



# Ontario Science Centre Canadian Science Attitudes Research

July 6, 2018

**Leger**



# METHODOLOGY

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## QUANTITATIVE RESEARCH INSTRUMENT

An online survey of 1501 Canadians was completed between June 18 and 26, 2018, using Leger's online panel.

The margin of error for this study was +/-2.5%, 19 times out of 20.

## COMPARISON DATA

Where applicable, this year's results have been compared back to a similar study done in 2017 (*OSC Canadian Science Attitudes Research*, August 2017). The use of arrows (↓↑) indicate significant changes between the two datasets.

## ABOUT LEGER'S ONLINE PANEL

Leger's online panel has approximately 450,000 members nationally and has a retention rate of 90%.

## QUALITY CONTROL

Stringent quality assurance measures allow Leger to achieve the high-quality standards set by the company. As a result, its methods of data collection and storage outperform the norms set by WAPOR (The World Association for Public Opinion Research). These measures are applied at every stage of the project: from data collection to processing, through to analysis. We aim to answer our clients' needs with honesty, total confidentiality, and integrity.



## KEY FINDINGS

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## COMPARED TO 2017, LITTLE HAS CHANGED IN 2018

The amount of Balanced, Analytical, and more Intuitive types of respondents remain similar to 2017. The same goes for things like:

- their interest levels in, and knowledge levels of, science;
- sources of science knowledge (with school staying on top despite an 8 percentage point drop);
- sources used to confirm the accuracy of scientific findings (in which scientists and professors continue to lead);
- comfort levels with the fact that scientific answers may not be definitive, can be subject to change, and can be used to support any position;
- the need for more funding for science research and education;
- the representation of women and minorities in the sciences;
- Canada's place as a leader in science research and education, and well-funded the nation is, relative to other, similar nations;
- levels of trust they have for various influencers and mediums to deliver accurate and fact-based information (where science centres and museums remain leaders); their views on how the media covers scientific issues;
- their opinions and level of concern surrounding fake news;
- their views on controversial topics like GMOs, global warming, and the spurious link between vaccinations and autism.

## THIS YEAR, WE'VE DISCOVERED THAT . . .

- 34% have science-related skills or qualifications, especially Millennials and more Balanced and Analytical types (relative to more Intuitive types). Many (43%) also know someone close to them who's working in science-related role or job, especially Millennials. This percentage jumps to 75% among those with science-related skills or qualifications themselves and tends to increase along with education levels.
- 34% participate in some form of informal science learning, such as science museums, camps, and/or fairs. Geography plays a role in participation rates, as does age, as does whether or not they possess science-related skills or qualifications, where the participation rate jumps to 60%. Household incomes levels, however, do not factor in.
- The vast majority believes that: science is contributing to an improvement in the quality of life (84%), most significant scientific discoveries have yet to be discovered (74%), and critical challenges facing the world will need to be solved by science and technology (74%). But there is a significant amount of respondents who also believe that there is a building tension between science and society in terms of going beyond humanity's needs (60%), and that society is turning a way from science in favour of ideas that lack evidence or data (54%).

# KEY FINDINGS

## THIS YEAR, WE'VE DISCOVERED THAT . . . (continued)

- Respondents are somewhat divided on whether the scientific community needs to do a better job of making scientific information understandable to the average person, or whether the onus should fall on the average person making more of an effort to understand the importance of science in today's world.
- 70% believe research in Canada is innovative, just don't ask them to name anything specific.
- With respect to science and the future, 71% believe scientific advancement will play a major role in solving future challenges. Respondents also believe that scientific advancement will likely end up solving far more problems that it will create, and that many benefits will result from future scientific and technological advancements, like safer equipment and products, and better health care.

## SCIENCE CENTRES ARE IN A UNIQUE POSITION TO EDUCATE AND SHAPE THE VIEWS OF CANADIANS

Due to high levels of trust respondents place in science centres and museums, institutions like the Ontario Science Centre are in a unique position to help society not only better appreciate and understand scientific advances, but also quell concerns and shape society's views on things like:

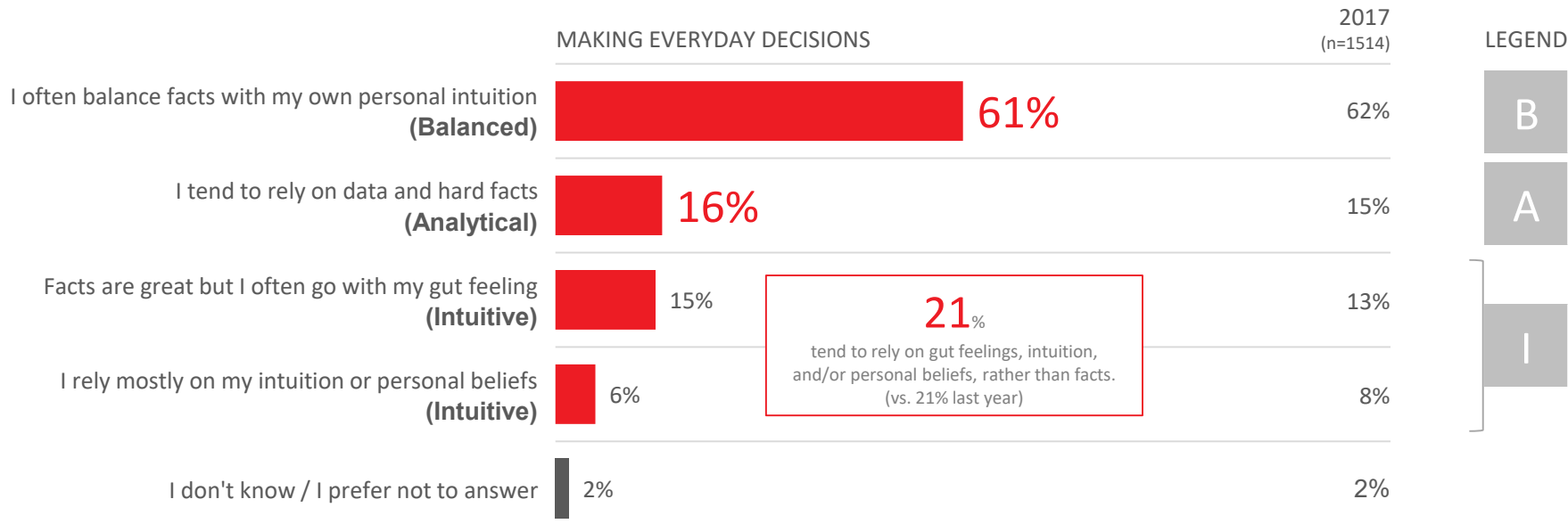
- the threat and impact of fake news on scientific inquiry, discovery, and ultimately, knowledge;
- media coverage of scientific findings;
- the perceived tension between science and society in terms of going beyond humanity's needs;
- the belief that society is turning a way from science in favour of ideas that lack evidence or data;
- fictional portrayals of scientific advancements (since nearly a third believe they've been negatively depicted)
- the apparent lack of knowledge about blockchain technology; and
- concern for things like AI and large-scale automation, even though many believe these things could go a long way to improving society.

# DETAILED RESULTS

RELATIONSHIP WITH SCIENCE

# FOR MOST, DECISION-MAKING REMAINS A BALANCE BETWEEN FACT AND PERSONAL INTUITION

Like last year, however, Canadians are slightly more likely to be intuitive (21%) decision-makers than analytical (16%) ones.



0001 Which of the following best describes how you make decisions in your everyday life?

Base: All (n=1501).



# FOR MOST, DECISION-MAKING REMAINS A BALANCE BETWEEN FACT AND PERSONAL INTUITION

Demographically, Balanced, Analytical, and Intuitive types are . . .

## MAKING EVERYDAY DECISIONS

I often balance facts with my own personal intuition  
**(Balanced)**



... **more likely to:**

- be from the RoC\* (63%), rather than Quebec (54%),
- be college or university educated (66%),
- consider themselves science literate (66%), and
- want to know more about science (64%).

I tend to rely on data and hard facts  
**(Analytical)**



... **more likely to:**

- be men (21%),
- be university educated (21%),
- participate in informal science learning (21%), and
- have science-related skills or qualifications (21%).

Facts are great but I often go with my gut feeling  
**(Intuitive)**



**21%**  
tend to rely on gut feelings, intuition, and/or personal beliefs, rather than facts. (vs. 21% last year)

I rely mostly on my intuition or personal beliefs  
**(Intuitive)**



... **more likely to:**

- be women (25%),
- hail from Quebec (27%), rather than the RoC\* (19%), and
- have a high school education or less (30%).

...**less likely to:**

- consider themselves science literate (15%)
- want to know more about science (18%)
- participate in informal science learning (17%), and
- have science-related skills or qualifications (14%)

I don't know / I prefer not to answer 2%

0001 Which of the following best describes how you make decisions in your everyday life?

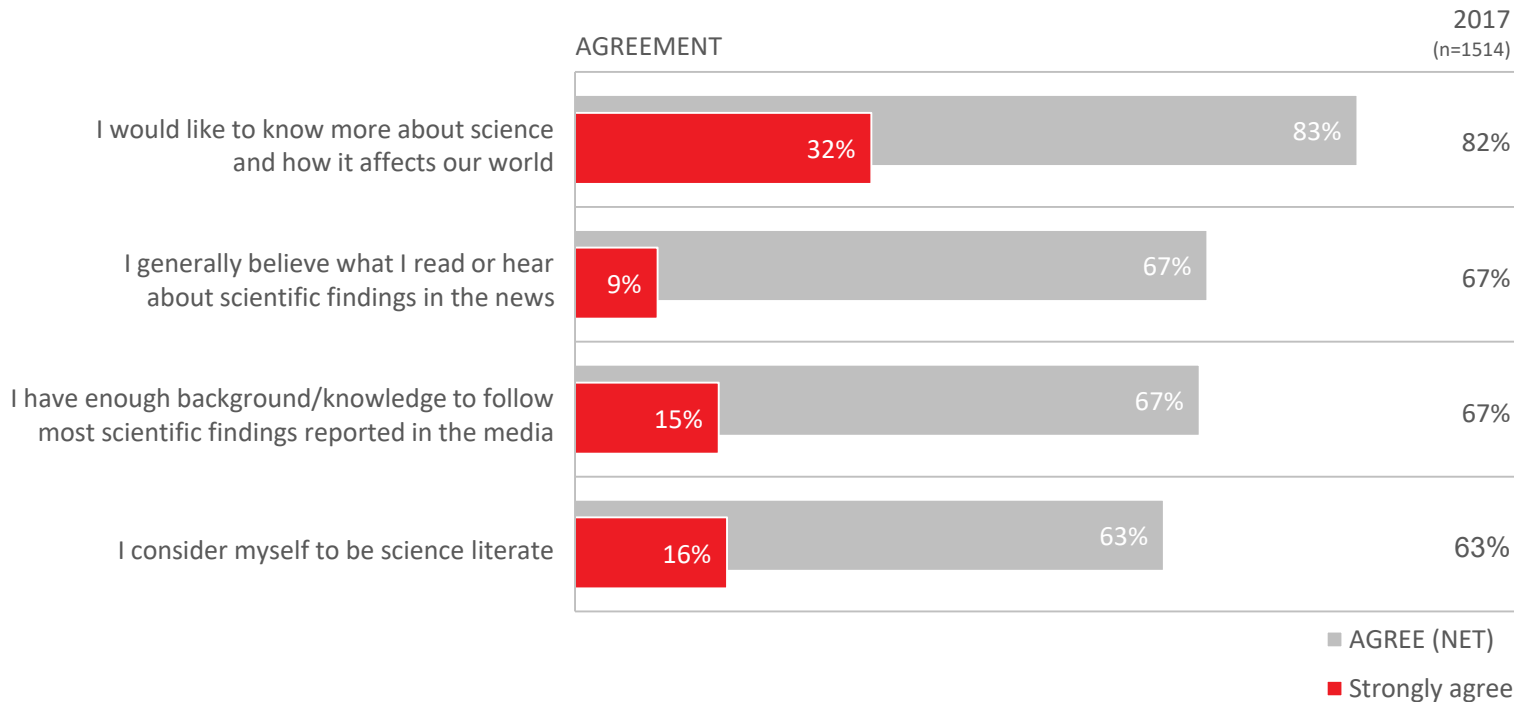
Base: All (n=1501).

\* RoC = The rest of Canada (i.e. all provinces except Quebec).

# EIGHT-IN-TEN WANT TO LEARN MORE ABOUT SCIENCE!

Like last year, **six-in-ten consider themselves (a) science literate** (i.e. generally knowledgeable about recent scientific discoveries and the process that science follows), **and (b) knowledgeable enough to follow most scientific findings reported in the media** (particularly men). A similar proportion tends to believe what they read or hear about reported scientific findings.

**Most of those surveyed (83%) want to learn more about science and how it affects our world**, especially B.C. residents (91%).



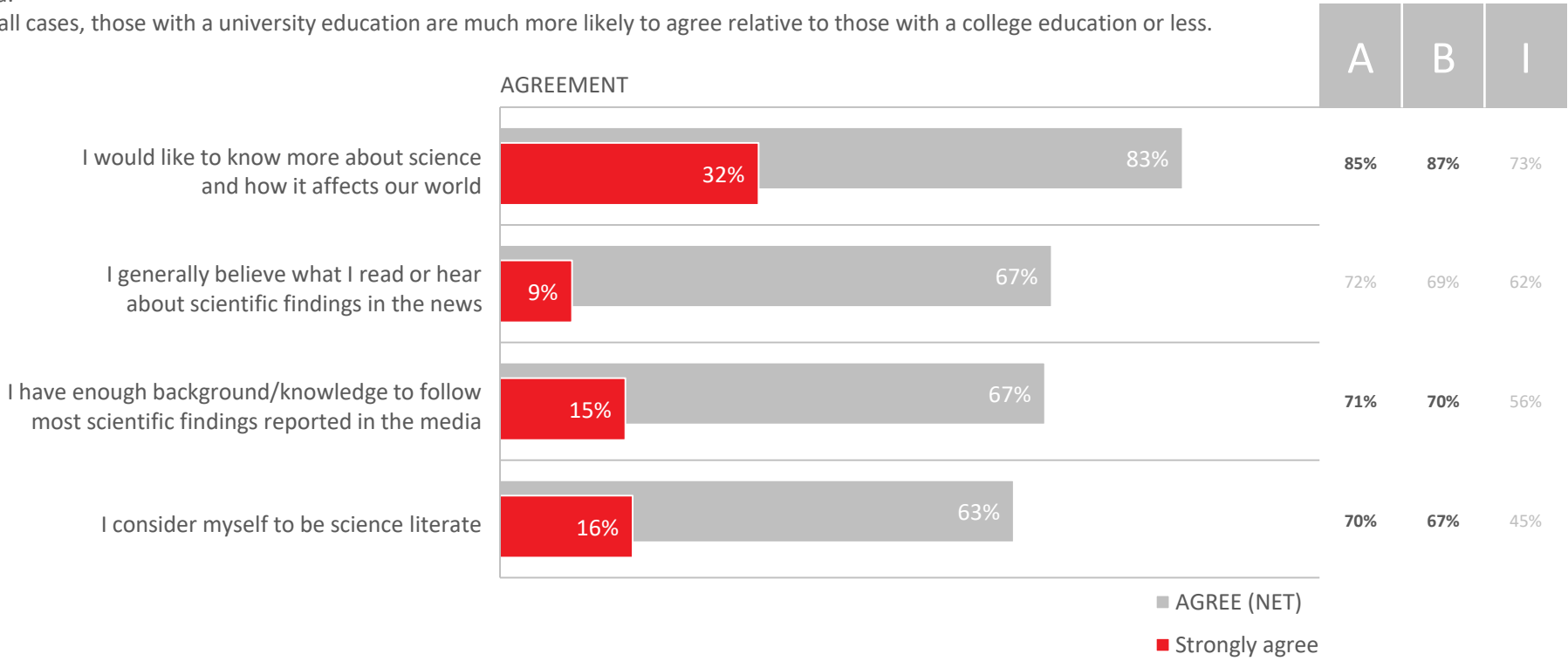
0002 To what extent do you agree or disagree with each of the following?

