GLOBAL WARMING'S SIX AMERICAS IN SEPTEMBER 2012

YALE PROJECT ON
CLIMATE CHANGE
COMMUNICATION
BRIDGING SCIENCE + SOCIETY

4C

George Mason University
Center for Climate Change Communication

Global Warming's Six Americas, September 2012

Interview dates: August 31 – September 12, 2012
Interviews: 1,061 Adults (18+)
Margin of error: +/- 3 percentage points at the 95% confidence level for the full sample.
NOTE: All results show percentages among all respondents, unless otherwise labeled. Totals may occasionally sum to more occasionally round to more than 100 percent due to rounding.

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Executive Summary

In 2008, using nationally representative survey data on global warming beliefs, behaviors and policy preferences in the United States, we identified six distinct groups of Americans – "Global Warming's Six Americas." Since then, we have tracked the size of these six audiences – and the ongoing evolution of their beliefs, behaviors and policy preferences – through a series of national surveys. We observed a sharp decline in public engagement from the fall of 2008 to January 2010, and a gradual rebound starting in June 2010. In our most recent survey in September 2012, we found that the rebound in public engagement has continued: the *Alarmed, Concerned* and *Cautious* audience segments once again comprise 70 percent of the American public, as they did in the fall of 2008. Moreover, there was both significant growth in the size of the *Alarmed* and decline in the size of the *Dismissive* between the spring and fall of 2012.

Perceived Benefits and Costs of Reducing Fossil Fuel Use and Global Warming

- For five of the Six Americas, improved public health now ranks among the top three perceived benefits of the nation taking action to reduce fossil fuel use and global warming.
- A range of other important outcomes – reducing our dependence on foreign oil, creating green jobs and improving the economy – are also ranked among the top five benefits by all Six Americas.
- One of the least recognized benefits is improved national security, which is ranked as one of the two least likely benefits by five of the segments. Preventing starvation and poverty worldwide were also largely unrecognized benefits, ranking within the two least likely benefits for five of the segments.
- The drawbacks most likely to be cited were increased government regulation and higher energy prices; these were the top two drawbacks for every segment.

Support for National Policies

- Majorities of all Six Americas say the U.S. should increase its use of renewable energy.
- In five of the six segments, larger proportions prefer to reduce, rather than increase fossil fuel use; only the *Dismissive* prefer to increase the nation's use of fossil fuels.
- In every segment except the *Dismissive*, half or more favor the elimination of subsidies to the fossil fuel industry, and oppose the elimination of subsidies to renewable energy companies.
- Majorities of the *Alarmed, Concerned* and *Cautious* – comprising 70 percent of the U.S. population – say the U.S. should reduce its greenhouse gas emissions, regardless of what other nations do.
- Among the Six Americas, support for a candidate who supports a carbon tax varies considerably, depending on the details of the proposal. The most popular versions – supported by half or more of the *Alarmed, Concerned* and *Cautious* – specify that the tax will either create more jobs in the renewable energy and energy efficiency industries; decrease pollution by encouraging companies to find less polluting alternatives; or be used to reduce the federal income tax. The least popular version proposes to use the revenue to provide a tax refund of $180, on average, to each American household.
- Funding research on renewable energy, and providing tax rebates for purchases of energy-efficient vehicles and solar panels have remained popular policies among five of the Six Americas since tracking began in 2008.
- Opposition to building more nuclear power plants has increased among all segments; four of the Six Americas currently oppose building more plants.
- Support for offshore drilling has decreased in all six segments, but four of the six groups still support offshore drilling on average.

Beliefs about Who Influences Elected Officials' Decisions about Global Warming

- In five of the Six Americas, majorities believe that if they work with others who share their views, they can influence their elected representatives' decisions.
- All Six Americas, however, believe that people who share their own views on global warming have less influence than campaign contributors, fossil fuel companies, the media, etc. People who share their views are, in fact, perceived as having the *least* political influence by every segment.
- Five of the six segments believe that large campaign contributors have the strongest influence on elected officials.
- Four segments – the *Alarmed*, *Concerned*, *Cautious* and *Disengaged*, say that the fossil fuel industry has more influence than the renewable energy industry, while the *Doubtful* and *Dismissive* believe that renewable energy companies have more influence than fossil fuel companies.
- The *Dismissive* tend to believe the liberal news media has the strongest influence on elected officials; 50 percent say the liberal media affect legislators "a lot."

Introduction

This report is the sixth in a series on *Global Warming's Six Americas*, an audience segmentation analysis used to examine Americans' beliefs, attitudes, policy preferences and climate-relevant behaviors.

Views on the issue of global warming vary broadly in the United States, and audience segmentation captures the range of opinion by identifying cohesive groups within the public that share similar beliefs, attitudes and behaviors. The segmentation framework described in this report divides Americans into six distinct publics that range along a spectrum of concern and issue engagement.

The first report identifying these groups – *Global Warming's Six Americas, 2009* – profiled the segments in detail. Each subsequent report has tracked changes in the sizes of the segments, and described additional characteristics and beliefs of the six groups; all prior reports are publicly available at our websites.[1] The methods used to gather and analyze these data are described briefly at the end of the report, but a full description of the analysis methods may be found in Maibach *et al.,* 2011.[2]

This report is divided into three sections: The first examines the *Six Americas'* expectations for both positive and negative outcomes if the nation takes action to reduce global warming – expectations that are strongly related to the groups' support for national action on the issue.

The second section addresses the question of how the U.S. should respond to climate change and our energy needs, assessing support for various national policies and potential courses of action.

The third section focuses on how each of the Six Americas perceive the relative influence of individuals, organizations and companies on the elected representatives who are shaping U.S. energy and climate policies. Citizen activism in support of climate and energy policies is unlikely if individuals believe their representatives will ignore their views; hence, comparisons can shed light on the six groups' sense of collective efficacy, an essential component of civic engagement.

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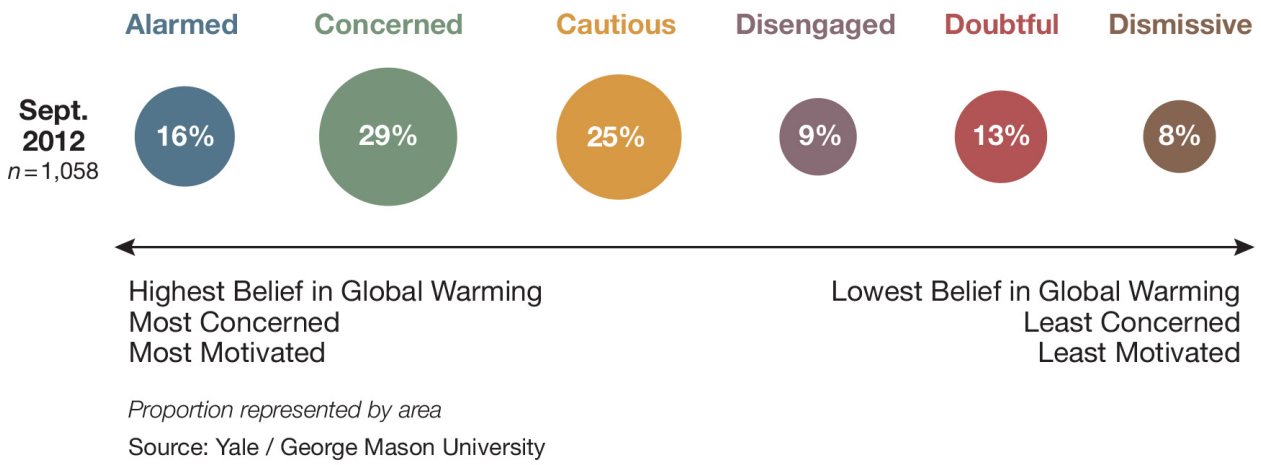
[1] Reports may be accessed at: http://environment.yale.edu/climate/publications/ *or* http://climatechange.gmu.edu.

[2] Maibach, Edward, Anthony Leiserowitz, Connie Roser-Renouf & C.K. Mertz. (2011). Identifying Like-Minded Audiences for Climate Change Public Engagement Campaigns: An Audience Segmentation Analysis and Tool Development. *PLoS ONE.* http://dx.plos.org/10.1371/journal.pone.0017571

The Six Americas Audience Segments



The Six Americas do not vary much by age, gender, race or income – there are members of every demographic group in each of the groups. They range instead along a spectrum of belief, concern and issue engagement, from the *Alarmed* to the *Dismissive*. Groups on the left of this spectrum are more concerned and desire more action to reduce global warming, while groups on the right are relatively unconcerned and oppose action. The middle groups tend to have low issue involvement, do not think about global warming often and do not have strong – if any – opinions on the course the U.S. should pursue.

As of September 2012, the largest audience segment is the *Concerned* (29%), who are moderately certain that global warming is occurring, harmful and human-caused; they tend to view global warming as a threat to other nations and future generations, but not as a personal threat or a threat to their community. They support societal action on climate change, but are unlikely to have engaged in political activism.

The *Cautious* (25%) – the second-largest group – are likely to believe that climate change is real, but are not certain, and many are uncertain about the cause. They are less worried than the *Concerned,* and view global warming as a distant threat. They have given little thought to the issue and are unlikely to have strongly held opinions about what, if anything, should be done.

The third largest group – the *Alarmed* (16%) – are very certain global warming is occurring, understand that it is human-caused and harmful, and strongly support societal action to reduce the threat. They discuss the issue more often, seek more information about it, and are more likely to act as global warming opinion leaders than the other segments. They are the most likely of the six groups to have engaged in political activism on the issue, although only about a quarter have done so.

These three groups – the *Alarmed*, *Concerned* and *Cautious* – currently comprise 70 percent of the American public. Although they range in certainty about the reality and dangers of climate change, they are similarly inclined to believe it is a real threat that should be addressed. Thus, some level of support for action is the predominant view among the majority of Americans.

The *Doubtful* (13%) – the fourth largest group – are uncertain whether global warming is occurring or not, but believe that if it is happening, it is attributable to natural causes, not human activities. They tend to be politically conservative and to hold traditional religious views.

The *Disengaged* (9%) have given the issue of global warming little to no thought. They have no strongly held beliefs about global warming, know little about it, and do not view it as having any personal relevance. They tend to have the lowest education and income levels of the six groups.

The smallest audience segment is the *Dismissive* (8%), who are very certain that global warming is *not* occurring. Many regard the issue as a hoax and are strongly opposed to action to reduce the threat. About one in nine have contacted an elected representative to argue against action on global warming.

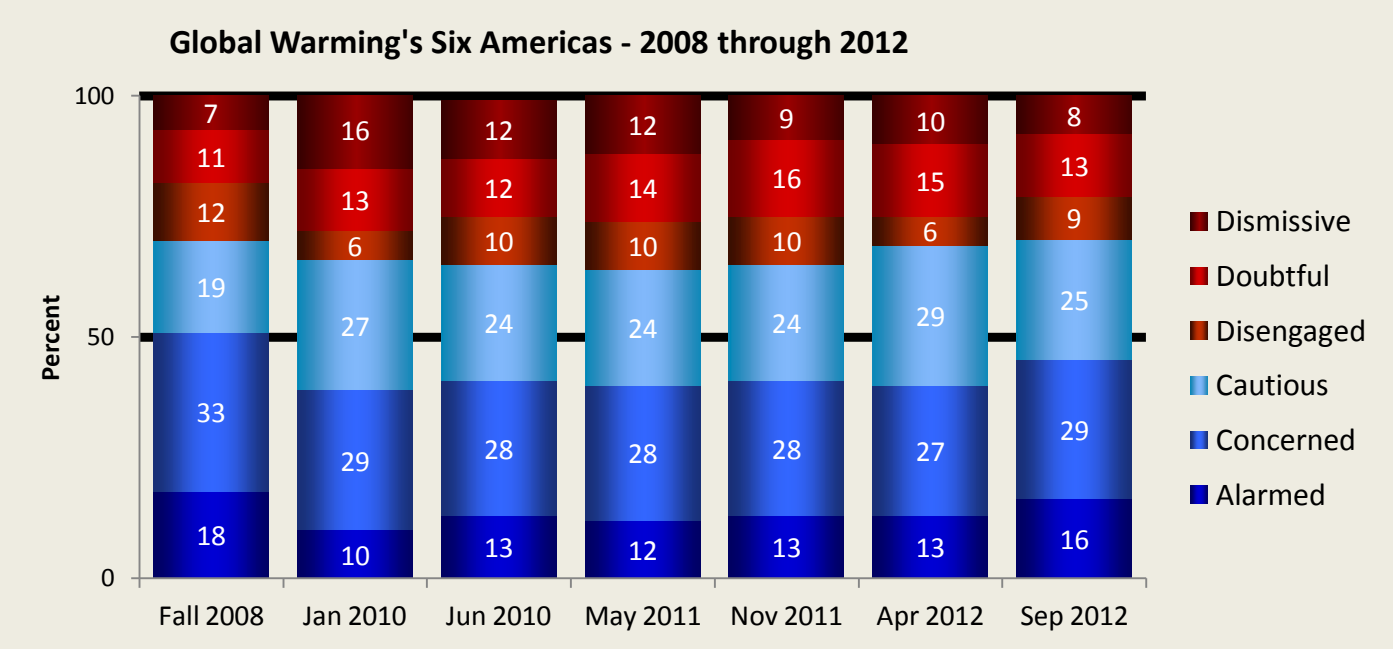
Changes in the Size of Segments

When the audience segments were first identified in the fall of 2008, just over half the U.S. population fell into the two most concerned segments – the *Alarmed* and *Concerned.* By January 2010, the proportion in these two segments had decreased by 11 percentage points, and the proportion in the least concerned segment, the *Dismissive,* had more than doubled from 7 to 16 percent of the population.

These changes were consistent with multiple national polls showing similar shifts in public opinion at that time, and are likely the result of several factors, including the recession, decreases in media coverage, "climategate," and cues from political elites.

By June of 2010, however, the *Alarmed* had rebounded by 3 percentage points, while the *Dismissive* shrank by 4 percent. In 2011 there was little change in the segment sizes, beyond a further decrease in the *Dismissive* and a corresponding growth in the *Doubtful*.

In 2012 there was a gradual increase in the sizes of the more concerned segments: in April we found an increase of 5 percentage points in the *Cautious*, and a decline in the *Disengaged*. By September, the *Alarmed* had increased to 16 percent and the *Concerned* to 29 percent, while the *Dismissive* (8%), *Doubtful* (13%) and *Cautious* (25%) had all contracted.[3]



[3] Superstorm Sandy amplified national discussions of climate change, but it occurred *after* these data were gathered; thus, the upward trend in concern shown here does not reflect any impact the storm may have had on public opinion.

Perceived Benefits and Costs of Reducing Fossil Fuel Use and Global Warming

Studies suggest that support for action on climate change arises from a set of key beliefs, summarized in a prior Six Americas report (see http://environment.yale.edu/climate/files/Six-Americas-March-2012.pdf).

Another central factor is beliefs about the outcomes resulting from action; studies show that people tend to dismiss evidence if they believe that acting on the evidence will lead to outcomes they fear or dislike.[4] Individuals who believe that the economy will be harmed, government regulation will increase, and individual freedoms curtailed are more likely to dismiss the evidence for climate change, while those who believe that inaction will result in harm to people and other species are more supportive of action.

To examine these perceptions, we asked about the benefits and drawbacks of action using two different frames: taking steps to reduce *global warming* and taking steps to reduce *the nation's use of fossil fuels*.

Specifically, half the respondents were asked: "Please indicate whether you agree or disagree with the following statements. If our nation takes steps to reduce our use of fossil fuels (coal, oil and natural gas), it will…" The other half were asked: "Please indicate whether you agree or disagree with the following statements. *If our nation takes steps to reduce global warming, it will…:."*

Survey participants then saw 16 potential outcomes, listed in random order – ten benefits and six costs or drawbacks (although is worthy of note that at least one of the outcomes – "lead to more government regulation" – may be considered a cost by some respondents and a benefit by others). They rated each potential outcome on a five-point scale from *"strongly agree"* to *"strongly disagree,"* and could also respond, *"don't know,"* or *"prefer not to answer."*

We found that the expected outcomes associated with taking steps to reduce global warming are very similar to those associated with taking steps to reduce fossil fuel use;[5] in light of this similarity, we combined both sets of data in the following analyses. A few differences do exist in expected benefits and costs, however, among individual segments. These have been noted on each page.

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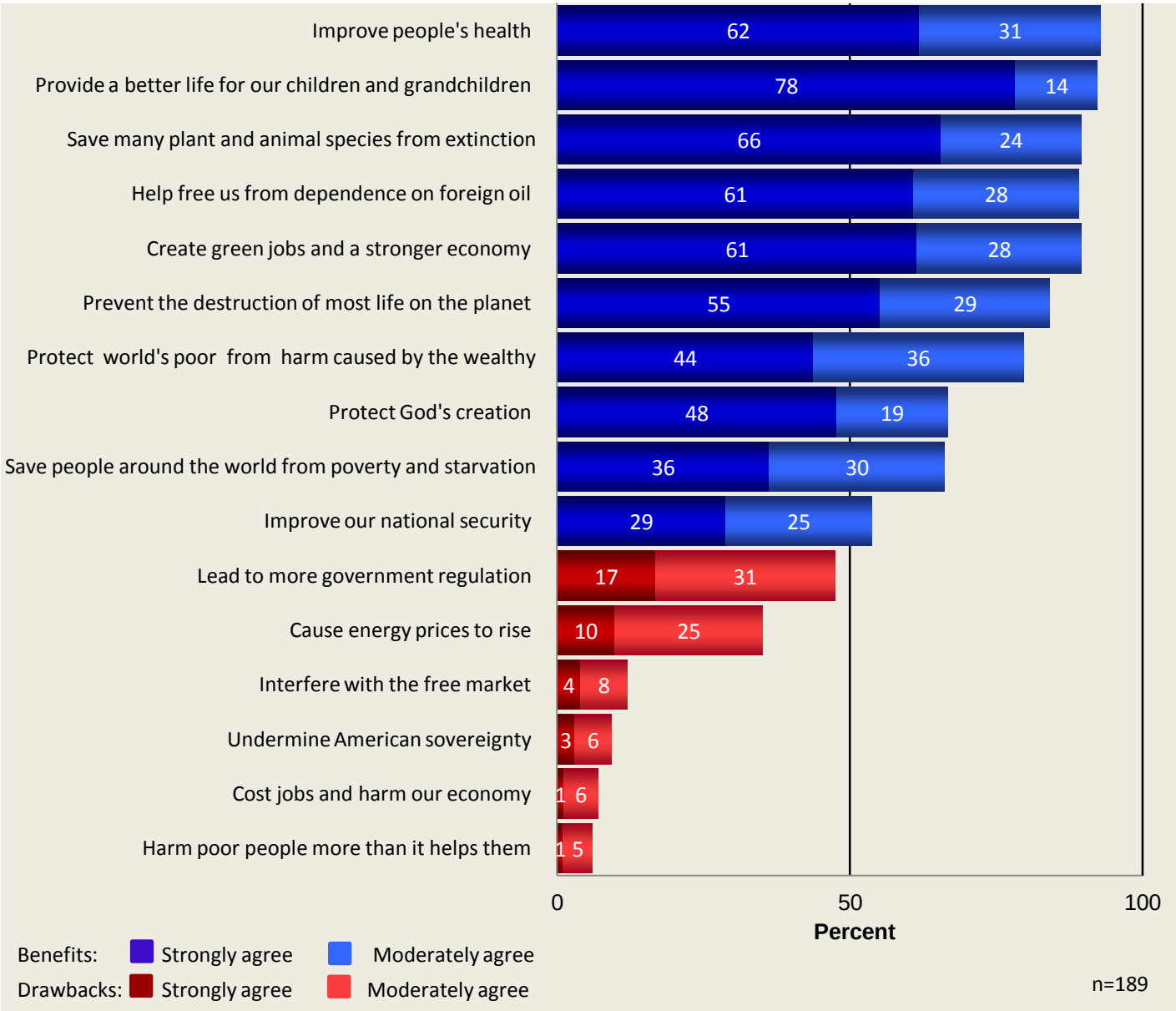
[4] Kunda, Z. (1990). The case for motivated reasoning. *Psychological Bulletin, 108*(3), 480-498.
Ditto, P. & Lopez, D. (1992) Motivated skepticism: Use of differential decision criteria for preferred and nonpreferred conclusions. *Journal of Personality & Social Psychology, 63*(4), 568-584.

[5] Leiserowitz, A., Maibach, E., Roser-Renouf, C., Feinberg, G., & Howe, P. (2012) *Public support for climate and energy policies in September, 2012.* Yale University and George Mason University. New Haven, CT: Yale Project on Climate Change Communication http://environment.yale.edu/climate/publications/Policy-Support-September-2012

The *Alarmed* expect many benefits and few costs

- Large majorities of the *Alarmed* expect that action will provide immediate benefits to people in the U.S., including improved human health, a better life for our children and grandchildren, the prevention of species extinctions, reduced dependence on foreign oil, and the creation of green jobs.
- 84 percent of the Alarmed say that action would prevent the destruction of most life on the planet.
- A stewardship ethic is cited by two-thirds, who say action will protect God's creation.
- A small majority says that action would improve U.S. national security.
- The two drawbacks most commonly cited by the *Alarmed* – more government regulation and higher energy prices – may have been viewed as positive outcomes, rather than drawbacks, by some within this group.
- Taking action to reduce global warming is seen as more likely to save plant and animal species from extinctions *(p<.001)* and provide a better life for our children and grandchildren *(p<.05)* than was taking action to reducing fossil fuel use.

