



Canada, Climate Change and Education: Opportunities for Public and Formal Education

Focus on Atlantic Canada

Regional Report

A project of

Lakehead University

Learning for a Sustainable Future LSF

L'éducation au service de la Terre LST

With support from

SSHRC CRSH

Leger Metrics

Fondation familiale Trottier Family Foundation

About The Survey

The purpose of this national survey is to gain an understanding of Canadians' current levels of knowledge and perceptions of climate change and its risks, assess Canadians' views on how the education system should respond to climate change, and provide a snapshot of climate change education practice in Canada.

Total respondents:

3,196

Languages:

English • French

Target Audiences:

General Public in Canada
Parents of K-12 students
Youth in grades 7-12
Educators of grade K-12

Why should I be studying for a future that soon will be no more, when no one is doing anything whatsoever to save that future?

And what is the point of learning facts within the school system when the most important facts given by the finest science of that same school system clearly mean nothing to our politicians and our society?

- Greta Thunberg, 2018

Why The Survey

Moving Canada toward resilience and adaptability for climate impacts today and in the future will require support and action at all levels of Canadian society.

This study establishes Canada-wide baseline data reflecting audiences' knowledge and understanding of climate change, their perspectives on the importance of climate change and its risks, and views on the role of schools and climate change education. It is presented both nationally and from provincial/regional jurisdictions.

The study also provides insights into climate change education practice from an open-sample (OS) of teachers and a closed-sample (CS), which is representative. These results are significant in providing an unprecedented snapshot of teacher practice in Canada.

Methodology - National Data

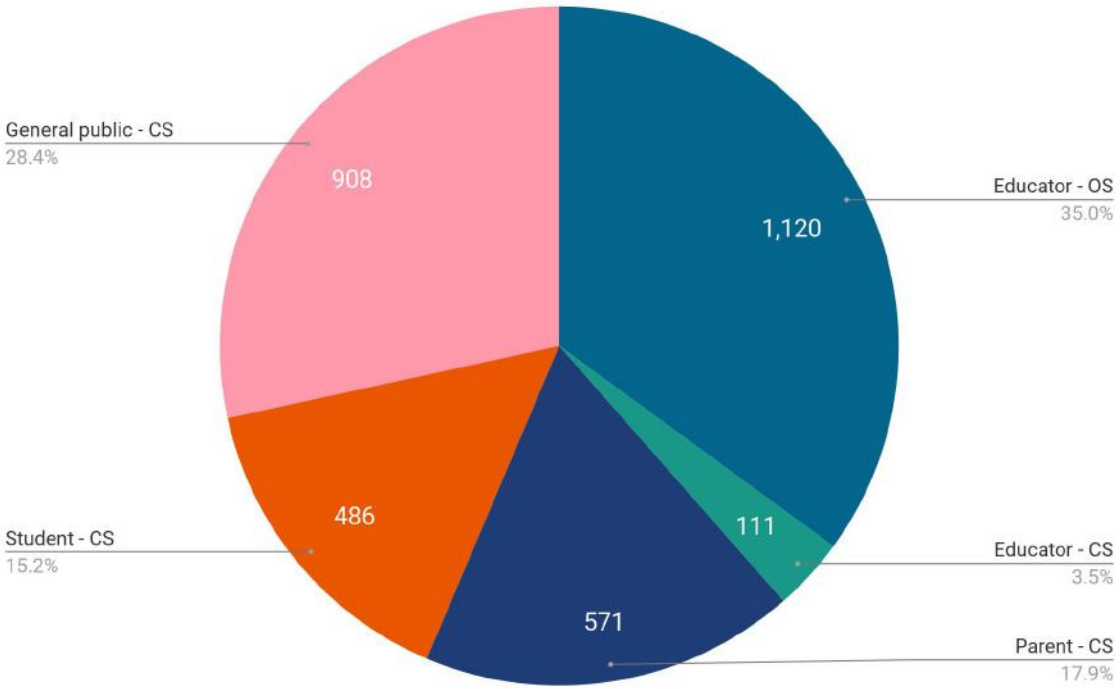
This survey tool was developed in May 2018 by Dr. Ellen Field, Lakehead University, with Learning for a Sustainable Future and Leger Research Intelligence.

The survey was conducted online through Leger, who operate one of Canada's largest online survey panels of approximately 400,000 Canadians. In total, 2,191 responses were collected through Leger's survey panel (closed sample - CS) from the general public, parents, students, educators, and district leaders/school administrators. This included 111 Educators (K-12 teachers and district leaders). The CS sample is representative of the Canadian public.

In order to reach a significant number (1,000+) of educators, the survey was also distributed via Learning for a Sustainable Future through an Open Sample (OS) which was publicly available . While OS responses were received from all audiences, only the K-12 teachers and district leaders (1,120) were included in this report. Since the OS data is not subject to the same controls as the Leger panel survey (CS), the OS results for educators are presented separately from the CS results in this study.

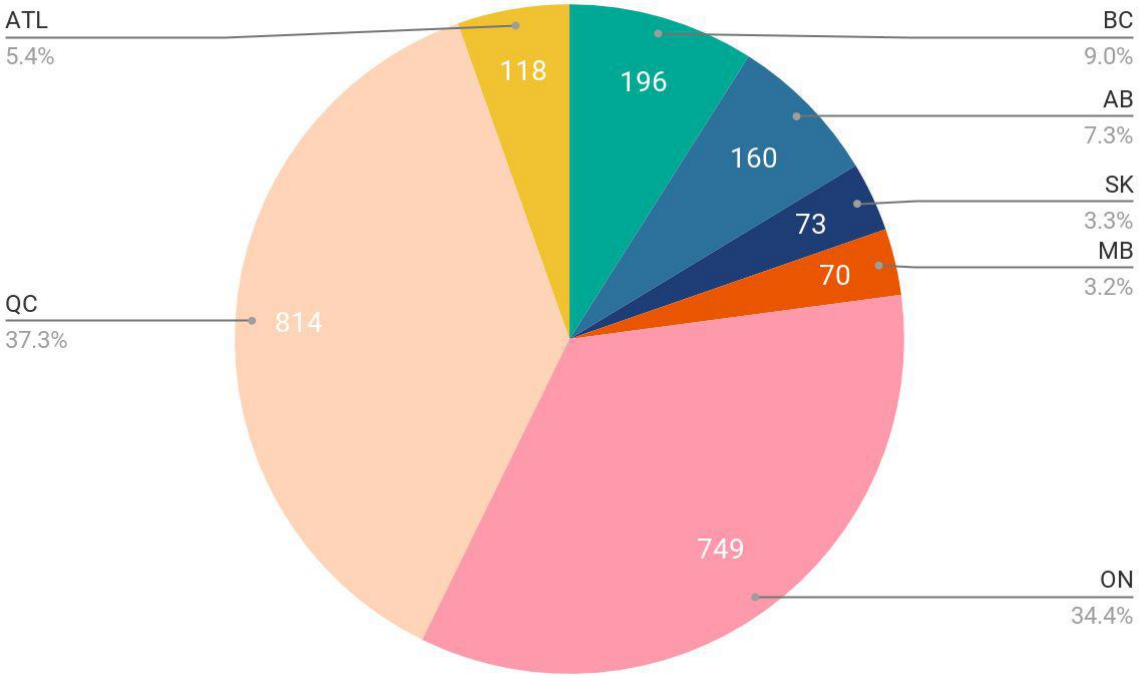
See Methodology section in National Survey Report for full description.

National Respondents



n=3196 (Educator OS = 1120, Educator CS = 111, Parent CS= 571, Student CS= 486, Other CS= 908)

Provincial/Regional Respondents



n=2180 (BC=196, AB=160, SK=73, MB=70, ON=749, QC=814, ATL=118)

Survey insights: Perspectives of Canadians*

- **Canadians are concerned about climate change**

  79% of Canadians are concerned about the impacts of climate change and 78% believe there are risks to people in Canada.

- **Canadians are certain that climate change is happening**

  85% of Canadians are certain that climate change is happening.

- **Canadians are less sure about the human impacts**

  In response to a question early in the survey 46% of Canadians indicated that they think climate change is caused mostly by human activity. Further into the survey when asked if they think human beings are responsible for climate change 73% agreed.

- **Canadians are less certain that carbon dioxide and other GHGs cause climate change**

  48% of Canadians correctly attributed carbon dioxide and other GHGs are primary causes of climate change.

***Canadians = average of closed-sample respondents (students, parents, teachers, public)**

Survey insights: Knowledge, Understanding and Information

- **43% of Canadians failed the climate change knowledge test**

  43% of Canadians answered 4 or fewer of the 10 knowledge questions correctly

- **Significant gap between perception and awareness**

  While half (51%) of Canadians feel they are well-informed about climate change, only 14% correctly answered 8 - 10 knowledge questions. 86% agree they need more information on climate change.

- **Canadians get climate change information predominantly from television news**

  When asked which sources of climate change information Canadians trust the most, 72% of Canadians said scientists/academics; however Canadians get climate change information from television news (54%), documentaries (48%), and conversations with friends and family (47%).

***Canadians = average of closed-sample respondents (students, parents, teachers, public)**

Survey insights: Impacts and Action

- **Canadians are already seeing the impacts of climate change**

  While only 36% of Canadians reported that they have personally experienced the effects of climate change, a majority feel that climate change is causing or making the following worse: droughts (72%), hurricanes (69%), wildfires (76%), coastline erosion (75%), river flooding (73%), and severe winters (70%).
- **Two thirds of Canadians are taking action to reduce climate change**

  ⅔ of Canadians have reported taking actions to reduce their personal contribution to greenhouse gas emissions.
- **There is doubt that technology will solve climate change**

  Only 30% of Canadians agree that new technologies will solve the problem without individuals having to make big change.
- **Systemic change is needed**

  57% of Canadians believe their actions have an impact on climate change while 79% agree that, while personal actions are important, systemic change is needed to address climate change.

***Canadians = average of closed-sample respondents (students, parents, teachers, public)**

Survey insights: Role of Education

- **Canadians and educators agree that more should be done to educate young people about climate**

  65% of Canadians, 76% of closed-sample educators and 82% of open-sample educators think the education system should be doing more to educate young people about climate change

- **Limited class time spent on climate change content**

  Only ⅓ of closed-sample educators and 59% of open sample educators reported teaching any climate change. For teachers who do integrate climate change content, most students experience 1 - 10 hours of instruction per year or semester.

***Canadians = average of closed-sample respondents (students, parents, teachers, public)**

Survey insights: Role of Education Cont'd

- **Teachers need support**

  Only 32% of closed-sample educators feel they have the knowledge and skills to teach about climate change. Educators say they need professional development, classroom resources, current information on climate science, curriculum policy, information on the economics and politics of climate change, and national/provincial climate data.

- **All teachers should be teaching about climate change**

  Climate change content is predominantly taught in science and social studies, when it is covered. 75% of closed-sample teachers and 81% of open-sample teachers believe that climate change education is the role of all teachers.

***Canadians = average of closed-sample respondents (students, parents, teachers, public)**

Survey insights: Students

- **Students are a key group to target with climate change education and action**

  46% of students ages 12-18 are categorized as “aware,” meaning they understand that human-caused climate change is happening, but they do not believe that human efforts will be effective.

Survey insights: Regional Responses

- **AB & SK frequently diverge from the rest of Canada**

  In general, levels of certainty that climate change is happening, overall knowledge of climate change, concern about impacts, acknowledgement of risks, and support for a greater focus on climate change education are lowest in AB and SK.

Formal Education Recommendations

- Ministries of Education should release policy statements guiding climate change education
- Ministries of Education should revise curricula to embed core climate change expectations across subjects, with a focus on multiple dimensions of climate change including scientific and environmental, social, cultural, and economic; climate impacts and risk; mitigation and adaptation strategies; and dimensions of justice and ethics
- Ministries of Education should develop a consultation mechanism for youth to participate in curriculum development and review processes for climate change content
- Faculties of Education should ensure teacher-candidates' courses address best practices of climate change education

Formal Education Recommendations Cont'd

- School boards and teachers' unions should provide professional development to enhance teacher knowledge, tools and strategies for teaching about climate change, thereby increasing teachers' confidence and ability to engage students.

  Provide instructional strategies for handling different points of view on aspects of climate change and inquiry processes for fostering critical thinking and evidence-based dialogue.

  Provide resources to help students understand citizen movements and the process of systemic change.

  Provide teachers with current national/provincial climate data and classroom resources including lesson plans, videos and books to ensure students are learning up-to-date, locally-relevant information.

- To address apathy and eco-anxiety, school boards, schools and teachers should ensure student learning is authentic and relevant to local climate impacts, utilizing strategies including inquiry, experiential learning, opportunities for deliberative dialogue, and community partnerships for local climate action.

- School boards should provide information on emerging and already established green sector career pathways for teachers and guidance counsellors.

Public Education Recommendations

- Informal education should provide Canadians with more information about climate change from trusted sources including scientists and academics, utilizing television and radio news programming, online news, documentaries and movies

- Informal education should address predominant misconceptions about climate change and improve public understanding of its primary causes, enabling citizens to understand the need for responses to climate change, such as greenhouse gas reduction policies, and the urgency of this need

- Informal education should provide Canadians with information resources on high impact personal climate actions that they can integrate into their daily lives

Public Education Recommendations Cont'd

- Informal education agencies should provide a guide book and resources to help parents and grandparents to know how to talk to children and young people about climate change. This resource should draw upon current environmental psychology research.

- Informal education should share case studies of how stakeholders can work together to address climate change locally and nationally, focusing on collective processes that lead to systemic changes

Methodology - Atlantic Region

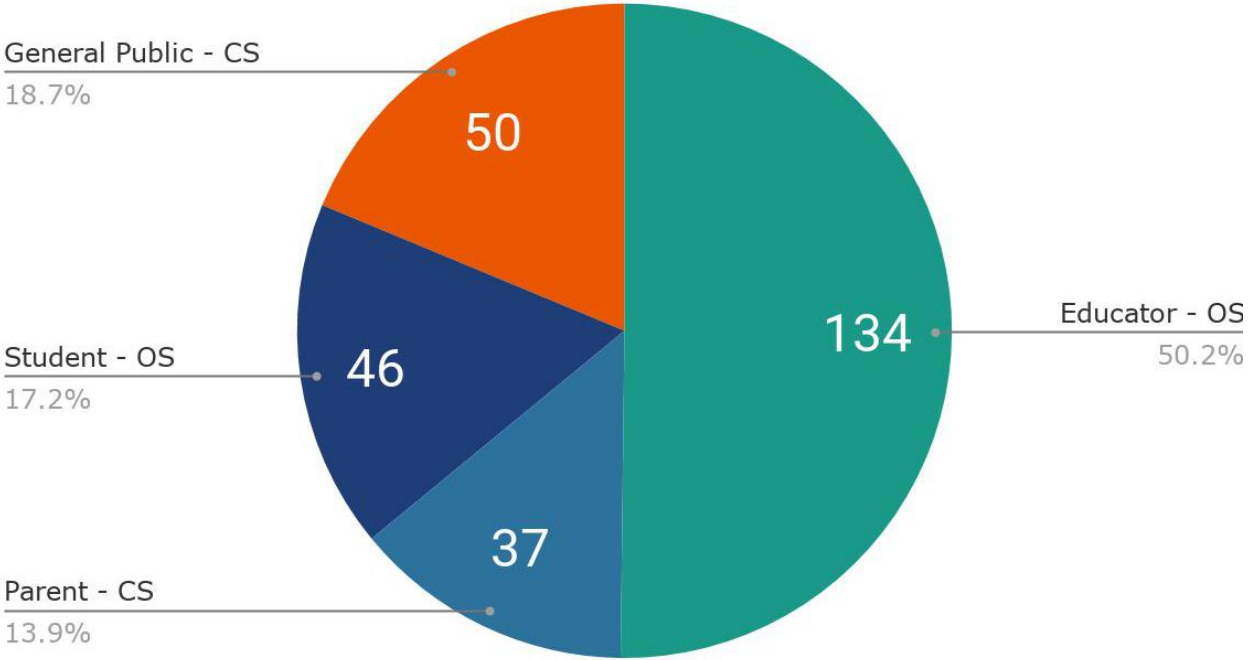
To generate an overview of the Atlantic Region, data from both open-sample (OS) respondent groups and closed-sample (CS) respondent groups are included to provide a snapshot of Atlantic Canadians':

- Current levels of knowledge
- Perceptions of climate change and its risks
- Assess Atlantic Canadians' views on how the education system should respond to climate change
- Report on climate change education practice in Atlantic Canada

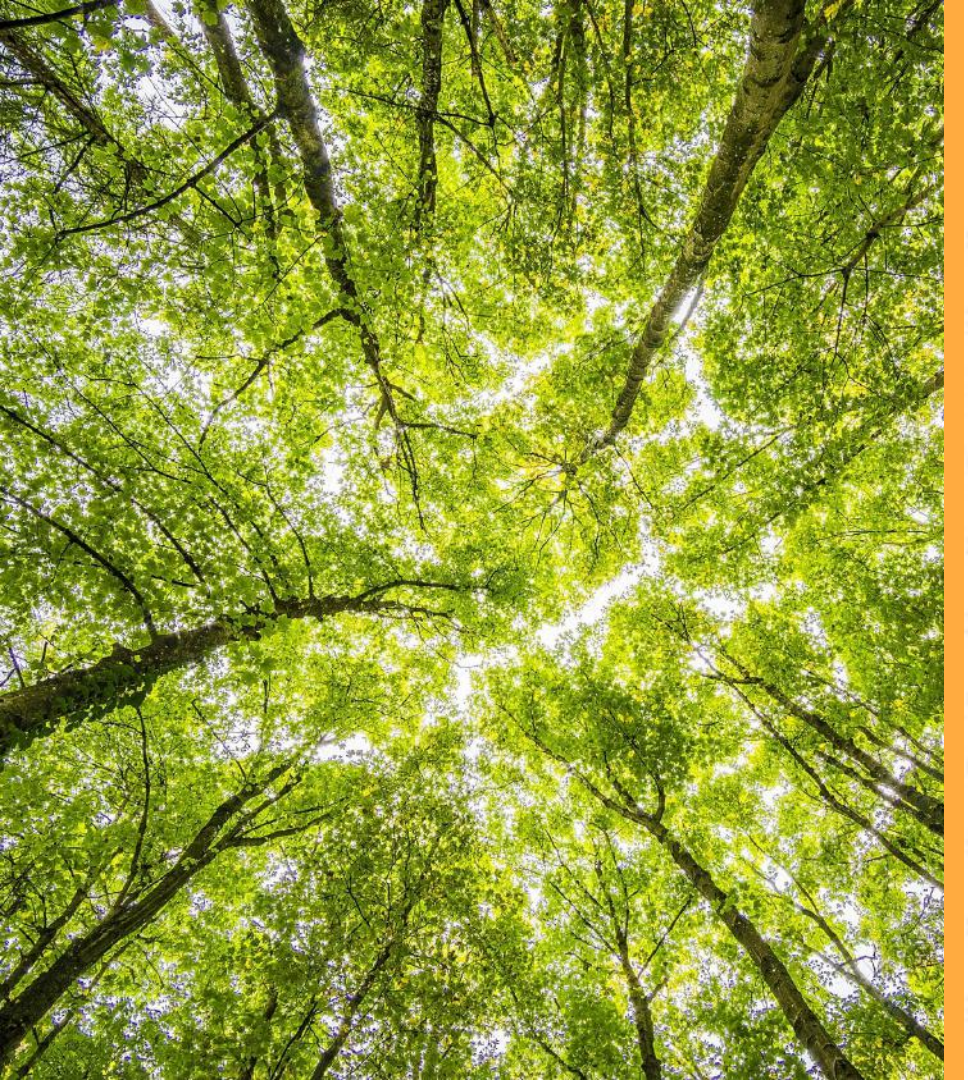
Due to not having a large enough sample size (>30) to report on from each respondent group in the closed-sample, data is pulled from both OS and CS data sets. The CS data is considered representative of the population and percentages are weighted accordingly. OS data is not considered representative of the population, because of the ability for respondents to opt-in, and is therefore not weighted. Throughout all of the Atlantic Region data visualizations, we consistently drew on:

• Educator OS = 134	• Parent CS = 37
• Student OS = 46	• General Public CS = 50

Atlantic Region Respondents



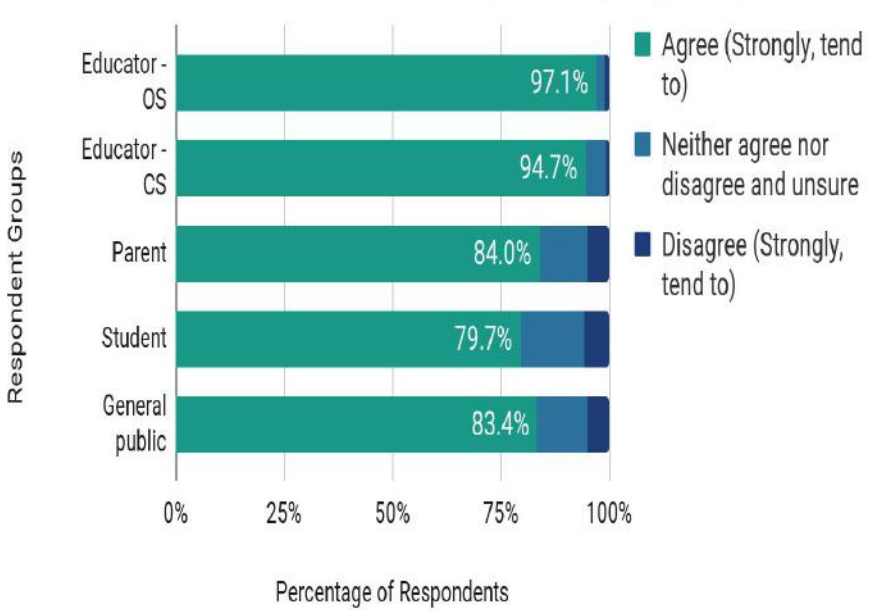
n=267 (Educator - OS = 134, Parent -CS = 37, Student - OS = 46, General Public -CS = 50)



Perceptions

I am certain that climate change is really happening

National Results



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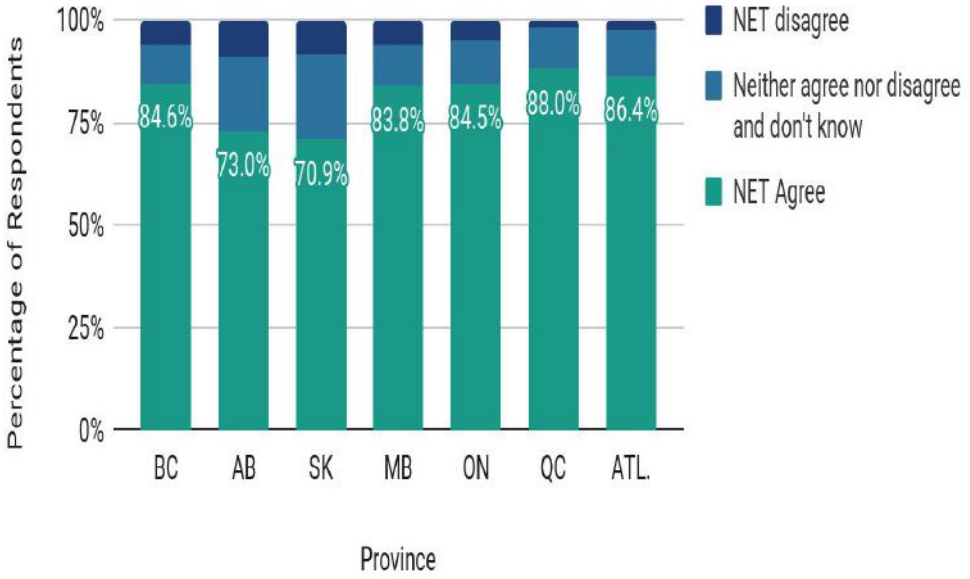
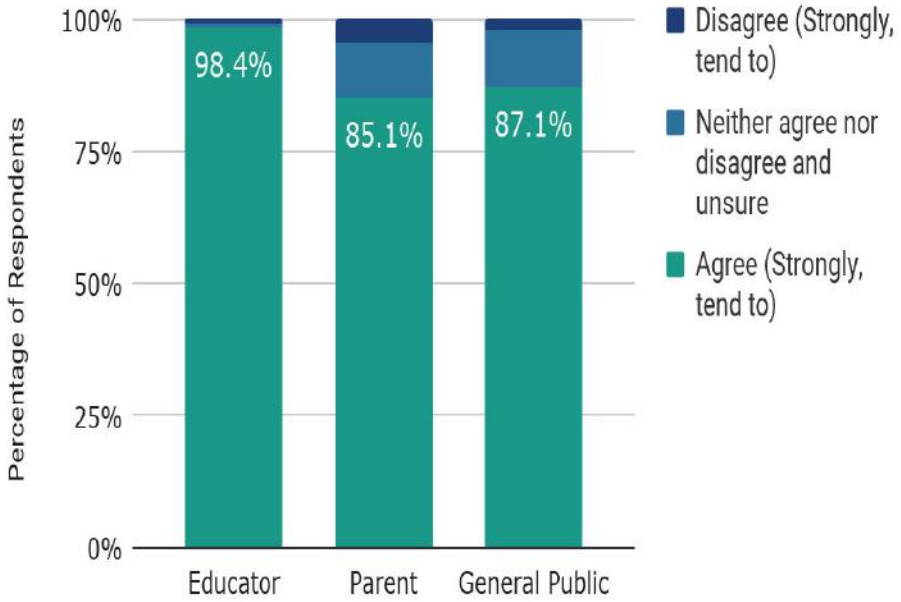
Provincial Results



n=2180 (BC=196, AB=160, SK=73, MB=70, ON=749, QC=814, ATL=118)

I am certain that climate change is really happening

Atlantic Results



n=221 (Educator - OS = 134, Parent -CS = 37, General Public -CS = 50)
Note: Students are not included as there was <30 respondents.

