

# Appendix

## Political Populism, Responsiveness, and Public Support for Climate Mitigation

### Balance Tests

Table A1: Balance Tests: Age, Gender, Income, Living Situtions

	Age	Gender	Income	Living Situation
(Intercept)	46.82**	0.11	3.09**	1.68**
	(0.69)	(0.08)	(0.06)	(0.11)
High Responsiveness Climate	0.03	-0.02	-0.07	0.08
	(0.98)	(0.12)	(0.09)	(0.16)
High Responsiveness General	-0.82	0.01	-0.10	-0.19
	(0.98)	(0.12)	(0.09)	(0.15)
Low Responsiveness Climate	0.98	-0.04	-0.01	-0.28
	(0.98)	(0.12)	(0.09)	(0.15)
Low Responsiveness General	-0.06	-0.13	-0.03	-0.22
	(0.98)	(0.12)	(0.09)	(0.15)
R <sup>2</sup>	0.00		0.00	
Adj. R <sup>2</sup>	-0.00		-0.00	
Num. obs.	3001	3001	3001	3001
RMSE	17.02		1.48	
AIC		4163.87		2778.61
BIC		4193.90		2808.64
Log Likelihood		-2076.93		-1384.30
Deviance		4153.87		2768.61

\*\* $p < 0.01$ , \* $p < 0.05$

Table A2: Balance Tests: Education

	No College	Some college	College +
(Intercept)	−0.86** (0.09)	−0.30** (0.08)	−0.97** (0.09)
High Responsiveness Climate	0.26* (0.12)	−0.24* (0.12)	0.01 (0.13)
High Responsiveness General	0.12 (0.12)	−0.05 (0.12)	−0.07 (0.13)
Low Responsiveness Climate	0.20 (0.12)	−0.09 (0.12)	−0.12 (0.13)
Low Responsiveness General	0.06 (0.13)	−0.06 (0.12)	0.02 (0.13)
AIC	3792.92	4057.81	3500.60
BIC	3822.96	4087.85	3530.63
Log Likelihood	−1891.46	−2023.91	−1745.30
Deviance	3782.92	4047.81	3490.60
Num. obs.	3001	3001	3001

\*\* $p < 0.01$ , \* $p < 0.05$

Table A3: Balance Tests: Populism

	Populism	People-Centrism	Anti-Elitism	Manichean Worldview
(Intercept)	−0.01 (0.08)	0.05 (0.04)	0.07 (0.04)	−0.06 (0.04)
High Responsiveness Climate	−0.00 (0.12)	−0.04 (0.06)	−0.11 (0.06)	0.07 (0.06)
High Responsiveness General	0.12 (0.12)	−0.05 (0.06)	−0.06 (0.06)	0.12* (0.06)
Low Responsiveness Climate	−0.03 (0.12)	−0.09 (0.06)	−0.09 (0.06)	0.07 (0.06)
Low Responsiveness General	−0.04 (0.12)	−0.08 (0.06)	−0.10 (0.06)	0.06 (0.06)
R <sup>2</sup>	0.00	0.00	0.00	0.00
Adj. R <sup>2</sup>	−0.00	−0.00	0.00	0.00
Num. obs.	3001	3001	3001	3001
RMSE	2.04	1.00	1.00	1.00

\*\* $p < 0.01$ , \* $p < 0.05$

# Descriptive Statistics

## Dependent Variables

Figure A1: Climate Concern

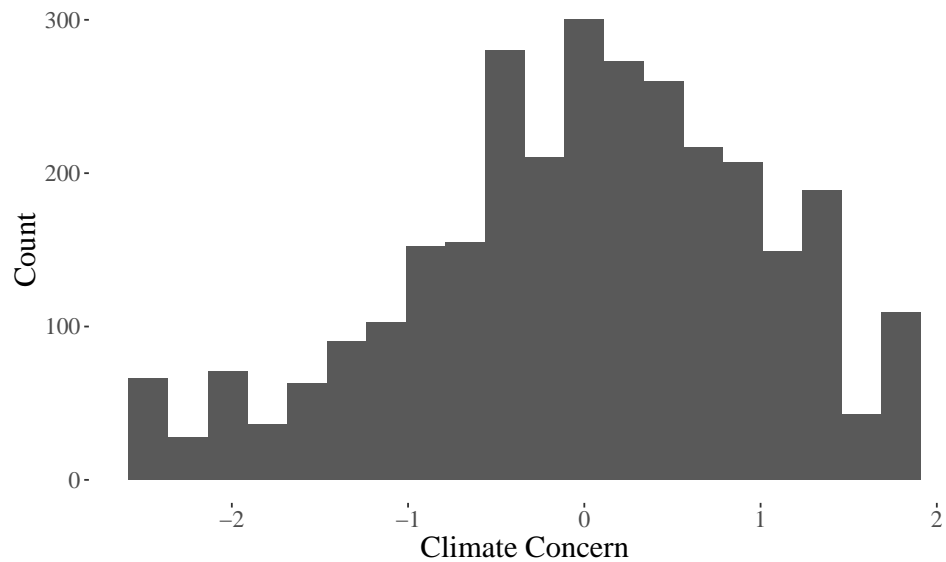


Figure A2: Climate Policy vis-à-vis Economic Growth

Some believe that measures against climate change, such as reducing carbon dioxide emissions from burning oil, gas and coal, should have priority even if that hurts the economy and jobs. Others believe that the economy and jobs should have priority even if that results in more climate change. What is your opinion?

