

EXECUTIVE SUMMARY

This research was conducted on behalf of the Delaware Department of Natural Resources and Environmental Control, Division of Climate, Coastal, and Energy (hereinafter referred to as DNREC or the Department) to determine Delaware residents' opinions on climate change, whether residents believe it is happening, the perceived threats posed by it, and opinions on the potential mitigative actions that could be taken. The study entailed a scientific multimodal survey of Delaware residents using a three-pronged contact method (phone, text, and online) and a multimodal data collection approach (phone and online).

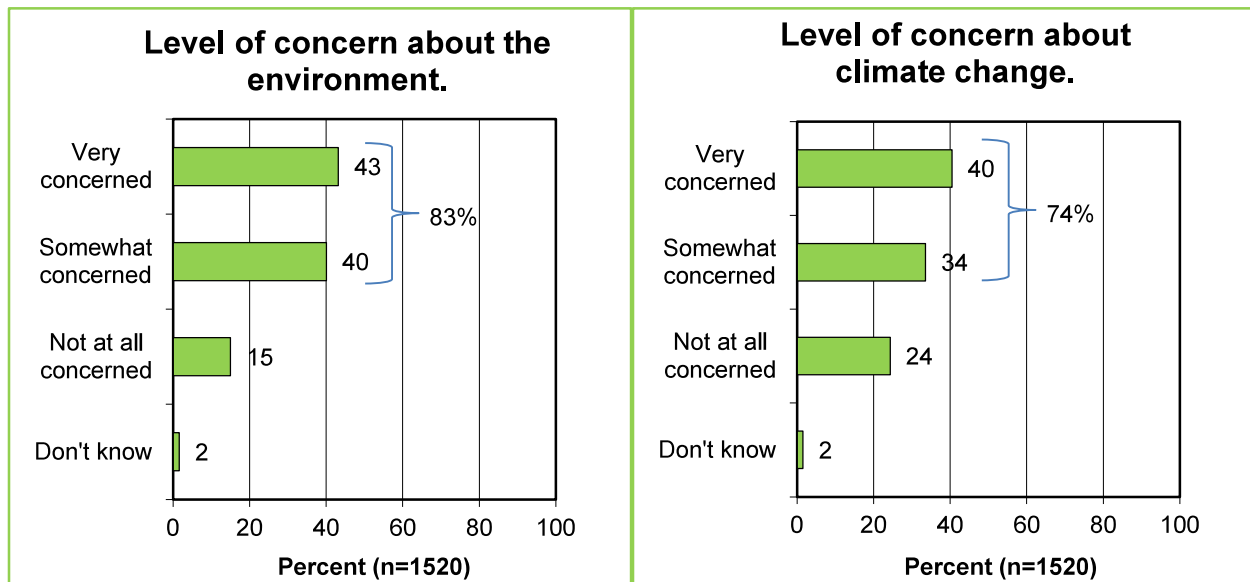
The telephone and online questionnaires were developed cooperatively by the Department and Responsive Management, based in part on previous surveys conducted on this topic but including new questions as well. The telephone survey was computer-coded for Responsive Management's computer-assisted telephone interviewing system. An important aspect of this system is that the computer controls which questions are asked, but each telephone survey was administered by a live interviewer. The online survey was coded in an online survey platform. For both the telephone and online surveys, the survey instrument was programmed to automatically skip questions that did not apply and to substitute phrases in the survey based upon previous responses, as necessary, for the logic and flow of the surveys.

Contacts were made by telephone, text, and online, and the surveys were conducted by phone and online. The three-pronged contact method and the multimodal approach to data collection ensured the best possible representation of Delaware residents: combined telephone (with text contacts) and online data collection ensured maximum coverage that included representation from residents who may otherwise be difficult to reach by telephone, including young residents. Telephone surveys were conducted Monday through Friday from 12:00 p.m. to 9:00 p.m., local time.

The analysis of data was performed using IBM SPSS Statistics as well as proprietary software developed by Responsive Management. The analysis included a look at county crosstabulations, which are shown in the body of the report. Additionally, a trends analysis was conducted, shown in its own chapter in the body of the report.

PERCEPTIONS OF IMPORTANT ENVIRONMENTAL ISSUES

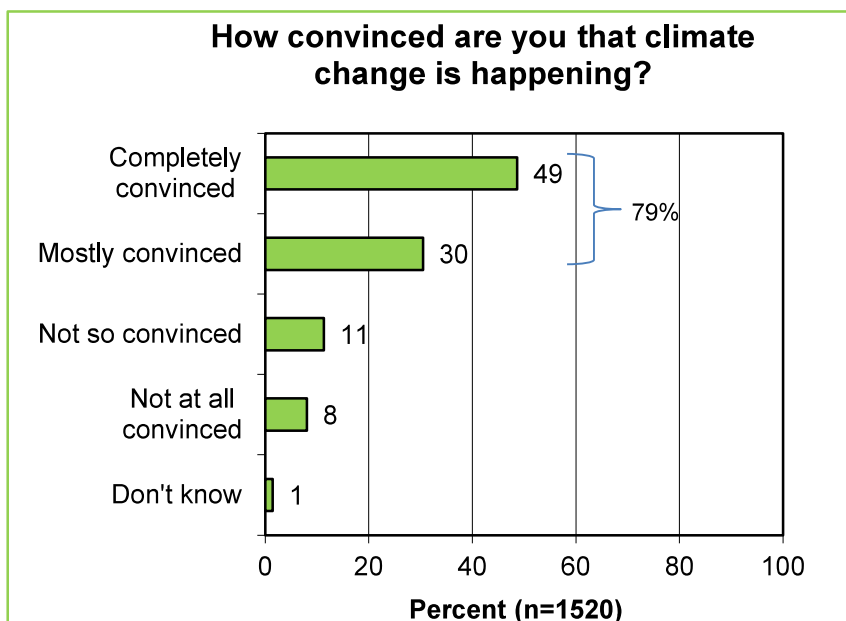
Of six issues that were asked about in the survey, the most concern is for the economy (92% are *very* or *somewhat* concerned), and large majorities show concern for the environment (83%) and climate change (74%). The individual questions regarding concern about climate change and the environment are shown on the next page. (The six areas asked about, presented in random order to eliminate order bias, were health care, the economy, crime rates, public education, the environment, and climate change. The body of the report shows this series of six questions on the same graph for comparison.)



