

APPENDIX
for Multiple social identities cloud norm perception:
Responses to COVID-19 among university aged
Republicans and Democrats

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A Survey details and coding of variables

A.1 Survey details

The survey data used in this project is from two larger overarching projects titled the Rice Preferences Study and the Black Student Success Study. The Rice Preferences Study began with a sample of 661 entering undergraduates matriculating in August of 2016. This was 66.7% of the entering class, randomly selected. Of that sample, 553 completed the study with an 83.7% response rate. Prior to coming to campus in fall 2016 Rice students were given a battery of incentivized preference measures including risk aversion, loss aversion, altruism, in-group favoritism, time discounting, competitiveness, and so on. Over the subsequent four years that group was tested with new and repeated measures, in two to four tests per year.

As a basis for comparison, each year a smaller sample (between 112 And 148) was drawn from incoming classes and tested with the same instruments. The remaining students from the Class of 2020 who had never been tested were invited in March 2020 to complete the initial study (259 of 376 completed the study). In March 2020, as Rice University closed, the team joined

together to build a COVID module for the long-term Rice panel, as well as the other members of the Class of 2020. A total of 670 participated in this wave (67.1% of the graduating class). The Black Student Success Study recruited samples from PVAMU and TAMU in 2017 and again in 2019. This study aimed at understanding the effects of stereotype threat on Black student success in two different university environments in Texas: PVAMU, a historically Black university with about 9,000 students, 65% female, and 83% Black; and TAMU, a large state university with about 70,000 students, 47% female and 3.7% Black. That study was ongoing in 2020 when COVID struck. A total of 880 subjects responded to the initial survey out of a total of 3,709 who were contacted. Black subjects were over-sampled at TAMU, and constituted 37% of the TAMU sample. Respondents completed a one-hour survey that included measures of identity, non-cognitive skills, stereotype-threat vulnerability, and controls for economic preferences (survey measures) and family background. They were paid \$20 for completing the study. In March 2020 additional funding was awarded through NSF to expand and follow the Rice, TAMU and PVAMU panels, focusing on the impact of COVID-19.

Wave 1 of the study (April-May) took respondents an average of 22 minutes to complete.¹ For their participation, respondents earned an average of \$20.30. The study included seven modules but we focus here on modules one, five and six and use controls from module seven. In module one, respondents were asked a set of questions about behaviours they had engaged in to avoid contracting or spreading COVID-19.² The fifth module was incentivized and asked respondents to play a coordination game developed by Krupka and Weber 2013 that uses participant responses to estimate the injunctive norms held by students from their university concerning COVID-19. The sixth module followed the same structure as the fifth, but was designed to estimate the descriptive norms held by students from their university concerning COVID-19. The seventh module contained a battery of demographic items and an opportunity to donate their earnings to a charitable organization.

Wave 2 of the study (July-August) took respondents an average of 27 minutes to complete. In this study not everyone was paid. For the Rice sample 100 respondents were randomly selected and paid \$50 for completing the study. Another 50 were randomly chosen and paid for the incentivized norms task. PVAMU and TAMU subjects were paid \$10 for completing the study and 50 were randomly chosen from each group and paid for the incentivized norms task. The study covered six modules. The first module repeated the same set of questions about precautionary behaviours as in wave 1. A handful of new items were added about other precautionary behaviours.³ In module four and five we repeated measures from wave 1 of injunctive and descriptive norms. The sixth module contained the battery of demographic items.

Wave 3 of the study (October-November) took respondents an average of just under 20 minutes. Again, not all subjects were paid. A sample of 100 Rice students were paid a \$50 bonus for completing the study and another 50 were randomly chosen for the incentivized norms task.

¹Because the survey was on-line, respondents could stop and then return to the study at their leisure. A handful of respondents took several days to return to the study. In calculating the average time to completion those values are ignored.

²The second module focused on respondent's knowledge of COVID-19 and beliefs about the pandemic. The third module contained incentivized behavioural measures of risk aversion, trust and trustworthiness. The fourth module turned to targets of trust, ranging from the US President to friends and family.

³The second module focused on the respondents' knowledge of COVID, beliefs about the pandemic and attitudes toward vaccines. The third module turned to targets of trust, ranging from the US President to friends and family.

The PVAMU and TAMU subjects were paid \$10 for completing the study and another 50 from each school were randomly chosen and paid for the incentivized norms task. The study covered six modules of which we used those that measured the self-reported preventative behaviours, incentivized injunctive norms, incentivized descriptive norms, and demographic items.⁴

A.2 Location data

There is substantial mobility in this sample. Between Wave 1 and Wave 2, 36% of respondents who participated in both waves moved. Between Wave 2 and Wave 3, 58.3% of respondents had moved. This is not surprising since a number of students had left and then returned to their university campuses.

Across each wave we estimate the respondent’s location based on the IP address used to respond to the study. Those IP addresses were then linked to Census tracts. In Waves 1 and 2 respondents were not on their respective campuses. Figure B.1 in the Appendix shows the geographical distribution of subjects across the country. In Wave 3 there was a mixture of respondents who were on campus and those who were not.

Using subject’s geocoded information we are able to link respondents to their community and to context-specific data. The context data includes information about policy mandates at the State and County level, daily county-level coronavirus infections and deaths taken from the Johns Hopkins data and census data. All of these data are matched to the respondent’s location at the time they completed the study for each wave.

A.3 Experimental design details

Subjects were invited to participate in an asynchronous survey experiment. This survey asked participants about COVID-19 preventative behavior, exposure to COVID-19, and perceptions surrounding COVID-19. Subjects were also asked a battery of questions relating to risk perceptions, behavior, economic outlook, and emotional state. These questions were not used in this paper. For the questions relating to injunctive norms and descriptive norms, subjects were told to evaluate actions from “very socially inappropriate” to “very socially appropriate” in such a way to guess how most other students at their university participating in this study would rate the behavior. Subjects were told that a subset of subjects will be selected for a bonus payment opportunity. For those who were selected for bonus payments, 10 random questions from the norm component were selected. For each question, if the subject’s appropriateness rating matched the modal response among students in that university, the subject received a bonus payment for that question. If their response did not match the modal rating, the subject did not receive a bonus payment for that question.

