

Calgary



2023 Perspectives on Calgary: Climate Change

Report

November 2023

Prepared by: Corporate Research Team
Customer Service & Communications
The City of Calgary
research@calgary.ca

Table of contents

Background and methodology	03
Highlights	04
Detailed findings	06
Perceptions of Calgary's environment and The City's protection efforts	07
Climate change	12
Extreme weather events	35
Energy efficiency	50
Respondent profile	66



Background and methodology

Background

The City conducts Perspectives on Calgary Surveys throughout the year to support City decision making. Research into attitudes and perceptions about climate change, extreme weather events, and energy efficiency have been conducted annually since 2018. This report presents the results of the 2023 survey as well as results from the previous surveys for tracking purposes, where applicable.

Methodology

The survey was conducted by Advanis from October 10th to 20th, 2023, with 500 Calgarians, via telephone. The average time to complete the survey was 25 minutes.

The survey was conducted using numbers from both landlines (16%) and cell phones (84%) to obtain a random and statistically representative sample of Calgarians. The margin of error (MOE) for the total sample of n=500 is ± 4.4 percentage points, 19 times out of 20.

To ensure the data was gathered from a representative group of Calgarians, sample quotas were set by age, gender, and city quadrant of the general population aged 18 and older.

Data were weighted based on the 2019 municipal census for age and gender. Although the results are weighted, sample size for each question represents the number of actual respondents (unweighted n).

Where applicable, statistically significant differences from one year to the next are noted with:

↑ Statistically higher than previous year

↓ Statistically lower than previous year

Survey	Data collection dates	n=
2023	Oct 10-20, 2023	500
2022	Oct 11 – 20, 2022	500
2021	Nov 22 – Dec 1, 2021*	500
2020	Oct 19 – 29, 2020	500
2019	Sep 16 – 23, 2019	504
2018	Sep 11 – 21, 2018	500

*In 2021, data collection took place after Calgary City Council voted in favour of declaring a Climate Emergency on November 15, 2021.

Highlights

The vast majority of Calgarians think the current state of Calgary's environment is 'good' and most are satisfied with the job The City is doing to protect the environment.

- While the majority of Calgarians think the current state of Calgary's environment is 'good' (90%), this is down 5% from 95% in 2022.
- Three-quarters of Calgarians are satisfied with the job The City is doing to protect the environment (75%) and with The City's programs and services aimed at helping Calgarians reduce their environmental impact (72%).

Most Calgarians agree they are concerned about the causes and impacts of climate change and agree action needs to be taken now to address the situation

- Around three-quarters of Calgarians agree that they are concerned about the causes (77%) and impacts (73%) of climate change.
- One-half (51%) think The City should be doing more than it currently is to address climate change.
- Females, younger Calgarians (under age 65) and Calgarians born outside of Canada are more likely than males, older Calgarians and Canadian-born Calgarians to be concerned about the causes of climate change. They are also more likely to agree we need to act now to address the causes of climate change and that Calgarians should be doing more to help prevent climate change.

Trust in The City as a source of information about climate change is not strong.

- One-half (48%) of Calgarians trust The City as a source of information about climate change (18% trust 'a great deal' and 30% trust 'a little'), on par with 2022.

Highlights

Though concern among Calgarians about the impact extreme weather events are having or might have on their life is the highest it has been to date, only a minority are taking specific actions to reduce impacts on themselves or their property.

- Nearly three-quarters (73%) of Calgarians are concerned about the impact extreme weather events are having or might have on their life.
- In the next ten years, the majority of Calgarians think there will be more wildfires/smoke (72%), heat waves/extreme heat (65%), drought (53%), on par with 2022. Fewer than three-in-ten expect to see more river flooding (28% vs. 36% in 2022).
- Despite concerns about the impact of extreme weather events, a minority of Calgarians have taken specific actions to reduce these impacts. The most popular actions include: purchasing an air purifier (39%), installing air conditioning (36%), improving water drainage on their property (35%) and/or planting trees for shade (35%).

The majority of Calgarians say they regularly take actions to save energy in their home and the main reason is to save money.

- Virtually all Calgarians (97%) say they turn off lights when not needed and nearly as many (95%) use energy efficient bulbs.
- Home energy improvements reported by the most Calgarians are a programmable thermostat (71%), energy efficient appliances (69%) and weather-stripping or caulking around doors/windows (60%).
- Six-in-ten (59%) Calgarians state their main reason for saving energy is to save money.



Detailed findings



Perceptions of Calgary's environment and The City's protection efforts

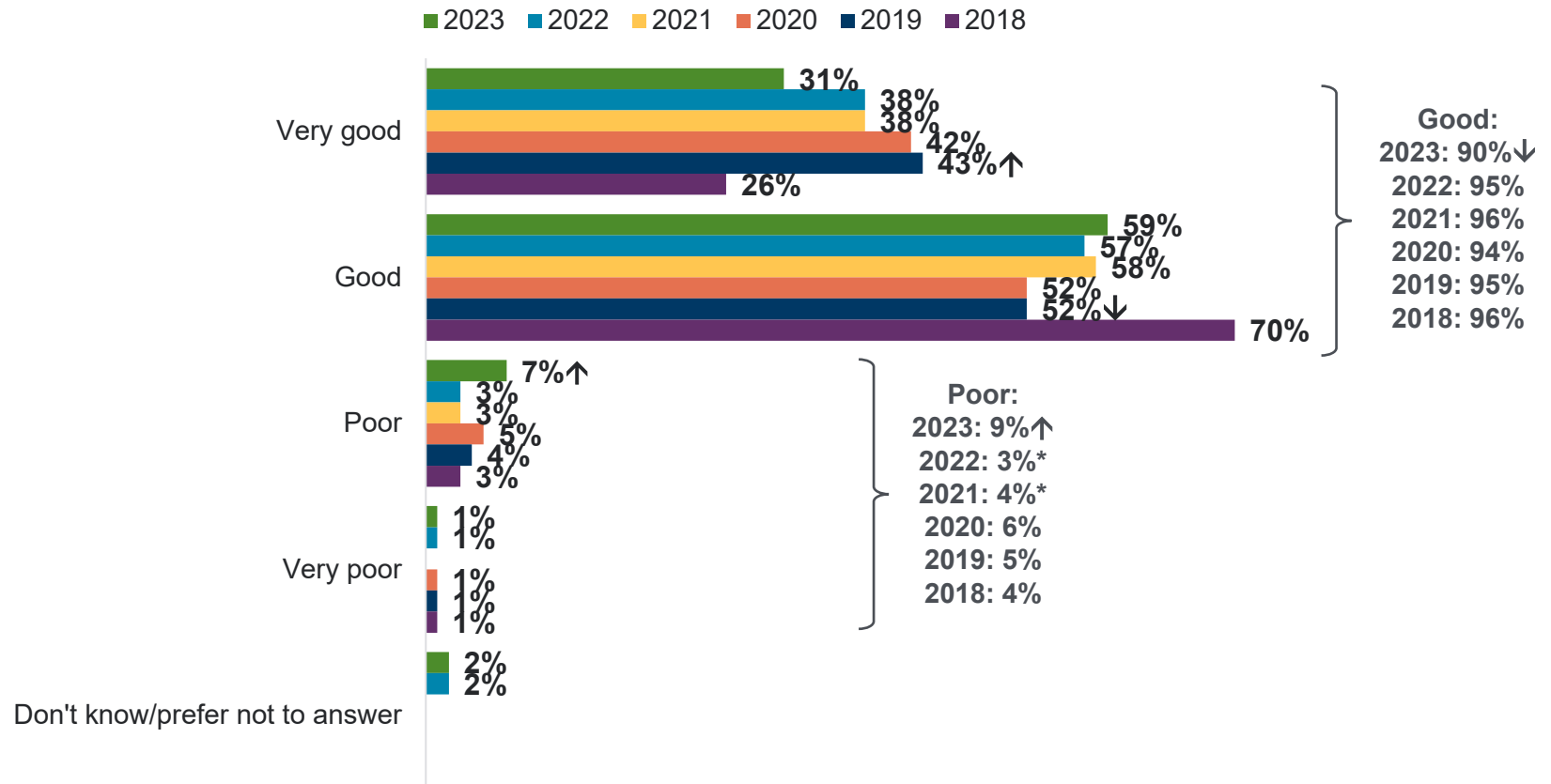
Summary: Calgary's environment

The majority of Calgarians rate Calgary's environment as good and are satisfied with The City's effort in protecting the environment and helping residents reduce their environmental impact.

- While the vast majority (90%) of Calgarians rate the overall state of Calgary's environment as 'good' ('very good' or 'good'), there has been a significant decrease since 2022 (95%).
 - Males (93% vs. 88% females) and those with at least a university education (94% vs. 84% some university of diploma) are more likely to rate the environment as 'good'.
 - Residents living in Northeast Calgary are less likely to rate the environment as 'good' (79%) compared to all other quadrants (93% SW, 93% SE, and 94% NW)
- Similarly, while three-quarters (75%) of Calgarians are satisfied ('very' or 'somewhat') with the job The City is doing to protect the environment, the number has decreased since 2022 (82%).
- Consistent with 2022 (75%), many (72%) Calgarians are satisfied ('very' or 'somewhat') with the programs and services aimed at reducing environmental impact. Calgarians are however, less likely to say they are 'very' satisfied compared to 2022 (17% vs. 25%).
 - Calgarians living in Calgary for over 20 years are less likely to be satisfied (68% vs. 80% 10 to less than 20 years, 81% less than ten years)

Perception of state of Calgary's environment

Perception of the overall state of Calgary's environment



Q. Thinking about things such as air, water, and land quality in the city, how would you rate the overall state of Calgary's environment today?

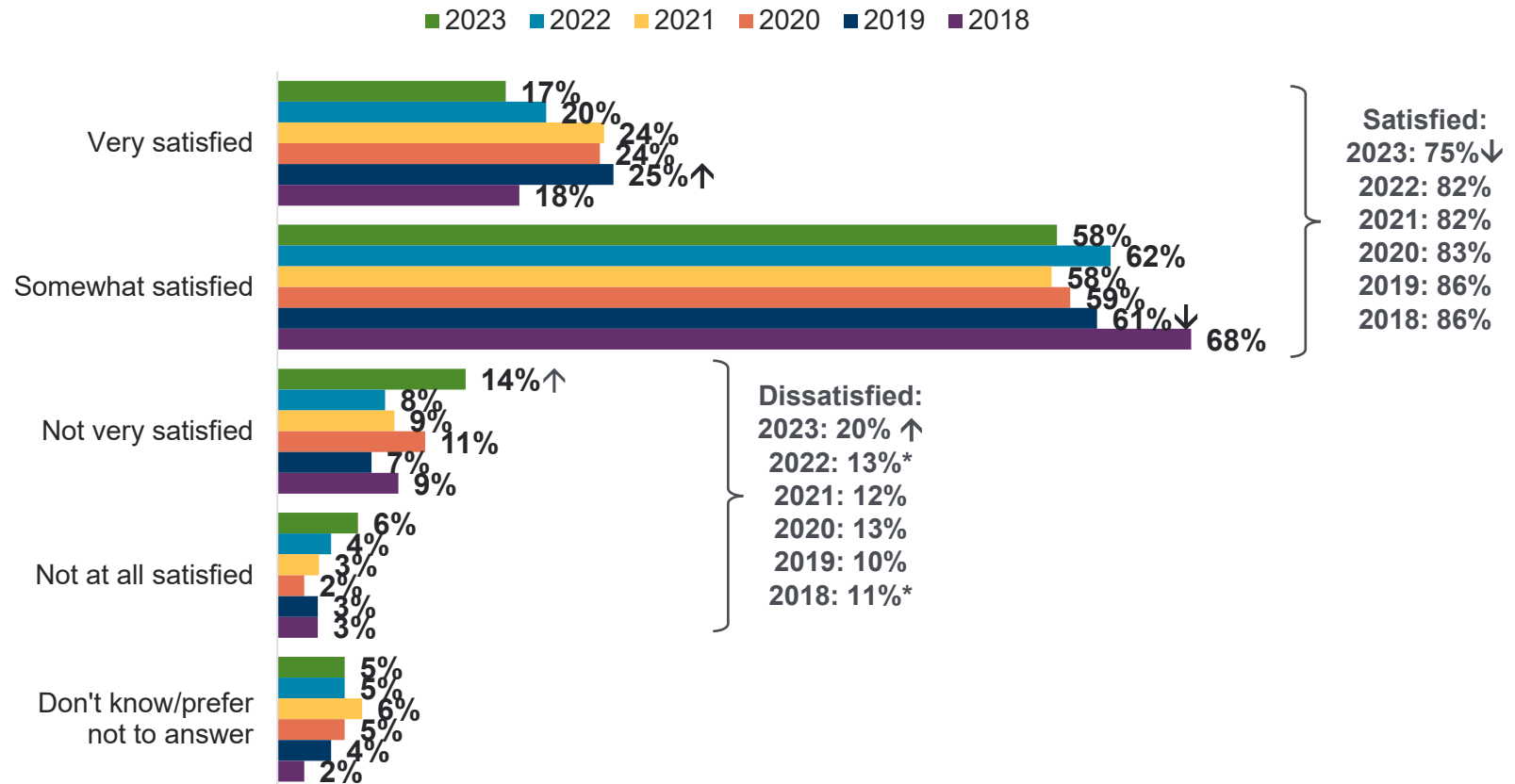
Base: All respondents (2023: n=500; 2022: n=500; 2021: n=500; 2020: n=502; 2019: n=504; 2018: n=500)

*Rounding

↑ Statistically higher than previous year
 ↓ Statistically lower than previous year

Satisfaction with The City's protection of the environment

Satisfaction with the job The City is doing to protect the environment



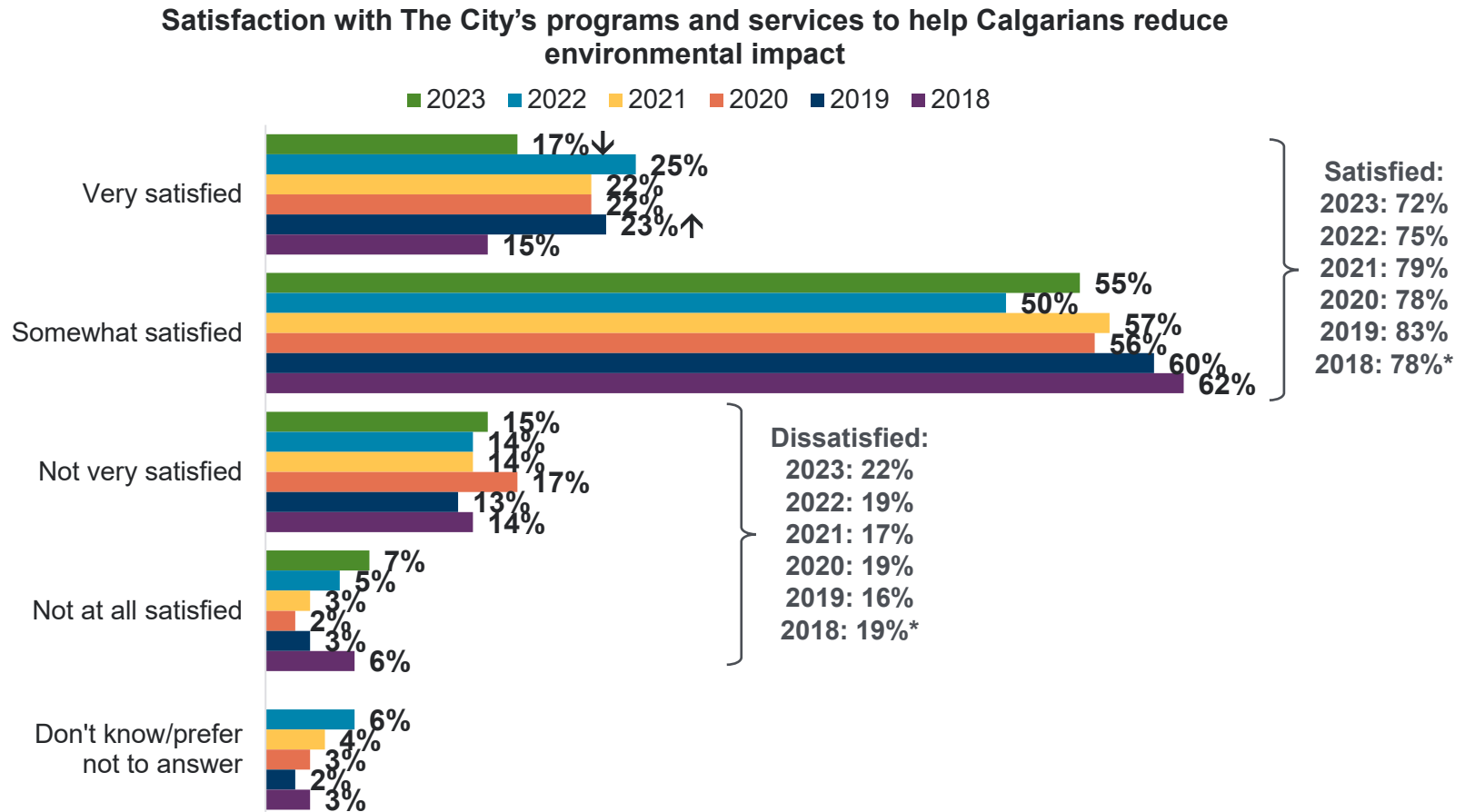
Q. How satisfied are you with the job The City of Calgary is currently doing to protect the environment?

Base: All respondents (2023: n=500; 2022: n=500; 2021: n=500; 2020: n=502; 2019: n=504; 2018: n=500)

*Rounding

↑ Statistically higher than previous year
 ↓ Statistically lower than previous year

Satisfaction with The City's programs and services to help Calgarians reduce environmental impact



Q. How satisfied are you with The City of Calgary's programs and services aimed at helping Calgarians reduce their environmental impact?

Base: All respondents (2023: n=500; 2022: n=500; 2021: n=500; 2020: n=502; 2019: n=504; 2018: n=500)

*Rounding

↑ Statistically higher than previous year
 ↓ Statistically lower than previous year



Climate change

Summary: Climate change

Approximately three-quarters of Calgarians agree they are concerned about the causes and impacts of climate change and agree action needs to be taken now to address the situation.

- Most Calgarians agree that they are concerned about the causes (77%) and impacts (73%) of climate change. Four-fifths of Calgarians are concerned about the impact of climate change on future generations (79%).
- While the majority of Calgarians agree that we need to act now to address the local impacts (77%) and causes (76%) of climate change, a small minority (17% and 19%, respectively) are more likely to 'disagree' with these statements compared to 2022 (12% and 13%, respectively).
- The majority of Calgarians think they, personally, should do more (68%), want to do more (70%) and are taking action (74%) to prevent climate change.

The majority of Calgarians agree that climate change is mostly impacted by human activities and that their individual actions contribute to global climate change.

- More than seven-in-ten (72%) Calgarians agree that climate change is mostly impacted by human activities while two-thirds (66%) agree their individual actions contribute to global climate change.
- A small majority (58%) of Calgarians agree they are taking action to prepare for a changing climate, with a significant decrease in Calgarian saying they 'strongly' agree from the previous year (16% 2023 vs. 21% 2022).

A small majority of Calgarians believe that The City of Calgary should be doing more or is currently doing the right amount to address climate change.

- One-half (51%) of Calgarians think The City should be doing more to address climate change, while 29% believe The City is doing the right amount and 19% feel The City should be doing less.

Summary: Climate change (continued)

The majority of Calgarians say that one year ago, they supported taking action on climate change and around as many report their support has not changed in the past year.

- Three-quarters (73%) of Calgarians say that one year ago, they supported taking action on climate change, on par with results in 2022. More are 'somewhat' rather than 'very' supportive (42% vs. 31%, respectively). More than one-fifth (22%) were opposed to taking action on climate change (13% 'somewhat' and 9% 'very' opposed) one year ago.
- For three-quarters (75%) of Calgarians, their support for taking action on climate change has not changed in the past year. One-fifth (19%) say they have become more supportive in the past year while only 5% say they have become less supportive.
- For those who are more supportive of taking action on climate change than they were one year ago, the top reasons given for the change in support are the occurrence of severe weather events/natural disasters (50%) and an increased awareness of climate change/the effects of climate change (28%).

The majority of Calgarians continue to support the city – including the municipal government and city residents – moving to net-zero emissions by 2050, though the proportion strongly supporting this initiative has declined.

- Three-quarters (74%) of Calgarians support the city (municipal government and city residents) moving to net-zero emissions by the year 2050, on par with 2022. However, those offering strong support is down to 33% in 2023 from 42% in 2022. Those who are somewhat supportive has increased to 41% from 32% last year.

Summary: Climate change (continued)

Trust in The City as a source of information about climate change is not strong.

- One-half (48%) of Calgarians trust The City as a source of information about climate change (18% trust 'a great deal' and 30% trust 'a little'), on par with 2022.
 - Those distrusting The City 'a great deal' has grown to 15% from 11% last year.

