АВ	ON	QC	ATL*	SK*	МВ*
Climate change resources (lesson plans, videos, books)	61%	39%	57%	54%	72%	72%	75%
Professional development opportunities on teaching climate change	83%	58%	52%	42%	69%	55%	78%
The Ministry to include more climate change topics in curriculum documents	43%	48%	59%	40%	60%	76%	63%
Information on climate science	38%	39%	42%	34%	60%	48%	57%
Strategies on how to extend classroom learning outdoors	36%	38%	40%	33%	56%	45%	58%
A school-wide culture that promotes climate change education	50%	32%	46%	23%	61%	69%	65%

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

### % Agree (Strongly Agree/Agree)



The results shown on the bar graph illustrate similar overall trends nationally and in ATL. Educators highly agreed that overconsumption, biodiversity/habitat loss, green energy and extreme weather should be addressed in Kindergarten to Grade 3. Less popular topics for this age group included peaceful dissent/protests and ecoanxiety/threats to mental health.

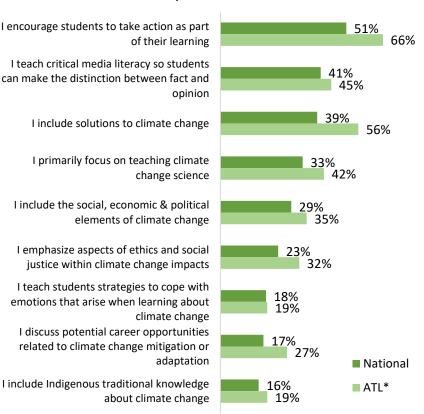
There are visible trends across the country when it comes to topics that should be addressed in younger grades. Particularly topics that are less likely to be covered are ecoanxiety and threats to mental health as well as peaceful dissent/protests. Physical health and social justice/racial inequities also had lower agreement overall.

#### National: n=406 ATL: n=219\* Province/Region

	ВС	АВ	ON	QC	ATL*	SK*	MB*
Green energy	67%	63%	72%	75%	85%	82%	82%
Extreme weather	65%	62%	71%	72%	73%	74%	79%
Biodiversity/habitat loss	64%	70%	66%	63%	84%	85%	85%
Over-consumption	48%	66%	66%	77%	86%	79%	81%
Carbon footprint of food/agriculture	59%	60%	64%	53%	75%	72%	72%
Threats to physical health	59%	38%	54%	53%	48%	51%	61%
Social justice and racial inequities	26%	38%	31%	42%	53%	59%	58%
Eco-anxiety/threats to mental health	21%	19%	36%	43%	42%	46%	49%
Peaceful dissent/protests	19%	21%	28%	34%	39%	28%	44%

## When I teach about climate change...

### A Great Deal/ A Moderate Amount



The results shown on the bar graph illustrate similar overall trends nationally and in ATL. Educators in ATL and nationally mention they encourage students to take action as part of their learning (a great deal/a moderate amount) when they teach about climate change. Few educators reported teaching emotional coping skills, discussing career opportunities or including Indigenous traditional knowledge into their classrooms, which shows us some key areas to target for improvement.

Educators from AB are less likely to take many of the following actions.

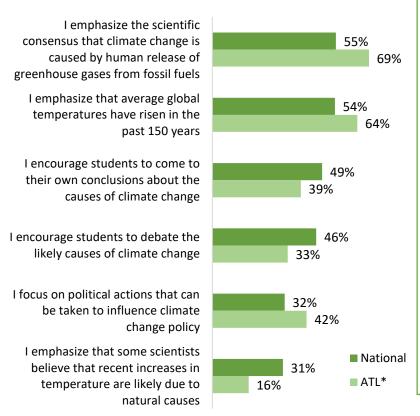
Educators in most provinces are not likely to emphasize that scientists believe increases in temperature are due to natural causes.