A subject read the following text and their response was used to elicit their belief about the injunctive norm for social distancing at their university:

“Rate how socially appropriate the following actions are and remember that your task is not to rate whether you personally believe that the action is “socially appropriate or inappropriate” but to guess how most other [university name here] students participating in this study would rate the behaviour: - Social distancing”

⁴The sixth module was focused on the 2020 US Presidential election. There was considerable overlap in items from both Wave 1 and Wave 2.

The subject read the text below and their response was used to elicit their belief about the descriptive norm for social distancing:

“Please guess what you think most other [university name here] students believe people are REALLY doing and remember that your task is to match with everyone else’s guess: - Social distancing”

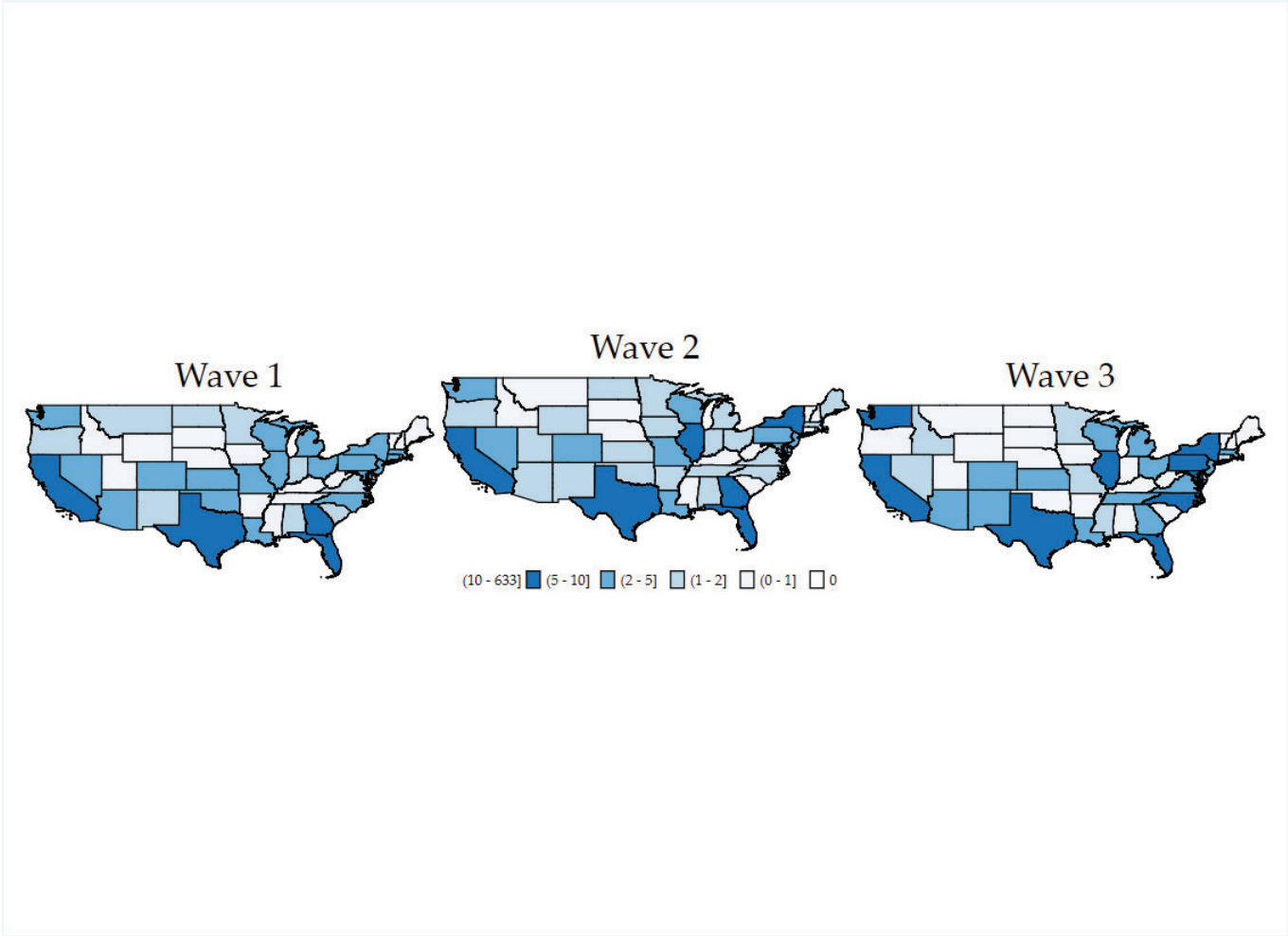
A.4 Coding of norm indices

We reverse code and rename the questions “attending a service (such as a church, wedding, or a funeral)” and “hangout with friends” so that all actions in the table can be interpreted in similar fashion. Thus, for example, “hanging out with friends” is reverse coded and we re-label the variable “avoid hanging out with friends”.

B Summary descriptive statistics

B.1 Geographical distribution of subjects by wave

Figure B.1: Geographical Distribution of Subjects by Wave



B.2 Summary statistics in and out of sample

Table B.1: *Summary Statistics of In-Sample and Out-of-Sample Population*

	Out-Of-Sample		In-Sample		Total	
	Mean	Obvs	Mean	Obvs	Mean	Obvs
Rice University	0.524 (0.51)	21	0.790 (0.41)	633	0.781 (0.41)	654
Texas A&M University	0.190 (0.40)	21	0.120 (0.33)	633	0.122 (0.33)	654
Prairie View Texas A&M University	0.286 (0.46)	21	0.0900 (0.29)	633	0.0963 (0.30)	654
Male	0.286 (0.46)	21	0.378 (0.49)	633	0.375 (0.48)	654
Black	0.476 (0.51)	21	0.175 (0.38)	633	0.185 (0.39)	654
Asian	0.190 (0.40)	21	0.280 (0.45)	633	0.277 (0.45)	654
White	0.0952 (0.30)	21	0.329 (0.47)	633	0.321 (0.47)	654
Hispanic	0.0952 (0.30)	21	0.109 (0.31)	633	0.109 (0.31)	654
Other Race	0.0952 (0.30)	21	0.0869 (0.28)	633	0.0872 (0.28)	654
Foreign International	0.0476 (0.22)	21	0.0205 (0.14)	633	0.0214 (0.14)	654
Social Sciences Major	0.238 (0.44)	21	0.234 (0.42)	633	0.234 (0.42)	654
STEM Major	0.524 (0.51)	21	0.594 (0.49)	633	0.592 (0.49)	654
Business Major	0 (0.00)	21	0.0205 (0.14)	633	0.0199 (0.14)	654
Arts Major	0.0952 (0.30)	21	0.0490 (0.22)	633	0.0505 (0.22)	654
Other Major	0.0952 (0.30)	21	0.0979 (0.30)	633	0.0979 (0.30)	654
Republican	0.0476 (0.22)	21	0.0806 (0.27)	633	0.0795 (0.27)	654
Democrat	0.667 (0.48)	21	0.583 (0.49)	633	0.586 (0.49)	654

Note: Summary statistics of descriptive statistics between those who complete all three waves and those whose complete less than three waves. Observations are conditioned on those who reported all demographic variables.