Awareness of the Clean Energy Improvement Program has increased this year, making it the most well-known element of The City's Climate Program.

- One-half (49%) of Calgarians say that before taking the survey, they were aware The City's Climate Program includes the Clean Energy Improvement Program, up from 42% in 2022. A similar proportion (47%) were also aware it includes a Climate Strategy.
- Fewer Calgarians were aware of the Climate Ready Home Guide (37%) and the annual, virtual Calgary Climate Symposium (19%). Awareness of the Climate Ready Home Guide is showing an upward trend over the past three years, while awareness of the Climate Symposium has remained consistent over the same time frame.

Summary: Climate change (continued)

Females are more likely than males to be concerned about climate change, think we need to act now to address it and that The City should be doing more to address climate change. This is unchanged from last year.

- Females are more likely than males to agree ('strongly' or 'somewhat'):
 - They are concerned about the impacts of climate change on future generations (86% vs. 72%, respectively);
 - They are concerned about the causes of climate change (84% vs. 70%);
 - They are concerned about the impacts of climate change on Calgarians (80% vs. 65%);
 - They think we need to act now to address the causes of climate change (85% vs. 66%);
 - They think we need to act now to prepare for local impacts of climate change (85% vs. 69%);
 - They are taking action to help prevent climate change (81% vs. 66%);
 - They would like to do more, personally, to help prevent climate change (78% vs 62%);
 - They think Calgarians should be doing more to help prevent climate change (75% vs 60%); and
 - Their individual actions contribute to global climate change (75% vs. 57%).
- Females are more likely than males to think The City should be doing more than it currently is to address climate change (64% vs. 39%, respectively) and males are more likely than females to think The City is doing the right amount (35% vs. 23%, respectively).

Females indicate they hear the right amount of information about climate change.

- Females are more likely than males to say they hear about climate change 'about the right amount' (43% vs. 32%, respectively)

Summary: Climate change (continued)

Males are more likely than females to say they were opposed to taking action on climate change one year ago, unchanged from last year, and they are more likely to distrust The City as a source of information about the topic.

- Males are more likely than females to say they were opposed to taking action on climate change one year ago (30% vs. 15%, respectively).
- Males are more likely than females to distrust ('a great deal' or 'a little') The City as a source of information about climate change (32% vs. 23%, respectively).

Males have more negative views about how frequently they hear about climate change and about the City moving to net-zero by 2050.

- Males are more likely than females to say they hear about climate change 'too often' (43% vs. 27%, respectively).
- Males are more likely than females to be aware that The City's Climate Program includes The Climate Ready Home Guide (42% vs. 33%, respectively).
- Males are more likely than females to oppose The City moving to net-zero by 2050 (28% vs. 20%, respectively), and also more likely to strongly oppose (15% vs. 9%, respectively).

Summary: Climate change (continued)

Younger Calgarians are more likely than their older counterparts to think climate change is caused mostly by human activities, to be concerned about the causes and to be supportive of taking action to address climate change.

- Younger Calgarians are more likely than older Calgarians to agree ('strongly' or 'somewhat'):
 - Climate change is caused mostly by human activities (84% 18 to 34 vs. 70% 35 to 64 vs. 56% 65 or older);
 - They are concerned about the causes of climate change (82% 18 to 34 vs. 69% 65 or older);
 - They think we need to act now to address the causes (82% 18 to 34 and 76% 35 to 64 vs. 64% 65 or older);
 - They are taking action to help prevent climate change (79% 18 to 34 and 76% 35 to 64 vs. 59% 65 or older);
 - They think Calgarians should be doing more to help prevent climate change (75% 18 to 34 and 68% 35 to 64 vs. 57% 65 or older);
 - They want to do more personally to help prevent climate change (78% 18 to 34 and 71% 35 to 64 vs. 56% 65 or older); and
 - They are taking action to prepare for a changing climate (60% 18 to 34 and 61% 35 to 64 vs. 45% 65 or older).

Younger Calgarians are more likely than older Calgarians to trust The City as a source of information about climate change.

- Calgarians 18 to 34 years of age are more likely than seniors (65 or older) to trust The City as a source of information about climate change (55% 18 to 34 vs. 38% 65 or older).

Younger Calgarians feel they don't hear enough about climate change.

- Younger Calgarians are more likely than older Calgarians to state they don't hear about climate change enough (37% 18 to 34 vs. 25% 35 to 64 and 17% 65 or older).

Summary: Climate change (continued)

Northeast residents are most likely to want to do more, personally, to help prevent climate change.

- Residents of the Northeast (N.E.) are more likely than those of the Northwest (N.W.) and Southeast (S.E.) to agree ('strongly' or 'somewhat') they want to do more, personally, to help prevent climate change (81% vs. 68% and 61%, respectively).

Northeast and Southeast residents are less likely to look to the federal government first for information about climate change.

- Residents of the Northeast (N.E.) and the Southeast (S.E.) are less likely than those of the Northwest (N.W.) and Southwest (S.W.) to say they would look first to the federal government for information about actions and programs related to climate change (1% and 2% vs. 8% and 8%, respectively).

Summary: Climate change (continued)

Foreign-born Calgarians are more likely than those who were born in Canada to be concerned about the causes of climate change and to support taking action to address climate change.

- Calgarians who were born outside of Canada are more likely than those born in Canada to agree ('strongly' or 'somewhat'):
 - They think we need to act now to prepare for the local impacts of climate change (85% vs. 73%);
 - They are concerned about the causes of climate change (84% vs. 74%, respectively);
 - They think we need to act now to address the causes of climate change (82% vs. 73%);
 - They think Calgarians should be doing more to help prevent climate change (77% vs. 64%); and
 - Their individual actions contribute to global climate change (76% vs. 62%).
- Those born in Canada are more likely than those not born in Canada to have been opposed to taking action on climate change one year ago (25% vs. 16%, respectively).

Foreign-born Calgarians are more likely than those who were born in Canada to trust The City as a source of information about climate change and to support the city overall moving towards net-zero emissions by 2050.

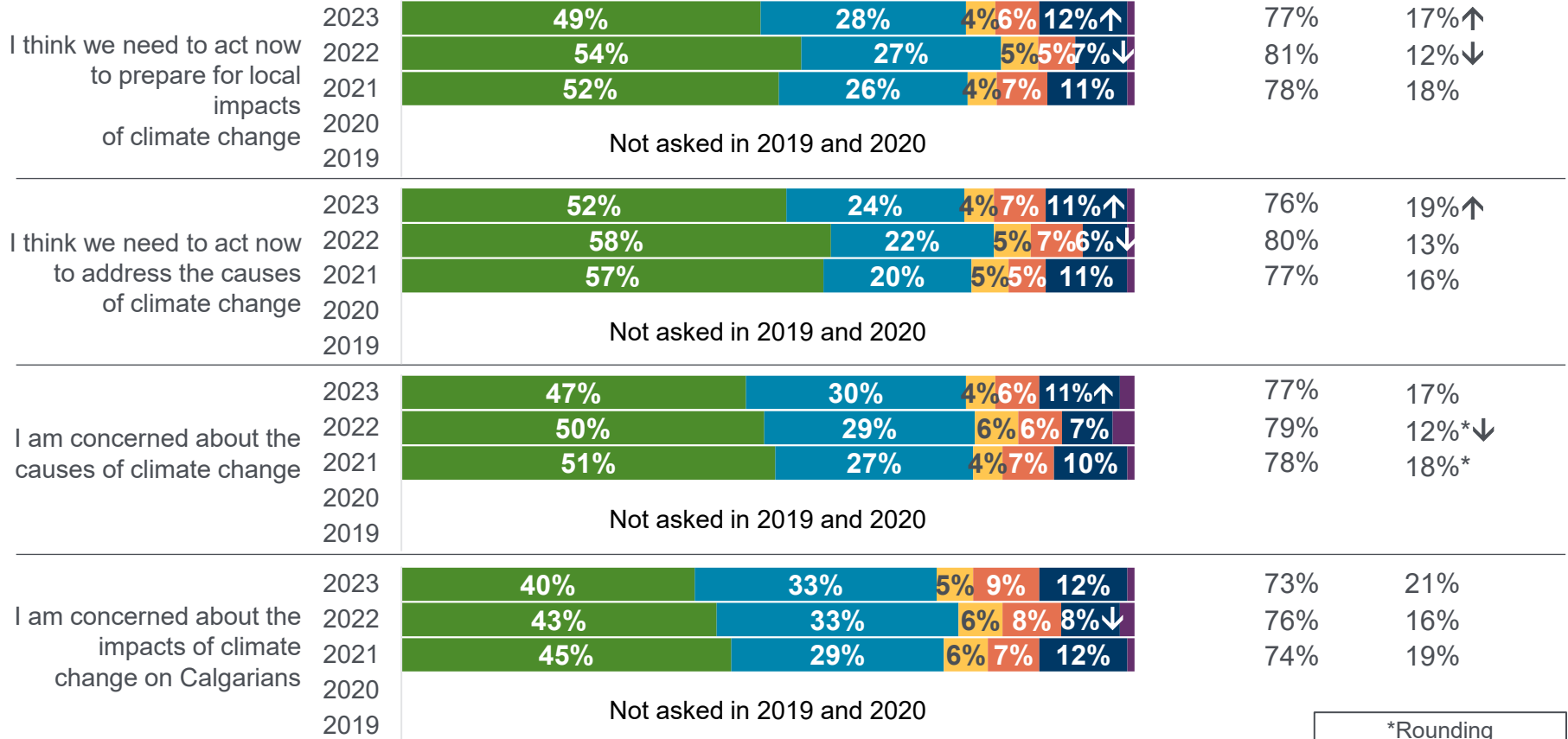
- Calgarians who were born outside of Canada are more likely than those born in Canada to say they trust ('a great deal' or 'a little') The City as a source of information about climate change (57% vs. 44%, respectively).
- Foreign-born Calgarians are more likely than Canadian-born Calgarians to support the city (municipal government and city residents) moving towards net-zero emissions by the year 2050 (82% vs. 71%, respectively).

Climate change opinions

Perceptions about Climate Change

■ Strongly agree ■ Somewhat agree ■ Neutral
■ Somewhat disagree ■ Strongly disagree ■ Don't know

Agree **Disagree**



*Rounding

Labels <3% are not shown

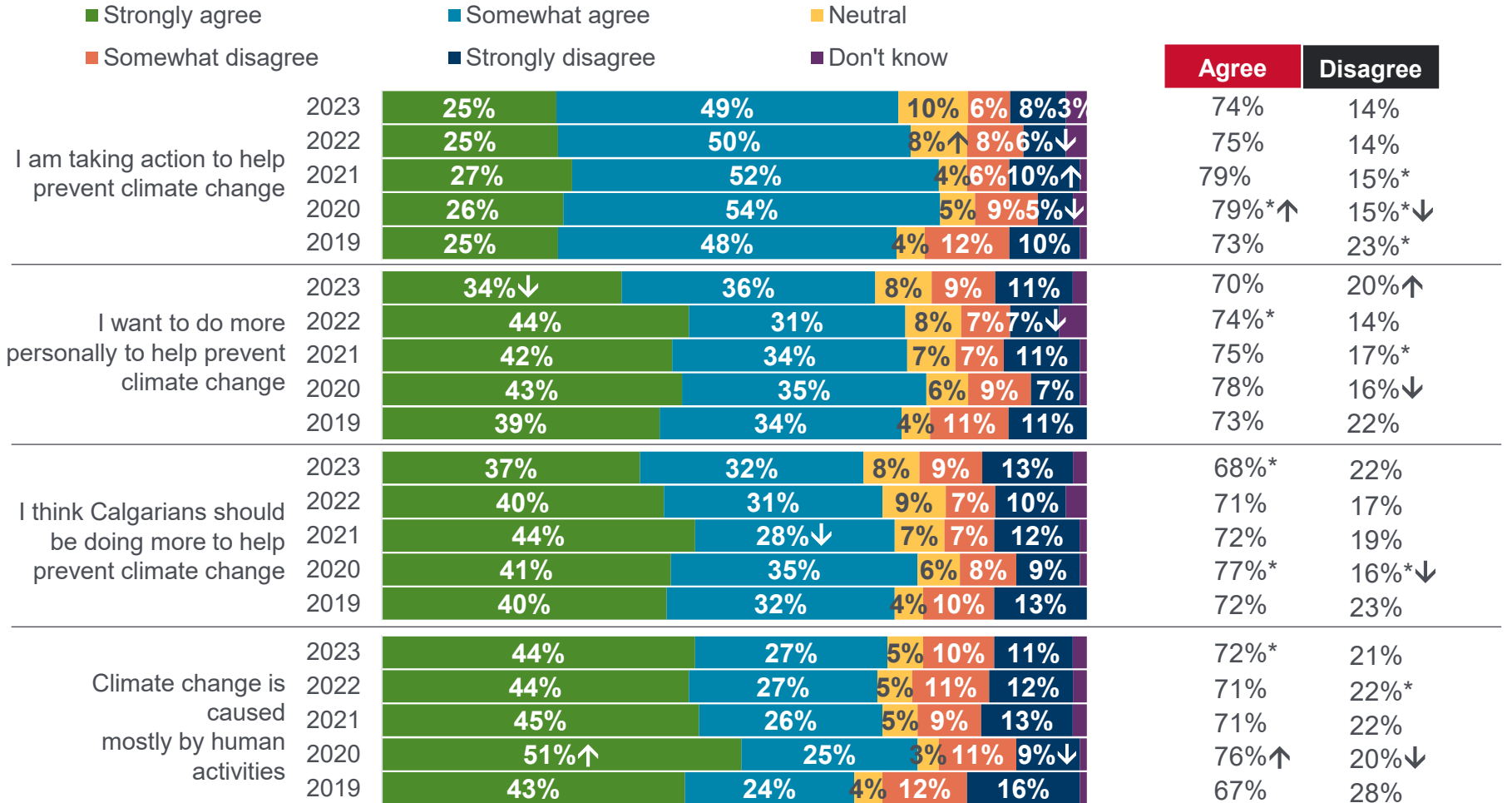
Q. The next few statements are about how you personally feel about climate change. To what extent do you agree or disagree with the following?

Base: All respondents (2023: n=500; 2022: n=500; 2021: n=500; 2020: n=502; 2019: n=504)

↑ Statistically higher than previous year
 ↓ Statistically lower than previous year

Climate change opinions (continued)

Perceptions about Climate Change



Q. The next few statements are about how you personally feel about climate change. To what extent do you agree or disagree with the following?

Base: All respondents (2023: n=500; 2022: n=500; 2021: n=500; 2020: n=502; 2019: n=504)

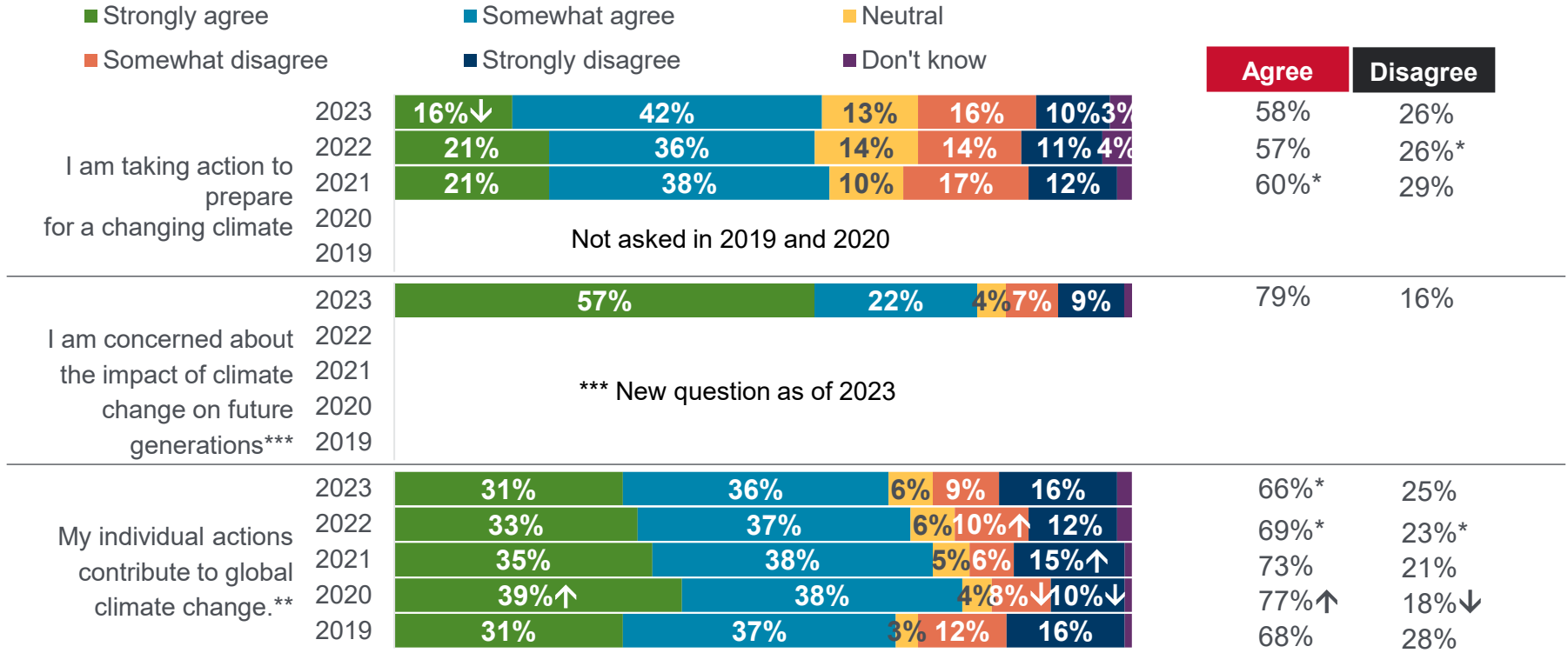
*Rounding

Labels <3% are not shown

↑ Statistically higher than previous year
↓ Statistically lower than previous year

Climate change opinions (continued)

Perceptions about Climate Change



** In 2019 and 2020, the wording was: My individual actions contribute to global impacts of climate change

Q. The next few statements are about how you personally feel about climate change. To what extent do you agree or disagree with the following?