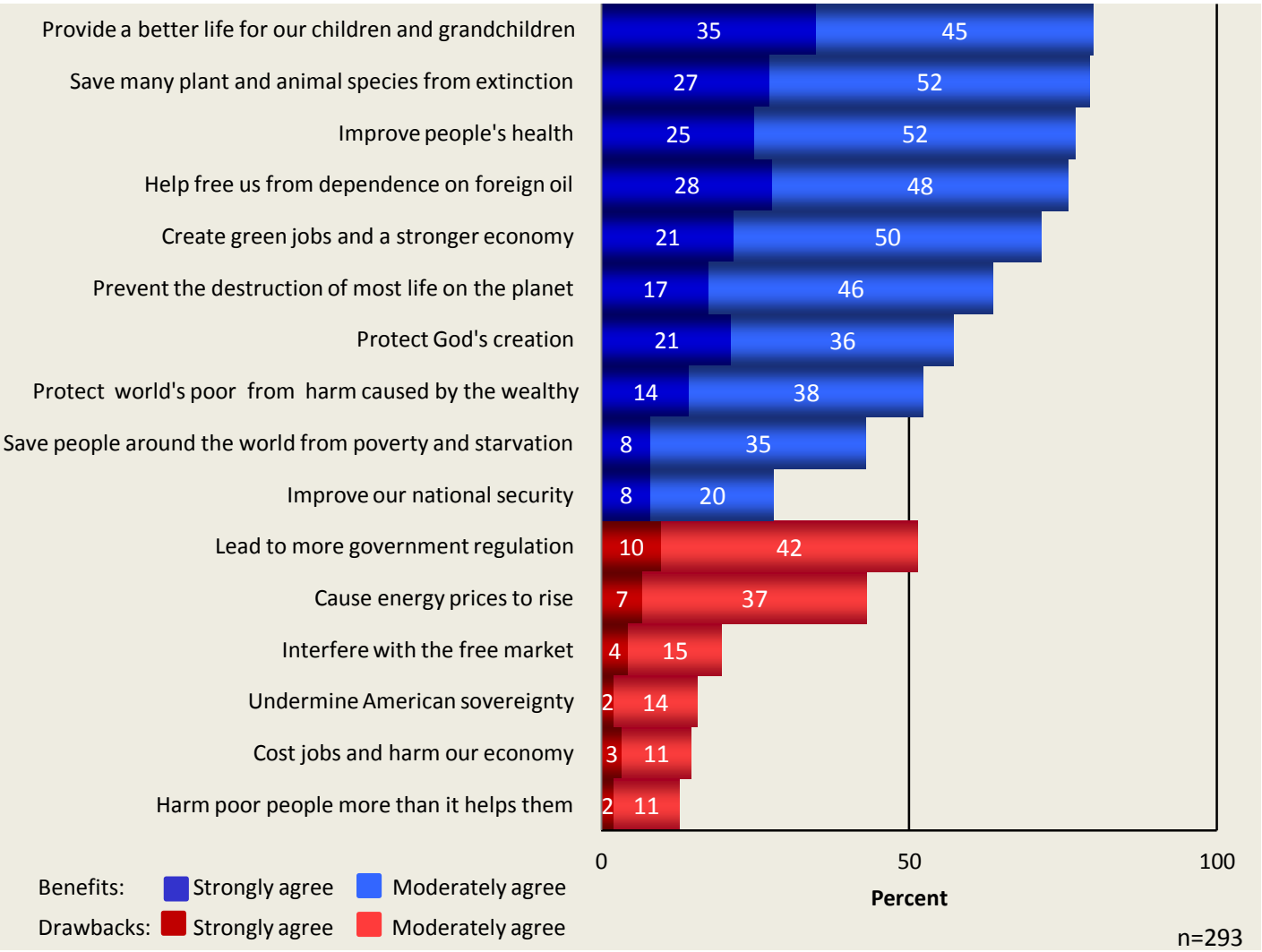
"If our nation takes action to reduce global warming/fossil fuel use, it will..."



The Concerned expect more benefits than costs, although their expectations are more moderate than the Alarmed

- The proportion of the *Concerned* who expect each benefit is lower than the *Alarmed*, and their beliefs are less certain, as indicated by more *"moderately agree"* and fewer *"strongly agree"* responses.
- Nonetheless, approximately 8 out of 10 members of the *Concerned* anticipate that taking action will provide a better life for our children and grandchildren, save many plants and animal species from extinction, and improve people's health; large majorities also believe it will help free us from dependence on foreign oil and create jobs.
- Close to two-thirds (63%) say action will prevent the destruction of most life on the planet – and 57 percent endorse a stewardship ethic – the protection of God's creation.
- A slight majority believe government regulation will increase and 44 percent expect energy prices to rise, expectations which may be concerns for this group.
- The *Concerned* are much more likely to believe that reductions in global warming will save many people from poverty and starvation *(p<.001)* than reducing fossil fuel use will, as well as provide a better life for our children and grandchildren, save species from extinction, create green jobs and increase government regulation (all *p<.05*).

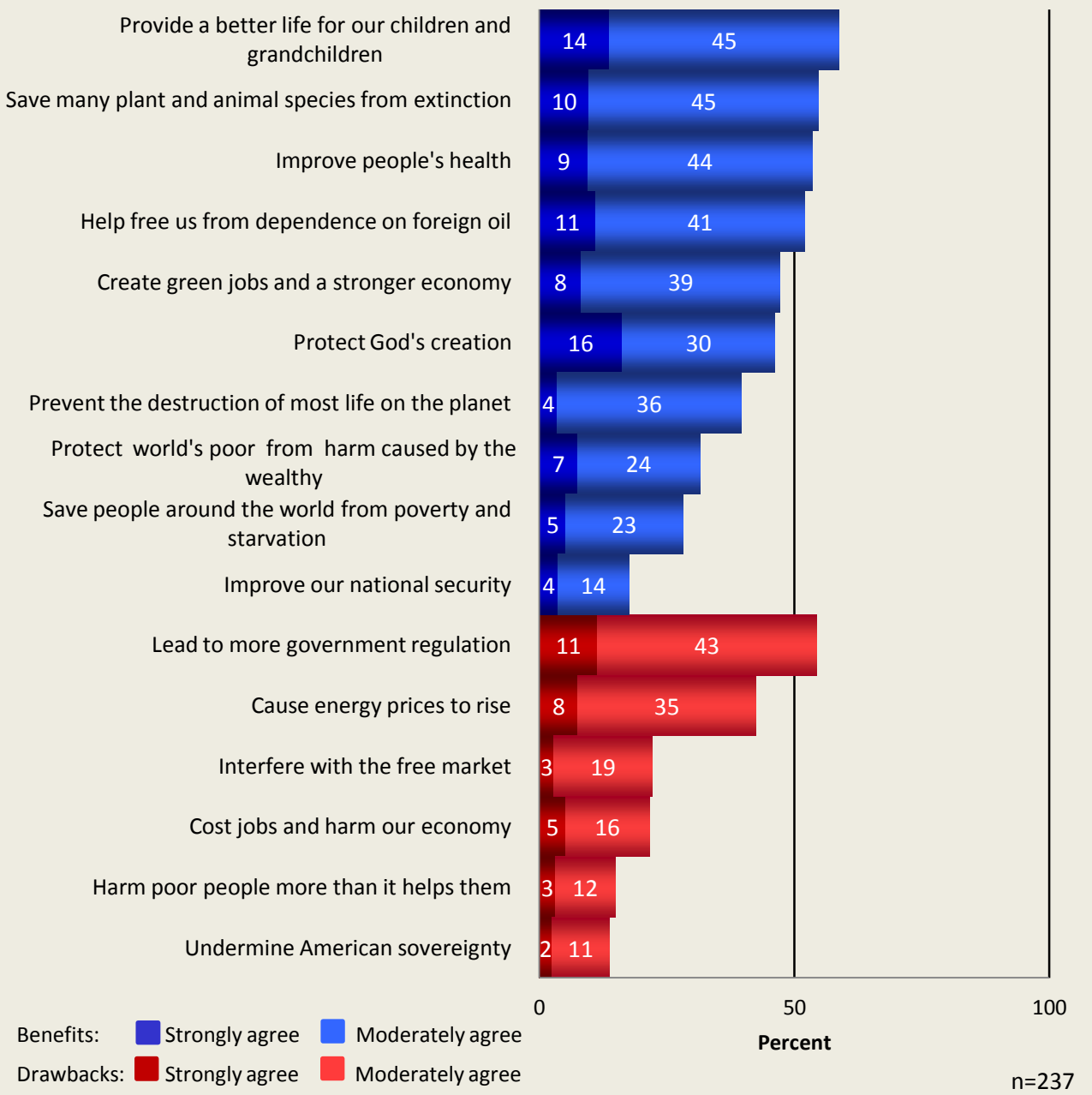
"If our nation takes action to reduce global warming/fossil fuel use, it will..."



The *Cautious* expect more benefits than drawbacks from taking action, but their beliefs are weakly held.

- About half or slightly more of the *Cautious* expect both a range of benefits and a single drawback (more government regulation) to accrue from taking action.
- However, fewer than one-fifth of the *Cautious* strongly agree that any single benefit or drawback was likely; the benefits they are most likely to strongly anticipate are protecting God's creation (16%) and providing a better life for our children and grandchildren (14%).
- The Cautious are more likely believe that reducing our fossil fuel use will improve our national security and reduce our dependence on foreign oil than reducing global warming will (both $p < .05$).

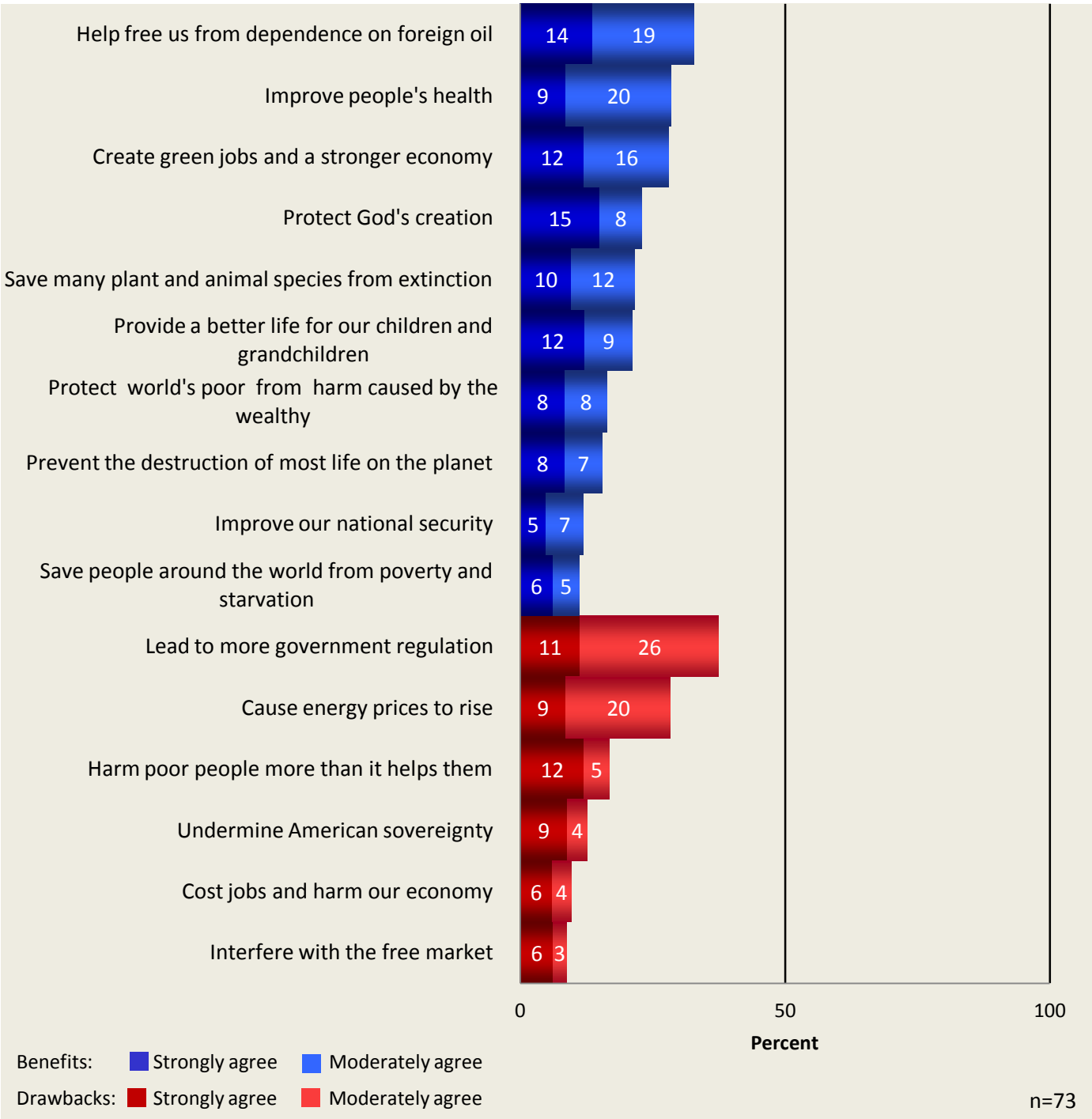
"If our nation takes action to reduce global warming/fossil fuel use, it will..."



The *Disengaged* are relatively unlikely to recognize any benefits or drawbacks to action.

- Majorities respond "neither agree nor disagree" for all of the benefits and drawbacks; between 55 and 80 percent of the *Disengaged* say they don't know about the potential outcomes (data not shown).
- They are most likely to believe that action will both increase government regulation and decrease our dependence on foreign oil.
- The benefit they are most likely to *strongly* anticipate is the protection of God's creation, although the proportion is still small at 15 percent.

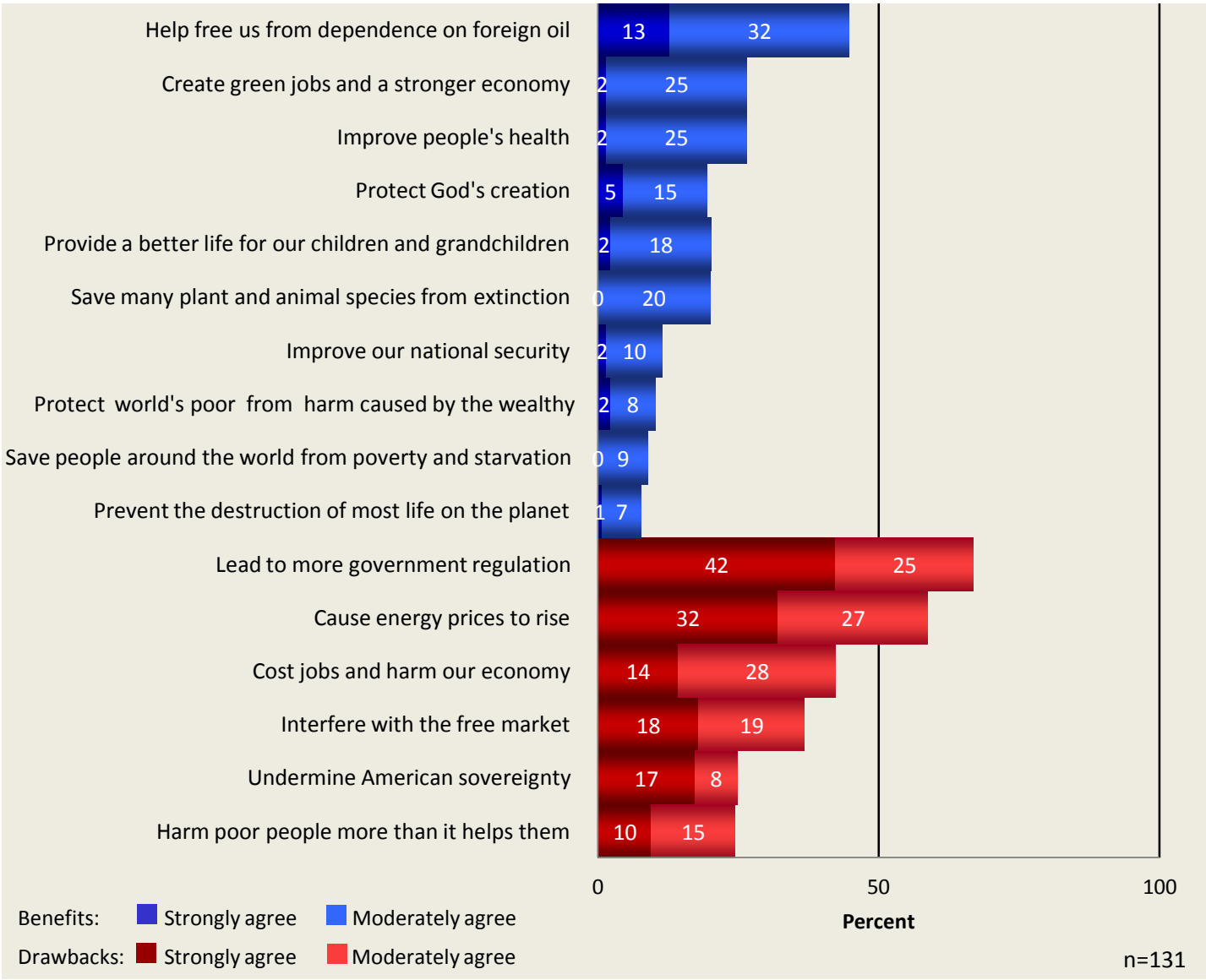
"If our nation takes action to reduce global warming/fossil fuel use, it will..."



The *Doubtful* think there are more drawbacks than benefits to action, but many believe that action would reduce our dependence on foreign oil.

- Increased government regulation and higher energy prices are viewed as likely outcomes by a majority of the *Doubtful*; none of the benefits are expected by a majority.
- Very few – 5 percent or fewer – *strongly* agree that any benefit would accrue, other than reducing our dependence on foreign oil.
- Only 12 percent say that action would increase U.S. national security, while twice as many believe it would undermine our sovereignty (25%).
- The *Doubtful* are divided on the economic impacts of action: 42 percent believe action will cost jobs, while 27 percent believe it will create them.

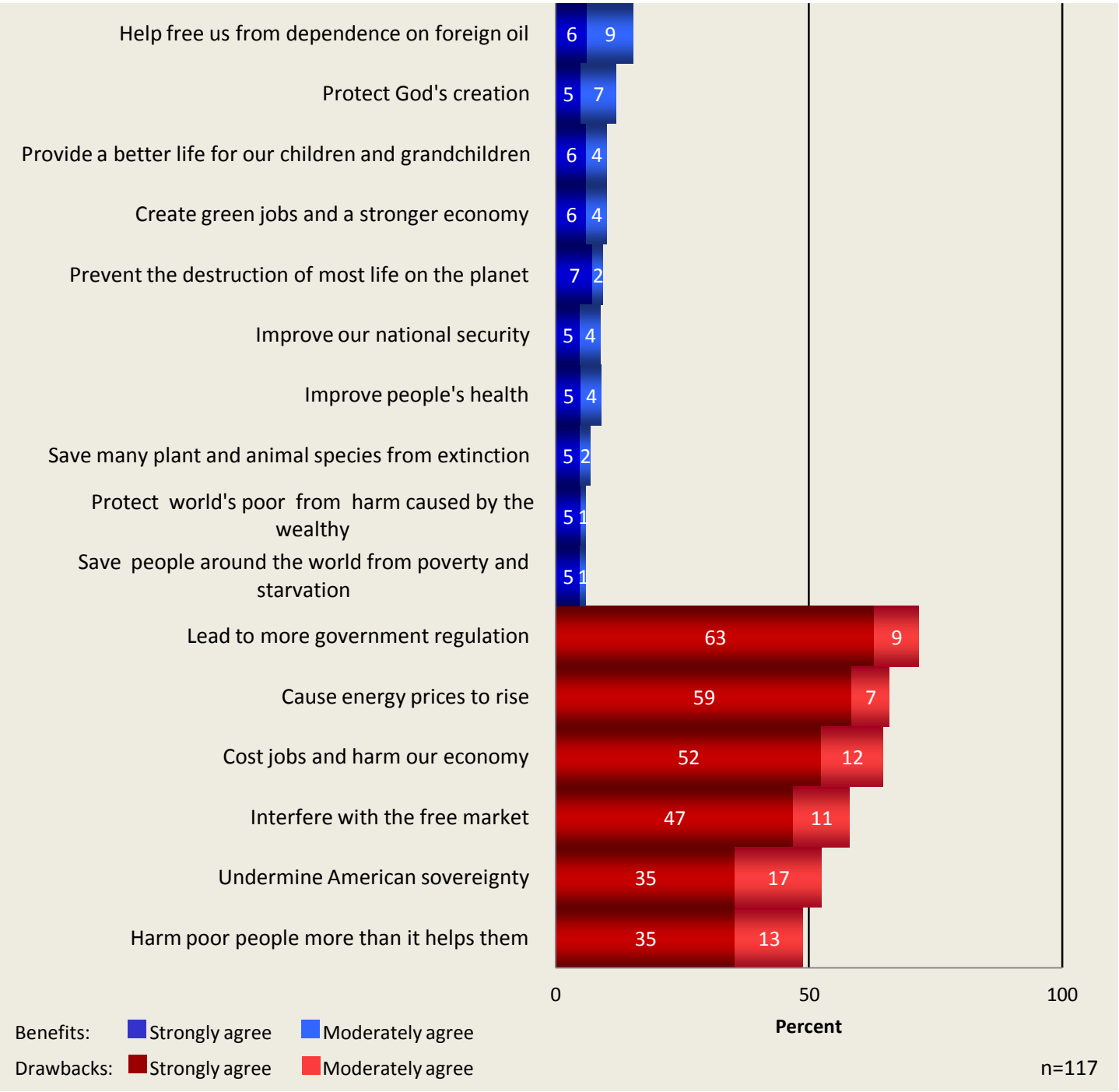
"If our nation takes action to reduce global warming/fossil fuel use, it will..."



The *Dismissive* see little benefit to action and many drawbacks.

- Majorities strongly believe that action will lead to increased government regulation, higher energy prices and harm the economy.
- A slight majority (52%) believe that action would undermine American sovereignty.
- Fewer than 20 percent of the *Dismissive* expect any benefit of action, and only 10 percent believe that green jobs would be created and would strengthen the economy.
- Only fifteen percent believe action would reduce our dependence on foreign oil, while only 9 percent believe our national security would be improved.