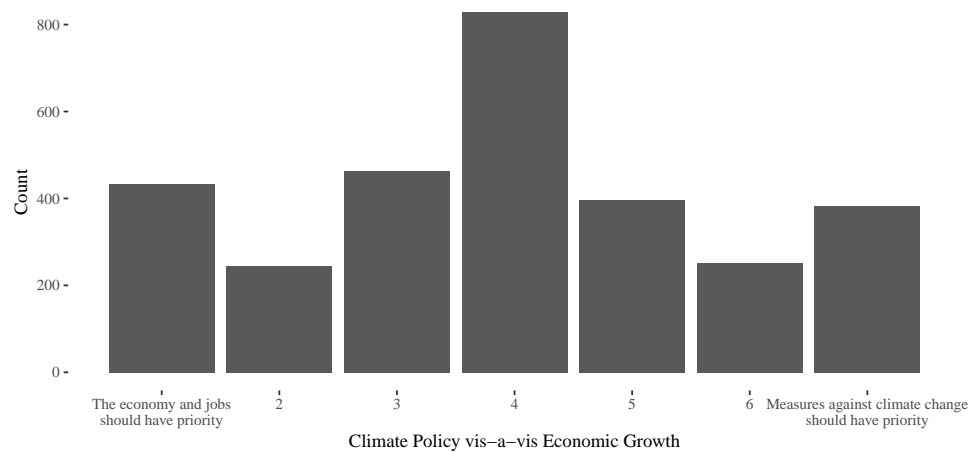
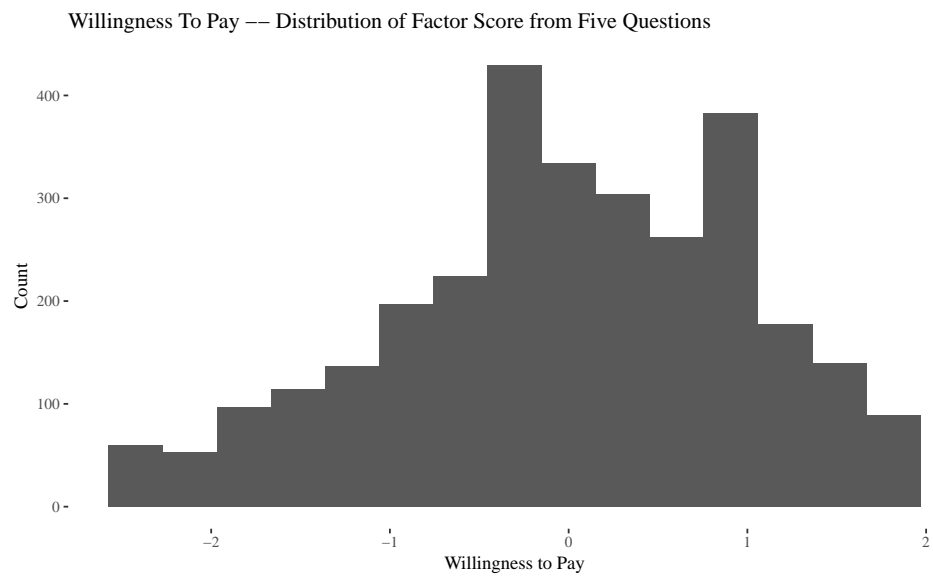