Base: All respondents (2023: n=500; 2022: n=500; 2021: n=500)

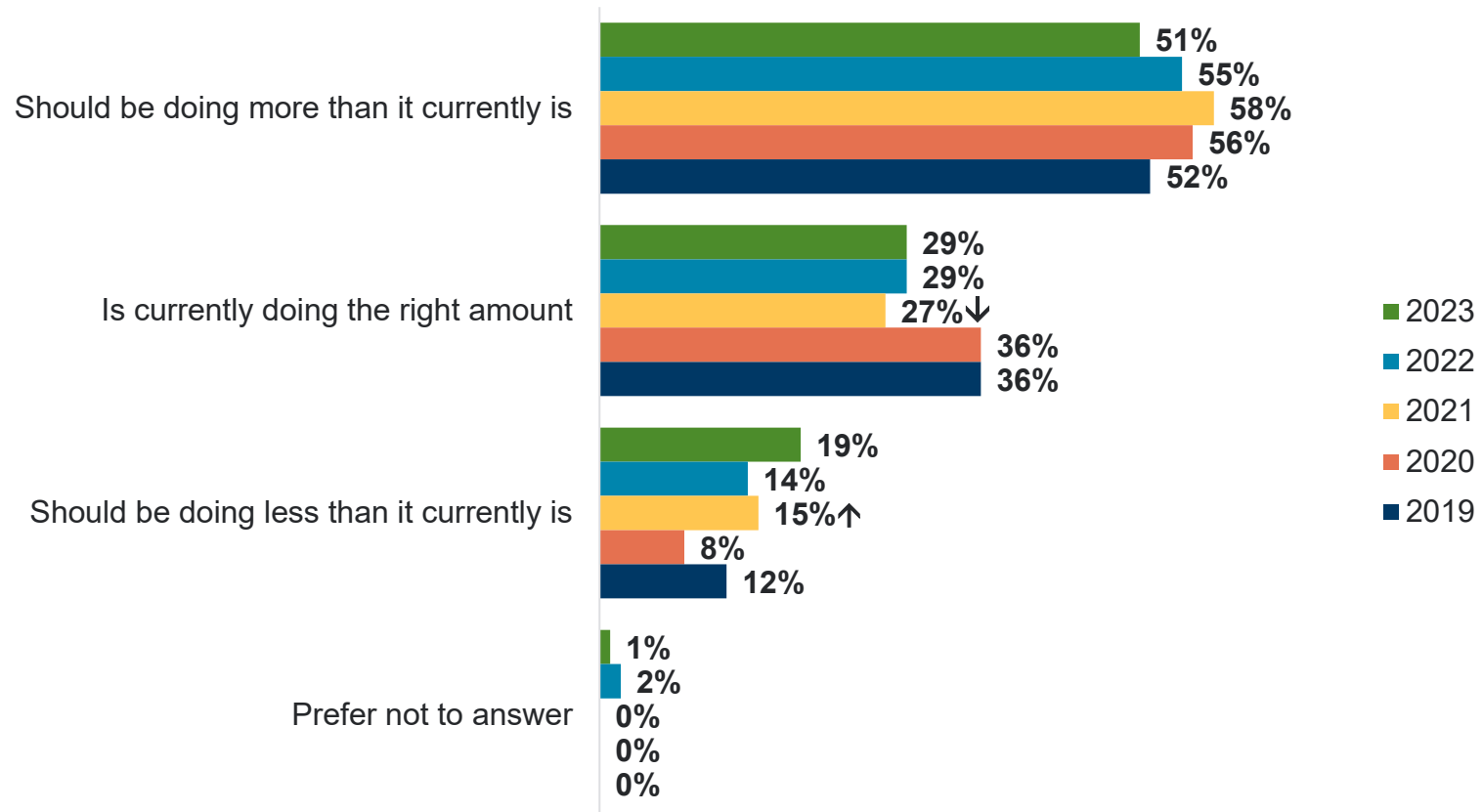
*Rounding

Labels <3% are not shown

↑ Statistically higher than previous year
↓ Statistically lower than previous year

Perception of The City's efforts to address climate change

Opinion about the work The City is doing to address climate change

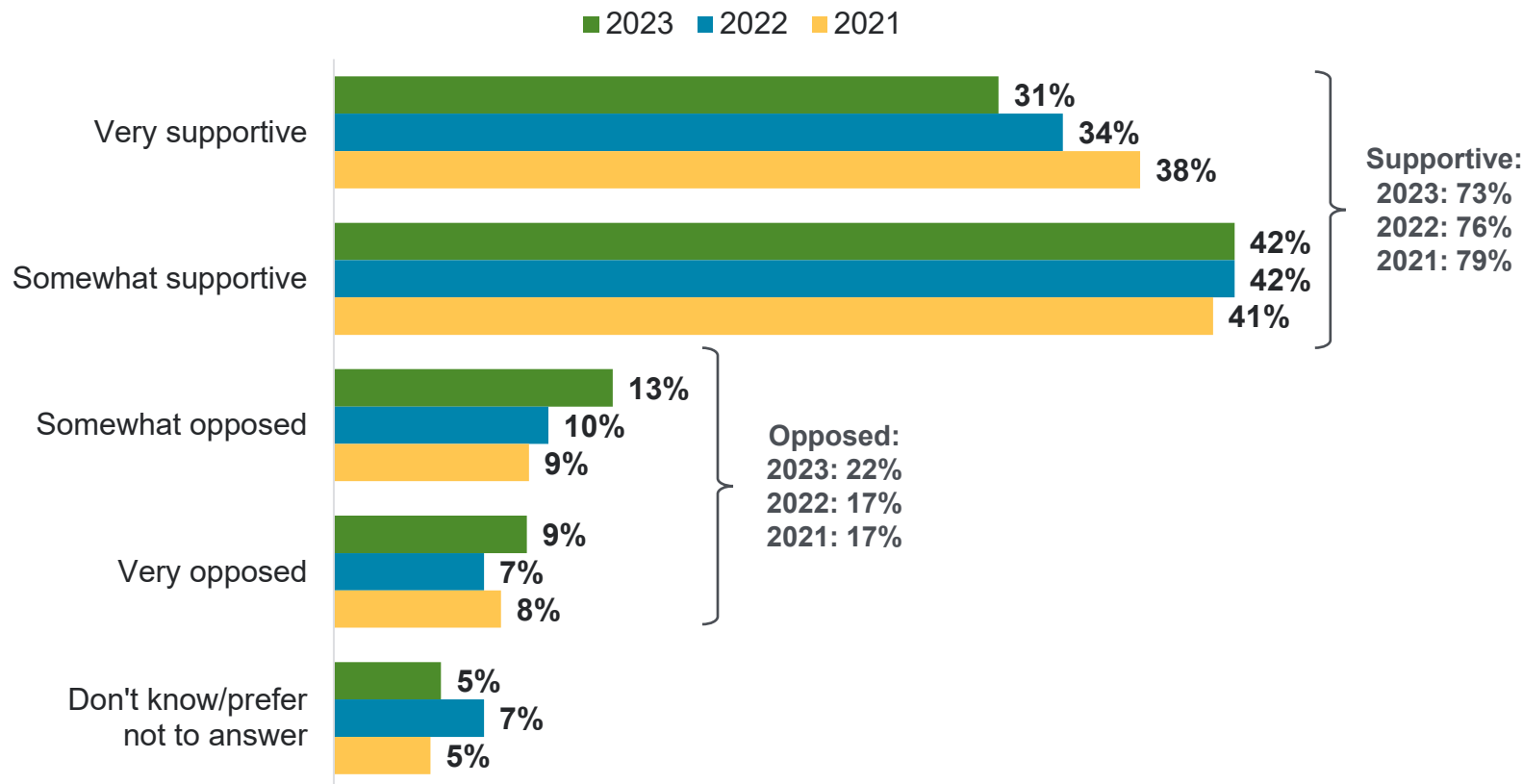


Q. Please tell me which of the following statements best describes your opinion about what The City of Calgary is doing to address climate change? Do you think The City . . .
 Base: All respondents excluding those who responded 'not sure' (2023: n=340; 2022: n=325; 2021: n=364; 2020: n=456; 2019: n=327)

↑ Statistically higher than previous year
 ↓ Statistically lower than previous year

Support for taking action on climate change one year ago

Support for taking action on climate change one year ago



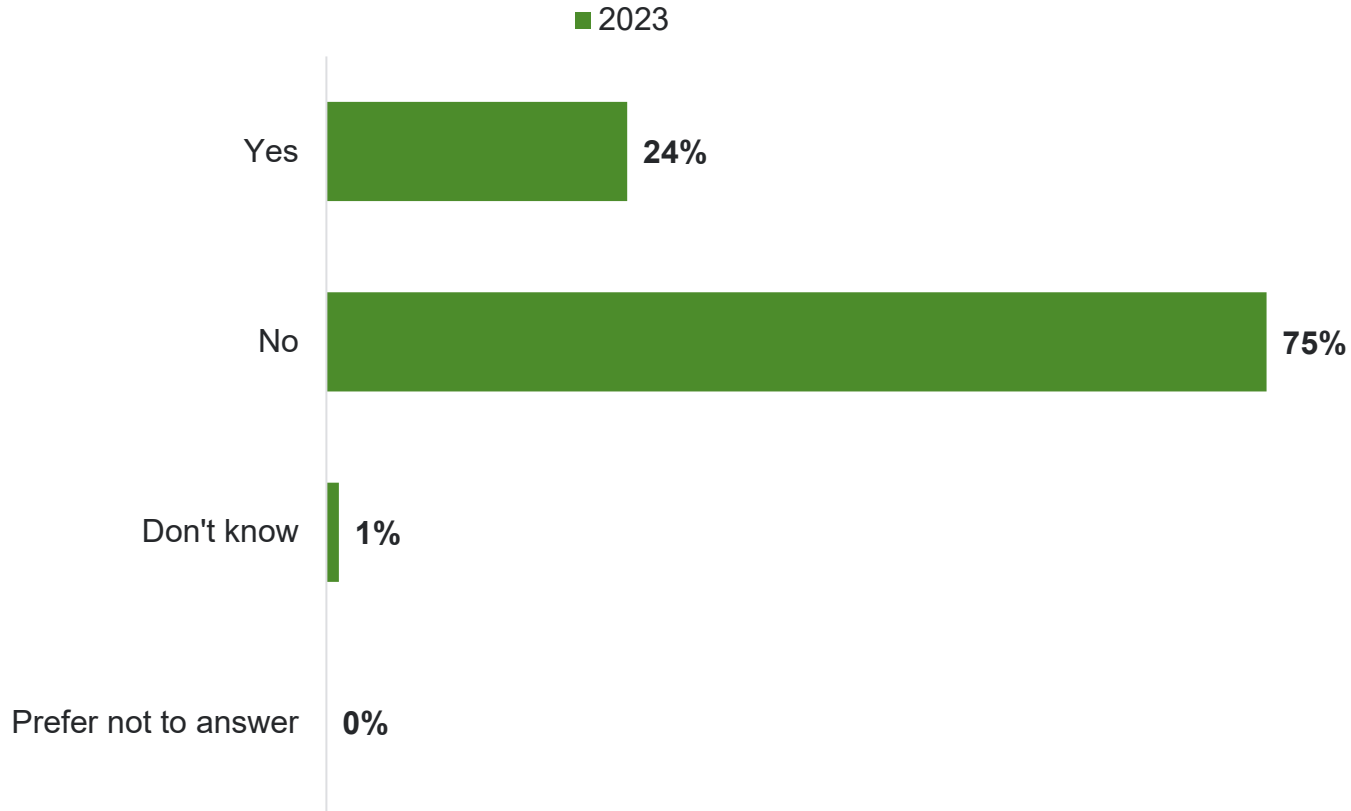
Q. Thinking back to one year ago, to what extent did you support or oppose taking action on climate change? Were you ...

Base: All respondents (2023: n=500; 2022: n=500; 2021: n=500)

↑ Statistically higher than previous year
↓ Statistically lower than previous year

Change in support for taking action on climate change

Change in support for taking action on climate change in the past year



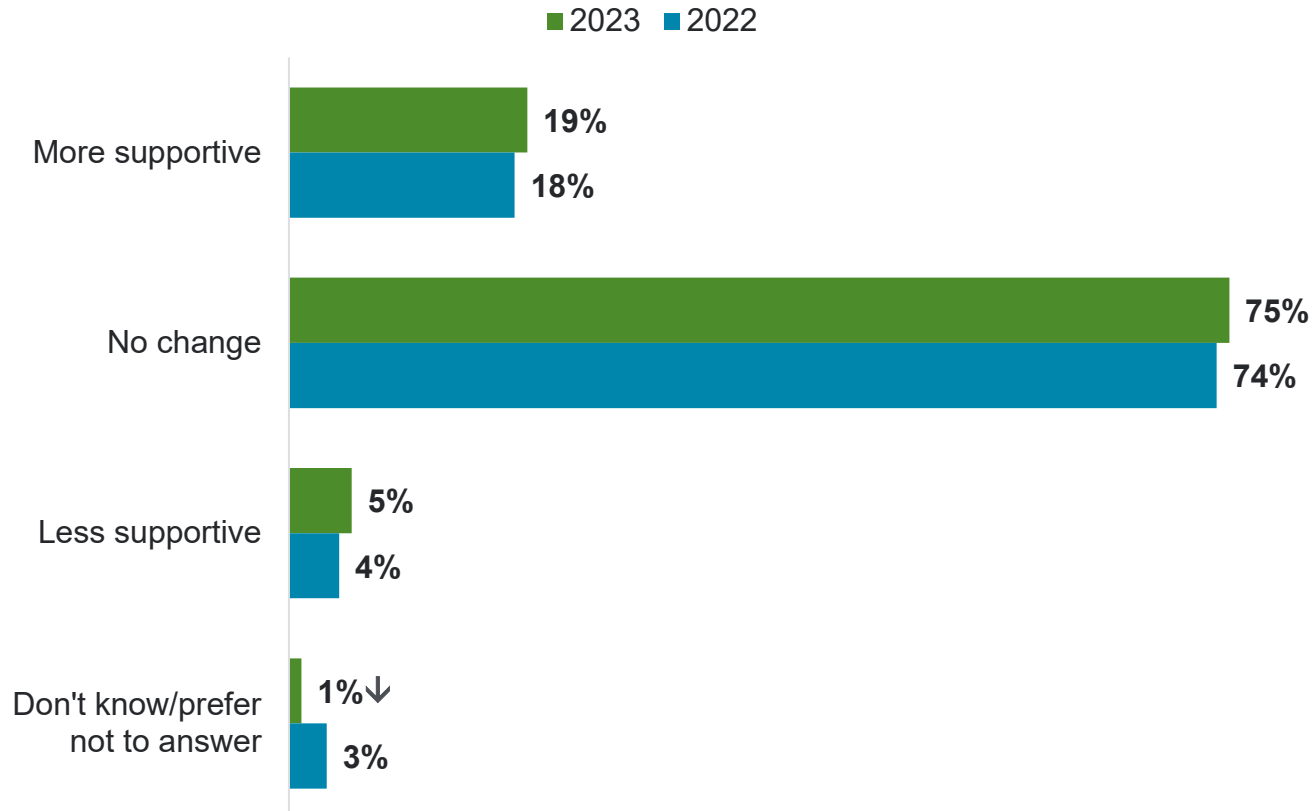
NOTE: Due to a change in the way the question was asked in 2022, results are not compared to those from previous years.

Q. And in the past year, has your support for taking action on climate change changed?

Base: All respondents (2023: n=500)

Support of climate change levels in past year

Levels of support on climate change in past year



NOTE: Due to a change in the way the question was asked in 2022, results are not compared to those from previous years.

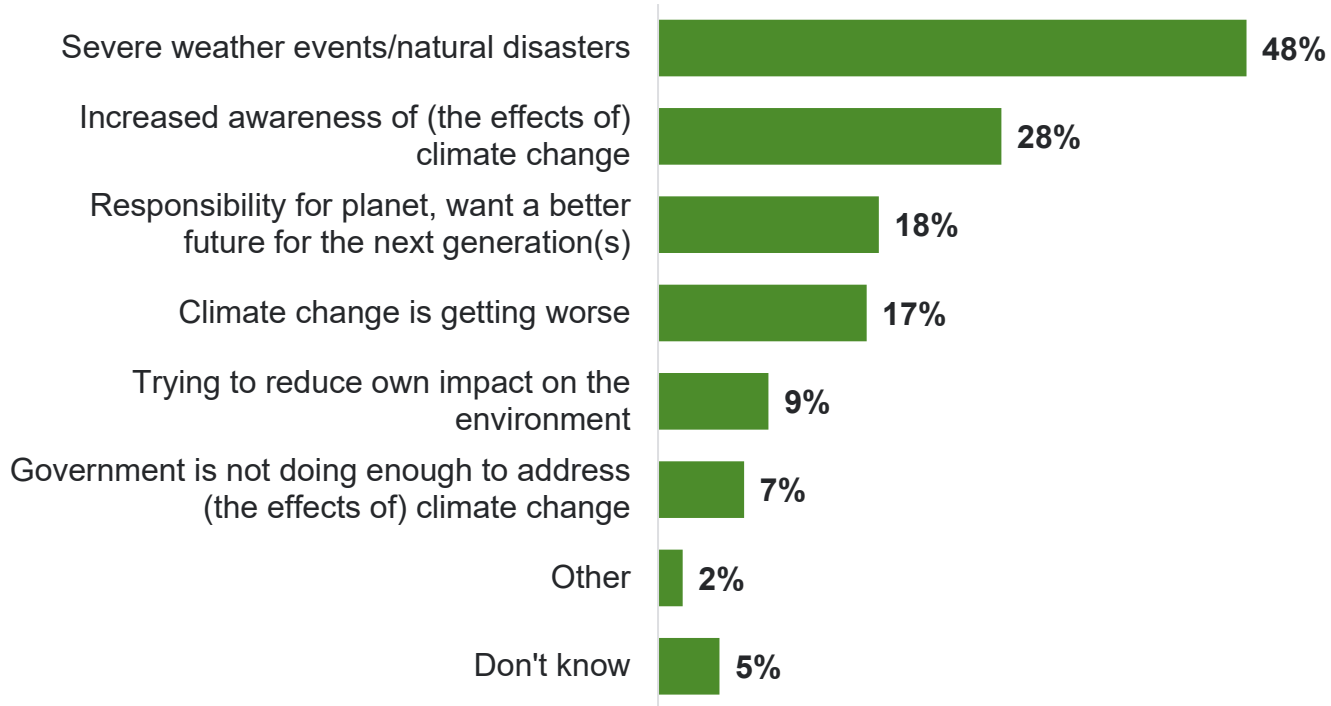
Q. In the past year, has your support for taking action on climate change changed? + Have you become more or less supportive?

Base: All respondents (2023: n=500; 2022: n=500)

↑ Statistically higher than previous year
↓ Statistically lower than previous year

Reasons for increase in support in past year

Reasons for being more supportive of taking action on climate change in the past year



NOTE: Due to a change in the coding of the responses to this question, results are not compared to those from previous years.

Q. Why has your level of support for taking action on climate changed in the past year?

NOTE: Response options were not read to the respondent.

Base: Respondents who answered 'more supportive' in the past year (n=93)

Multiple responses allowed

Reasons for decrease in support in past year (continued)

Due to a very small base size of respondents who say they have become less supportive of taking action on climate change in the past year (n=22), results for this question cannot be reported.

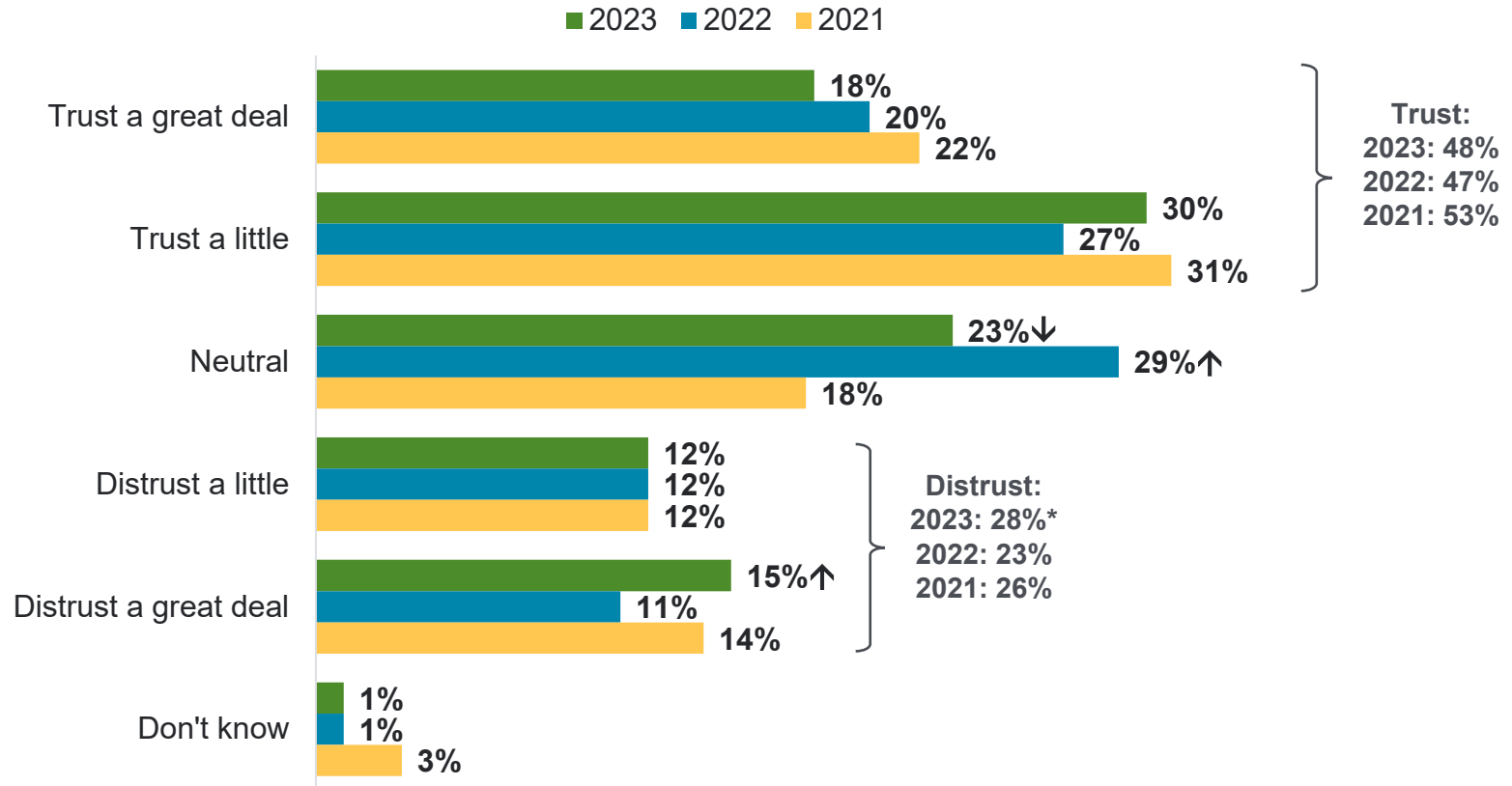
Q. Why has your level of support for taking action on climate changed in the past year?

NOTE: Response options were not read to the respondent.