Base: All (n=1501).

# EIGHT-IN-TEN WANT TO LEARN MORE ABOUT SCIENCE!

Balanced and Analytical types would like to know more about science and how it affects our world (relative to more Intuitive types). Perhaps it has something to do with the fact that they tend to (a) consider themselves more scientifically literate than more Intuitive types, and (b) are more likely to believe they have the background knowledge required to follow most scientific findings reported in the media.

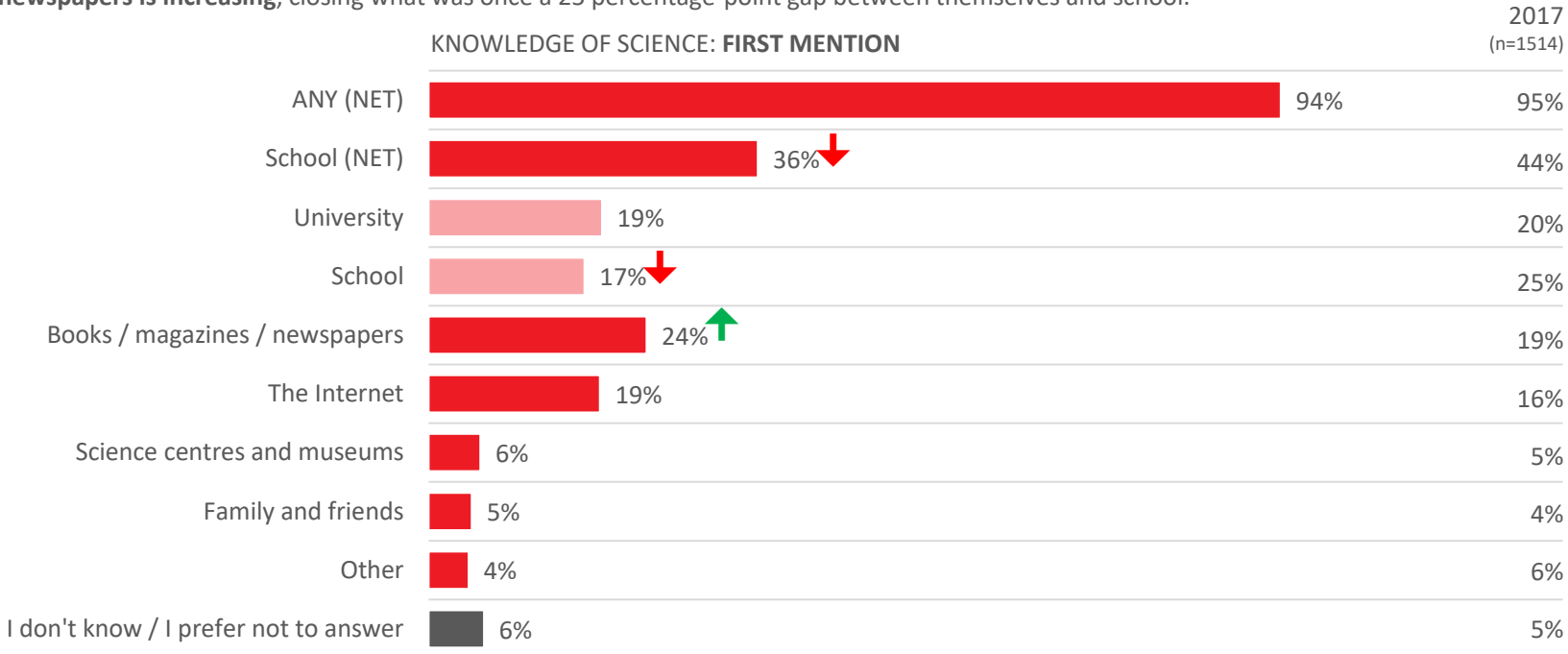
In all cases, those with a university education are much more likely to agree relative to those with a college education or less.



0002 To what extent do you agree or disagree with each of the following?  
 Base: All (n=1501).

# AS SOURCES OF SCIENCE KNOWLEDGE, BOOKS, MAGAZINES, AND NEWSPAPERS MAKE INROADS

Despite a significant drop in the percentage of respondents who indicate most of their knowledge about science comes from school, it remains the most frequently mentioned source, followed closely by books, magazines, and newspapers. In fact, the use of books, magazines, and newspapers is increasing, closing what was once a 25 percentage-point gap between themselves and school.

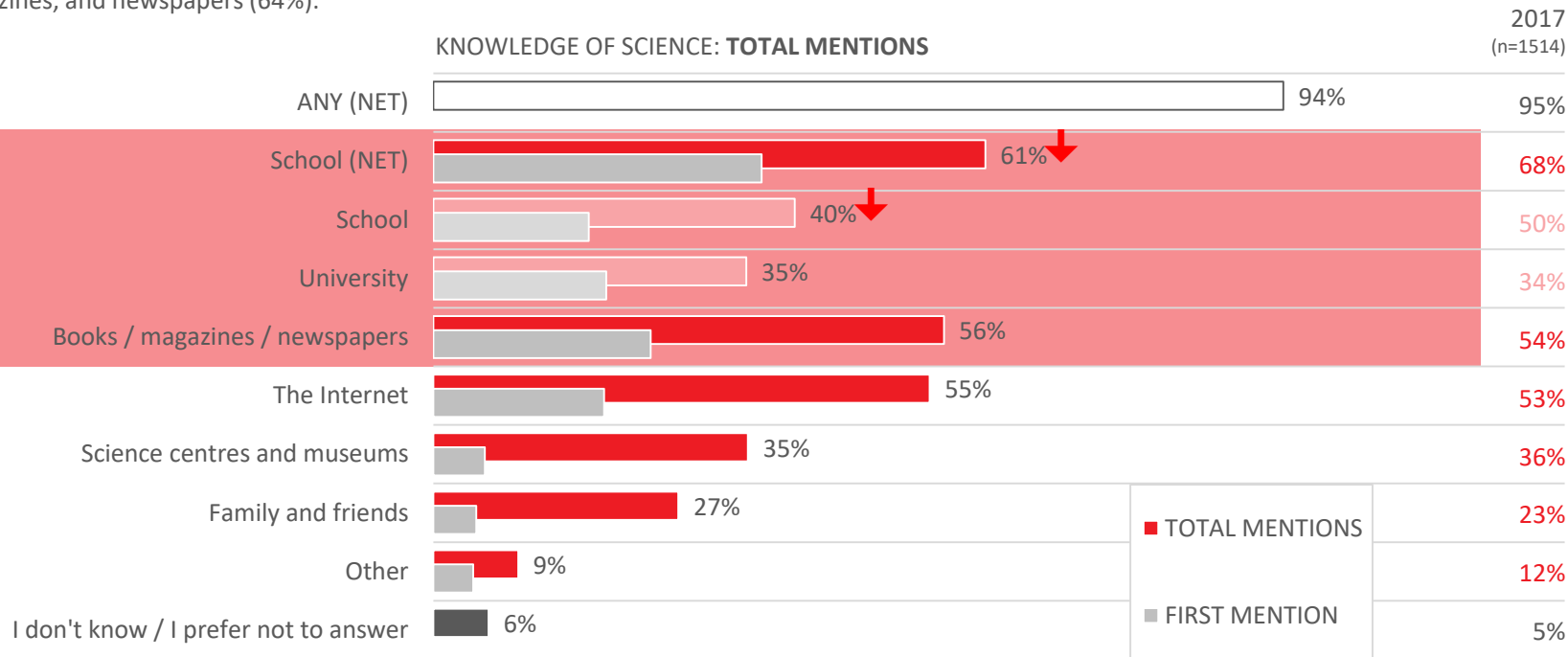


0009 Would you say your knowledge of science comes mostly from . . . ? Any others?  
 Base: All (n=1501).

# OVERALL, THERE ARE THREE MAIN SOURCES

Overall, however, there continues to be three main sources of science knowledge: school; books, magazines, and newspapers; and the Internet. Science centres and museums rank just below these. Demographically, those most likely to mention a source include Quebecers (97%), men (97%), university-educated individuals (98%), and those with science-related skills or qualifications (98%). While Millennials are most likely to mention school (76%) as well as family and/or friends (35%), older respondents 45+ are most likely to rely on books, magazines, and newspapers (64%).

TOP 3



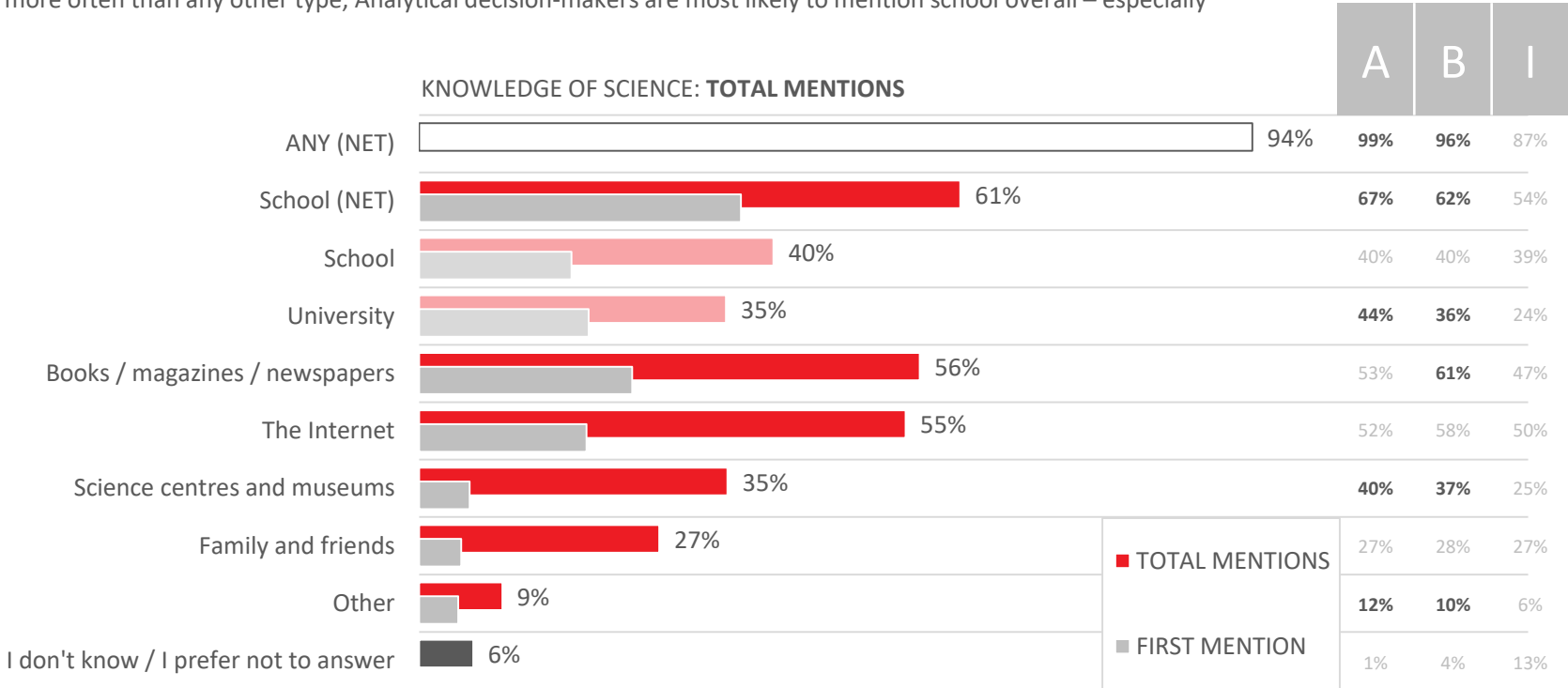
0009 Would you say your knowledge of science comes mostly from . . . ? Any others?

Base: All (n=1501).



