Fake News Data - Stats and Correlations

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```
data_code <- read_csv("fake_news_data_code.csv") %>%
  select(-1)
```

Correlation with Dependent Variable

Dependent Variable = Shared Fake News (`shared_fake_news_19`)

P19 - Have you ever shared a political news story online that you thought at the time was made up? (Single Answer)

1 = Yes; 0 = No

PS: Statistically significant regarding each category to check if there are differences in observable characteristics between those who shared fake news. For example, is there a statistically significant difference between men than shared fake news and non-men that shared fake news? Analysis together with the correlation between each dummy variable with the dependent variable.

```
table_correlations <- data_code %>%
  select(-P19, -shared_fake_news_19) %>%
  select_if(is.numeric) %>%
  lapply(., function(i) tidy(cor(i, data_code$shared_fake_news_19))) %>%
  do.call(rbind, .) %>%
  rownames_to_column("variable") %>%
  rename("Correlation" = x)

table_balance <- data_code %>%
  select(-P19, -shared_fake_news_19) %>%
  select(is.numeric) %>%
  lapply(., function(i) tidy(t.test(i ~ data_code$shared_fake_news_19))) %>%
  do.call(rbind, .) %>%
  rownames_to_column("variable") %>%
  rename(mean_diff = estimate, mean_control = estimate1,
         mean_treatment = estimate2) %>%
  mutate(stat_05 = if_else(p.value < 0.05, "Yes", "No")) %>%
  select(variable, mean_diff, stat_05)
```

```r
table_correlations <- table_correlations %>%
  left_join(table_balance, by = c("variable" = "variable")) %>%
  arrange(desc(Correlation))