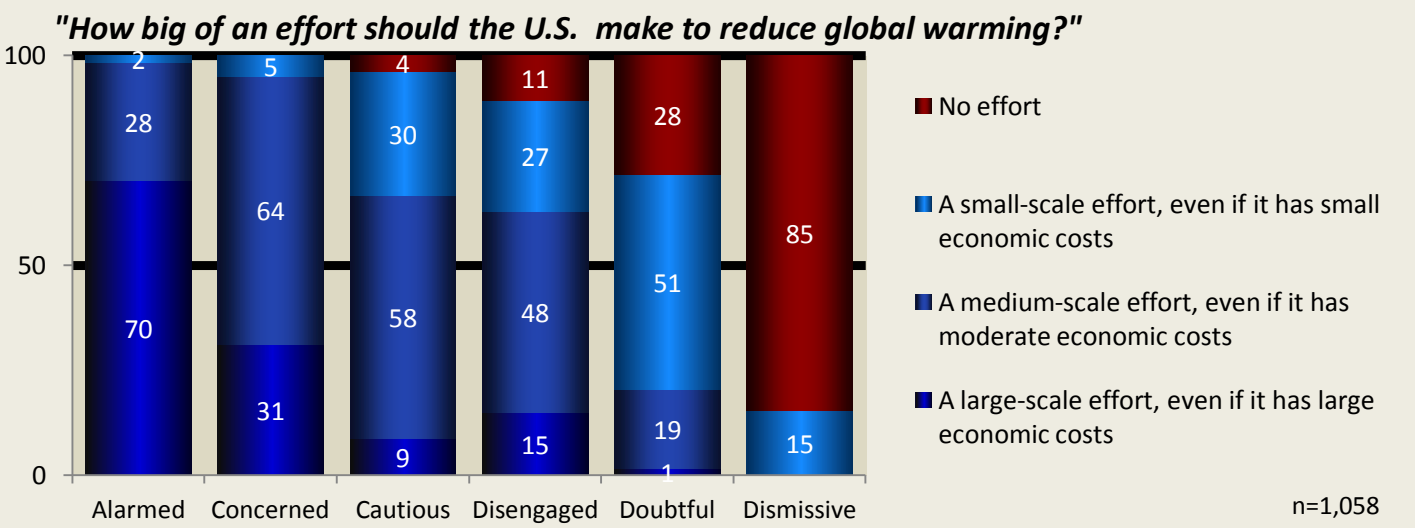
"If our nation takes action to reduce global warming/fossil fuel use, it will..."



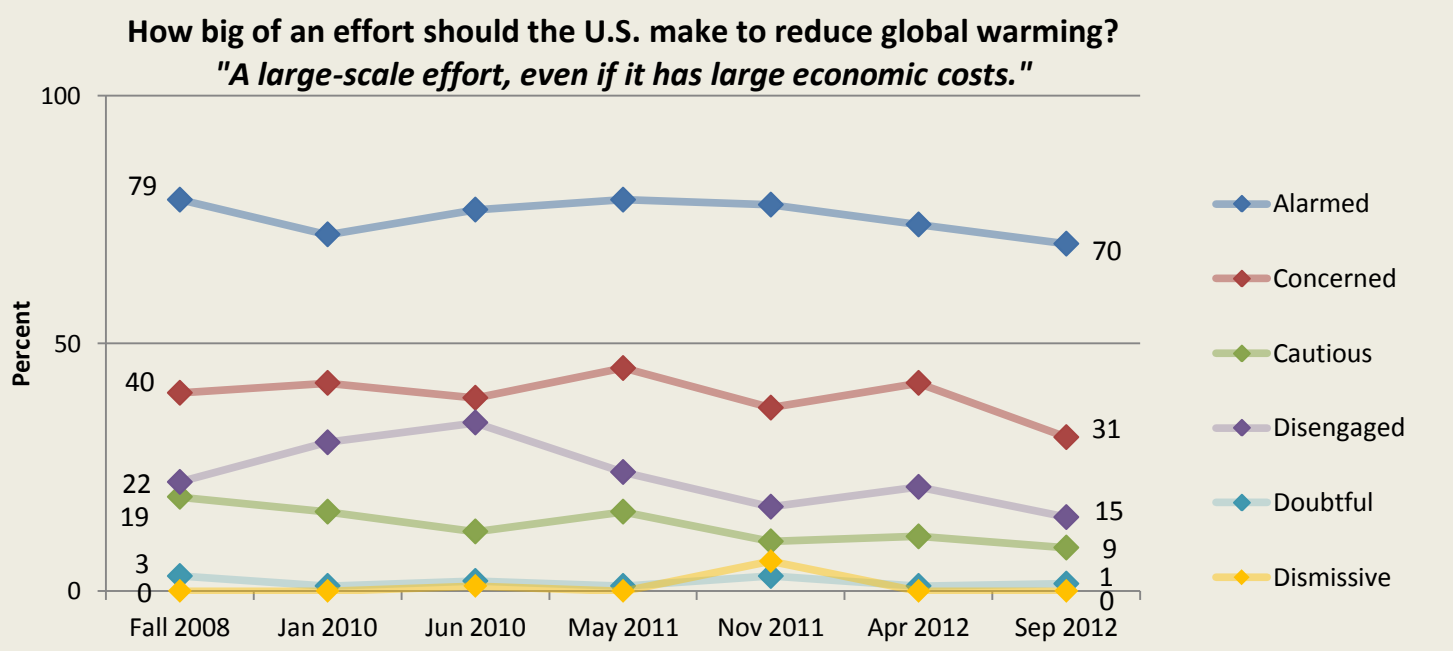
Support for National Policies

Four of the Six Americas support a large-to-medium-scale effort to reduce global warming.

- Respondents were asked to assess the level of national effort they favor to reduce global warming, while taking into account the accompanying costs.
- Majorities of four segments – the *Alarmed* to the *Disengaged* – favor a large to medium-scale effort by the U.S. to reduce global warming, even if it has large to moderate costs. Seventy percent of the *Alarmed* favor a large-scale effort.
- Half of the *Doubtful* favor a small-scale effort, while 28 percent favor no response and 20 percent favor a medium or large response. Eighty-five percent of the Dismissive say we should make no effort.

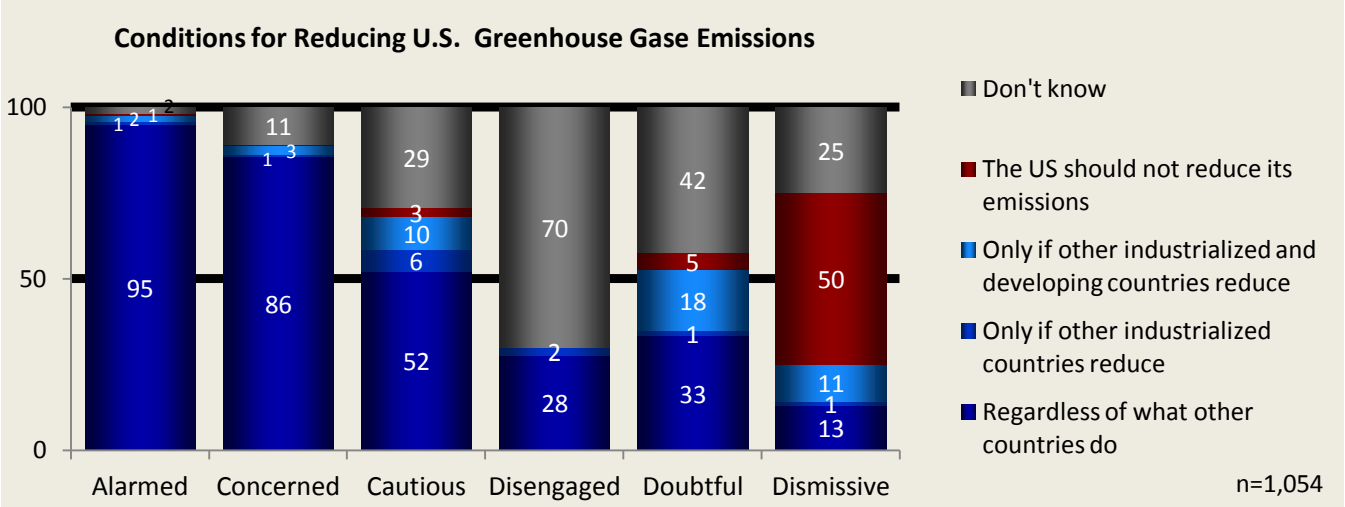


- Since 2008, the proportion that favor a large-scale effort has fallen by 7 to 11 percentage points in the *Alarmed*, *Concerned*, *Cautious* and *Disengaged* segments.

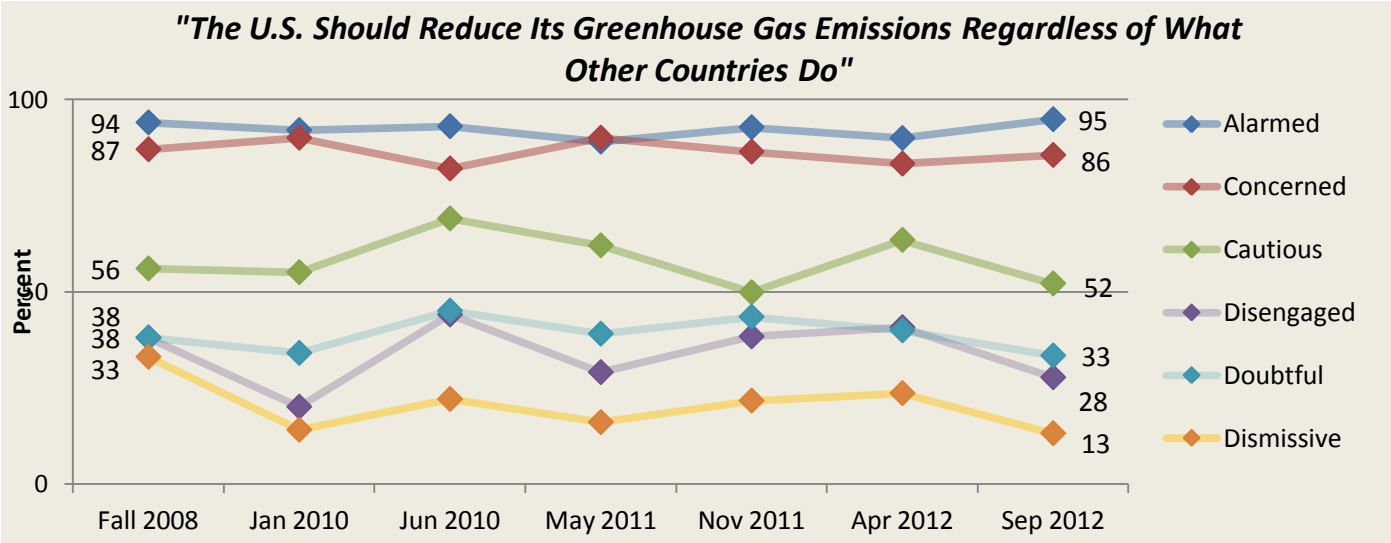


Majorities of the Alarmed, Concerned, and Cautious – comprising 70 percent of the U.S. population – say the U.S. should reduce its greenhouse gas emissions, regardless of what other nations do.

- In light of the global nature of climate change, respondents were asked whether the U.S. should take action to reduce its emissions alone – regardless of whether other nations are acting as well – or should act only if other nations are reducing their emissions as well.
- Large majorities of the *Alarmed* and *Concerned*, and half of the *Cautious* believe the U.S. should reduce its carbon emissions, regardless of the actions of other nations.
- Seventy percent of the *Disengaged* say they don't know what the U.S. should do, and half the *Dismissive* say the U.S. should not reduce its emissions.
- The *Doubtful* are divided, with 42 percent saying they don't know what the U.S. should do, a third saying we should act regardless of other nations' actions, and 18 percent saying we should only act if the other nations act as well.

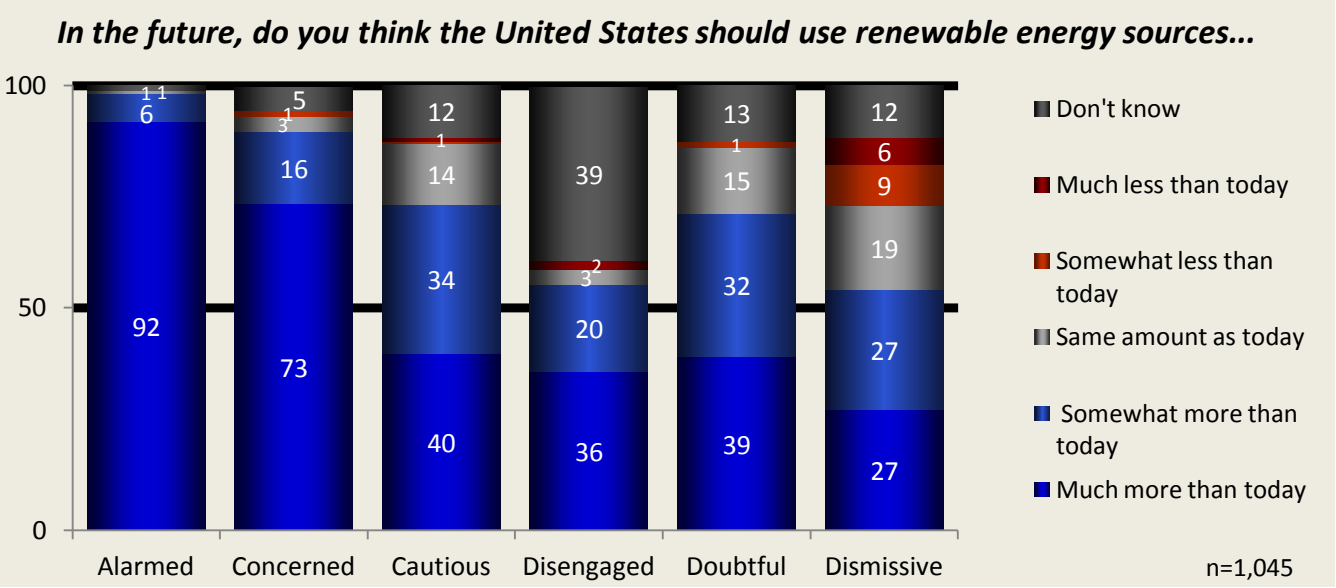


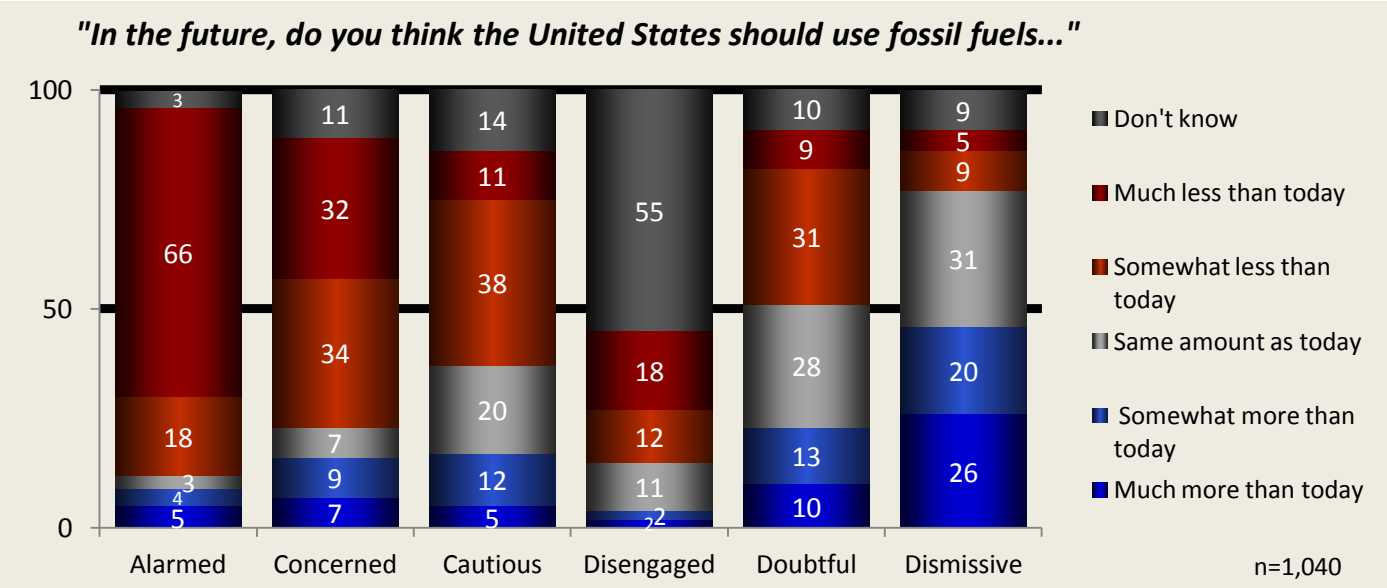
- The proportions that believe the U.S. should act regardless of the actions of other nations has remained stable and high among the *Alarmed* and *Concerned* over the past four years.
- It has fallen within the other four segments, and fluctuated both upward and downward, suggesting attitudinal instability.
- The proportion supporting unconditional action has fallen particularly among the *Dismissive*, which has experienced a decrease of 20 percentage points in the proportion supporting unconditional action, a new low for this group.



Majorities of every segment believe the U.S. should increase its use of renewable energy, while none of the segments express majority support for increasing fossil fuel use. Five of the Six Americas prefer to reduce our use of fossil fuels.

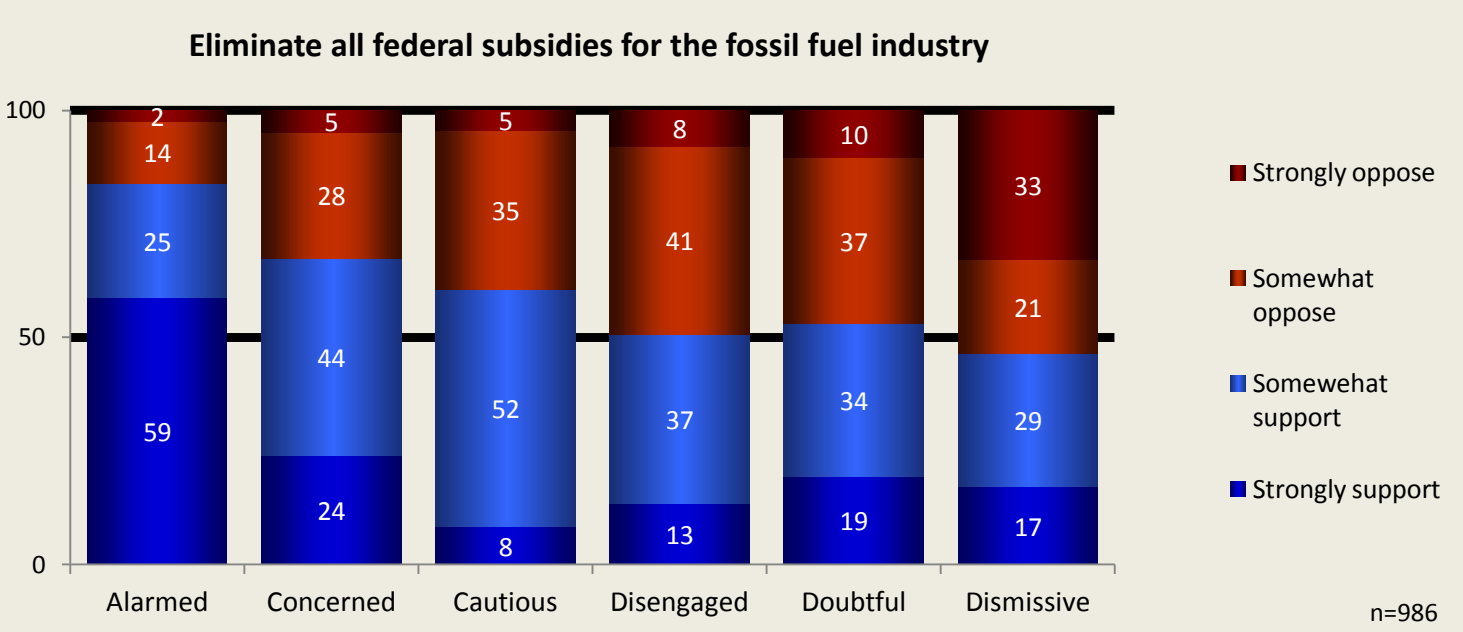
- Early in the survey, before global warming was mentioned, respondents were asked whether the U.S. should increase or decrease its use of fossil fuels and renewable energy in the future.
- Majorities of every segment say that the U.S. should use more renewable energy in the future, while few believe we should increase our use of fossil fuels. Even among the *Dismissive*, more believe we should increase our use of renewable energy (54%) than say we should increase our use of fossil fuels (46%).

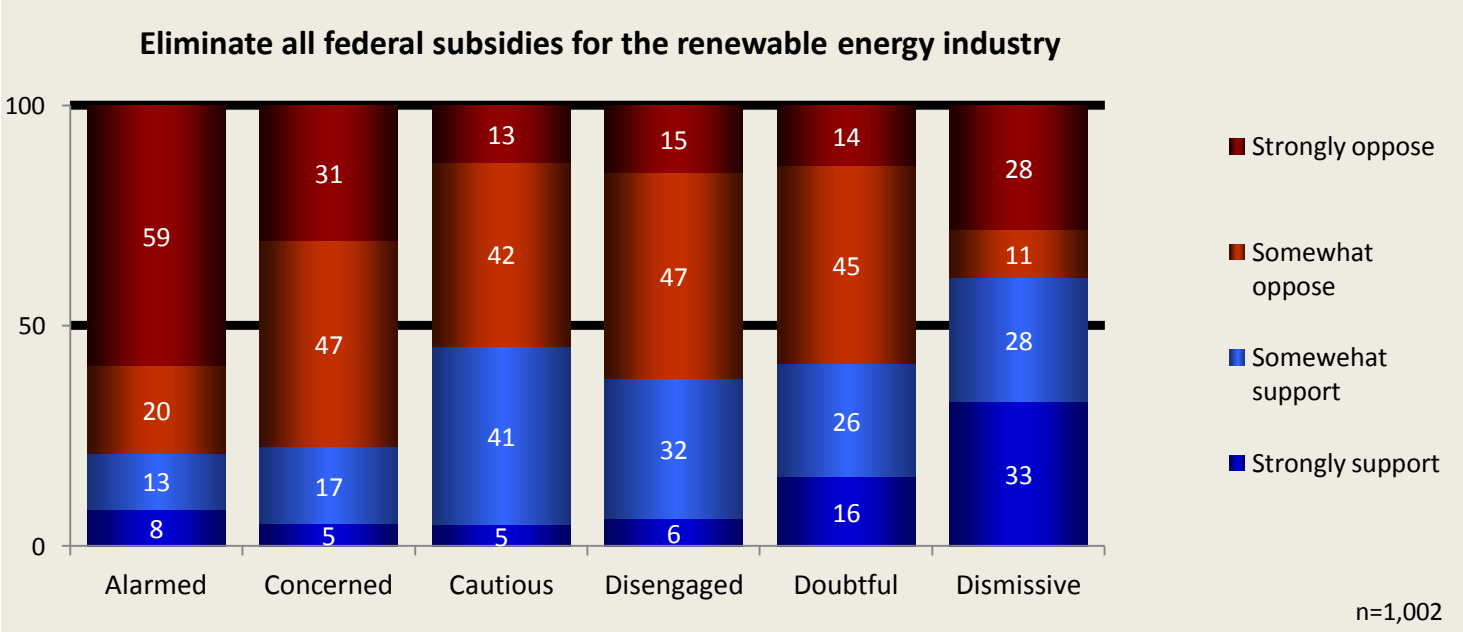




Five of the Six Americas favor eliminating subsidies for the fossil fuel industry and oppose eliminating subsidies for the renewable energy industry.