# OVERALL, THERE ARE THREE MAIN SOURCES

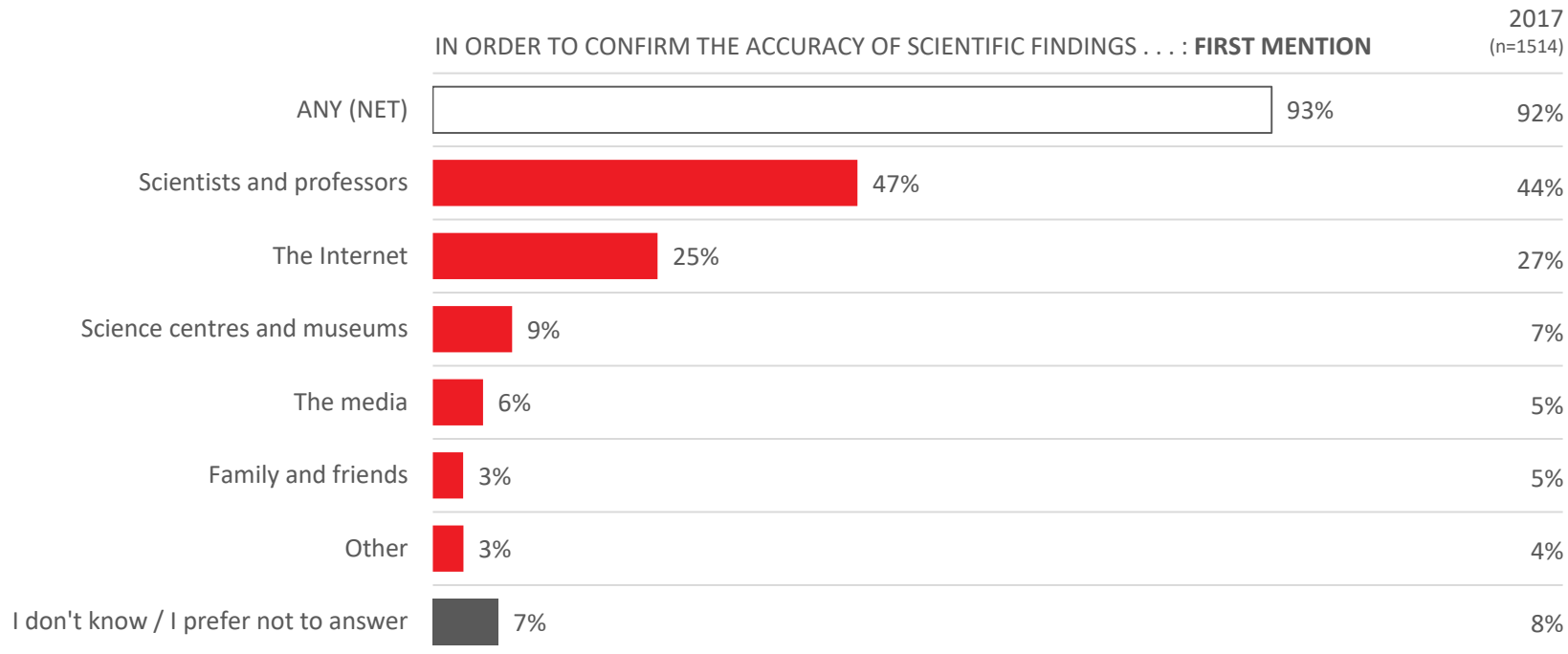
**Balanced and Analytical types are more likely to list a source than Intuitive types.** More popular sources include school overall (particularly university), as well as science centres and museums. While Balanced types are more likely to mention books, magazines, and newspapers more often than any other type, Analytical decision-makers are most likely to mention school overall – especially university.



0009 Would you say your knowledge of science comes mostly from . . . ? Any others?  
Base: All (n=1501).

# SCIENTISTS AND PROFESSORS ARE USUALLY RELIED UPON

In terms of who Canadians rely on, little has changed from last year. In order to confirm the accuracy of scientific findings, **nearly half rely on scientists and professors. Science centres and museums still rank (a distant) third.**

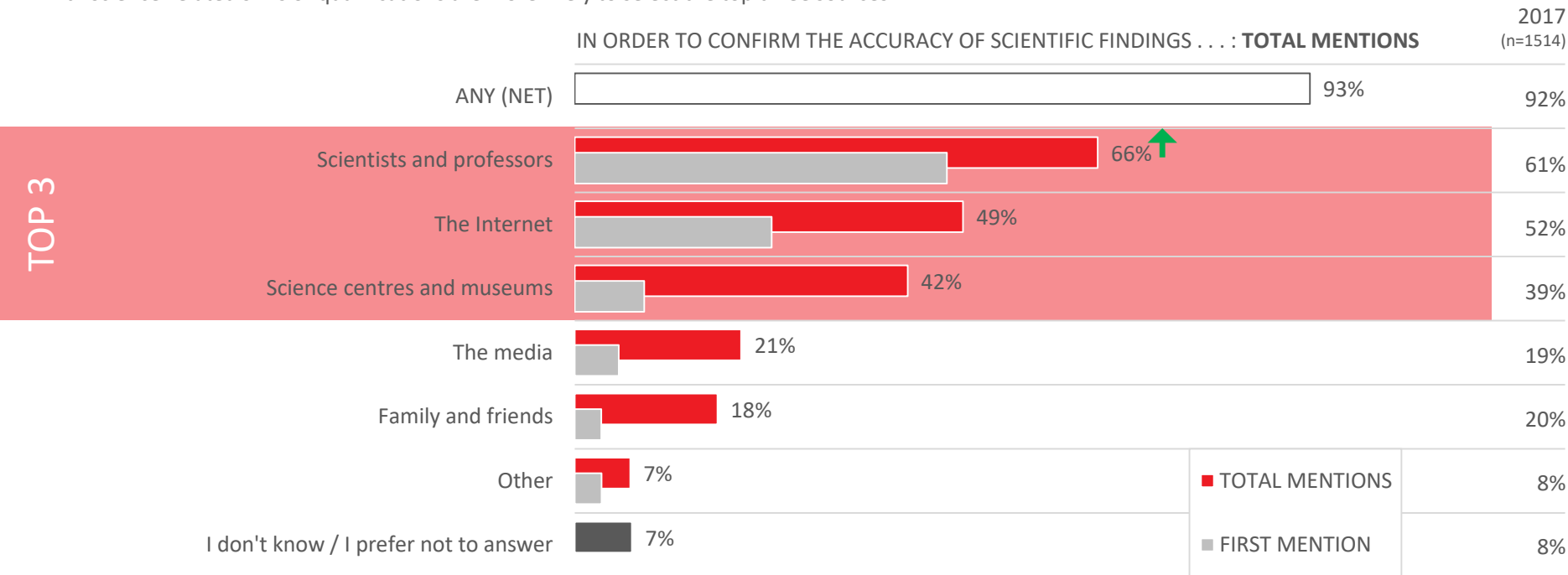


**0010** To confirm the accuracy of scientific findings, you rely on . . . ? Any others?

Base: All (n=1501).

# SCIENTISTS AND PROFESSORS ARE USUALLY RELIED UPON

Overall, reliance on scientists and professors has increased since 2017, while other sources have remained stable, re-affirming the top three sources: (1) scientists and professors, (2) the Internet, and (3) science centres and museums. Millennials tend to rely more heavily on the Internet (60% vs. nearly half that [35%] among those 35+), as do males (56% vs. 41% of women). Seniors, however, tend to rely more heavily on the media (31% vs. half that [19%] among those <65), as do Quebecers (30% vs. 19% for the RoC). Finally, those with science-related skills or qualifications are more likely to select the top three sources.



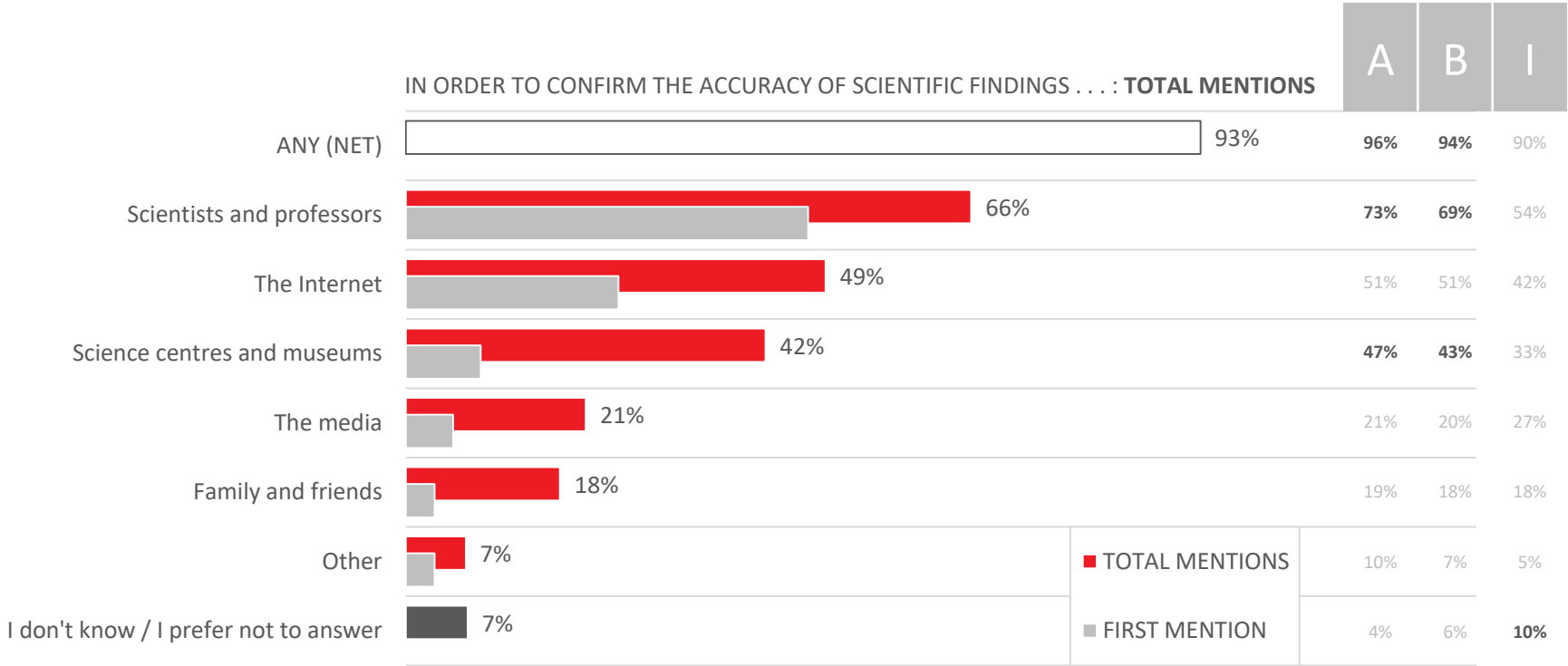
TOP 3

0010 To confirm the accuracy of scientific findings, you rely on . . . ? Any others?

Base: All (n=1501).

# SCIENTISTS AND PROFESSORS ARE USUALLY RELIED UPON

Balanced and Analytical types are more likely to rely upon any of the sources listed below (relative to more Intuitive types), especially scientists, professors, science centres, and museums. Intuitive types, on the other hand, are more likely to be unsure.



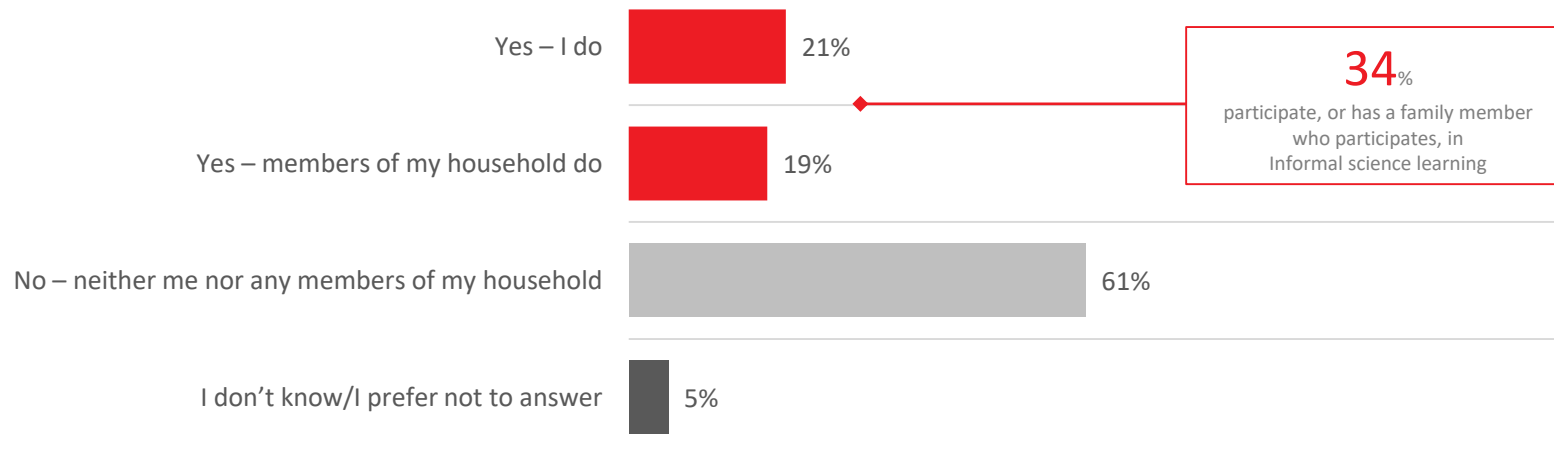
0010 To confirm the accuracy of scientific findings, you rely on . . . ? Any others?  
 Base: All (n=1501).

# 34% PARTICIPATE IN SOME INFORMAL SCIENCE LEARNING

Three-in-ten participate in some form of informal science learning, such as science museums, camps, and fairs. Perhaps due to relative ease of access, **urban and suburban residents are more likely to say yes** (36% vs. 23% among rural residents). **Participation also tends to peak among younger respondents** (41%) but declines with age (65: 25%). Millennials are more likely to be participating themselves (28% vs. 19% among those 35+), while those 35-44 are most likely to indicate that someone in their household participates (29% vs. 16% among the remaining age groups). **Among those with science-related skills or qualifications, the participation rate reaches 60%, with 49% doing so personally and 26% mentioning that someone in their household does so.** **Relative to more intuitive types, Analytical types are slightly more likely to say yes overall; they're also more likely to be participating *personally*.**

Household income does not appear to play a significant role here.

PARTICIPATION IN INFORMAL SCIENCE LEARNING



A	B	I
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28% 21% 17%

18% 20% 14%

56% 61% 67%

5% 4% 5%

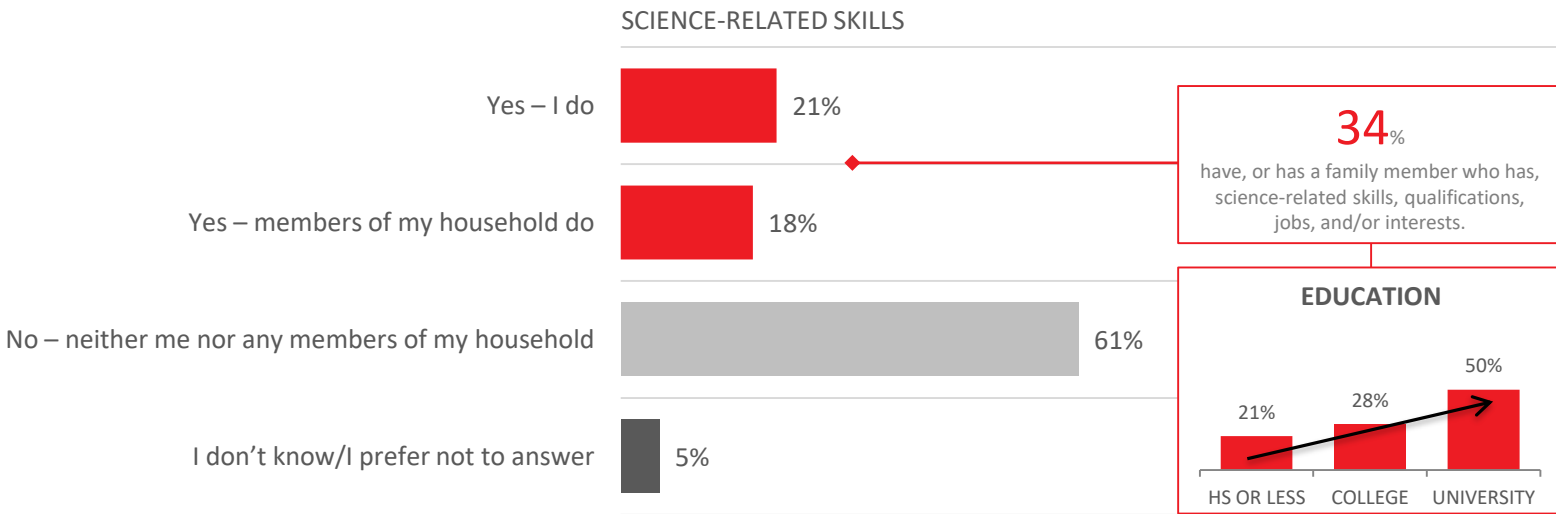
**34%**  
participate, or has a family member who participates, in informal science learning

**0023** Do you, or members of your household, participate in informal science learning, such as science museums, camps, science fairs, etc.? Base: All (n=1501).