table_correlations %>%
  kable(caption = "Balance Table - Observable Characteristics with Dependent Variable",
      digits = 3,
      align = "c")
```

Table 1: Balance Table - Observable Characteristics with Dependent Variable

variable	Correlation	mean_diff	stat_05
P21_Yes	0.426	-0.453	Yes
share_news	0.198	-0.178	Yes
pand5_increased_interest_science	0.138	-0.151	Yes
trust_social_media	0.136	-0.101	Yes
frequency_news	0.133	-0.148	Yes
interest_news	0.128	-0.110	Yes
pand1_fakenews_youtube	0.126	-0.146	Yes
pand1_fakenews_facebook	0.124	-0.151	Yes
pand1_fakenews_wpp	0.116	-0.138	Yes
trust_magazine	0.113	-0.091	Yes
trust_newspaper	0.111	-0.116	Yes
trust_blogs	0.104	-0.054	Yes
frequency_fake_news	0.102	-0.109	Yes
trust_websites	0.097	-0.086	Yes
impact_television	0.096	-0.104	Yes
pand3_seek_science	0.096	-0.112	Yes
pand1_fakenews_twitter	0.092	-0.090	Yes
pand1_fakenews_instagram	0.090	-0.107	Yes
impact_websites	0.090	-0.096	Yes
interest_politics	0.083	-0.095	Yes
same_ideology_news	0.072	-0.066	Yes
source_alternative	0.069	-0.070	Yes
vote2_eletronic_best_option	0.062	-0.076	Yes
impact_social_media	0.052	-0.052	Yes
trust_agencies	0.049	-0.057	Yes
class_c	0.048	-0.059	Yes
pand3_trust_vaccine	0.048	-0.048	Yes
impact_newspaper	0.046	-0.052	Yes
religion_Evangelicals	0.045	-0.051	No
region_Southeast	0.045	-0.054	Yes
resp_gov	0.044	-0.046	Yes
pand3_preventive_treat	0.042	-0.040	No
pol_orientation_center	0.042	-0.030	No
vote1_trust_ballot	0.041	-0.050	No
trust_radio	0.038	-0.039	No
pand1_fakenews_tiktok	0.037	-0.035	No
trust_television	0.037	-0.038	No
source_radio	0.035	-0.024	No
resp_press	0.034	-0.034	No

variable	Correlation	mean_diff	stat_05
impact2_facebook	0.033	-0.031	No
pol_orientation_right	0.032	-0.033	No
source_online_newspaper	0.032	-0.029	No
age_full	0.028	-1.073	No
source_podcasts	0.028	-0.013	No
impact2_instagram	0.027	-0.030	No
fact_checking	0.026	-0.031	No
pol_orientation_left	0.025	-0.026	No
resp_social_media	0.025	-0.027	No
source_wpp	0.024	-0.021	No
resp_politicians	0.023	-0.024	No
source_family	0.022	-0.014	No
pand3_masks	0.020	-0.016	No
age_60_60 or more	0.020	-0.020	No
age_60_45-59 age	0.019	-0.020	No
impact2_wpp	0.019	-0.020	No
impact_radio	0.018	-0.021	No
source_printed_magazines	0.015	-0.004	No
evaluation_Excellent/Good	0.015	-0.016	No
evaluation_Bad/Terrible	0.015	-0.018	No
impact_blogs	0.015	-0.017	No
severity_fake_news	0.014	-0.011	No
region_North	0.013	-0.009	No
vote3_worried_hacker	0.013	-0.014	No
education_high	0.012	-0.014	No
impact2_twitter	0.008	-0.010	No
gov_trust	0.007	-0.008	No
income_low	0.007	-0.008	No
religion_Other religion	0.007	-0.005	No
religion_No religion	0.006	-0.005	No
approves_gov	0.006	-0.006	No
impact_cinema	0.005	-0.006	No
resp_population	0.004	-0.005	No
pand2_worse_perception_media	0.001	-0.001	No
source_television	-0.001	0.002	No
impact_magazines	-0.004	0.004	No
impact2_tiktok	-0.004	0.005	No
race_is_white	-0.006	0.007	No
has_religion	-0.006	0.005	No
idInterview	-0.007	176.266	No
class_ab	-0.007	0.008	No
source_online_magazine	-0.008	0.003	No
age_60_25-34 age	-0.009	0.009	No
age_60_16-24 age	-0.009	0.007	No
P21_Unsure	-0.013	0.005	No
sex_men	-0.014	0.017	No
impact2_youtube	-0.015	0.017	No
region_Center-West	-0.022	0.015	No
region_Northeast	-0.022	0.024	No
capital_metrop	-0.023	0.028	No
age_60_35-44 age	-0.024	0.024	No
evaluation_Regular	-0.024	0.025	No

variable	Correlation	mean_diff	stat_05
region_South	-0.028	0.024	No
vote3_worried_tech	-0.030	0.032	No
evaluation_Unsure	-0.031	0.009	No
vote3_worried_transparency	-0.035	0.036	No
source_social_media	-0.038	0.042	No
source_printed_newspaper	-0.038	0.017	Yes
vote3_worried_tse	-0.040	0.043	No
trust_traditional_press	-0.048	0.055	Yes
class_de	-0.049	0.051	Yes
religion_Catholic	-0.049	0.060	Yes
vote3_worried_politics	-0.052	0.053	Yes
pol_orientation_none	-0.058	0.068	Yes
source_none	-0.063	0.018	Yes
P21_No	-0.408	0.448	Yes
reaction_fake_news_NA	-0.426	0.453	Yes
reaction_fake_news_I didn't send a warning, but I also didn't share the same information anymore	NA	-0.011	No
reaction_fake_news_I just sent a message warning that the information was not true	NA	-0.069	No
reaction_fake_news_I kept sharing the information	NA	0.027	No
reaction_fake_news_I sent a message warning that the information was not true along with the correct information	NA	0.043	No
reaction_fake_news_Unsure	NA	0.009	No

Multicollinearity Between Variables

Correlation matrix to identify multicollinearity. Excluded correlations between same variables, or dummies for the same questions (perfect collinearity addressed by dropping a value in the regression).

Highlighted variables with correlation higher than 0.3 in absolute value.

```
data_code_numeric <- data_code %>%
  select_if(is.numeric) %>%
  select(-idInterview, -reaction_fake_news_Unsure, -reaction_fake_news_NA)