Figure A3: Willingness to Pay for Climate Policy



## Independent Variable

Figure A4: Populist Attitudes

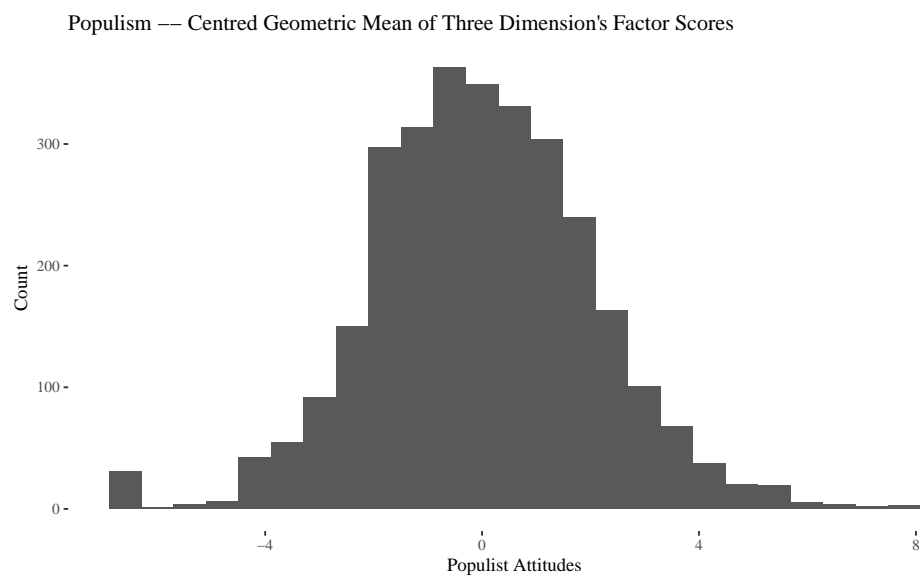


Figure A5: Populist Attitudes – People Centrism

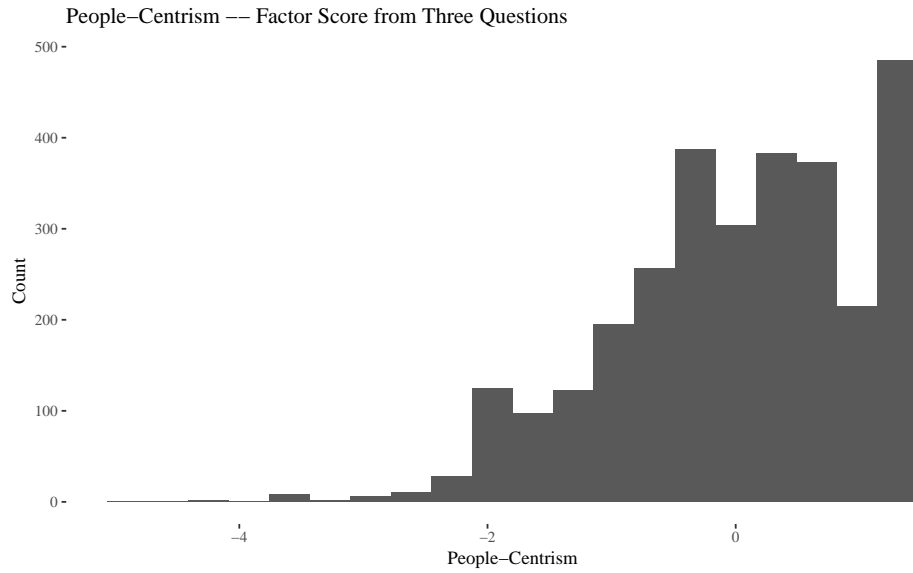


Figure A6: Populist Attitudes – Anti Elitism

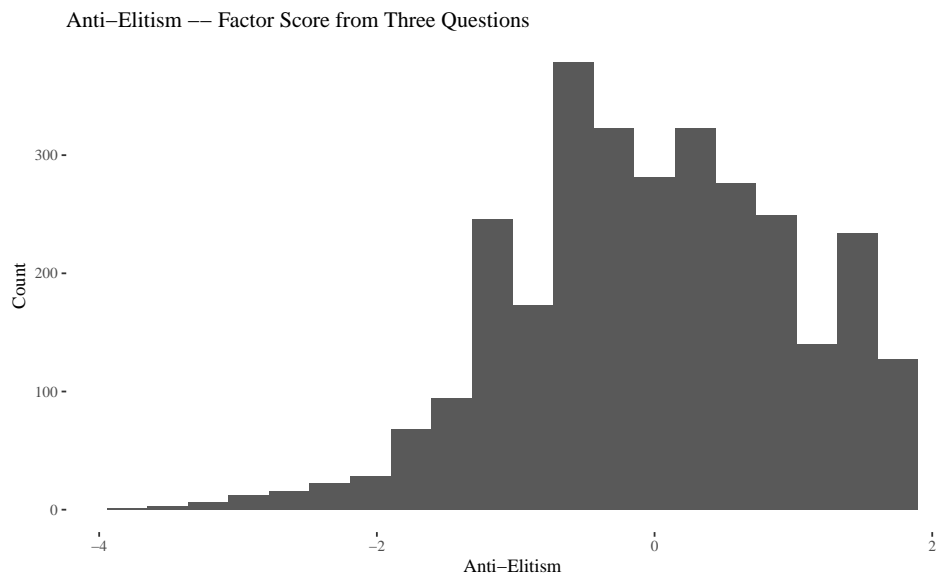


Figure A7: Populist Attitudes – Manichean Discourse

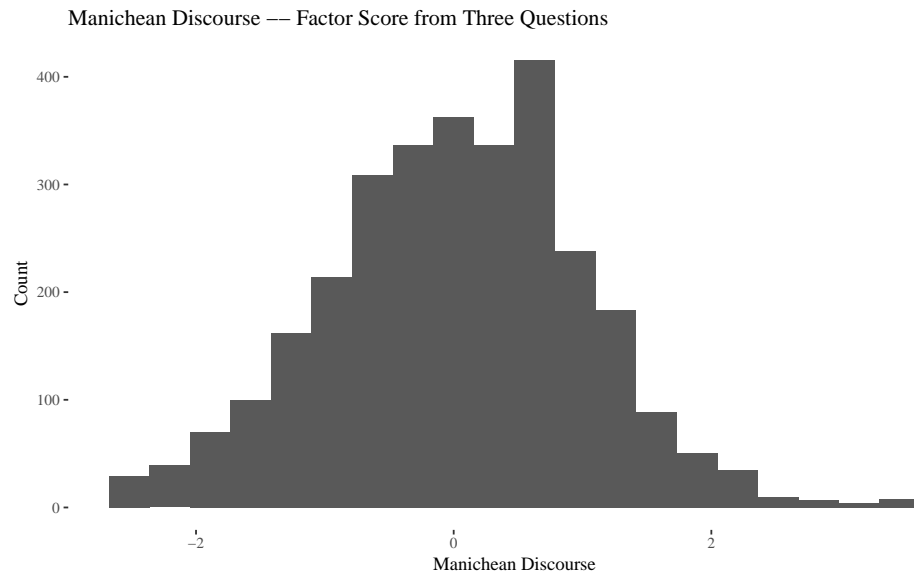
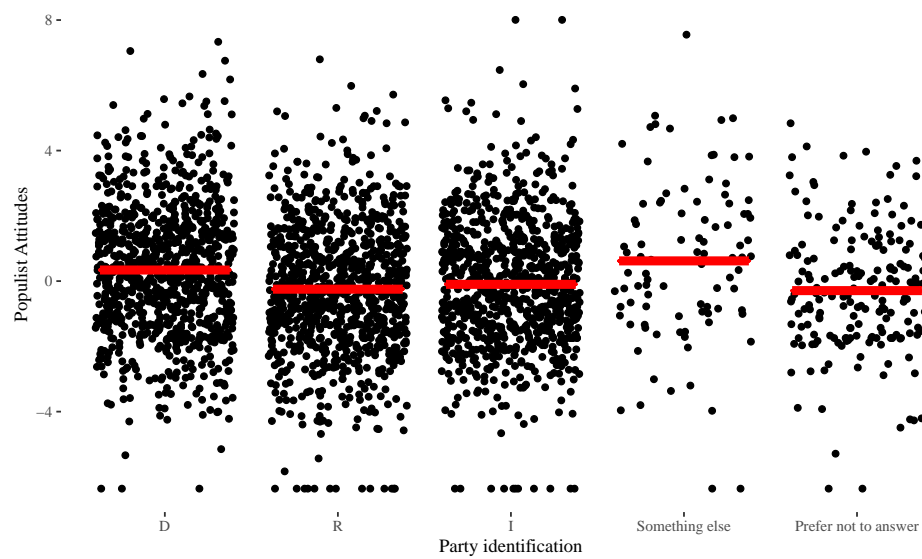