# 34% HAVE SCIENCE-RELATED SKILLS OR QUALIFICATIONS

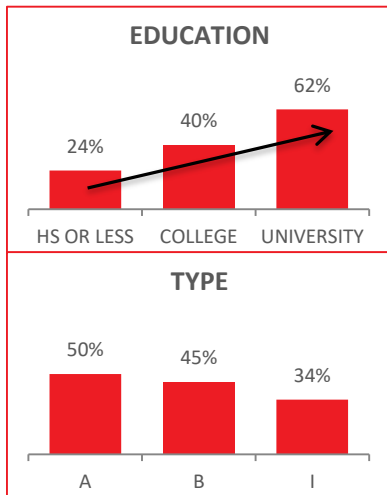
Overall, **three-in-ten** have science-related skills or qualifications. Those who *personally* have these skills or qualifications tend to be **urban** (35%) rather than rural dwellers (14%), **Millennials** (28% vs. half that [17%] among older respondents 45+), and **men** (37% vs. 30% among women). **These respondents are also nearly three times more likely to be participating in some form of informal science learning** (49% vs. 13% among those who do not). **Relative to more Intuitive types, Balanced and Analytical types are more likely to say yes overall.**



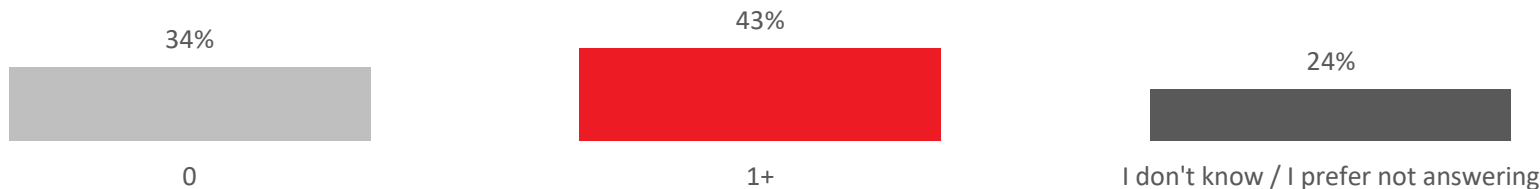
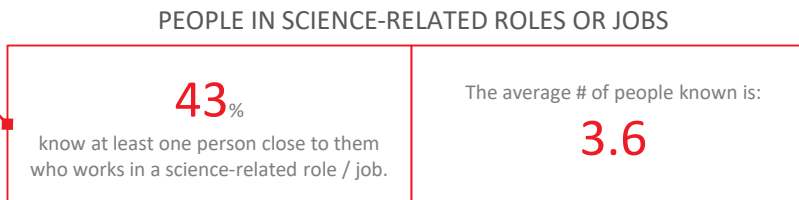
	A	B	I
Yes – I do	27%	22%	14%
Yes – members of my household do	20%	19%	13%
No – neither me nor any members of my household	53%	60%	71%
I don't know/I prefer not to answer	5%	4%	4%

**0024** Do you, or any members of your household, have science-related skills, qualifications, jobs, and interests?  
 Base: All (n=1501).

# 43% KNOW OF SOMEONE CLOSE TO THEM WHO'S WORKING IN A SCIENCE-RELATED ROLE OR JOB



Forty-three percent know someone close to them who works in a science-related role or job. This is especially true of Millennials (53%), those with science-related skills or qualifications (75% vs. roughly a third of that [27%] among those without such skills/qualifications), and tends to increase in likelihood along with one's education levels. **The average number is 3.6 people**, but averages are statistically higher among university-educated individuals (6.0), those with science-related skills or qualifications (10.4 vs. only 1.2 among without such skills/qualifications), as well as among Analytical (5.0) and Balanced types (3.8), relative to more Intuitive types (2.0).



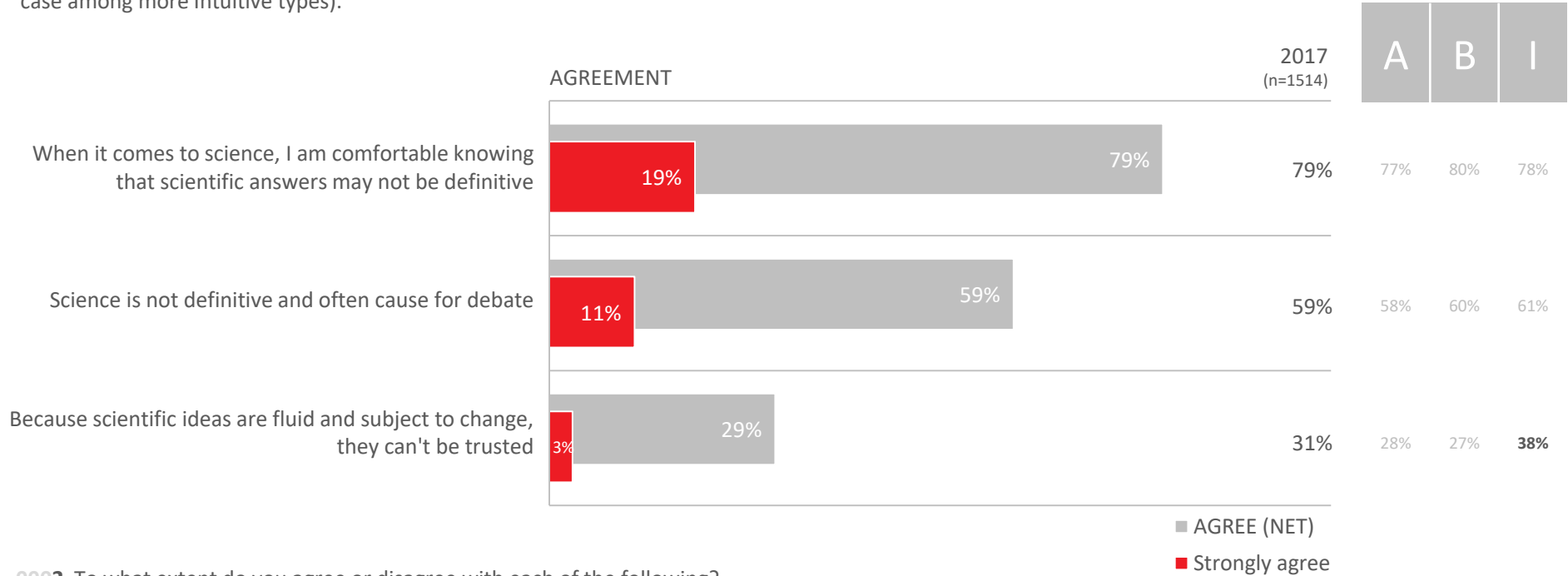
**0025** To the best of your knowledge, how many people close to you (family, friends, community circles) work in science-related roles or jobs?  
 Base: All (n=1501).

# DETAILED RESULTS

IEWS AND BELIEFS ABOUT SCIENCE

# “I AM COMFORTABLE KNOWING THAT SCIENTIFIC ANSWERS MAY NOT BE DEFINITIVE”

When it comes to science, **roughly eight-in-ten are comfortable knowing that scientific answers may not be definitive** (especially those 65+ [86%]). Though scientific answers may not be definitive, **fewer (59%), however, believe that science, as a whole, isn't definitive and often cause for debate** (though this belief is statistically higher in Quebec [66% vs. 57% for the RoC]). **Fewer still (29%) believe that due to the fluid nature of scientific ideas, they are subject to change and cannot be trusted** (though this more often the case among more Intuitive types).

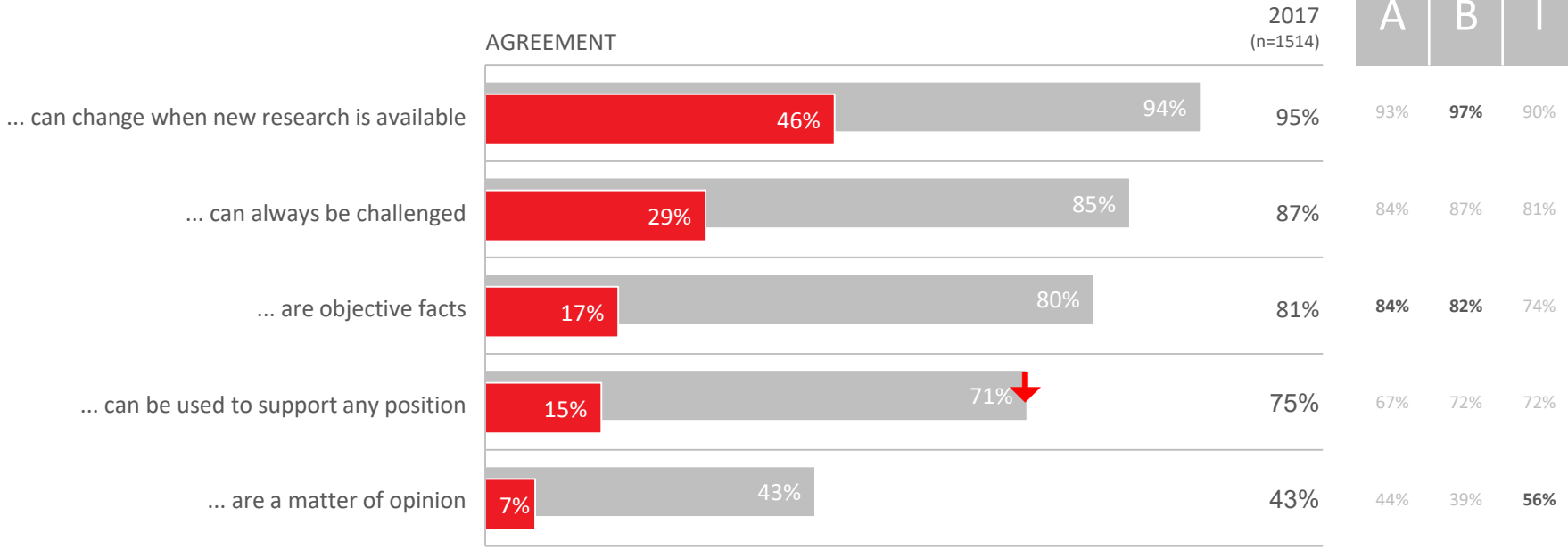


0002 To what extent do you agree or disagree with each of the following?  
 Base: All (n=1501).

# SCIENTIFIC FINDINGS ARE OBJECTIVE FACTS THAT CAN BE CHALLENGED AND CAN CHANGE IF NEW RESEARCH ARISES

Most see scientific findings as objective facts that can be challenged, but also change when newer research becomes available. Perhaps as a result of their perceived malleability, most also agree that scientific findings can end up being used to support any position.

Far fewer (43%) believe that scientific facts are simply a matter of opinion (though this is more likely among Intuitive types, relative to more Analytical or Balanced types).



0005 To what extent do you agree or disagree that scientific findings ...  
 Base: All (n=1501).

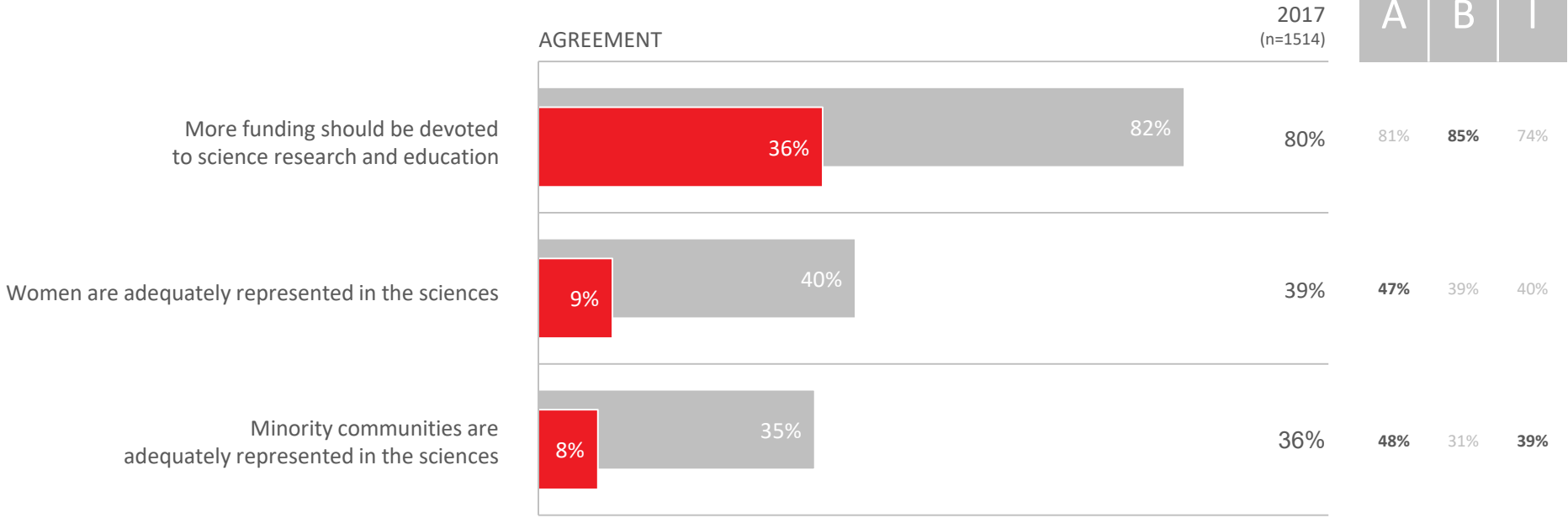
- AGREE (NET)
- Strongly agree



# SCIENCE RESEARCH AND EDUCATION NEEDS MORE FUNDING

**Eight-in-ten agree that more funding should be devoted to science research and education**, especially Balanced types (relative to more Intuitive types), as well as urban- and suburbanites (84% vs. 73% among rural residents). **About half that agrees that women and minorities are adequately represented in the sciences** (40% and 35%, respectively). This is particularly true for men as well as Millennials (when compared to older respondents 45+).