matrix_correlations <- as.data.frame(round(cor(data_code_numeric), 2)) %>%
  rownames_to_column("variable_1") %>%
  pivot_longer(cols = is.numeric,
               names_to = "variable_2",
               values_to = "Correlation") %>%
  mutate(absolute_correlation = abs(Correlation)) %>%
  arrange(desc(absolute_correlation)) %>%
  mutate(question_1 = substr(variable_1, 1, 7),
         question_2 = substr(variable_2, 1, 7)) %>%
  separate(question_1, into = c("question_1", "left1"), sep = "_") %>%
  separate(question_2, into = c("question_2", "left2"), sep = "_") %>%
  mutate(same = if_else(((variable_1 == variable_2) |
```

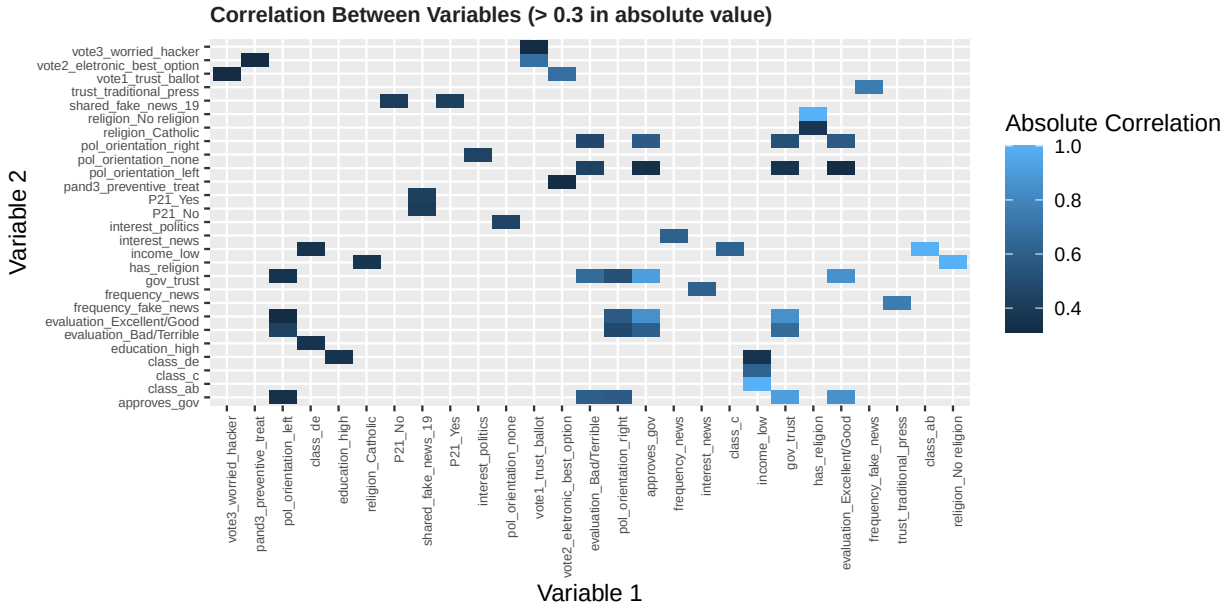
```
                          (question_1 == question_2)), 1, 0)) %>%
  filter(same == 0 & (absolute_correlation > 0.3)) %>%
  select(-same, -left1, -left2, -question_1, -question_2)

