Investigating the connection between political views and stance on environmental spending

Climate change is arguably the largest problem facing humanity right now. Even though there is scientific consensus that climate change is anthropogenic, that is caused by humans, many people, mostly those with conservative political viewpoints, still do not believe that it is a large problem, or that humans have anything to do with it. Climate change comes with very serious implications, such as the loss of biodiversity, increased famine, droughts, increased intensity and frequency of natural disasters, the increase spread of disease, and many more. As governments take climate change more seriously, they must adjust the amount of funding that goes into research and application of solutions, affecting people not only on a local level, but at a national and even global level.

The target population are those who will have to pay higher taxes in order for more spending to be placed in protecting and improving the environment. I hypothesize that individuals that identify as liberal will think we are not spending enough money on improving and protecting the environment. This memo will show that those who identify as liberal do in fact think we are not spending enough money on improving and protecting the environment.

To investigate this question, I used the nationally representative data in the 2016 General Social Survey (GSS). Specifically, I'll be looking at those who responded to a question about their political views, and those who responded to a question about spending on the environment. The participants' political views would be used at the Independent Variable and their stance on environmental spending would be used as the Dependent Variable.

Table 1: Summary Statistics

Political View	Freq.	Percent
Liberal	796	29%
Conservative	928	34%
Moderate	1032	37%
Total	2756	100%
Environmental Spending Stance		
Too little	878	63%
About right	409	29%
Too much	114	8%
Total	1401	100%

2746 people were asked "Do you think of yourself as Liberal or Conservative?" Response options included: Extremely Liberal, Liberal, Slightly Liberal, Moderate, Slightly Conservative, Conservative, and Extremely Conservative. For the political stance variable, I had combined the responses for "Extremely liberal," "Liberal," and "Slightly liberal" into one master "Liberal" response. I did the same thing for the "Conservative" responses. I left the "Moderate" response alone. This is so I could have a more representative dataset of all those who were either liberal leaning or conservative leaning.

Approximately 29% say there are Liberal, 34% say that they are Conservative, and 37% say they are Moderate. 1401 people were asked "…Are we spending too much, too little, or about the right amount on improving and protecting the environment?" Response options included: Too little, About right, and Too

much. Approximately 63% say we are spending Too little, 29% say spending is About right, and 8% say we are spending too much.

For the political stance variable, I had combined the responses for "Extremely liberal," "Liberal," and "Slightly liberal" into one master "Liberal" response. I did the same thing for the "Conservative" responses. This is so I could have a more representative dataset of all those who were either liberal or conservative leaning. I left the moderate response alone.

There were missing values when I ended up doing the final Chi-Square test, probably from those who didn't respond to the Environmental question.

Table 2: Political View and Environmental Spending

	Conservative	Liberal	Moderate
Too little	203 (46%)	301 (77%)	345 (66%)
About Right	164 (38%)	71 (18%)	157 (30%)
Too much	69 (16%)	19 (5%)	21 (4%)
Total	436 (100%)	391 (100%)	523 (100%)

We found evidence that if you identify as liberal, you are more likely to say that we are not spending enough money on improving and protecting the environment. Along with this substantive significance, our Chi-Square analysis with an alpha of 0.05 reveals these finding to also be statistically significant, $X^2(4, 1350) = 106.9$, $p<0.05$. The Cramer's V effect size is 0.2, which is between a small and medium effect size. The differences in percentages between the political views were reasonably large, suggesting a decently large effect between these measures. Our findings were statistically significant as well as substantively significant, so we can safely reject the null hypothesis that there is no effect on environmental stance based on political orientation. Thus, I can recommend generalizing our findings to the population

This study does have limitations, though. There were many missing responses when conducting the final Chi-Square test, therefore the data may not be fully representative. We also do not know the extent of the effects that the "Moderate" political view was to our Chi-Square results. In the future, we may omit the "Moderate" response to get a more binary answer. Our data was taken from the 2016 GSS. In 2016, the political climate was heavily polarizing, with more appearances and voice given to the extremes of both political spectrums. This could account for possibly skewed results, as people are more likely to have radical thoughts about topics such as the environment and climate change.