Interestingly, **each of these statements shows higher levels of agreement among those who (a) consider themselves science literate, and (b) have science-related skills or qualifications.**

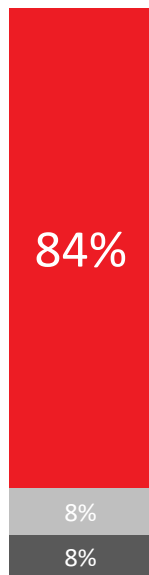


0011 To what extent do you agree or disagree with each of the following statements?  
 Base: All (n=1501).

- AGREE (NET)
- Strongly agree

# SCIENCE IS IMPROVING THE QUALITY OF LIFE.

## OPINION



■ Science is contributing to an improvement in the quality of life

■ Science is contributing to a decline in the quality of life

■ I don't know/I prefer not to answer

The vast majority believes that **science is contributing to an *improvement* in the quality of life**. This is particularly true among:

- Quebecers (92% vs. 81% for the RoC),
- urbanites and suburbanites (86% vs. 78% among rural residents),
- those 65+ (92% vs. 82% among those <65),
- those who consider themselves science literate (88% vs. 79% among those who don't),
- those with science-related skills or qualifications (89% vs. 83% among those without such skills/qualifications), and
- Analytical (85%) and Balanced types (87% vs. 76% among more Intuitive types).

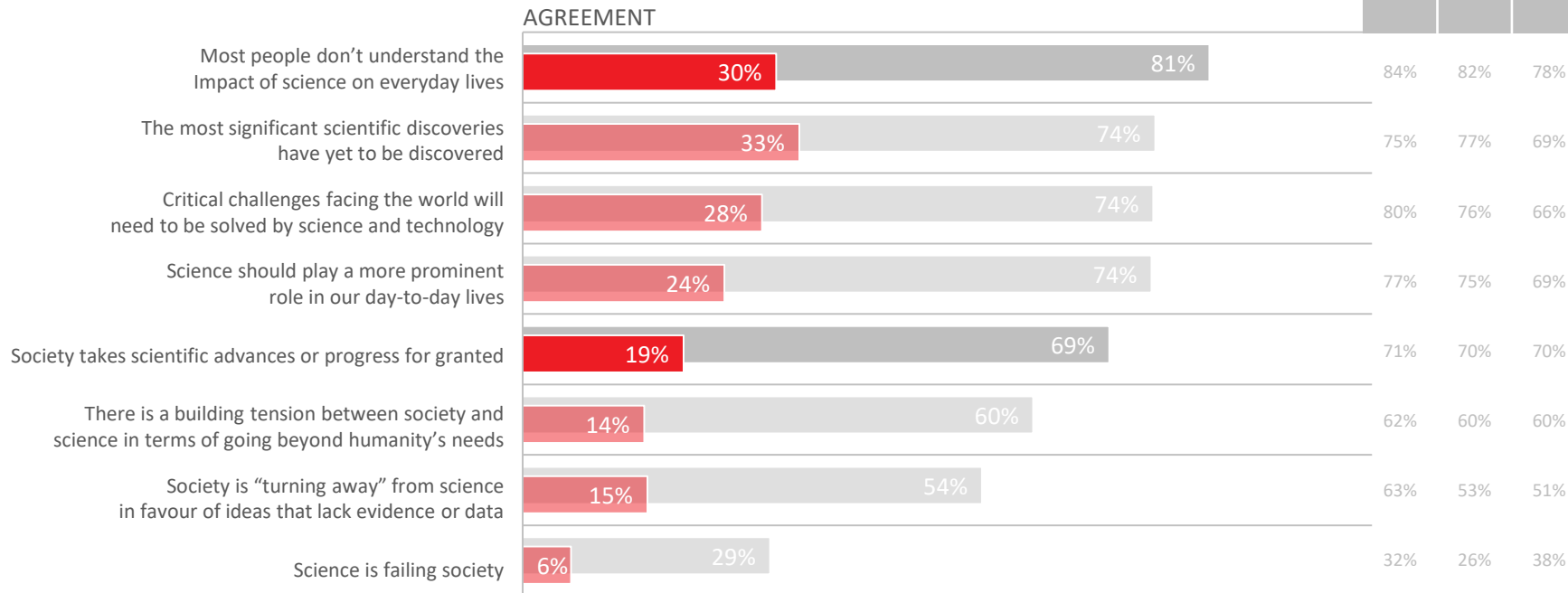
Though **only eight percent believe the opposite**, it's interesting to note that Analytical and Intuitive types are twice as likely to believe this (11% and 14%, respectively) than Balanced types (6%).

0016 Which of the following is closer to your opinion or how you feel?

Base: All (n=1501).

# MOST BELIEVE SCIENCE IS TAKEN FOR GRANTED AND PEOPLE DON'T UNDERSTAND ITS EVERYDAY IMPACT.

Respondents agree that **most people actually don't understand the impact of science on everyday lives**, and interestingly, this is a sentiment shared equally by those who (a) believe its the average person who needs to put more effort into understanding science (82%), as well as (b) those who believe the scientific community needs to do a better job at making scientific information understandable (84%).

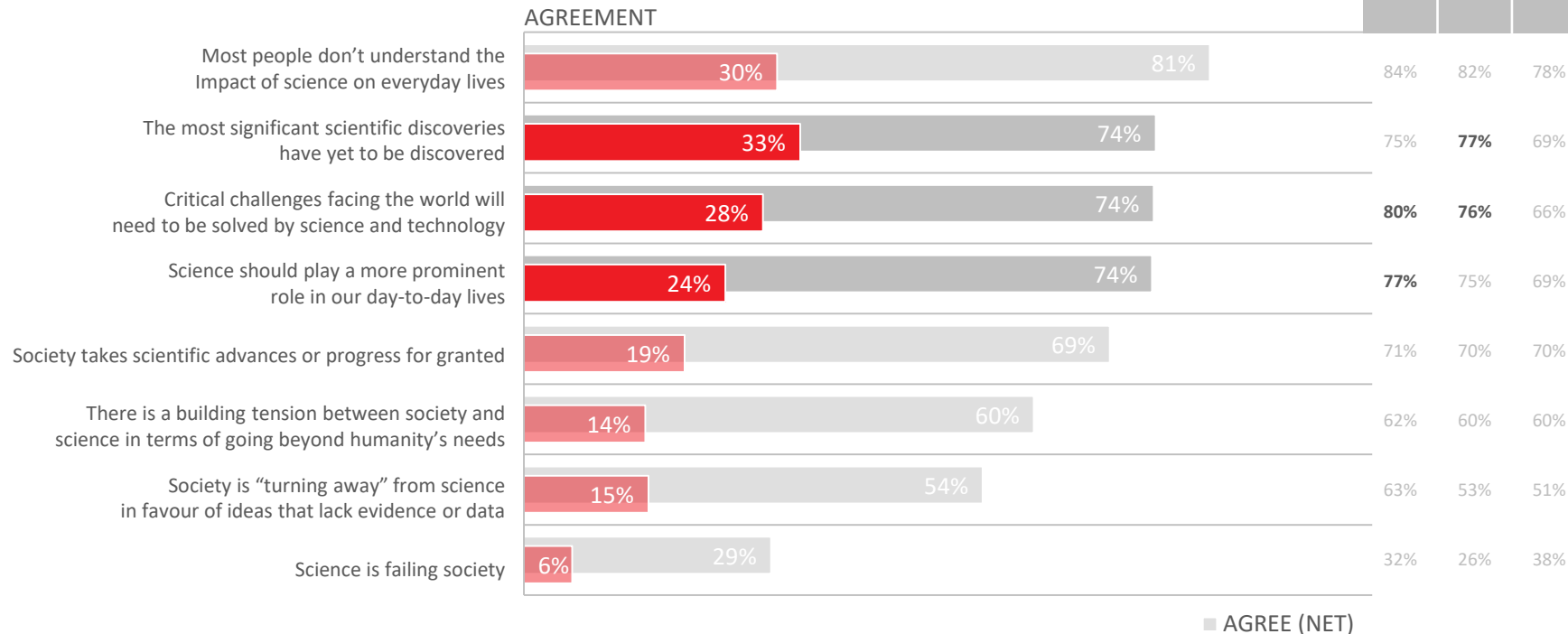


■ AGREE (NET)  
■ Strongly agree

0019 Please indicate how much you agree or disagree with the following statements.  
Base: All (n=1501).

# SCIENCE SHOULD PLAY A MORE PROMINENT ROLE

Respondents are adamant that **critical challenges facing the world will need to be solved using science and technology** (especially Analytical and Balanced types, relative to more Intuitive types). Respondents are also adamant that **the most important scientific discoveries have yet to be discovered** (especially Balanced types, when compared to more Intuitive types). It's no surprise then, that just as many believe **science should play a more prominent role in their day-to-day lives** (especially among Analytical types).

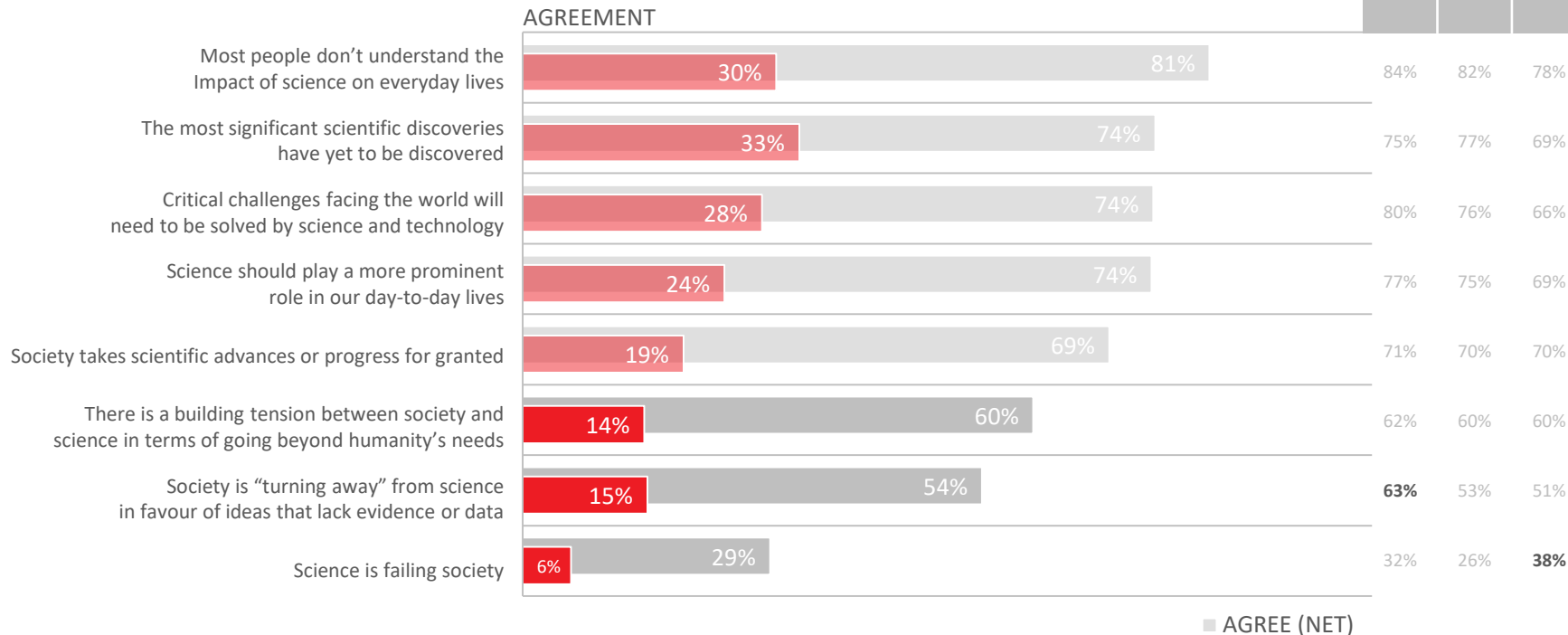


**0019** Please indicate how much you agree or disagree with the following statements.

Base: All (n=1501).

# THERE IS A GROWING TENSION . . .

About half (54%) believe society is turning away from science in favour of ideas that lack evidence or data. This view is particularly evident in Quebec (63% vs. 51% for the RoC), as well as among more Analytical types. An even greater number (63%) believes there is a growing tension between society and science in terms of going beyond humanity’s needs – a sentiment that is actually shared among all respondent types (i.e. Analytical, Balanced, and Intuitive types). Finally, relatively few (29%) believe science is failing society, though Intuitive types tend to agree more frequently than Balanced ones.



0019 Please indicate how much you agree or disagree with the following statements.

Base: All (n=1501).

# WHO SHOULD MAKE MORE OF AN EFFORT? THE AVERAGE JOE, OR THE SCIENTIFIC COMMUNITY AT LARGE?

## OPINION



- The average person needs to make more of an effort to understand the importance of science in today's world
- The scientific community needs to do a better job of making scientific information understandable to the average person
- I don't know/I prefer not to answer

Though half believe that the scientific community needs to do a better job of making scientific information understandable to the average person, many believe the onus should be placed on the average person to make more of an effort to understand the importance science in today's world.

Those more in favour of the average person making more of an effort include:

- The RoC (45% vs. 33% among Quebecers),
- Millennials (51% vs. 35% among older respondents 55+),
- men (48% vs. 36% among women),
- those with science-related skills or qualifications (57% vs. 36% among those without such skills), and
- those who consider themselves science literate (49% vs. 32% among those who do not).

The opposite holds true for those who believe the scientific community needs to do a better job of making scientific information understandable to the average person. Also, **there are no apparent differences between Analytical, Balanced, or Intuitive types here.**

0020 Which of the following best represents your own point of view?

Base: All (n=1501).