- In five of the Six Americas, half or more favor eliminating subsidies for the fossil fuel industry, while a majority in only one segment – the *Dismissive* – favors ending subsidies to the renewable energy industry.
- Among the *Alarmed*, 84 percent favor eliminating fossil fuel subsidies, while 21 percent favor eliminating subsidies for renewable energy – a four-to-one ratio. Among the *Concerned*, this ratio is three-to-one; the ratio is smaller but still greater than one-to-one for the Cautious, Disengaged and Doubtful.
- Among the *Dismissive*, however, the ratio is less than one-to-one: 46 percent support eliminating subsidies for fossil fuel companies and 61 percent favor ending subsidies for the renewable energy industry.

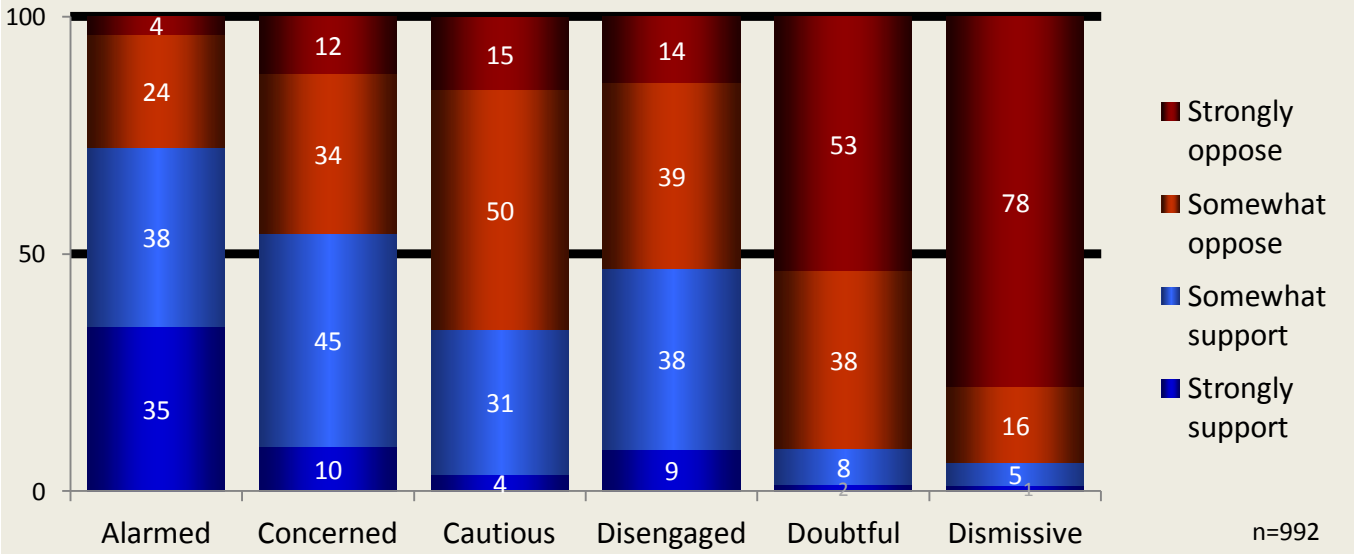




A carbon tax that increases household energy costs is supported by majorities of the *Alarmed and Concerned,* and by close to half of the *Disengaged.*

- Majorities of the *Alarmed* and *Concerned* support a carbon tax, even if it increases household costs by an average of $180; support among the *Concerned* is not strong, however, with only 10 percent saying they strongly support the proposal.
- The tax is opposed by majorities of the remaining four segments; over half of the *Doubtful*, and three-quarters of the *Dismissive* strongly oppose a carbon tax.

How much do you support or oppose the following policy?
...Require companies that produce or import fossil fuels (coal, oil, and natural gas) to pay a tax (a "carbon tax") even if it costs the average household an average of $180 per year.



To assess the conditions under which Americans would be most willing to support a *revenue-neutral* carbon tax – i.e., one that does not increase taxes, but shifts them from one source to another – respondents were asked the following:

"Would you be more or less likely to vote for a candidate who supports legislation to increase taxes on coal, oil, and natural gas (a "carbon tax") in a way that is "revenue neutral" (meaning the total amount of taxes collected by the government would stay the same), if the new carbon tax…

- *Was used to pay down the national debt*
- *Was used to reduce the Federal income tax rate*
- *Was used to give a tax refund of $180, on average, to each American household*
- *Created more American jobs in the renewable energy and energy efficiency industries*
- *Decreased pollution by encouraging companies to find less polluting alternatives"*

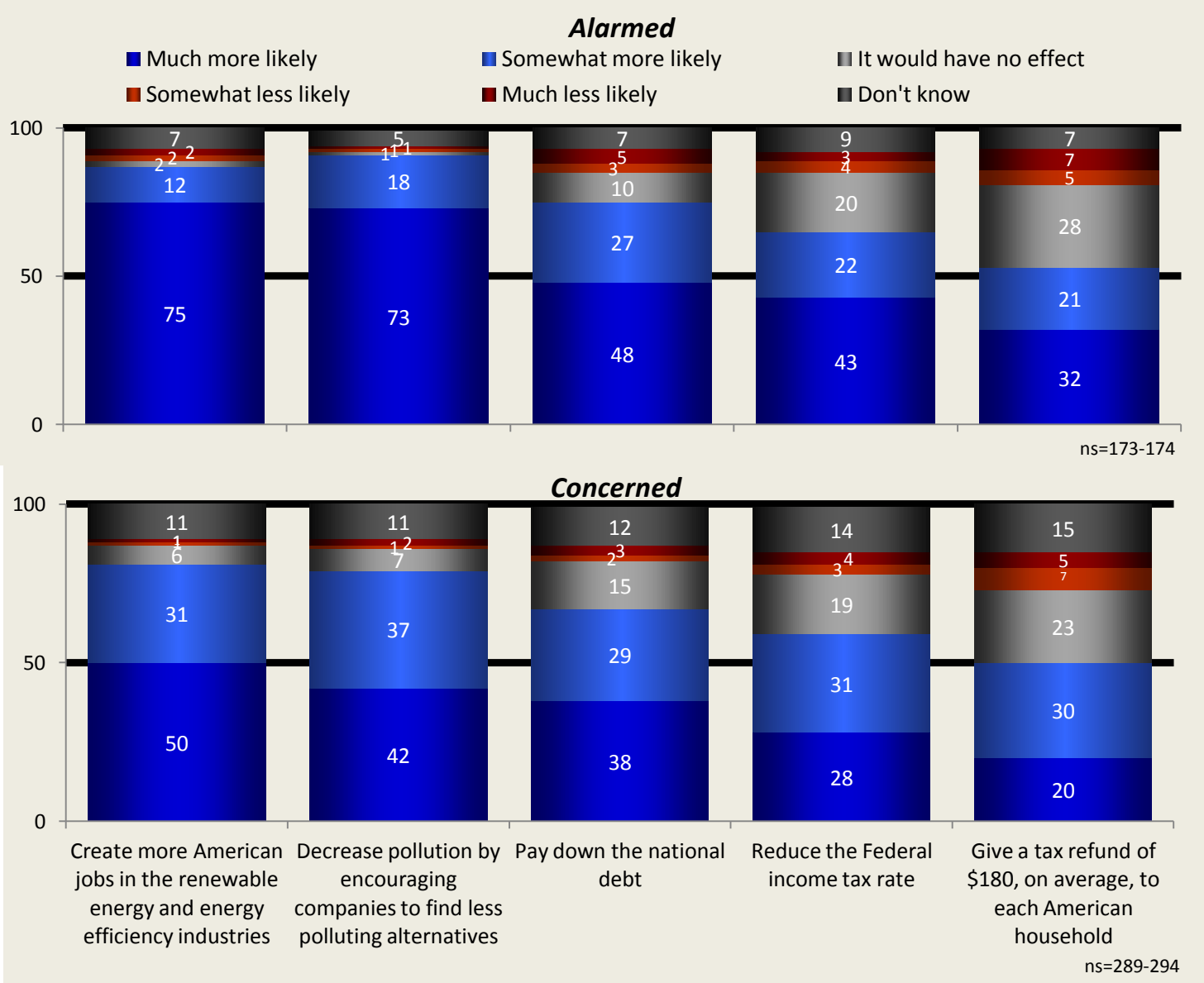
Analyses of the entire sample identified significant differences in support for the various options.[6] These differences are not consistent across segments: The analyses by segment reported below find that some segments have significantly different preferences on how the revenues should be used.

[6]Leiserowitz, A., Maibach, E., Roser-Renouf, C., Feinberg, G., & Howe, P. (2012) *Public support for climate and energy policies in September, 2012.* Yale University and George Mason University. New Haven, CT: Yale Project on Climate Change Communication. http://environment.yale.edu/climate/publications/Policy-Support-September-2012/

The *Alarmed* and *Concerned* would support a candidate advocating a revenue-neutral carbon tax, and are favorable toward all proposed uses for the revenues – particularly green job creation and pollution reduction.

- Large majorities of the Alarmed and Concerned say they would be more likely to vote for a candidate who favors enacting a revenue-neutral carbon tax to decrease pollution and support job creation in renewable energy and energy-efficiency.
- The Alarmed prefer job creation and decreasing pollution over the other options, and favor national debt and income tax reductions over tax refunds (*p<.001* on all comparisons).
- Among the Concerned, creating jobs is preferred over decreasing pollution (p*<.001*); decreasing pollution over the national debt (*p<.01*); national debt reduction over income tax reductions (*p<.001*); and tax reductions over tax refunds (*p<.001*).

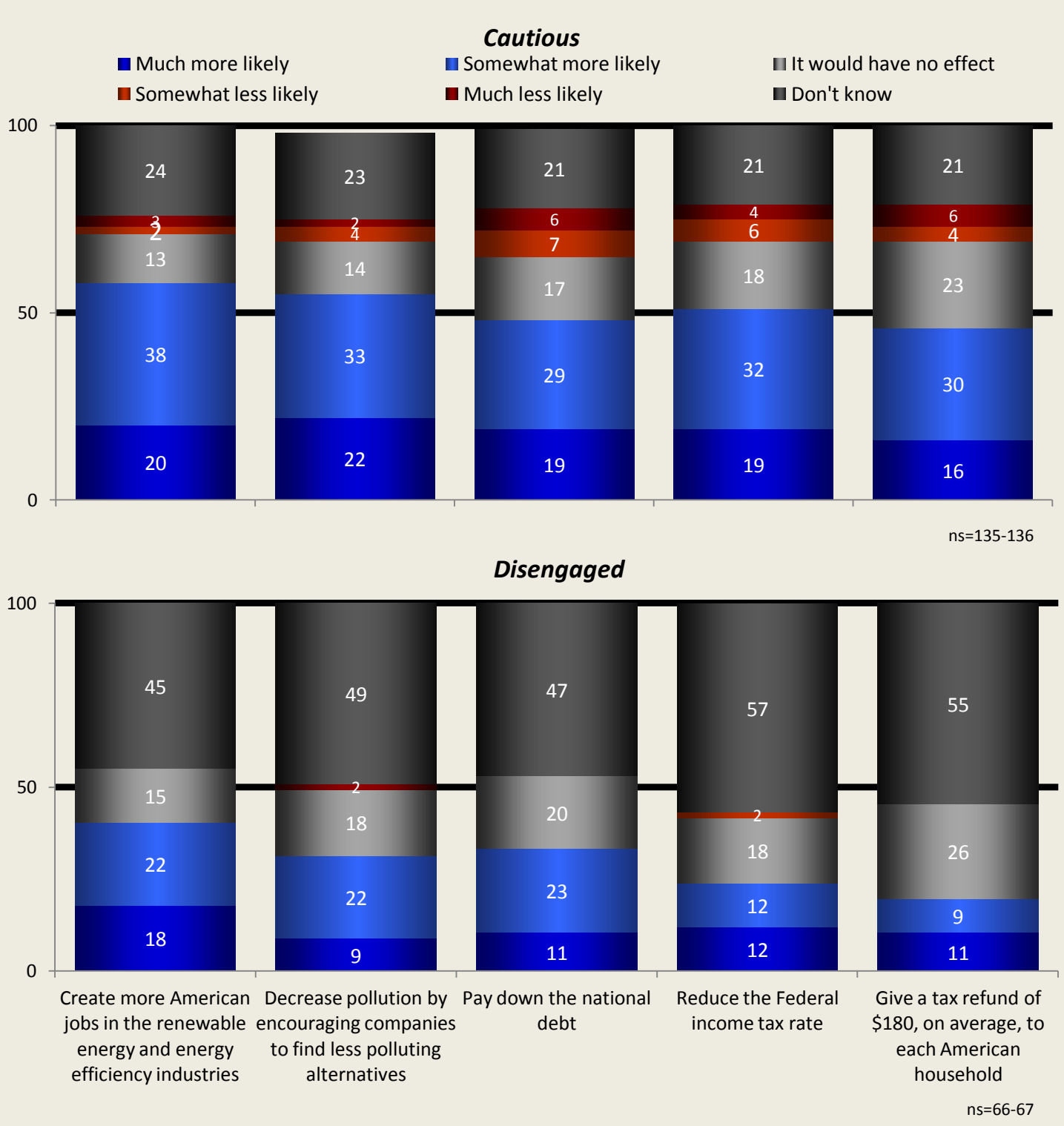
Likelihood of voting for a candidate who supports a revenue-neutral carbon tax if the funds...



A majority of the *Disengaged* and over a third of the *Cautious* express no preferences on the proposed uses for a revenue-neutral carbon tax, saying that they either don't know or that it would not affect their vote. Small majorities of the *Cautious*, however, would support candidates who propose to use the revenue for job creation, pollution reduction, or reduced Federal income taxes.

- Among the *Cautious* who hold opinions, job creation and pollution reduction are significantly preferred over national debt reduction *(p<.01);* income tax reduction *(p<.01);* and tax refunds *(p<.001).*
- Among the *Disengaged*, job creation is preferred over tax reductions *(p<.01).*

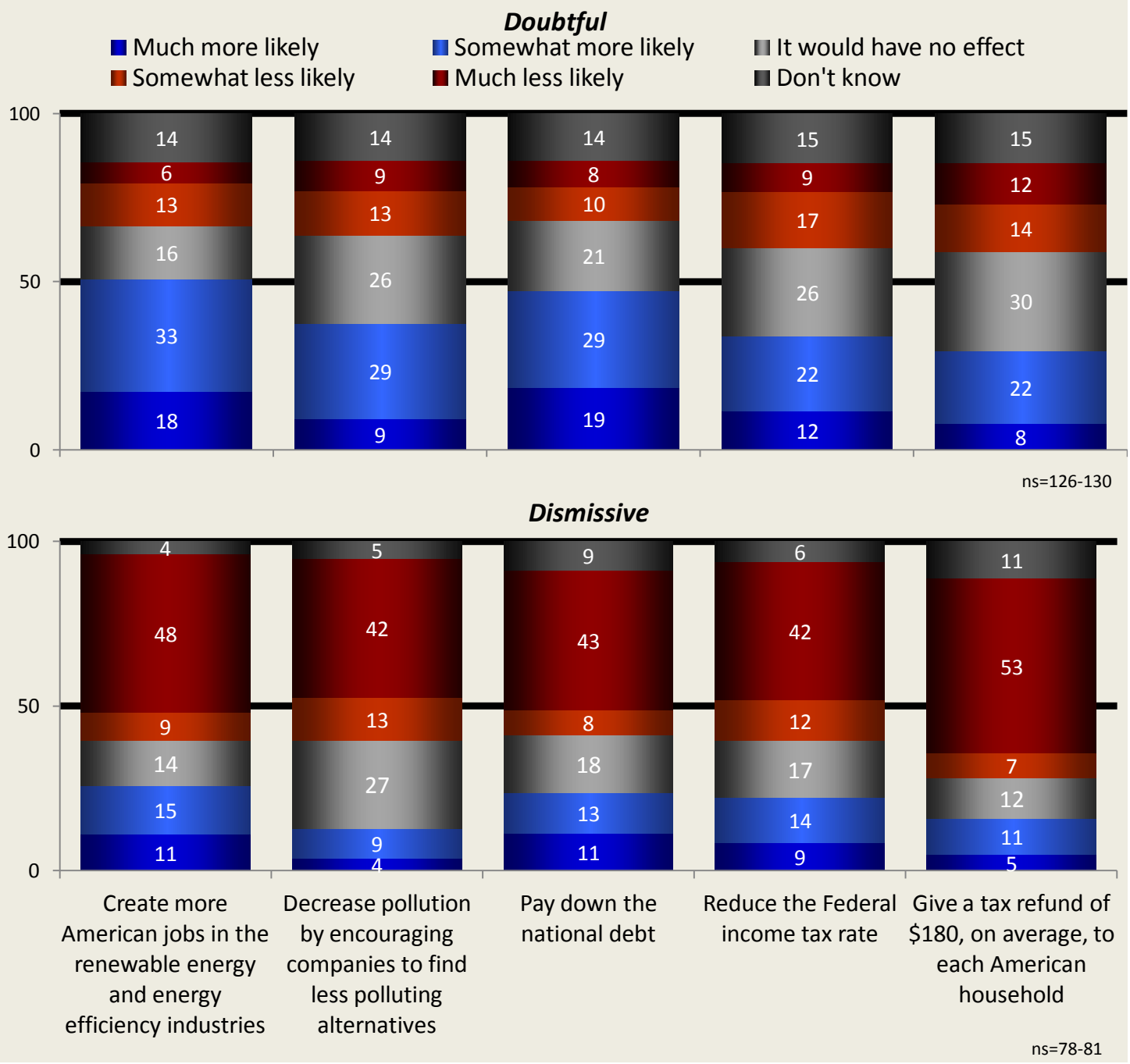
Likelihood of voting for a candidate who supports a revenue-neutral carbon tax if the funds...



Approximately half of the *Doubtful* would support a candidate who proposed to use the revenue to create jobs or pay down the national debt, but the majority of the *Dismissive* say they would vote against a candidate who proposed any of the carbon tax options.

- Close to half of the *Doubtful* would support a candidate who proposed a carbon tax to create jobs in renewable energy and energy-efficiency (51%) or to pay down the national debt (48%). Both of these options were significantly preferred over pollution reduction *(p<.05),* income tax reductions (*p<.001);* and tax refunds *(p<.001).*
- Between 42 and 53 percent of the *Dismissive* say they would be much less likely to vote for a candidate who favored any of the options for a carbon tax. Their most preferred options were creating jobs (26%) and paying down the national debt (24%). Their least preferred option – tax refunds – was opposed significantly more than all other options *(p<.05).*

Likelihood of voting for a candidate who supports a revenue-neutral carbon tax if the funds...

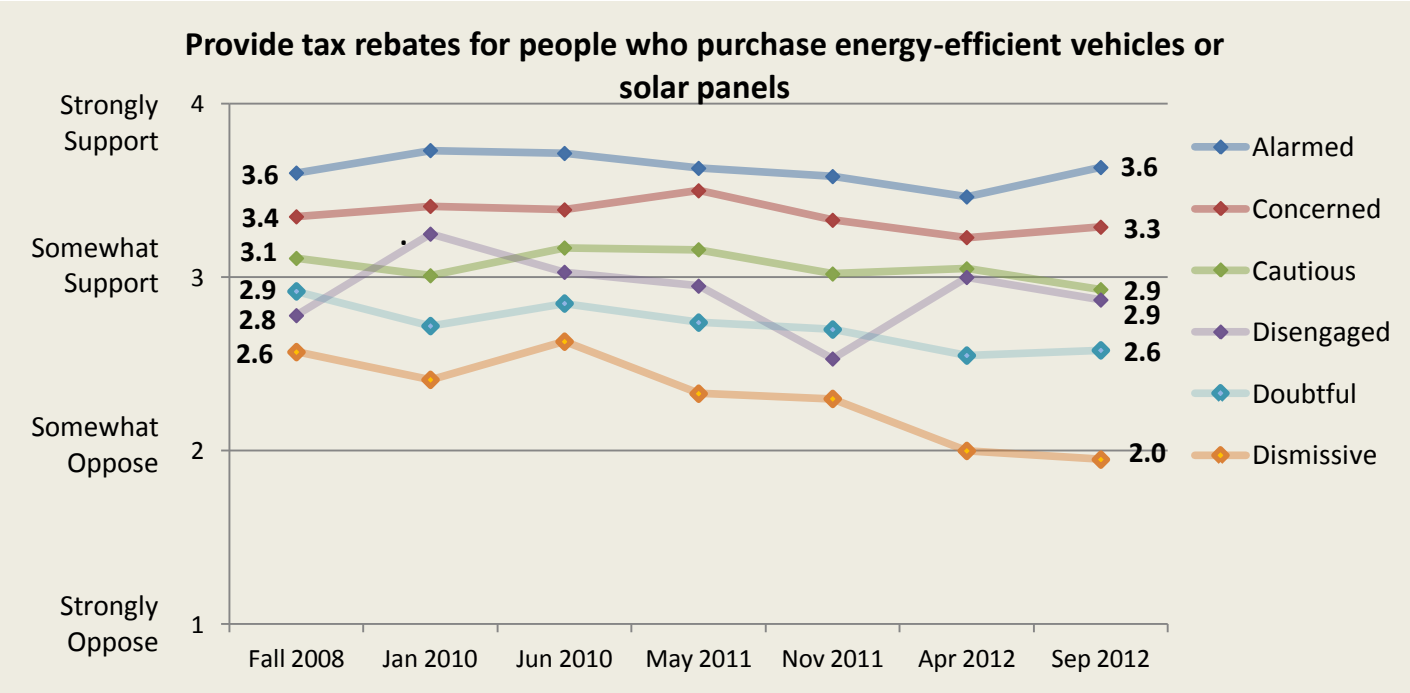


Climate & Energy Policy Preferences, 2008-2012

- Figures in this section illustrate how support for climate and energy policies among the Six Americas has changed over time.
- Public support for these policies has fluctuated in response to numerous influences, such as the recession, statements made by political leaders, media coverage, and events, such as the earthquake and tidal wave in Fukushima, Japan.
- Respondents were asked, "*How much do you support or oppose the following policies?*" A four-point response scale was used, "strongly support" to "strongly oppose."
- Not all policies were assessed in every survey; the figures below include data from every survey that included the policy.