OPINION ON CLIMATE CHANGE AND WHETHER IT IS HAPPENING

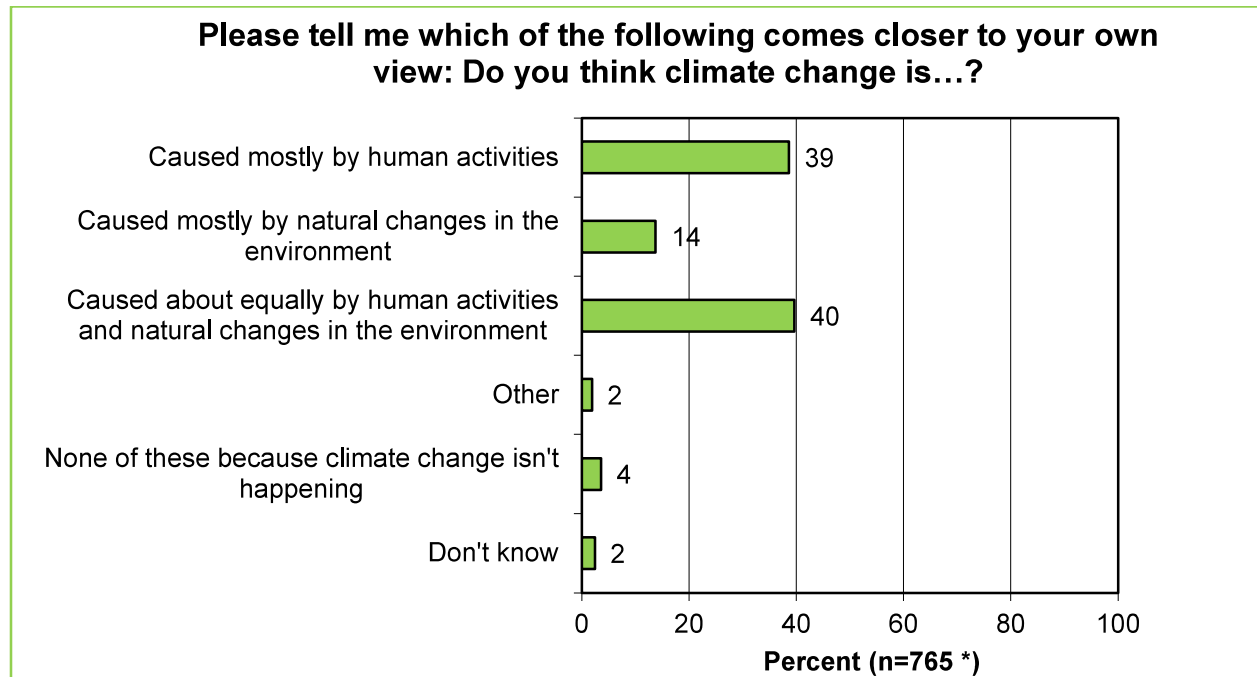
Most commonly, Delaware residents put themselves in the middle of the knowledge continuum, when asked how much they know about climate change:

- 19% know a great deal
- 46% know a moderate amount
- 29% know a little
- 5% know nothing



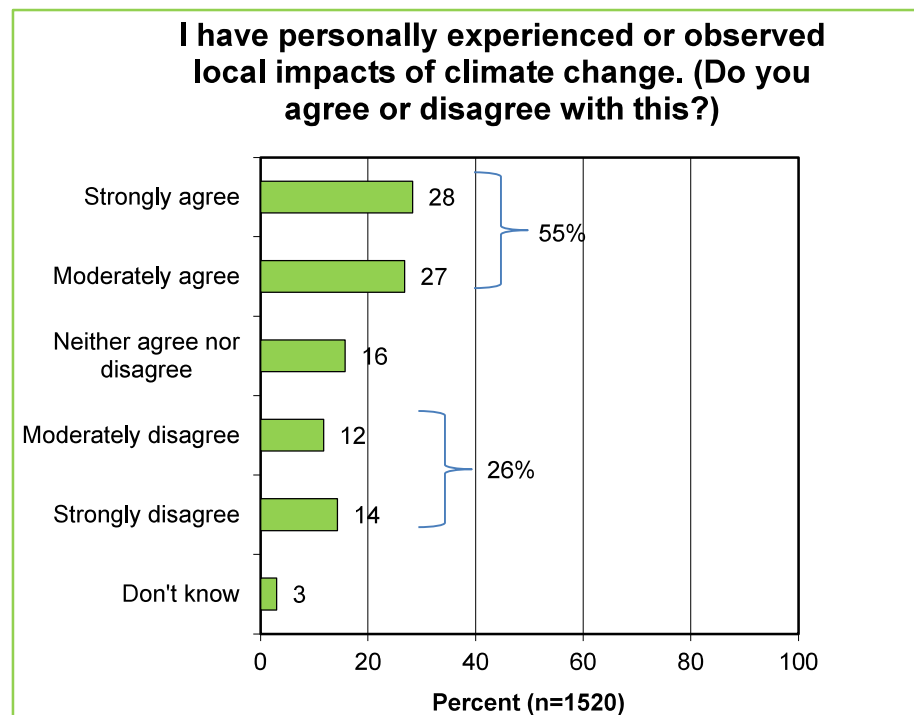
Almost half of Delaware residents (49%) are *completely* convinced that climate change is happening, and another 30% are *mostly* convinced (a sum of 79%). Nonetheless, there are still some residents who are not convinced. In the county crosstabulation, New Castle County residents are the most convinced.