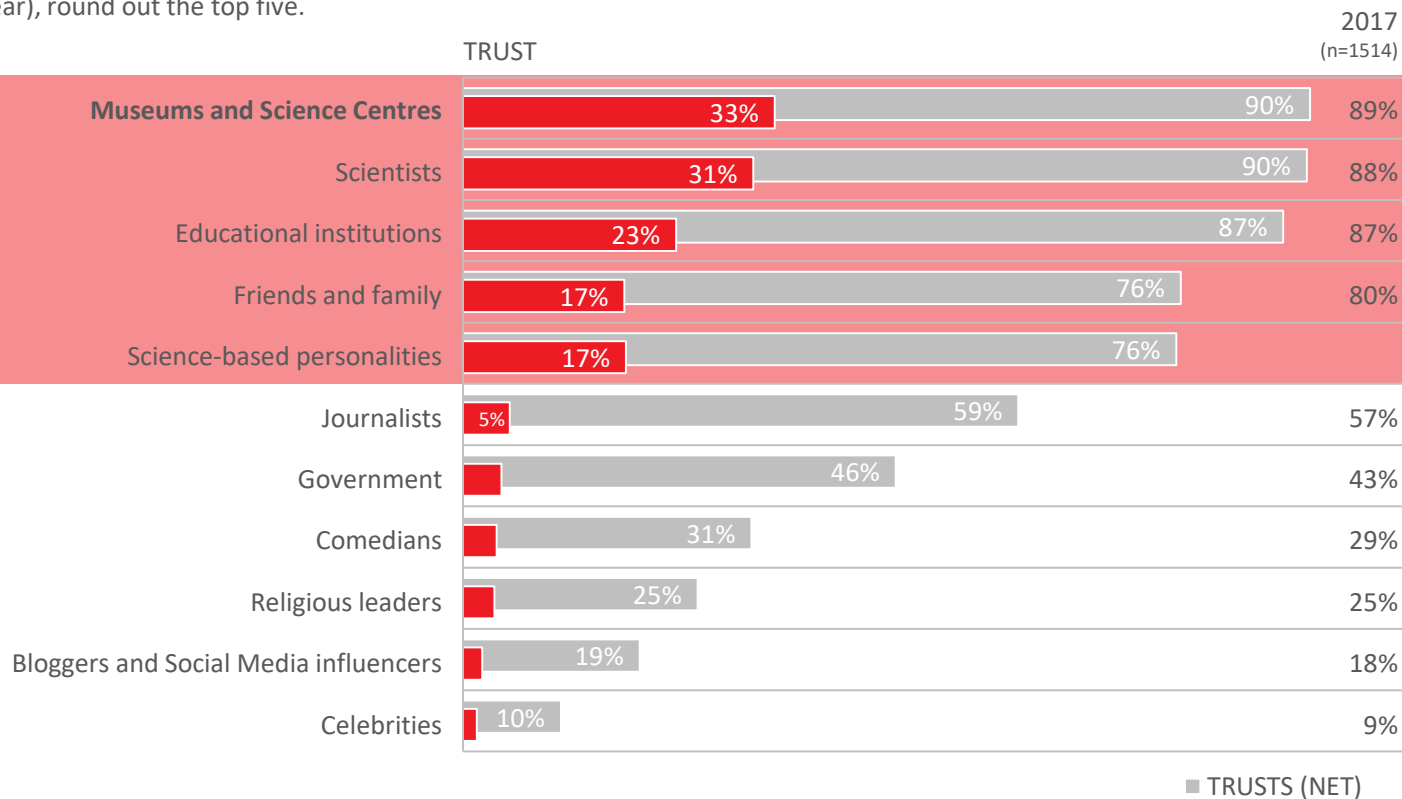
# DETAILED RESULTS

SOURCES OF TRUST FOR ACCURATE, FACT-BASED INFORMATION

# TRUST IN VARIOUS INFLUENCERS HAS CHANGED LITTLE

Levels of trust have shown little variance since last year. **The most trusted sources continue to be museums and science centres, scientists, and educational institutions.** Friends and family members, followed by science-based personalities (a new addition this year), round out the top five.

TOP 5



0003 To what extent do you trust each of the following sources to deliver accurate and fact-based information?

Base: All (n=1501).

■ TRUSTS (NET)

■ Trusts very much



# TRUST IN VARIOUS MEDIUMS HAS ALSO CHANGED LITTLE

Like trust in various influencers, trust in various mediums has changed little since last year. **Science centres and museums, as well as universities and schools, continue to be the two most trusted sources.** Outside of educational sources, traditional media platforms, like newspapers, magazines, radio, and television, remain some of the most trusted sources.

2017  
(n=1514)

TOP 5

TRUST

Science Centres and Museums

32%

89%

89%

Universities / schools

29%

87%

87%

Newspapers and Magazines

6%

68%

67%

Radio

64%

62%

Television

59%

57%

Online news sites

54%

54%

Government

47%

45%

Word of mouth

24%

25%

Blogs

20%

19%

Social media

20%

20%

Other

15%

55%

44%

■ TRUSTS (NET)

■ Trusts very much

0004 To what extent do you trust each of the following sources to deliver accurate and fact-based information?

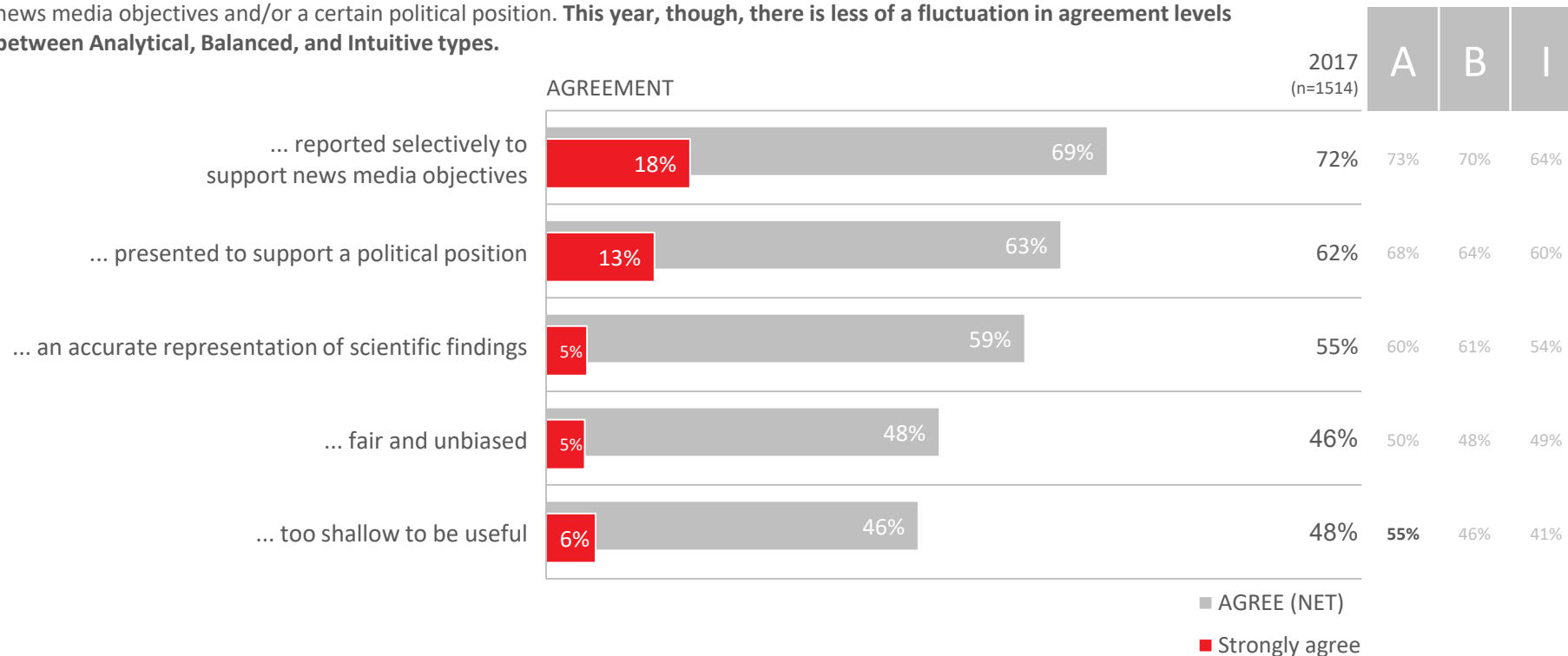
Base: All (n=1501).

# DETAILED RESULTS

MEDIA COVERAGE ABOUT SCIENCE

# THERE IS CONTINUED SKEPTICISM AROUND HOW SCIENTIFIC FINDINGS ARE REPORTED

Agreement levels surrounding media coverage of scientific issues haven't changed significantly since last year. For example, there continues to be skepticism around the accuracy of scientific findings, and how results are selectively reported to support news media objectives and/or a certain political position. **This year, though, there is less of a fluctuation in agreement levels between Analytical, Balanced, and Intuitive types.**

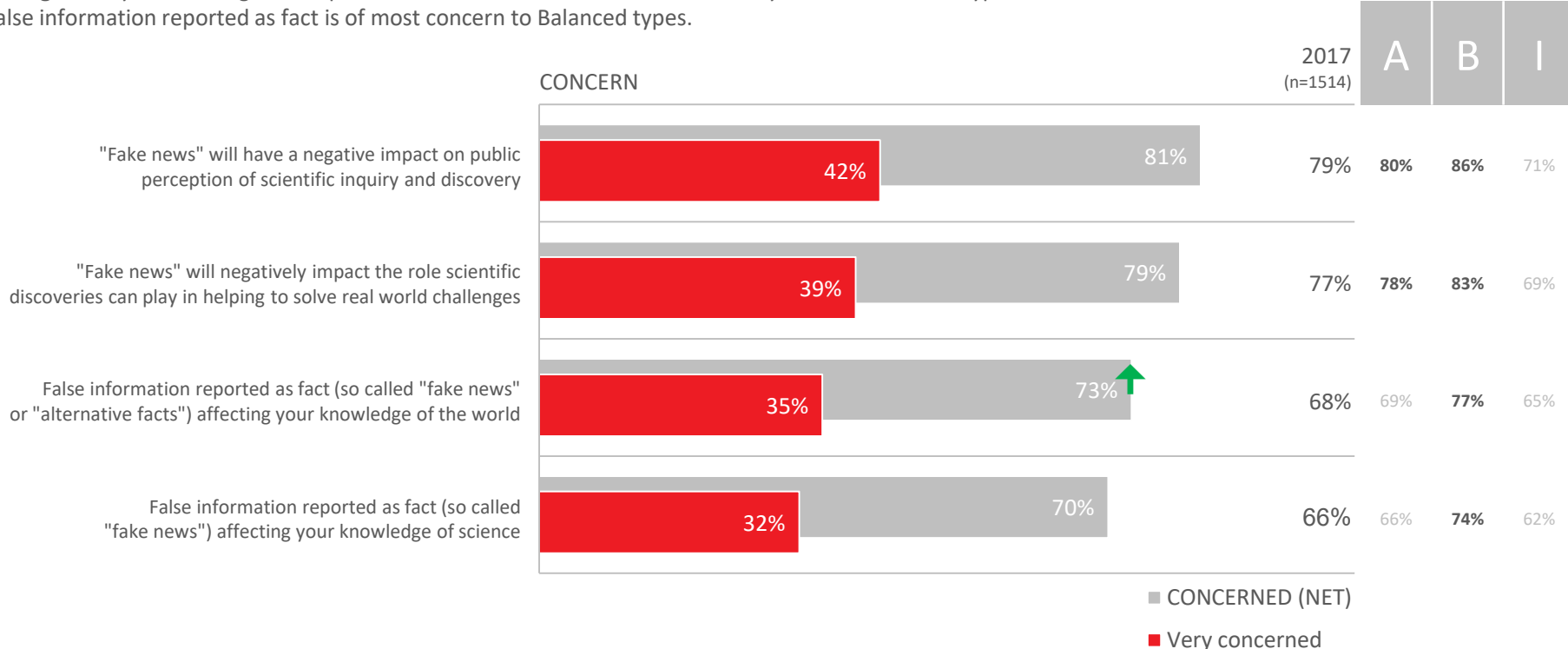


0006 Thinking about media coverage you have seen about scientific issues, to what extent do you agree that it is . . .

Base: Those who have seen media coverage about scientific issues (n=1501).

# FAKE NEWS IS STILL A MAJOR CONCERN

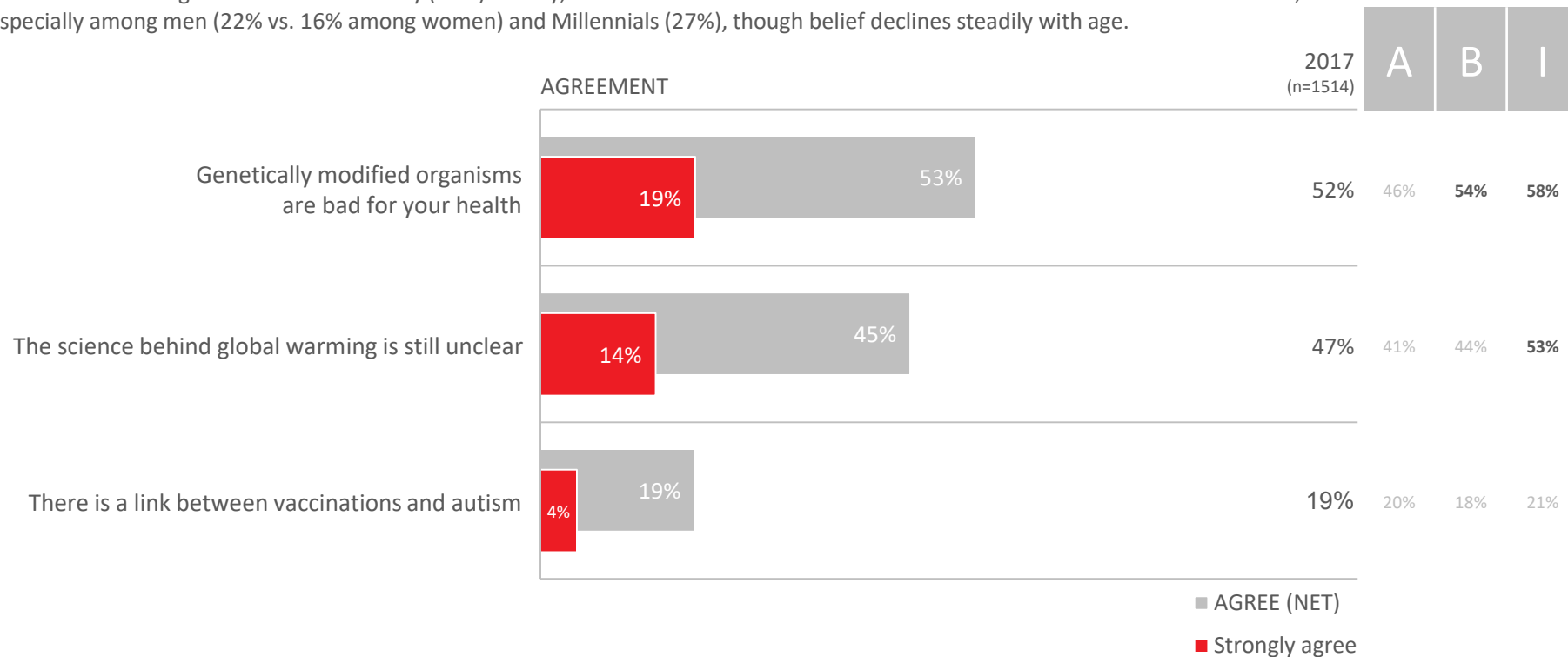
**Fake news is still a concern for Canadians**, especially with respect to its effect on how the public perceives (a) scientific inquiry and discovery, and (b) the role such discoveries will have in helping to solve real world challenges. Since last year, **there has been a noticeable increase in how concerned Canadians are about fake news tainting our knowledge of the world at large**. This year, the negative impact of fake news is of more concern to Analytical and Balanced types, while concern over false information reported as fact is of most concern to Balanced types.