I am certain that climate change is really happening

National

Overall, the vast majority in all groups identify climate change as happening. Educators demonstrated the highest degree of certainty (97% OS and 95% CS) with other groups acknowledging the reality of climate change with a lesser degree of certainty: 83% of members of the general public, 80% of students and 84% of parents.

Provincial

Across Canada, most educators, parents, students, and members of the general public in most provinces accept that climate change is happening (BC = 85%, MB = 84%, ON = 85%, QC = 88%, ATL= 86%); however, this acceptance drops to 73% in Alberta and 71% in Saskatchewan. The regional rates of acceptance of climate change are slightly below other public opinion polling on Canadians' acceptance of climate change, recorded as 88% (EcoAnalytics, 2018).

Atlantic

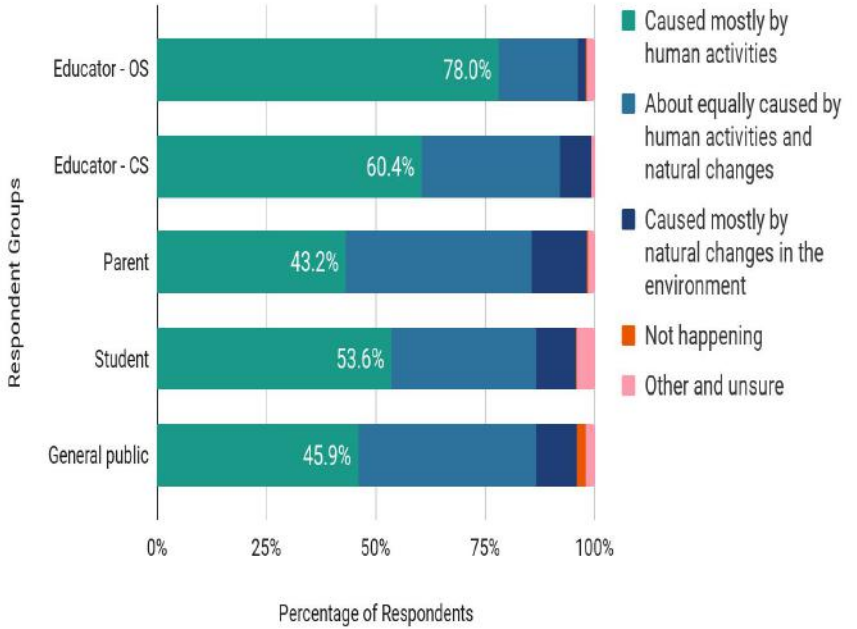
Across the Atlantic, 98% of OS educators, 85% of parents and 87% of the general public accept that climate change is happening. These figures compare to 97% of OS educators nationally, 78% of parents and 83% of the general public.

Notable Differences

Results in the Atlantic region are similar to the National results, open sample educators are most certain compared to the other respondent groups.

Do you think climate change is…

National Results



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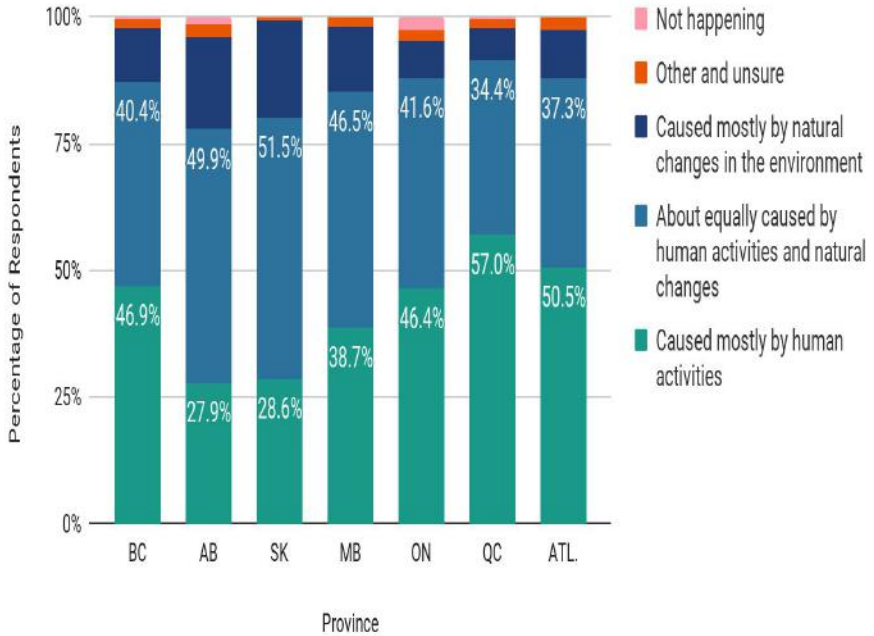
Provincial Results



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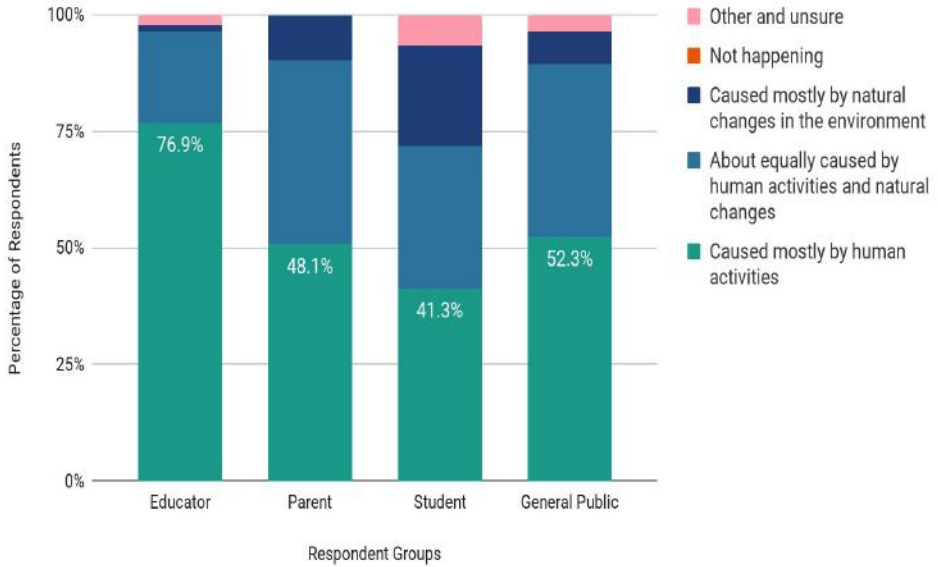
Do you think climate change is…

Atlantic Results



n=221 (Educator - OS = 134, Parent -CS = 37, Student - OS = 46, General Public -CS = 50)

Do you think climate change is…

National

When asked early in the survey whether climate change is human-caused, open-sample educators agreed (78%) more than closed-sample educators (60%). Students agreed (54%) more than both members of the general public (46%) and parents (43%).

Provincial

The understanding and acceptance that climate change is anthropogenic varies across regional jurisdictions. 47% of BC respondents accept climate change is anthropogenic whereas only 28% of Alberta respondents and 29% of Saskatchewan respondents accept this. A substantial percentage of respondents indicated that climate change is "about equally caused by human activities and natural changes" with percentages ranging from 34% in Quebec to 52% in Saskatchewan. Public education that prioritizes educating the public on the difference between natural changes in the climate and human-caused climate change is recommended to address this predominant misconception. Understanding that climate change is human-caused shifts across provinces with the following percentages: QC=57%, ATL=51%, BC= 47%, ON= 46%, AB=28%, and SK=29%.

Atlantic

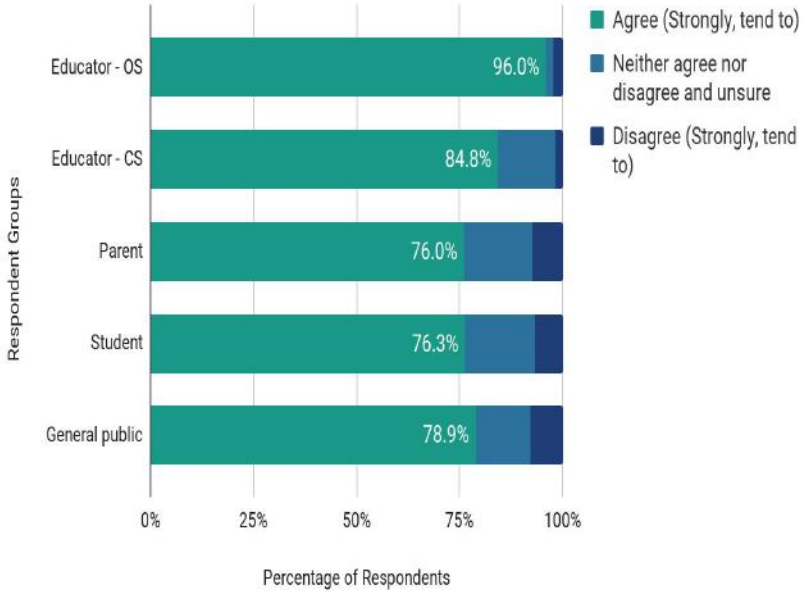
Within the Atlantic provinces, there is some variation in the belief that climate change is human caused. 77% of open-sample educators believe that it is anthropogenic in nature, compared to 52% of the general public in agreement, and less than half of the population of parents (48%), and students (41%).

Notable differences

The National student average understanding that climate change is human caused is 54%, compared to a lower percentage (41%) of students within the Atlantic provinces.

I am concerned about the impacts of climate change

National Results



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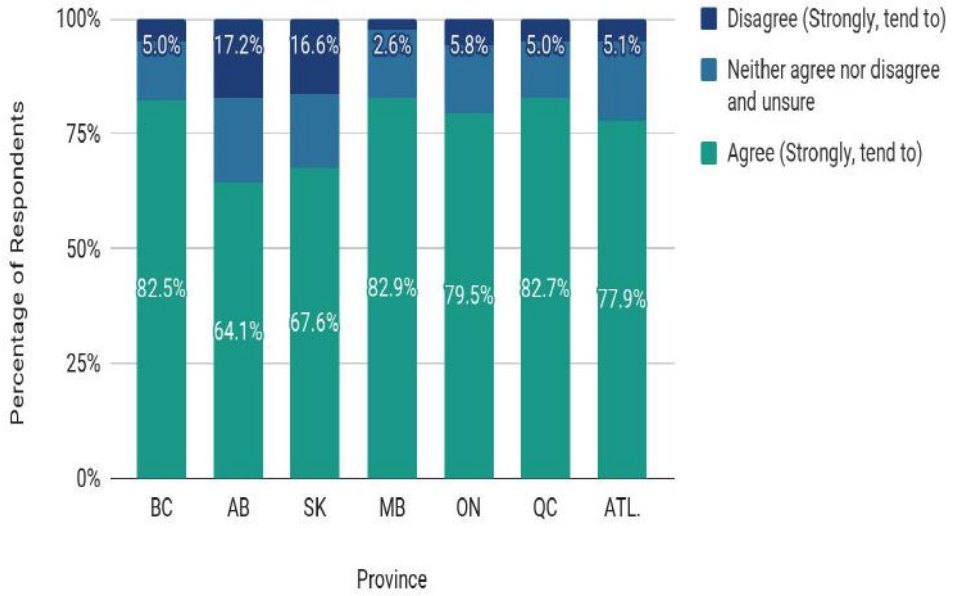
Provincial Results



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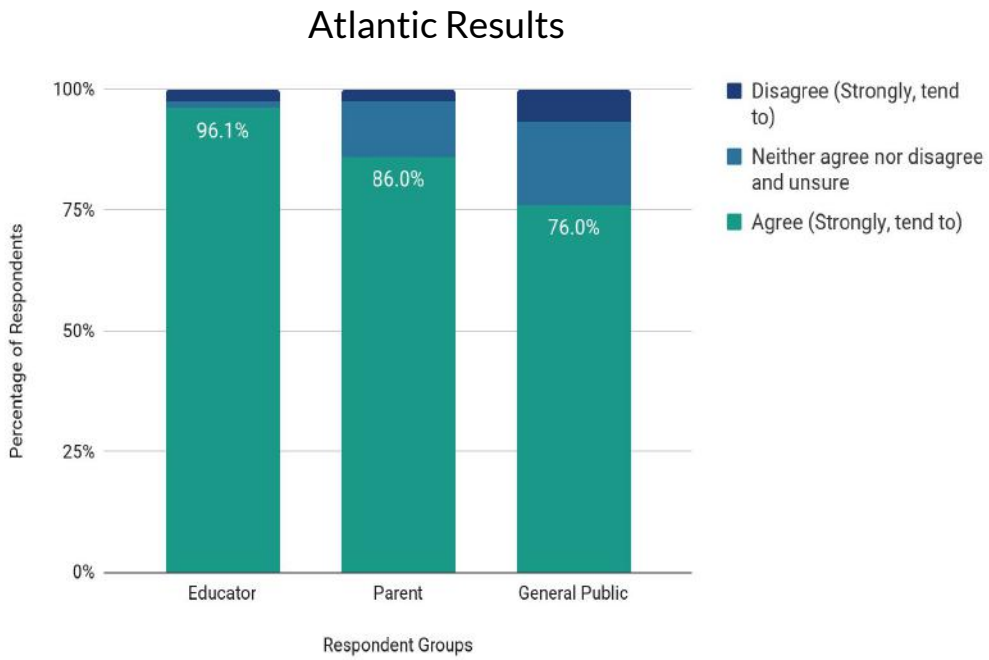
I am concerned about the impacts of climate change



n=221 (Educator - OS = 134, Parent -CS = 37, General Public -CS = 50)

Note: Students are not included as there was <30 respondents.

I am concerned about the impacts of climate change

National Results

While the majority of Canadians (79% of members of the general public, 75% of students, and 75% of parents) are concerned about climate change, an overwhelming majority of educators are concerned (open-sample=96% and closed-sample=85%).

Provincial

Across the regions, Manitoba respondents most often expressed a high level of concern about the impacts of climate change (83%) while respondents from Alberta did so least often (64%). Still, across all regions, a large majority indicated that they are concerned.

Atlantic

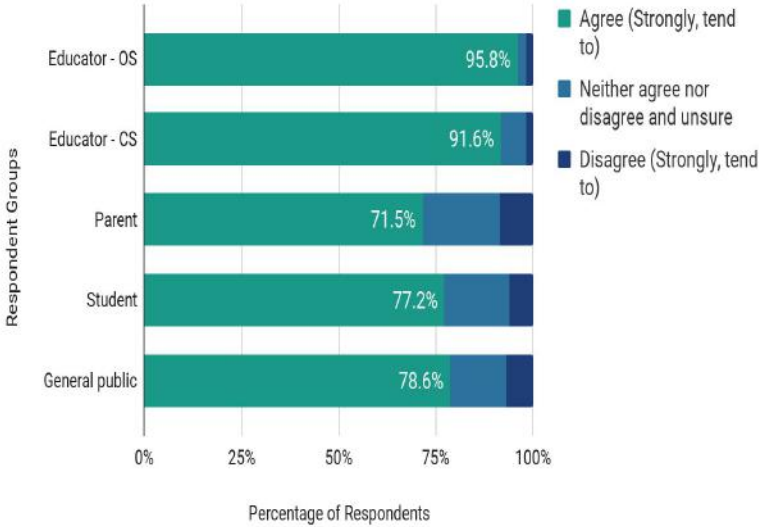
Educators, parents and the general public across the Atlantic provinces all indicated concern about the impacts of climate change. An overwhelming majority of educators (96%) showed concern, with a large majority of parents (86%), and the general public (76%) also in agreement.

Notable differences

A higher number of parents in the Atlantic provinces indicate concern compared to the national average: 86% vs. 76%.

There are risks to people in Canada from climate change.

National Results



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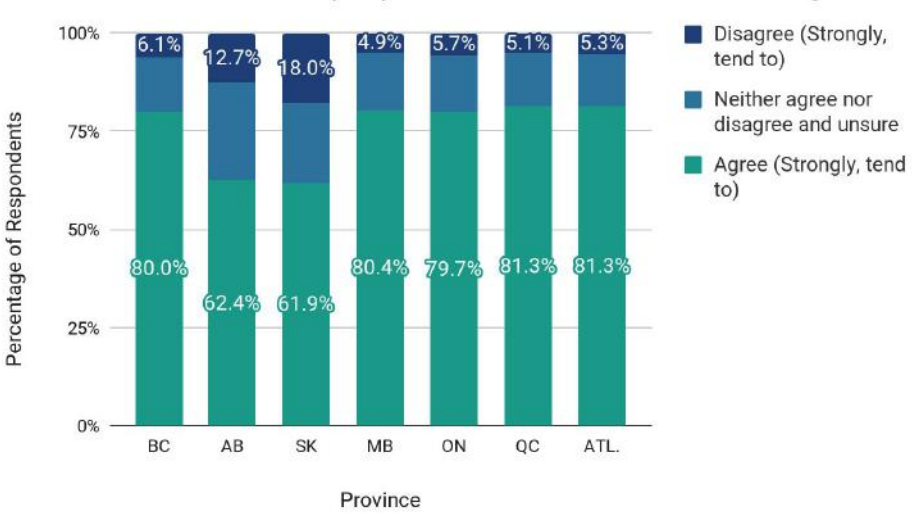
Provincial Results



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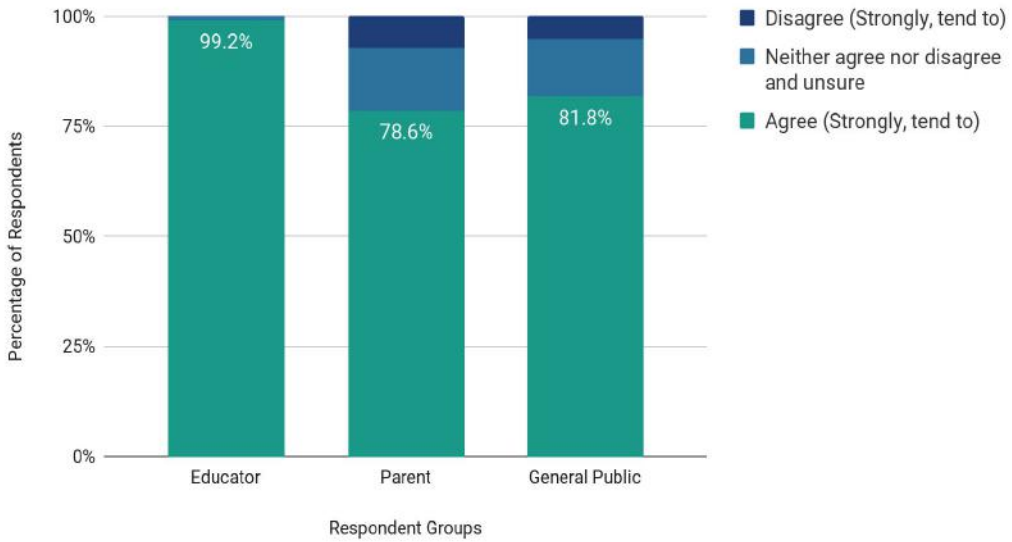
There are risks to people in Canada from climate change.

Atlantic Results



n=221 (Educator - OS = 134, Parent -CS = 37, General Public -CS = 50)
Note: Students are not included as there was <30 respondents.

There are risks to people in Canada from climate change.

National

There is high awareness that climate change poses a risk to Canadian citizens with 96% of open-sample educators and 92% of closed-sample educators in agreement. Remaining respondent groups also demonstrated high awareness but to a lesser extent: 79% of members of the general public, 76% of students and 72% of parents.

Provincial

Among Canadians living in British Columbia, Manitoba, Ontario, Quebec, and the Atlantic provinces there is a widespread perception of risk that climate change is affecting, or will affect, Canadians (averaged across provinces = 80%) whereas only 62% of respondents from Alberta and 62% of respondents from Saskatchewan perceive that climate change poses risks to Canadians.

Atlantic

Nearly unanimously, educators believe that there are risks to people in Canada from climate change (99%), parents and the general public also demonstrate a high level of agreement with 77% and 82% in agreement respectively.

Notable differences

Atlantic results align closely with National results.