Figure A8: Populist Attitudes by Partisanship



Control Variables

Figure A9: Age

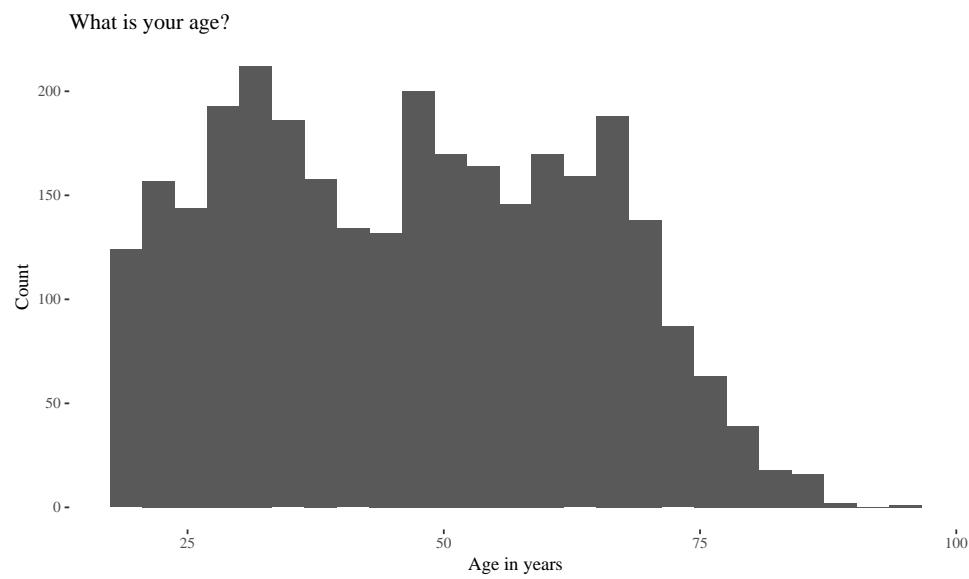


Figure A10: Climate Knowledge

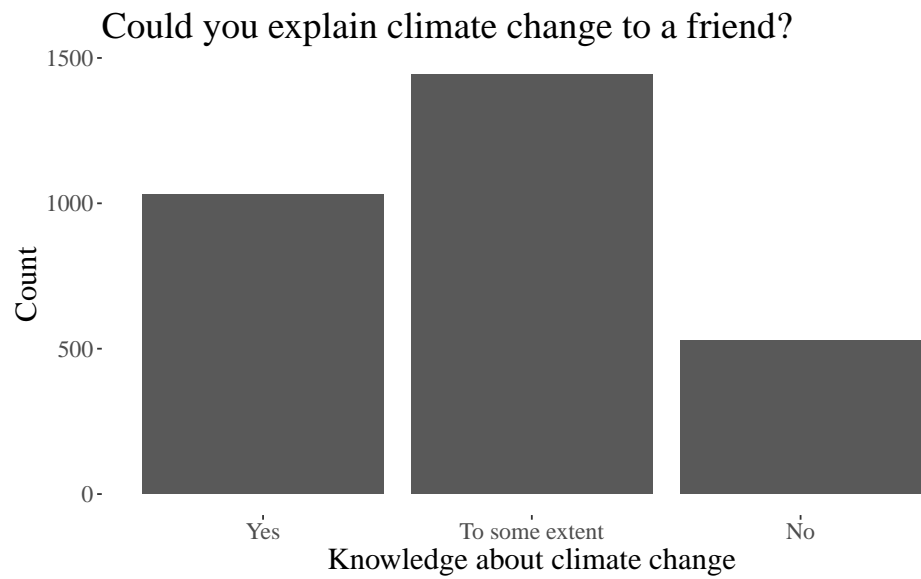


Figure A11: Education

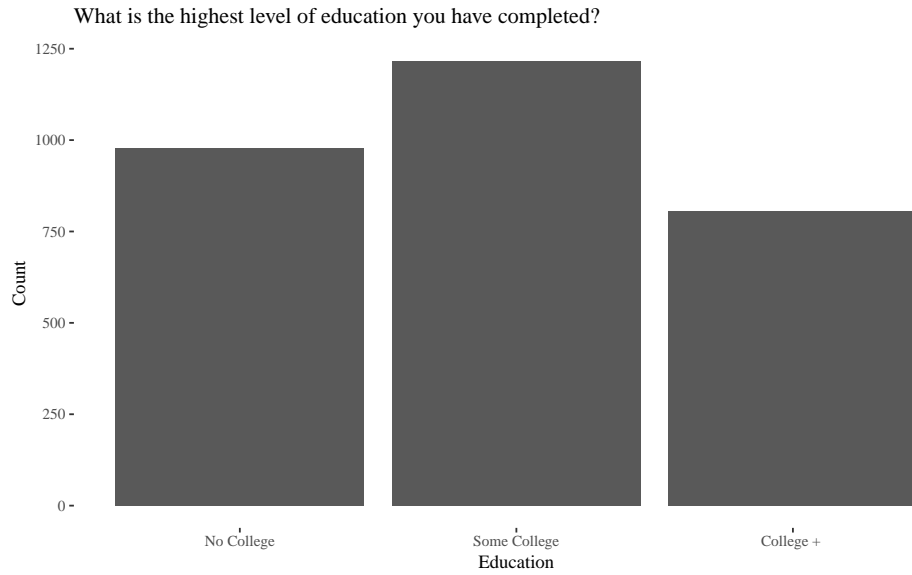


Figure A12: Employment Status

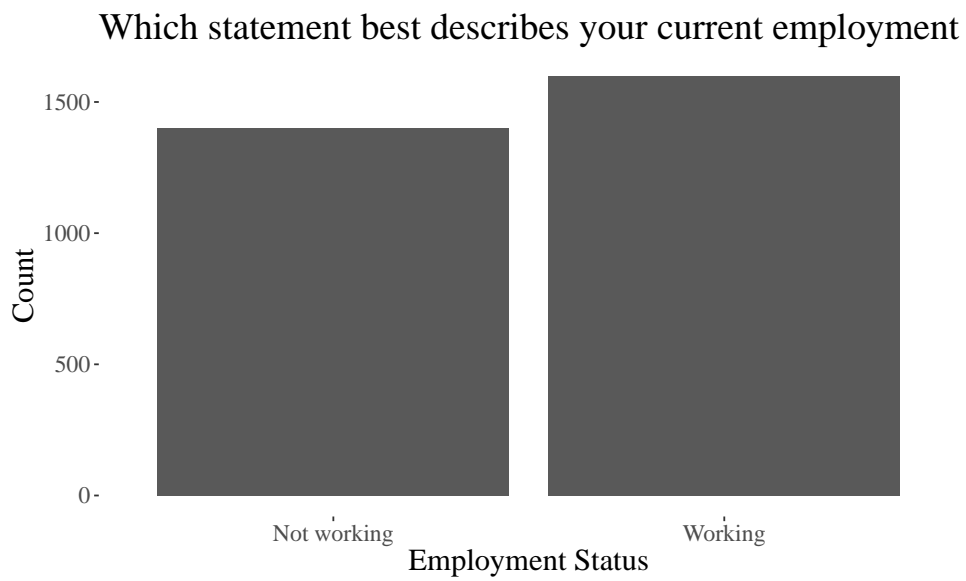




Figure A13: Gender

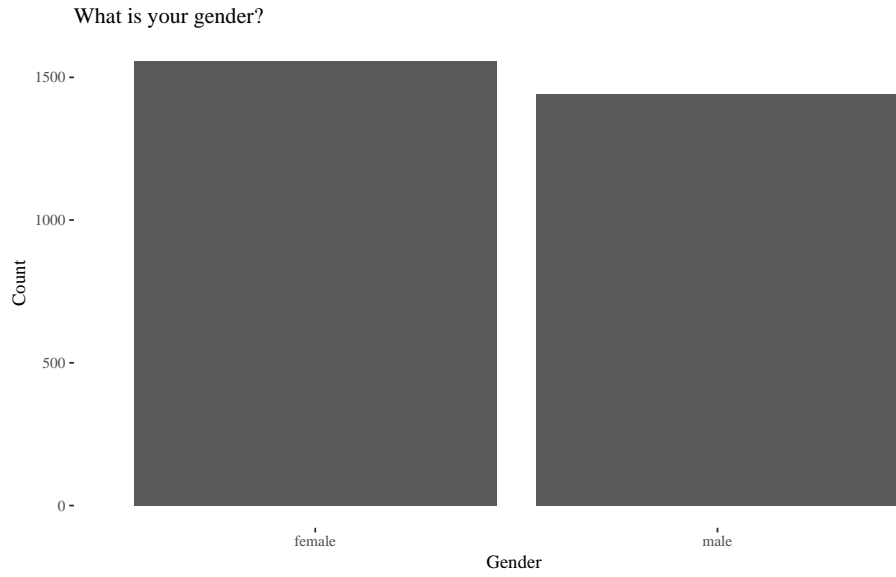


Figure A14: Income

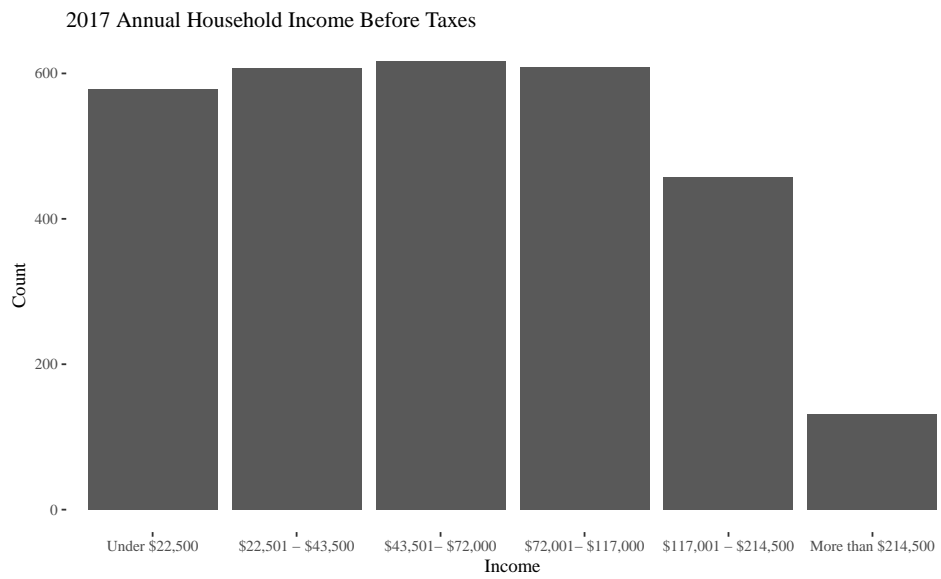


Figure A15: Living Conditions

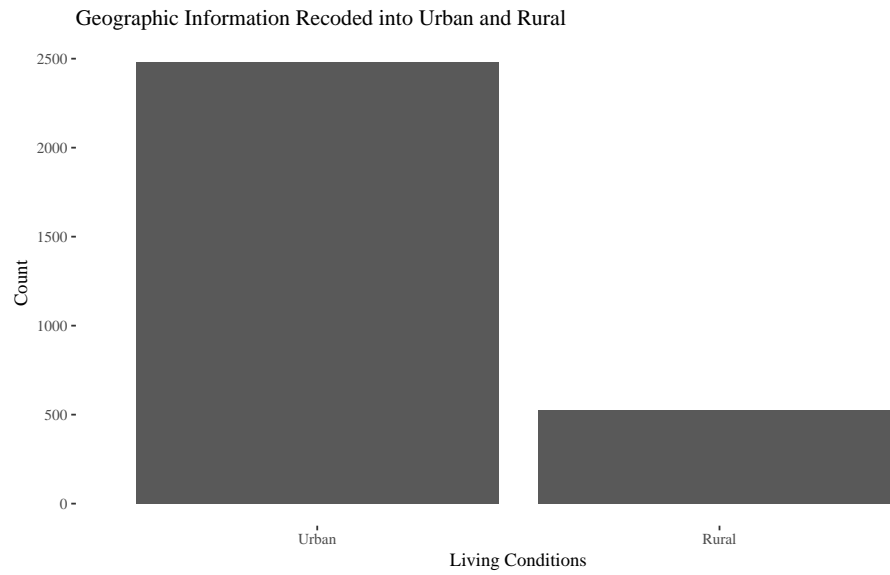
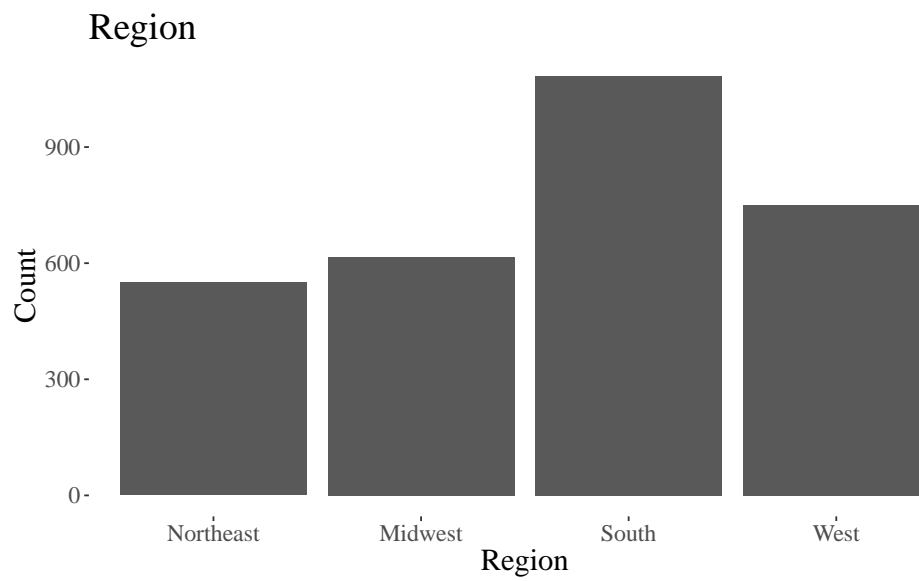


Figure A16: Region



# Regression Table

Table A4: Populism, Political Ideology and Climate Attitudes

	Climate Concern	Climate Policy vis-a-vis Economic Growth	WTP
(Intercept)	0.97*** (0.09)	0.63*** (0.10)	0.63*** (0.10)