B.3 Control summary statistics

Table B.2: *Control Summary Statistics For Those Who Responded in All Three Waves*

	Prairie View Texas A&M Mean (N=57)	Rice Mean (N=500)	Texas A&M Mean (N=76)	All Mean (N=633)
Male	0.088 (0.28)	0.424 (0.49)	0.289 (0.45)	0.378 (0.48)
Black	0.912 (0.28)	0.050 (0.22)	0.447 (0.50)	0.175 (0.38)
Asian	0.000 (0.00)	0.342 (0.47)	0.079 (0.27)	0.280 (0.45)
White	0.018 (0.13)	0.366 (0.48)	0.316 (0.47)	0.329 (0.47)
Hispanic	0.035 (0.18)	0.120 (0.33)	0.092 (0.29)	0.109 (0.31)
Other Race	0.035 (0.18)	0.096 (0.29)	0.066 (0.25)	0.087 (0.28)
Foreign International	0.000 (0.00)	0.026 (0.16)	0.000 (0.00)	0.021 (0.14)
Social Sciences Major	0.158 (0.37)	0.262 (0.44)	0.105 (0.31)	0.234 (0.42)
STEM Major	0.368 (0.48)	0.602 (0.49)	0.711 (0.45)	0.594 (0.49)
Business Major	0.088 (0.28)	0.002 (0.04)	0.092 (0.29)	0.021 (0.14)
Arts Major	0.000 (0.00)	0.062 (0.24)	0.000 (0.00)	0.049 (0.22)
Other Major	0.386 (0.49)	0.072 (0.26)	0.053 (0.22)	0.098 (0.30)
Democrat	0.877 (0.33)	0.808 (0.39)	0.697 (0.46)	0.801 (0.40)
Independent	0.018 (0.13)	0.048 (0.21)	0.040 (0.20)	0.044 (0.21)
Republican	0.105 (0.31)	0.144 (0.35)	0.263 (0.44)	0.155 (0.36)
Risk Preference	5.088 (2.25)	4.579 (2.13)	5.044 (2.15)	4.680 (2.15)

Note: The total number of observations is 633 (or 1,899/3). Standard errors in parentheses. Risk preferences are used as a control in our analysis below. Risk preferences are measured using the following non-incentivized survey question: “How do you see yourself? Are you generally a person who enjoys taking risks or do you try to avoid taking risks?” The response mode was a scale from 0 to 10 where 0 is “I avoid taking risks” and 10 is “I enjoy taking risks.” Questions like this have been validated against incentivized risk-preference measures (Falk et al. 2016).

C Supplemental analysis

C.1 Means of Norms

Table C.3 reports the injunctive norm and descriptive norm index by political identity across all three waves. These averages are reported with standard deviations reported in parentheses below.

Table C.3: Means of Beliefs (Inj.) and Beliefs (Desc.) Indices by Political Identity

	Wave 1		Wave 2		Wave 3		Total	N/Wave
<i>Panel A: Democrats</i>								
Beliefs (Inj.) Index	80.52	373	75.90	373	73.79	373	76.74	1,119
	(17.71)		(16.15)		(13.11)		(16.01)	
Beliefs (Desc.) Index	72.06	373	62.70	373	54.72	373	63.16	1,119
	(20.68)		(21.57)		(20.53)		(22.08)	
<i>Panel B: Republicans</i>								
Beliefs (Inj.) Index	73.29	52	76.50	52	70.30	52	73.36	156
	(20.90)		(14.87)		(15.20)		(17.29)	
Beliefs (Desc.) Index	63.25	52	55.13	52	50.00	52	56.13	156
	(20.35)		(22.11)		(21.95)		(22.03)	
<i>Panel C: Independents</i>								
Beliefs (Inj.) Index	79.89	195	75.95	195	75.27	195	77.04	585
	(15.47)		(15.15)		(12.05)		(14.43)	
Beliefs (Desc.) Index	71.05	195	56.81	195	52.25	195	60.04	585
	(19.39)		(21.46)		(20.10)		(21.82)	

Note: Summary statistics, means and standard deviations in parentheses, of injunctive and descriptive norm indices for those who completed all three waves.

Table C.4: Two sample t-tests on injunctive norm index by political affiliation by wave

	Wave 1	Wave 2	Wave 3	Observations
Democrats	80.52*** (0.09)	75.91 (0.84)	73.83* (0.68)	369
Republicans	73.42 (2.95)	76.69 (2.09)	70.15 (2.14)	51
Independents	79.69** (1.11)	75.87 (0.66)	75.29** (0.86)	192

Note: Average injunctive norm index by political affiliation and survey wave. Standard errors are reported below in parentheses. T-tests were conducted between all three groupings. P-value significant stars between Democrat and Republicans are reported in the Democrats cell and p-value significant stars between Independents and Republicans are reported in the Independents cell. The difference between Democrats and Independents was never significant. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table C.5: Two sample t-tests on descriptive norm index by political affiliation by wave

	Wave 1	Wave 2	Wave 3	Observations
Democrats	71.97** (1.08)	62.51**(***) (1.12)	54.77 (1.06)	369
Republicans	64.05 (2.76)	55.55 (3.09)	50.33 (3.08)	51
Independents	70.89** (1.41)	56.94 (1.54)	52.60 (1.45)	192

Note: Average descriptive norm index by political affiliation and survey wave. Standard errors are reported below in parentheses. T-tests were conducted between all three groupings. P-value significant stars between Democrat and Republicans are reported in the Democrats cell, p-value significant stars between Independents and Republicans are reported in the Independents cell, and p-value significant stars between Democrats and Independents are reported in the Democrats cells in parentheses. * p < 0.1, ** p < 0.05, *** p < 0.01.