A little more than a third of Delaware residents (39%) agree with the view that climate change is mostly caused by human activities.



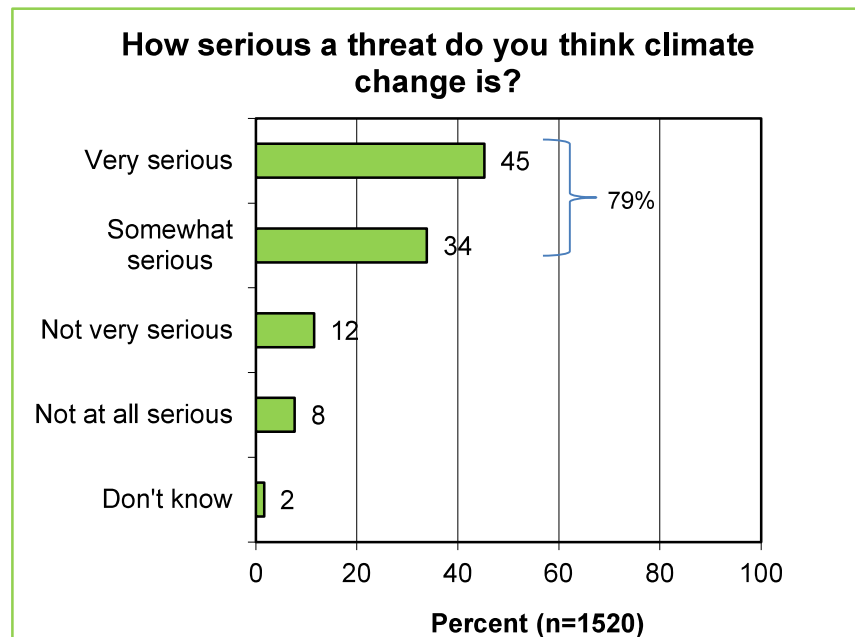
* A random half of the sample received this question; because the split was random, no bias was introduced.

A majority of Delaware residents (55%) agree that they have experienced or observed local impacts of climate change. Nonetheless, about a quarter (26%) disagree.

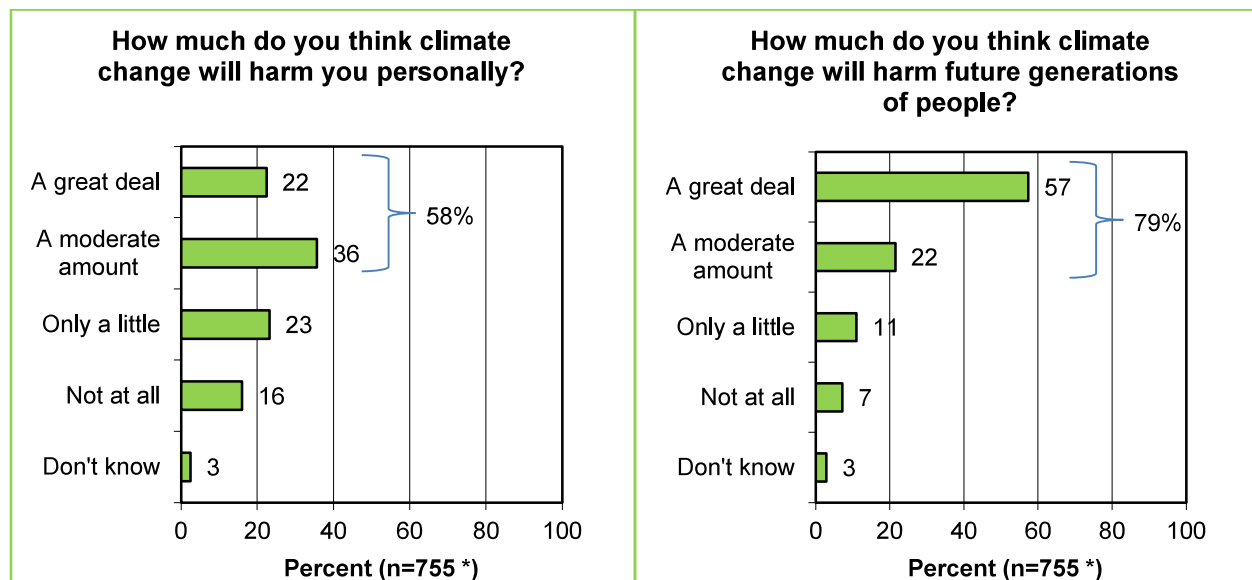


PERCEPTIONS OF CLIMATE CHANGE AS A THREAT

The large majority of Delaware residents (79%) think that climate change is a *very* or *somewhat* serious threat.



The large majority of Delaware residents (58%) think that climate change will harm them personally *a great deal* or *a moderate amount*. An even higher percentage of Delaware residents (79%) say the same about how much climate change will harm future generations.

