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Analyzing Climate Change Awareness and Responsibility Effects

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A Survey on Climate Change: How Beliefs Shape Responsibility
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EC476 Senior Seminar: Department of Economics, Colby College, Waterville, ME

Introduction

Climate Change is Normal!

There have been 7 cycles of climate change in the last 650,000 years.

The last climate change ended 7,000 years ago.

But!!!

In the past 1,200 years, the amount of global warming (climate change) has increased at an unprecedented and irregular rate.

“Scientific Evidence for warming of the climate is unequivocal” (Oreskes 2004).

Global sea levels have risen 17cm in the past century.

Ten of the warmest years since 1880 have been recorded in the past twelve years.

The scientific community agrees...

928 abstracts published in refereed scientific journals between 1993 and 2003 with the keywords “climate change” were analyzed.

75% of accepted a human processes for explaining accelerated climate change; 25% took no position

No papers disagreed with a human processes theory explanation

Background

Climate change is a low priority issue—ranks 12 out of 13 for national environmental issues

As individuals increase their knowledge, they feel less responsible

Americans do not believe climate change to be a present issue

The Yale Project on Climate Change Communication examined beliefs and perceptions about climate change

Research Questions

• Question #1: What demographics and personal factors are most important in accepting personal responsibility for climate change?

• Question #2: How do individuals’ beliefs regarding the effects and causes of climate change shape their sense of responsibility for it?

• Question #3: Does the color of a graph provoke different beliefs on climate change?

Initial Findings From Survey

Gender was fairly evenly distributed with respondents clumping in age around 18-25 years old and 50-59 years old. Our sample was highly educated and extremely affluent. Finally, our respondents identified as moderately liberal and risky.

Respondents had high awareness for climate change despite not feeling informed and displayed correct beliefs for the causes and impacts of climate change.

However, respondents did not believe climate change was serious for them personally, nor did they believe climate change would affect them.

Most importantly, only 18% of respondents feel extremely or very responsible for climate change.

Conclusions

• In the overall sample (column 1), respondents:
  1. Take more responsibility if they believe climate change will impact them in the near future
  2. Take more responsibility if they believe climate change was caused by humans
  3. Take less responsibility if they are “riskier”
  4. Take less responsibility if they are older
  5. Believe effects of climate change will affect others before themselves
  6. Believe climate change will likely cause severe weather

• Possible Further Research
  • Extensions of our work on additional factors influencing responsibility
  • Choice Experiment to examine individuals’ willingness to pay for combating negative effects of climate change

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