Knowledge, Understanding & Information

List of 10 Climate Knowledge Questions and Answers

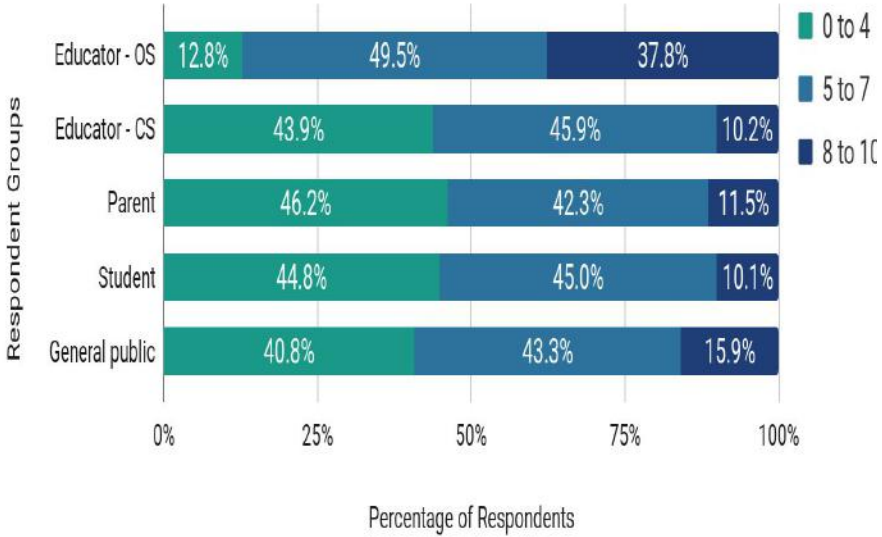
1. Do you think climate change is…	**Caused mostly by human activities** Caused mostly by natural changes in the environment About equally caused by both human activities and natural changes Not happening Other (please specify) Unsure
2. Which comes closest to your own view?	**Most climate scientists think climate change is happening** Most climate scientists do not think climate change is happening There is a lot of disagreement among climate scientists about whether Climate change is happening or not Don't know enough to say
3. To the best of your knowledge, climate change is mostly caused by...	**Carbon dioxide and other greenhouse gases** Emissions from nuclear power plants Thinning of the ozone layer Particulate air pollution Industrial chemicals Natural variability Climate change is not happening Unsure

4. To the best of your knowledge, the main process behind climate change is…	**An increase in gasses in the Earth's atmosphere that trap heat** Letting more of the sun's heat into the Earth's atmosphere through a thinner ozone layer An increase in solar activity Particle pollution in the air reflecting heat back to Earth Climate change is not happening Unsure
5. To the best of your knowledge, Canada's average temperature has … since 1948.	**Increased by 1 – 1.5 degrees Celsius** Increased by 0.5 – 0.99 degrees Celsius Increased by 0 – 0.49 degrees Celsius Decreased by 1 – 1.5 degrees Celsius Decreased by 0.5-0.99 degrees Celsius Decreased by 0-0.49 degrees Celsius Stayed the same Unsure
6. To the best of your knowledge, in Canada (between 1990 – 2015), what sector was the largest greenhouse gas emitter?	**Oil and gas** **Transportation** Agriculture Heavy industry Electricity Buildings Waste Unsure

7. To the best of your knowledge, Canada, as an Arctic nation, is more affected by the impacts of climate change	**True** False Unsure
8. To the best of your knowledge, in the next 20 years Canadian winters are predicted to be colder and to have more snow.	True **False** Unsure
9. Scientists predict that the amount of temperature increase the Earth system can tolerate is...	Select all that apply: **0-0.49 degrees Celsius** **0.5 – 0.99 degrees Celsius** **1.0 – 1.49 degrees Celsius** **1.5 – 1.99 degrees Celsius** 2.0 – 2.49 degrees Celsius 2.5 – 3.0 degrees Celsius Unsure
10. What do the world's countries need to do in order to ensure temperatures stay within the range that the Earth system can tolerate?	Select all that apply: **Significantly decrease emissions** **Move to net zero emissions (balancing a measured amount of carbon released with an equivalent amount of sequestered or offset carbon emissions)** Significantly increase emissions Moderately Increase emissions Do nothing Moderately decrease emissions

Number of correct responses to 10 climate knowledge questions.

National Results



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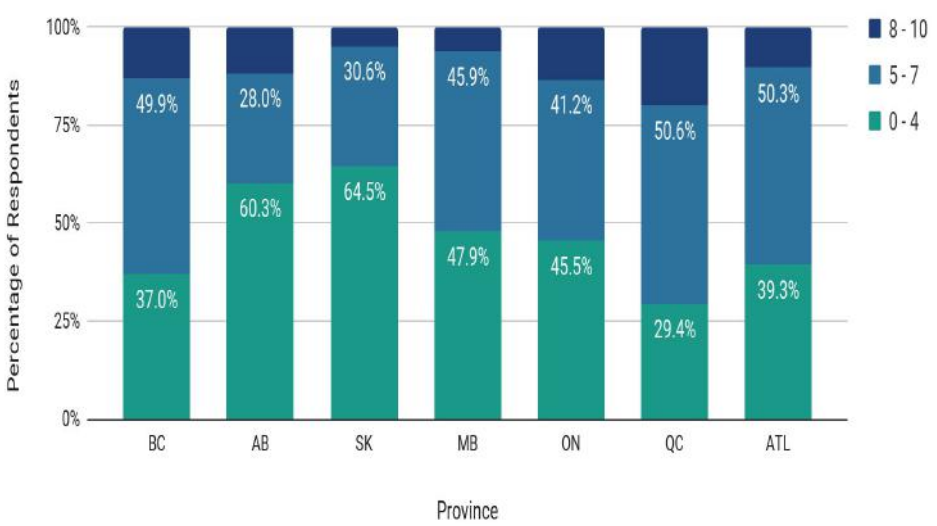
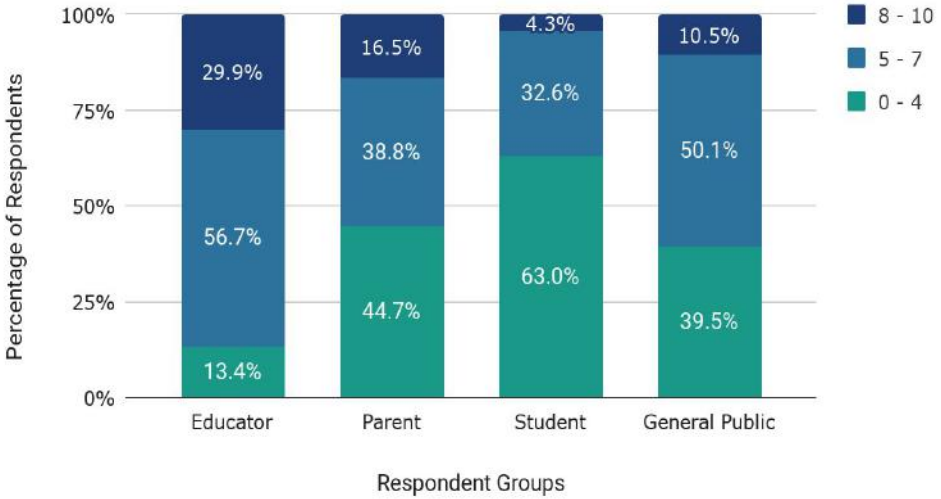
Provincial Results



n=2180 (BC=196, AB=160, SK=73, MB=70, ON=749, QC=814, ATL=118)

Number of correct responses to 10 climate knowledge questions.

Atlantic Results



n=221 (Educator - OS = 134, Parent -CS = 37, Student - OS = 46, General Public -CS = 50)

Number of correct responses to 10 climate knowledge questions.

National

On average, 43% of parents, students, and closed-sample educators answered 4 or fewer of the knowledge questions correctly: closed-sample educators (44%), parents (46%), students (45%), and the general public (41%). 12% of the open-sample educators answered 4 or fewer questions correctly. On average, 14% of closed-sample respondents correctly answered 8 or more of the 10 climate change knowledge questions: closed-sample educators (10%), parents (12%), students (10%), and members of the general public (16%). There is a gap between open-sample educators and the other groups, with 37% of open-sample educators getting 8 or more of the 10 questions correct.

Provincial

Regionally, the percentage of respondents answering four or fewer correctly is as follows: BC =37%, AB=61%, SK=65%, MB= 48%, ON= 46%, QB= 29% and AL=39%. QC scored the highest with 20% of respondents getting 8 to 10 correct and SK scored lowest with 5% of respondents getting 8 to 10 correct.

Number of correct responses to 10 climate knowledge questions.

Atlantic

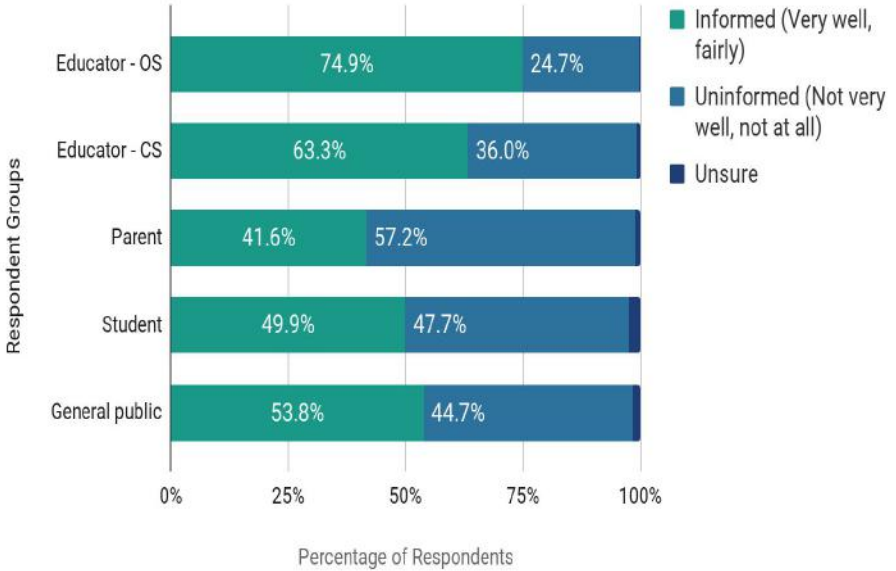
When comparing the knowledge and understanding of climate change between audience groups in the Atlantic provinces, educators had the smallest number of participants answer fewer than 4 questions correctly at only 13%, a strikingly smaller number compared to the 63% of students only able to answer a maximum of 4/10 questions correctly. Parents and the general public were slightly lower at 45% and 40% answering between 0-4 questions correctly. On the flip side, similarly educators had the largest number of participants answer between 8-10 questions correctly (30%), followed by parents (17%), general public (11%), and finally students, with only 4% answering over 8 questions correctly.

Notable differences:

The Atlantic provinces had a significantly higher percentage of students only answering between 0-4 questions correctly compared to the National average: 63% compared to 43%. Parents were slightly more informed in the Atlantic provinces compared to nationally: 17% compared to 12% of participants able to answer 8 or more questions correctly.

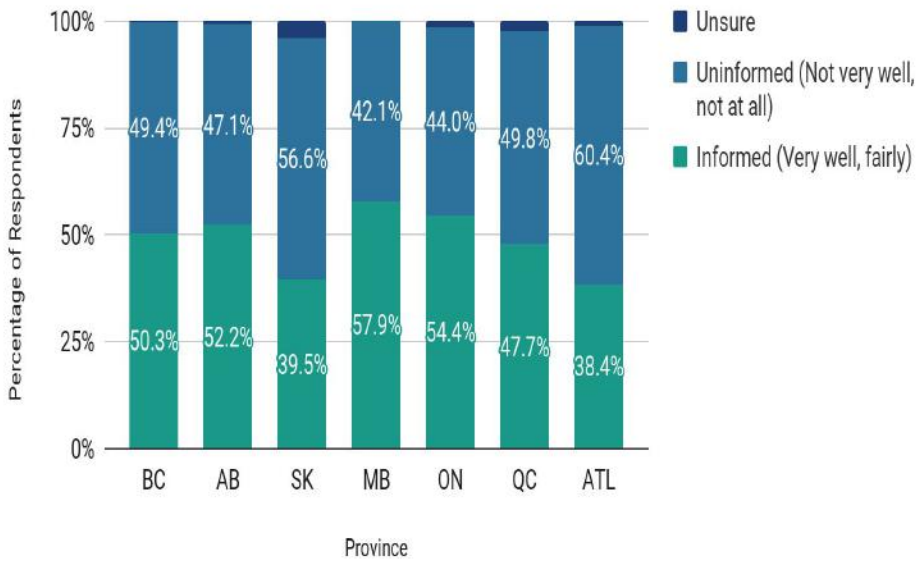
Personally, how well-informed do you feel you are about climate change?

National Results



n=3196 (Educator OS = 1120, Educator CS = 111, Parent CS = 571, Student CS= 486, General public = 908)

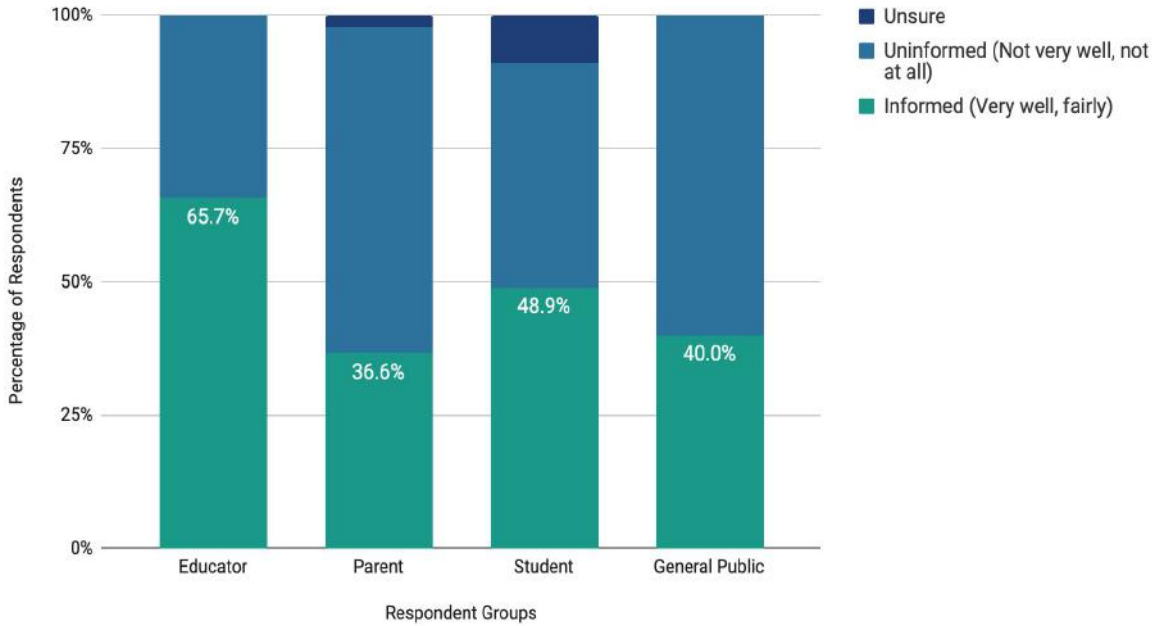
Provincial Results



n=2180 (BC=196, AB=160, SK=73, MB=70, ON=749, QC=814, ATL=118)

Personally, how well-informed do you feel you are about climate change?

Atlantic Results



n=221 (Educator - OS = 134, Parent -CS = 37, Student - OS = 46, General Public -CS = 50)

Personally, how well-informed do you feel you are about climate change?

National

When asked, “how well informed do you feel you are about climate change?”, those who indicated “very well” or “fairly well” include: open-sample educators (75%), closed-sample educators (63%), parents (42%), students (50%), and the general public (54%).

Provincial

Regional responses for those feeling “very well” or “fairly well” informed about climate change are as follows: BC=50%, AB= 52%, SK= 40%, MB= 58%, ON= 54%, QC= 48% and ATL=38%.

Atlantic

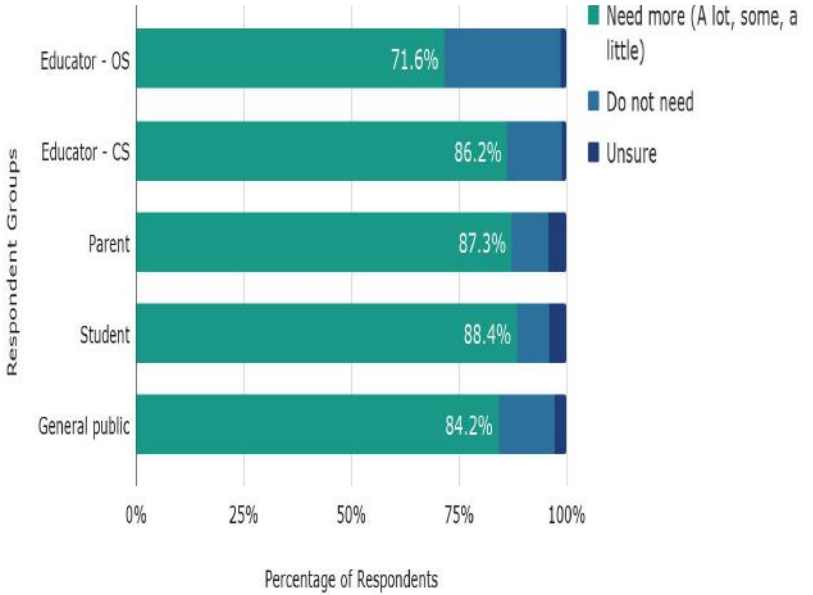
When asked about how well-informed participants feel about climate change, educators were the only respondent group that had a majority (66%) respond with “very well” or “fairly well,” the majority of parents (61%) and the general public (60%) indicated that they feel “not very well” or “not at all” informed on the subject. Interestingly, almost half of students indicated that they feel “very well”, or “fairly well” informed (49%), which is interesting given the large percentage that only answered 4 or fewer knowledge questions correctly in the previous question.

Notable differences

Results fairly closely align with the national averages save for small (less than 5% variation) in most response groups. The general public however, overall feels less informed in the Atlantic provinces compared to nationally: 40% in ATL (“very well” or “fairly well”) vs. 54% nationally.

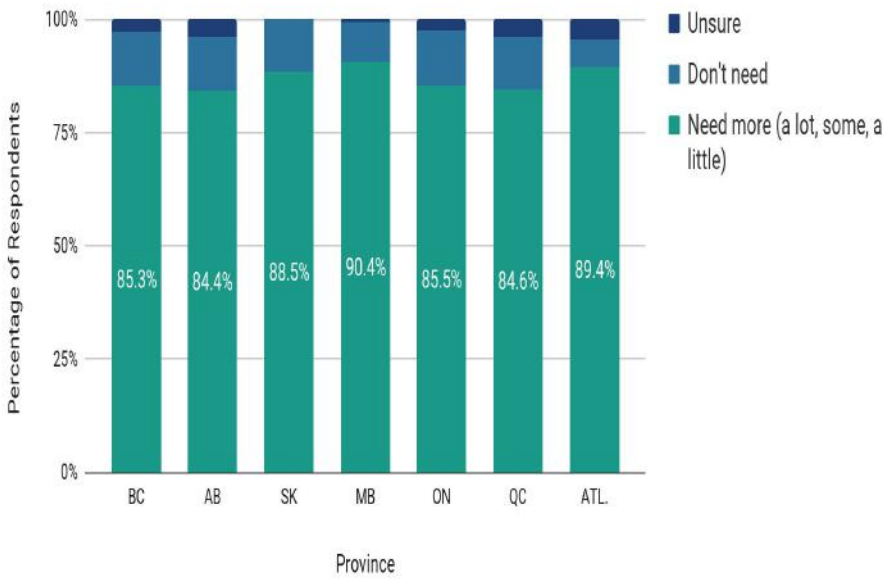
On some issues, people feel they have all the information they need in order to form a firm opinion, while on other issues they would like more information before making up their mind. For climate change, where would you place yourself?

National Results



n=3196 (Educator OS = 1120, Educator CS = 111, Parent CS = 571, Student CS= 486, General public = 908)

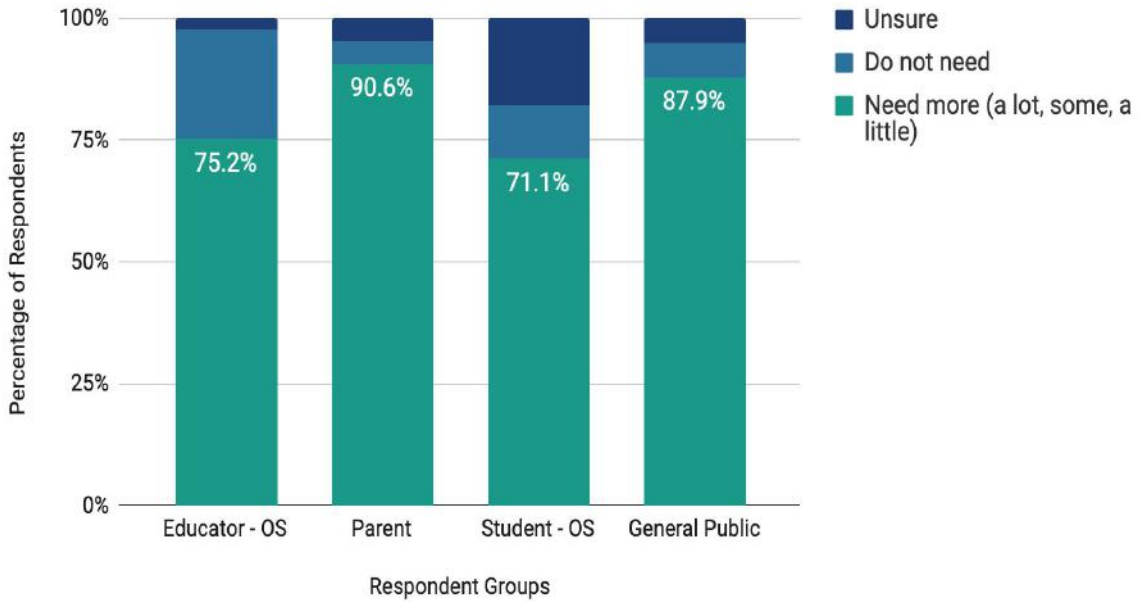
Provincial Results



n=2180 (BC=196, AB=160, SK=73, MB=70, ON=749, QC=814, ATL=118)

On some issues, people feel they have all the information they need in order to form a firm opinion, while on other issues they would like more information before making up their mind. For climate change, where would you place yourself?

Atlantic Results



n=221 (Educator - OS = 134, Parent -CS = 37, Student - OS = 46, General Public -CS = 50)

On some issues, people feel they have all the information they need in order to form a firm opinion, while on other issues they would like more information before making up their mind. For climate change, where would you place yourself?

National

Most respondents in all groups indicated that more information on climate change is required for them to form a firm opinion on climate change. The smallest percentage of respondents indicating the need for additional information were open-sample educators (72%), while others were nearly unanimous on the need for more information: 88% of students, 87% of parents, 86% of closed-sample educators, and 84% of members of the general public. We interpret this result as meaning almost everyone would benefit from more information about climate change and believe these data support the need for increased public education and professional development for teachers on climate change education.

Provincial

Across the provinces, 87% of Canadians identified that they need more information in order to form a firm opinion on climate change.