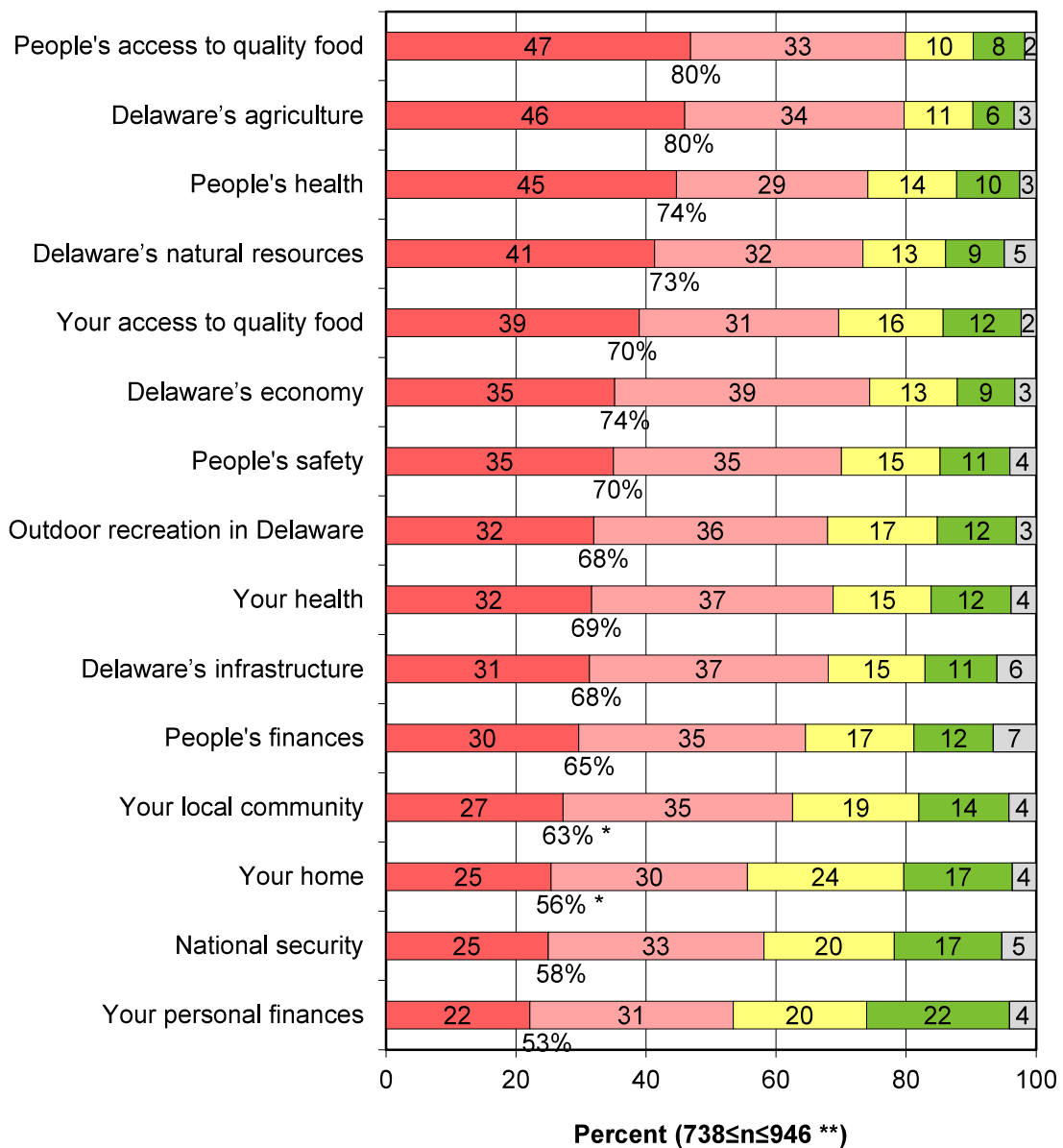


* A random half of the sample received this question; because the split was random, no bias was introduced.

The survey asked how much a threat climate change is to 15 aspects of life in Delaware, such as the state's economy, its natural resources, and so forth. As shown on the graph on the next page, three aspects are in the top tier: people's access to quality food, Delaware's agriculture, and people's health—all with at least 45% responding with *very serious* and at least 74% saying *very* or *somewhat* serious. Sums of *very serious* and *somewhat serious* are shown below the bars.

How much of a threat is climate change to each of the following? (Overall)