Base: Respondents who answered 'opposed' in the past year (n=22)

Trust in The City as a source of information about climate change

Trust in The City as a source of information about climate change



Q. To what extent do you trust or distrust The City as a source of information about climate change? Would you say ...

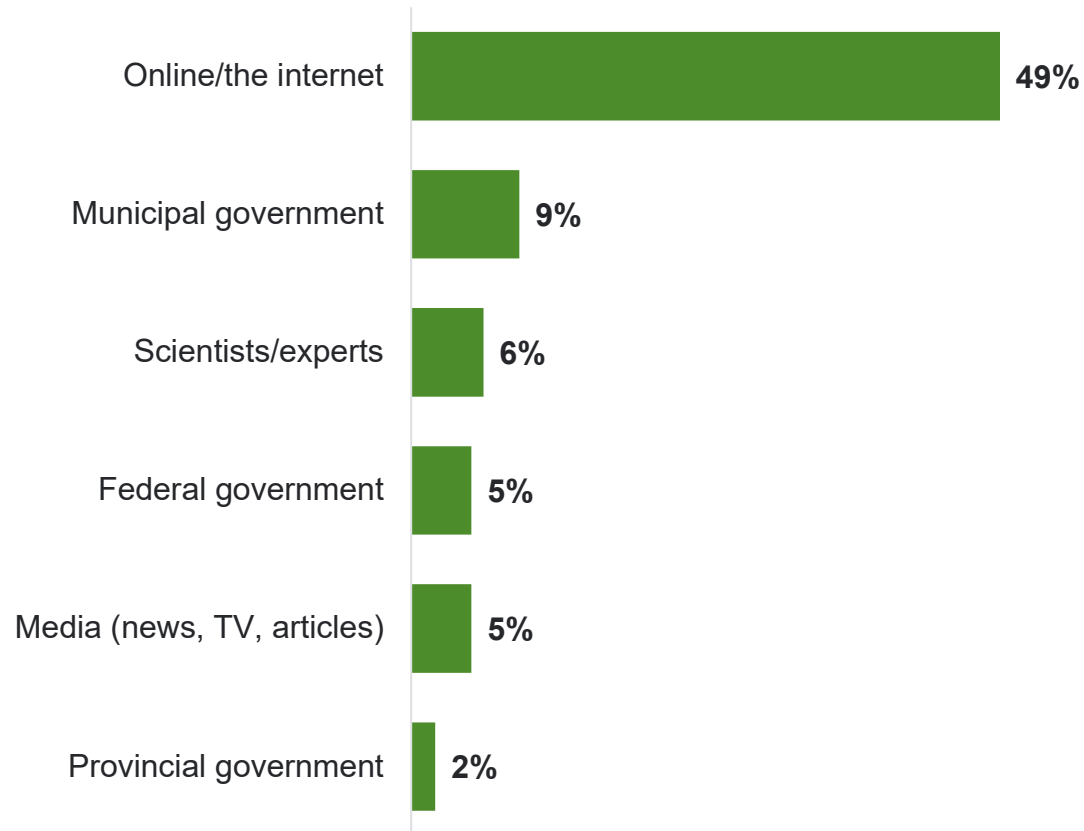
Base: All respondents (2023: n=500; 2022: n=500; 2021: n=500)

*Rounding

↑ Statistically higher than previous year
↓ Statistically lower than previous year

Accessing information about actions and programs on climate change

Accessing information about actions and programs on climate change



New question as of 2023.

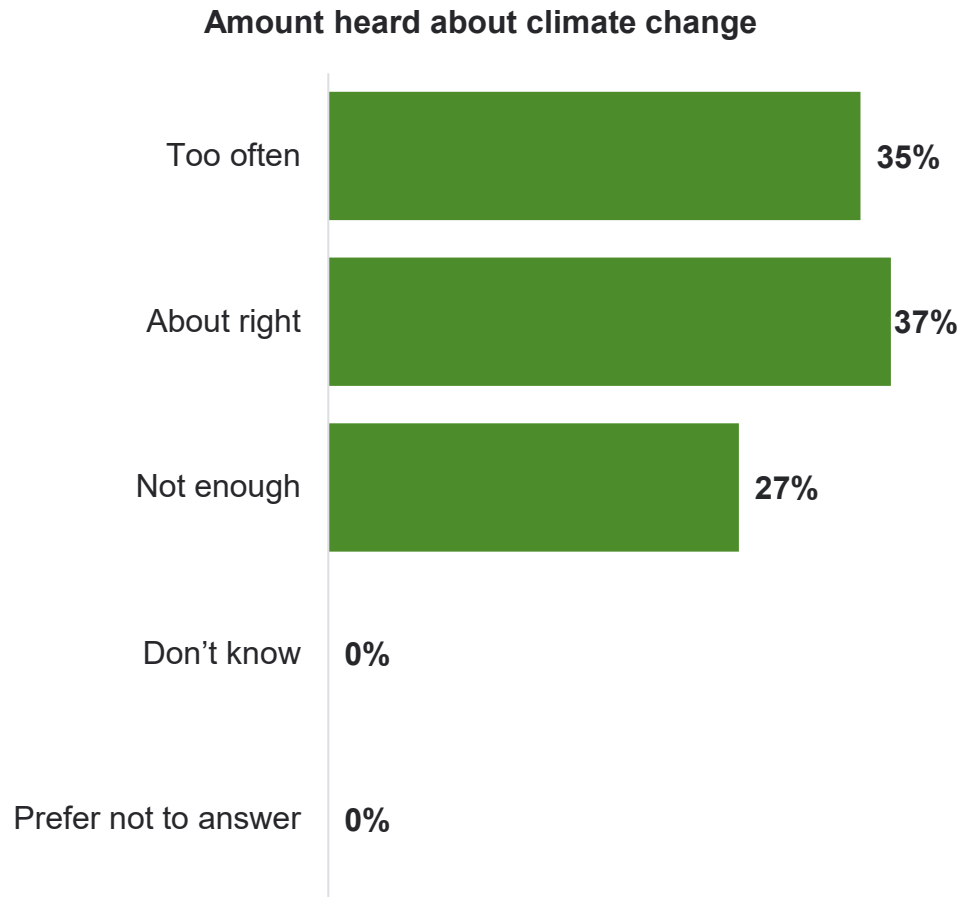
Q. Where would you go to access information about actions and programs related to climate change?

Base: Valid respondents (n=500)

Multiple responses allowed

Mentions of <2% are not shown

Amount heard about climate change



Note: New question in 2023.

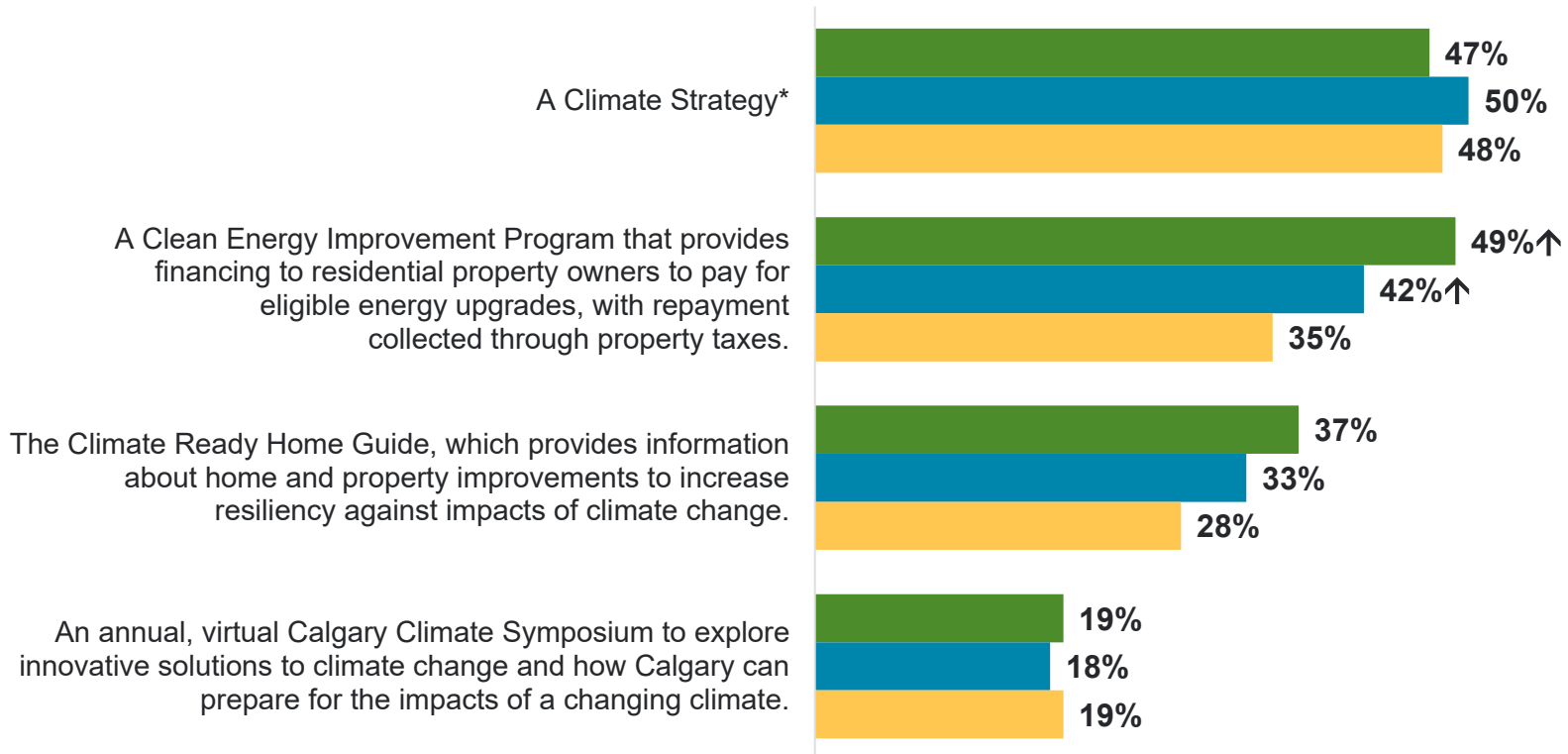
Q. Considering all the information you hear, read, or see about climate change, would you say you hear about climate change too often, about the right amount, or not enough?

Base: Valid respondents (n=500)

Aware of elements of The City's Climate Program

Awareness of City's Climate Program (% yes)

■ 2023 ■ 2022 ■ 2021



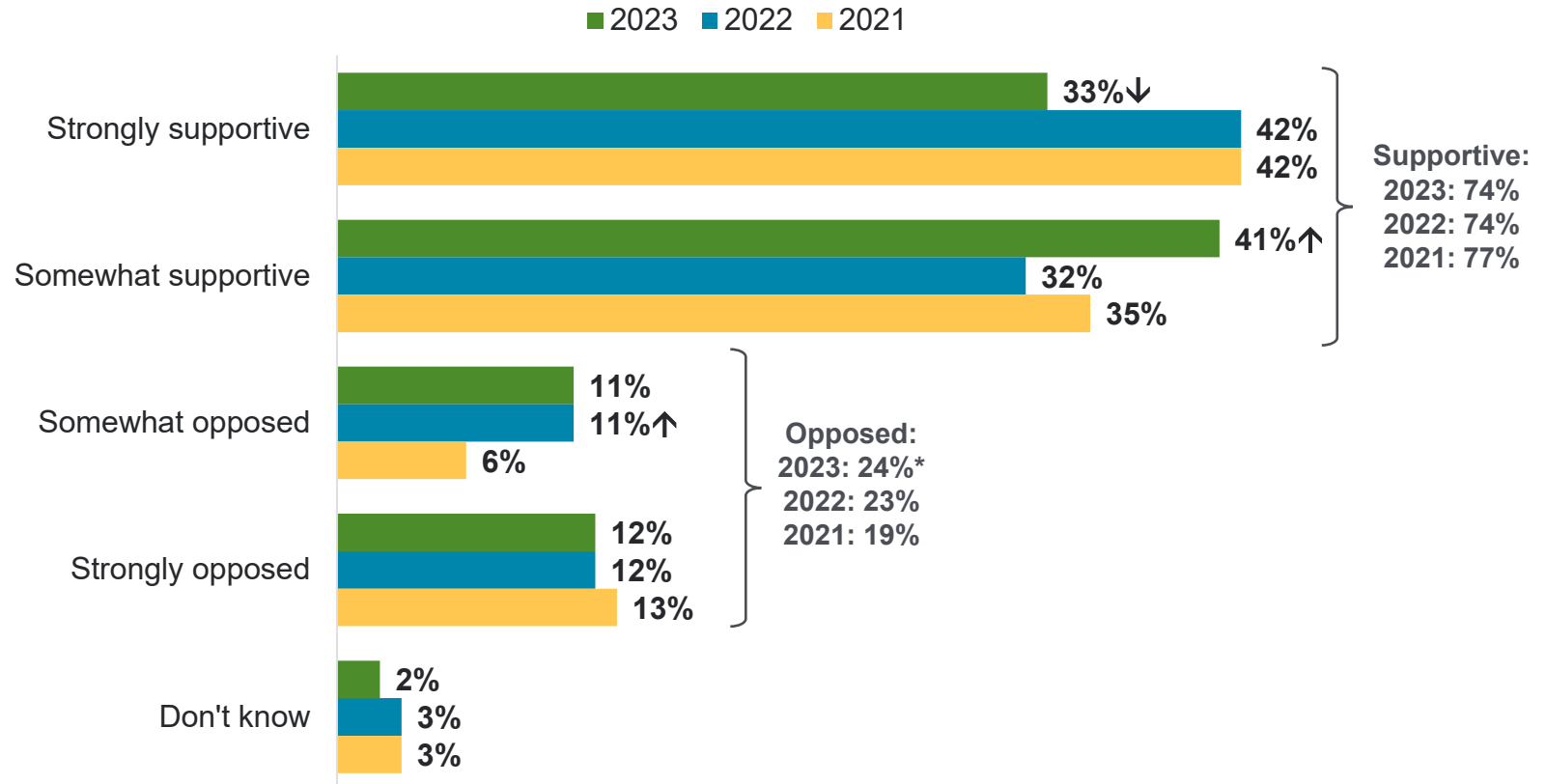
*In 2021, the wording was "A climate action plan"

Q. Before now, were you aware that The City's Climate Program includes the following?:
Base: All respondents (2023: n=500; 2022: n=500; 2021: n=500)

↑ Statistically higher than previous year
↓ Statistically lower than previous year

Support for net-zero emissions target for Calgary

Support for Calgary moving to net-zero emission by the year 2050



Q. The next question is about net-zero emissions. This means reducing the amount of man-made greenhouse gas released into the atmosphere and removing an equivalent amount of emissions from the environment. To what extent do you support or oppose the city, meaning the municipal government and citizens, moving to net-zero by the year 2050?

Base: All respondents (2023: n=500; 2022: n=500; 2021: n=500)

*Rounding

↑ Statistically higher than previous year
↓ Statistically lower than previous year



Extreme weather events

Summary: Extreme weather events

Wildfires/smoke have impacted more Calgarians in the past five years more than other extreme weather events.

- Nearly seven-in-ten (68%) of Calgarians say they have been impacted (i.e. experienced damage, incurred costs, and/or had health impacts or injury) by wildfires/smoke in the past five years, a statistically significant increase from 43% in 2022. This is likely related to the fires in Grande Prairie that saw Calgary hosting evacuees, as well as fires that impacted Kelowna, B.C.
- Compared to 2022, more Calgarians report being impacted by hailstorms (36%, up from 29%) and drought (11%, up from 5%).
- One quarter indicate they have been impacted by snow/ice storms (26%) and/or heat waves/extreme heat (24%) in the past five years, consistent with results in 2022. Severe winds have impacted 18% of Calgarians.
- In the past five years, few Calgarians have been impacted by extreme rain events and associated flooding, excluding river flooding (8%), river flooding (2%) and tornados (1%).
- One-half (48%) of Calgarians say they have not been impacted by any of these extreme weather events in the past five years, on par with 2022.

Summary: Extreme weather events (continued)

The majority of Calgarians expect there will be more wildfires/smoke, heat waves/extreme heat events, and drought in the next ten years, while water-related extreme weather events are expected to be less frequent.

- In the next ten years, the majority of Calgarians think there will be more wildfires/smoke (72%), heat waves/extreme heat (65%), drought (53%), on par with 2022.
- However, their expectations for water-related extreme events are down from 2022. Fewer than one-half (44%) of Calgarians expect to see more hailstorms in the next 10 years, down from 51% in 2022; one-third expect to see more extreme rain events (33% vs. 41% in 2022); and, fewer than three-in-ten expect to see more river flooding (28% vs. 36% in 2022).

Concern among Calgarians about the impact extreme weather events are having or might have on their life is the highest it has been to date.

- Nearly three-quarters (73%) of Calgarians are concerned about the impact extreme weather events are having or might have on their life. Although this is not statistically different than in 2022, it continues an upward trend from 58% in 2019.

Summary: Extreme weather events (continued)

A minority of Calgarians have taken specific actions to reduce the impacts of extreme weather events on themselves/their property.

- Two-fifths (39%) of Calgarians have sought to reduce the impacts of extreme weather events by purchasing an air purifier while slightly fewer have installed air conditioning (36%), improved water drainage on their property (35%) and/or planted trees for shade (35%).
- One-quarter (25%) have planted drought-resistant plants, while fewer have purchased flood insurance (22%), installed hail-resistant roofing (16%) or siding (13%), and/or moved to a different location (12%) to reduce the impact of extreme weather events on them.
- One-fifth (20%) of Calgarians say they have taken no specific actions to mitigate personal impacts of extreme weather events.

Calgarians are split on who they think should be leading Calgarians in taking action to help reduce the potential impacts of extreme weather events, with The City of Calgary edging out other levels of government and individuals.

- When asked, unaided, who they think should be leading Calgarians in taking action to help reduce the potential impacts of extreme weather events, the top first mention is municipal government/The City of Calgary (26%), followed by provincial government (19%, up from 14% in 2022), individuals/Calgarians (17%), and the federal government (10%).
- When additional mentions are taken into account, municipal government/The City of Calgary still tops the list (50%) followed by the provincial government (47%), the federal government (32%), and individuals/Calgarians (30%), on par with 2022.

Summary: Extreme weather events (continued)

Females are no more likely than males to have been impacted by most extreme weather events, but they report higher expectation of an increase to these events and greater concern about them.

- Females are more likely than males to have been impacted by heat waves or extreme heat (28% vs. 20%). There are no statistical differences for other extreme weather events.
- Females are more likely than males to think there will be more:
 - Smoke from wildfires (76% vs. 64%, respectively);
 - Wildfires (71% vs. 59%);
 - Heat waves or extreme heat (71% vs. 58%);
 - Droughts (57% vs. 48%);
 - Snow or ice storms (42% vs. 27%);
 - Tornados (32% vs. 24%); and
 - River flooding (34% vs. 22%).
- Females are more likely than males to be concerned about the impact extreme weather events are having or might have on their life (81% vs. 63%, respectively).
- Females are more likely than males to have planted drought-resistant plants (30% vs. 20%).

Summary: Extreme weather events (continued)

Older Calgarians are slightly less likely than their younger counterparts to say they have been impacted by most extreme weather events, to expect there will be more extreme weather events in the next ten years, or to be concerned about the impact of extreme weather events on their life.

- Calgarians 18 to 64 years of age are more likely than those 65 or older to say they have been impacted by the following weather events in the past five years:
 - Hailstorms (43% 18 to 34 and 35% 35 to 64 vs. 24% 65 or older);
 - Snow or ice storms (33% 18 to 34 and 27% 35 to 64 vs. 14% 65 or older);
- Younger Calgarians are more likely than Calgarians 65 or older to think there will be more of the following events in the next ten years:
 - Smoke from wildfires (78% 18 to 34 and 70% 35 to 64 vs. 58% 65 or older);
 - Wildfires (75% 18 to 34 and 66% 35 to 64 vs. 45% 65 or older);
 - Heat waves or extreme heat (73% 18 to 34 and 65% 35 to 64 vs. 53% 65 or older); and
 - Snow or ice storms (44% 18 to 34 and 34% 35 to 64 vs. 22% 65 or older).
- Calgarians 18 to 64 years of age are more likely than seniors (65 or older) to be ‘very’ concerned about the impact extreme weather events are having or might have on their life (36% 18 to 34 and 36% 35 to 64 vs. 19% 65 or older).

Younger Calgarians are more likely than their older counterparts to say they have taken action to reduce the impact of weather events on themselves or their property and to say municipal government should be leading citizens in taking action.

- Calgarians 18 to 34 are more likely to say they moved to a different location to reduce the impact of weather events (22% vs. 8% 35 to 64 and 8% 65 or older).
- Calgarians 18 to 34 are more likely to say the municipal government should be leading citizens in taking action (36% vs. 22% 35 to 64 and 18% 65 or older).

Summary: Extreme weather events (continued)

Northeast residents are most likely to be impacted by extreme weather events.

- Residents of the Northeast (N.E.) are more likely than residents of all other quadrants that they've been impacted by an extreme weather event (66% vs. 52% Southwest, 50% Southeast, and 45% Northwest).
 - Heat waves or extreme heat (35% N.E. vs. 21% S.W., 21% S.E., and 22% N.W.); and
 - Severe winds (27% N.E. vs. 11% S.W. and 14% N.W.).