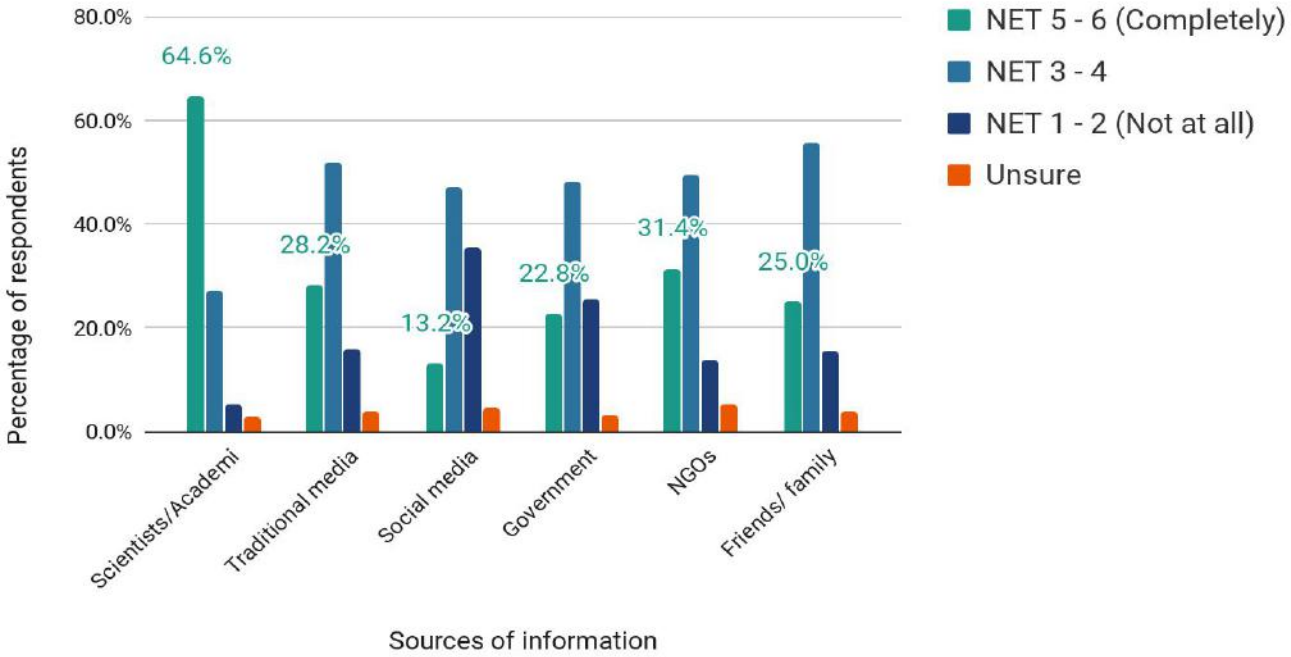
Atlantic

Most respondent groups in the Atlantic region indicated that they need more information in order to form a firm opinion on climate change with the highest number of parents indicating a desire for more information (91%) followed by the general public (88%). 75% of educators, and 71% of students also felt that they need more information.

Notable Differences:

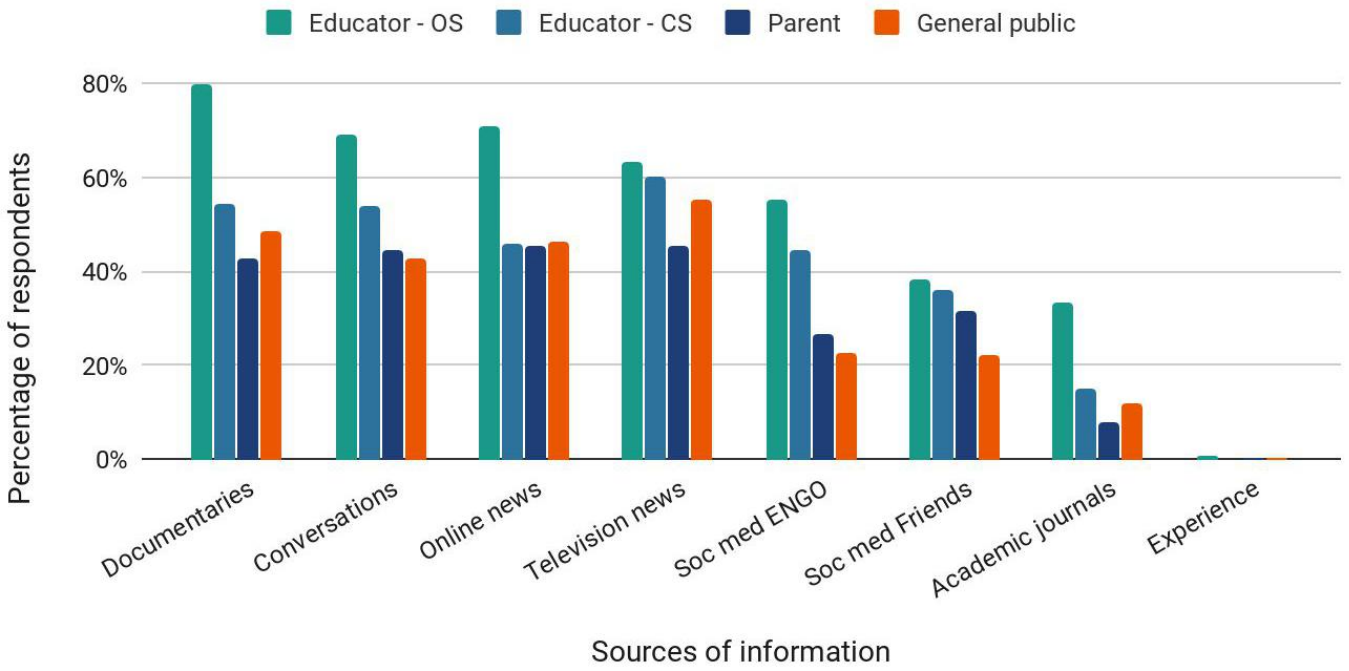
Significantly less students (compared to the national average) indicated a desire for more information before being able to form a firm opinion on the subject of climate change: only 71% compared to 88% nationally.

National - Trust in different sources of information

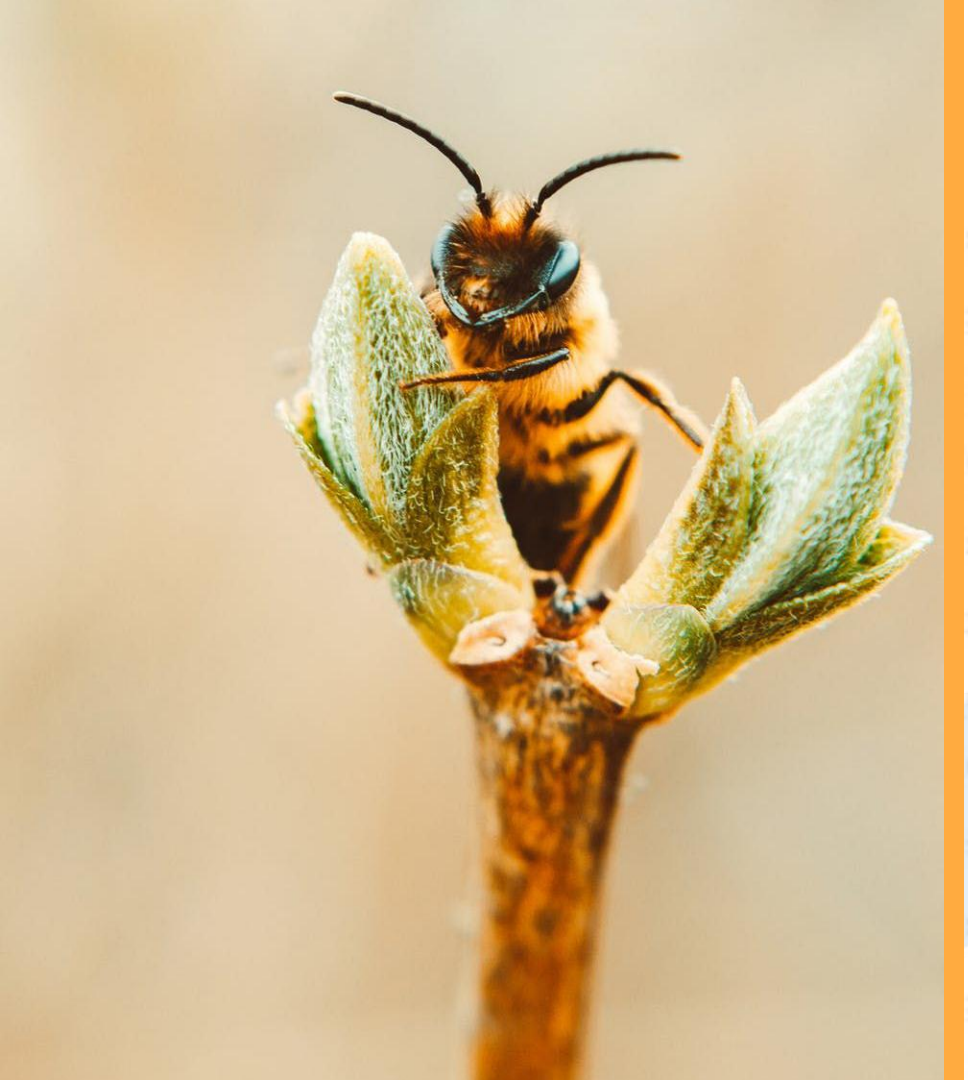


n=3196 (Educator OS = 1120, Educator CS = 111, Parent CS = 571, Student CS= 486, General public = 908) [aggregated]

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



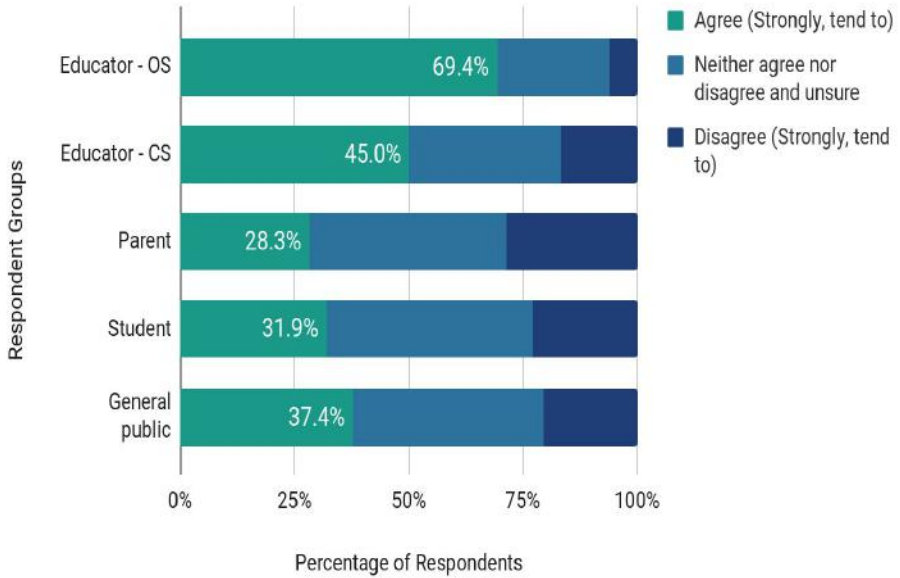
n=3196 (Educator OS = 1120, Educator CS = 111, Parent CS = 571, Student CS= 486, General public = 908)



Impacts and Action

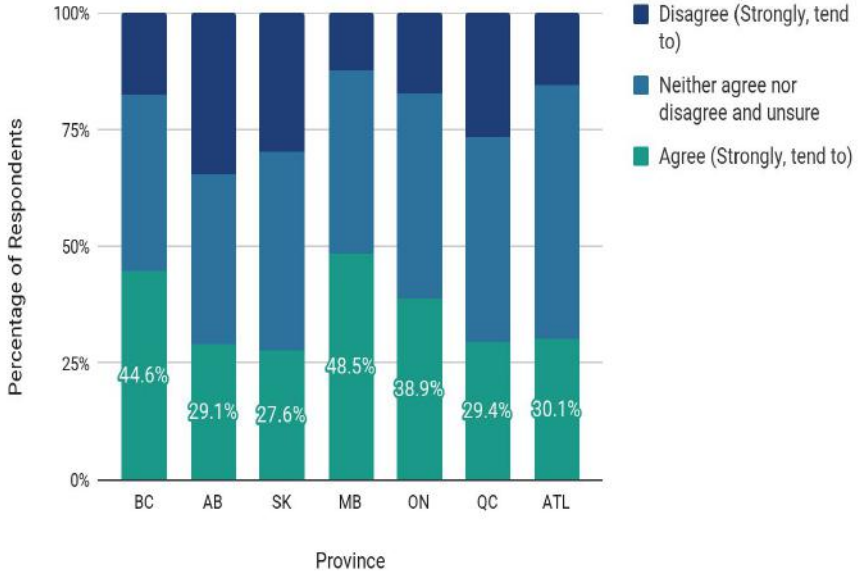
I have personally experienced the effects of climate change

National Results



n=3196 (Educator OS = 1120, Educator CS = 111, Parent CS = 571, Student CS= 486, General public = 908)

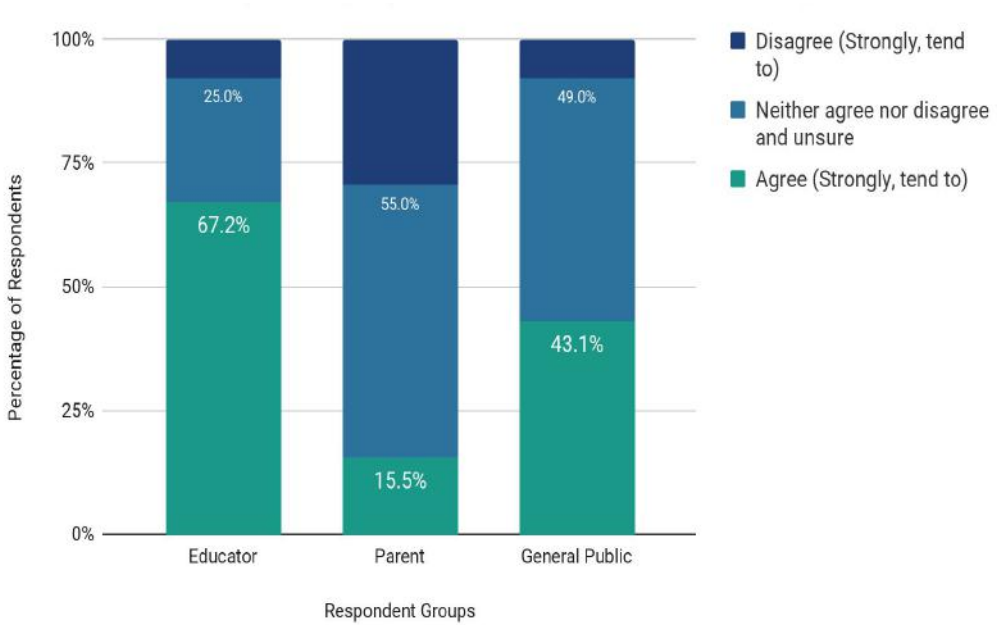
Provincial Results



n=2180 (BC=196, AB=160, SK=73, MB=70, ON=749, QC=814, ATL=118)

I have personally experienced the effects of climate change

Atlantic Results



n=221 (Educator - OS = 134, Parent -CS = 37, General Public -CS = 50)
Note: Students are not included as there was <30 respondents.

I have personally experienced the effects of climate change

National

More than two-thirds (69%) of open-sample educators and just fewer than half (45%) of the closed-sample educators indicated that they had experienced climate change impacts. Comparatively, only one-third of the members of the general public (37%) and students (32%) indicated having personally experienced climate change impacts, with the fewest parents (28%) having experienced impacts.

Provincial

Regionally, with regards to having experienced the effects of climate change, BC and Manitoba had a significantly higher number of respondents who had personally felt climate impacts (45% and 48% respectively). In contrast, around one quarter of respondents in Saskatchewan (27%) reported experiencing the effects of climate change, and just slightly more in Alberta (29%) and Quebec (29%).

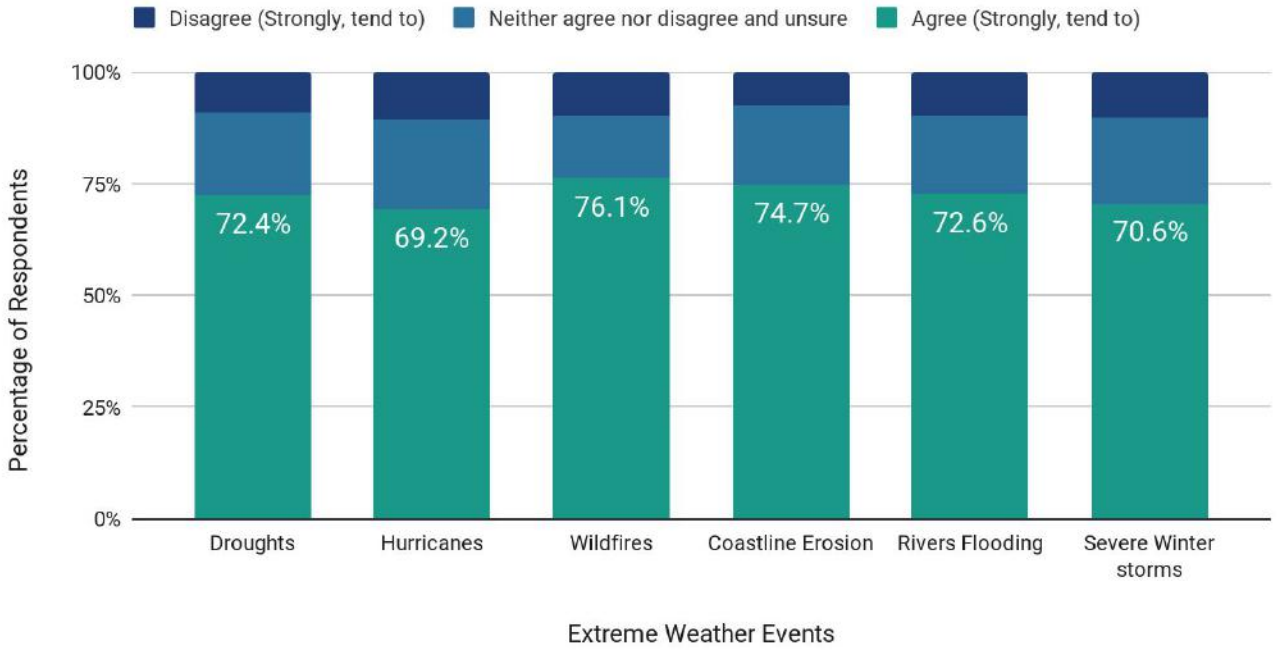
Atlantic

Over two thirds of educators (67%) across the Atlantic provinces indicated that they have personally experienced the effects of climate change, whereas less than half (43%) of the members of the general public agreed. In a stark contrast, only 16% of parents reported having felt the effects.

Notable differences

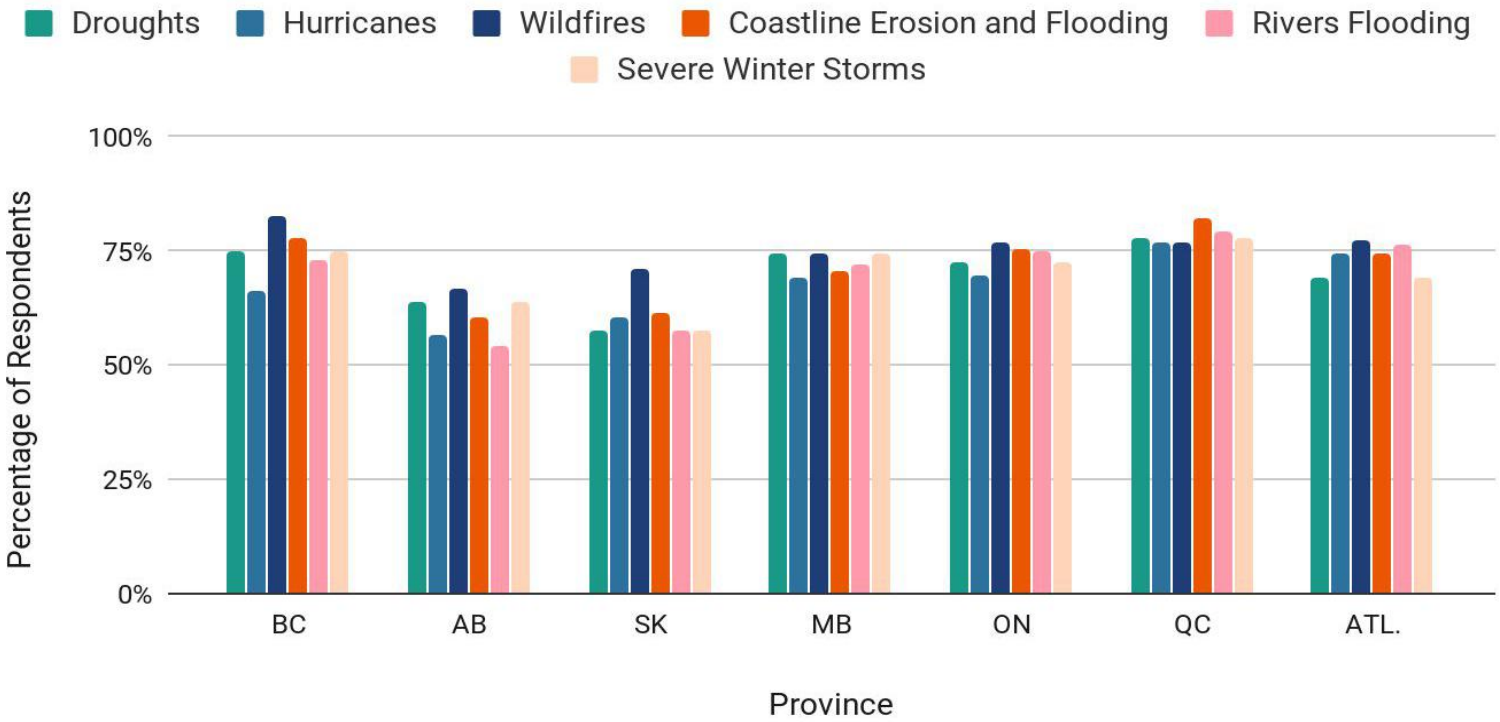
In both the National results and Atlantic regional results, parents are least likely to report having felt the effects; however, the difference is notably different between 28% and 16%.