Very serious Somewhat serious Not very serious Not at all serious Don't know

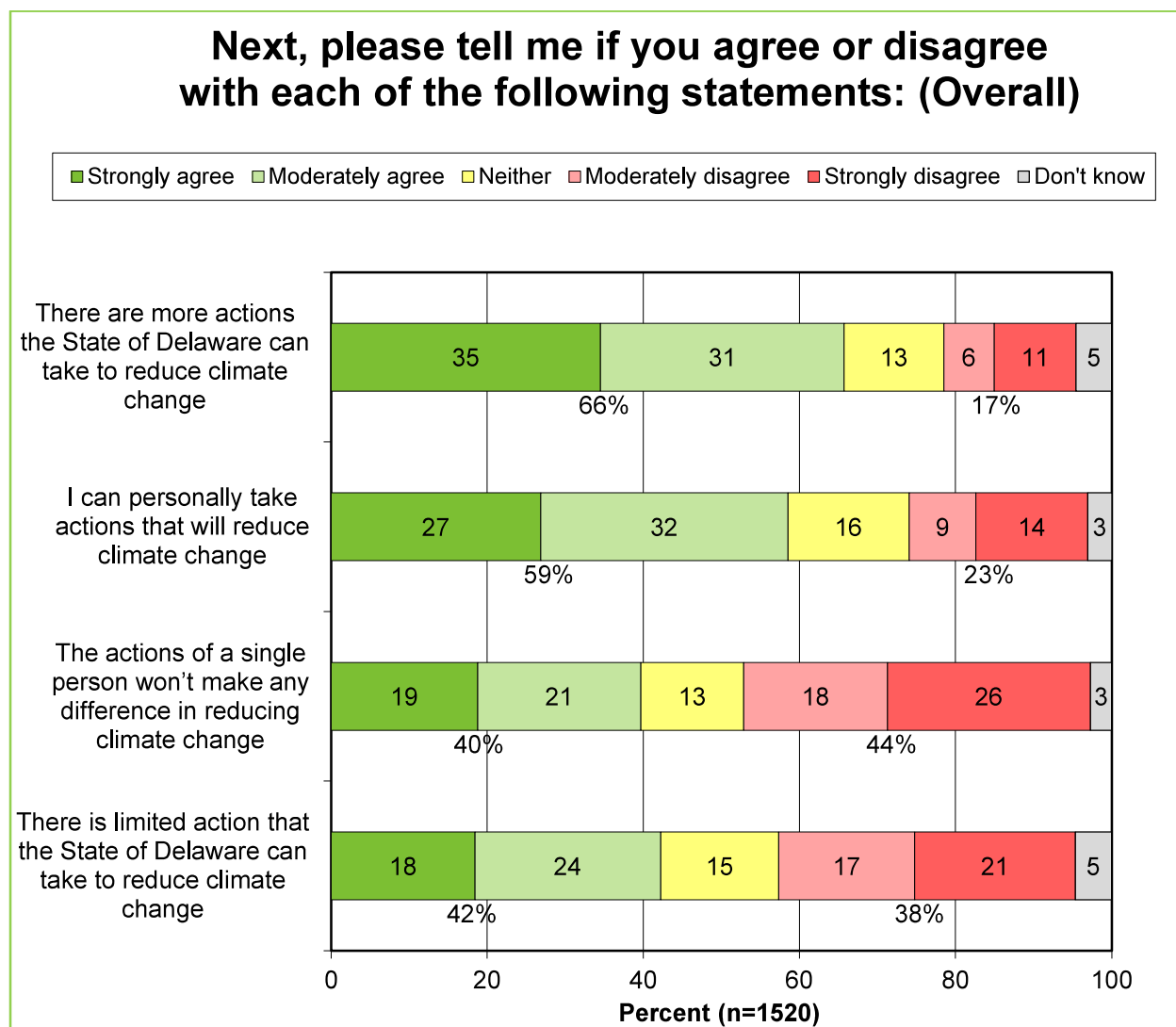


* Rounding on graph causes apparent discrepancy in sum; calculation made on unrounded numbers.

** A random half of the sample received this question; because the split was random, no bias was introduced.

PERCEPTIONS OF EFFICACY OF AND RESPONSIBILITY FOR TAKING ACTION

Most Delaware residents agree that the State of Delaware can take more actions to help ameliorate the negative effects of climate change. Most also agree that they personally can take actions that will reduce climate change. Otherwise, agreement and disagreement are fairly even that the actions of a single person will not make a difference (40% agree, and 44% disagree) and that there is limited action that the state can take to reduce climate change (42% agree, and 38% disagree). Sums of *strongly* and *moderately* are shown below the bars.