0007 To what extent are you concerned about each of the following?  
 Base: All (n=1501).

# AGREEMENT WITH CONTROVERSIAL TOPICS HOLDS STEADY

About half continue to believe genetically modified organisms are bad for your health, particularly women (57% vs. 49% of men), while Analytical types (46%) and Prairie residents (37%), on the other hand, are some of the *least* likely. Nearly half continue to believe that the science behind global warming remains unclear, particularly rural residents (54%) and more Intuitive types (53%), while B.C. residents are among some of the *least* likely (33%). Finally, 19% continue to believe there's a link between vaccinations and autism, especially among men (22% vs. 16% among women) and Millennials (27%), though belief declines steadily with age.



0008 To what extent do you agree or disagree with each of the following statements?

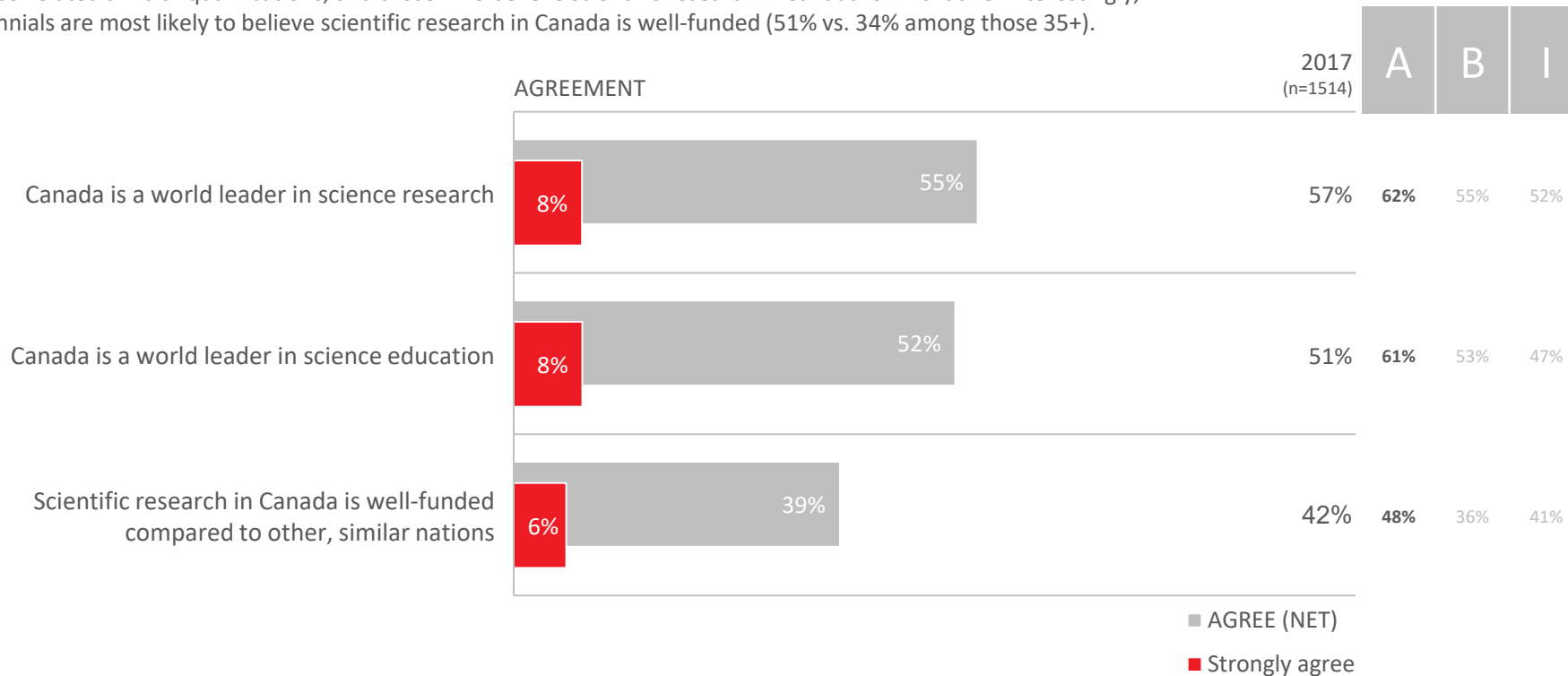
Base: All (n=1501).

# DETAILED RESULTS

SCIENCE IN CANADA

# ABOUT HALF BELIEVE CANADA IS A WORLD LEADER

About half continue to believe Canada is a world leader in both science research and science education, but fewer (39% this year and 42% last year) agree that scientific research in Canada is well-funded. Demographically, Analytical types tend to agree more frequently with each of these statements, as do those who consider themselves science literate, those with science-related skills or qualifications, and those who believe scientific research in Canada is innovative. Interestingly, Millennials are most likely to believe scientific research in Canada is well-funded (51% vs. 34% among those 35+).



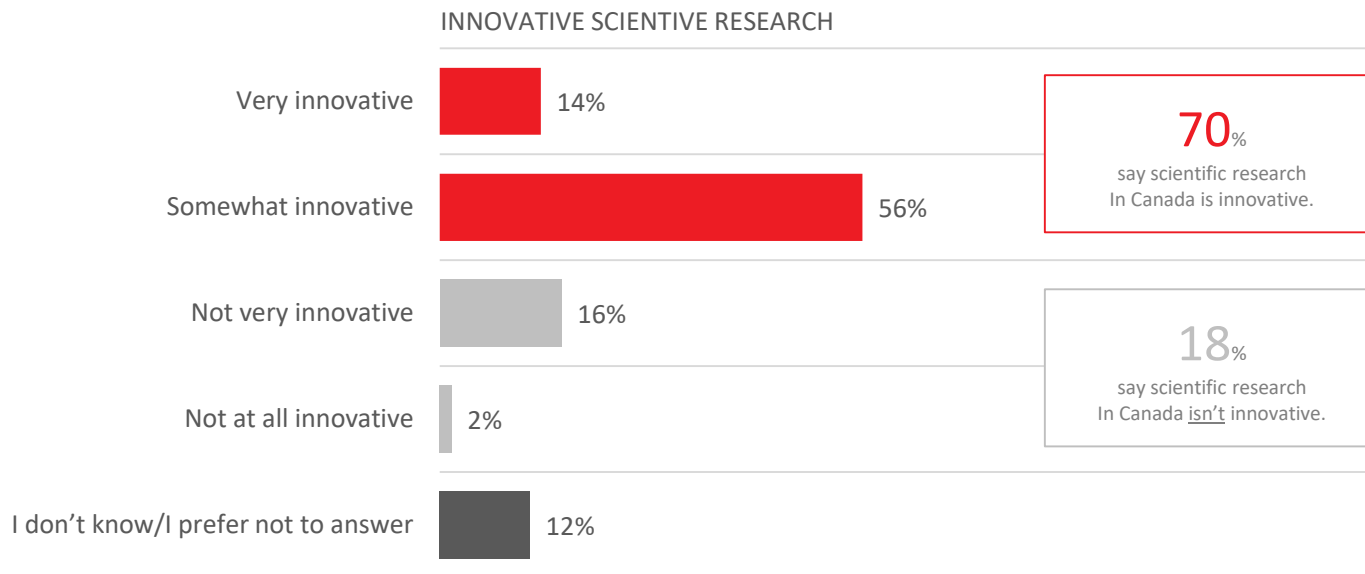
0011 To what extent do you agree or disagree with each of the following statements?

Base: All (n=1501).

# SCIENTIFIC RESEARCH IN CANADA IS INNOVATIVE

**Most Canadians believe scientific research in Canada is innovative** (with 14% indicating it's *very innovative*). These respondents tend to: be older (65+: 78% vs. 67% among younger respondents 18-54), science literate (75%), want to learn more about science (73%), have science-related skills or qualifications (77%), and be more Balanced or Analytical in their thinking (73%) as opposed to Intuitive (60%). They're also *least* likely to hail from Quebec (63% vs. 72% for the RoC).

**When pressed for a concrete example such research, though, most (68%) could not come up with one.** (The Canadarm, at 5%, was among the most frequently mentioned examples.)



**0013A** In your opinion, how innovative would you say scientific research is in Canada?

**0013B** Can you give any examples of innovative scientific research in Canada?

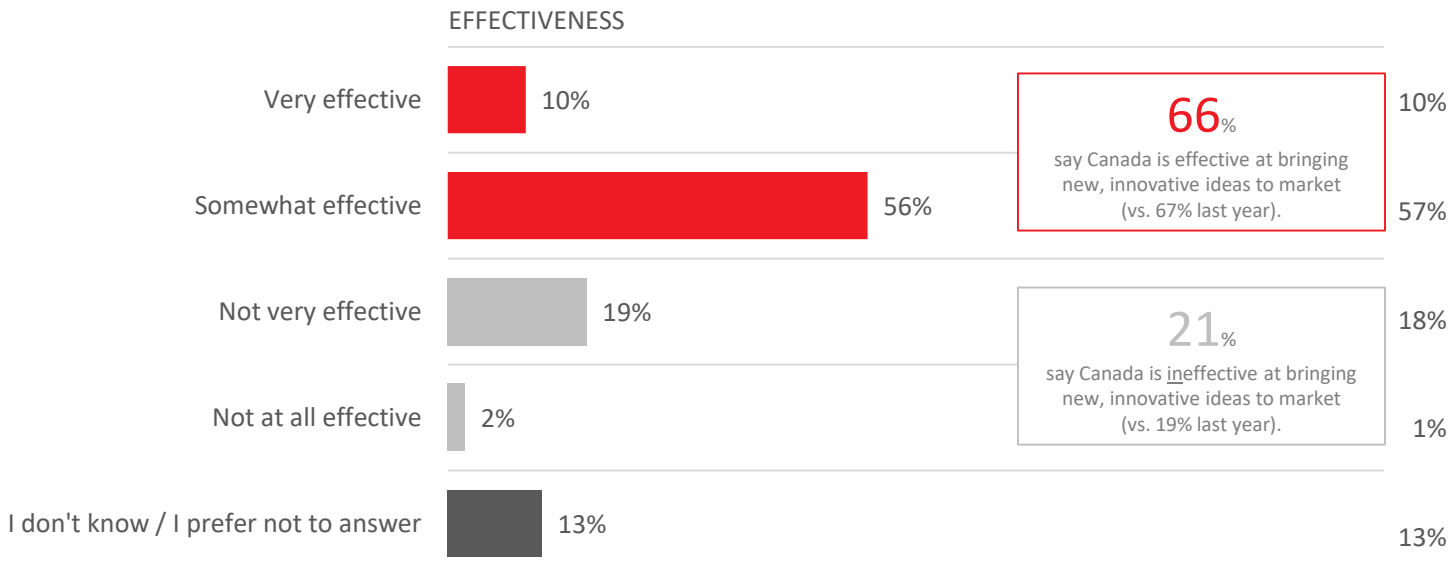
Bases: All (n=1501).



# CANADIANS BELIEVE IN THEIR COUNTRY’S ABILITY TO BRING NEW AND INNOVATIVE IDEAS TO MARKET

Nearly seven-in-ten continue to believe in Canada’s ability to bring new and innovative ideas to market, particularly those who consider themselves science literate (71%) and those who believe scientific research in Canada is innovative (86% vs. a third of that [25%] among those who believe otherwise). Those who believe Canada is ineffective (21%) tend be men (24%) more often than women (18%), Quebecers (26% vs. 19% for the RoC), and those who believe that scientific research in Canada isn’t innovative (71% vs. only 10% among those who do).

2017  
(n=1514)



0013 How effective do you think Canada is in bringing new and innovative ideas to market?

Base: All (n=1501).

# DETAILED RESULTS

SCIENCE AND THE FUTURE

# SCIENTIFIC ADVANCEMENT WILL PLAY A MAJOR ROLE IN SOLVING FUTURE CHALLENGES

ROLE



■ Major role

■ Minor role

■ No role at all

■ I don't know/I prefer not to answer

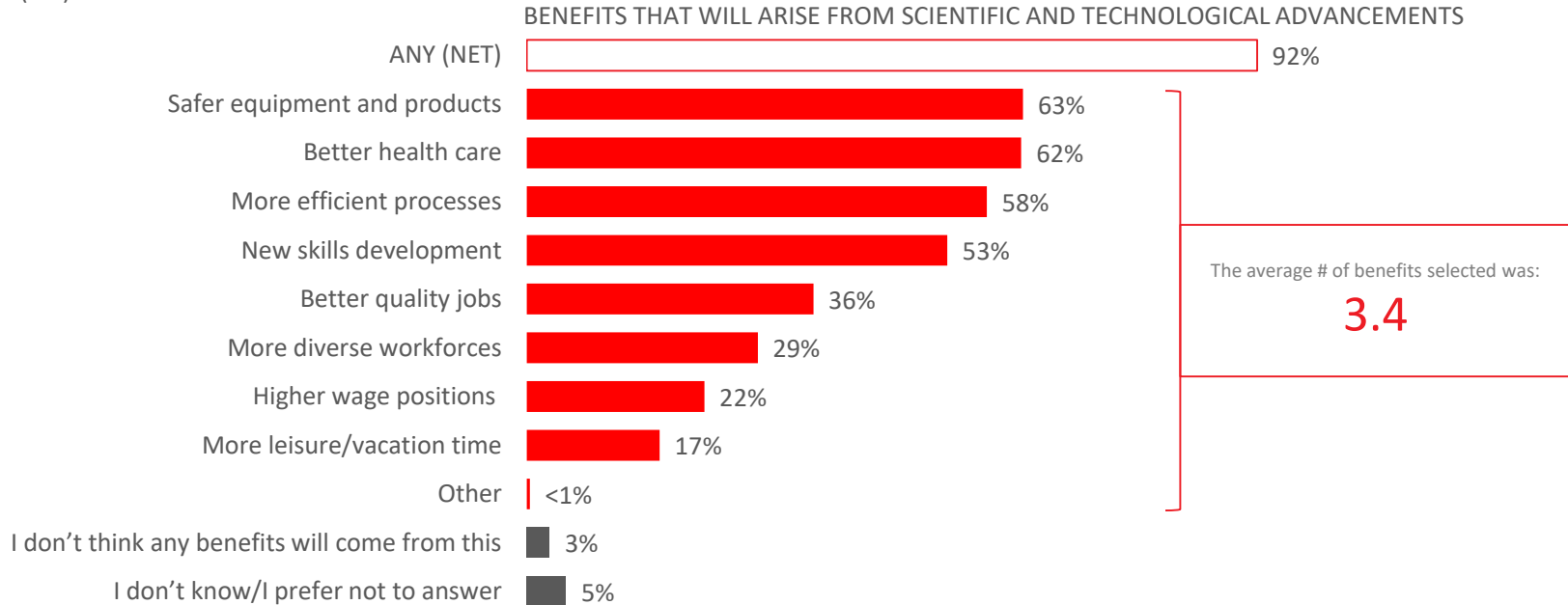
Most Canadians believe that, **in the future, scientific advancement will play a major role in solving challenges and pressing needs**, especially those who consider themselves science literate (78%), those with science-related skills and qualifications (82%), university-educated individuals (83%), as well as Balanced (76%) and Analytical types (74%), relative to more Intuitive types (61%).

