The impact of climate change and air pollution information on support for CO₂ emissions regulations

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Introduction
Recent research has focused on quantifying the environmental, health, and climate change costs and benefits associated with changes in the U.S. power sector [1-2]. Less work has been done, however, on whether the public understands these different costs and benefits, and whether providing information about them would change support for policies for reducing emissions from the power sector [3-4]. As the need to address climate change increases, understanding more about what information motivates people to support emissions reductions and how they value energy tradeoffs will be critical elements of advancing future climate policy.

Some previous work has begun to explore how individuals consider tradeoffs across different options for generating electricity [3,5] or the importance of health-related information in motivating changes to behavior or preferences related to energy [3,6]. This research builds on previous work by using a discrete choice survey with randomized experimental controls to test the effect of providing different information.

Methods – Survey design
To test our research question, we will create and distribute a survey that asks people to make tradeoff-based choices between two energy strategies. This discrete choice structure is based on methods developed in marketing research and conjoint analysis [7] and has been used recently in research at Carnegie Mellon in the context of preferences for electric vehicles and light bulbs [8-9].

In this experiment, individuals will choose between energy strategies that are described by different factors (3-4). The models will also be analyzed with information on the individuals’ geographic location and knowledge, and we expect individuals in states with greater air pollution will have higher WTP for emissions reductions.

Some results would have important implications for the communication of emissions reductions policies, and would suggest value in re-framing the climate debate around the health consequences of electricity generation.

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Further information
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Literature cited