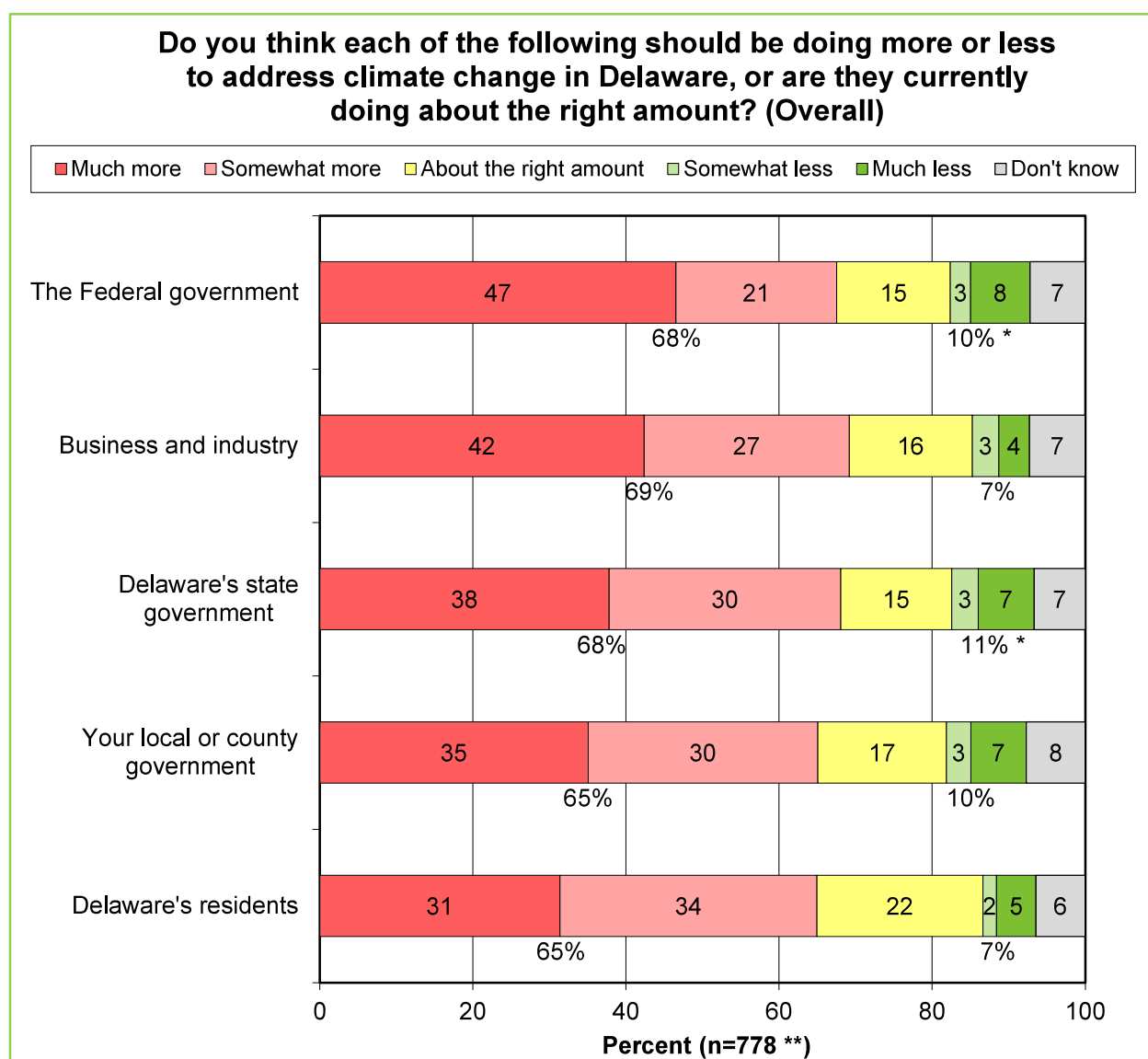


The survey looked at the amount of effort that five entities should be doing to address climate change in Delaware. The five-point scale went from much more to much less. According to Delaware residents as a whole, the Federal government and business/industry top the list of entities that should be doing more, as shown on the graph on the next page. Specifically:

- At the top of the ranking of who should be doing more to address climate change are the Federal government and business/industry (47% think the Federal government should be doing *much* more, and 42% think business and industry should be doing *much* more).

- Moving down the ranking also moves from statewide to more local to the individual, as following in the ranking are the state government, local/county governments, and residents themselves.
- Delaware's residents have the highest percentage perceived to be doing *about the right amount* to address climate change (22% say Delaware's residents are doing *about the right amount*, the highest in that middle response).

The graph is ranked by the percentage responding with *much* more. The sums of *much* and *somewhat* (for both *more* and *less*) are shown below the bars. Those sums do not vary greatly from one entity to the next on each graph—most Delaware residents think that all the entities should be doing more.



* Rounding on graph causes apparent discrepancy in sum; calculation made on unrounded numbers.

** A random half of the sample received this question; because the split was random, no bias was introduced.

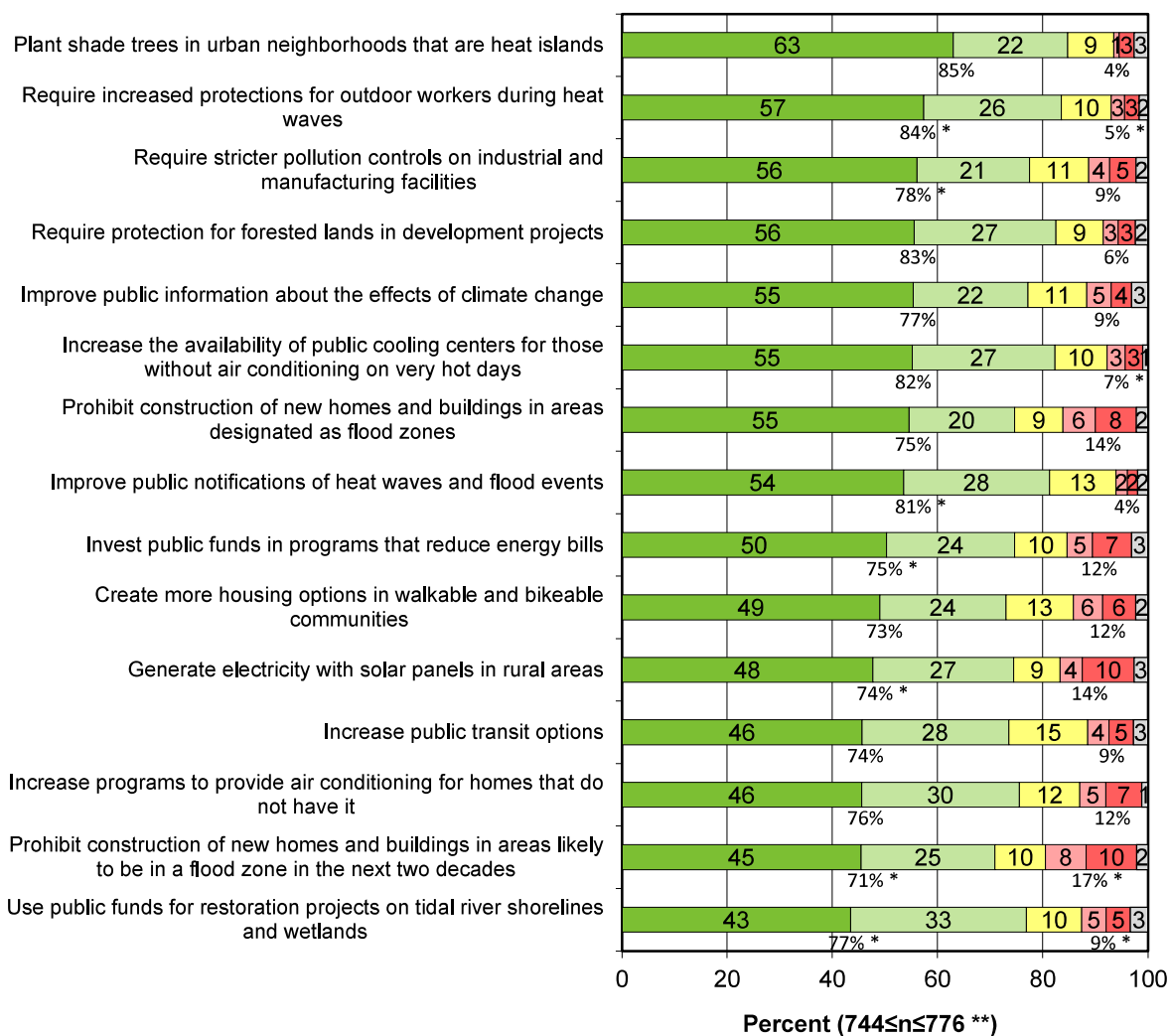
Finally in this section, nearly half of Delaware residents (45%) have personally taken action in the past 2 years to try to reduce climate change.