High Responsiveness Climate	0.22*** (0.07)	0.16* (0.09)	0.23*** (0.08)
High Responsiveness General	0.09 (0.08)	0.00 (0.10)	0.07 (0.09)
Low Responsiveness Climate	0.02 (0.08)	0.04 (0.09)	0.15* (0.08)
Low Responsiveness General	0.07 (0.08)	−0.00 (0.09)	0.10 (0.08)
Republican	−0.79*** (0.09)	−0.75*** (0.10)	−0.57*** (0.10)
Independents	−0.46*** (0.09)	−0.32*** (0.10)	−0.51*** (0.10)
Something else	−0.53** (0.25)	−0.34** (0.16)	−0.70*** (0.25)
Prefer not to answer	−0.22 (0.14)	−0.09 (0.13)	−0.27* (0.15)
Populism	0.06* (0.03)	0.08** (0.03)	0.07** (0.03)
Age	−0.01*** (0.00)	−0.00*** (0.00)	−0.01*** (0.00)
Gender (Ref = Female)	−0.14*** (0.03)	−0.11*** (0.03)	0.04 (0.03)
Education (Some College)	0.03 (0.04)	0.08* (0.04)	0.03 (0.04)
Education (College +)	0.09* (0.05)	0.04 (0.05)	0.17*** (0.05)
Income (USD 22501 - USD 43500)	−0.05 (0.05)	−0.04 (0.06)	0.06 (0.05)
Income (USD 43501 - USD 72000)	−0.03 (0.05)	−0.03 (0.06)	0.06 (0.06)
Income (USD 72000 - USD 117000)	0.05 (0.06)	−0.09 (0.06)	0.19*** (0.06)
Income (USD 117001 - USD 214500)	−0.01 (0.06)	−0.05 (0.07)	0.07 (0.06)
Income (more than USD 214500)	0.00 (0.09)	−0.04 (0.10)	0.22** (0.09)
Living Conditions (Ref = Urban)	−0.07 (0.05)	−0.04 (0.04)	−0.08* (0.04)
Climate Knowledge (to some extent)	−0.16*** (0.04)	−0.06 (0.04)	−0.17*** (0.04)
Climate Knowledge (No)	−0.44*** (0.05)	−0.45*** (0.06)	−0.39*** (0.06)
Region (Midwest)	−0.09* (0.05)	0.03 (0.05)	−0.07 (0.05)
Region (South)	−0.08* (0.05)	−0.05 (0.05)	−0.10** (0.05)
Region (West)	0.00 (0.05)	0.03 (0.05)	−0.00 (0.05)