Calgarians who were not born in Canada are more likely to be concerned about the impacts of extreme weather events, and their concern is more likely to be increasing.

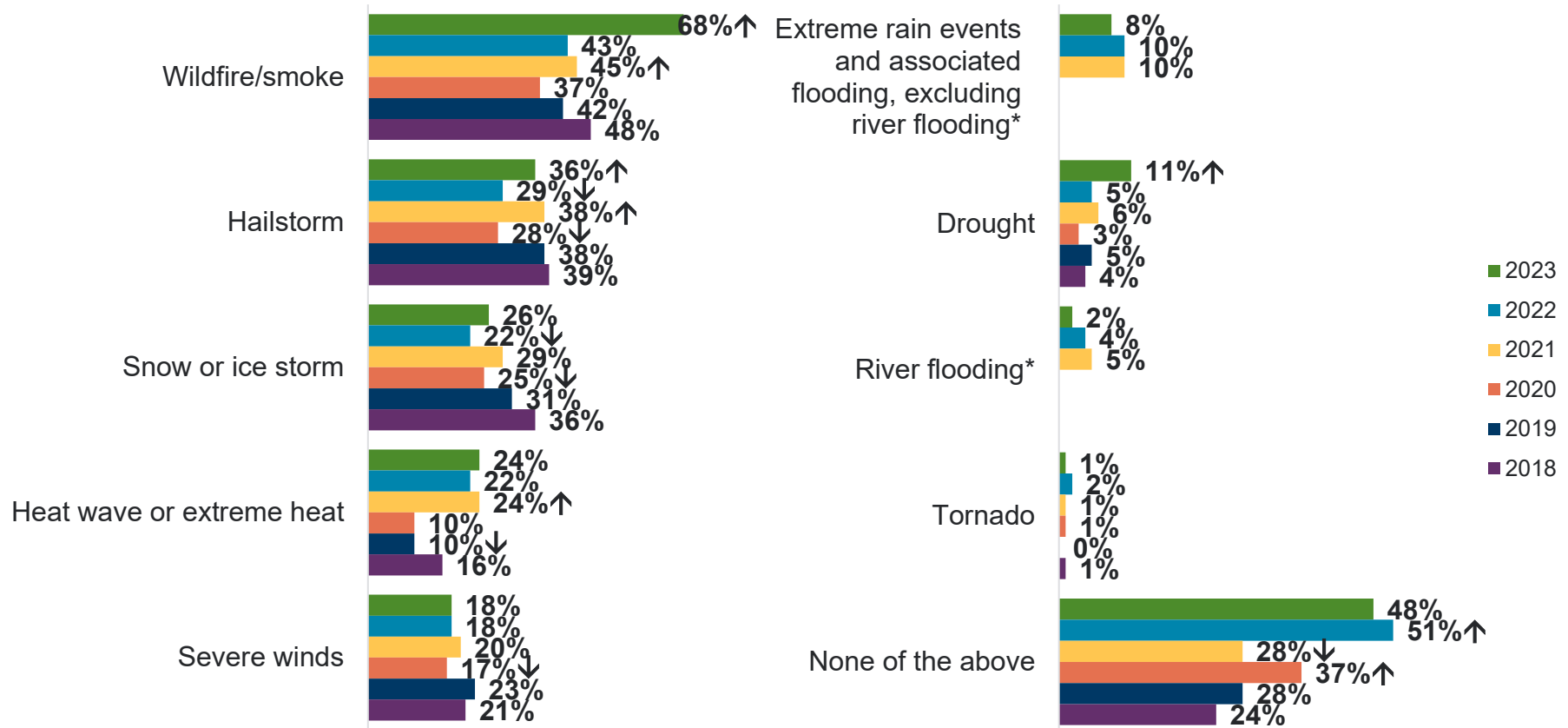
- Residents who were not born in Canada are more likely than Canadian-born residents to say they're concerned about the impacts that extreme weather events have or might have on their lives (80% vs. 69% born in Canada), and also more likely to be 'very' concerned (43% vs. 29% born in Canada).
- Those who immigrated to Canada are more likely than those born in Canada to feel more concerned compared to last year about the impacts of extreme weather events (48% vs. 36% born in Canada).

Calgarians who were not born in Canada are more likely to believe the municipal government should be leading Calgarians in taking action to help reduce impacts of extreme weather.

- Calgarians who were not born in Canada are more likely than Canadian-born residents to say the municipal government should be taking the lead to help reduce impacts (34% vs. 22% born in Canada),

Extreme weather events

Percentage of Calgarians impacted by types of extreme weather events in past 5 years



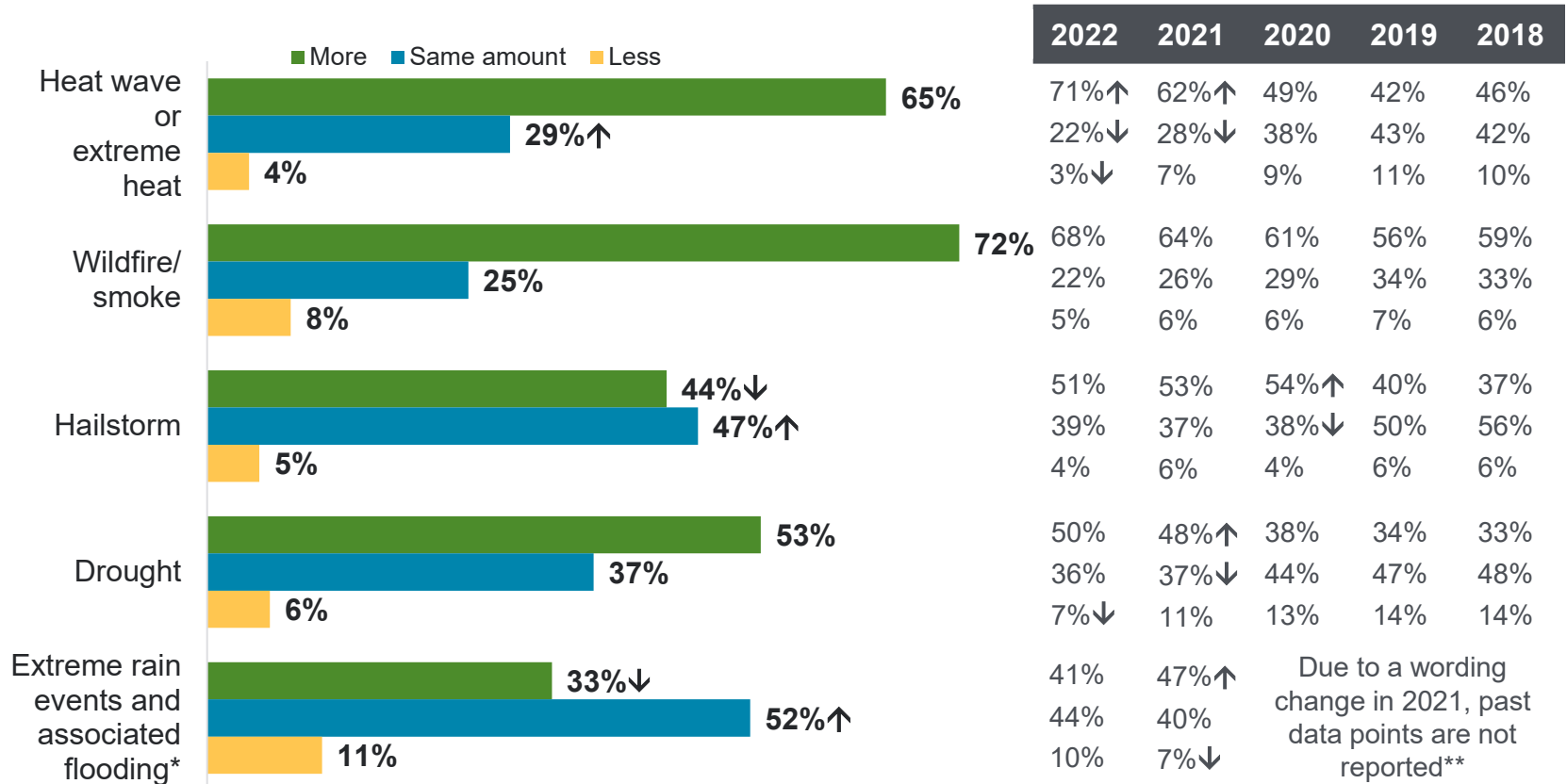
*Prior to 2021, the question asked about “flooding” and in 2021, this was broken out into “river flooding” and “extreme rain events and associated flooding, not including river flooding.”

Q. Have you been impacted by any of the following weather events in the past 5 years? By impacted, I mean where there has been damage, you have incurred costs, health impacts or injury.
 Base: Valid respondents (2023: n=500; 2022: n=500; 2021: n=500; 2020: n=502; 2019: n=504; 2018: n=500)

↑ Statistically higher than previous year
 ↓ Statistically lower than previous year

Expectations about future weather events

Opinions about frequency of weather-related events in the next 10 years



**Prior to 2021, the question asked about “flooding” and in 2021, this was broken out into “river flooding” and “extreme rain events and associated flooding, not including river flooding.”

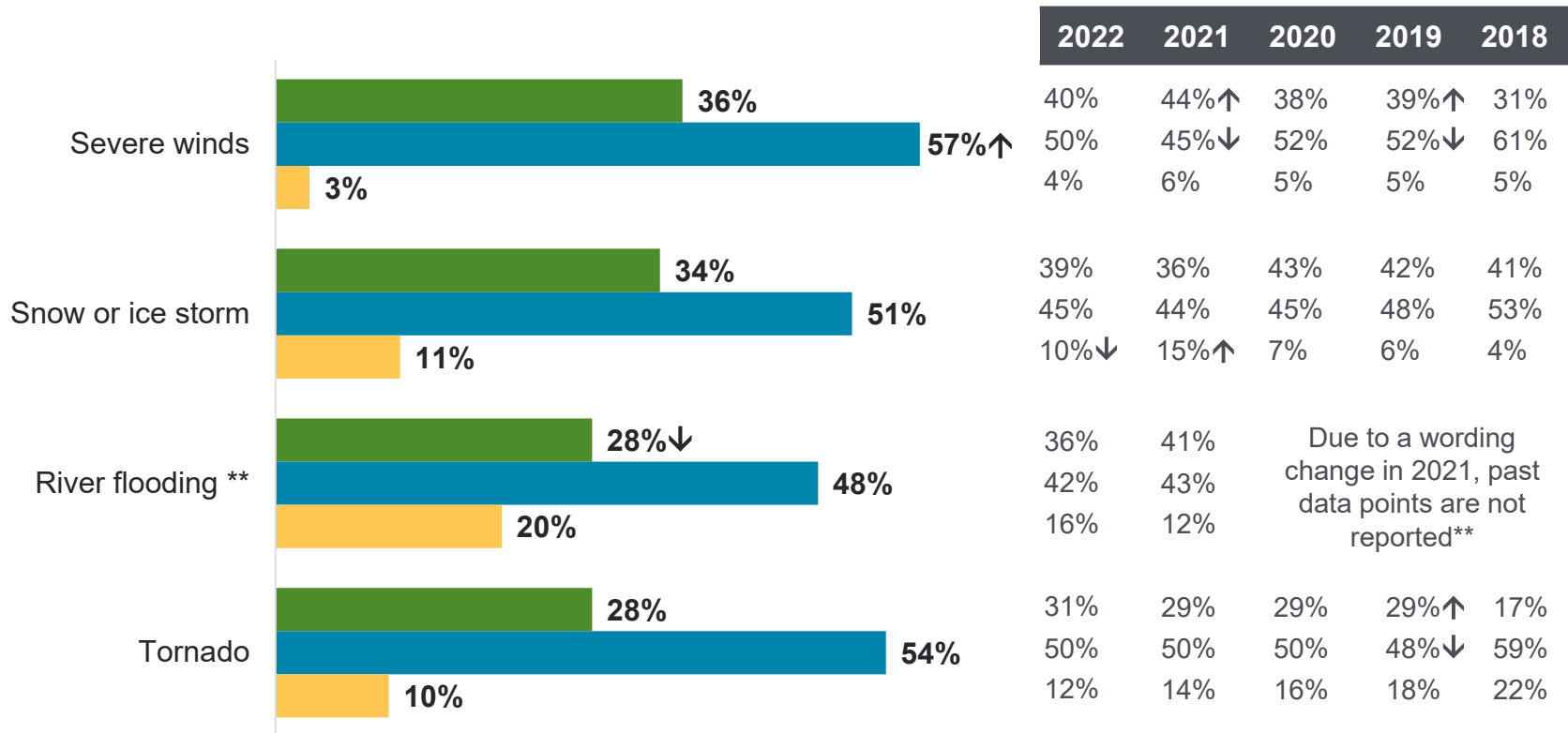
Q. Please tell me if you think there will be more, less, or about the same amount of each of the following extreme weather events over the next 10 years.
 Base: Valid respondents (2023: n=500; 2022: n=500; 2021: n=500; 2020: n=502; 2019: n=504; 2018: n=500)

*Excluding river flooding

↑ Statistically higher than previous year
 ↓ Statistically lower than previous year

Expectations about future weather events (continued)

Opinions about frequency of weather-related events in the next 10 years



**Prior to 2021, the question asked about “flooding” and in 2021, this was broken out into “river flooding” and “extreme rain events and associated flooding, not including river flooding.”

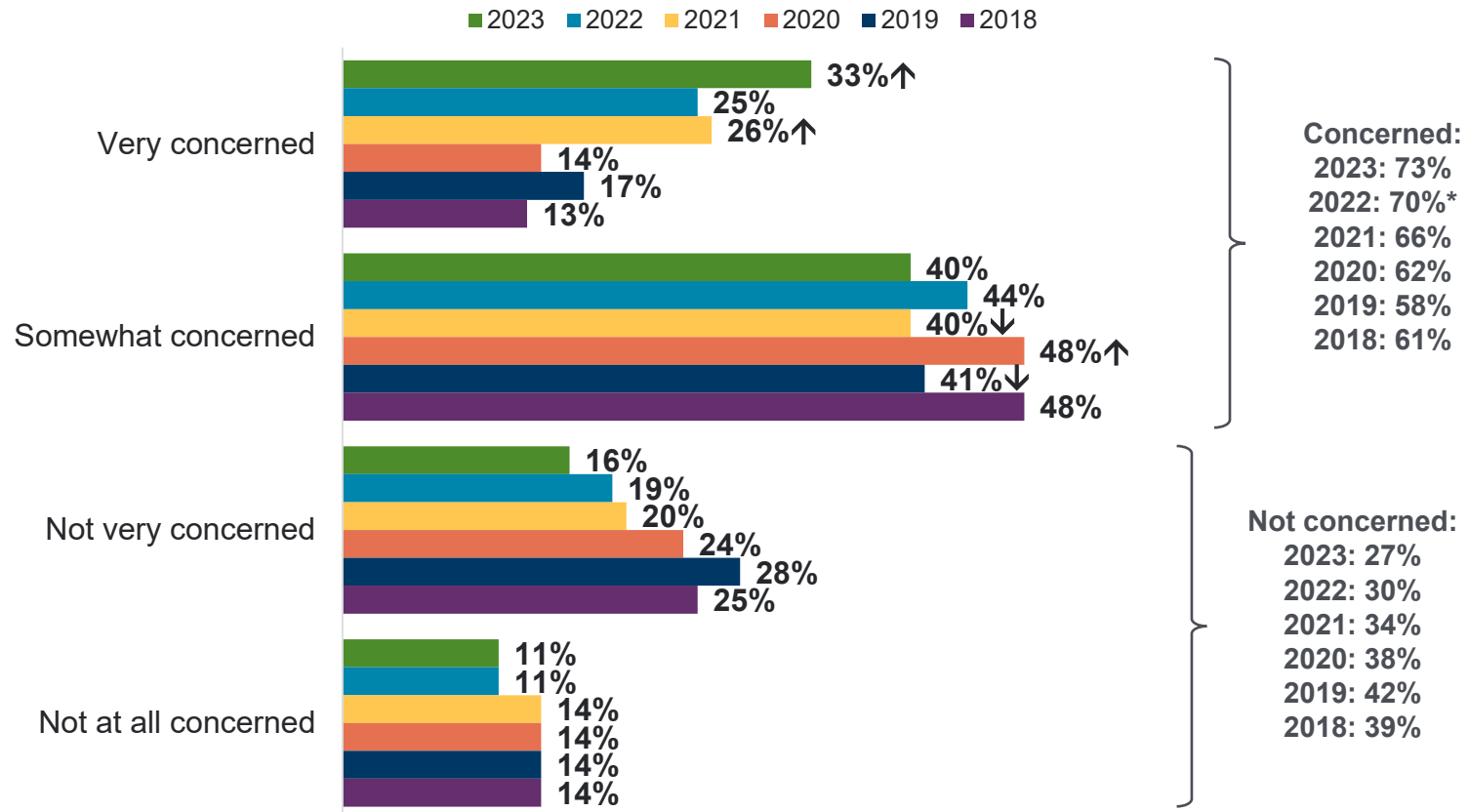
Q. Please tell me if you think there will be more, less, or about the same amount of each of the following extreme weather events over the next 10 years.

Base: Valid respondents (2023: n=500; 2022: n=500; 2021: n=500; 2020: n=502; 2019: n=504; 2018: n=500)

↑ Statistically higher than previous year
↓ Statistically lower than previous year

Concern about impact of extreme weather

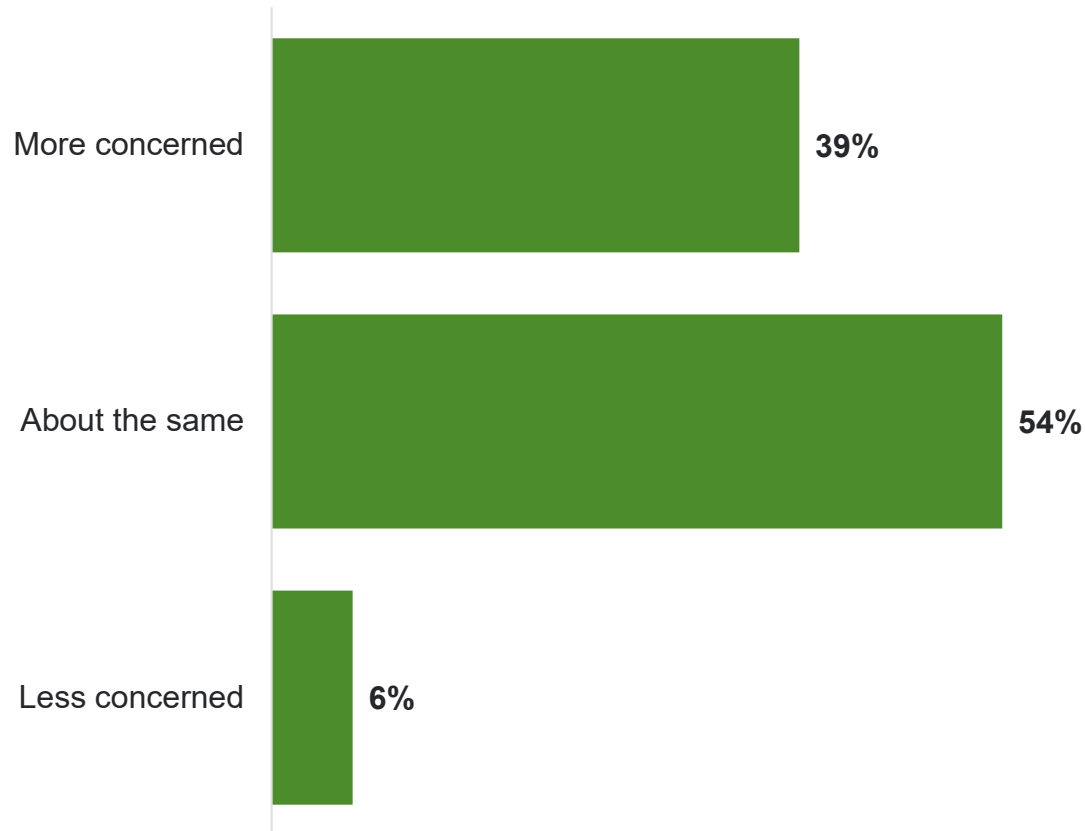
Concern about impact of extreme weather events on one's life



Q. How concerned are you about the impacts that extreme weather events are having, or might have, on your life? Would you say you are ...
 Base: Valid respondents (2023: n=500; 2022: n=500; 2021: n=500; 2020: n=502; 2019: n=504; 2018: n=500)