OPINIONS ON POTENTIAL ACTIONS TO ADDRESS CLIMATE CHANGE

Delaware residents were asked to indicate their support for or opposition to the various actions to help ameliorate climate change. Of the 29 actions, 9 of them have 50% or more of Delaware residents saying that they *strongly* support the action (the first 9 on the graph). These actions are quite varied and cannot be easily summarized as being of one type of action: 3 of them pertain to the extreme heat category, 2 concern sea level rise/natural and working lands resilience, 2 concern public awareness, 1 concerns pollution control, and 1 concerns energy efficiency. This is a two-part graph, as the 29 actions cannot be legibly shown on one graph. (To address survey fatigue, each respondent was asked 9 of the 29 questions.)

Next, I am going to read a list of potential actions that could be taken to respond to or address climate change, and I would like for you to tell me if you support or oppose each one: (Overall)
(Part 1)

■ Strongly support ■ Moderately support ■ Neither ■ Moderately oppose ■ Strongly oppose ■ Don't know

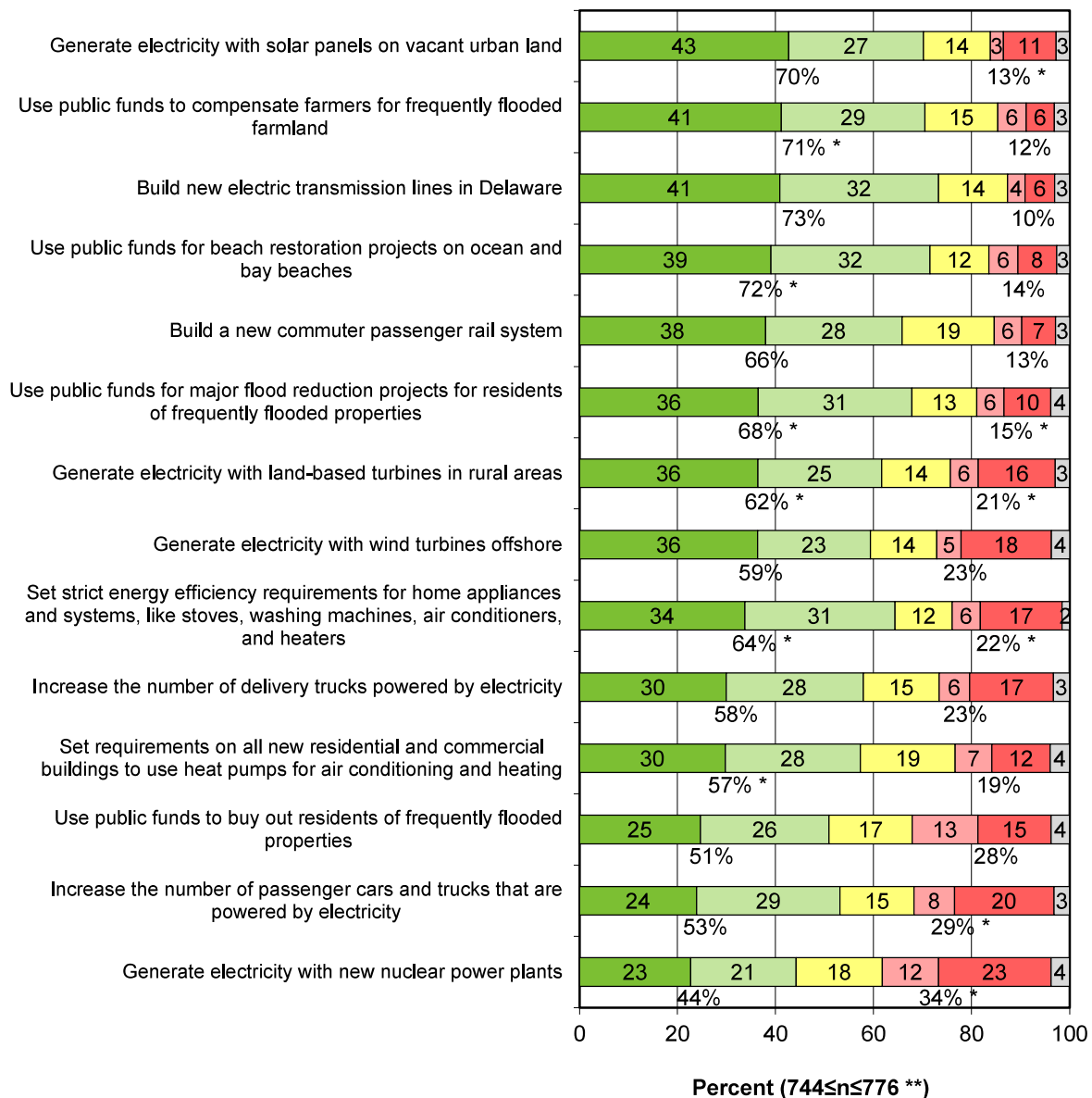


* Rounding on graph causes apparent discrepancy in sum; calculation made on unrounded numbers.