**0014** Thinking about the future of society, how much of a role will scientific advancement play in solving challenges and pressing needs?

Base: All (n=1501).

# MANY BENEFITS WILL RESULT

There are quite a few benefits that most Canadians believe will come from scientific and technological advancements. These include safer equipment and products, better health care, and more efficient processes. In fact, **92% of those surveyed selected at least one of the benefits listed below, with the average number being 3.4**. A higher average number of benefits was recorded among those 65+ 3.8 (relative to younger respondents), university-educated individuals (3.8), those who consider themselves science literate (3.7), those with science-related skills or qualifications (4.1), as well as among Balanced (3.7) and Analytical types (3.4) when compared to more Intuitive types (2.8).



**0015** With technological advancements come claims that they will benefit the workforce in a variety of ways, which of the following benefits do you believe will come from advancements in science and technology?

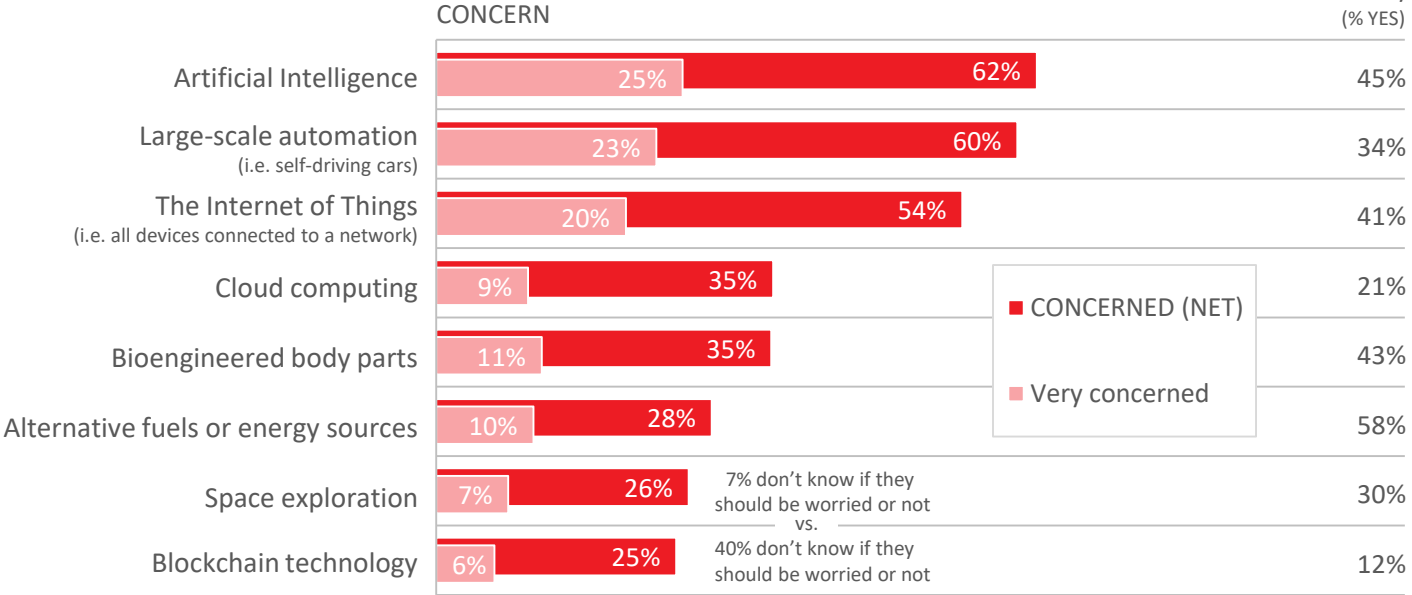
Base: All (n=1501).

# THE IMPLEMENTATION OF AI IS CONCERNING

Most respondents are concerned about the affects of AI and large-scale automation once they're broadly implemented into society. The idea of having all devices connected to a network is also concerning to over half of those surveyed. What's interesting is that while many (45%) believe AI will have a large impact on improving and advancing society, concern over it is still high. By contrast, things like alternative fuels and bioengineered body parts are also thought to end up having a large impact on improving and advancing society (58% and 43%, respectively), but far fewer express any concern.

While space exploration and blockchain technology garner the least concern, please note that 40% aren't sure whether they should be concerned about blockchain technology or not, pointing to a possible lack of knowledge about the subject.

LARGE IMPACT ON IMPROVING AND/OR ADVANCING SOCIETY? (% YES)



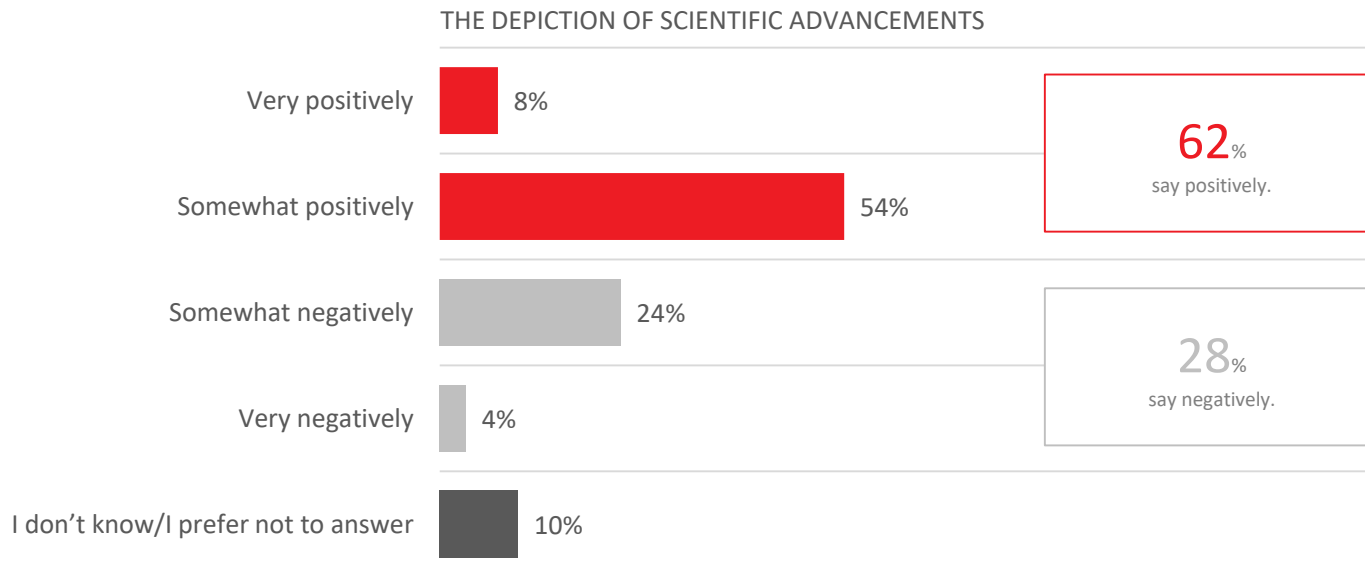
0018 How worried are you that the following developments will affect society once broadly implemented?

0017 How much of an impact will the following have in terms of improving or advancing society and its interests?

Bases: All (n=1501).

# FICTIONAL PORTRAYALS OF SCIENTIFIC ADVANCEMENTS HAVE BEEN POSITIVELY DEPICTED

For most (62%), fictional portrayals of scientific and technological advancements have usually been positively depicted. This belief holds steady across key demographics like region, age, and gender, and also across Balanced (63%), Analytical (59%), and Intuitive types (64%). Those who consider themselves science literate, however, are more likely to believe fictional depictions have been positive (66% vs. 57% among who don't consider themselves to be science literate).



0021 Based on what you've seen from fictional (i.e. television, movies, books, etc.) portrayals of scientific and technological advancement, how do you feel these advancements are typically depicted?

Base: All (n=1501).

# SCIENCE WILL LIKELY END UP SOLVING FAR MORE PROBLEMS THAT IT WILL CREATE

## OPINION



- Science will vastly help solve more problems than it creates
- Science will vastly create more problems than it solves
- I don't know/I prefer not to answer

Roughly three-quarters believe that **science will likely end up solving far more problems than it will create**, especially:

- older respondents (65+: 84% vs. 71% among those <65);
- university-educated respondents (80%);
- those who consider themselves to be science literate (80%);
- those with science-related skills or qualifications (83%); as well as
- Analytical (78%) and Balanced types (77%), relative to more Intuitive types (63%).

0022 Which of the following best represents your own thinking or point of view when it comes to science and the future?

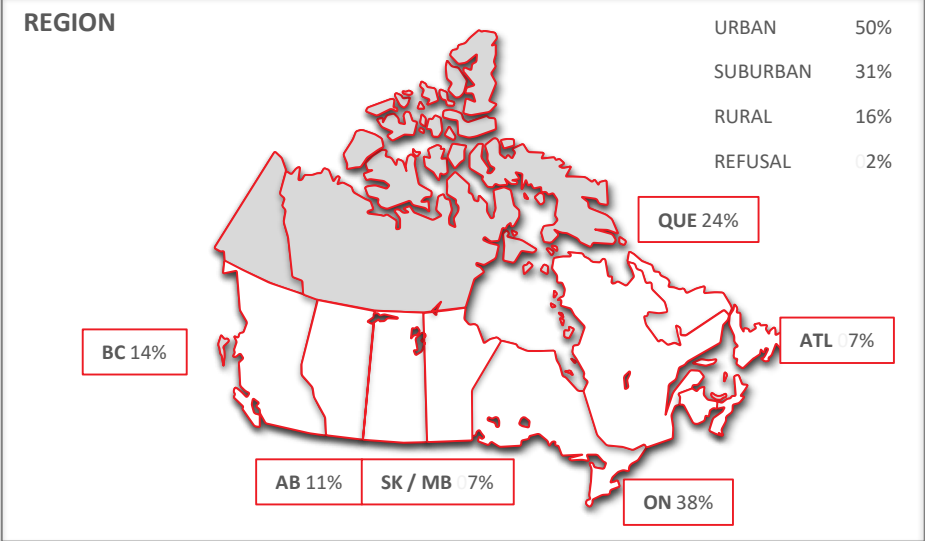
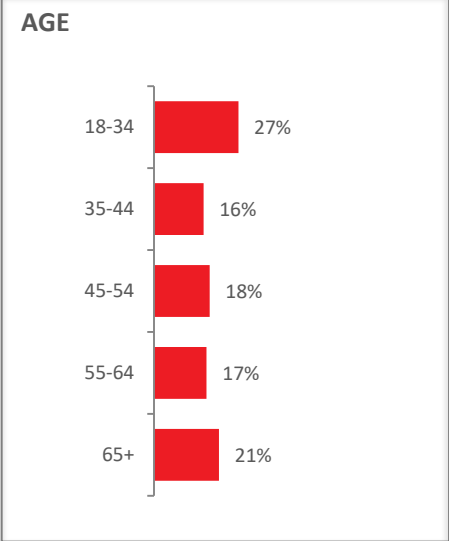
Base: All (n=1501).



# RESPONDENT PROFILE

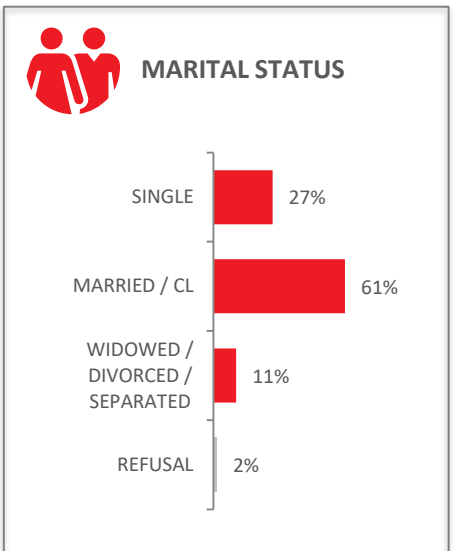
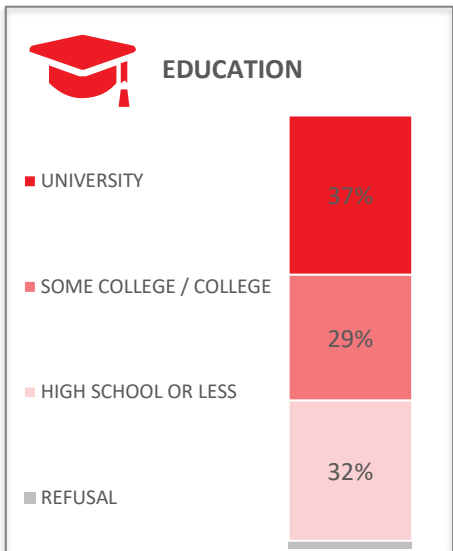
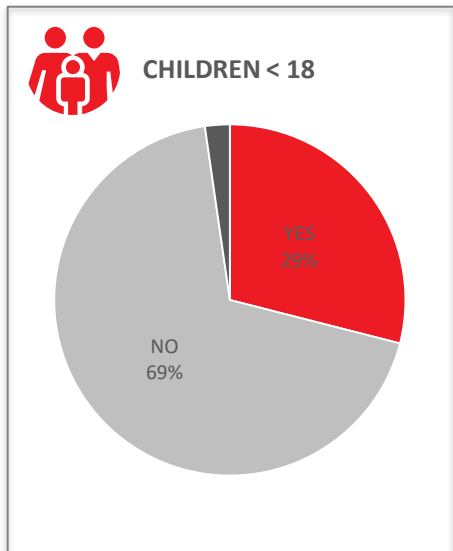
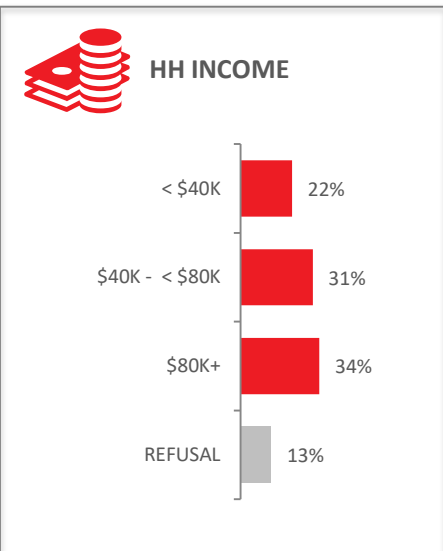


# RESPONDENT PROFILE



Base: All (n=1501).

# RESPONDENT PROFILE





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