Level of concern about impact of extreme weather events

Level of concern about impact of extreme weather events

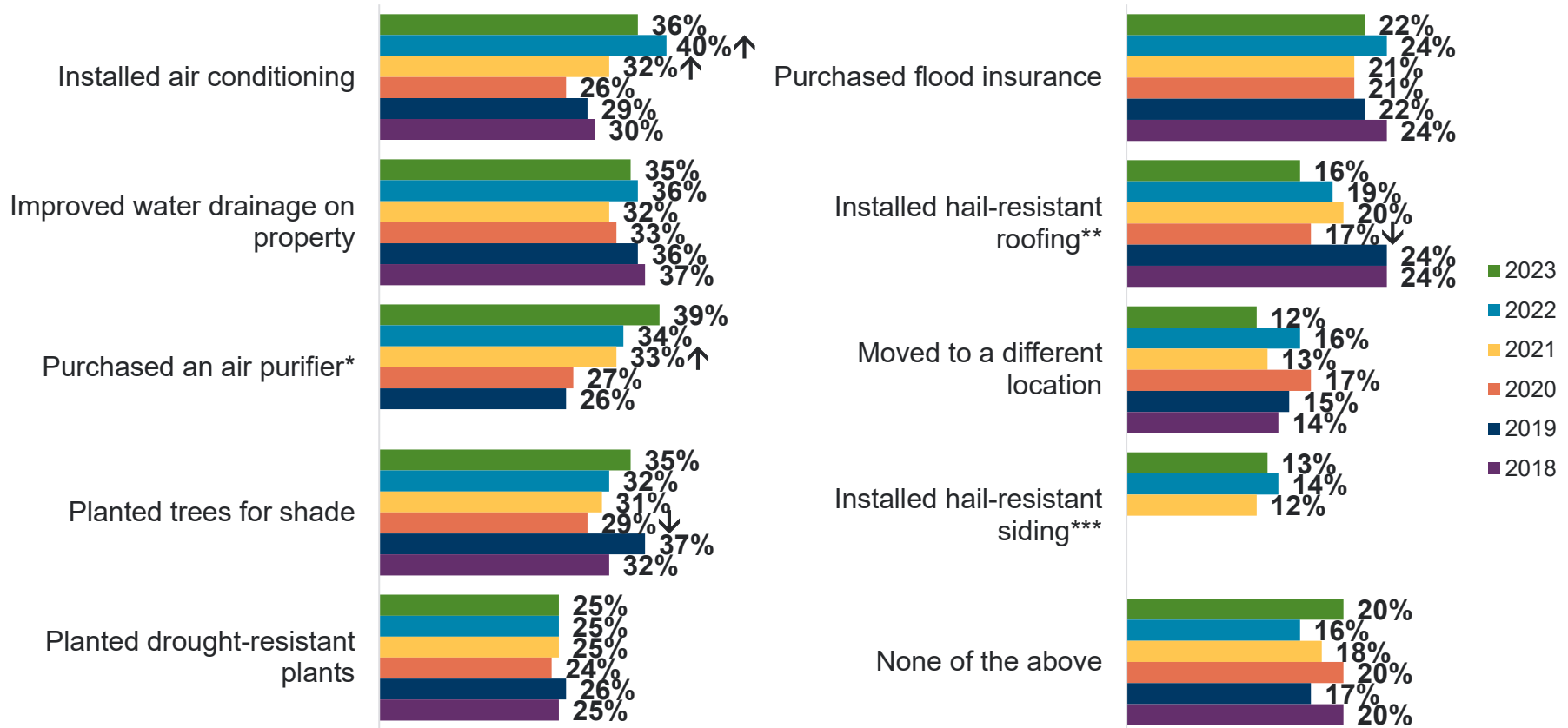


Q. Compared to last year, are you more concerned, less concerned, or do you have about the same level of concern about the impacts that extreme weather events are having, or might have, on your life?
Base: Valid respondents (n=500)

Question not asked in prior to 2023

Actions taken to reduce impact

Actions taken by Calgarians to reduce impact of extreme weather events on them



*Not asked in 2018

**Wording prior to 2021: Upgraded to hail-resistant shingles

*** Not asked 2018-2020

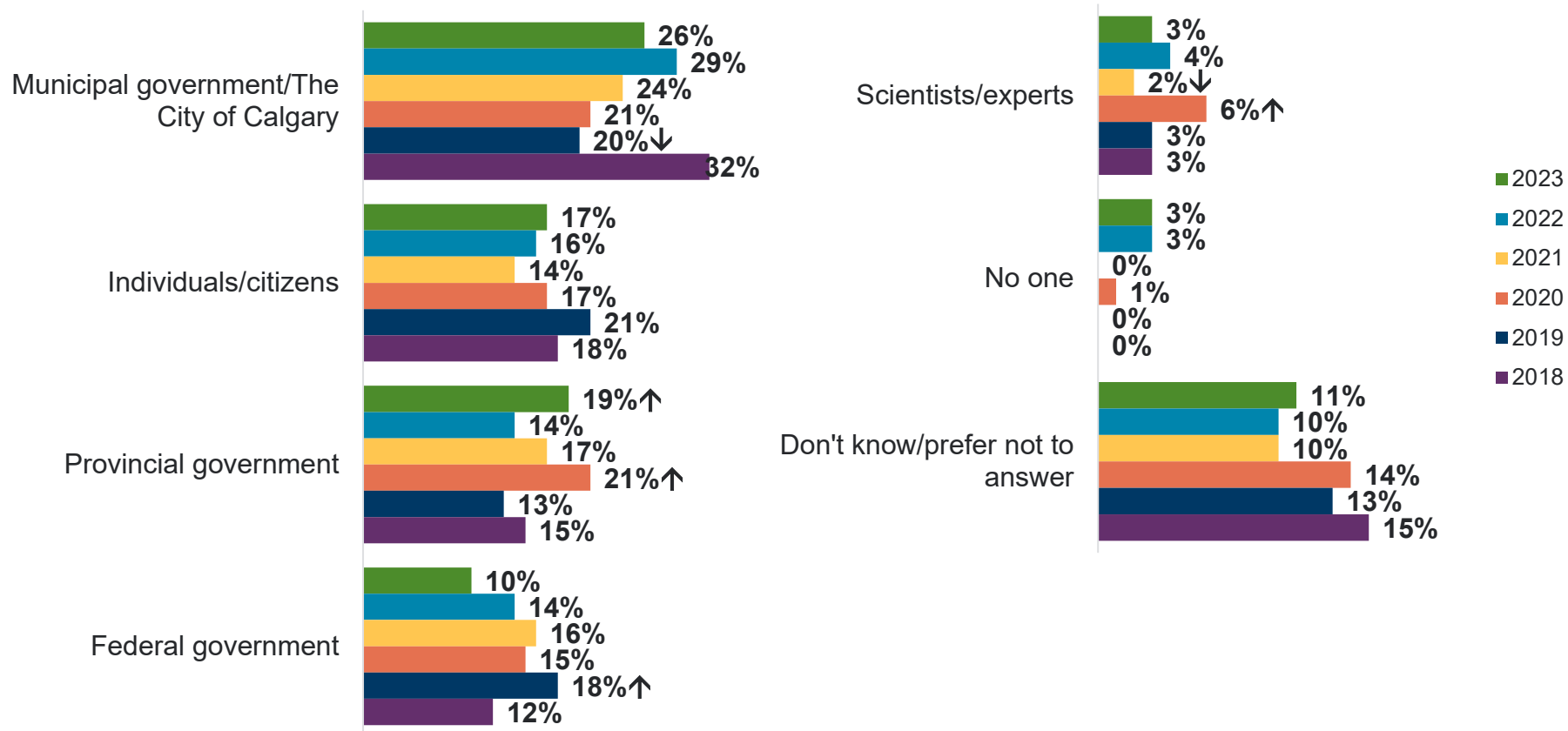
Q. Please indicate if you have done any of the following to reduce the impact of these types of events on you or your property.

Base: Valid respondents (2023: n=500; 2022: n=500; 2021: n=500; 2020: n=502; 2019: n=504; 2018: n=500)

Perceived leadership responsibility

Perception of who should be leading Calgarians in taking action to reduce impacts of extreme weather events

Top of mind (first) mention



Q. In your opinion, who should be leading citizens in taking action to help reduce the potential impacts of extreme weather events? **NOTE:** Response options were not read to the respondent. Base: Valid respondents (2023: n=500; 2022: n=500; 2021: n=500; 2020: n=502; 2019: n=504; 2018: n=500)

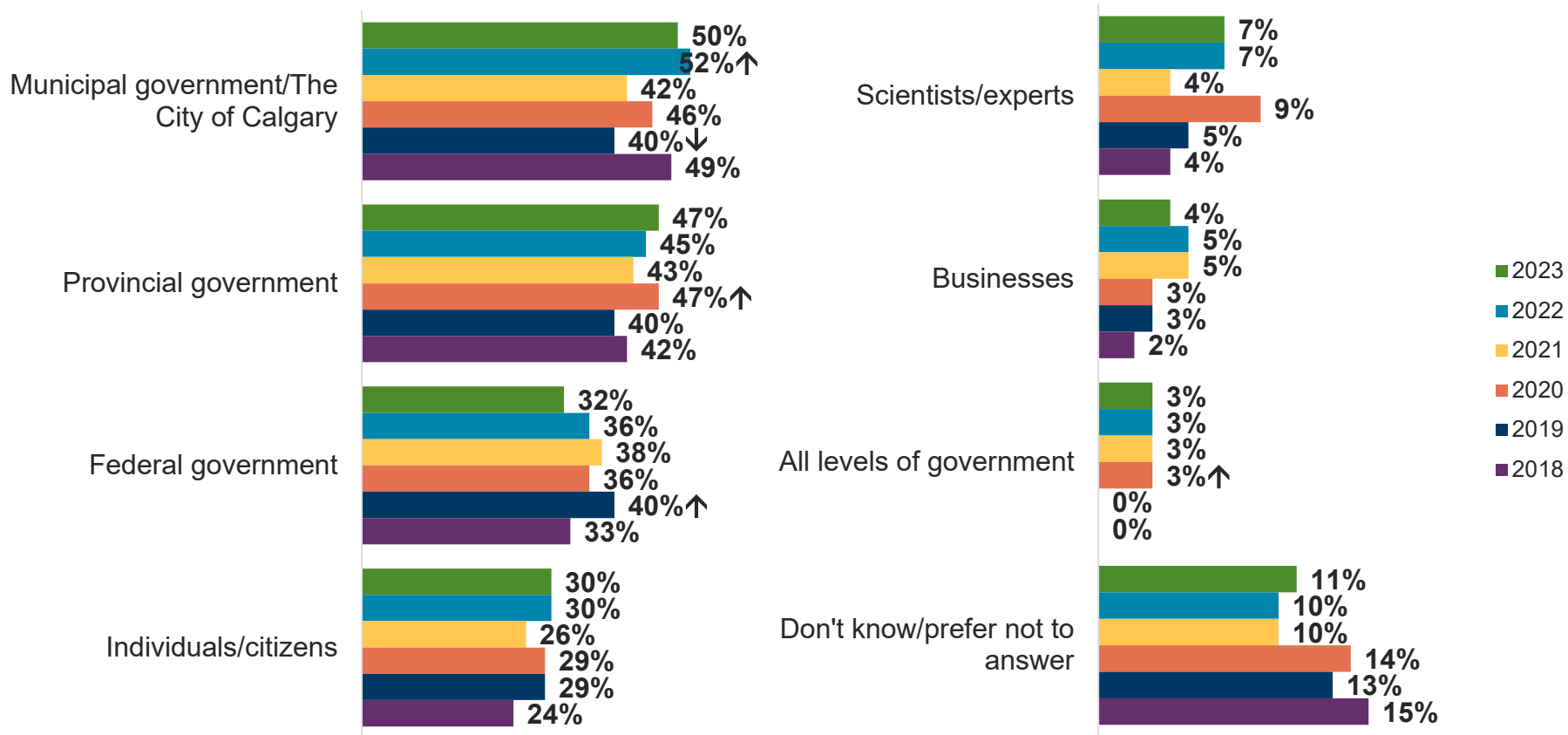
Responses of <3% in 2023 not included

↑ Statistically higher than previous year
↓ Statistically lower than previous year

Perceived leadership responsibility (continued)

Perception of who should be leading Calgarians in taking action to reduce impacts of extreme weather events

All mentions (first + other)



Q. In your opinion, who should be leading citizens in taking action to help reduce the potential impacts of extreme weather events? **NOTE:** Response options were not read to the respondent. Base: Valid respondents (2023: n=500; 2022: n=500; 2021: n=500; 2020: n=502; 2019: n=504; 2018: n=500)

Multiple mentions allowed
 Responses of <2% in 2022 not included
 ↑Statistically higher than previous year
 ↓Statistically lower than previous year



Energy efficiency

Summary: Energy efficiency

The most common home energy improvements among those tested are, a programmable thermostat, energy efficient appliances and basement insulation.

- Home energy improvements reported by the most Calgarians are a programmable thermostat (71%), energy efficient appliances (69%) and weather-stripping or caulking around doors/windows (60%). One-half (50%) have energy efficient windows. These results are generally consistent with those dating back to 2018.
- Among Calgarians living in a single-detached home, duplex/triplex/fourplex or townhouse/rowhouse, two-thirds (66%) have insulated their basement and around six-in-ten (62%) have installed an energy efficient furnace. Increased insulation in the attic and insulated exposed hot water pipes and are less common at 37% and 33%, respectively. Only 4% have solar panels. These results are also generally consistent with those dating back to 2018.

The majority of Calgarians say they regularly take actions to save energy in their home and the main reason is to save money.

- Virtually all Calgarians (97%) say they turn off lights when not needed and nearly as many (95%) use energy efficient bulbs.
- Three-quarters keep the heat set to a lower temperature in the winter (77%) and/or wash laundry in cold water to save energy in their home (73%). More than one-half (55%) say they unplug electronics when not in use in order to save energy and three-quarters (75%) of those with air conditioning in their home say they minimize the use of it in summer.

Summary: Energy efficiency

(continued)

Saving money is the primary reason Calgarians take action to save energy. However, the cost of these actions is also a primary reason that prevents Calgarians from proceeding.

- When asked, unaided, their reason for taking actions to save energy, the top mention is to save money, with 59% of Calgarians saying this is the main reason and 76% saying it is one of the reasons. This is consistent with results dating back to 2018. Far fewer Calgarians say their main reason is to protect the environment/reduce global warming/reduce greenhouse gas emissions/climate change (20%), although it is one of the reasons for around one-half of Calgarians (48%).
- One-half (49%) of Calgarians say the main reason for not doing more to save energy is the cost/not having the money needed to do so.

Calgarians are split on who they think should be leading Calgarians in taking action to improve home energy efficiency.

- When asked, unaided, who they think should be leading Calgarians in taking action to improve home energy efficiency, the top first mentions are municipal government/The City of Calgary (20%) and individuals/Calgarians (19%).
- When additional mentions are taken into account, the provincial government (48%) tops the list, followed by municipal government/The City of Calgary (46%), the federal government (37%) and individuals/Calgarians (26%).

Summary: Energy efficiency (continued)

Women are more likely than men to take some actions to save energy in their homes.

- Female Calgarians are more likely than males to turn lights off when they're not needed (99% vs. 95%, respectively) and to unplug electronics when they're not in use (62% vs. 49%).
- Women are more likely than men to take actions to save energy for the purpose of 'protecting the environment/reducing pollution' (51% total mentions vs. 30%, respectively).
- Women are more likely than men to say that the municipal government (51% total mentions vs. 41%) or scientists and experts (5% total mentions vs. 2%) should be leading citizens in taking action to improve home energy efficiency.

Summary: Energy efficiency

(continued)

Older Calgarians are more likely than their younger counterparts to have certain home energy improvements in place, though younger Calgarians are more likely to plan to undertake specific environmentally-friendly actions in the future.

- The homes of seniors (65 or older) are more likely than those of 18 to 34 year olds to have weather-stripping or caulking around doors and windows (67% vs. 52%, respectively), energy efficient windows (58% vs. 44%), and/or an energy efficient furnace (72% vs. 56%).
- The homes of Calgarians 35 to 64 are more likely than those of 18 to 34 year olds to have energy efficient appliances (76% 35 to 64 vs. 58% 18 to 34).
- In the next five years, younger Calgarians aged 18-34 are more likely than older Calgarians to buy a hybrid or electric vehicle (49% 18 to 34 vs. 37% 35-64 and 23% 65 or older), install solar panels (51% 18 to 34 vs. 32% 35 to 64 and 15% 65 or older), implement protections against climate hazards such as changing roofing or siding (37% 18 to 34 vs. 16% 65 or older), and/or buy an electric bike or scooter (30% 18 to 34 vs. 16% 65 or older).
- Younger Calgarians aged 18 to 34 are less likely than older counterparts to say that the provincial government (35% total mentions vs. 54% 35 to 64 and 52% 65 or older) federal government (25% total mentions vs. 43% 35 to 64 and 38% 65 or older) should be leading citizens in taking action to improve home energy efficiency.
- Older Calgarians are less likely than younger Calgarians to take energy efficiency actions for the purpose of saving money (65% 65 or older vs. 79% 18 to 34 and 78% 35 to 64).
- Older Calgarians are more likely than younger Calgarians to say they're already doing as much as they can to save energy (26% total mentions 65 or older vs. 4% 18 to 34 and 14% 35 to 64).

Summary: Energy efficiency (continued)

Northwest residents are more likely to cite 'climate change' as a reason for taking actions to save energy.

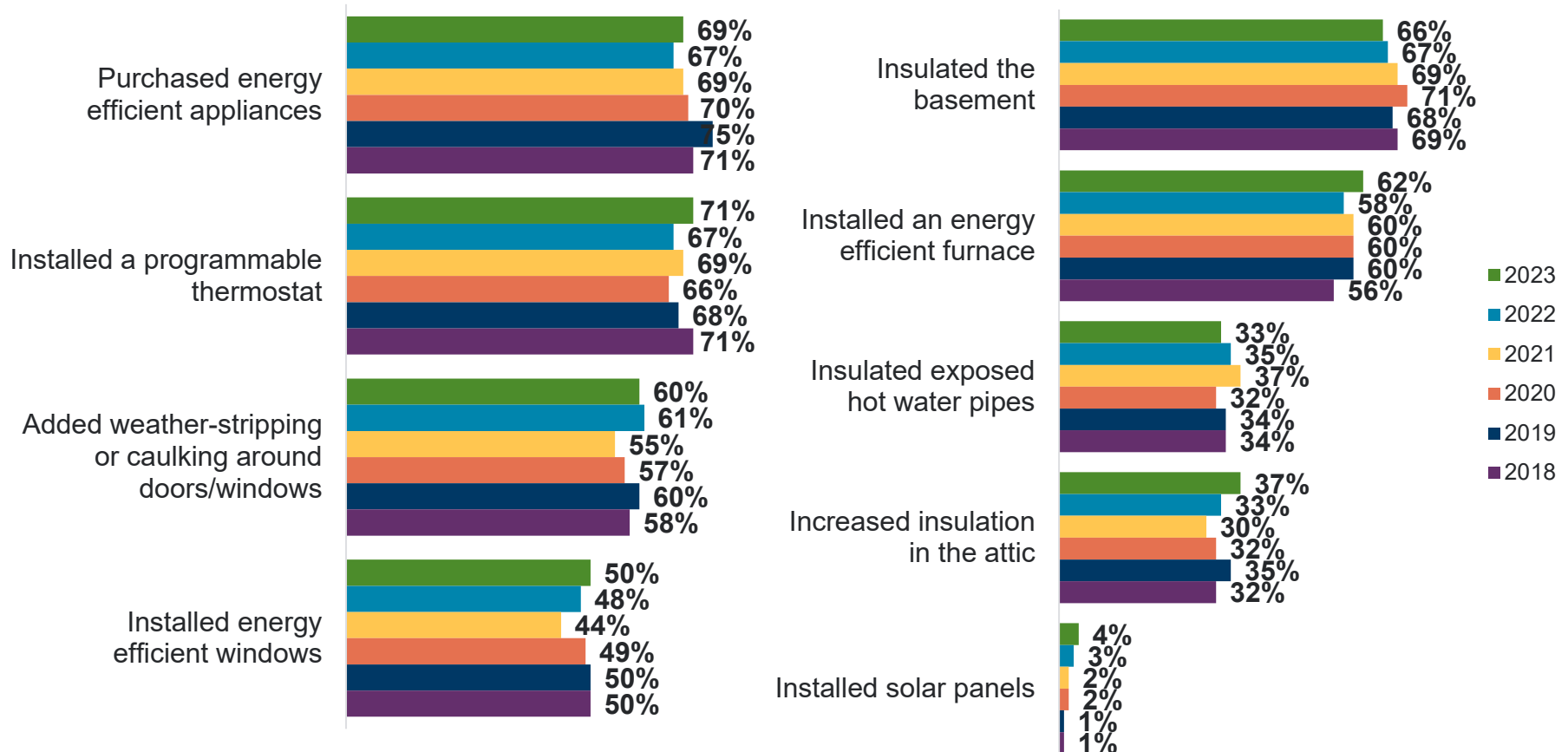
- Among those who have take some action to save energy, residents of the Northwest (N.W.) are more likely than residents of all other quadrants to say the reason is 'climate change' (10% vs. 3% Southwest, 3% Southeast, and 2% Northeast).