NATIONAL - Do you agree or disagree that climate change is already causing or making the following things worse: droughts, hurricanes, wildfires, coastline erosion, rivers flooding and severe winter storms?



n= 3196 (Educator OS = 1120, Educator CS = 111, Parent CS = 571, General public CS = 908)

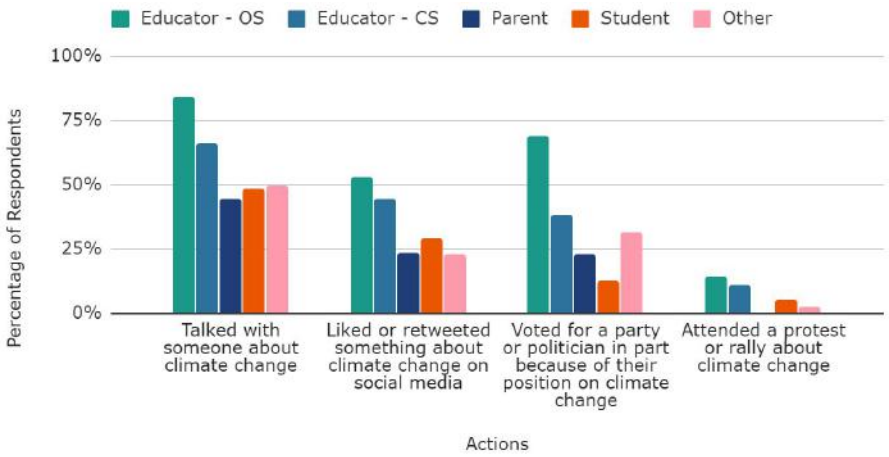
PROVINCIAL - Do you agree or disagree that climate change is already causing or making the following things worse: droughts, hurricanes, wildfires, coastline erosion, rivers flooding and severe winter storms?



n=2180 (BC=196, AB=160, SK=73, MB=70, ON=749, QC=814, ATL=118)

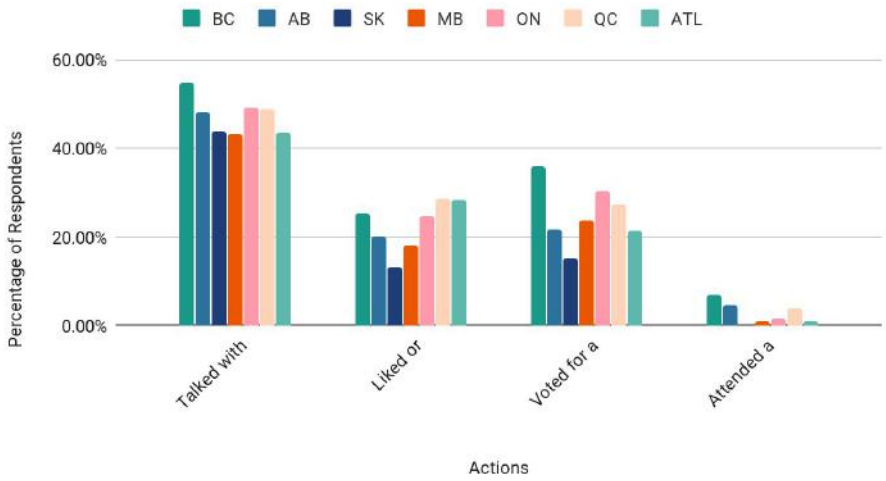
Actions taken to discuss or learn about climate change

National Results



n= 3196 (Educator OS = 1120, Educator CS = 111, Parent CS = 571, General public CS = 908)

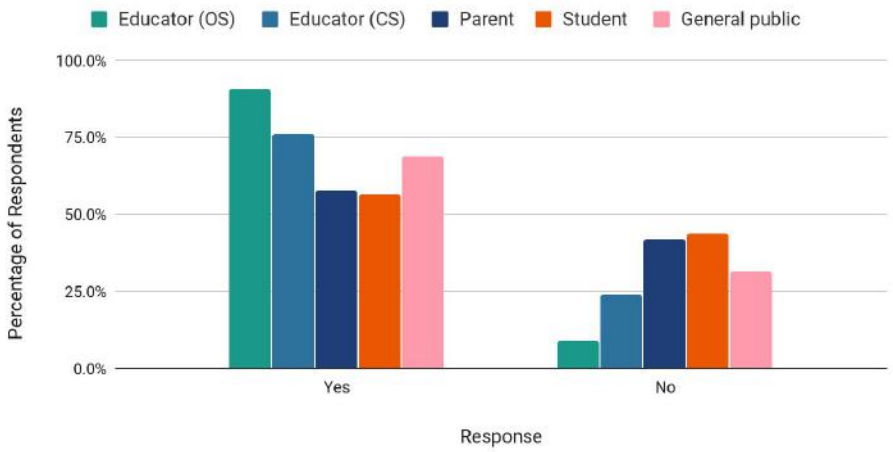
Provincial Results



n=2180 (BC=196, AB=160, SK=73, MB=70, ON=749, QC=814, ATL=118)

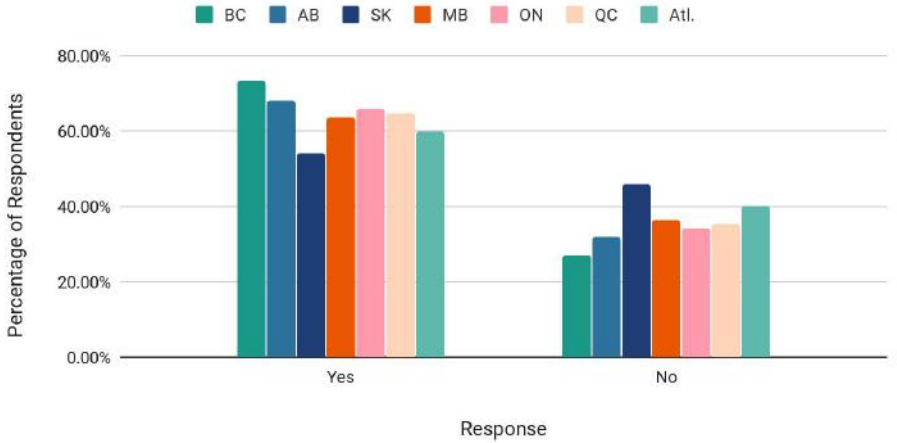
I have personally taken action to reduce greenhouse gas emissions

National Results



n= 3196 (Educator OS = 1120, Educator CS = 111, Parent CS = 571, General public CS = 908)

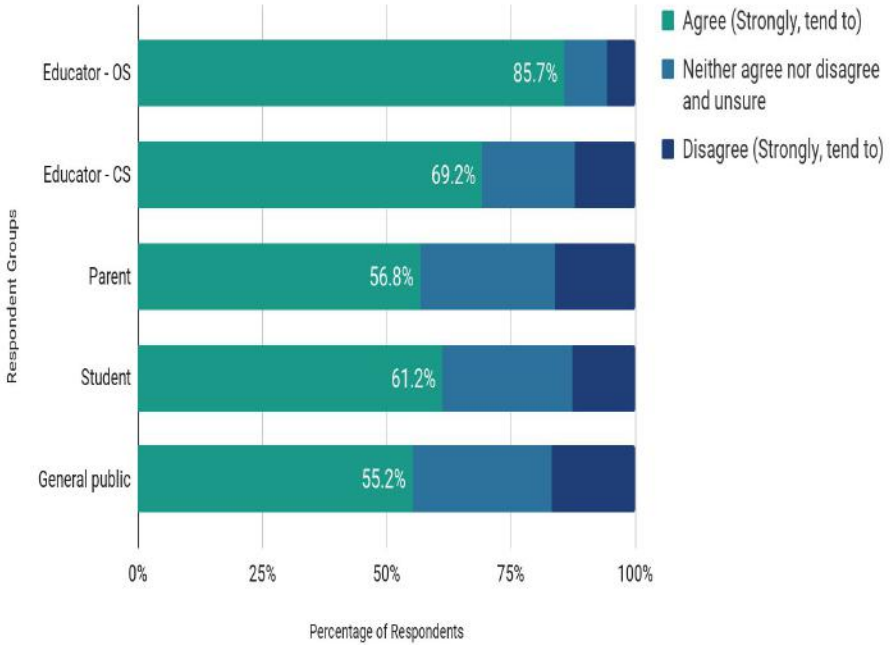
Provincial Results



n=2180 (BC=196, AB=160, SK=73, MB=70, ON=749, QC=814, ATL=118)

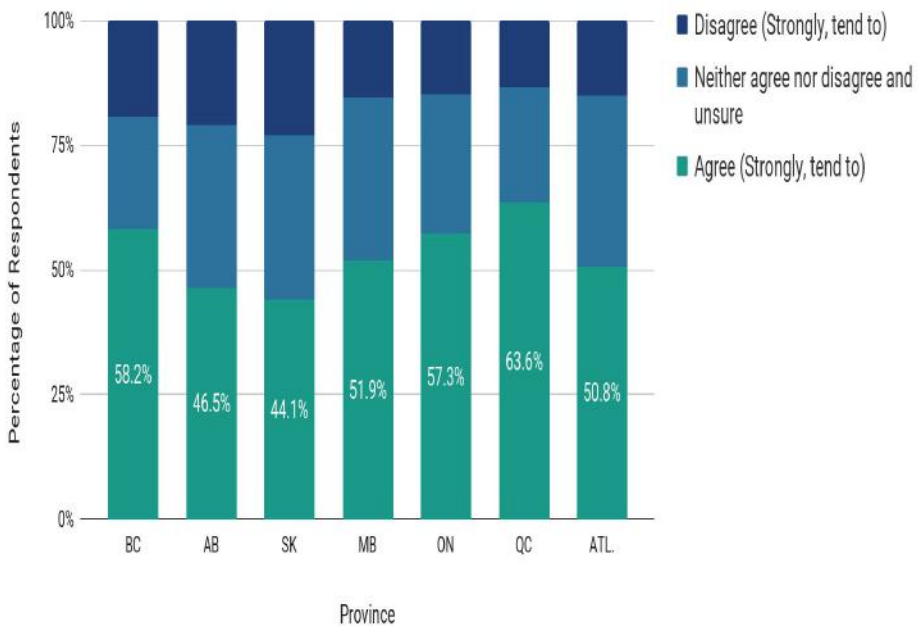
I believe my actions have an influence on climate change.

National Results



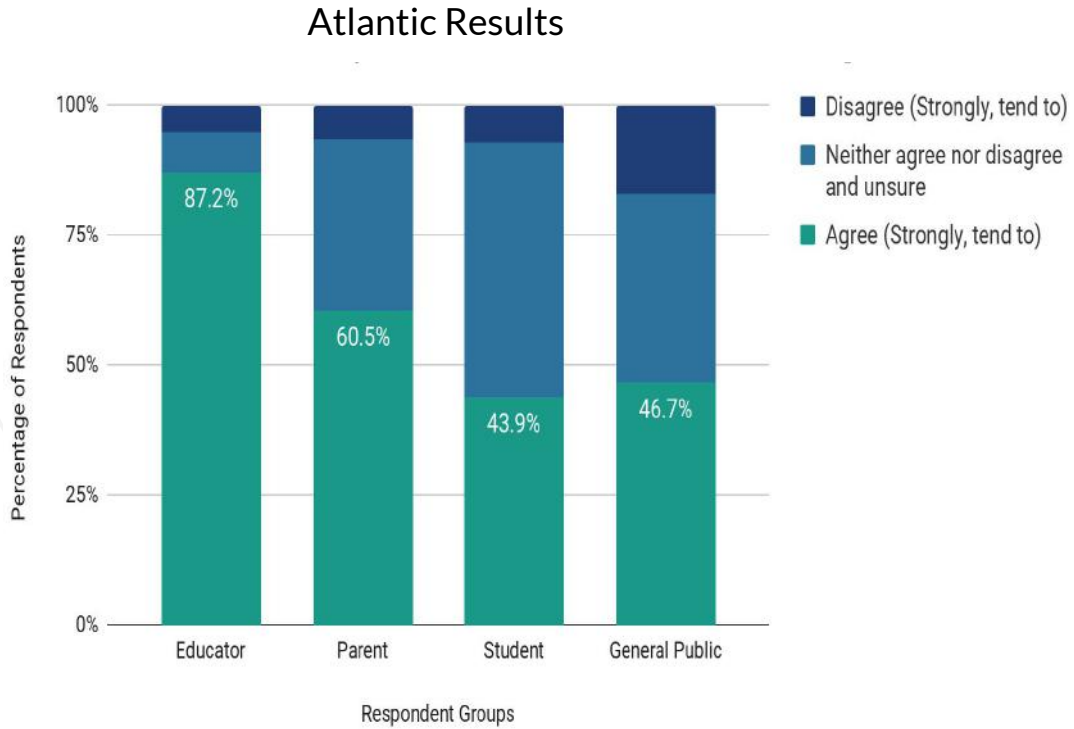
n=3196 (Educator OS = 1120, Educator CS = 111, Parent CS = 571, Student CS= 486, General public = 908)

Provincial Results



n=2180 (BC=196, AB=160, SK=73, MB=70, ON=749, QC=814, ATL=118)

I believe my actions have an influence on climate change.



n=221 (Educator - OS = 134, Parent -CS = 37, Student - OS = 46, General Public -CS = 50)

I believe my actions have an influence on climate change.

National

Respondent groups differed significantly in their beliefs on the influence that personal actions have on climate change. While the majority of open-sample educators (86%) believed that personal actions influence climate impacts, only 69% of closed-sample educators felt similarly. Amongst the remaining respondents, students were in highest agreement with 61% of respondents, while just over half of parents (57%) and members of the general public (55%) believed the same.

Provincial

The conviction that personal actions influence climate change varied from region to region. Less than half of respondents from Saskatchewan and Alberta believe that their actions are influential (44% and 47%, respectively), while almost two-thirds of respondents from Quebec (64%) reported believing that their personal actions could influence climate change.

Atlantic

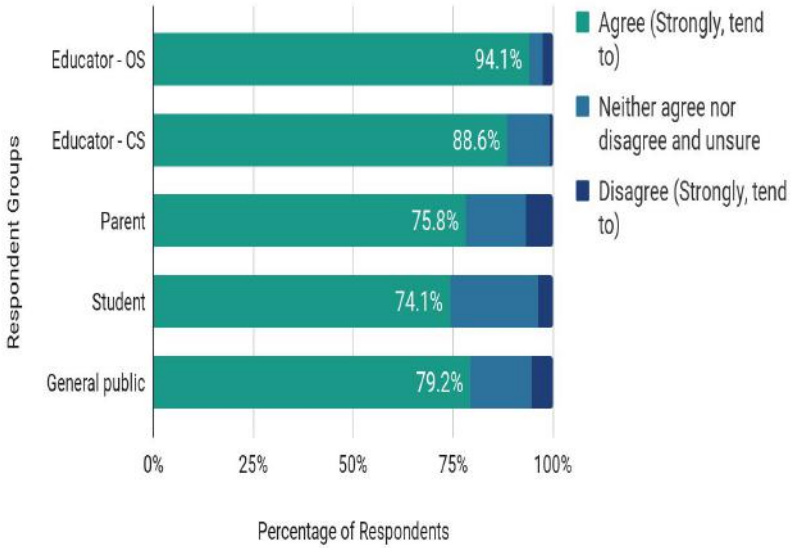
Respondent groups across the Atlantic provinces had different beliefs about the influence that their actions have on climate change. A large majority (87%) of educators indicated thinking that their actions could have an influence, compared to less parents (61%), and less than half of the members of the general public (47%) and students (44%)

Notable differences

The most striking difference is the number of students that believe their actions can have an influence on climate change. Students in the Atlantic provinces have almost a 20% lower agreement among students compared to the national results (61% vs. 44%). Similarly, the general public has a slightly lower agreement (55% - 47%).

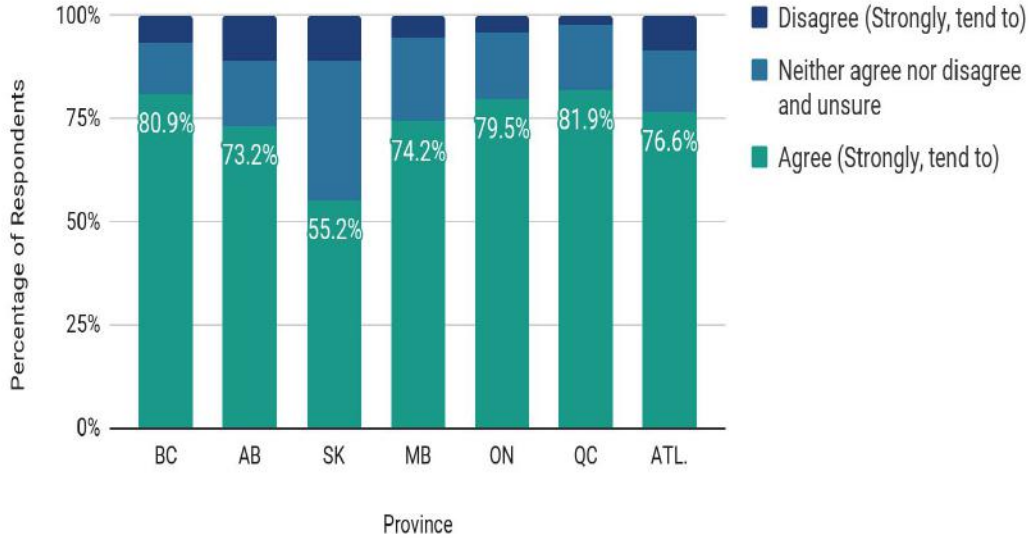
I understand personal actions are important but systemic change is required to address climate change challenges.

National Results



n=3196 (Educator OS = 1120, Educator CS = 111, Parent CS = 571, Student CS= 486, General public = 908)

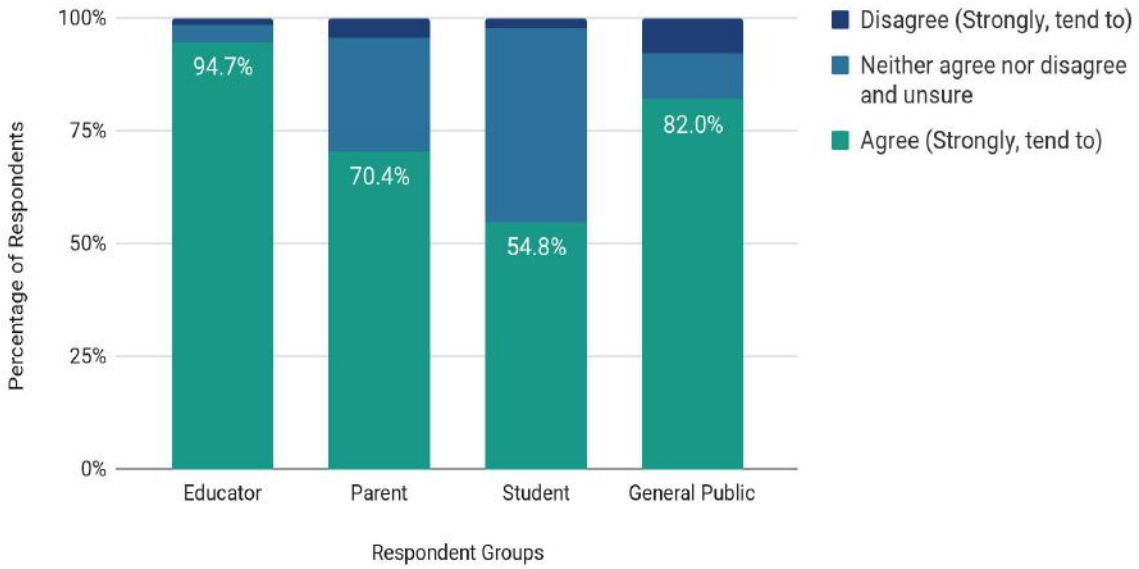
Provincial Results



n=2180 (BC=196, AB=160, SK=73, MB=70, ON=749, QC=814, ATL=118)

I understand personal actions are important but systemic change is required to address climate change challenges.

Atlantic Results



n=221 (Educator - OS = 134, Parent -CS = 37, Student - OS = 46, General Public -CS = 50)

I understand personal actions are important but systemic change is required to address climate change challenges.

National

A large majority in all respondent groups indicated that systemic change is required (in addition to personal actions) to address the challenges of climate change. Nearly all open-sample educators (94%) agreed with the need for systemic change, as well as the majority of closed-sample educators (89%). Approximately three-quarters of remaining respondent groups shared similar beliefs with members of the general public at 79%, parents at 76% and students at 74% agreement.

Provincial

In every region across the country, most respondents acknowledged that systemic change is required in order to address the challenges posed by climate change. Quebec (82%), closely followed by BC (81%) had the highest percentage of respondents agree that systemic change is required. Saskatchewan had significantly lower agreement, with only 55% of the respondents acknowledging that systematic change is a requirement to address climate change challenges.

Atlantic

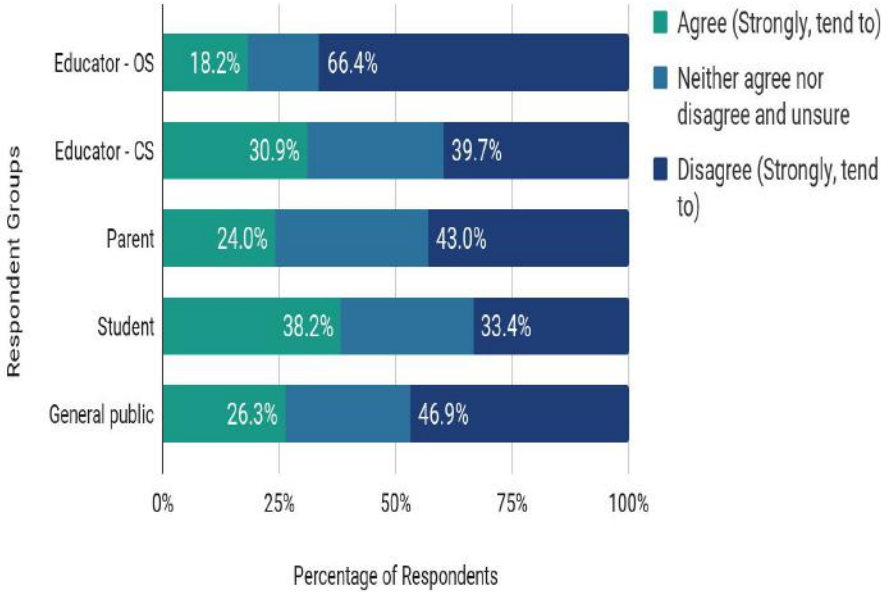
Over half of all respondent groups agreed that systemic change is required to address the challenges that climate change poses, however agreement varies between groups. An overwhelming 95% of educators felt that systemic change is crucial to addressing the challenges being faced by climate change, 82% of the general public agreed, followed by 70% of parents, and just over half (55%) of students.

Notable differences

Student perspective is the only significant difference when comparing the Atlantic region to the national results, lowering from 74% to 55% agreement.

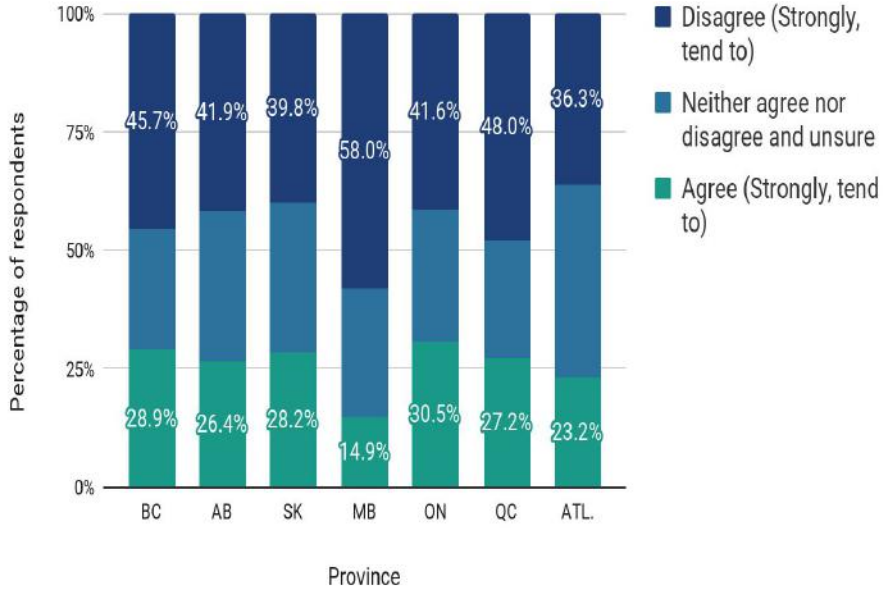
New technologies can solve climate change without individuals having to make big changes in their lives.