Figure C.2: Injunctive and Descriptive Norm Indices by Wave and Political Identity - Texas A&M University

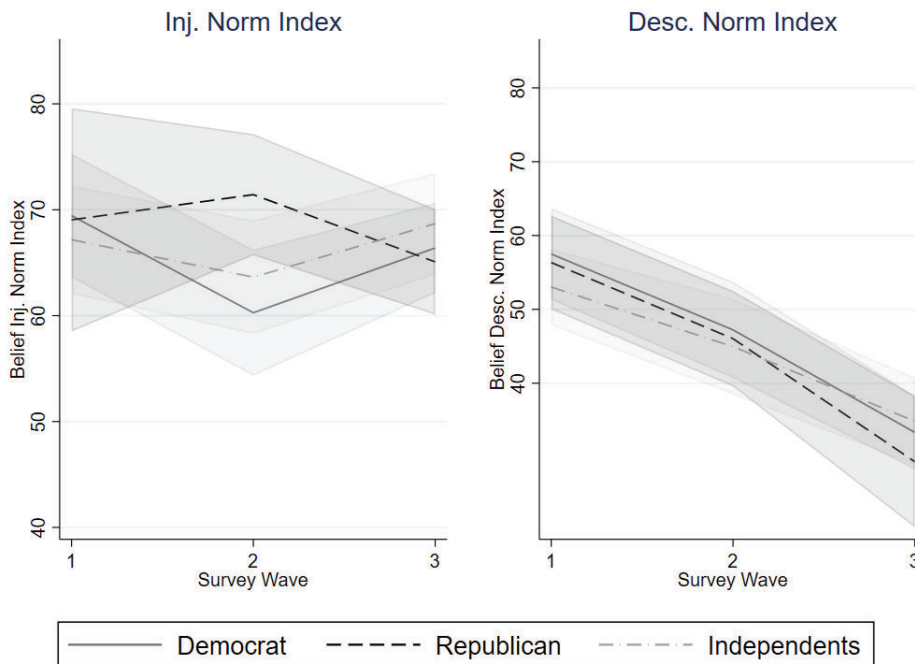


Figure C.3: Injunctive and Descriptive Norm Indices by Wave and Political Identity - Rice University

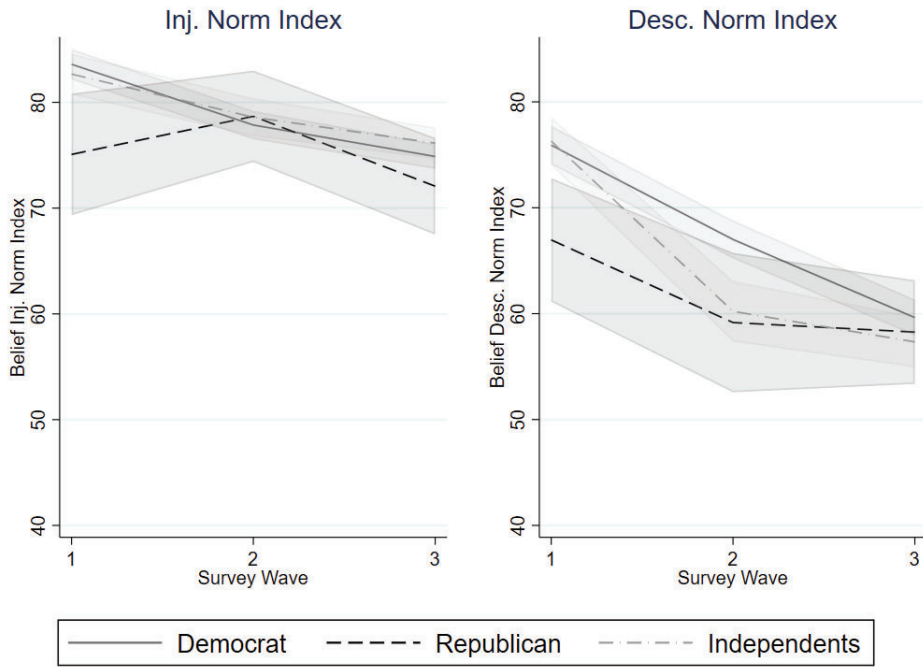
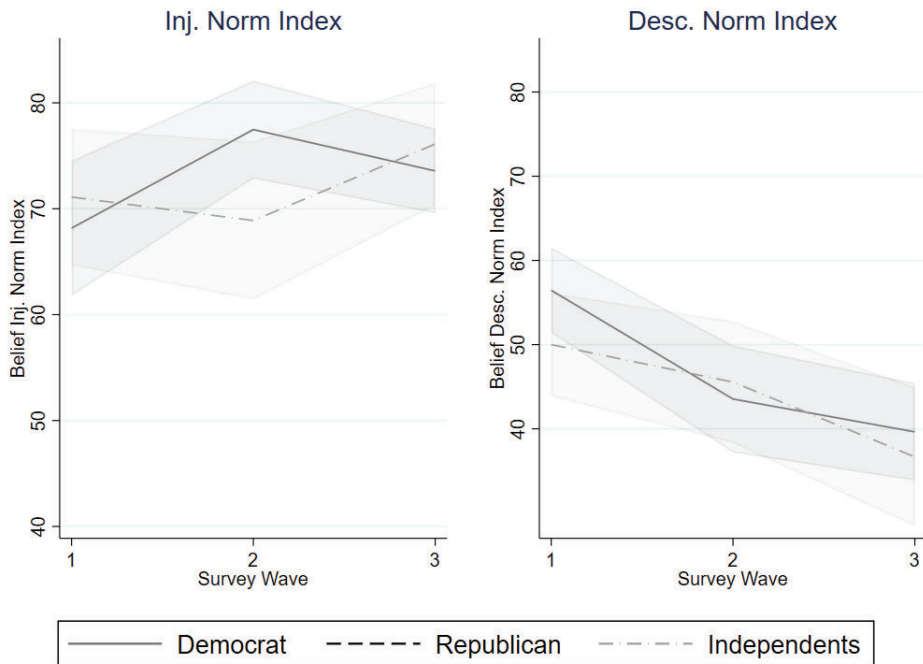


Figure C.4: Injunctive and Descriptive Norm Indices by Wave and Political Identity - Prairie View Texas A&M University



We also conduct a t-test and Kolmogorov Smirnov Tests on norms across waves for each political party. The results are reported in Table C.7. Panel A provides the differences in means of the overall sample, while Panel B, C, and D break out results by whether the respondent is a Democrat, Republican, or Independent. Each column reports the difference in the mean of the index between the waves (while the statistic is reported in parentheses). Thus, for example, a negative sign indicates a greater level of that particular index in the subsequent wave. We use paired t-tests to test for significant differences in the constructed index measures between waves by political party.