** Each respondent received a random 9 questions; because the split was random, no bias was introduced.

Next, I am going to read a list of potential actions that could be taken to respond to or address climate change, and I would like for you to tell me if you support or oppose each one: (Overall) (Part 2)

Strongly support Moderately support Neither Moderately oppose Strongly oppose Don't know

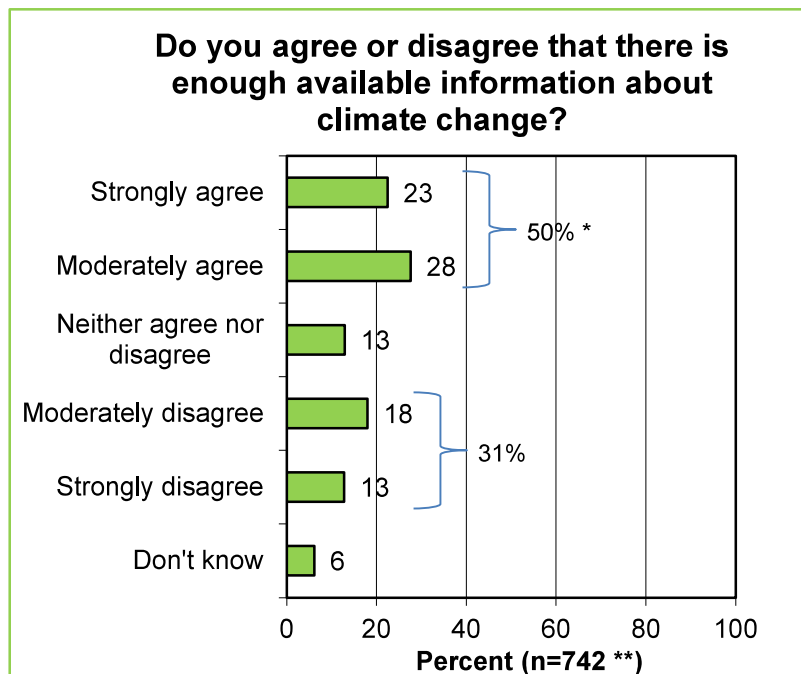
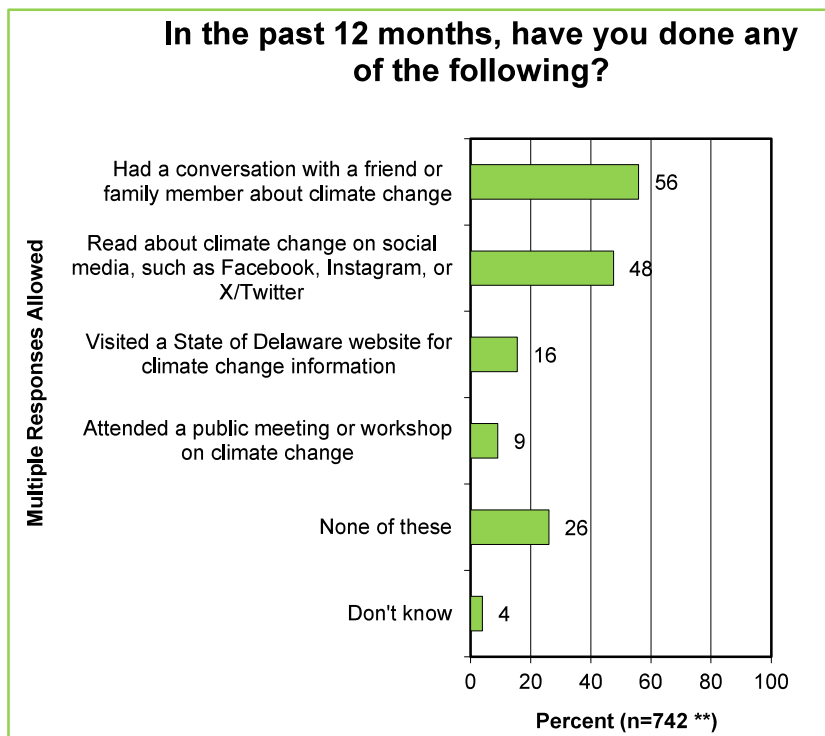


* Rounding on graph causes apparent discrepancy in sum; calculation made on unrounded numbers.

** Each respondent received a random 9 questions; because the split was random, no bias was introduced.

SOURCES OF INFORMATION ABOUT CLIMATE CHANGE

Most Delaware residents have had a conversation with a friend or family member about climate change (56% have done so), and nearly half of them (48%) have read about climate change on social media. The other two actions related to climate change were lower in the ranking: visiting a state website for climate change information or attending a meeting/workshop. About a quarter of residents have done none of those actions.



Half of Delaware residents agree that there is enough available information about climate change; nonetheless, about a third (31%) disagree.

* Rounding on graph causes apparent discrepancy in sum; calculation made on unrounded numbers.

** A random half of the sample received this question; because the split was random, no bias was introduced.