National Results



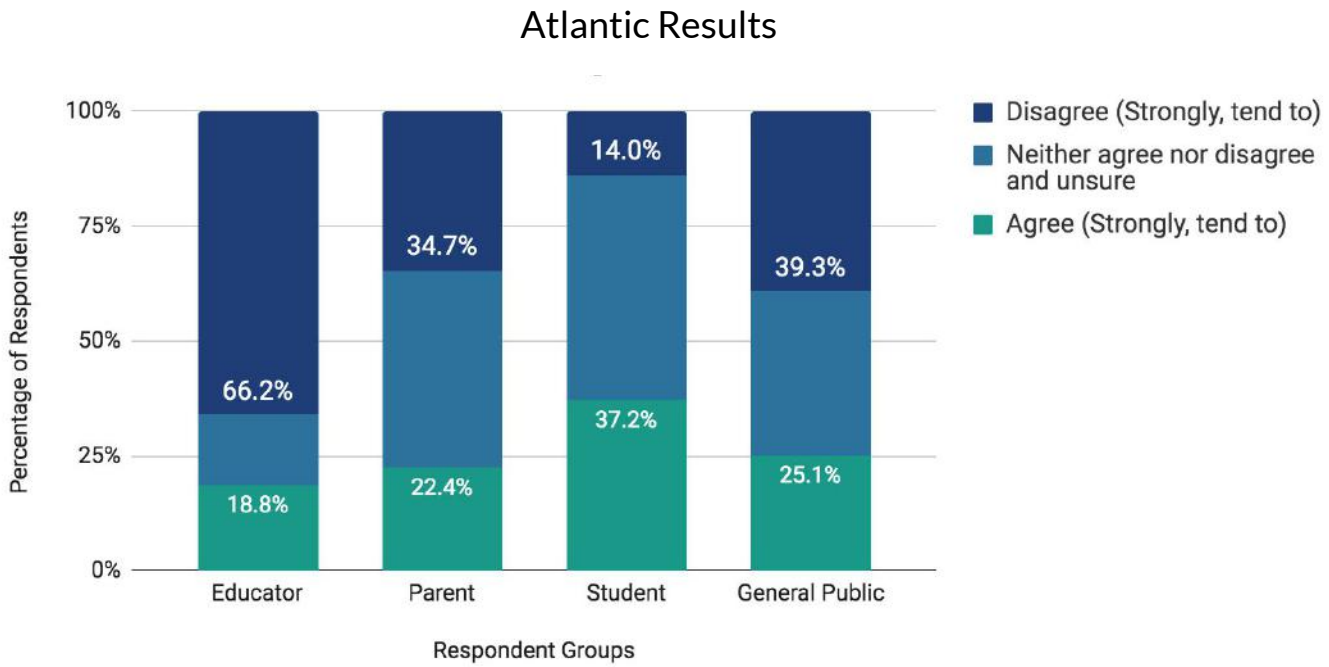
n=3196 (Educator OS = 1120, Educator CS = 111, Parent CS = 571, Student CS= 486, General public = 908)

Provincial Results



n=2180 (BC=196, AB=160, SK=73, MB=70, ON=749, QC=814, ATL=118)

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



n=221 (Educator - OS = 134, Parent -CS = 37, Student - OS = 46, General Public -CS = 50)

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

National

A large majority in all respondent groups indicated that new technologies cannot solve climate change without individuals having to make big changes in their lives. Only 18% of open-sample educators agreed that they could, 31% of closed-sample educators, 24% of parents, 38% of students and 26% of members of the general public.

Provincial

Overall, on average 26% of respondents across Canada believe that new technologies alone can solve climate change without individuals having to make big changes in their lives. Agreement is highest in Ontario (31%) Saskatchewan (28%) and lowest in Manitoba (15%)

Atlantic

Respondents throughout the Atlantic region had varying levels of agreement with this statement. Over two-thirds of educators strongly, or tended to disagree that technology would be able to solve climate change without individuals having to make large changes in their lives. However, only around one-third of parents (35%) and the general public (39%) felt similarly, and an extremely small number of students (14%) disagreed with this statement.

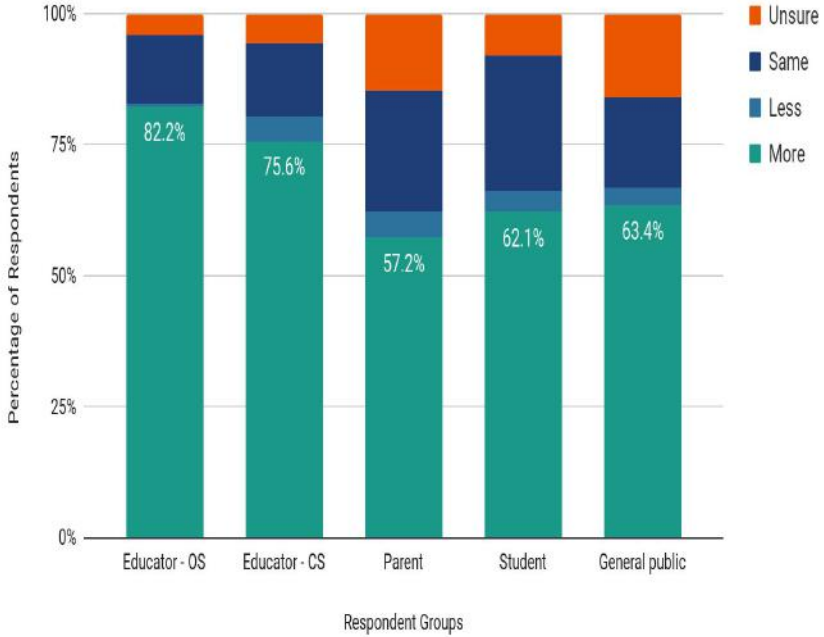
Notable differences

Interestingly, although a similar number of students agree with this statement between the National and Atlantic regional results, when looking at the Atlantic region, fewer students are sure of their disagreement (33% to 14%), and many more report being ‘unsure’ vs. disagree.

Climate Change & The Education System

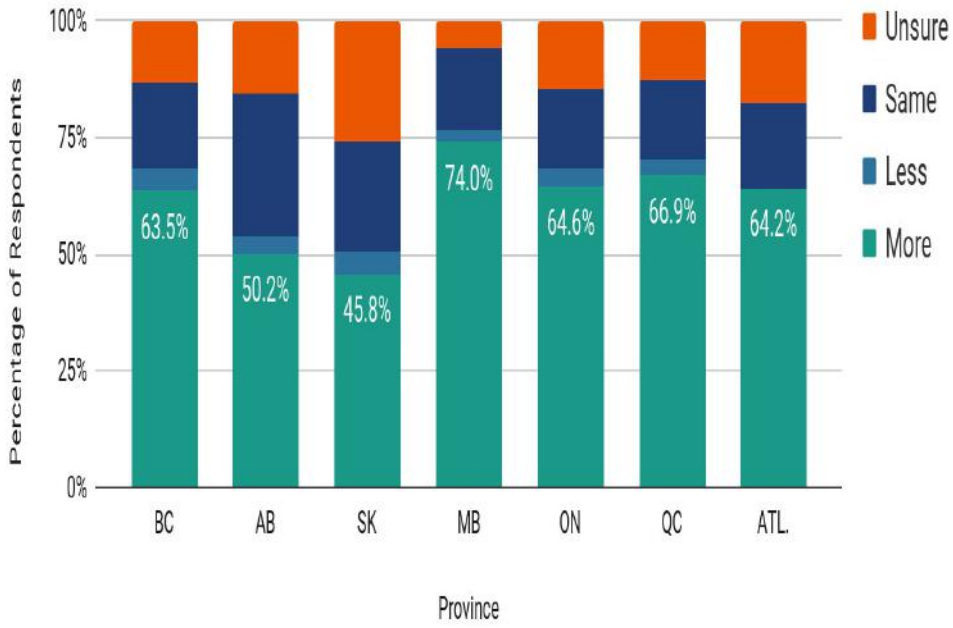
Do you think the education system (grades 7 - 12) should be doing more, less, or about the same as now to educate young people on climate change?

National Results



n=3196 (Educator OS = 1120, Educator CS = 111, Parent CS = 571, Student CS= 486, General public = 908)

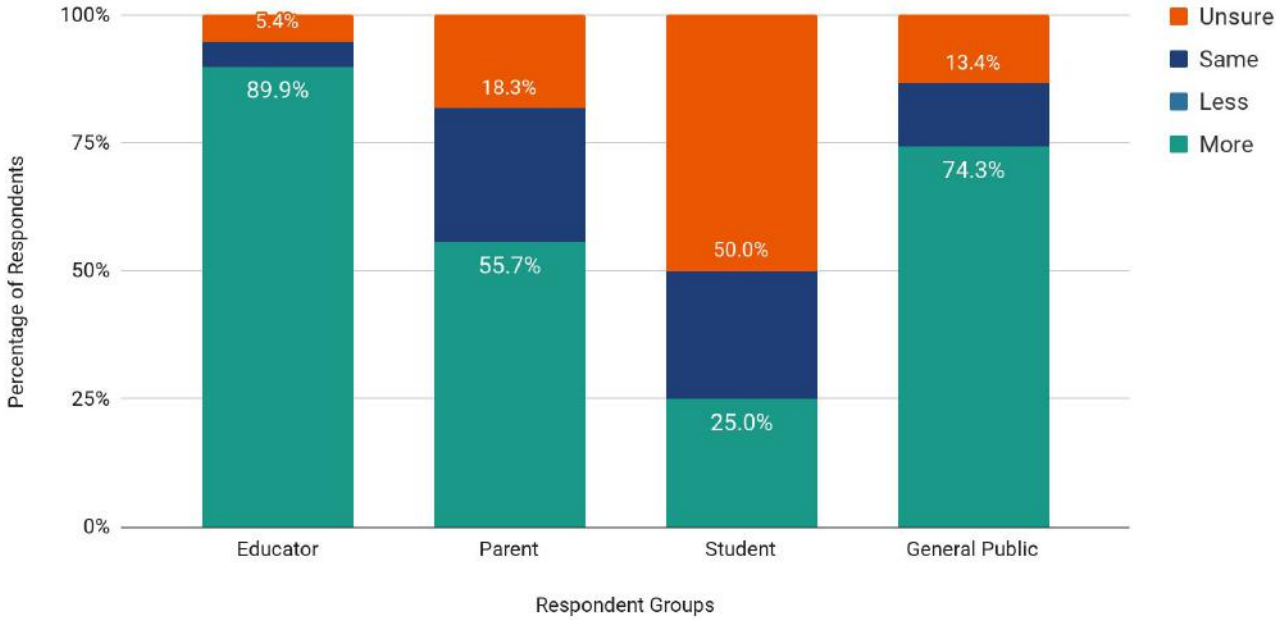
Provincial Results



n=2180 (BC=196, AB=160, SK=73, MB=70, ON=749, QC=814, ATL=118)

Do you think the education system (grades 7 - 12) should be doing more, less, or about the same as now to educate young people on climate change?

Atlantic Results



n=221 (Educator - OS = 134, Parent -CS = 37, Student - OS = 46, General Public -CS = 50)

Do you think the education system (grades 7 - 12) should be doing more, less, or about the same as now to educate young people on climate change?

National

Most educators (OS 82% and CS 76%) strongly believe that the formal education system (grades 7-12) should be doing more to educate young people about climate change (82% and 76%). Approximately two-thirds of students (62%) and members of the public (63%) indicated the same, while 57% of parents shared the same view.

Provincial

Across Canada, in most provinces, the majority of respondents think the school system should be doing more to educate about climate change (BC=64%, MB =74%, ON=65%, QC=67%, ATL=64%). Alberta (50%) and Saskatchewan (46%) had the lowest levels of support for the schools doing more to educate young people about climate change.

Atlantic

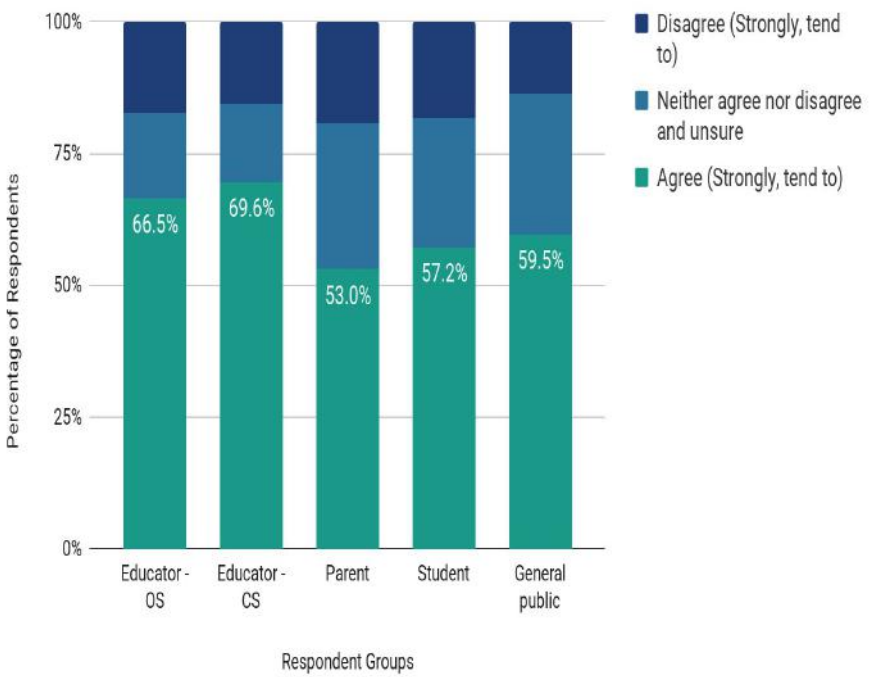
Responses varied significantly among respondent groups in the Atlantic provinces. Educators felt strongly that the education system should be doing more to educate young people (90% agreement), and three-quarters of the general public agreed (74%). A much lower percentage of parents feel similarly (55%), and only one-quarter of students agree (25%). Students express a high level of uncertainty to this question, with 50% of respondents indicating being ‘unsure.’

Notable differences

A huge difference is noted in the number of students that feel the education system should be doing more to educate young people - the National response average from students is 62% compared to the Atlantic region average which is only 25%.

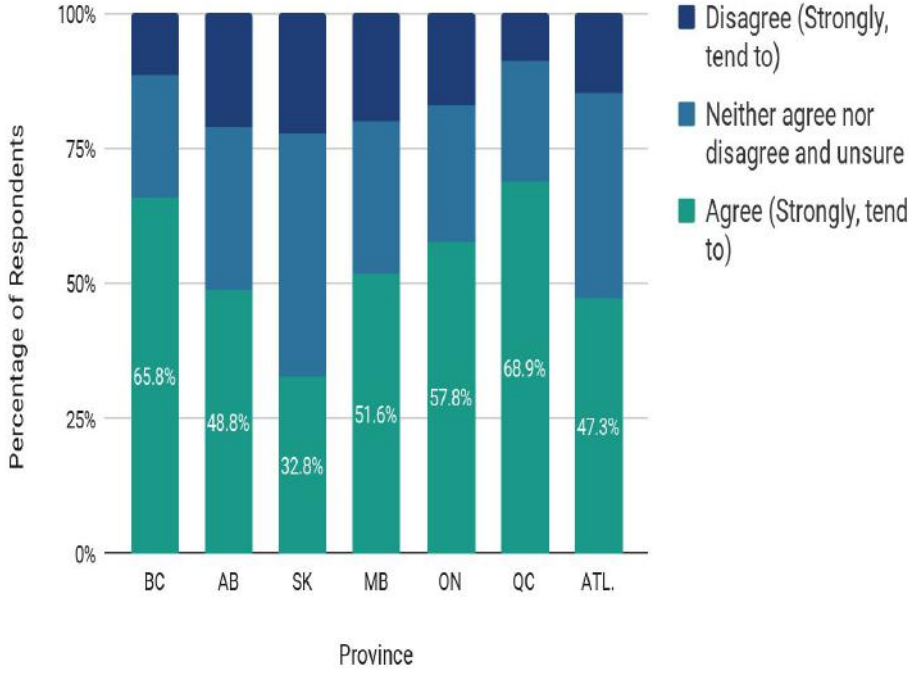
Climate change education is a high priority for schooling

National Results



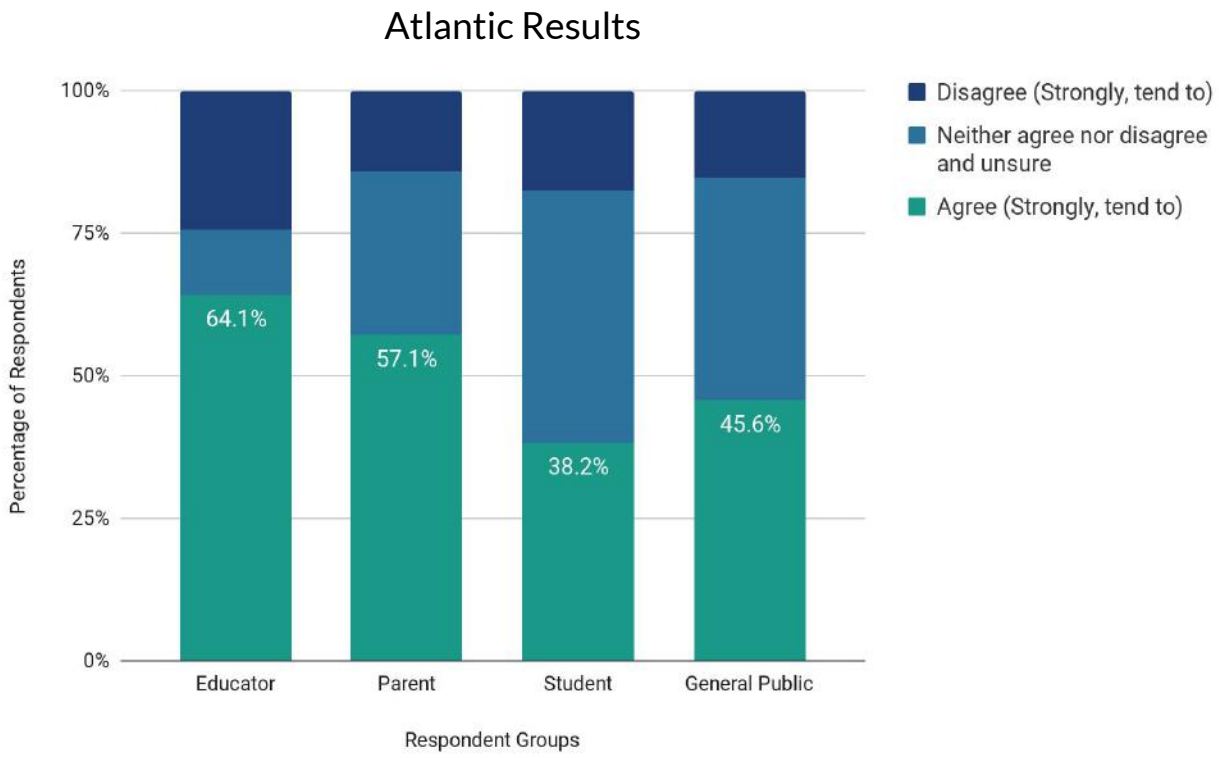
n=3196 (Educator OS = 1120, Educator CS = 111, Parent CS = 571, Student CS= 486, General public = 908)

Provincial Results



n=2180 (BC=196, AB=160, SK=73, MB=70, ON=749, QC=814, ATL=118)

Climate change education is a high priority for schooling



n=221 (Educator - OS = 134, Parent -CS = 37, Student - OS = 46, General Public -CS = 50)

Climate change education is a high priority for schooling

National

Approximately two-thirds of both groups of educators (CS 70% and OS 67%) felt that climate change education was of high importance for grade 7 - 12 students to be learning in school. To a lesser degree, the majority of remaining respondent groups shared similar sentiments with members of the public at 60%, students at 57% and parents at the lowest agreement (53%).

Provincial

Regions across the country had differing opinions on the priority level that climate change education should have in schools. Quebec (69%) and British Columbia (66%) had the highest percentage of respondents who saw climate change as a high priority for schooling with over two-thirds of respondents agreeing that climate change is a high priority for students in grades 7-12, while Saskatchewan (33%) had only approximately one-third of respondents agree that it is a high priority.

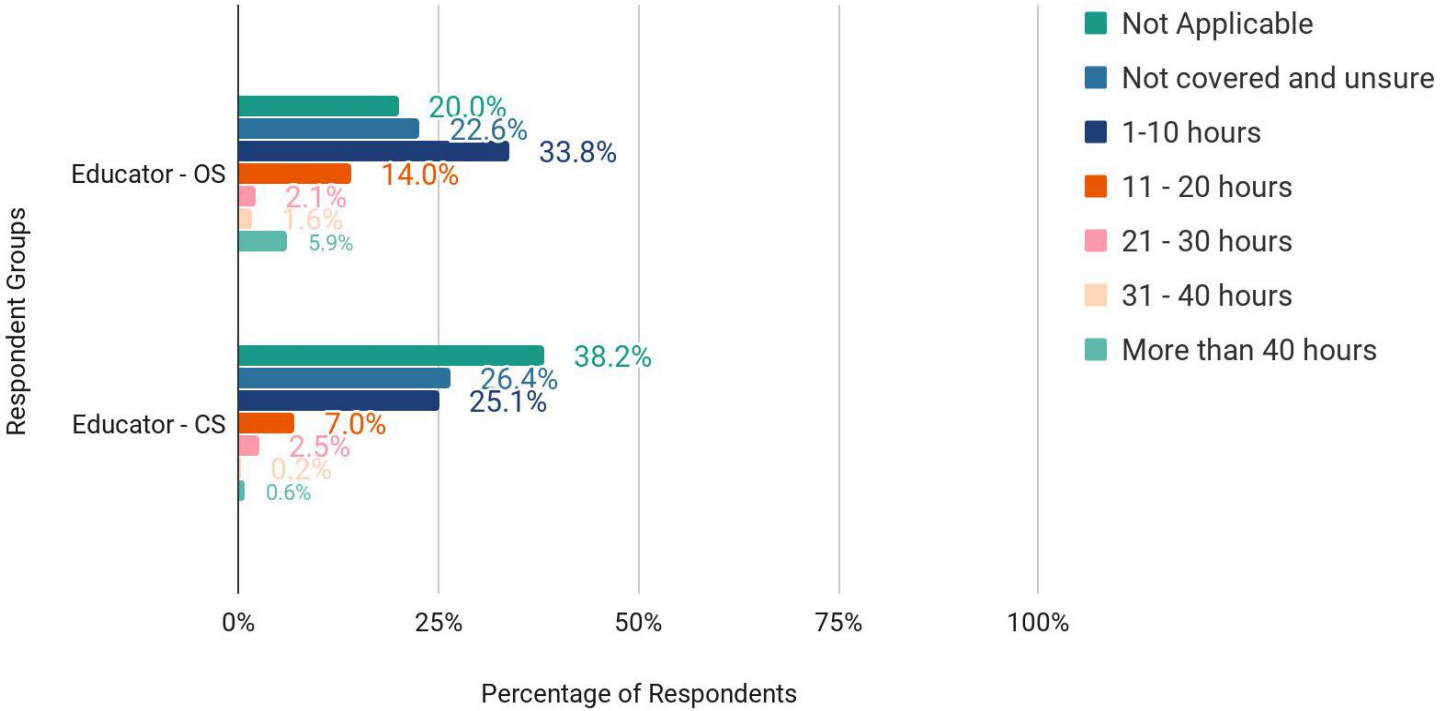
Atlantic

Almost two thirds of educators (64%), and over half of parents (57%) believe that climate change is a high priority for schooling. Slightly below half of the general public respondents feel similarly (46%), and only 38% of students agree.