matrix_correlations %>%
  kable(caption = "Correlation Between Variables (> 0.3 in absolute value)",
      align = "c")
```

Table 2: Correlation Between Variables (> 0.3 in absolute value)

variable_1	variable_2	Correlation	absolute_correlation
religion_No religion	has_religion	-1.00	1.00
income_low	class_ab	-1.00	1.00
class_ab	income_low	-1.00	1.00
has_religion	religion_No religion	-1.00	1.00
gov_trust	approves_gov	0.91	0.91
approves_gov	gov_trust	0.91	0.91
gov_trust	evaluation_Excellent/Good	0.85	0.85
evaluation_Excellent/Good	gov_trust	0.85	0.85
evaluation_Excellent/Good	approves_gov	0.85	0.85
approves_gov	evaluation_Excellent/Good	0.85	0.85
trust_traditional_press	frequency_fake_news	-0.75	0.75
frequency_fake_news	trust_traditional_press	-0.75	0.75
vote1_trust_ballot	vote2_eletronic_best_option	0.68	0.68
vote2_eletronic_best_option	vote1_trust_ballot	0.68	0.68
gov_trust	evaluation_Bad/Terrible	-0.66	0.66
evaluation_Bad/Terrible	gov_trust	-0.66	0.66
income_low	class_c	0.62	0.62
class_c	income_low	0.62	0.62
interest_news	frequency_news	0.61	0.61
frequency_news	interest_news	0.61	0.61
evaluation_Bad/Terrible	approves_gov	-0.60	0.60
approves_gov	evaluation_Bad/Terrible	-0.60	0.60
approves_gov	pol_orientation_right	0.58	0.58
pol_orientation_right	approves_gov	0.58	0.58
evaluation_Excellent/Good	pol_orientation_right	0.57	0.57
pol_orientation_right	evaluation_Excellent/Good	0.57	0.57
gov_trust	pol_orientation_right	0.52	0.52
pol_orientation_right	gov_trust	0.52	0.52
evaluation_Bad/Terrible	pol_orientation_right	-0.48	0.48
pol_orientation_right	evaluation_Bad/Terrible	-0.48	0.48
interest_politics	pol_orientation_none	-0.45	0.45
pol_orientation_none	interest_politics	-0.45	0.45
evaluation_Bad/Terrible	pol_orientation_left	0.44	0.44
pol_orientation_left	evaluation_Bad/Terrible	0.44	0.44
shared_fake_news_19	P21_Yes	0.43	0.43
P21_Yes	shared_fake_news_19	0.43	0.43
shared_fake_news_19	P21_No	-0.41	0.41
P21_No	shared_fake_news_19	-0.41	0.41
religion_Catholic	has_religion	0.37	0.37
has_religion	religion_Catholic	0.37	0.37
gov_trust	pol_orientation_left	-0.36	0.36

variable_1	variable_2	Correlation	absolute_correlation
pol_orientation_left	gov_trust	-0.36	0.36
education_high	class_de	-0.36	0.36
income_low	class_de	0.36	0.36
class_de	education_high	-0.36	0.36
class_de	income_low	0.36	0.36
approves_gov	pol_orientation_left	-0.34	0.34
pol_orientation_left	approves_gov	-0.34	0.34
pand3_preventive_treat	vote2_eletronic_best_option	-0.32	0.32
vote2_eletronic_best_option	pand3_preventive_treat	-0.32	0.32
evaluation_Excellent/Good	pol_orientation_left	-0.32	0.32
pol_orientation_left	evaluation_Excellent/Good	-0.32	0.32
vote1_trust_ballot	vote3_worried_hacker	-0.31	0.31
vote3_worried_hacker	vote1_trust_ballot	-0.31	0.31

```
matrix_correlations %>%
  ggplot(aes(x = fct_reorder(variable_1, absolute_correlation),
             y = variable_2, fill = absolute_correlation)) +
  geom_tile() +
  theme(axis.text.x = element_text(angle = 90, vjust = 1, hjust = 1, size = 6),
        axis.text.y = element_text(vjust = 1, hjust = 1, size = 6),
        plot.title = element_text(color = "grey13", size = 10, face = "bold")) +
  labs(x = "Variable 1", y = "Variable 2", fill = "Absolute Correlation",
       title = "Correlation Between Variables (> 0.3 in absolute value)")
```



Regressions - All categories

Dependent variable: `shared_fake_news_19`

Model 1 - Only demographics

```
model_19_1 <- glm(shared_fake_news_19 ~ sex_men + age_full + race_is_white +
                    education_high + class_ab + class_c + has_religion,
                  family = binomial(link = 'logit'),
                  data = data_code)

#Left out: No religion, women
```

Model 2 - Demographics + Region and City

```
model_19_2 <- glm(shared_fake_news_19 ~ sex_men + age_full + race_is_white +
                    education_high + class_ab + class_c + religion_Catholic +
                    religion_Evangelicals + `religion_Other religion`+
                    region_North + region_Northeast +
                    region_Southeast + region_South + capital_metrop,
                  family = binomial(link = 'logit'),
                  data = data_code)
```

Model 3 - Demographics + Region and City + Political Orientation

```
model_19_3 <- glm(shared_fake_news_19 ~ sex_men + age_full + race_is_white +
                    education_high + class_ab + class_c + religion_Catholic +
                    religion_Evangelicals + `religion_Other religion`+
                    region_North + region_Northeast +
                    region_Southeast + region_South + capital_metrop +
                    pol_orientation_right + pol_orientation_center +
                    pol_orientation_left,
                  family = binomial(link = 'logit'),
                  data = data_code)

#Left out: religion_No religion + region_Center-West + pol_orientation_none
```

Model 4 - Demographics + Region and City + Political Orientation + Government Evaluation

```
model_19_4 <- glm(shared_fake_news_19 ~ sex_men + age_full + race_is_white +
                    education_high + class_ab + class_c + religion_Catholic +
                    religion_Evangelicals + `religion_Other religion`+
                    region_North + region_Northeast +
                    region_Southeast + region_South + capital_metrop +
                    pol_orientation_right + pol_orientation_center +
                    pol_orientation_left  + approves_gov,
                  family = binomial(link = 'logit'),
                  data = data_code)

