**Supplementary Materials (Not for Publication)**

**C:\Dropbox\@@@ Shared @@@\Becky Projects\Public Opinion and Global Warming\Work\Tables & Graphs\SPPQ Version\Appendix\Figure A.tif**

Note: The specific wording of the prompt on the Y axis is as follows: “Protecting the environment should be given priority, even if it causes slower economic growth and some loss of jobs.” The prompt for the X axis is as follows*: “*On another topic, in your view, is global warming not a problem, not too serious, somewhat serious, or a very serious problem?”

**Table A: Climate Change Policies in Brief**

|  |  |
| --- | --- |
| **Program** | **Description** |
| Adaptation Plan | A state plan for adapting to the anticipated changes due to climate change. |
| Advanced Coal Technology | Laws that provide funding or tax credits towards the advancement of clean coal technology. |
| Climate Action Plan | Plans include a set of policy recommendations for states to address climate change. |
| Climate Advisory Board | Establishment of a board or commission to investigate climate change solutions. |
| GHG Emission Reduction Targets | Greenhouse gas emission reduction goals that states intend to achieve by a given date. |
| Green Public Building Standards | New construction of public buildings follows LEED standards and older buildings attempt to increase efficiency. |
| Regional Climate Initiative | Programs in conjunction with other states that set up goals and targets for reducing state impacts on climate change. |
| Renewable Portfolio Standard (RPS) | Takes the general form of a requirement that utility companies generate a certain percentage of their energy from renewable sources by a specified date. |
| Vehicle Emission Standards | Require new vehicles to reduce emissions by a given percentage by a target year. |







Table D details the terms and selection criteria used for our Google Trends index. We used three basic selection criteria: temporal variation, state-level variation, and search context. Our first selection criterion was that a given term required a return on search records across the relevant time range (2004-2010). Terms that have virtually no searches early on or gain high levels of search frequency at one point and then vanish from results were excluded. Our second criteria were that state-level estimates of search relativity be possible and that they show some variation. Searches that were too infrequent to generate estimates of search frequency were automatically excluded under this criterion. Our third criterion was that the search term should generate results that are likely to be related to environmental issues. Searches that return search patterns in a different context (e.g. CO2 in the context of chemistry-related searches) were excluded to avoid bias. Once those conditions were satisfied we evaluated related search data to attempt to determine the context of the searches. Search terms with \* were borderline acceptable under the search context criteria. Based on Google's related searches function these terms correlated with terms related to the causes and effects of the term (e.g. causes of acid rain, consequences of acid rain) or were correlated with other terms already accepted (acid rain & climate change). Chronbach's Alpha for the resulting index is .7

**Multilevel Regression and Post-stratification of Issue Problem Status**

Our approach to the estimation and measurement of issue problem status followed guidance by Jonathan Kastellec, Jeffrey Lax and Justin Phillips in their primer on the MRP technique.[[1]](#footnote-1) We combined survey data from the sources outlined in Table E above, along with state-level contextual data to build probability estimates for questions relating to whether climate change is a problem. In order to create this measure, we recoded problem status so that the belief that climate change is not a problem represented a zero and any mention of climate change as a problem represented a one. At the individual-level we used gender, race, age and education. At the state-level we used percentages of the population who attained certain educational milestones (census), percentages of the population who belonged to different religious denominations (American Religious Data Archives), 2004/2008 Democratic vote share, state and region. We found—per previous research—that inclusion of different state-level covariates for weighting rarely influenced model specifications once education and vote share were included. Model estimates were generated by the lme4 package in R. We generated multiple estimates of the data using a pooled (all surveys included with indicators for year) and unpooled (all MRP estimates run separately by year) strategy and found that results were largely unaffected by pooling. Our results are comparable to estimates generated on a larger collection of polls by Jon Krosnick.[[2]](#footnote-2)



|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Table G: Descriptive Statistics** | | | |  |  |  |  |
|  | Google Trends | Issue Problem Status |
| Mean | 32.12 | 91.4 |
| Sd | 19.23 | 5.16 |
| min | 0.00 | 76.99 |
| max | 80.00 | 99.91 |

1. http://www.princeton.edu/~jkastell/MRP\_primer/mrp\_primer.pdf [↑](#footnote-ref-1)
2. Krosnick, Jon. Opinions in the States. Available from <http://climatepublicopinion.stanford.edu/sample-page/opinions-in-the-states/>, accessed 21 July 2017. [↑](#footnote-ref-2)