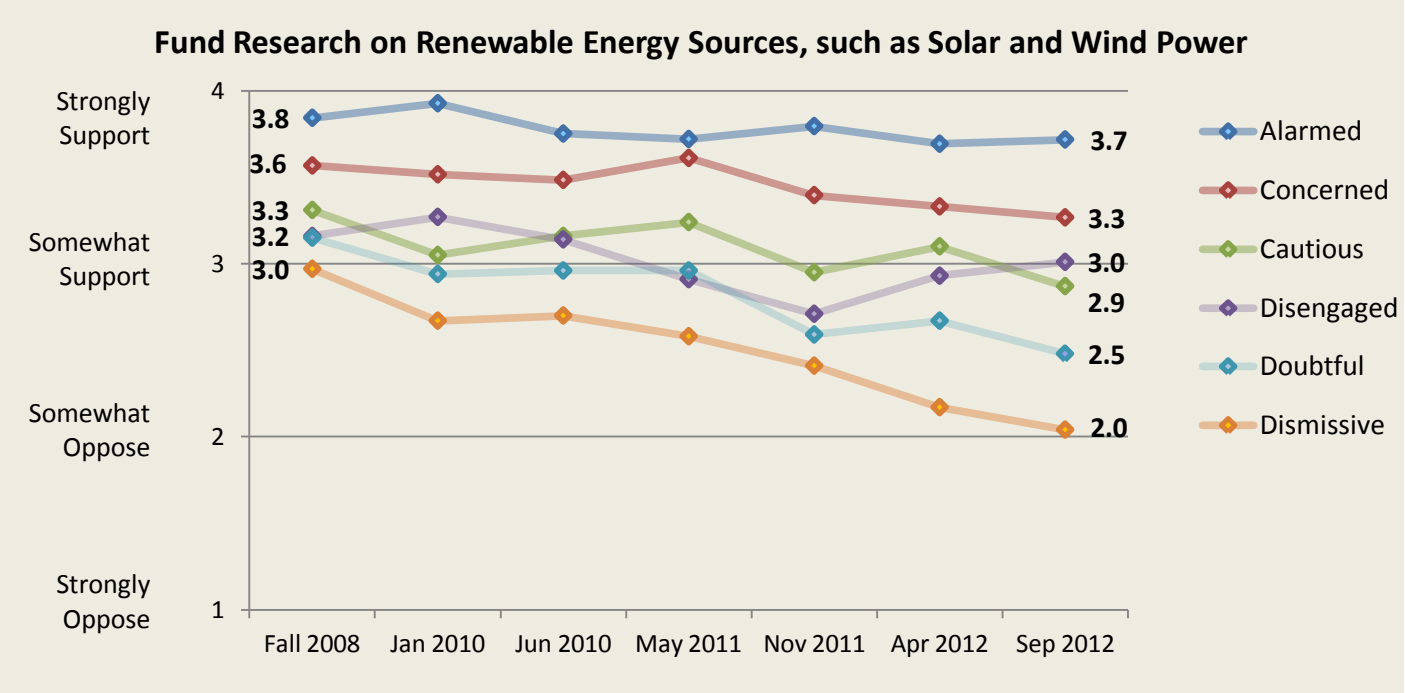
Tax rebates for purchases of energy-efficient vehicles and solar panels have remained a popular policy among five of the Six Americas, with majority support in each segment except the *Dismissive*.

- Support has remained fairly stable among the groups, with the exception of the *Disengaged*, whose opinions have fluctuated, and the *Dismissive*, whose support has decreased.



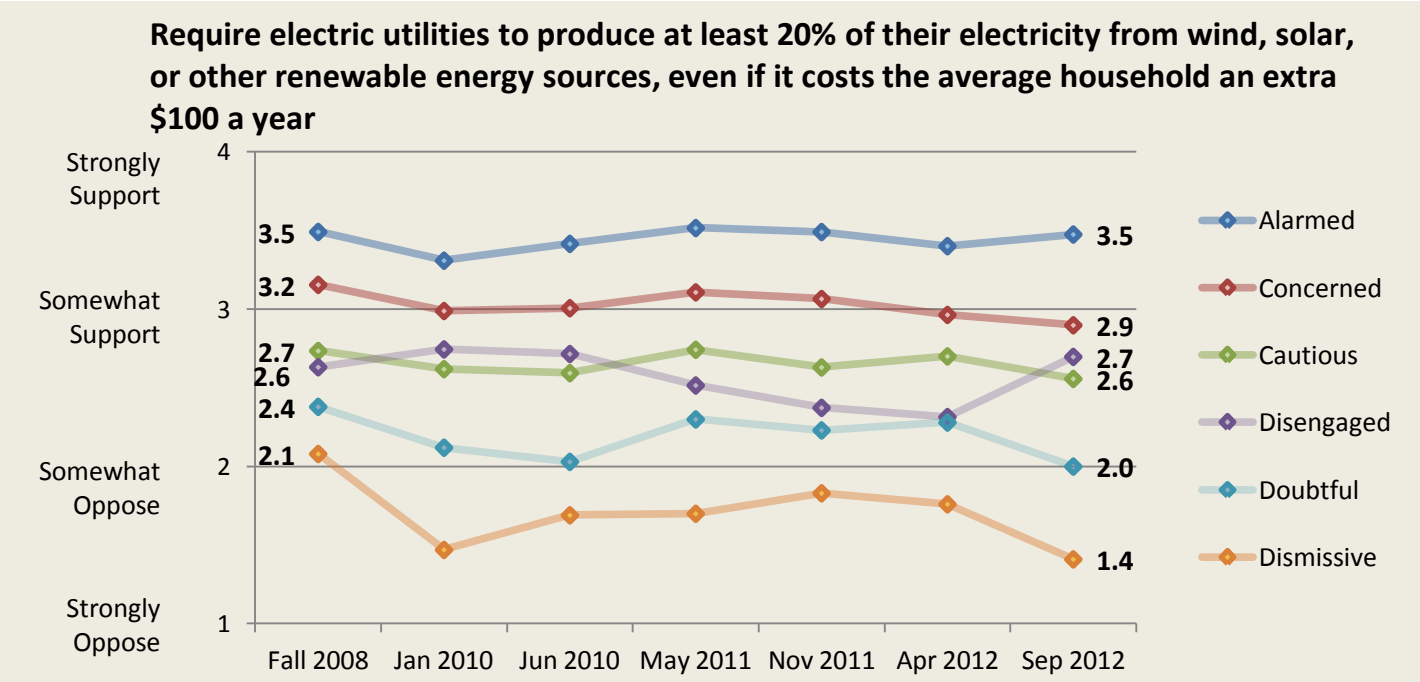
Most Americans support funding research for renewable energy, although this support has decreased.

- Support has decreased in every segment except the *Alarmed* since the fall of 2008. Nonetheless, it remains at or above the middle of the scale for five of the six segments.

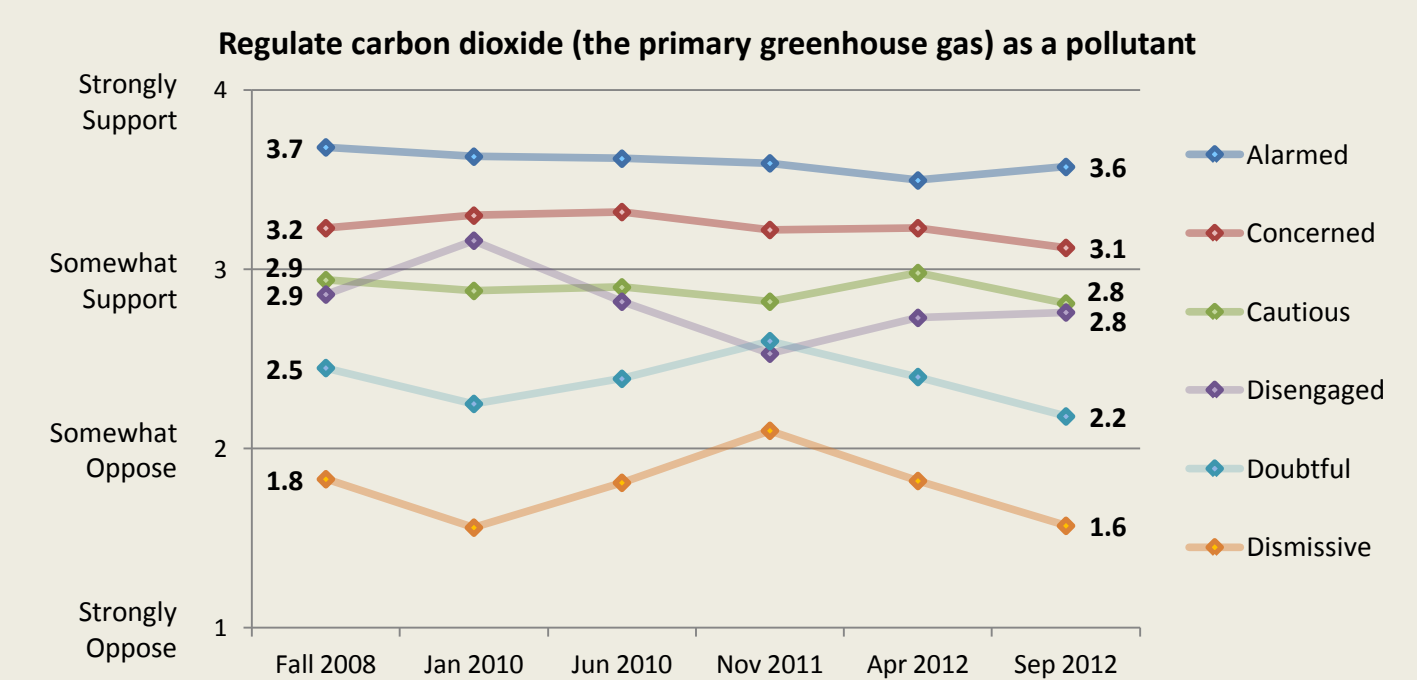


Majorities of the *Alarmed*, *Concerned*, *Cautious* and *Disengaged* support a utility requirement to generate renewable energy, even if it increases home energy costs.

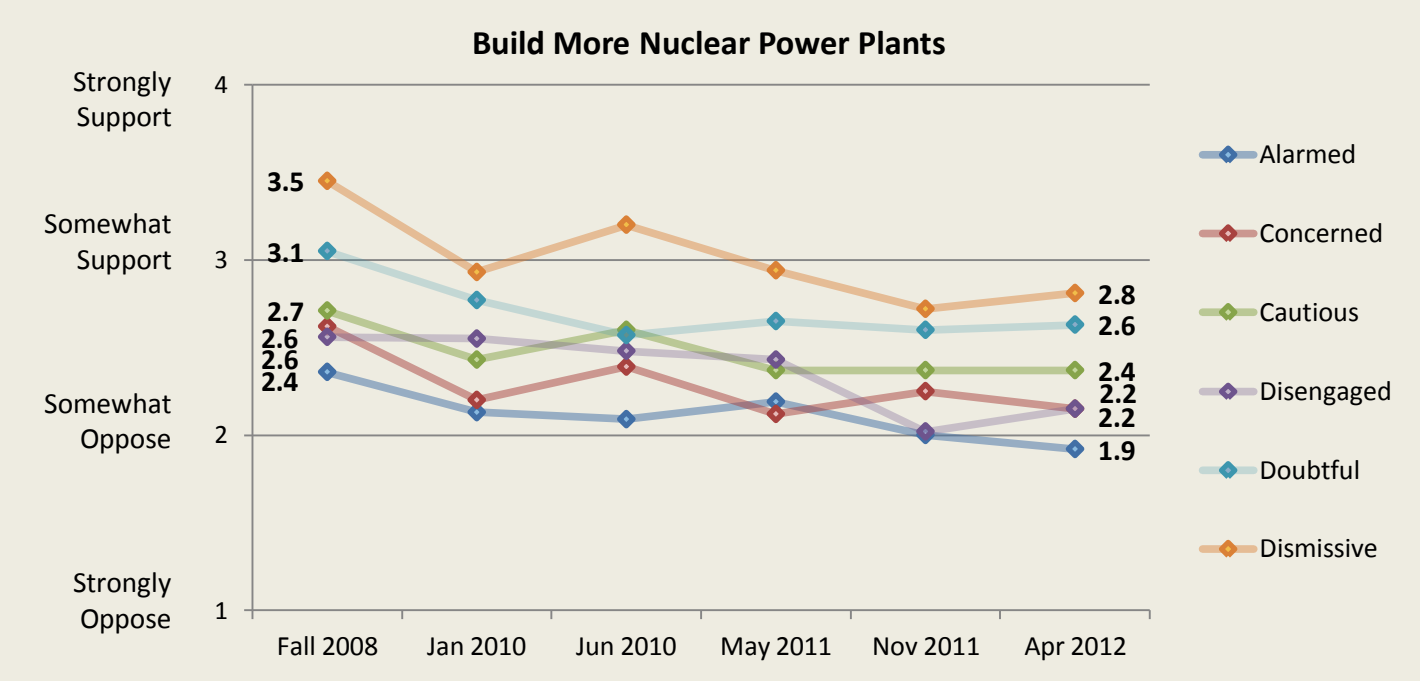
- Opposition has increased among the Doubtful and Dismissive since 2008, but the remaining four segments have remained supportive of the policy.



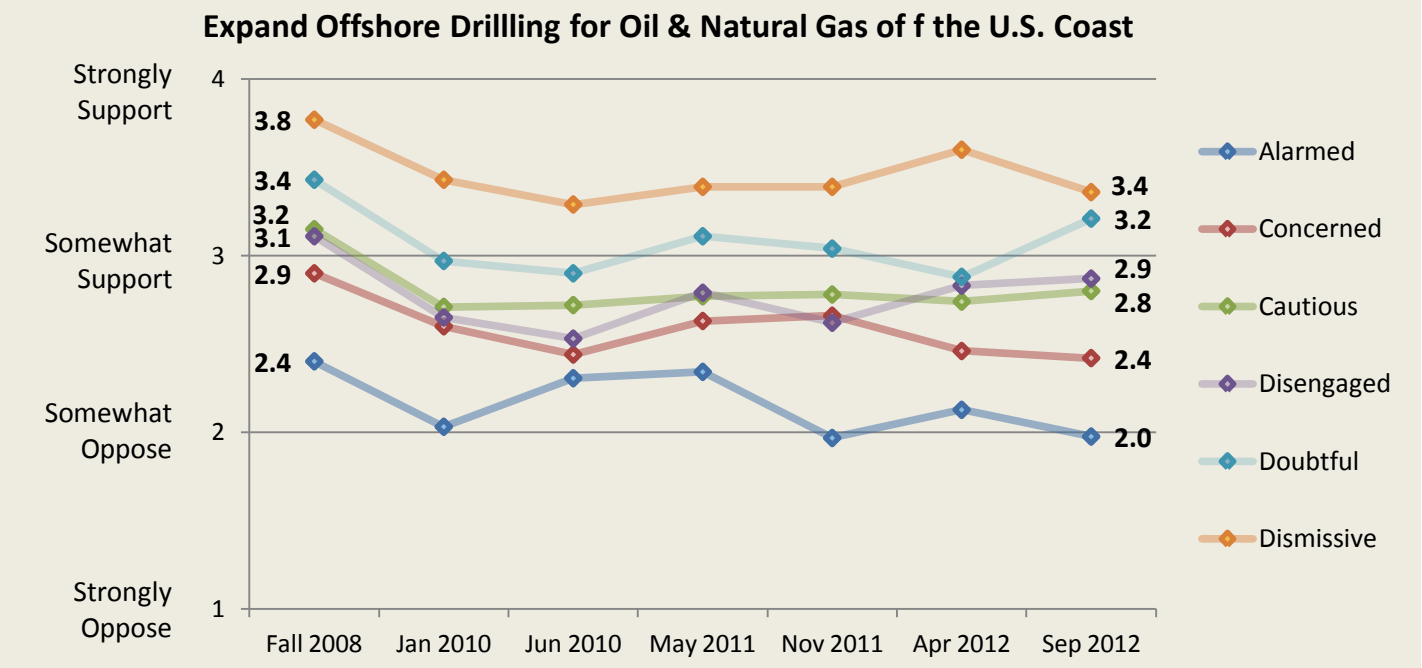
Support for Regulating CO_2 as a Pollutant has been stable and high among the *Alarmed* and *Concerned*. It has fluctuated among the remaining segments, but is currently close to the levels reported in 2008.



Support for building more nuclear power plants has decreased among all segments; average support is currently below the middle of the scale for four of the six groups.



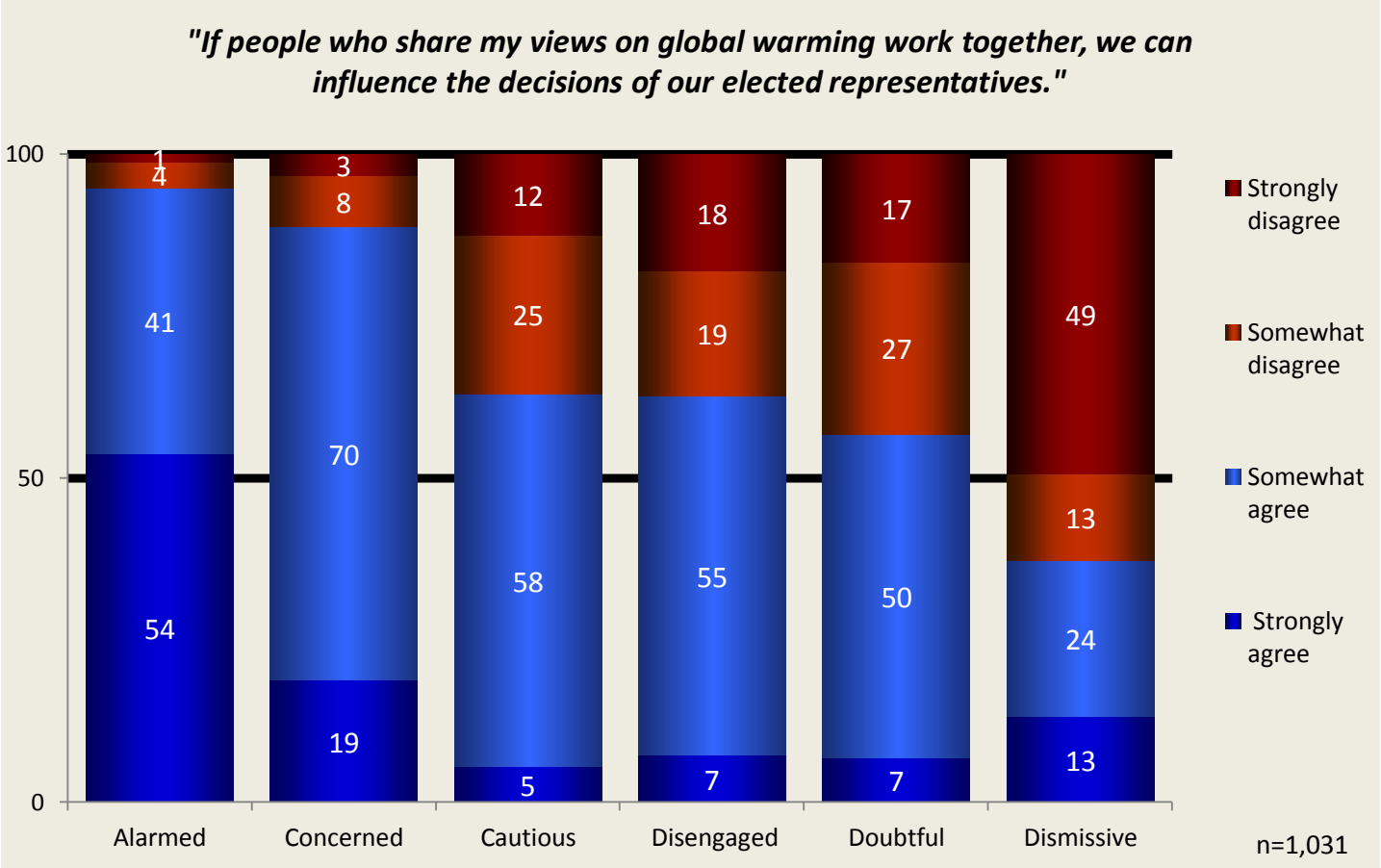
Support for offshore drilling has also decreased in all six segments, but average support remains above the middle of the scale for four of the six segments.



Perceptions of the Political Influence of Individuals, Groups & Corporations on Climate & Energy Policies

Majorities of every group except the *Dismissive* believe that if they work with others who share their views, they can influence their representatives' decisions.

- The *Alarmed* express the greatest confidence in their ability to influence legislators, with over half strongly agreeing that they can influence their representatives, and 95 percent overall agreeing with the statement.
- Strong agreement is much lower among the *Concerned* (19%) and very low among the *Cautious*, *Disengaged* and *Doubtful* (5 to 7%). Nonetheless, half or more of these segments somewhat agree that they have the ability to work with others to influence their representatives.
- Among the *Dismissive*, however, almost half strongly disagree, and 62 percent overall disagree that they can influence their representatives.
- Agreement with the statement decreases with each segment, moving from the Alarmed to the Dismissive. The results suggest that those who believe global warming is occurring feel greater confidence in their ability to influence elected officials than do those who do not believe it is occurring.