#Left out: religion_No religion + region_Center-West + pol_orientation_none
```

Model 5 - Demographics + Region and City + Political Orientation + Government Evaluation + Answers Fake News

```
model_19_5 <- glm(shared_fake_news_19 ~ sex_men + age_full + race_is_white +
                    education_high + class_ab + class_c + religion_Catholic +
                    religion_Evangelicals + `religion_Other religion`+
                    region_North + region_Northeast +
                    region_Southeast + region_South + capital_metrop +
                    pol_orientation_right + pol_orientation_center +
                    pol_orientation_left + approves_gov +
                    frequency_fake_news + resp_population + resp_gov +
                    resp_politicians + resp_press + resp_social_media +
                    severity_fake_news + fact_checking,
                  family = binomial(link = 'logit'),
                  data = data_code)
```

Model 6 - Demographics + Region and City + Political Orientation + Government Evaluation + Pandemic

attention increased interest in science

```
model_19_6 <- glm(shared_fake_news_19 ~ sex_men + age_full + race_is_white +
                    education_high + class_ab + class_c + religion_Catholic +
                    religion_Evangelicals + `religion_Other religion`+
                    region_North + region_Northeast +
                    region_Southeast + region_South + capital_metrop +
                    pol_orientation_right + pol_orientation_center +
                    pol_orientation_left  + approves_gov +
                    pand2_worse_perception_media + pand3_trust_vaccine +
                    pand3_seek_science + pand3_preventive_treat + pand3_masks +
                    pand5_increased_interest_science,
                  family = binomial(link = 'logit'),
                  data = data_code)
```

Model 7 - Demographics + Region and City + Political Orientation + Government Evaluation + Vote

```
model_19_7 <- glm(shared_fake_news_19 ~ sex_men + age_full + race_is_white +
                    education_high + class_ab + class_c + religion_Catholic +
                    religion_Evangelicals + `religion_Other religion`+
                    region_North + region_Northeast +
                    region_Southeast + region_South + capital_metrop +
                    pol_orientation_right + pol_orientation_center +
                    pol_orientation_left + approves_gov +
                    vote1_trust_ballot + vote2_eletronic_best_option +
                    vote3_worried_hacker + vote3_worried_politics +
                    vote3_worried_transparency + vote3_worried_tech +
                    vote3_worried_tse,
                  family = binomial(link = 'logit'),
                  data = data_code)
```