National: n=306 ATL: n=156\*

					•	•	
	вс	АВ	ON	QC	ATL*	SK*	MB*
I encourage students to take action as part of their learning	45%	30%	60%	50%	66%	66%	66%
I teach critical media literacy so students can make the distinction between fact and opinion	41%	26%	45%	45%	45%	66%	42%
I include solutions to climate change	40%	26%	42%	41%	56%	59%	58%
I primarily focus on teaching climate change science	25%	27%	38%	32%	42%	59%	36%
I include the social, economic & political elements of climate change	31%	28%	30%	29%	35%	38%	35%
I emphasize aspects of ethics and social justice within climate change impacts	25%	16%	27%	22%	32%	34%	39%
I teach students strategies to cope with emotions that arise when learning about climate change	12%	18%	24%	15%	19%	28%	23%
I discuss potential career opportunities related to climate change mitigation or adaptation	23%	16%	21%	12%	27%	28%	13%
I include Indigenous traditional knowledge about climate change	13%	26%	20%	11%	19%	48%	29%

## In my classes...

### % Agree (Strongly Agree/Agree)



There are some similar trends nationally and in ATL as visualized on the bar graph. Many educators agree that they emphasize the scientific consensus that climate change is caused by human release of greenhouse gases from fossil fuels and that average global temperature have risen in the past 150 years in their classes.

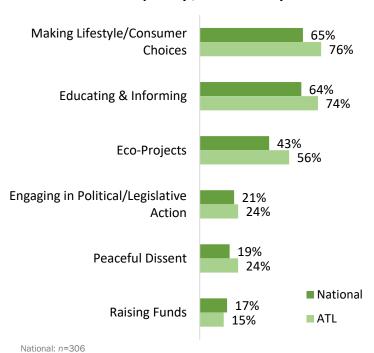
The top two rows in the provincial chart below show that most common emphasis across the country is on greenhouse gasses and global rising temperatures. Educators from AB are least likely to agree with all statements, except for emphasizing that some scientists believe that recent increases in temperature are likely due to natural causes. Educators in ATL\* were the least likely to agree that recent increases in temperature are due to natural causes (16%).

National: n=306 ATI: n=156\*

	вс	АВ	ON	QC	ATL*	SK*	МВ*
I emphasize the scientific consensus that climate change is caused by human release of greenhouse gases from fossil fuels	73%	37%	60%	50%	69%	79%	67%
I emphasize that average global temperatures have risen in the past 150 years	71%	39%	59%	48%	64%	79%	63%
I encourage students to come to their own conclusions about the causes of climate change	37%	39%	53%	46%	39%	34%	41%
I encourage students to debate the likely causes of climate change	50%	34%	44%	48%	33%	45%	43%
I focus on political actions that can be taken to influence climate change policy	43%	16%	34%	32%	42%	52%	40%
I emphasize that some scientists believe that recent increases in temperature are likely due to natural causes	34%	37%	29%	27%	16%	24%	23%

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

### Frequently / Occasionally



ATL: n=156\*

Similar trends can be seen on the bar chart between educators nationally and in ATL. Educators mention they were most likely to engage their students in making lifestyle/consumer choices as well as educate and inform others to address climate change. Overall, educators are much less likely to engage students in fundraising or peaceful dissent.

Provincially, the top two actions are consistent (making lifestyle/consumer choices and educating & informing). Educators from AB engage students in all actions that address climate change less frequently than those from BC, ON or QC. BC Educators are the most likely to engage students in making lifestyle/ consumer choices. Among open-link respondents, ATL\* is least likely to engage their students in eco projects and engaging in political/legislative action compared to MB\* and SK\*.