Table C.6: *Kolmogorov Smirnov Test on Norm Indices*

	Wave 1 & 2		Wave 2 & 3		Wave 1 & 3	
	Difference	p-value	Difference	p-value	Difference	p-value
<i>Panel A: All</i>						
Injunctive Norm	0.162	(0.00)	0.101	(0.00)	0.263	(0.00)
Descriptive Norm	0.204	(0.00)	0.112	(0.00)	0.311	(0.00)
<i>Panel B: Democrat</i>						
Injunctive Norm	0.209	(0.00)	0.107	(0.03)	0.316	(0.00)
Descriptive Norm	0.198	(0.00)	0.153	(0.00)	0.316	(0.00)
<i>Panel C: Republican</i>						
Injunctive Norm	0.154	(0.57)	0.154	(0.57)	0.135	(0.73)
Descriptive Norm	0.173	(0.42)	0.096	(0.97)	0.192	(0.29)
<i>Panel D: Independent</i>						
Injunctive Norm	0.128	(0.08)	0.103	(0.26)	0.226	(0.00)
Descriptive Norm	0.267	(0.00)	0.092	(0.38)	0.339	(0.00)

Table C.7: *T-test on Precautionary Behavior, Beliefs (Inj.) and Beliefs (Desc.) Norms Indices by Wave*

	Wave 1 vs. Wave 2 (1)	Wave 2 vs. Wave 3 (2)	Wave 1 vs. Wave 3 (3)
<i>Panel A: All</i>			
Beliefs (Desc.) Index	10.78*** (9.15)	6.249*** (5.30)	17.03*** (14.99)
Beliefs (Inj.) Index	3.949*** (4.23)	1.826* (2.25)	5.775*** (6.71)
Observations	1266	1266	1266
<i>Panel B: Democrats</i>			
Beliefs (Desc.) Index	9.455*** (6.07)	7.739*** (5.00)	17.19*** (11.35)
Beliefs (Inj.) Index	4.607*** (3.68)	2.078 (1.92)	6.685*** (5.82)
Observations	738	738	738
<i>Panel C: Republicans</i>			
Beliefs (Desc.) Index	8.497* (2.05)	5.229 (1.20)	13.73** (3.32)
Beliefs (Inj.) Index	-3.268 (-0.90)	6.536* (2.18)	3.268 (0.90)
Observations	102	102	102
<i>Panel D: Independents</i>			
Beliefs (Desc.) Index	13.95*** (6.68)	4.340* (2.05)	18.29*** (9.07)
Beliefs (Inj.) Index	3.819* (2.45)	0.579 (0.42)	4.398** (3.12)
Observations	384	384	384

Note: Each column reports the differences in means between waves for the given variable. T-statistic reported in parentheses.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

In the pooled sample, we see evidence of beliefs about norms weakening across all three waves. Evidence of the decrease in the indices comes from the positive difference in means reported in columns (1) and (2) in Panel A. For example, subjects believe that others are engaging in less precautionary behaviour over time (descriptive norms index mean difference is 10.78, $p < 0.01$). They also believe that it is becoming more appropriate to engage in less precautionary behaviour (injunctive norms index mean difference is 3.949, $p < 0.01$).⁵ These results are also

⁵Using the Kolmogorov–Smirnov tests for the equality of distributions over time, we find broad support for changes in the distribution of the precautionary behaviour and norms indices as well. The results of the Kolmogorov–Smirnov tests are reported in Table C.6 located in the Appendix.

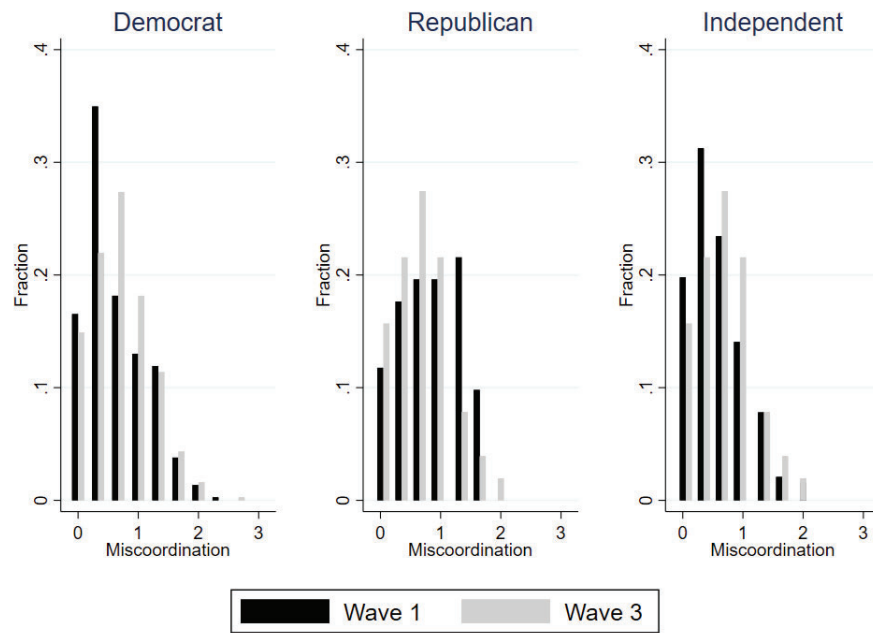
consistent with anecdotal data suggesting fatigue with COVID social distancing protocols.⁶

Breaking down along party lines we see similar trends to the pooled sample regarding beliefs about the norms. For Democrats, Republicans, and Independents, the wave 3 beliefs (descriptive) norm index is lower than when first reported in wave 1 (Dem. $d = 17.19, p < 0.01$; Rep. $d = 13.73, p < 0.05$; Indep. $d = 18.29, p < 0.01$). Interestingly, the decrease in descriptive norms is the smallest among the Republicans although they also have the lowest average level of descriptive norm (see Table C.3 in the appendix). The injunctive (beliefs) norm index for Democrats and Independents also significantly decreases from wave 1 to wave 3, and to a lesser (insignificant) extent for Republicans (Dem. $d = 6.685, p < 0.01$; Rep. $d = 3.268, p > 0.1$; Indep. $d = 4.398, p < 0.05$).