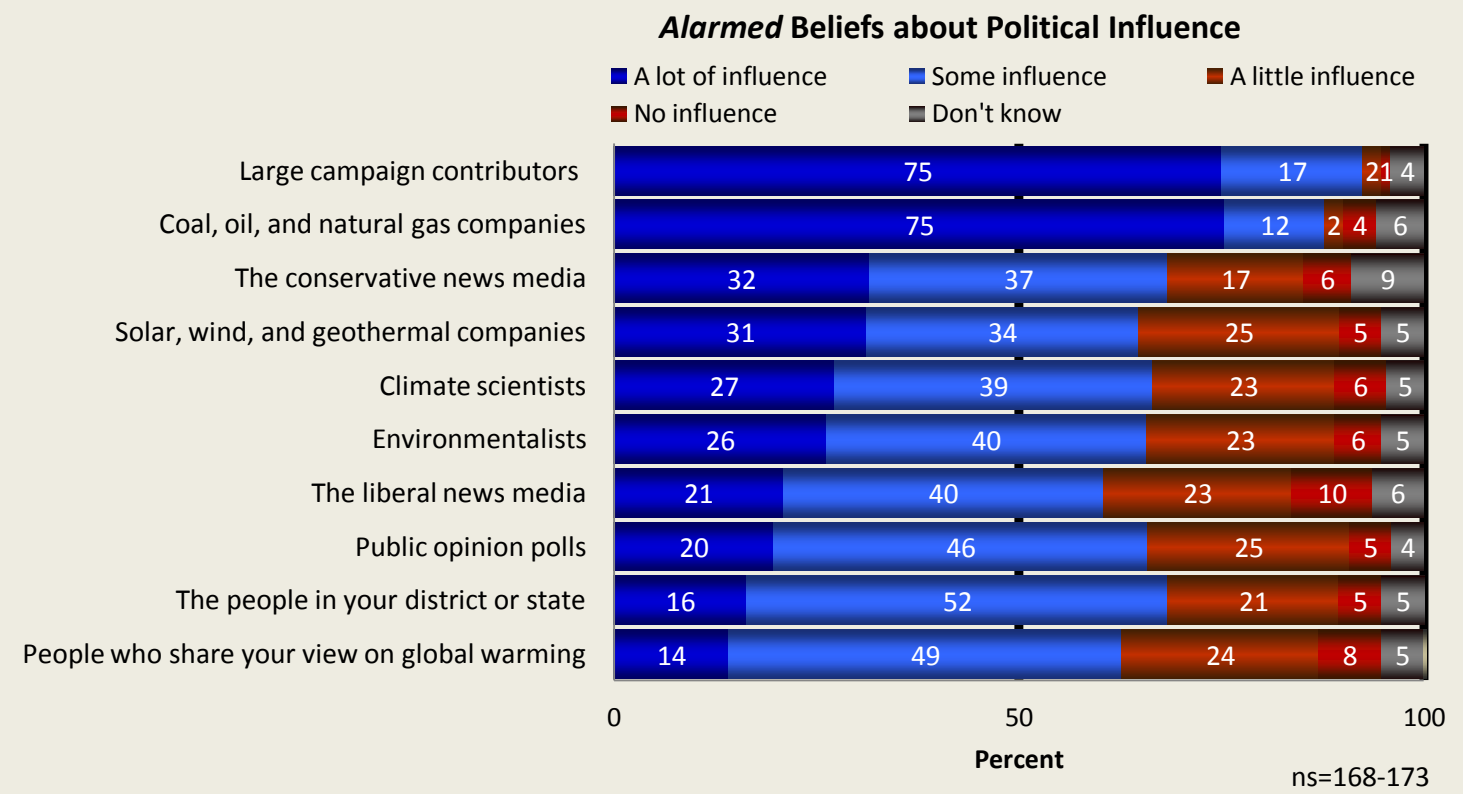


Perceptions of the Influence of Different Societal Actors on the Decisions of Elected Officials

- Although the figure on the prior page suggests that most Americans believe they can influence their representatives' decisions on global warming, the comparisons on the following pages put this into context.
- To assess respondents' perceptions of the relative influence that a variety of societal actors have on legislators, they were asked: *"How much influence do you think each of the following has on the decisions that elected officials make about how to deal with global warming?"* They were then presented with a randomized list of ten sources of political influences – individuals, groups, media organizations and corporations – and asked to assess influence on a scale from *"a lot of influence"* to *"no influence at all."*

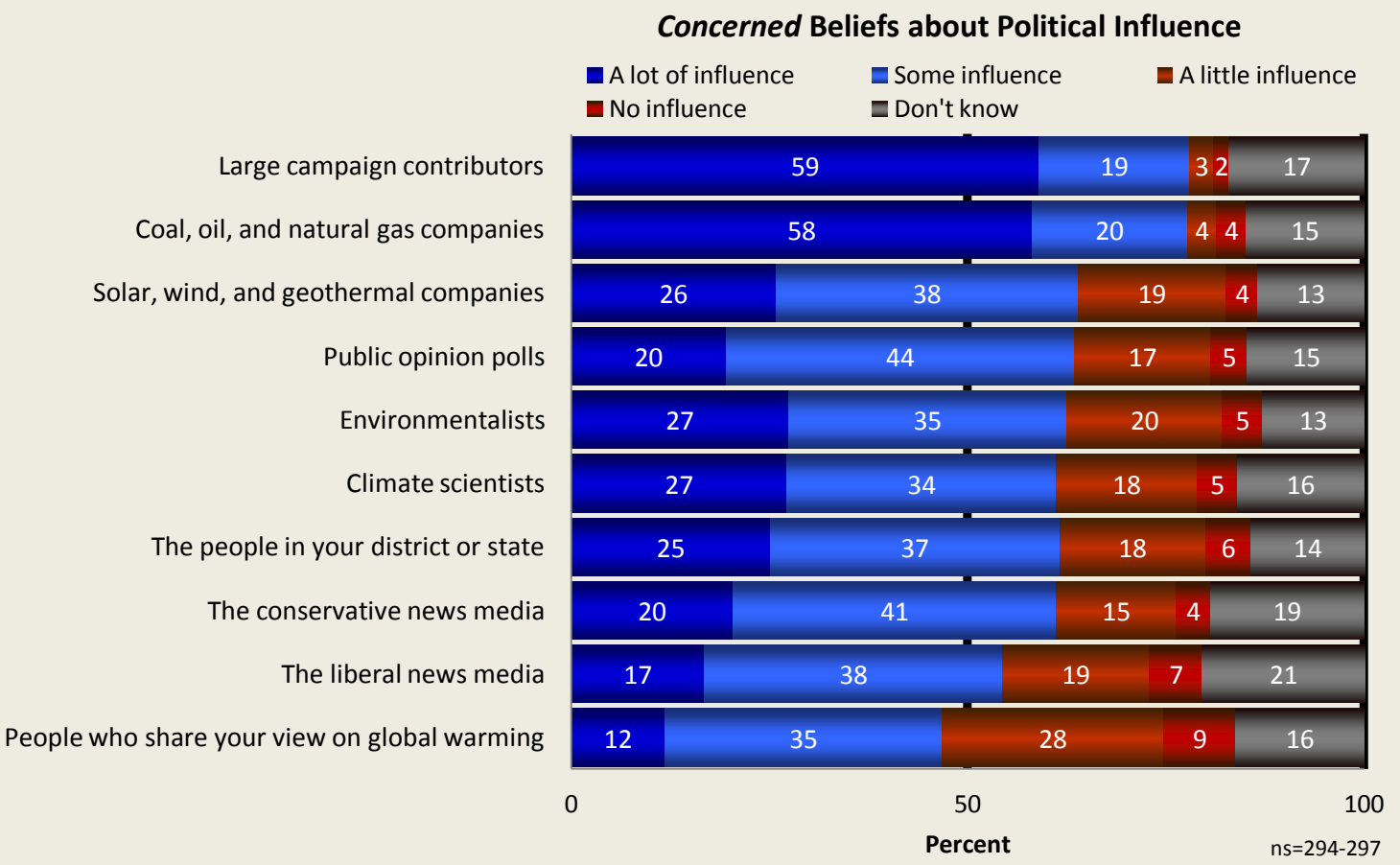
Alarmed Perceptions

- Although 95 percent of the *Alarmed* believe that people who share their views could influence legislators (as shown on the previous page), they see themselves as having the *least* influence of the ten sources: People sharing their view and local people are at the bottom of the list.
- Only 14 percent of the *Alarmed* believe that people who share their views on global warming have *"a lot"* of influence on elected officials.
- 75 percent, however, believe that large campaign contributors and fossil fuel companies have a lot of influence.
- Public opinion polls, which reflect individuals' views, are also seen as having low influence, relative to other societal actors.
- Renewable energy companies are believed to have substantially less influence than fossil fuel companies.
- Climate scientists and environmentalists are thought to have less influence than companies, while the liberal news media are viewed as having less influence than the conservative news media.



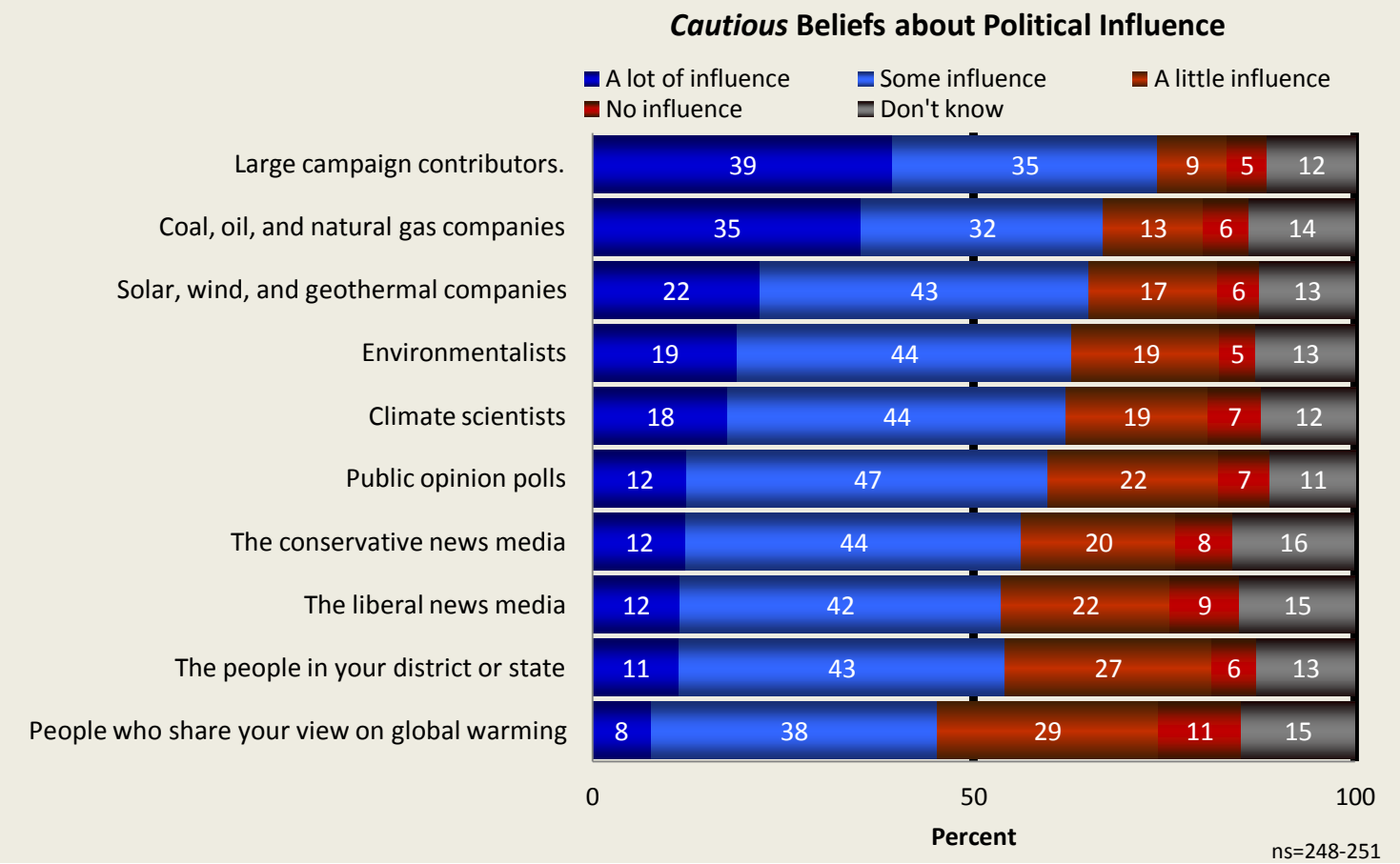
Concerned Perceptions

- The Concerned are slightly less likely than the Alarmed to view people who share their views as having *"a lot"* of political influence (12% of the *Concerned* vs. 14% of the *Alarmed*).
- Like the *Alarmed*, they view campaign donors and fossil fuel companies as wielding the greatest influence, although they perceive this influence as lower than the *Alarmed*.
- They see the conservative news media as less influential than the *Alarmed*, and believe that local people have more influence on legislators than either the conservative or liberal news media.
- They rate six of the ten sources similarly, saying 60 to 64 percent exercise "a lot" or "some" influence: Renewable energy companies, public opinion polls, environmentalists, climate scientists, local people and conservative media.



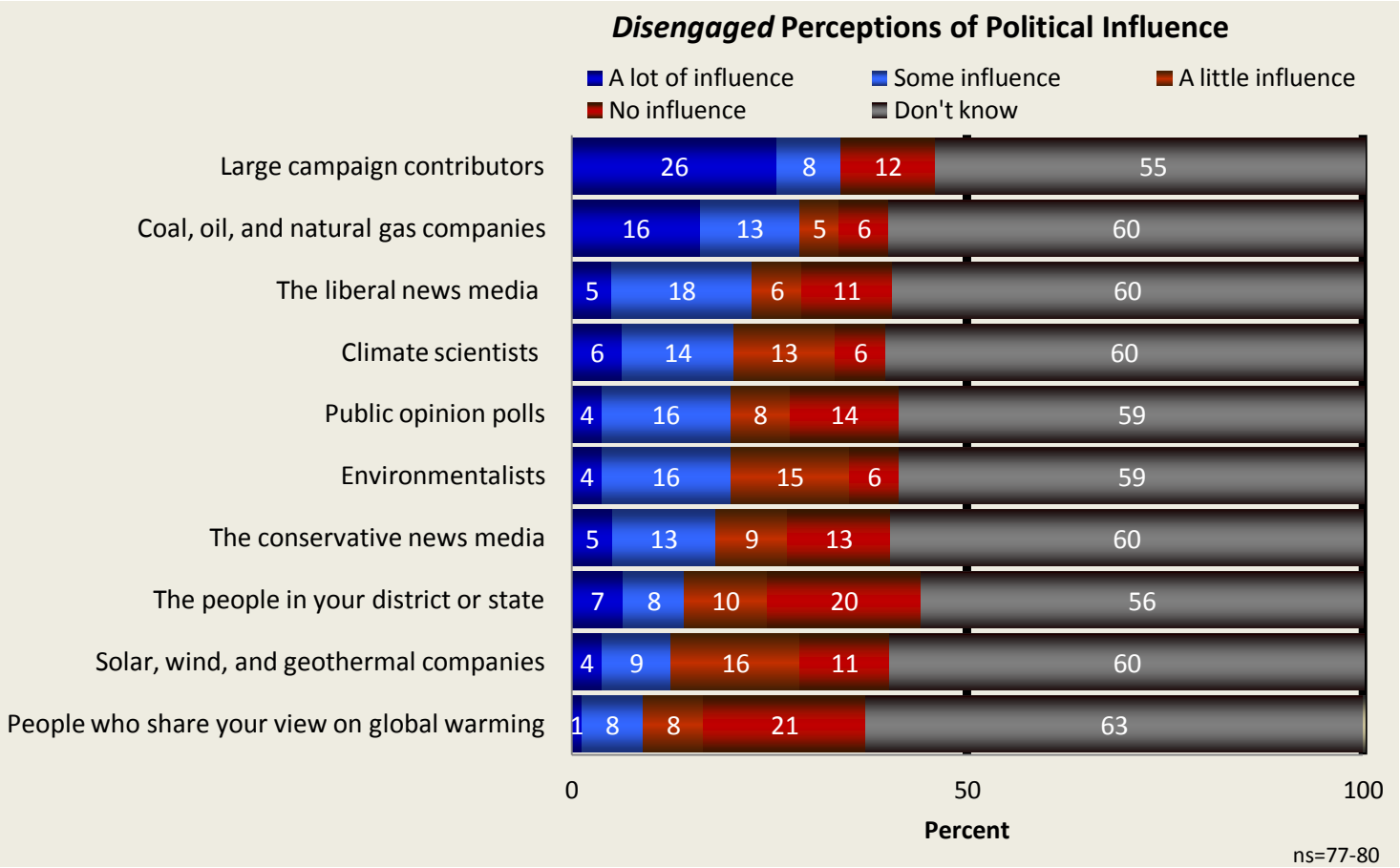
Cautious Perceptions

- The *Cautious* view all the sources of influence as weaker than the *Alarmed* and *Concerned* do.
- They also believe that large donors and fossil fuel companies have the greatest influence, but fewer believe the two sources have "*a lot*" of influence – 35 percent of the *Cautious*, as compared to three-quarters of the *Alarmed* and close to 60 percent of the *Concerned*.
- Renewable energy companies are seen as somewhat similar to fossil fuel companies, with 67 percent saying fossil fuel companies exert *"a lot"* or *"some"* influence, compared to 65 percent for renewable energy companies.
- Although almost two-thirds agree that people with their views working together could influence elected representatives (see p. 26), only 8 percent say that people who share their views have "a lot" of influence.



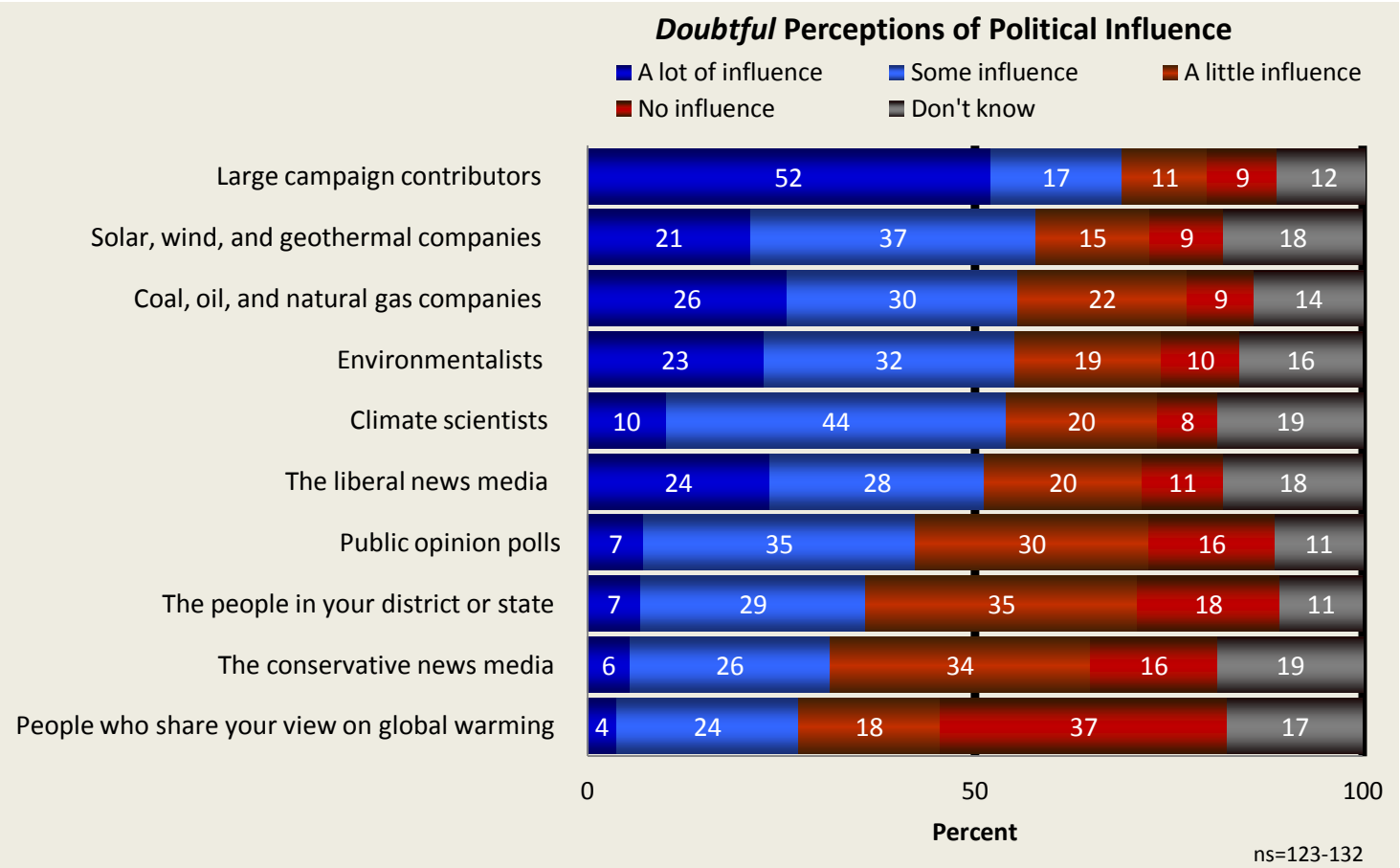
Disengaged Perceptions

- The Disengaged hold few views on political influence: For each of the ten sources of political influence, between 55 and 63 percent say they don't know or prefer not to answer.
- The source they are least likely to have an opinion on is people who share their views on global warming; this may be in part because they have so few views on the issue.
- Like the prior segments, the Disengaged believe that large campaign contributors and fossil fuel companies exert the greatest political influence, though the proportions that hold these beliefs are much lower than among the other segments.
- Renewable energy companies are viewed as the second least influential sources of influence, with 13 percent saying they exercise *"a lot"* or *"some"* influence.