	Climate Concern	Climate Policy vis-a-vis Economic Growth	WTP
Employment Status (Working)	0.01 (0.04)	-0.06* (0.04)	0.07* (0.04)
Hi Resp. Cli. x R	-0.22* (0.13)	-0.10 (0.14)	-0.21 (0.14)
Hi Resp. Gen. x R	-0.11 (0.13)	-0.04 (0.14)	-0.21 (0.14)
Lo Resp. Cli. x R	0.04 (0.13)	0.00 (0.13)	-0.16 (0.13)
Lo Resp. Gen. x R	-0.16 (0.13)	0.03 (0.13)	-0.21 (0.14)
Hi Resp. Cli. x I	-0.15 (0.13)	0.04 (0.14)	0.01 (0.14)
Hi Resp. Gen. x I	0.04 (0.13)	0.15 (0.14)	0.21 (0.14)
Lo Resp. Cli. x I	0.07 (0.13)	0.04 (0.14)	0.14 (0.13)
Lo Resp. Gen. x I	-0.01 (0.13)	0.16 (0.14)	0.12 (0.13)
Hi Resp. Cli. x SE	-0.35 (0.37)	0.06 (0.32)	-0.03 (0.35)
Hi Resp. Gen. x SE	0.02 (0.36)	0.02 (0.27)	0.19 (0.35)
Lo Resp. Cli. x SE	0.05 (0.38)	0.12 (0.34)	0.06 (0.39)
Lo Resp. Gen. x SE	0.25 (0.41)	0.37 (0.30)	0.42 (0.36)
Hi Resp. Cli. x No Answer	-0.17 (0.20)	0.10 (0.19)	-0.26 (0.18)
Hi Resp. Gen. x No Answer	-0.24 (0.18)	-0.13 (0.20)	0.09 (0.18)
Lo Resp. Cli. x No Answer	-0.00 (0.21)	-0.08 (0.22)	-0.23 (0.20)
Lo Resp. Gen. x No Answer	-0.33 (0.20)	-0.30 (0.22)	-0.22 (0.19)
Hi Resp. Cli. x Pop.	0.04 (0.04)	-0.09* (0.05)	-0.04 (0.05)
Hi Resp. Gen. x Pop.	0.05 (0.04)	0.01 (0.05)	0.02 (0.04)
Lo Resp. Cli. x Pop.	0.00 (0.04)	-0.04 (0.05)	0.01 (0.04)
Lo Resp. Gen. x Pop.	0.01 (0.04)	0.01 (0.05)	0.03 (0.04)
R x Pop	-0.09* (0.05)	-0.13*** (0.05)	-0.07 (0.05)
I x Pop.	-0.03 (0.05)	-0.09* (0.05)	-0.04 (0.05)
SE x Pop.	-0.10 (0.10)	-0.12** (0.05)	-0.06 (0.08)
No Answer x Pop.	0.03 (0.08)	-0.02 (0.05)	-0.10 (0.08)
Hi Resp. Cli. x R x Pop.	-0.00 (0.06)	0.12* (0.07)	0.06 (0.08)
Hi Resp. Gen. x R x Pop.	-0.11 (0.07)	-0.05 (0.07)	-0.06 (0.07)
Lo Resp. Cli. x R x Pop.	-0.01	0.07	0.03

	Climate Concern	Climate Policy vis-a-vis Economic Growth	WTP
	(0.07)	(0.07)	(0.07)
Lo Resp. Gen. x R x Pop.	−0.06 (0.06)	−0.07 (0.07)	−0.06 (0.07)
Hi Resp. Cli. x I x Pop.	−0.06 (0.07)	0.14* (0.07)	0.01 (0.07)
Hi Resp. Gen. x I x Pop.	−0.05 (0.07)	−0.02 (0.07)	−0.01 (0.07)
Lo Resp. Cli. x I x Pop.	0.01 (0.07)	0.05 (0.07)	0.01 (0.07)
Lo Resp. Gen. x I x Pop.	−0.07 (0.07)	0.04 (0.07)	−0.03 (0.07)
Hi Resp. Cli. x SE x Pop.	0.27* (0.15)	0.24 (0.17)	0.13 (0.16)
Hi Resp. Gen. x SE x Pop.	−0.02 (0.13)	−0.01 (0.10)	0.03 (0.12)
Lo Resp. Cli. x SE x Pop.	−0.15 (0.23)	−0.03 (0.24)	−0.17 (0.22)
Lo Resp. Gen. x SE x Pop.	0.07 (0.14)	0.08 (0.10)	0.01 (0.12)
Hi Resp. Cli. x No Answer x Pop.	−0.05 (0.10)	0.04 (0.08)	0.04 (0.10)
Hi Resp. Gen. x No Answer x Pop.	−0.03 (0.11)	−0.01 (0.11)	0.05 (0.10)
Lo Resp. Cli. x No Answer x Pop.	0.03 (0.12)	0.09 (0.09)	0.10 (0.10)
Lo Resp. Gen. x No Answer x Pop.	−0.07 (0.11)	−0.06 (0.11)	0.03 (0.11)
R <sup>2</sup>	0.23	0.17	0.20
Adj. R <sup>2</sup>	0.21	0.15	0.18
Num. obs.	3001	3001	3001
RMSE	0.89	0.92	0.90

\*\*\* $p < 0.01$ , \*\* $p < 0.05$ , \* $p < 0.1$

# Survey

**What is your gender?**

1. Male
2. Female

**What is your age?**

[textfield dd/mm/YYYY]