C.2 Norm miscoordination by wave and political identity

To visualize the changes in norm miscoordination over time and by political affiliation, Figure C.5 and Figure C.6 plot the histogram of descriptive norm miscoordination and injunctive norm miscoordination, respectively. To test for significant changes in miscoordination between waves we conduct paired signed-rank tests and report results in (Table C.10). A negative sign on the test statistic in (Table C.10) means that the miscoordination increased between waves.

Figure C.5: *Descriptive Norm Miscoordination Distribution - Weighted*



⁶Badre, David, “How We Can Deal with ‘Pandemic Fatigue’.” *Scientific American*, Scientific American, 24 Jan. 2021, <https://www.scientificamerican.com/article/how-we-can-deal-with-pandemic-fatigue/>. See also, Balcetis, Emily, and Dennis Aronov, “Tired of Following COVID-19 Safety Protocols? You Have Pandemic Fatigue. Here’s What to Do.” *USA Today*, Gannett Satellite Information Network, 6 Mar. 2021, <https://www.usatoday.com/story/life/health-wellness/2021/03/06/covid-19-pandemic-fatigue-ignoring-safety-measures-what-do/4579747001/>.

Figure C.6: *Injunctive Norm Miscoordination Distribution - Weighted*

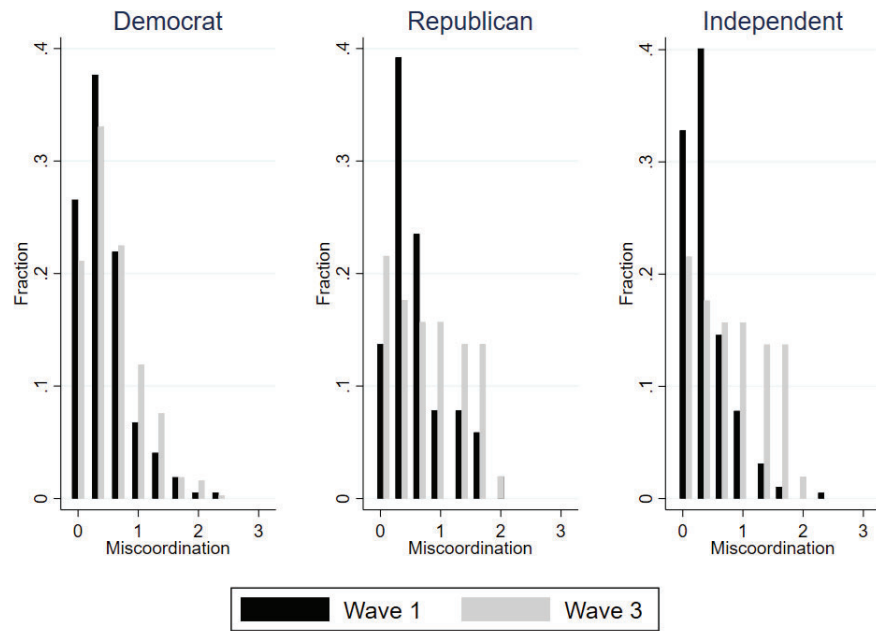


Table C.8: *Summary Statistics of Norm Miscoordination*

	Wave 1		Wave 2		Wave 3		Total	
	Mean	Obvs	Mean	Obvs	Mean	Obvs	Mean	Obvs
<i>Panel A: All</i>								
Desc. Norm Mis.	0.628 (0.49)	633	0.744 (0.46)	633	0.701 (0.50)	633	0.691 (0.49)	1,899
Inj. Norm Mis.	0.439 (0.42)	633	0.462 (0.39)	633	0.559 (0.49)	633	0.487 (0.44)	1,899
<i>Panel B: Democrats</i>								
Desc. Norm Mis.	0.623 (0.50)	369	0.712 (0.46)	369	0.701 (0.49)	369	0.679 (0.48)	1,107
Inj. Norm Mis.	0.449 (0.43)	369	0.457 (0.41)	369	0.551 (0.47)	369	0.486 (0.44)	1,107
<i>Panel C: Republicans</i>								
Desc. Norm Mis.	0.837 (0.51)	51	0.810 (0.50)	51	0.680 (0.48)	51	0.776 (0.50)	153
Inj. Norm Mis.	0.608 (0.49)	51	0.497 (0.35)	51	0.771 (0.60)	51	0.625 (0.50)	153
<i>Panel D: Independents</i>								
Desc. Norm Mis.	0.585 (0.46)	213	0.782 (0.46)	213	0.706 (0.51)	213	0.691 (0.48)	639
Inj. Norm Mis.	0.382 (0.38)	213	0.462 (0.37)	213	0.523 (0.47)	213	0.455 (0.41)	639

Note: The average level of miscoordination by descriptive and injunctive norm elicitation question for those who completed all three waves. Standard deviations are reported in parentheses.

Table C.9: *Kolmogorov-Smirnov of Norm Miscoordination by Party*

Norm Miscoordination	Wave 1 & 2		Wave 2 & 3		Wave 1 & 3	
	Diff	p-value	Diff	p-value	Diff	p-value
<i>Panel A: All</i>						
Descriptive	0.179***	(0.00)	0.065	(0.14)	0.114***	(0.00)
Injunctive	0.054	(0.32)	0.077**	(0.05)	0.114***	(0.00)
<i>Panel B: Democrat</i>						
Descriptive	0.195***	(0.00)	0.049	(0.77)	0.146***	(0.00)
Injunctive	0.033	(0.99)	0.095*	(0.07)	0.100**	(0.05)
<i>Panel C: Republican</i>						
Descriptive	0.078	(1.00)	0.157	(0.56)	0.176	(0.41)
Injunctive	0.098	(0.97)	0.294**	(0.02)	0.216	(0.19)
<i>Panel D: Independent</i>						
Descriptive	0.219***	(0.00)	0.099	(0.30)	0.120	(0.13)
Injunctive	0.151**	(0.03)	0.078	(0.60)	0.130**	(0.08)

Note: The combined Kolmogorov-Smirnov statistic is reported with p-values in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.001$.