Calgarians born in Canada are more likely than foreign-born Calgarians to have certain home energy improvements and to cite cost as the reason for not doing more to save energy in the home.

- The homes of Canadian-born Calgarians are more likely than those of their foreign-born counterparts to have weather-stripping or caulking around doors and windows (66% vs. 48%) or an energy efficient furnace (66% vs. 52%).
- Those born in Canada are also more likely than those who were not born in Canada to wash laundry in cold water (77% vs. 66%) and use energy efficient light bulbs (98% vs. 90%), but are less likely to unplug electronics when not in use (51% vs. 66%).
- Canadian-born Calgarians are more likely to use blinds or insulation (10% vs. 5%), and use more energy efficient appliances, electronics, and vehicles (9% vs. 3%).
- Calgarians who immigrated to Canada are more likely to install solar panels in the next five years (45% vs. 30%).
- Calgarians born in Canada are more likely than those born outside of Canada to say not having the money is the main reason for not doing more to save energy in the home (61% total mentions vs. 45%).
- Immigrant residents are more likely to say municipal government should lead the way in home energy efficiency (57% total mentions vs. 41%).

Home energy efficiency improvements

Energy efficiency improvements made to home



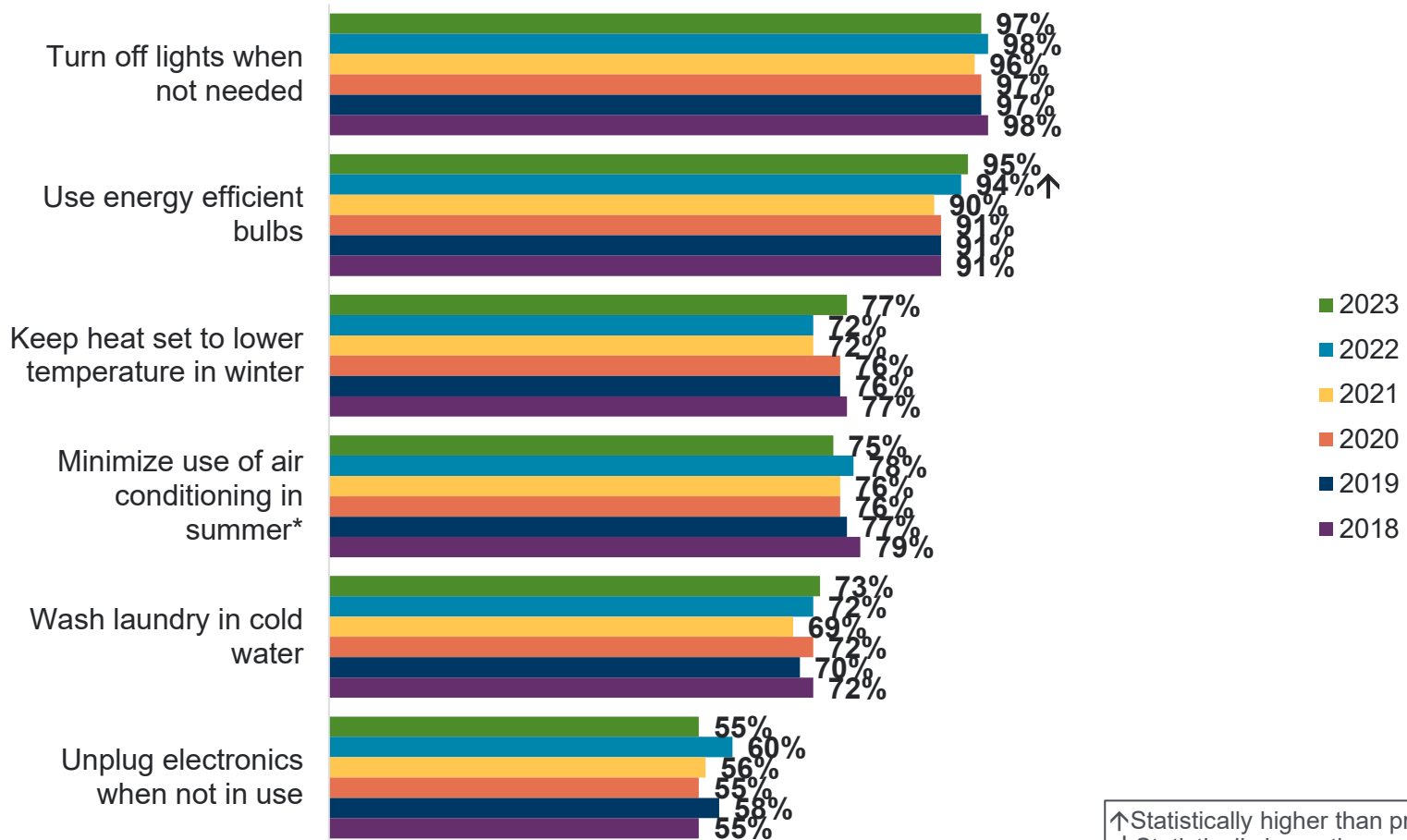
*Questions asked only of respondents living in a single-detached home, duplex/triplex/fourplex or townhouse/rowhouse.

*Base size: 2023: n=411; 2022: n=410; 2021: n=425; 2020: n=397; 2019: n=441; 2018: n=446

Q. Please tell me which, if any, of the following actions you've done to your home or was done to your home by a previous owner.
Base: Valid respondents (2023: n=500; 2022: n=500; 2021: n=500; 2020: n=502; 2019: n=504; 2018: n=500)

Home energy efficiency behaviours

Home energy efficiency behaviours regularly done by Calgarians



Q. And which of the following, if any, do you regularly do to save energy in your home?

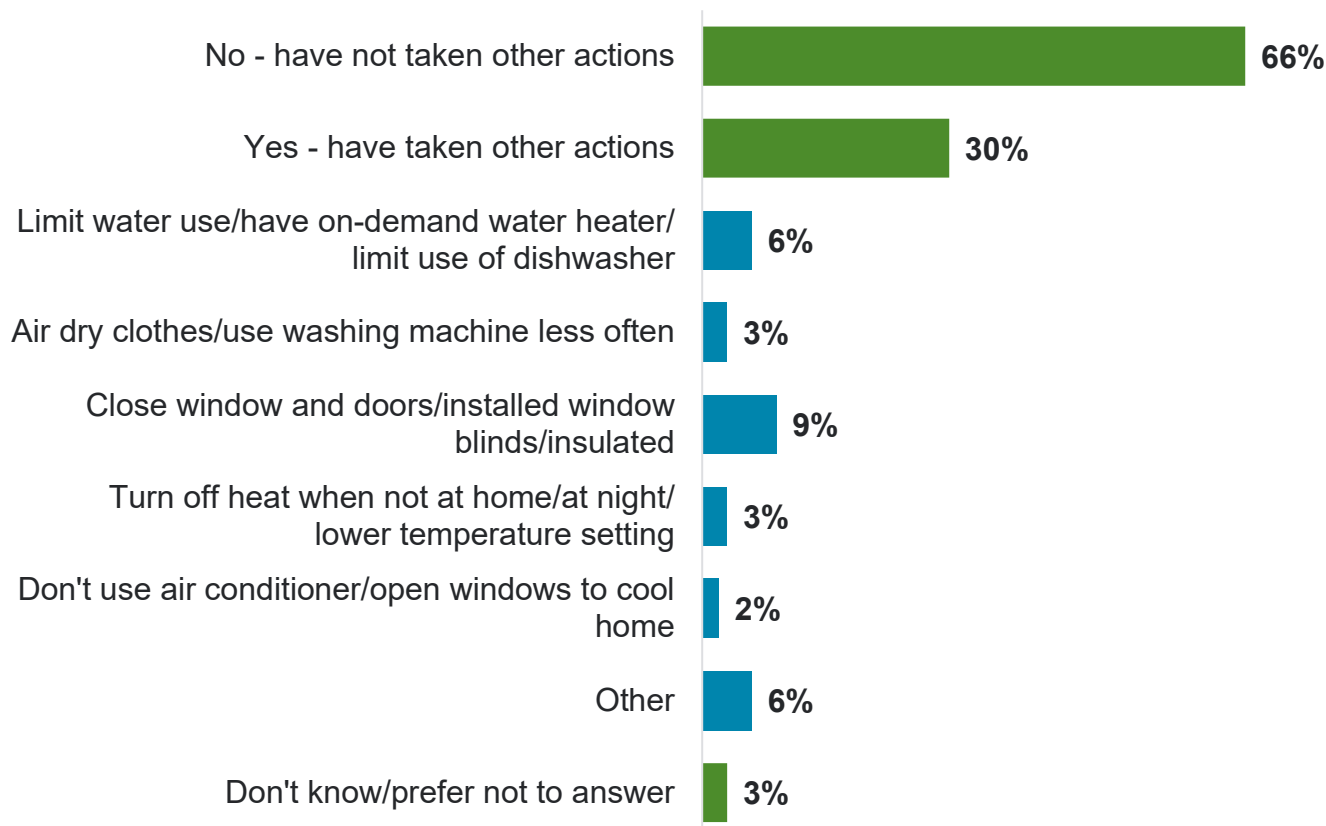
Base: Valid respondents (2023: n=500; 2022: n=500; 2021: n=500; 2020: n=502; 2019: n=504; 2018: n=500)

↑ Statistically higher than previous year
↓ Statistically lower than previous year

*Adjusted to exclude those who answered "not applicable"

Other home energy efficiency behaviours

Other home energy efficiency behaviours done by Calgarians



NOTE: Due to a change in the coding of the responses to this question, results are not compared to those from previous years.

Q. Are there any other actions you've taken to save energy in your home?

Base: Valid respondents (2023: n=500; 2022: n=500; 2021: n=500; 2020: n=502; 2019: n=504; 2018: n=500)

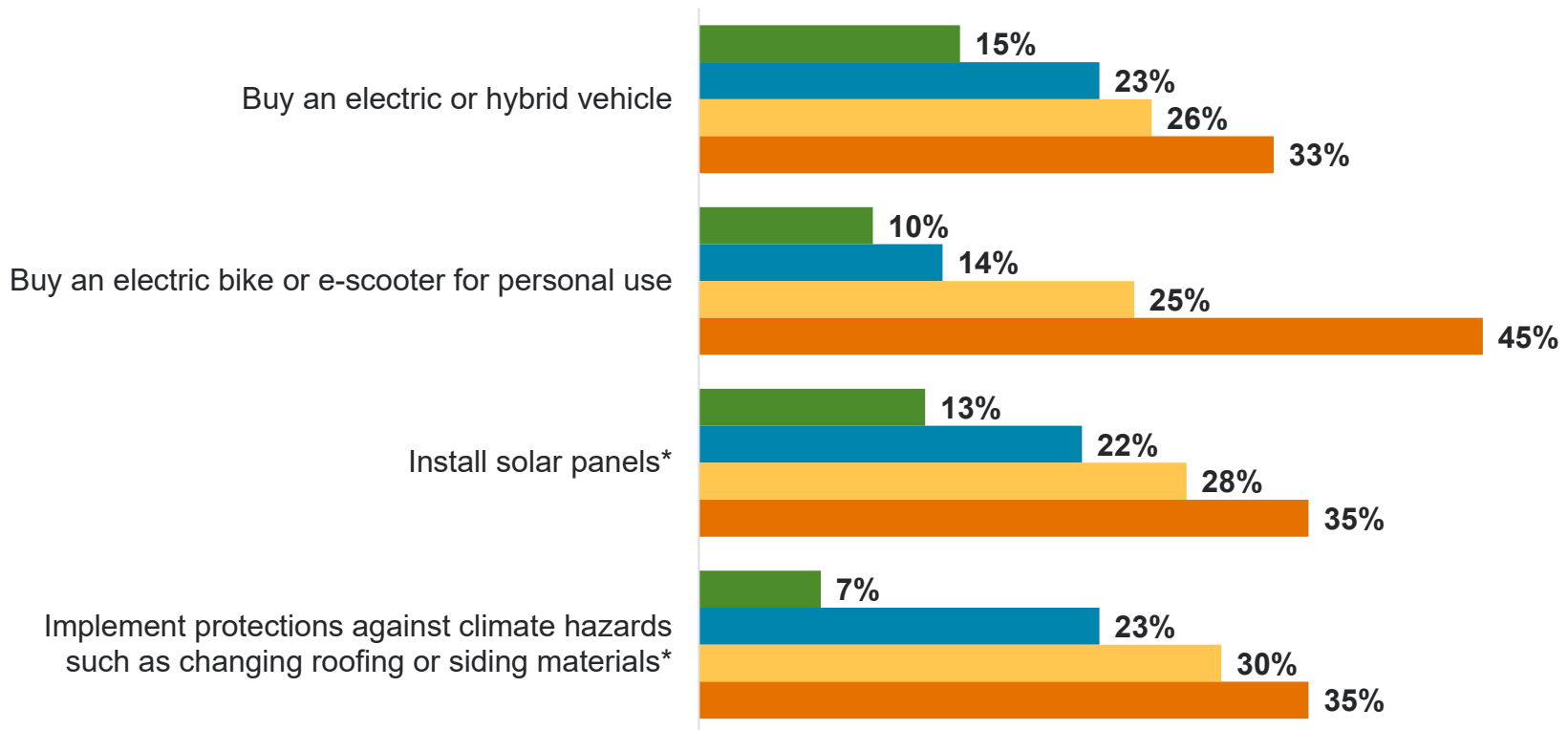
Multiple responses allowed

Mentions of <2% are not shown

Likelihood of engaging in energy efficiency behaviours in future

Likelihood of engaging in energy efficiency behaviours in next 5 years

■ Very likely ■ Somewhat likely ■ Not very likely ■ Not at all likely



NOTE: Option shown based on response to previous questions

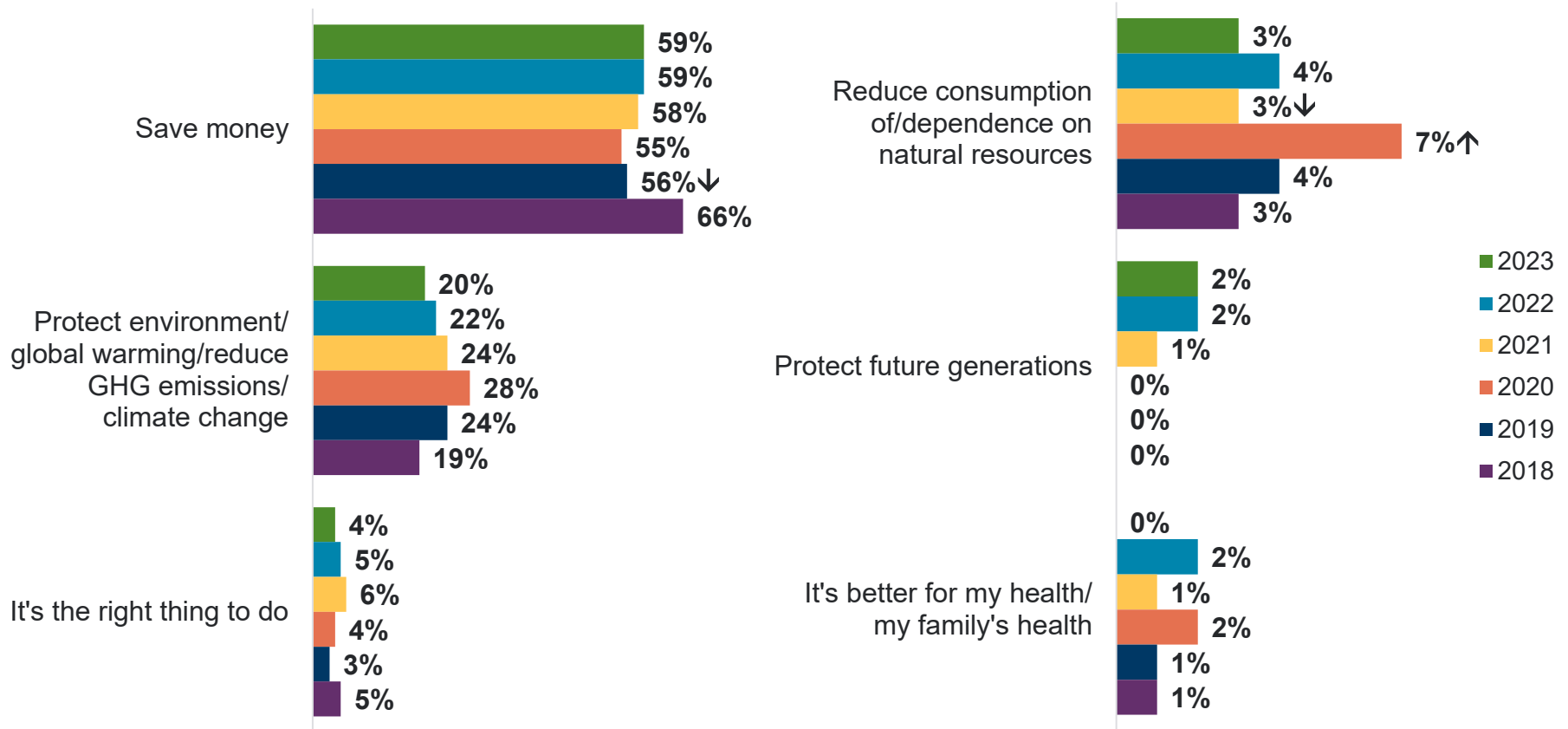
Q. How likely are you to do any of the following activities in the next 5 years?

Base: Valid respondents (2023: n=302)

Question not asked prior to 2023

Main reason for taking actions to save energy

Main reason for taking actions to save energy
Top of mind (first) mention



Q. What is your main reason for taking actions to save energy.

NOTE: Response options were not read to the respondent.

Base: Valid respondents (2023: n=498; 2022: n=500; 2021: n=500; 2020: n=502; 2019: n=504; 2018: n=500)

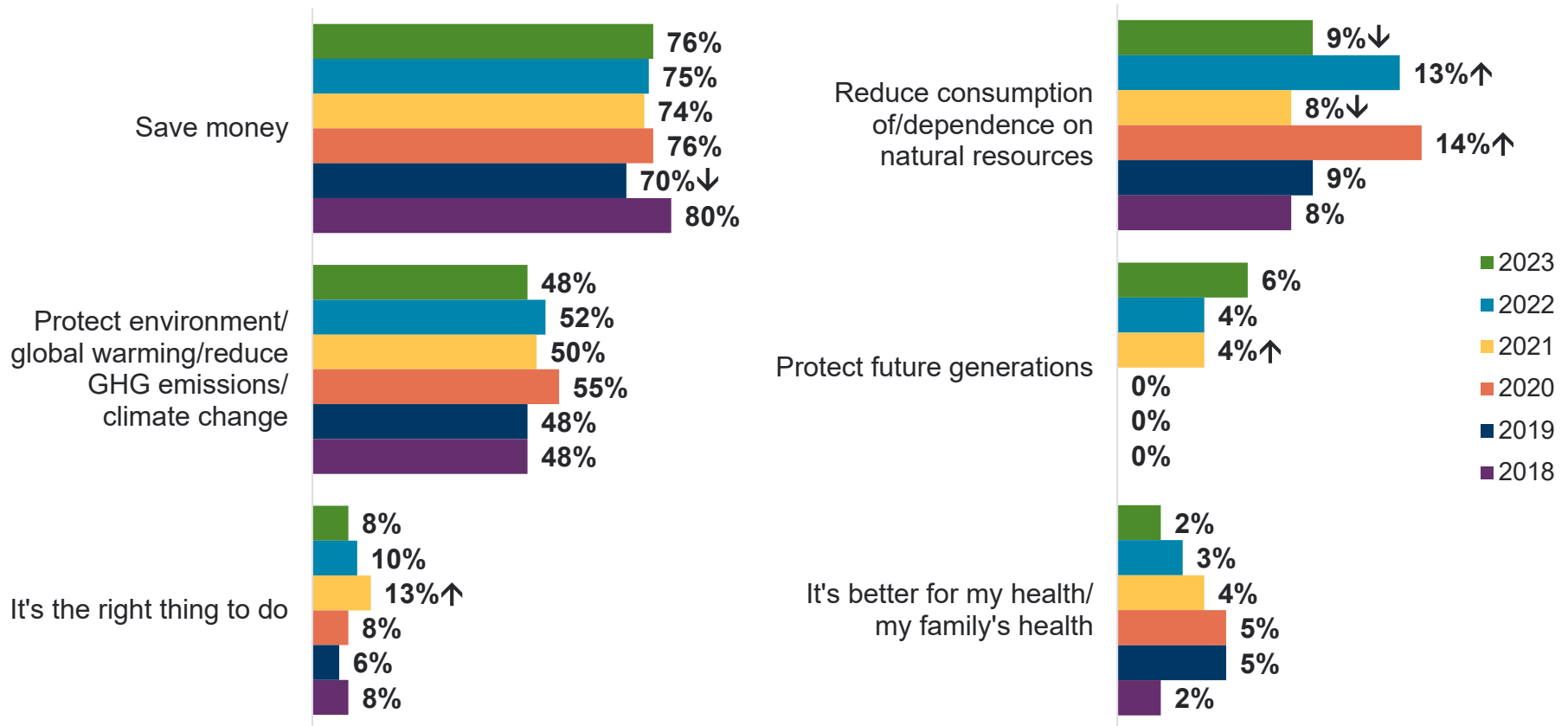
Responses of <2% in 2022 not included

↑ Statistically higher than previous year

↓ Statistically lower than previous year

All reasons for taking actions to save energy

All reason for taking actions to save energy
Total (first+other) mentions*



Q. What is your main reason for taking actions to save energy. + Any others?

NOTE: Response options were not read to the respondent.

