Comparing Survey Results to Assess Political Differences in Relation to Climate Change/Global Warming

Introduction

Climate Change (CC), a phenomenon entailing warming average global temperatures (global warming, GW), is an important and divisive national and international policy issue. Despite overwhelming scientific consensus and corresponding warnings (1, 2, 3), many people including policy makers still disagree about the reality of CC/GW and the degree to which human activities are responsible. Not surprisingly, there is also significant public and political debate about what action, if any, should be taken to address CC/GW.

Successful policy will require building a consensus among the general population. Thus it is important to find out what people know, think, and believe across a spectrum of issues related to CC/GW. As a means to this end, we surveyed U.S. and Chinese college students about this important topic.

The U.S. subset of this data is particularly interesting when considering the relationship between political ideology and attitudes towards CC/GW. Previous research has shown that a majority of Americans believe CC/GW is happening, is caused by human activities and is worthy of concern and action (4, 5, 6, 7). However, a closer look at those results reveals a significant divide between the views of those with conservative and liberal ideologies. In particular, one study found a widening gap over time in CC/GW attitudes between Republicans and Democrats (8), while another found increased skepticism regarding CC/GW among those who reported watching Fox News (9).

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Our sample of 826 students was obtained by conducting surveys at one university in each of four states: Arkansas (n=185), California (n=216), New York (n=169) and Wisconsin (n=256). This sample is the result of convenient sampling relying on a group of professors at each institution arranging for students in their classes to complete the survey. The actual number of observations for each question analyzed varies slightly as some students did not respond to every question. Because this sample is not random, results may not generalize to all U.S. college populations. However, efforts were made to ensure that respondents were reasonably representative of the overall college student population in the U.S., particularly in these states. Students at all four institutions were sampled from large general education classes with mostly first and second year students from a variety of majors.

Just under 60% of respondents were female and the average age was 23 years old. In terms of race/ethnicity, 72% of respondents identified as White, while the remaining sample was Hispanic (8.9%), Asian (6.5%), Black (7.3%), American Indian (0.9%) and other (4.4%). The distribution of political ideology in our sample was 23.6% conservative, 35.6% liberal, 22.6% moderate and 7.4% other (Figure 1). Based on a 2010 Gallup Poll showing 39% of Americans identified as Democrats, 29% as Republicans and 38% as Independents (14), our sample of young Americans is reasonably representative of the general population.

This analysis is limited to comparing responses from conservative (somewhat conservative, extremely conservative) and liberal (somewhat liberal, extremely liberal) students.

Background

The issue of CC/GW in the U.S. has evolved into a partisan political debate. This fact was painfully obvious in U.S. diplomatic negotiations related to the Kyoto Protocol (10), the world’s first major international agreement on carbon emissions and CC/GW. The Kyoto Protocol was adopted in December 1997 and entered into force in February 2005, however the U.S. signed but did not ratify and thus, never agreed to participate in this international cooperative effort. The political divide has also resulted in several failed attempts of meaningful legislative action to address CC/GW in the U.S.

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Results & Discussion

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