Table C.10 provide statistical analyses of norm miscoordination by political affiliation overtime. For descriptive norm miscoordination, both Figure C.5 and Table C.10 show that Democrats and Independents increase their level of miscoordination when comparing wave 1 to 2 and wave 1 to 3 (Dems.: wave 1 vs 2, $z = -3.05$, $p < 0.01$, wave 2 vs 3, $z = 0.10$, $p > 0.1$, wave 1 vs 3, $z = -2.41$, $p < 0.05$, Indep.: wave 1 vs 2, $z = -4.418$, $p < 0.01$, wave 2 vs 3, $z = 1.90$, $p < 0.1$, wave 1 vs 3, $z = -2.87$, $p < 0.01$). However, there is no significant change in miscoordination among Republicans. We find this same pattern when we test for differences in the distribution of miscoordination over time and across party affiliation using Kolmogorov-Smirnov tests located in Table C.9.

For the injunctive norm miscoordination we see that Democrats and, to a lesser extent, Independents have increasing miscoordination between waves but again, Republicans miscoordination remains stable. For example, Democrats increase miscoordination on the injunctive norm between waves 2 and 3 and between waves 1 and 3 (Dems.: wave 2 vs 3, $z = -3.61$, $p < 0.1$, wave 1 vs 3, $z = -3.63$, $p < 0.01$). For Independents, we see an increase between waves 1 and 2 and between waves 1 and 3 (Indep: wave 1 vs 2, $z = -2.99$, $p < 0.01$, wave 1 vs 3, $z = -3.99$, $p < 0.01$). These trends are also illustrated by Figure C.6, where the distribution of miscoordination is wider (i.e., fatter tails) for wave 3 in comparison to wave 1.

Table C.10: *Sign-Rank Test by Political Affiliation*

Norm Miscoordination	Wave 1 vs 2	Wave 2 vs 3	Wave 1 vs 3
<i>Panel A: Democrat</i>			
Descriptive	-3.051*** (0.00)	0.10 (0.92)	-2.414** (0.02)
Injunctive	-0.347 (0.73)	-3.61*** (0.00)	-3.630*** (0.00)
<i>Panel B: Republican</i>			
Descriptive	0.317 (0.76)	1.41 (0.16)	1.425 (0.16)
Injunctive	0.730 (0.47)	-2.11* (0.03)	-1.276 (0.21)
<i>Panel C: Independent</i>			
Descriptive	-4.418*** (0.00)	1.90* (0.06)	-2.874*** (0.00)
Injunctive	-2.995*** (0.00)	-1.10 (0.27)	-3.993*** (0.00)

Note: Z-statistics and exact p-values are reported. * p < 0.1, ** p < 0.05, *** p < 0.01.

D Robustness checks

D.1 Norm elicitation of a non-political question

To verify the robustness of our results, we also investigate whether social norms diverge by political affiliation in a non-politicized context. In late March of 2020, we conducted an experimental survey on Rice University students. This survey contained the canonical dictator game where subjects chose how much of their endowed \$20 to allocate to another random participant. In addition to eliciting subject allocation decisions, subjects also guess the average allocation of other survey participants. This guess was incentivised with correct answers (with in a \$2 margin) earning a \$2.50 bonus payment. We interpret this guess as the normative expectations (or social norm) of dictator giving. Of those who participated in this survey, 786 Rice University students also participated in Waves 1, 2, and 3 of our analysis (55.3% of our Rice sample).

To investigate whether social norms of dictator giving varied by political affiliation, we conduct a Welch's t-test on the social norm of the dictator game allocation decision by political affiliation. The results of these tests are presented in Table D.11. We test for differences between Republicans and non-Republicans, Democrats and non-Democrats, and Independents and non-Independents. Across all three political affiliations, we do not see any significant differences between elicited norms of dictator allocations by political party.

Table D.11: Social Norm of Dictator Allocation Choices by Political Party

	Gessed Avg. Allocation	Observations	t-stat	p-value
Republican	6.92	21	0.9471	0.3537
Democrat	6.70	222	1.4494	0.1482
Independent	7.25	144	-1.9287	0.0548
Total	7.08	770		

Note: The table reports the average guess of allocation decisions for 770 Rice student subjects by political affiliation. We report the t-statistic and p-value from conducting a Welch’s t-test with the null hypothesis that the difference between the two samples is not significantly different than zero.

We also utilize another norm elicitation question conducted in Wave 1 of the survey panel. This question asked subject to “rate how socially appropriate it is to rely on this news source for accurate information.” This news source in question is “University emails and websites for news about the pandemic”. Subjects responses ranged from “Very socially inappropriate” to “Very socially appropriate” in a 4-point scale. Similar to the analysis above, we conduct Welch’s t-test by political affiliation to determine if norms varied in this dimension.

Results of this analysis is contained in Table D.12. We see that there are no difference between the believed descriptive norm by political affiliation. Regarding injunctive norms, we see that Democrats believe it is less appropriate to rely on University communication for accurate information in comparison to non-Democrats (t-stat = 2.21, p-value < 0.05). Independents, on the other hand, believe it is more appropriate to rely on University communication than non-Independents (t-stat =-1.97, p-value < 0.05).

Table D.12: Norm of Relying on University Emails for Information

		Norm Belief	Observations	t-stat	p-value
Injunctive	Republican	3.43	89	-0.5943	0.5536
	Democrat	3.36	599	2.2087	0.0275
	Independent	3.45	310	-1.9868	0.0474
	Total	3.38	1,669		
Descriptive	Republican	3.11	88	-0.0711	0.9435
	Democrat	3.09	595	0.3833	0.7016
	Independent	3.12	310	-0.3578	0.7206
	Total	3.10	1,653		

Note: The table reports the elicited injunctive and descriptive norm of relying on University communication for accurate information regarding COVID by political affiliation. We report the t-statistic and p-value from conducting a Welch’s t-test with the null hypothesis that the difference between the two samples is not significantly different than zero.