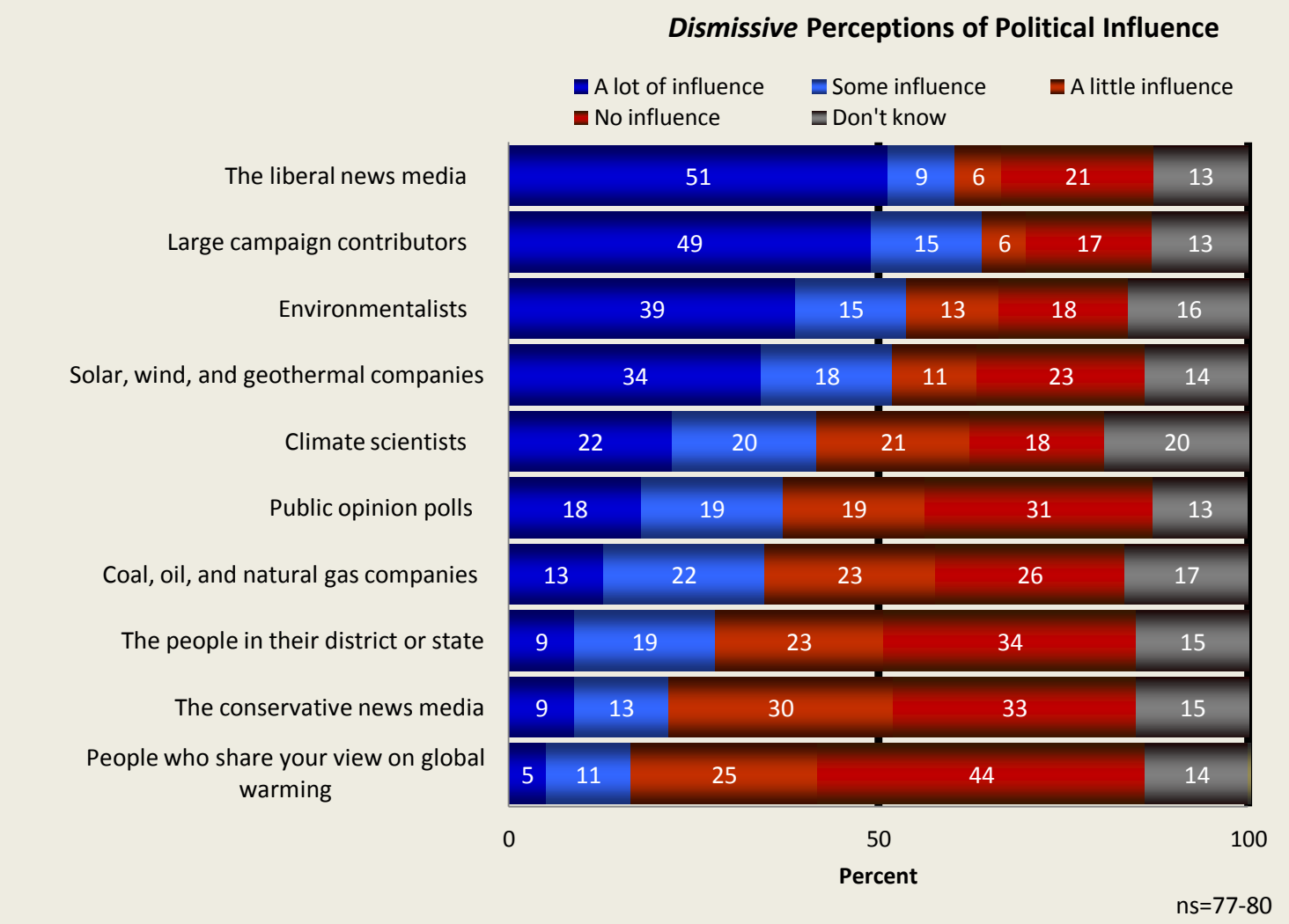
Doubtful Perceptions

- As with the prior segments, large campaign contributors and fossil fuel companies are the two groups perceived to have "a lot of influence" on elected officials; when "some influence" is considered as well, however, renewable energy companies are viewed as having slightly more influence than fossil fuel companies.
- The difference in perceived influence between donors and fossil fuel companies is much greater, however, with twice as many *Doubtful* saying that large campaign contributors exert *"a lot"* of influence, as compared to fossil fuel companies.
- Fossil fuel companies are viewed by the *Doubtful* as comparable in influence to environmentalists, liberal media, renewable energy companies and climate scientists.
- As with the other segments, the *Doubtful* believe that people who share their views have the least influence of the ten sources.



Dismissive Perceptions

- The *Dismissive* are similar to the other segments in believing that people who share their views on global warming have less political influence than any of the other sources.
- They differ, however, in the power they attribute to the liberal news media, with half saying liberal media exercise *"a lot"* of influence on elected officials. For the *Dismissive*, the liberal media are comparable in influence to large campaign contributors.
- By contrast, only nine percent believe the conservative news media exert *"a lot"* of influence, making them the second least influential source.
- Environmentalists, renewable energy companies, climate scientists and public opinion polls are believed to have more influence than fossil fuel companies. Among all other segments the fossil fuel industry is perceived as more powerful than any of these, with the single exception of the *Doubtful*, who agree with the *Dismissive* that renewable energy companies have more political influence than fossil fuel companies.



Methodology

These results come from nationally representative surveys of American adults, aged 18 and older. The samples were weighted to correspond with U.S. Census Bureau parameters for the United States.

The surveys were designed by Anthony Leiserowitz, Geoff Feinberg, Nicholas Smith, Jay Hmielowski and Peter Howe of Yale University, and by Edward Maibach and Connie Roser-Renouf of George Mason University. The surveys were conducted by Knowledge Networks, using an online research panel of American adults.

- September 2012: August 31 through September 12, with 1,061 American adults
- March 2012: Fielded March 12 through March 30 with 1,008 American adults.
- November 2011: Fielded October 20 through November 16 with 1,000 American adults.
- May 2011: Fielded April 23 through May 12 with 981 American adults.
- June 2010: Fielded May 14 through June 1 with 1,024 American adults.
- January 2010: Fielded December 24, 2009 through January 3, 2010 with 1,001 American adults.
- November 2008: Fielded October 7 through November 12 with 2,164 American adults. Data were collected in two waves: Wave 1 from October 7 through October 20, and wave 2 from October 24 through November 12.

The margin of sampling error for the November 2008 survey is plus or minus 2 percent with 95 percent confidence. The margin of sampling error for all other surveys is plus or minus 3 percent, with 95 percent confidence.

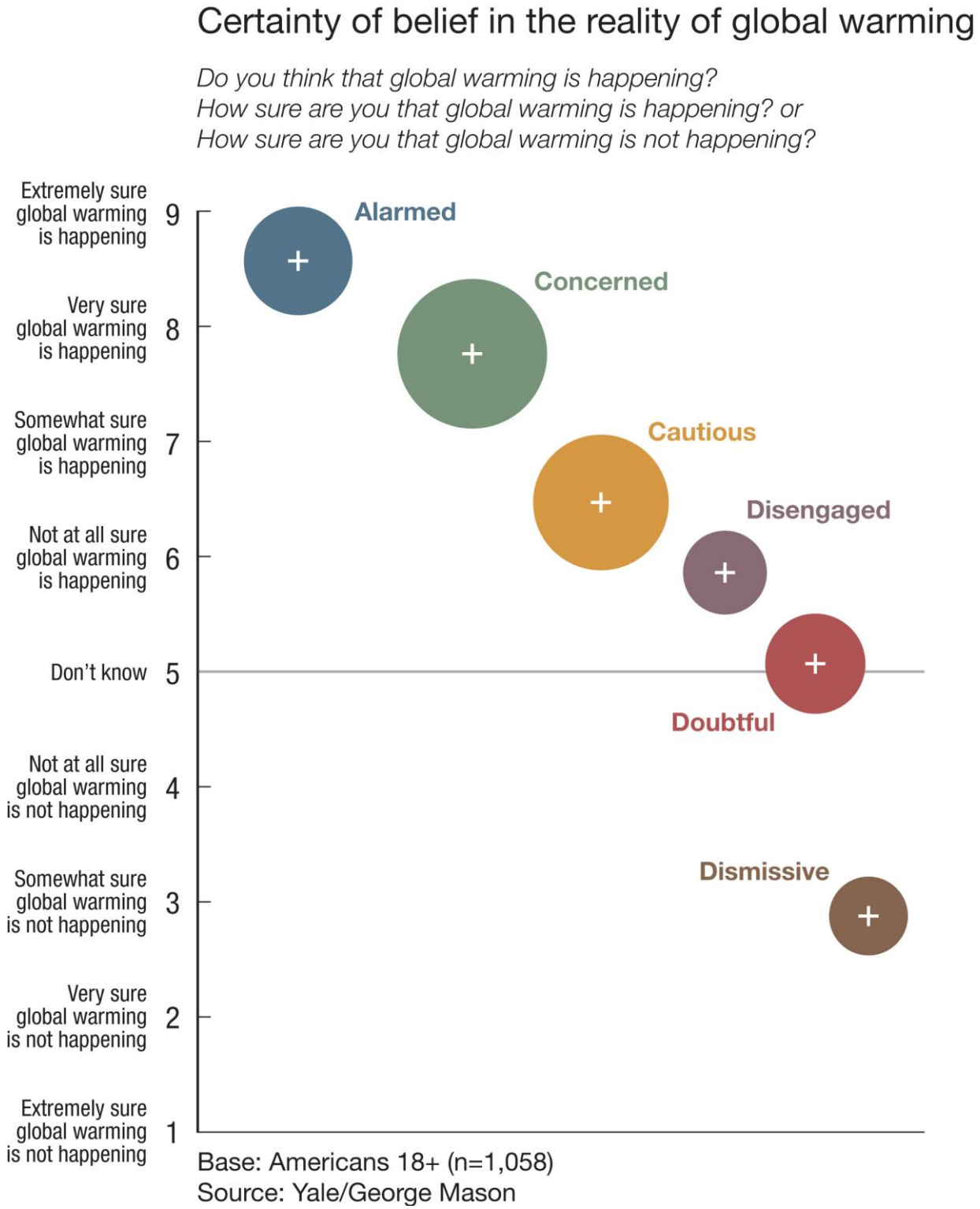
The six audience segments were first identified in analyses of the 2008 data set. Latent Class Analysis was used to segment respondents, based on 36 variables representing four distinct constructs: global warming beliefs, issue involvement, policy preferences and behaviors.

Discriminant functions derived from the latent class analysis were used with the 2012, 2011 and 2010 data sets to replicate the earlier analysis and identify changes in the groups. Responses on three items used in the Sept. 2012 segmentation were imputed for 34 cases using hot-deck imputation because the questions were inadvertently omitted from the survey; for details, please contact the study authors.

All prior reports on Global Warming's Six Americas are available at our websites:
http://climatechange.gmu.edu and http://environment.yale.edu/climate

Appendix

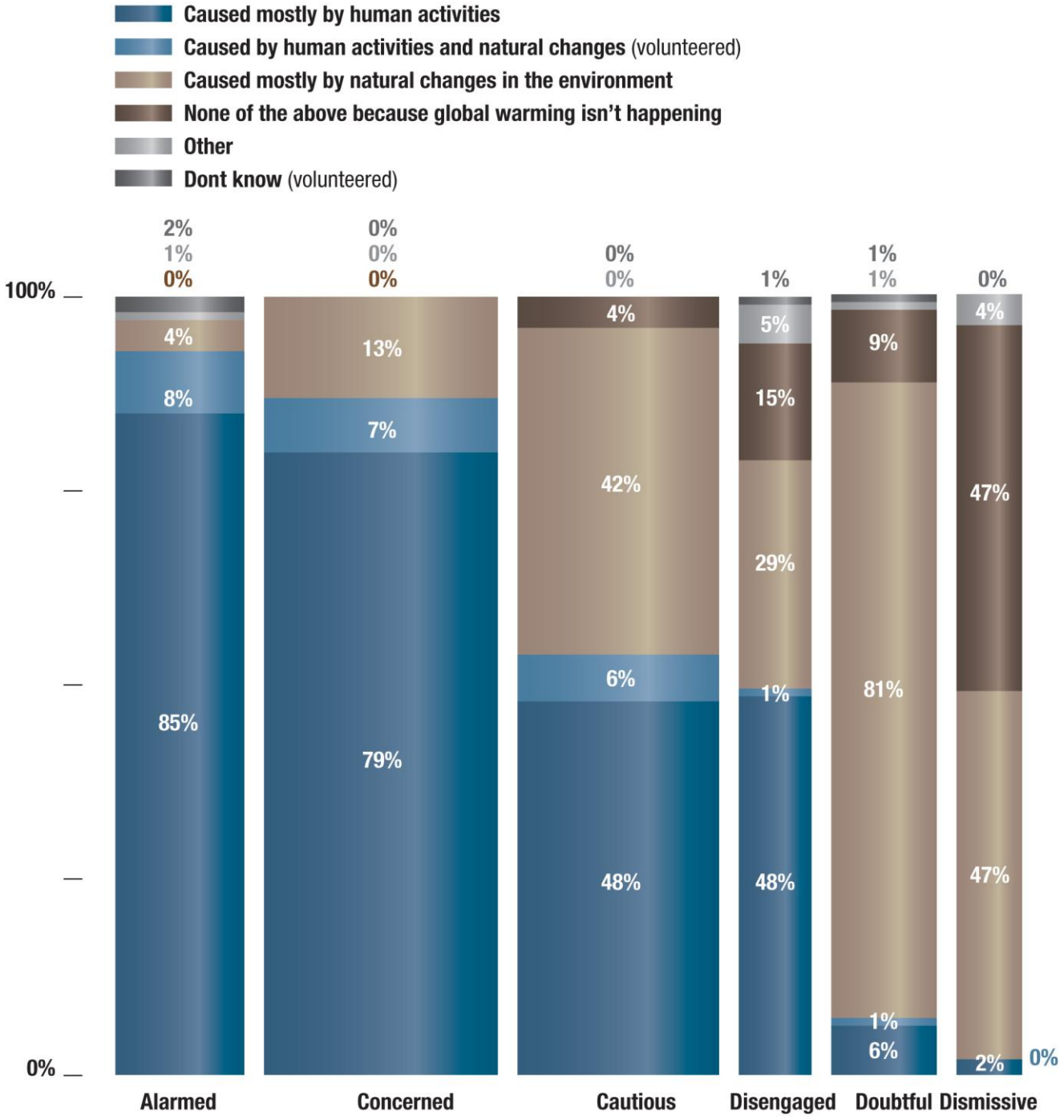
Key Characteristics of the Six Americas



Beliefs regarding the causes of global warming

If global warming is happening, do you think it is:

- *Caused mostly by human activities*
- *Caused mostly by natural changes in the environment*
- *Other (Please specify)*
- *None of the above because global warming isn't happening*



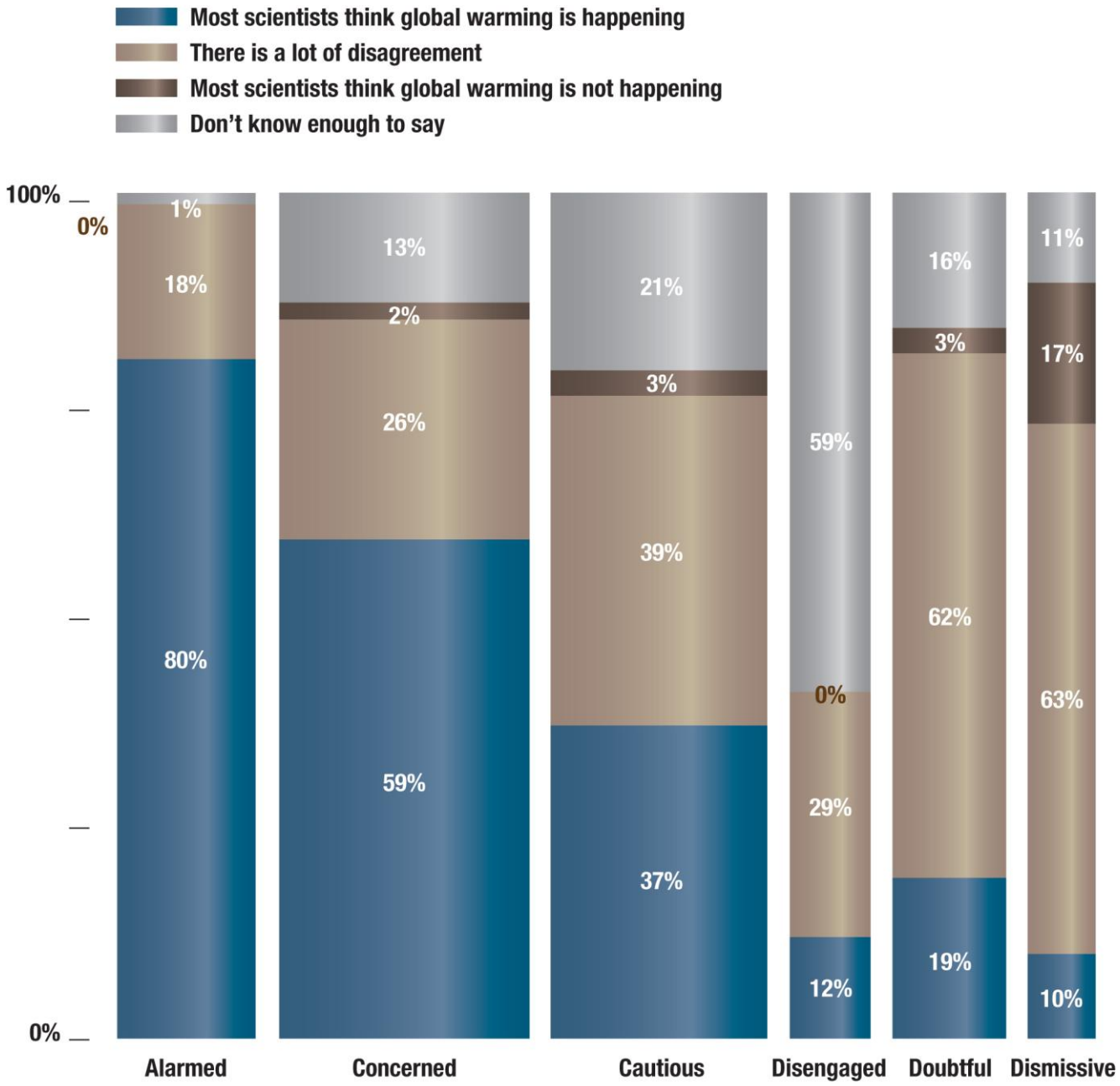
Base: Americans 18+ (n=1,058) Source: Yale/George Mason

Note: Column width accurately represents the proportion of the American public in each segment.

Beliefs about the scientific consensus

Which comes closer to your own view?

- *Most scientists think global warming is happening*
- *Most scientists think global warming is not happening*
- *There is a lot of disagreement among scientists about whether or not global warming is happening*
- *Don't know enough to say*

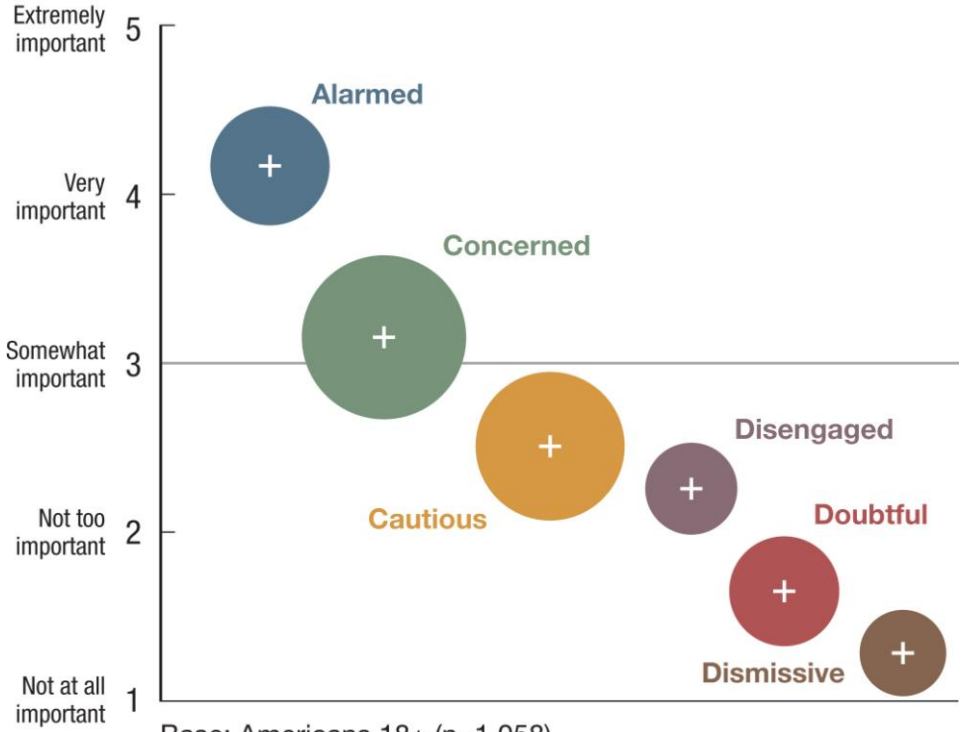


Base: Americans 18+ (n=1,058) Source: Yale/George Mason

Note: Column width accurately represents the proportion of the American public in each segment.