Base: Valid respondents (2023: n=500; 2022: n=500; 2021: n=500; 2020: n=502; 2019: n=504; 2018: n=500)

Multiple mentions allowed

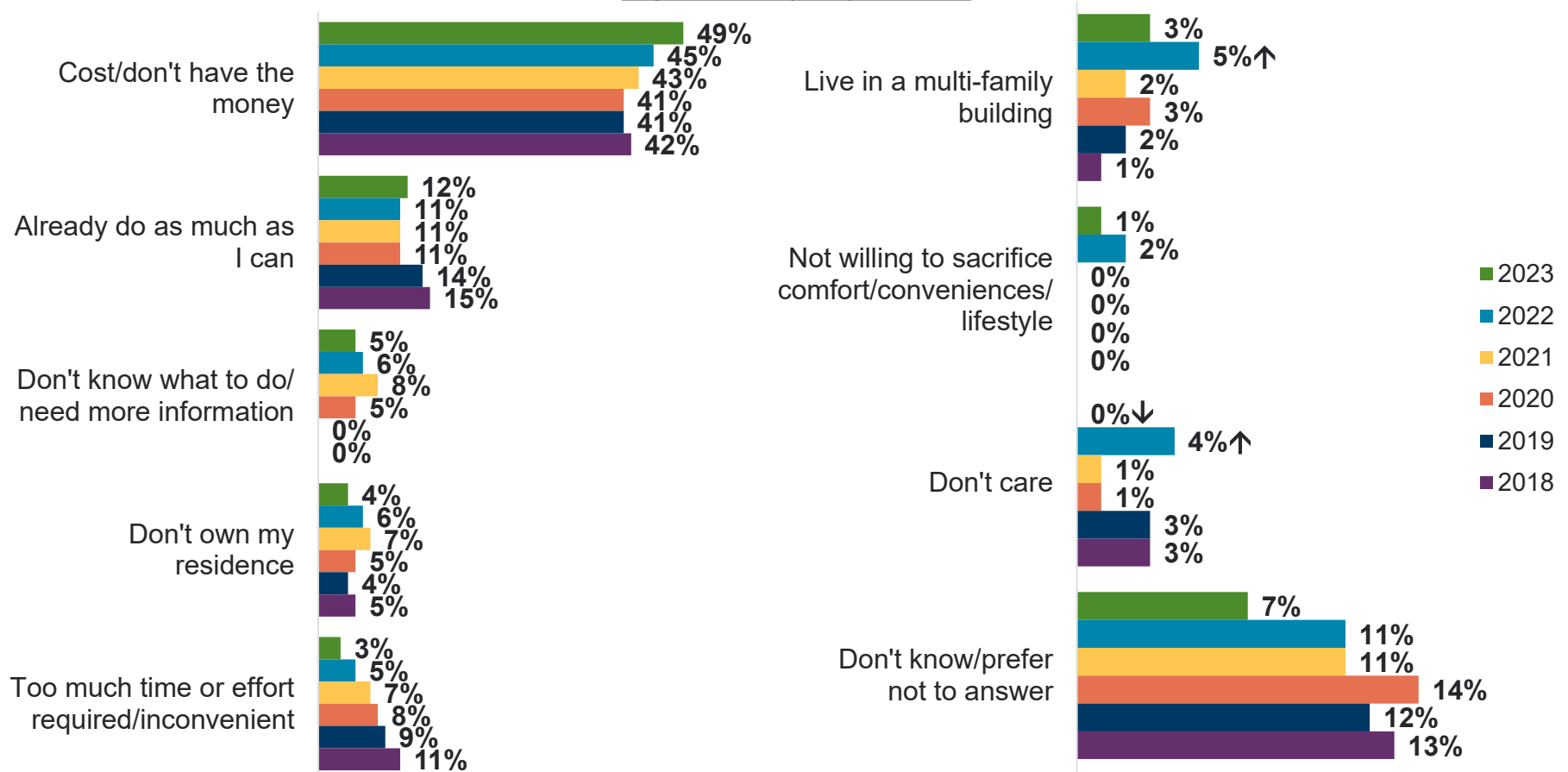
Responses of <2% in 2022 not included

↑Statistically higher than previous year

↓Statistically lower than previous year

Main reason for not doing more to save energy

Main reason for not doing more to save energy
Top of mind (first) mention



Q. What prevents you from doing more to save energy?

NOTE: Response options were not read to the respondent.

Base: Valid respondents (2023: n=500; 2022: n=500; 2021: n=500; 2020: n=502; 2019: n=504; 2018: n=500)

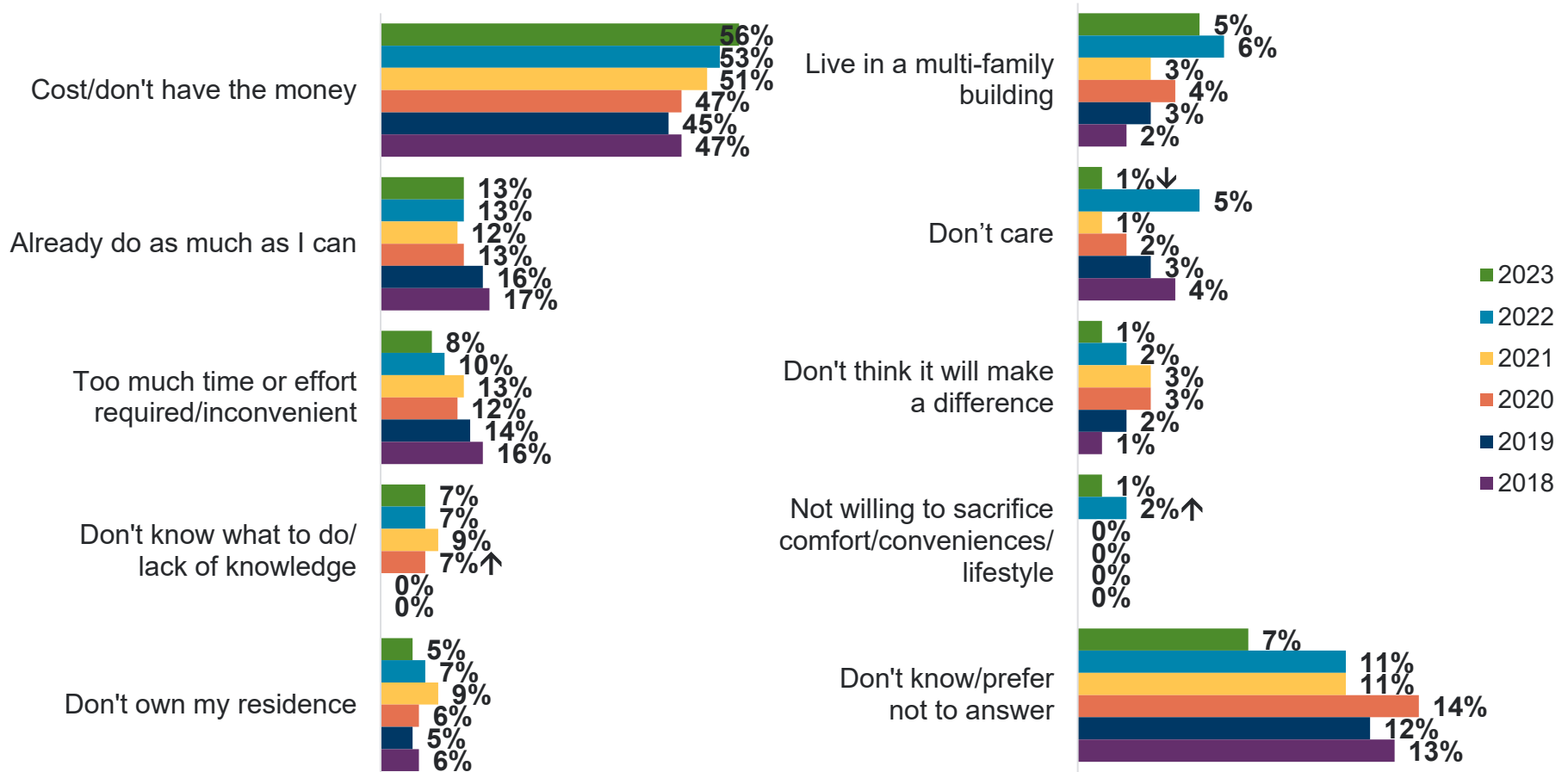
Responses of <2% in 2022 not included

↑ Statistically higher than previous year

↓ Statistically lower than previous year

All reasons for not doing more to save energy

All reasons for not doing more to save energy
Top of mind (first) mention



Q. What prevents you from doing more to save energy? + Any others?

NOTE: Response options were not read to the respondent.

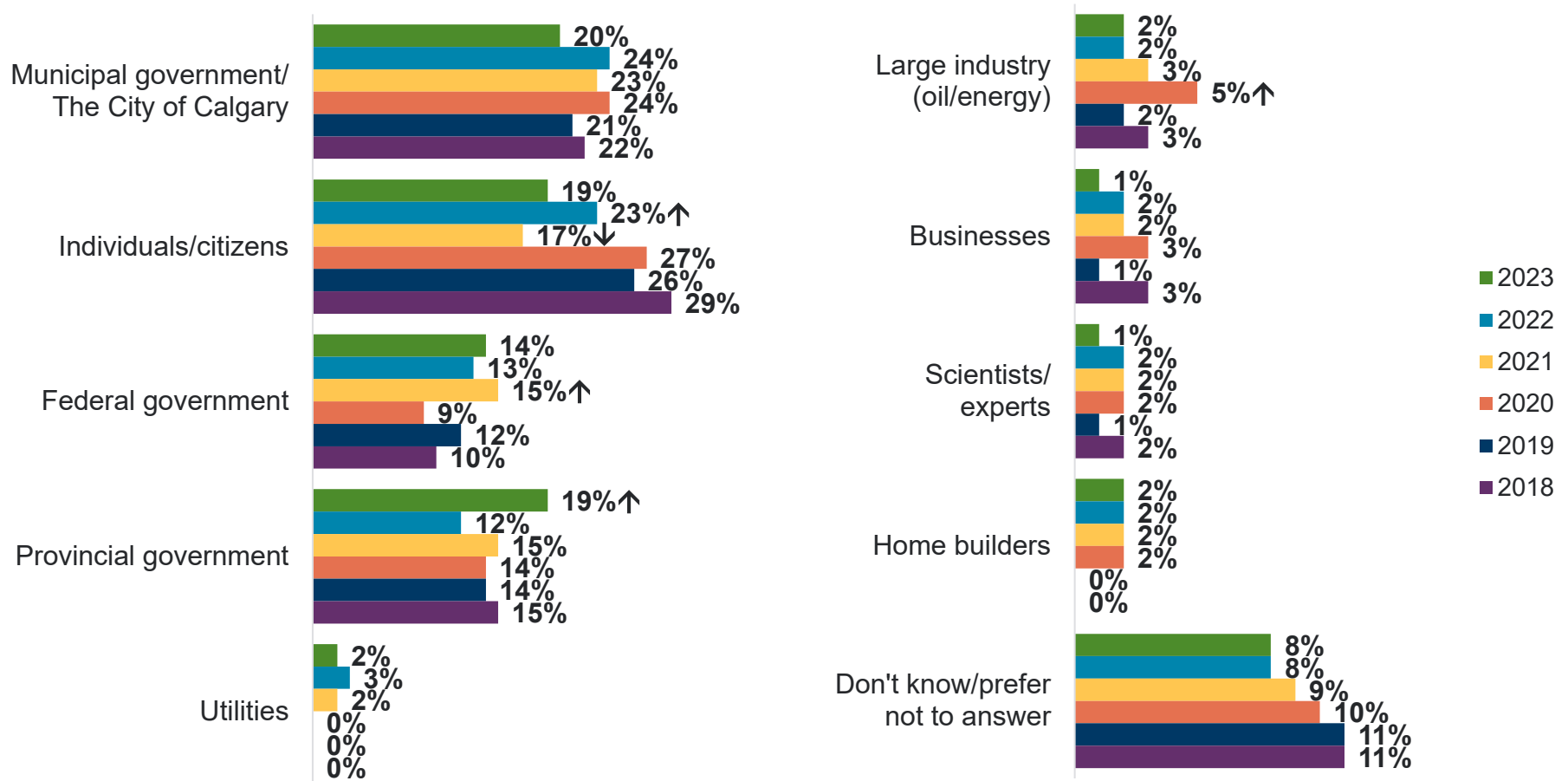
Base: Valid respondents (2023: n=500; 2022: n=500; 2021: n=500; 2020: n=502; 2019: n=504; 2018: n=500)

Responses of <2% in 2022 not included

↑ Statistically higher than previous year
↓ Statistically lower than previous year

Perceived leadership responsibility

Perception of who should be leading Calgarians in taking action to improve home energy efficiency
Top of mind (first) mention



Q. In your opinion, who should be leading citizens in taking action to improve home energy efficiency? **NOTE:** Response options were not read to the respondent.

Base: Valid respondents (2023: n=500; 2022: n=500; 2021: n=500; 2020: n=502; 2019: n=504; 2018: n=500)

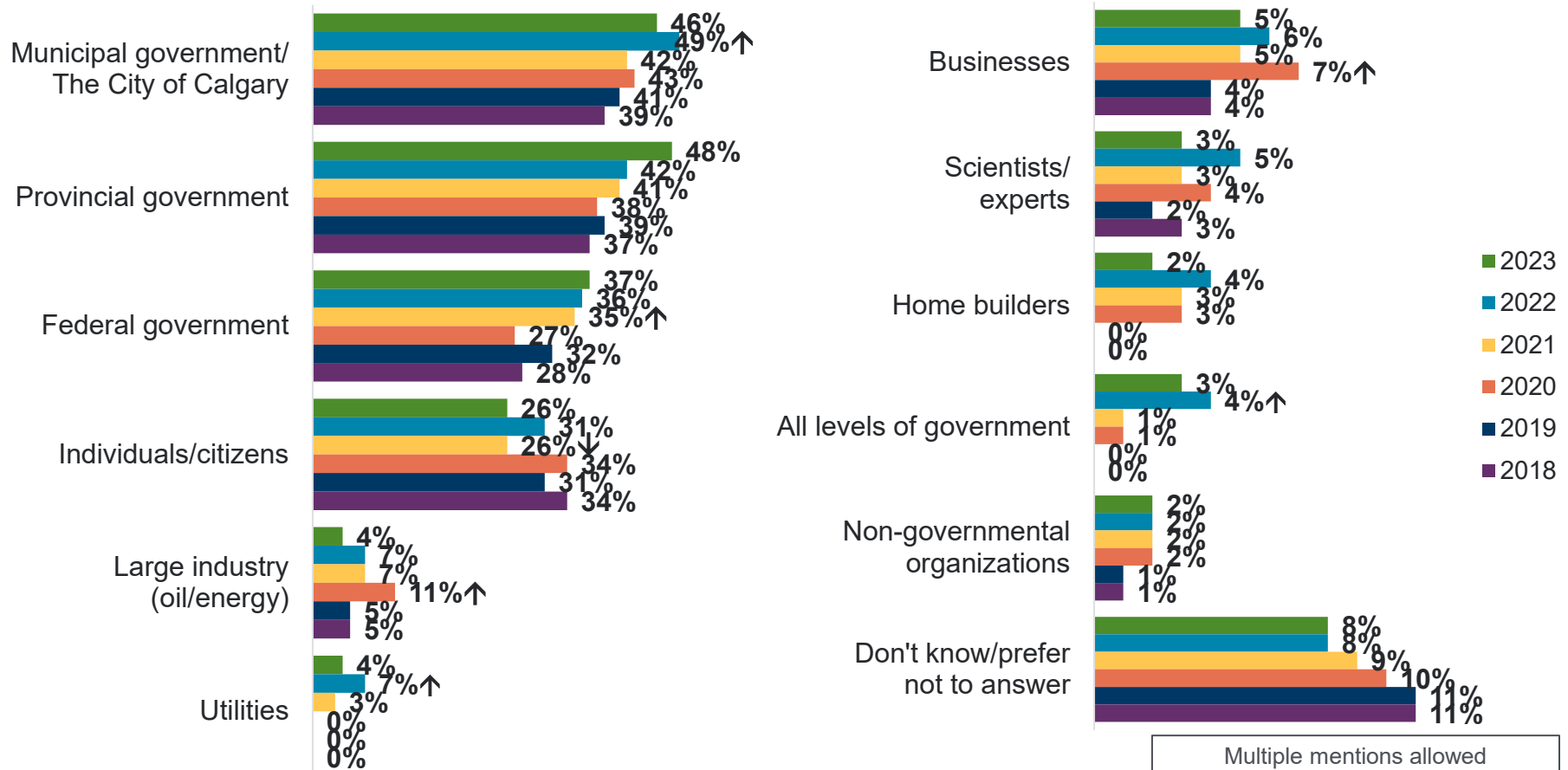
Responses of <2% in 2022 not included

↑ Statistically higher than previous year
↓ Statistically lower than previous year

Perceived leadership responsibility (continued)

Perception of who should be leading Calgaryans in taking action to improve home energy efficiency

Total (first+other) mentions*



Q. In your opinion, who should be leading citizens in taking action to improve home energy efficiency? + Any others? **NOTE:** Response options were not read to the respondent.

Base: Valid respondents (2023: n=500; 2022: n=500; 2021: n=500; 2020: n=502; 2019: n=504; 2018: n=500)

Multiple mentions allowed

Responses of <2% in 2022 not included

↑ Statistically higher than previous year
↓ Statistically lower than previous year



Respondent profile

Respondent profile

Gender	
Female	51%
Male	48%
Other	0%

Born in Canada	
Yes	69%
No	30%

Age	
18 to 24	7%
25 to 34	23%
35 to 44	18%
45 to 54	20%
55 to 64	15%
65 or older	18%

Education	
Completed high school or less	14%
Some post secondary or completed a college diploma	27%
Completed university degree or post-grad degree	58%

Income	
Less than \$30,000	4%
\$30,000 to <\$45,000	7%
\$45,000 to <\$60,000	6%
\$60,000 to <\$75,000	5%
\$75,000 to <\$90,000	6%
\$90,000 to <\$105,000	10%
\$105,000 to <\$120,000	6%
\$120,000 to <\$150,000	12%
\$150,000 or more	32%

Ethnic Background	
Caucasian/ White	23%
British	20%
Canadian/ French Canadian	11%
Northern or Western European	13%
East or Southeast Asian	11%
Southern or Eastern European	7%
South Asian	5%
Central/ South American or Caribbean	3%
West Asian or Middle Eastern	3%
African	5%
Indigenous/ First Nations/ Métis/Inuit	4%

Base: Valid respondents (n=500)

Respondent profile

Quadrant of Residence	
SW	28%
SE	24%
NW	28%
NE	20%

Own or rent	
Own	72%
Rent	23%
Other	3%

Children and seniors in household	
Yes - children	34%
Yes - seniors	27%

Racialized	
Yes	28%
No	69%
Prefer not to answer	4%

Responsible for property taxes	
Yes	92%
No	8%
Prefer not to answer	0%

Household Size	
1	16%
2	29%
3-4	39%
5 or more	15%
MEAN	3.0

Indigenous identity	
Yes – First Nations	1%
Yes - Métis	2%
Yes - Inuit	0%
Yes – Prefer to self-describe	0%
No	95%
Prefer not to answer	%1

Tenure in Calgary	
Less than 5 years	8%
5 to less than 10 years	7%
10 to less than 15 years	12%
15 to less than 20 years	10%
20 to less than 30 years	21%
30 to less than 40 years	16%
40 or more	25%
MEAN	27.0

Household Type	
Single detached house	61%
Duplex/semi-detached, triplex or fourplex	11%
Townhouse or rowhouse	10%
Apartment or apartment-style condominium	16%
Another type of multi-unit complex	2%

Base: Valid respondents (n=500)



Contact

The Corporate Research Team
 Customer Service and Communications
 The City of Calgary
research@calgary.ca