	ВС	АВ	ON	QC	ATL*	SK*	MB*
Making Lifestyle/Consumer Choices	71%	39%	70%	65%	76%	76%	82%
Educating & Informing	65%	48%	65%	65%	74%	86%	77%
Eco-Projects	37%	34%	46%	45%	56%	69%	62%
Engaging in Political/Legislative Action	24%	16%	24%	18%	24%	31%	34%
Peaceful Dissent	13%	11%	26%	14%	24%	31%	30%
Raising Funds	25%	13%	25%	10%	15%	10%	29%



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**Section 4: Climate Audiences** 

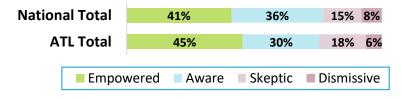
## **Ladder of Engagement**

The group EcoAnalytics has been mapping Canadian public opinion on climate change since 2016. As well, they have been providing 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).

The four audiences are broadly categorized and paraphrased from the EcoAnalytics report as:

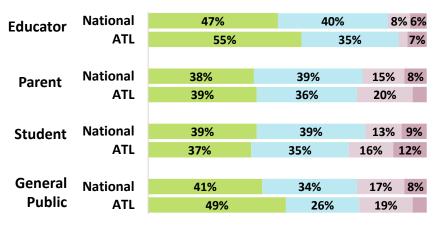
- Dismissive disagree that climate change is happening
- **Sceptic** agree that climate change is happening and do not think it's caused by humans OR, neither agree nor disagree that climate change is happening
- Aware agree that climate change is happening and do think it's caused by humans
   AND indicated 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

Below is a comparison of the ATL Ladder of Engagement Results to the National Results:



National: n=4,025 (Educator=404, Parent=1,368, Student=1,207, General Public=1,288) ATL: Educator=219, Parent=98, Student=114, General Public=81 Responses less than 4% not labelled.

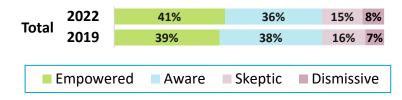
### **Respondent Group**



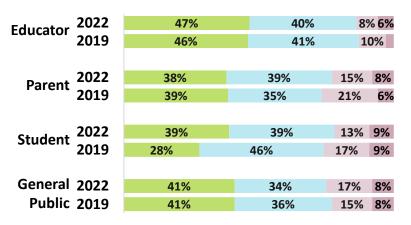
The majority of respondents are either Empowered or Aware, meaning they do agree that climate change is happening and that it is caused by humans. More respondents in ATL are more Empowered than nationally (45% vs 41%) and less are Aware (30% vs 36%).

Responses among parents, students, and members of the general public in ATL are consistent with responses nationally.

## Ladder of Engagement 2022 vs. 2019

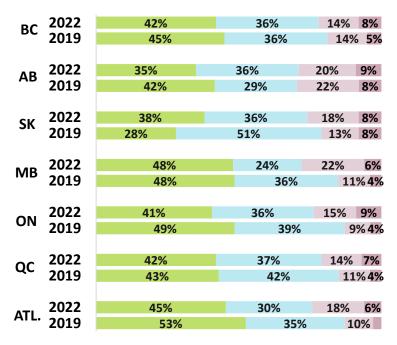


#### **Respondent Group**



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.

### Province/Region



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.

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%).



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## **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 and seek input from:
  - youth
  - Indigenous educators
  - marginalized communities
- Curriculum expectations should include: scientific consensus that climate change is human caused, the social, economic, and political aspects of climate change, Indigenous knowledge, and social justice issues.
- 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 transformative pedagogies such as inquiry, active learning, and hands-on, experiential learning.
- Teachers must be supported to include solutions to mitigating and adapting to the
  effects of climate change, and promote student action to foster feelings of hope
  and empowerment and ameliorate emotions brought about by climate change.
- 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 urgency of climate change education. They must ensure that climate change education is a central and required component of course offerings in preservice, in-service, and graduate-level teacher education curricula

## Recommendations

#### 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, opportunities for mitigation and adaptation, and personal, higher-impact actions.
- Sources of information about climate change need to target different population groups more purposefully and effectively.
- 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 and professional learning for teachers on current national/provincial climate data, information on green jobs, and locally relevant climate change classroom resources.

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.

Climate change mitigation and adaption will require education, support, action, and empowerment at ALL levels of Canadian society.



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