Notable differences

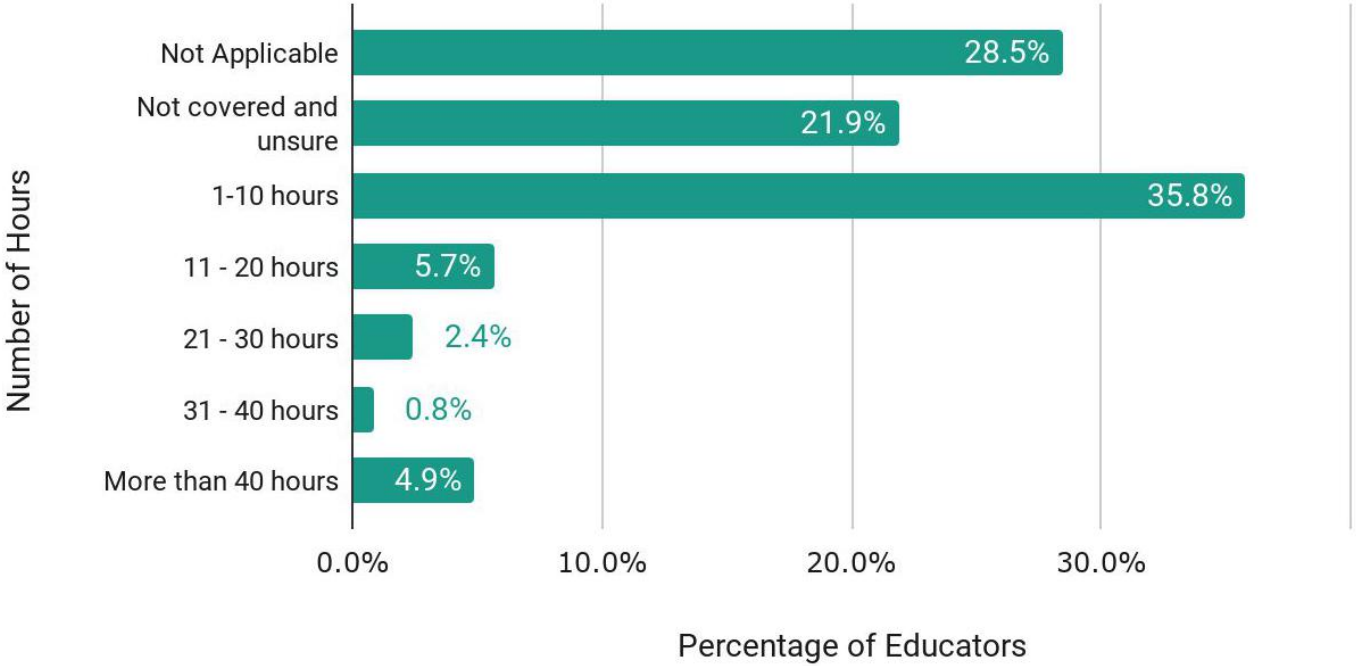
Student agreement is almost 20% lower in the Atlantic provinces compared to the national results (57% - 38%).

NATIONAL - How many hours over a school year/semester would you typically spend covering topics related to climate change in your classroom



n= 1231 (Educator OS = 1120, Educator CS = 111)

ATLANTIC - How many hours over a school year/semester would you typically spend covering topics related to climate change in your classroom



n=134 (Educators OS)

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

National

When asked how many hours in a semester or year educators focus on climate change, 23% of the open-sample and 26% of closed-sample educators indicated that they do not cover climate change, while 20% of the open-sample, and 38% of the closed-sample educators reported that climate change is not applicable to the grade/subject they teach. 34% of the open-sample and 25% of the closed-sample educators spend 1 to 10 hours of instruction per year or semester focused on teaching climate change. For what has become the defining issue of the 21st century, classroom instruction time focused on climate change is minimal in most cases.

Overall, 35% of closed-sample educators reported spending at least some time teaching about climate change. This compares with the American NPR/IPSOS poll from March of 2019, which found that 42% of teachers teach about climate change (Kamenetz, 2019).

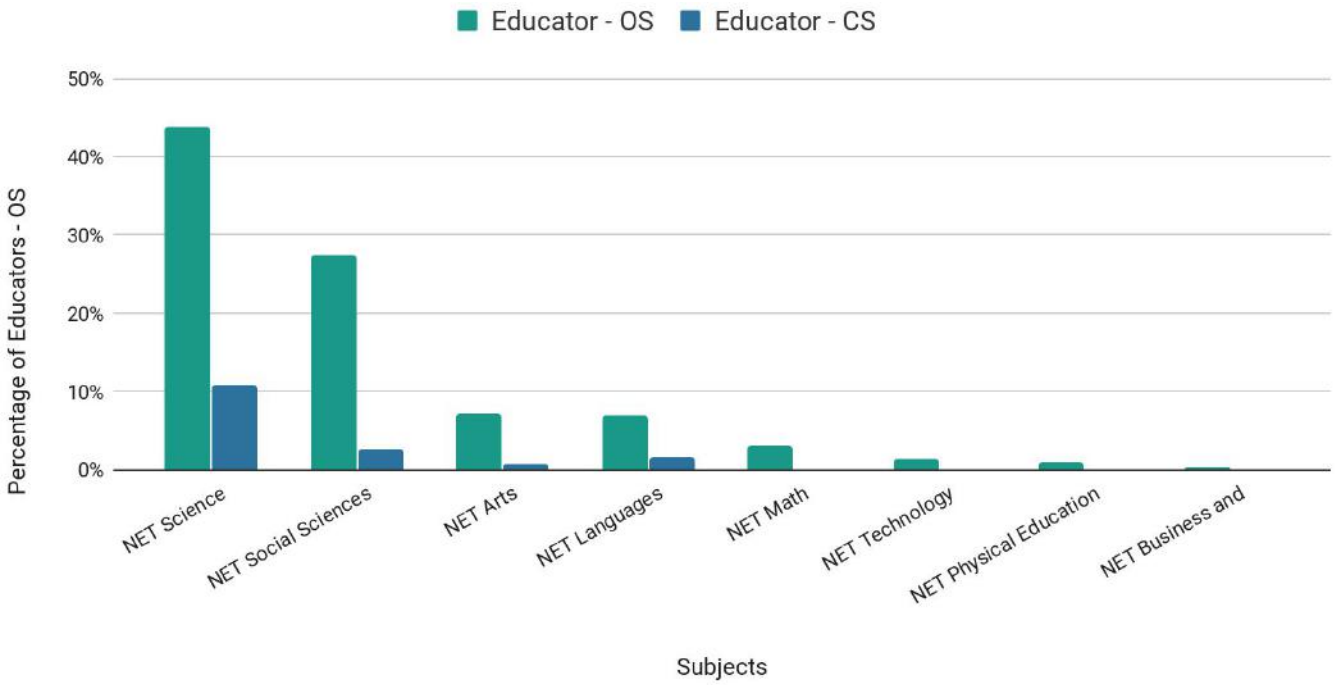
Atlantic

A large number of teachers across the Atlantic provinces either reported not covering climate change in their classrooms, being unsure about their coverage or responded N/A when asked about climate change coverage (50%). When looking at the educators that did include climate change instruction at all (50%), 36% of them only reported teaching between 1-10 hours per year/semester. A small number of teachers reported teaching over 40 hours (5%).

Notable differences

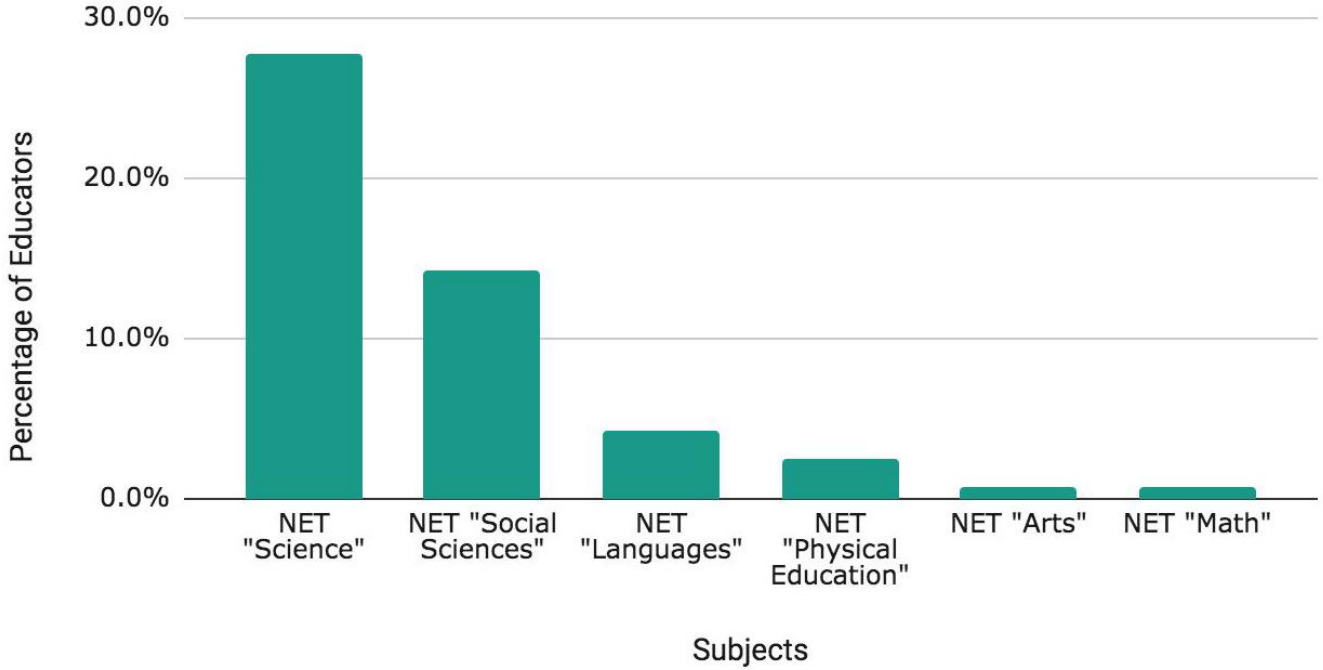
Results appear fairly consistent with national results

NATIONAL - Do you cover climate change topics in any of the subjects that you teach? If yes, which subjects?



n= 1231 (Educator OS = 1120, Educator CS = 111)

ATLANTIC - Do you cover climate change topics in any of the subjects that you teach? If yes, which subjects?



n=134 (Educators OS)

Do you cover climate change topics in any of the subjects that you teach? If yes, which subjects?

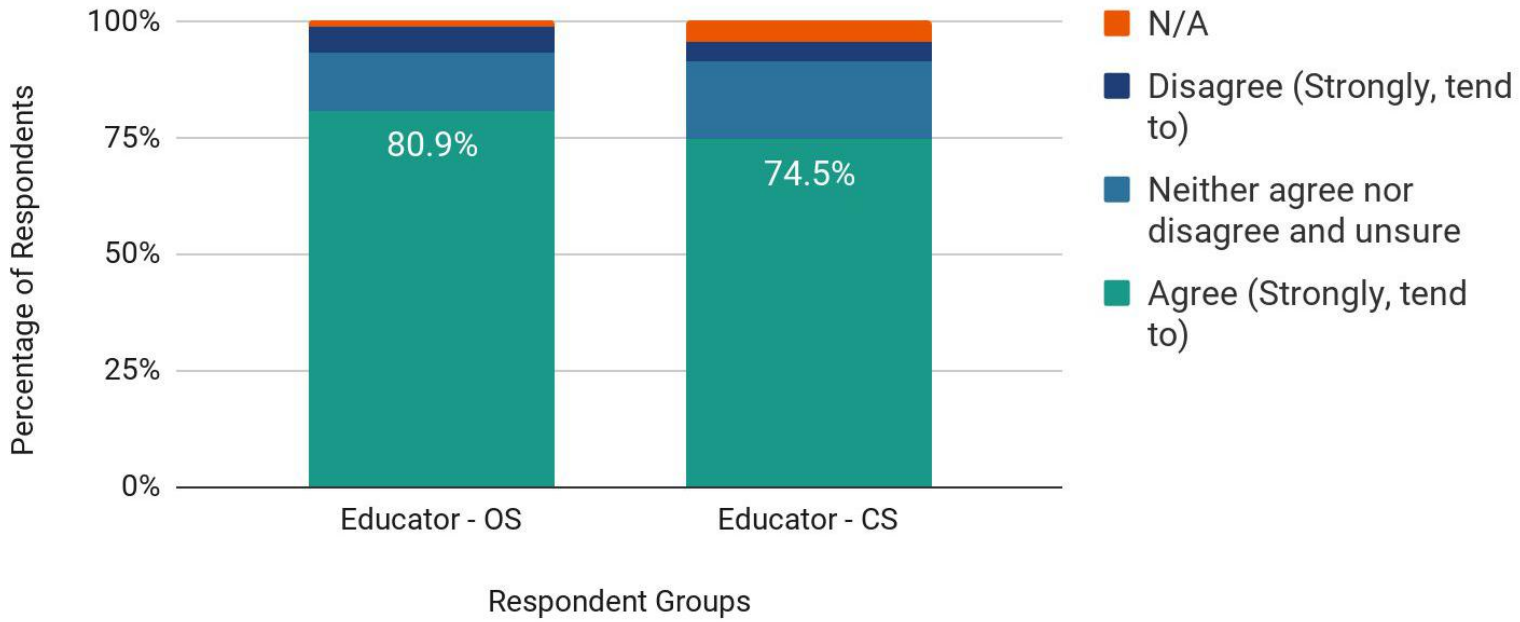
National

Science-related subjects were the most chosen by both open-sample and closed-sample educators as the places in which teachers most often integrate climate change topics, followed by social sciences. The arts, languages, math, technology, physical education, and business and economic courses were the least named, if named at all.

Atlantic

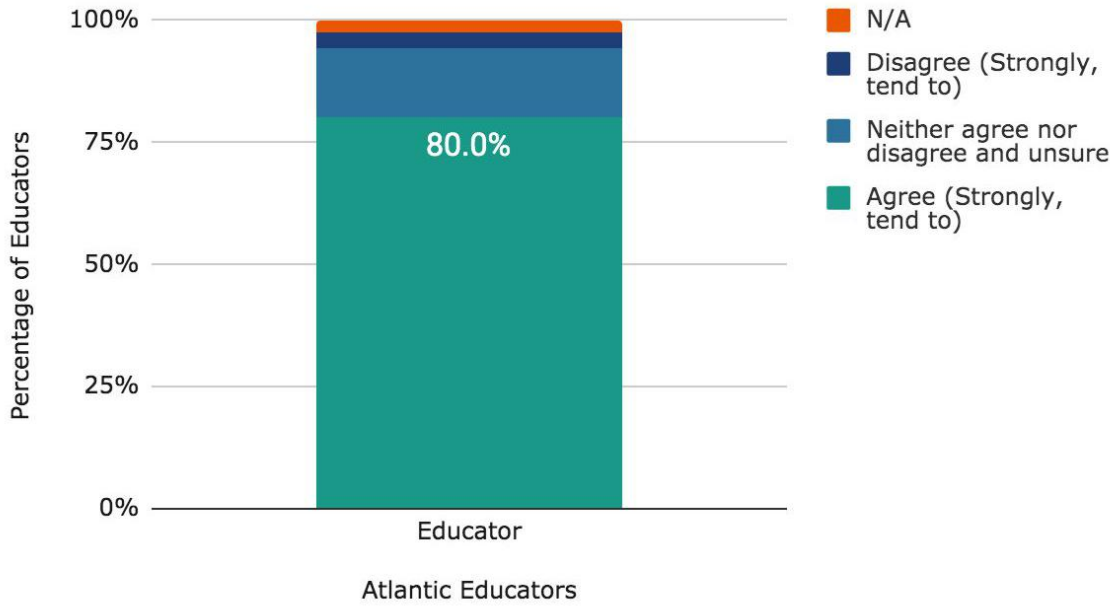
Educators in the Atlantic provinces painted a similar picture of the subjects that climate change is integrated into compared to the National results, with science subjects selected most, followed by social science.

NATIONAL - I believe climate change education is the role of all teachers



n= 1231 (Educator OS = 1120, Educator CS = 111)

ATLANTIC - I believe climate change education is the role of all teachers



n=134 (Educators OS)

I believe climate change education is the role of all teachers

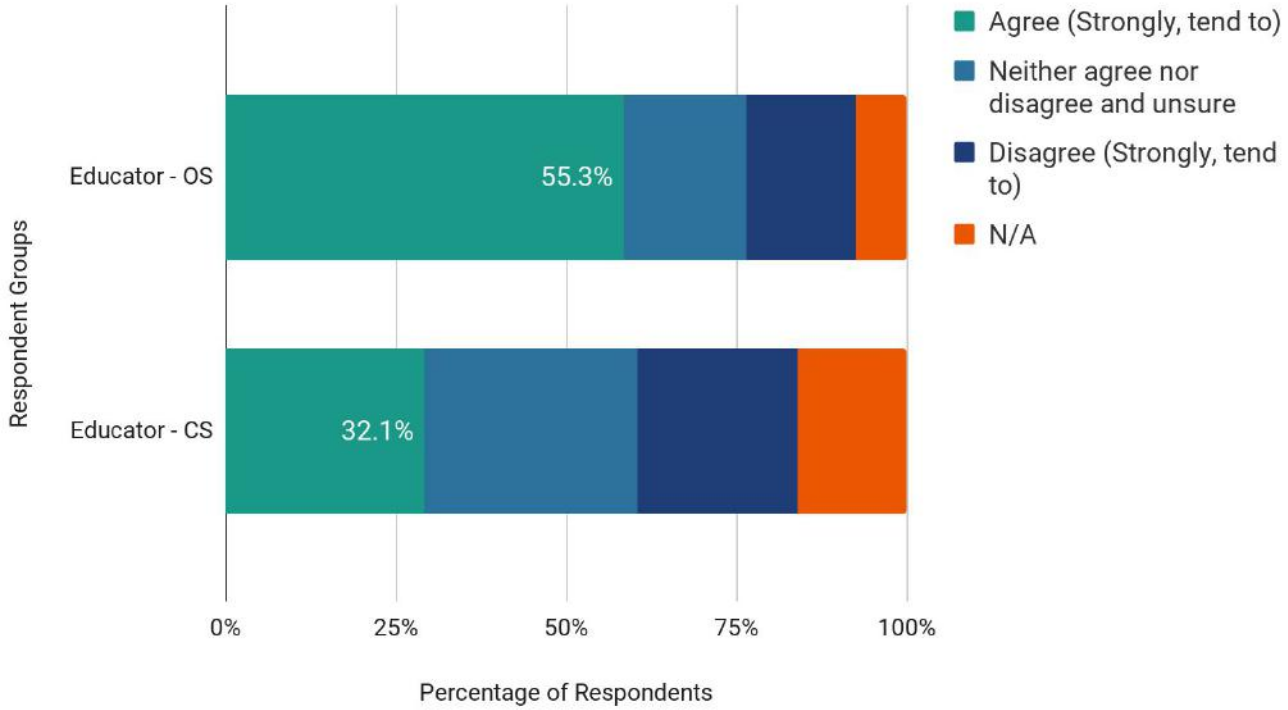
National

75% of closed-sample educators and 81% of open-sample educators believe that climate change education is the role of all teachers.

Atlantic

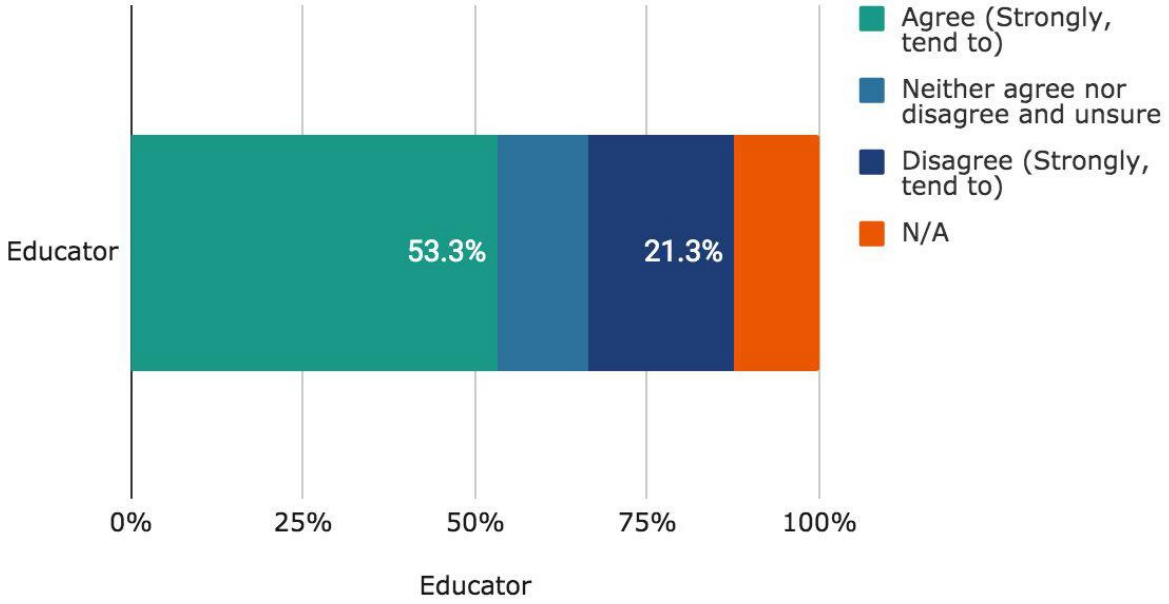
80% of educators in the Atlantic region agree that climate change is the role of all teachers.

NATIONAL - I feel I have the knowledge and skills needed to teach climate change education to my students.



n= 1231 (Educator OS = 1120, Educator CS = 111)

ATLANTIC - I feel I have the knowledge and skills needed to teach climate change education to my students.



n=134 (Educators OS)

I feel I have the knowledge and skills needed to teach climate change education to my students.