Personal importance of global warming

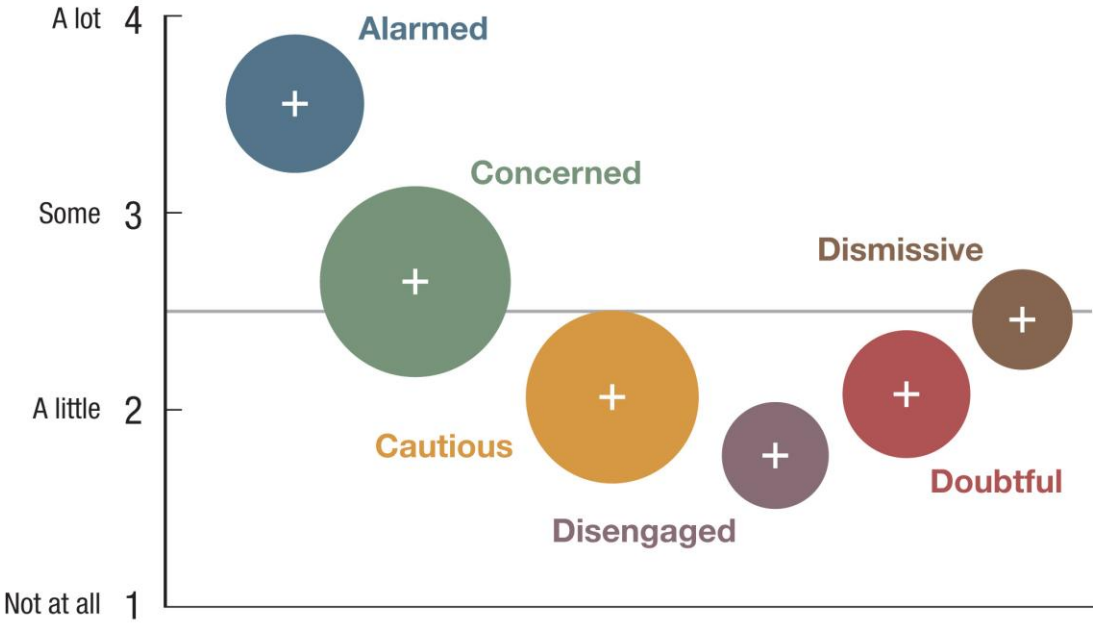
How important is the issue of global warming to you personally?



Base: Americans 18+ (n=1,058)
Source: Yale/George Mason

Amount of thought about global warming

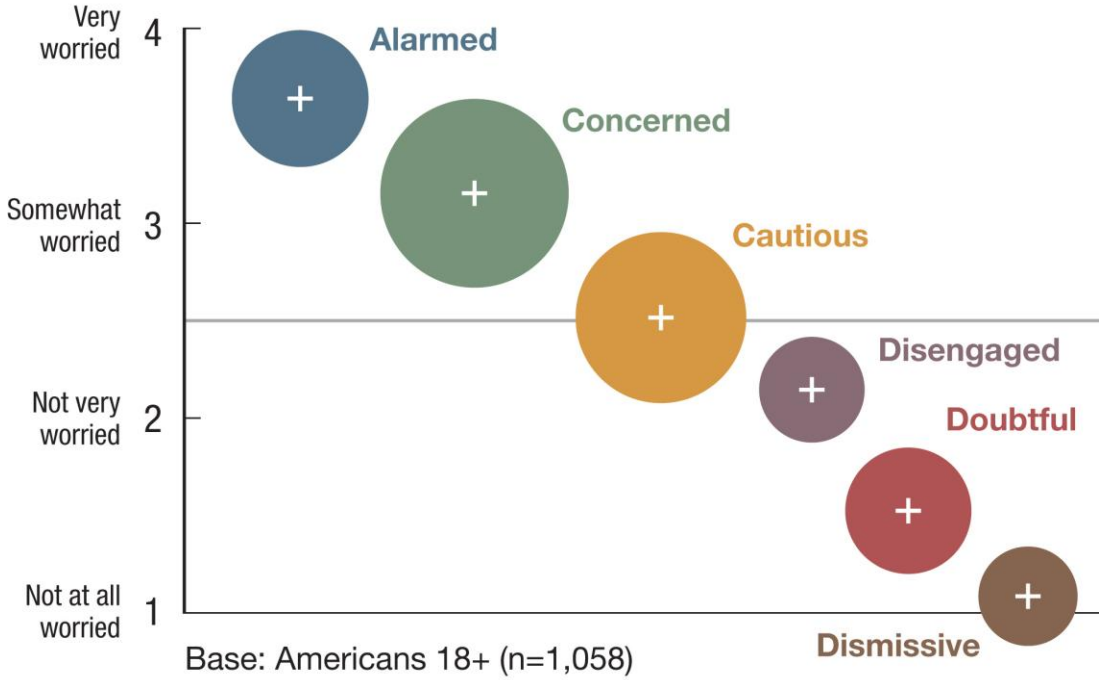
How much had you thought about global warming before today?



Base: Americans 18+ (n=1,058)
Source: Yale/George Mason

Worry

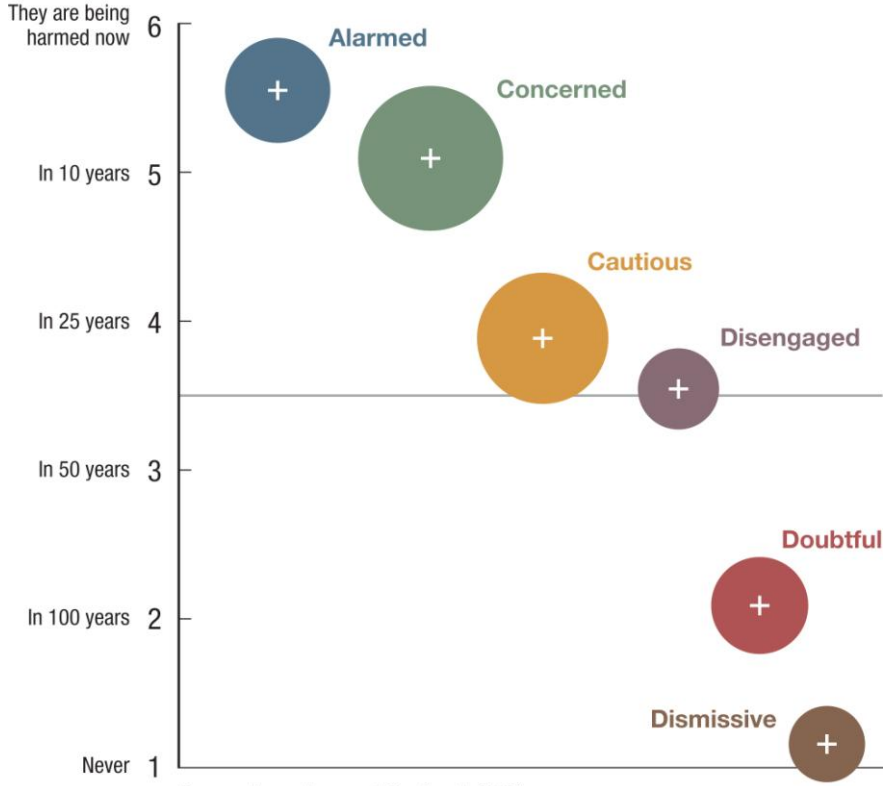
How worried are you about global warming?



Base: Americans 18+ (n=1,058)
Source: Yale/George Mason

Timing of harm to people in U.S.

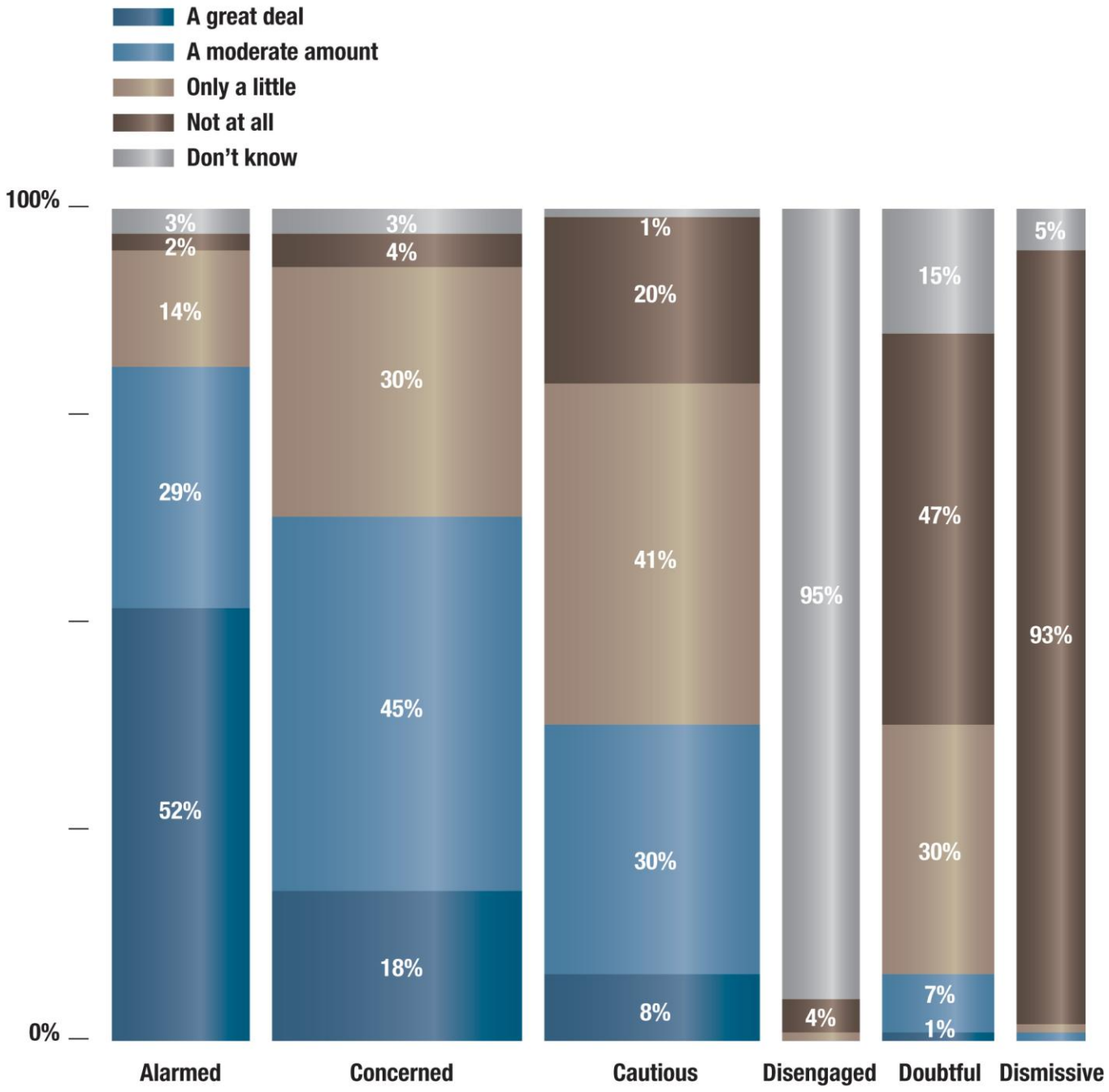
When do you think global warming will start to harm people in the United States?



Base: Americans 18+ (n=1,058)
Source: Yale/George Mason

Personal threat of global warming

How much do you think global warming will harm you personally?

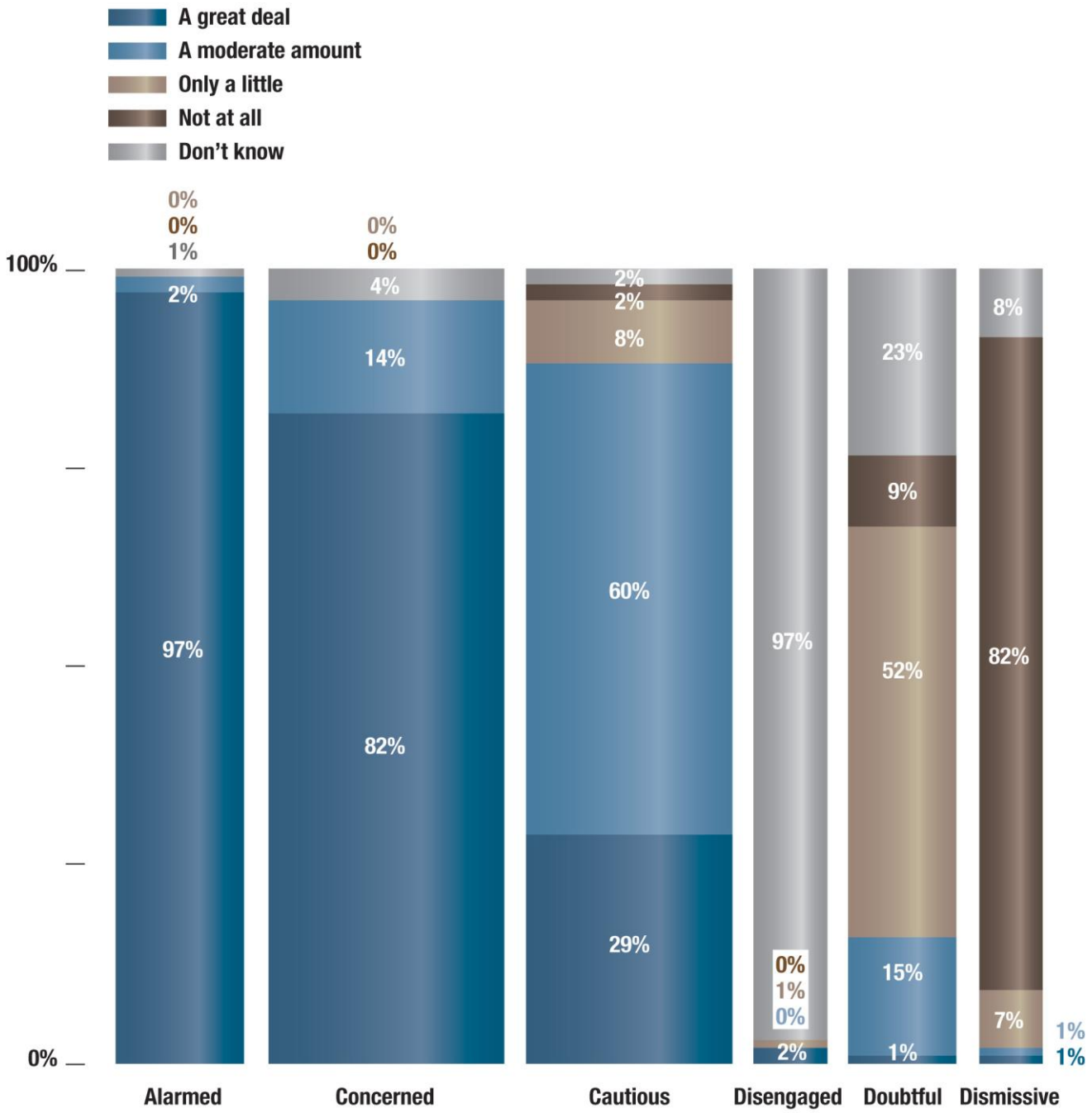


Base: Americans 18+ (n=1,058)
Source: Yale/George Mason

Note: Column width accurately represents the proportion of the American public in each segment.

Threat to future generations

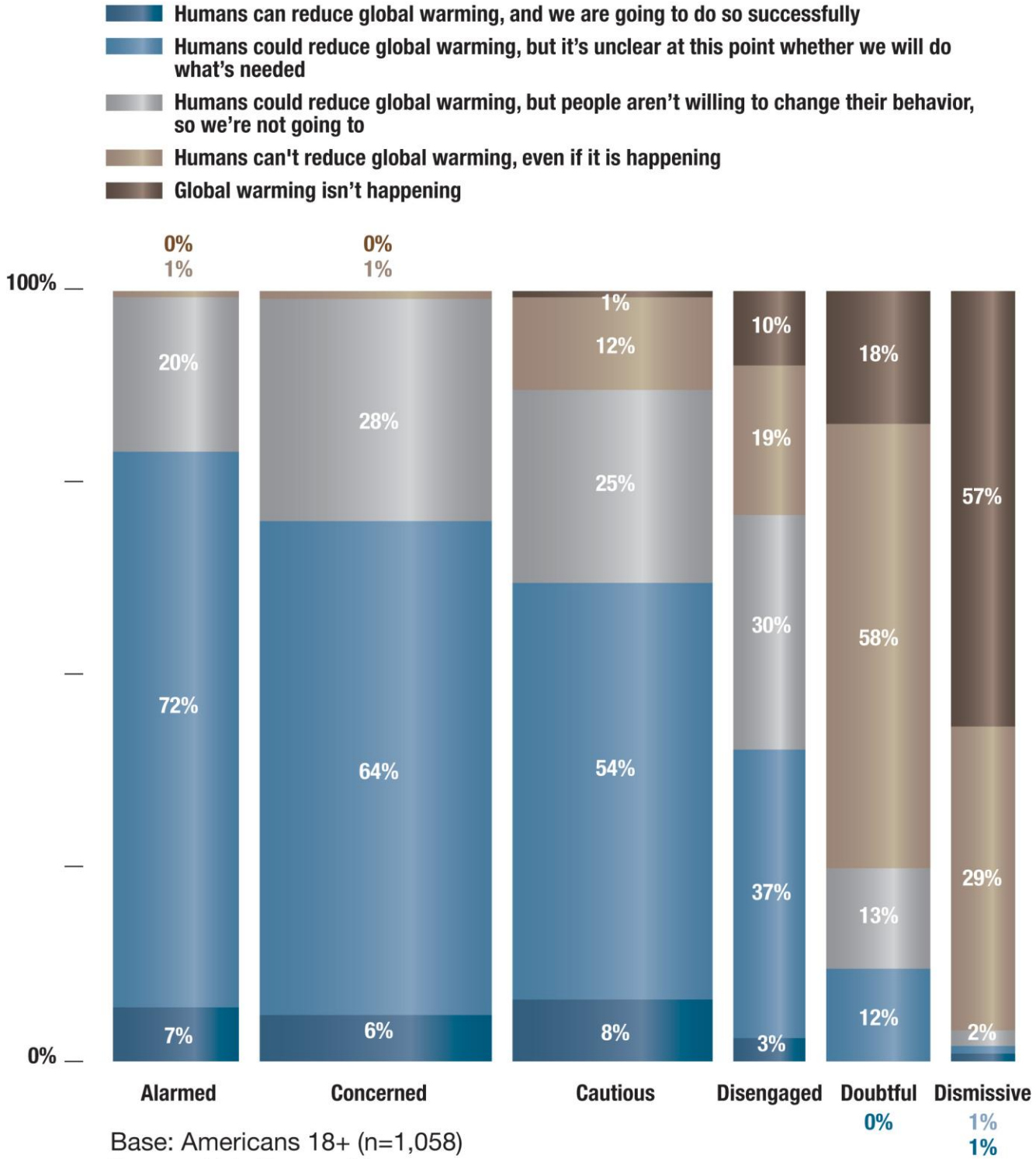
How much do you think global warming will harm future generations of people?



Base: Americans 18+ (n=1,058) Source: Yale/George Mason

Note: Column width accurately represents the proportion of the American public in each segment.

Expected outcome of human action to reduce global warming

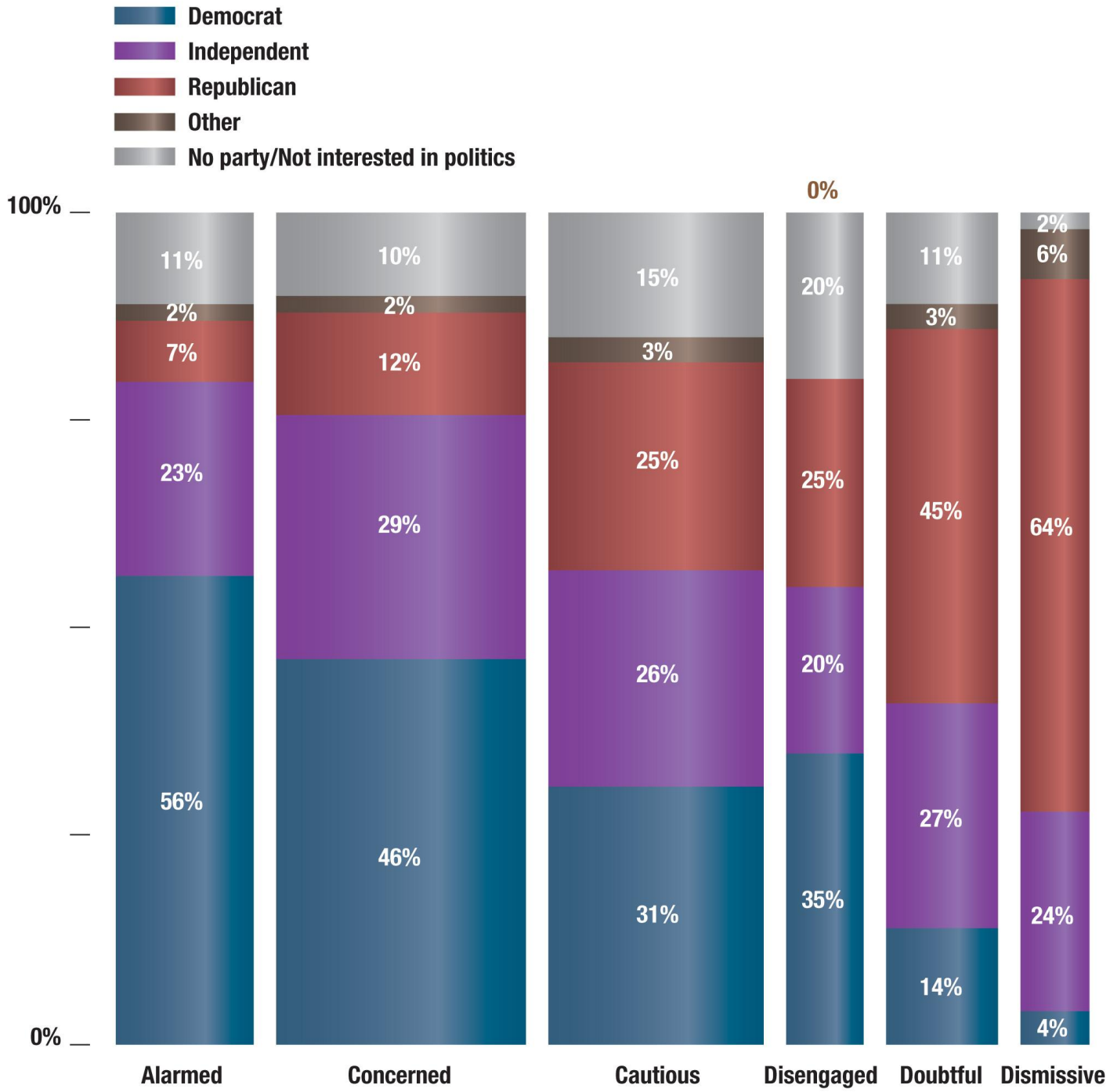


Base: Americans 18+ (n=1,058)
Source: Yale/George Mason

Note: Column width accurately represents the proportion of the American public in each segment.

Party identification

Generally speaking, do you think of yourself as a …



Base: Americans 18+ (n=1,058) Source: Yale/George Mason

Note: Column width accurately represents the proportion of the American public in each segment.