D.2 Miscoordination regression specifications

To establish robustness of the relationship between norm miscoordination and the stringency index, we also conduct a mixed-effects ordered logit specification located in Table D.13. We also conduct a OLS specification and mixed-effects ordered logit specification utilizing the unweighted data, located in Table D.14 and Table D.15.

Table D.13: *Relationship between Precautionary Behaviour, Miscoordination, and Stringency Index*

	Inj. Norm Miscoord. (1)	Desc. Norm Miscoord. (2)	Desc. Norm Miscoord. (3)	Desc. Norm Miscoord. (4)
Precautionary Behaviour Index	-0.01** (-2.63)	-0.01** (-2.64)	-0.01* (-2.31)	-0.01* (-2.35)
Stringency Index	0.00 (0.18)	-0.00 (-0.33)	0.00 (0.15)	-0.00 (-0.19)
Democrat	0.12 (1.09)	-0.47 (-0.86)	-0.07 (-0.64)	-0.26 (-0.48)
Republican	0.32 (1.53)	-0.91 (-0.90)	0.20 (0.94)	-2.35* (-2.39)
Stringency Index × Dem.		0.01 (1.10)		0.00 (0.36)
Stringency Index × Rep.		0.02 (1.25)		0.04** (2.65)
Observations	1855	1855	1855	1855
$\frac{\partial P(Y)}{\partial Dem.} = \frac{\partial P(Y)}{\partial Rep.}$	-0.17 (0.40)	0.39 (0.69)	-0.25 (0.23)	2.09** (0.03)
$\frac{\partial P(Y Dem.)}{\partial StringencyIndex} = \frac{\partial P(Y Rep.)}{\partial StringencyIndex}$		0.00 (0.58)		0.00** (0.02)
Vuong Statistic		-69.03***		-91.33***
p-value		(0.00)		(0.00)

Note: All columns contain controls. Controls include college, race, major choice, risk tolerance, political party, motivation for precautionary behaviour, survey wave and state indicators. Estimation includes survey respondent random coefficients. Coefficients are reported with t-statistics in parentheses. Colinear observations are dropped. The linear combination of marginal effects is reported with p-values in parentheses underneath. * p < 0.1, ** p < 0.05, *** p < 0.001. Multinomial Logit with Mixed Effects Specification.

Table D.14: *Relationship between Precautionary Behaviour, Non-Weighted Miscoordination, and Stringency Index*

	Inj. Norm Miscoord. (1)	Desc. Norm Miscoord. (2)	Desc. Norm Miscoord. (3)	Desc. Norm Miscoord. (4)
Precautionary Behaviour Index	-0.00388 (-1.39)	-0.00396 (-1.42)	-0.00654* (-2.54)	-0.00661* (-2.57)
Stringency Index	-0.000140 (-0.01)	-0.0111 (-0.74)	0.00125 (0.09)	-0.00355 (-0.25)
Democrat	0.133 (1.10)	-0.656 (-1.18)	-0.0868 (-0.78)	-0.301 (-0.56)
Republican	0.287 (1.27)	-2.641* (-2.54)	0.219 (1.06)	-2.187* (-2.23)
Stringency Index x Dem.		0.0124 (1.45)		0.00336 (0.41)
Stringency Index x Rep.		0.0458** (2.89)		0.0377* (2.51)
Observations	1855	1855	1855	1855
$\frac{\partial P(Y)}{\partial Dem.} = \frac{\partial P(Y)}{\partial Rep.}$	-0.13 (0.56)	1.95** (0.05)	-0.13 (0.56)	1.89** (0.05)
$\frac{\partial P(Y Dem.)}{\partial StringencyIndex} = \frac{\partial P(Y Rep.)}{\partial StringencyIndex}$		0.00** (0.04)		0.00** (0.03)
Vuong Statistic		-111.87***		3.09***
p-value		(0.00)		(0.00)

Note: All columns contain controls. Controls include college, race, major choice, risk tolerance, political party, motivation for precautionary behaviour, survey wave and state indicators. Estimation includes survey respondent random coefficients. Coefficients are reported with t-statistics in parentheses. Co-linear observations are dropped. The linear combination of marginal effects is reported with p-values in parentheses underneath. * p < 0.1, ** p < 0.05, *** p < 0.001. Multinomial Logit with Mixed Effects Specification.

Table D.15: *Relationship between Precautionary behaviour, Non-Weighted Miscoordination, and Stringency Index*

	Inj. Norm Miscoord. (1)	Desc. Norm Miscoord. (2)	Desc. Norm Miscoord. (3)	Desc. Norm Miscoord. (4)
Precautionary Behaviour Index	-0.00* (-2.07)	-0.00* (-2.12)	-0.00* (-2.32)	-0.00* (-2.37)
Stringency Index	0.00 (0.20)	-0.00 (-0.48)	-0.00 (-0.06)	-0.00 (-0.57)
Democrat	0.03 (1.44)	-0.09 (-0.87)	-0.02 (-0.57)	-0.13 (-0.96)
Republican	0.07 (1.50)	-0.49** (-2.61)	0.06 (1.06)	-0.59* (-2.42)
Stringency Index x Dem.		0.00 (1.23)		0.00 (0.86)
Stringency Index x Rep.		0.01** (3.04)		0.01** (2.72)
Observations	1855	1855	1855	1855
<i>Dem. = Rep.</i>	-0.03 (0.46)	0.40** (0.03)	-0.07 (0.16)	0.46** (0.05)
<i>Dem. + Dem. × Stringency = Rep. + Rep. × Stringency</i>		0.40** (0.03)		0.45** (0.05)
<i>Vuong Stat.</i>		-1.84* (0.07)		-1.50 (0.13)

Note: All columns contain controls. Controls include college, race, major choice, risk tolerance, political party, motivation for precautionary behaviour, survey wave and state indicators. Estimation includes survey respondent random coefficients. Coefficients are reported with t-statistics in parentheses. Colinear observations are dropped. The linear combination of marginal effects is reported with p-values in parentheses underneath. * p < 0.1, ** p < 0.05, *** p < 0.001. OLS Specification.