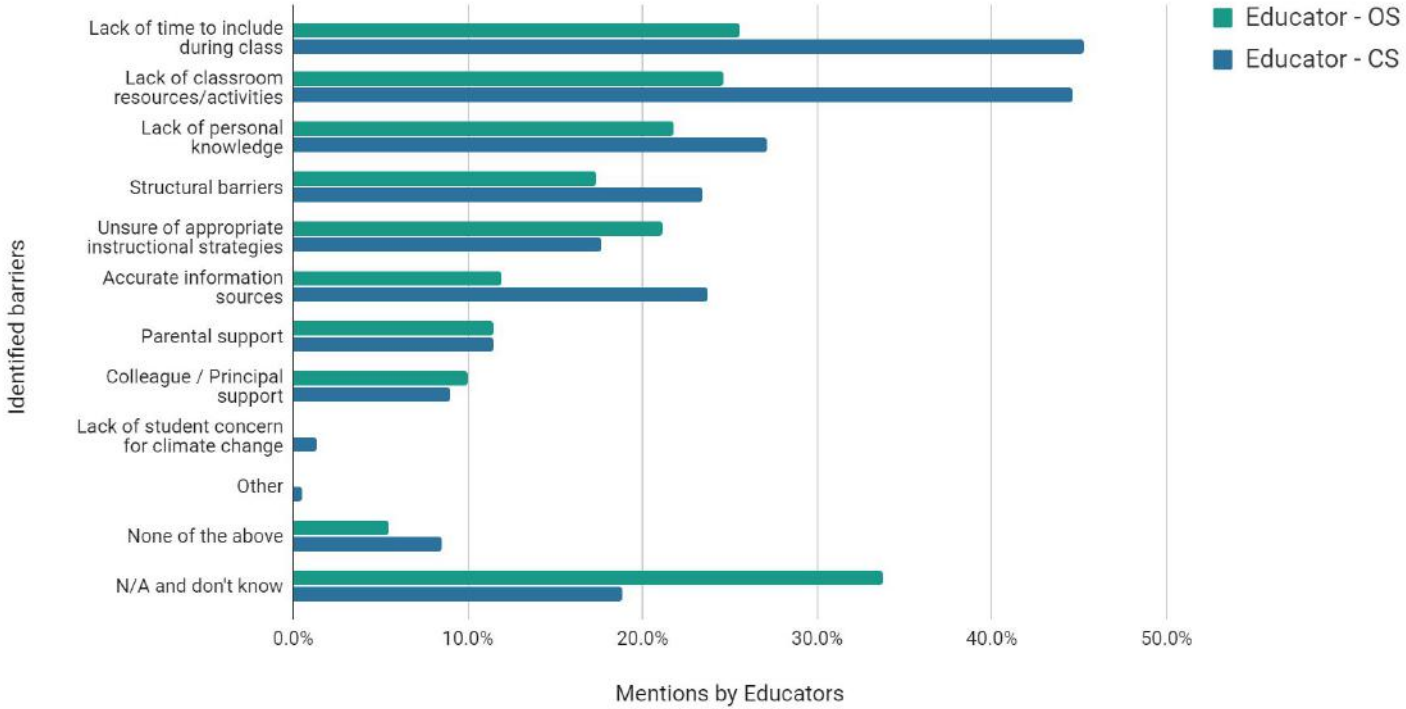
National

There is a disparity between educators' level of preparedness for teaching climate change. Over half of open-sample educators (55%) indicated feeling prepared, compared to less than one-third of closed-sample educators (32%).

Atlantic

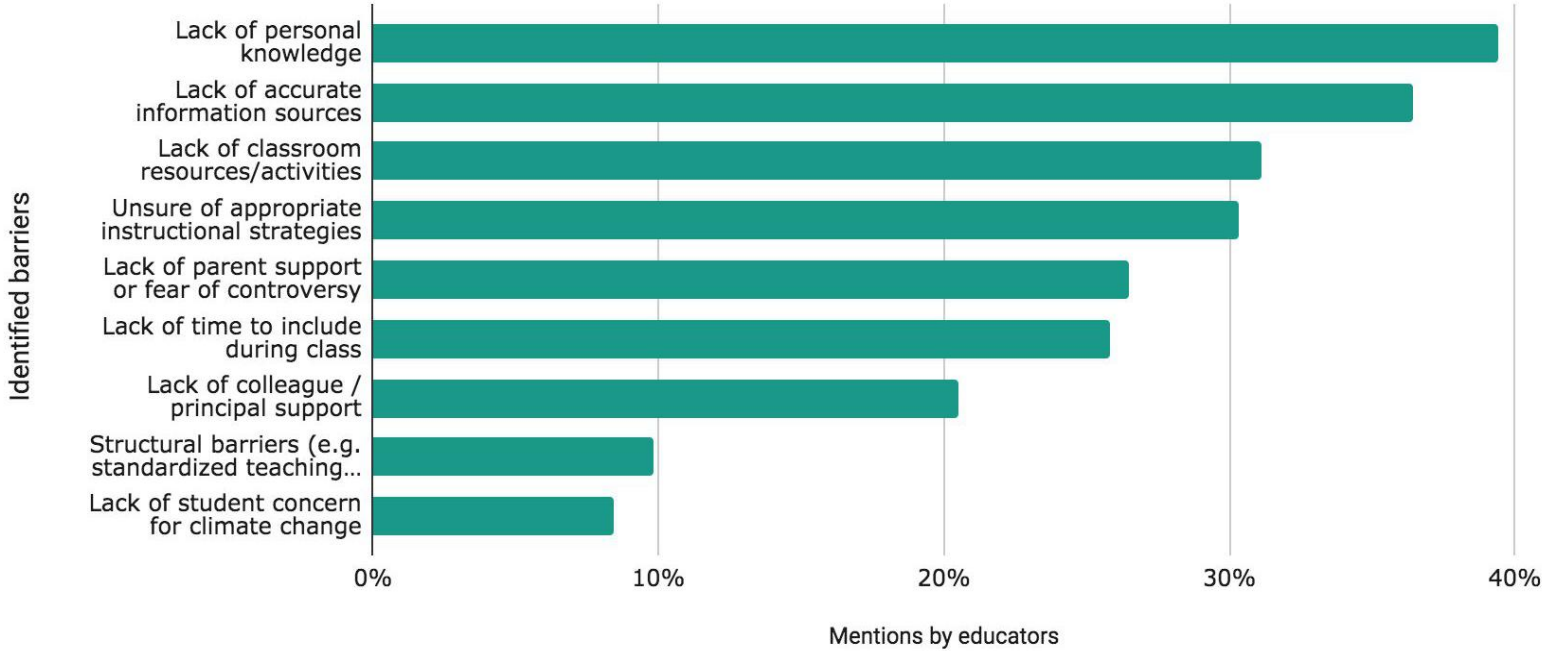
54% of teachers in the Atlantic region indicate feeling prepared with the knowledge and skills to teach climate change.

NATIONAL - What are some of the barriers you have experienced when attempting to include climate change education into your classroom?



n=1231 (Educator OL = 1120, Educator CL = 111)

ATLANTIC - What are some of the barriers you have experienced when attempting to include climate change education into your classroom?



n=134 (Educators OS)

What are some of the barriers you have experienced when attempting to include climate change education into your classroom?

National

Presented with a list of choices, the largest barrier that educators reported when attempting to include climate change education in classrooms was “lack of time”, followed by “lack of classroom resources”, and “lack of personal knowledge” by both open-sample and closed-sample educators. Parental, colleague, or principal support, or lack of student concern about climate change were not identified as barriers by a small percentage of educators.

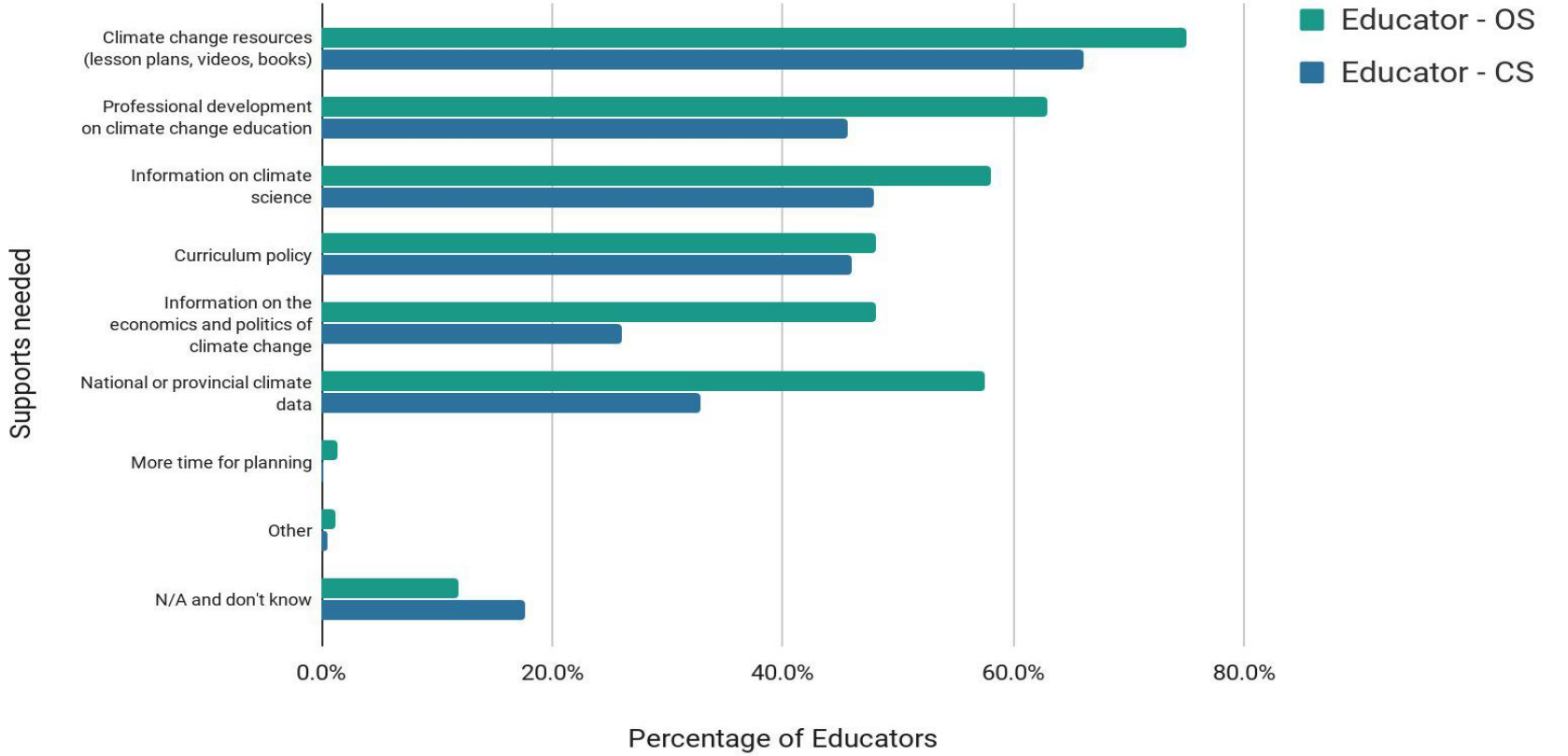
Atlantic

The largest barrier cited by educators in the Atlantic region was lack of personal knowledge, followed by lack of accurate information sources, and then lack of classroom resources/ activities. Structuralized barriers and lack of student concern were only identified as barriers for inclusion by a small number of educators (below 10%).

Notable differences

The largest national barrier: lack of time, only came out in the Atlantic region as 6th most identified. As well, in the national results, lack of parental support/fear of controversy was hardly chosen, compared to the Atlantic results where it was the 5th most identified barrier.

NATIONAL - What support(s) do you need to teach climate change in your subjects?



n=1231 (Educator OL = 1120, Educator CL = 111)

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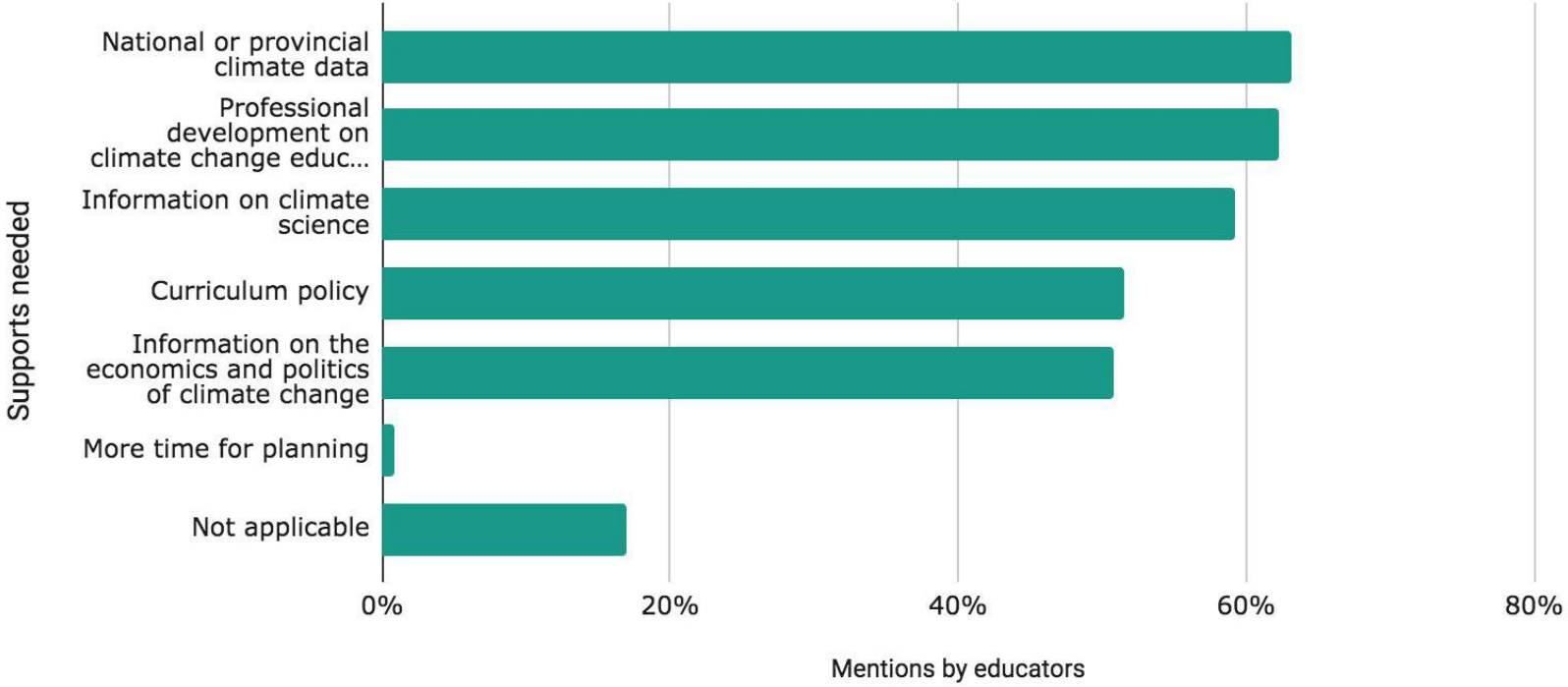


n=134 (Educators OS)

What support(s) do you need to teach climate change in your subjects?

National

Presented with a list of possible choices of supports educators might need to teach climate change in their subjects, climate change resources (including lesson plans, videos and books) were the most chosen, followed by professional development on climate change education, information on climate science, curriculum policy, information on the economics and politics of climate change, and national/provincial climate data. Least noted was time for planning.

Atlantic

The most selected option among resources to support climate education in the Atlantic region was national or provincial data, followed by professional development on climate change education and then information on climate science.

Notable differences

National or provincial data did not make the top three most requested supports for national data, but was the most requested support within the Atlantic region.

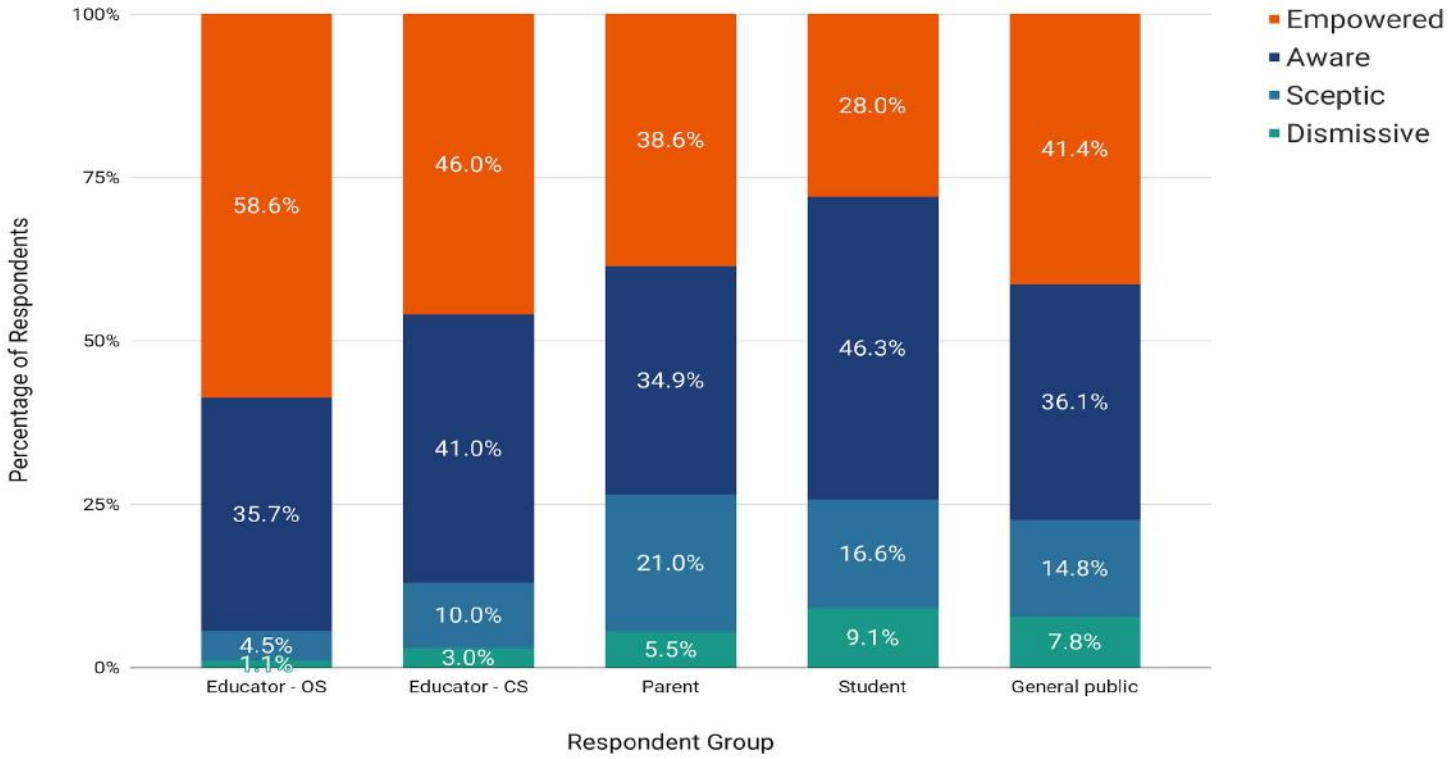
Ladder of Engagement: Overview

EcoAnalytics put forward a Canadian ladder of engagement. The map is comprised of four audiences: *dismissive*, *sceptics*, *aware, and empowered*. We chose to apply the ladder of engagement to segmented groups to create a clearer picture of how Canadians perceive and engage with climate change at a broad level.

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

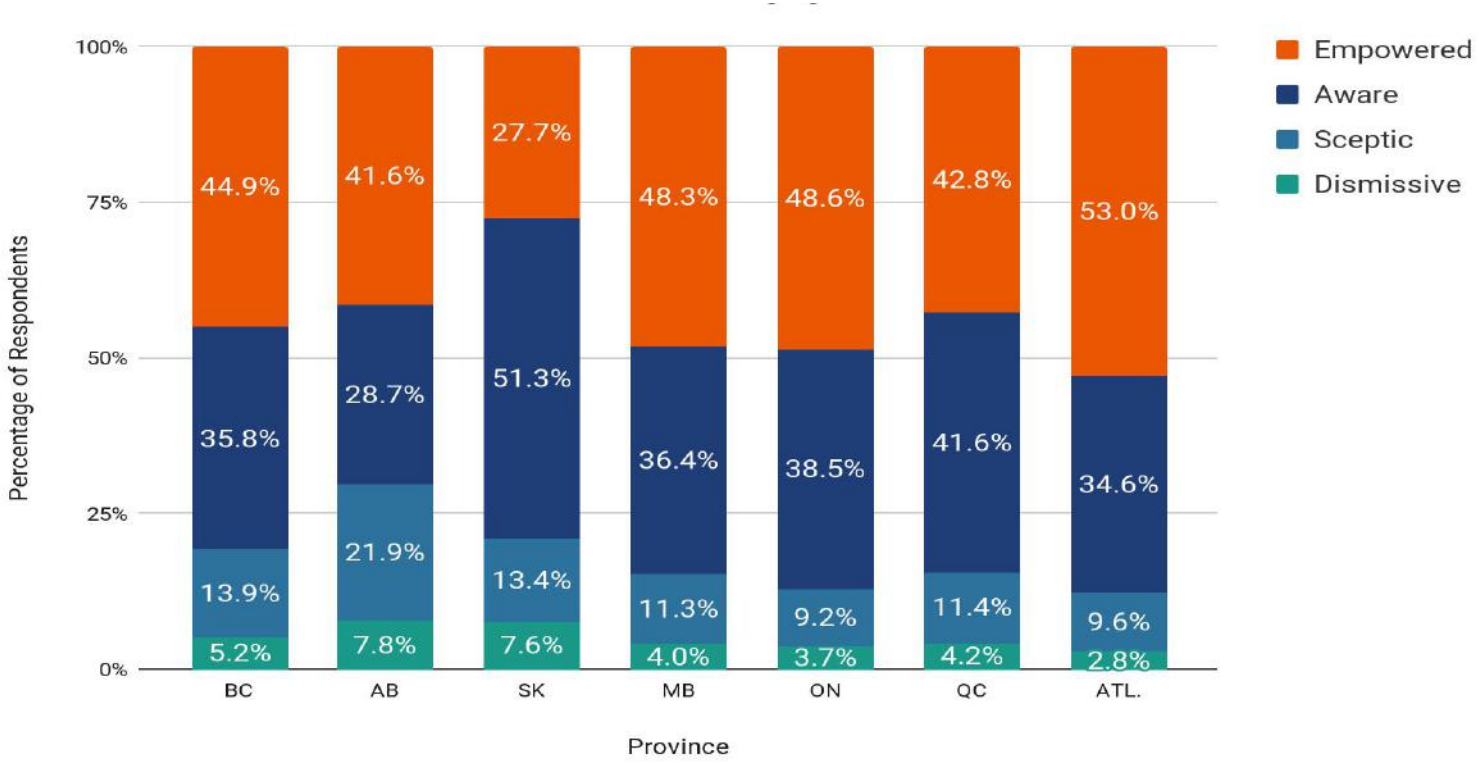
"In reality, the engagement process is non-linear, but for analytical purposes it helps to present groups of Canadians in a ranking from least to most likely to be "engaged" (Ecoanalytics, 2016).

Ladder of Engagement: National Overview



n=3196 (Educator OS = 1120, Educator CS = 111, Parent CS = 571, Student CS= 486, General public = 908)

Ladder of Engagement: Provincial Breakdown



n=2180 (BC=196, AB=160, SK=73, MB=70, ON=749, QC=814, ATL=118)

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