**Are you citizen of the United States of America?**

1. Yes
2. No *[terminate survey, only US citizens in sample]*

**What is your zip code?**

[textfield \_ \_ \_ \_ \_]

**Thinking back over the last year (2017), what was the total annual income of your household (meaning your own income of any kind including all wages, salaries, dividends, pensions and government payments and the income of other persons in your household combined) before taxes?**

1. Under \$22,500
2. \$22,501 - \$43,500
3. \$43,501- \$72,000
4. \$72,001- \$117,000
5. \$117,001 - \$214,500
6. More than \$214,500

**What is the highest level of education you have completed?**

1. Grade 4 or less
2. Grade 5 to 8
3. Grade 9 to 11
4. Grade 12 (no diploma)
5. Regular High School Diploma
6. GED or alternative credential
7. Some college credit, but less than 1 year
8. 1 or more years of college credit, no degree

9. Associate's degree (AA, AS, etc.)
10. Bachelor's degree (BA, BS, etc.)
11. Master's degree (MA, MS, MBA, etc.)
12. Professional degree (MD, DDS, JD, etc.)
13. Doctorate degree (PhD, EdD, etc.)
14. Prefer not to answer

**Which statement best describes your current employment status?**

- Working full time as paid employee
- Working part time as paid employee
- Working as self-employed
- Student
- Unemployed
- Retired
- Disabled
- Other [textfield]

**Do you think you would be able to describe in very simple terms to another person what climate change or global warming is and what causes it?**

- Yes
- To some extent
- No

**Please read the following statements and indicate how much you agree or disagree with them.**

*Items:*

1. Politicians should always listen closely to the problems of the people.
2. Politicians don't have to spend time among ordinary people to do a good job.
3. The will of the people should be the highest principle in this country's politics.
4. The government is pretty much run by a few big interests looking out for themselves.
5. Government officials use their power to try to improve people's lives.
6. Quite a few of the people running the government are crooked.

7. You can tell if a person is good or bad if you know their politics.
8. The people I disagree with politically are not evil.
9. The people I disagree with politically are just misinformed.

*Scale:*

1. Strongly agree
2. Agree
3. Somewhat agree
4. Neither disagree nor agree
5. Somewhat disagree
6. Disagree
7. Strongly disagree

### **Allocation to Treatment Groups**

Individuals are randomly assigned to one of the following five groups (also see Table ??):

#### *Group: High Responsiveness in Climate Frame*

Most policy-makers, scientists and other experts agree that climate change, also known as global warming, is a serious problem for the United States. They also agree that far-reaching new policies are needed to deal with this problem.

Many Americans believe that political elites, including policy-makers, scientists and other experts, care about citizens' interests when dealing with this problem. After all, they are citizens too.

#### *Group: High Responsiveness in General Frame*

Most policy-makers, scientists and other experts agree that the United States faces several serious problems. They also agree that far-reaching new policies are needed to deal with these problems.

Many Americans believe that political elites, including policy-makers, scientists and other experts, care about citizens' interests when dealing with these problems. After all, they are citizens too.

#### *Group: Low Responsiveness in Climate Frame*

Most policy-makers, scientists and other experts agree that climate change, also known as global warming, is a serious problem for the United States. They also agree that far-reaching new policies are needed to deal with this problem.

Many Americans believe that political elites, including policy-makers, scientists and other experts, care mostly about their own self-interest rather than their citizens' interests when dealing with this problem. After all, they are out of touch with citizens and their needs.

#### *Group: Low Responsiveness in General Frame*



Most policy-makers, scientists and other experts agree that the United States faces several serious problems. They also agree that far-reaching new policies are needed to deal with these problems.

Many Americans believe that political elites, including policy-makers, scientists and other experts, care mostly about their own self-interest rather than their citizens' interests when dealing with these problems. After all, they are out of touch with citizens and their needs.

*Group: Control*

[This group receives not information].

**Some believe that measures against climate change, such as reducing carbon dioxide emissions from burning oil, gas and coal, should have priority even if that hurts the economy and jobs. Others believe that the economy and jobs should have priority even if that results in more climate change. What is your opinion?**

1. Measures against climate change should have priority
- 2.
- 3.
- 4.
- 5.
- 6.
7. The economy and jobs should have priority

**Please tell us to what extent you agree or disagree with the following statements:**

*Items:*

1. We need to reduce carbon dioxide emissions to limit climate change, even if this means raising taxes to fund the shift from oil, gas and coal to renewable energies, such as solar and wind power.
2. We need to reduce carbon dioxide emissions to limit climate change, even if this puts an additional financial burden on U.S. households.
3. We need to reduce carbon dioxide emissions to limit climate change, even if this means that the U.S. government has to reduce public spending/investment in other areas.
4. We need stricter policies to lower the fuel consumption of motor vehicles, even if this raises the costs of using cars, trucks, and public bus.
5. We need to preserve and expand forest areas, even if this means less land for agriculture or construction.

*Scale:*

1. Strongly agree
2. Agree
3. Somewhat agree
4. Neither disagree nor agree
5. Somewhat disagree
6. Disagree
7. Strongly disagree

**To what extent do you agree or disagree with the following statements?**

*Items:*

1. Climate change is an unstoppable process; we cannot do anything against it
2. Climate change is a very serious problem already today.
3. I am very concerned that climate change will harm me personally.

*Scale:*

1. Strongly agree
2. Agree
3. Somewhat agree
4. Neither disagree nor agree
5. Somewhat disagree
6. Disagree
7. Strongly disagree

**Do you usually think of yourself as a Democrat, a Republican, an Independent, or something else?**

1. Democrat
2. Republican
3. Independent
4. Something else: [textfield]
5. Prefer not to answer