```
#Left out: religion_Other religion + pol_orientation_none

sum(data_code$has_religion)
```

```
## [1] 1706
```

Model 8 - All

```
model_19_8 <- glm(shared_fake_news_19 ~ sex_men + age_full + race_is_white +
                    education_high + class_ab + class_c + religion_Catholic +
                    religion_Evangelicals + `religion_Other religion`+
                    region_North + region_Northeast +
                    region_Southeast + region_South + capital_metrop +
                    pol_orientation_right + pol_orientation_center +
                    pol_orientation_left + approves_gov +
                    frequency_fake_news + resp_population + resp_gov +
                    resp_politicians + resp_press + resp_social_media +
                    severity_fake_news + fact_checking +
                    pand2_worse_perception_media + pand3_trust_vaccine +
                    pand3_seek_science + pand3_preventive_treat + pand3_masks +
                    pand5_increased_interest_science + vote1_trust_ballot +
                    vote2_eletronic_best_option + vote3_worried_hacker +
                    vote3_worried_politics + vote3_worried_transparency +
                    vote3_worried_tech + vote3_worried_tse,
                  family = binomial(link = 'logit'),
                  data = data_code)
```

Models

Table 3: Logit Models Comparison - Up to Government Evaluation

	Dependent variable:			
	shared_fake_news_19			
sex_men	−0.070	−0.066	−0.145	−0.142
	(0.112)	(0.112)	(0.117)	(0.117)
age_full	0.005	0.006	0.006	0.006
	(0.004)	(0.004)	(0.004)	(0.004)
race_is_white	−0.067	−0.059	−0.067	−0.066
	(0.116)	(0.117)	(0.117)	(0.117)
education_high	0.025	0.029	0.040	0.040
	(0.126)	(0.127)	(0.127)	(0.127)
class_ab	0.207	0.302*	0.282	0.283
	(0.175)	(0.179)	(0.179)	(0.180)
class_c	0.362**	0.426***	0.431***	0.432***
	(0.154)	(0.156)	(0.157)	(0.157)
has_religion	−0.077			
	(0.172)			
religion_Catholic		−0.232	−0.229	−0.230
		(0.182)	(0.183)	(0.183)
religion_Evangelicals		0.117	0.109	0.112
		(0.190)	(0.191)	(0.191)
‘religion_Other religion‘		−0.013	−0.021	−0.021
		(0.254)	(0.255)	(0.255)
region_North		0.333	0.361	0.357
		(0.288)	(0.290)	(0.290)
region_Northeast		0.100	0.124	0.119
		(0.239)	(0.240)	(0.241)
region_Southeast		0.326	0.255	0.251
		(0.226)	(0.229)	(0.229)
region_South		0.029	0.010	0.010
		(0.259)	(0.261)	(0.261)
capital_metrop		−0.156	−0.166	−0.165
		(0.114)	(0.115)	(0.115)
pol_orientation_right			0.369**	0.401**
			(0.152)	(0.174)
pol_orientation_center			0.521***	0.517***
			(0.195)	(0.196)
pol_orientation_left			0.309**	0.297*
			(0.148)	(0.152)
approves_gov				−0.061
				(0.160)
Constant	−1.653***	−1.870***	−2.021***	−2.012***
	(0.257)	(0.332)	(0.339)	(0.339)
Observations	1,934	1,934	1,934	1,934
Log Likelihood	−995.995	−988.789	−983.451	−983.379
Akaike Inf. Crit.	2,007.991	2,007.579	2,002.902	2,004.758
Note:				*p<0.1; **p<0.05; ***p<0.01

Table 4: Logit Models Comparison - Answers Fake News

	Dependent variable:			
	shared_fake_news_19			
sex_men	−0.070	−0.066	−0.145	−0.139
	(0.112)	(0.112)	(0.117)	(0.118)
age_full	0.005	0.006	0.006	0.007*
	(0.004)	(0.004)	(0.004)	(0.004)
race_is_white	−0.067	−0.059	−0.067	−0.056
	(0.116)	(0.117)	(0.117)	(0.118)
education_high	0.025	0.029	0.040	0.029
	(0.126)	(0.127)	(0.127)	(0.128)
class_ab	0.207	0.302*	0.282	0.218
	(0.175)	(0.179)	(0.179)	(0.182)
class_c	0.362**	0.426***	0.431***	0.373**
	(0.154)	(0.156)	(0.157)	(0.159)
has_religion	−0.077			
	(0.172)			
religion_Catholic		−0.232	−0.229	−0.208
		(0.182)	(0.183)	(0.185)
religion_Evangelicals		0.117	0.109	0.154
		(0.190)	(0.191)	(0.195)
‘religion_Other religion‘		−0.013	−0.021	−0.042
		(0.254)	(0.255)	(0.257)
region_North		0.333	0.361	0.295
		(0.288)	(0.290)	(0.295)
region_Northeast		0.100	0.124	0.033
		(0.239)	(0.240)	(0.244)
region_Southeast		0.326	0.255	0.142
		(0.226)	(0.229)	(0.233)
region_South		0.029	0.010	−0.074
		(0.259)	(0.261)	(0.265)
capital_metrop		−0.156	−0.166	−0.181
		(0.114)	(0.115)	(0.116)
pol_orientation_right			0.369**	0.367**
			(0.152)	(0.176)
pol_orientation_center			0.521***	0.491**
			(0.195)	(0.197)
pol_orientation_left			0.309**	0.263*
			(0.148)	(0.153)
approves_gov				−0.047
				(0.162)
frequency_fake_news				0.595***
				(0.147)
resp_population				−0.209
				(0.179)
resp_gov				0.481**
				(0.233)
resp_politicians				−0.173
				(0.233)
resp_press				0.127
				(0.199)
resp_social_media				−0.014
				(0.181)
severity_fake_news				−0.007
				(0.190)
fact_checking				0.071
				(0.118)
Constant	−1.653***	−1.870***	−2.021***	−2.569***
	(0.257)	(0.332)	(0.339)	(0.395)
Observations	1,934	1,934	1,934	1,934
Log Likelihood	−995.995	−988.789	−983.451	−970.837
Akaike Inf. Crit.	2,007.991	2,007.579	2,002.902	1,995.674

Note: *p<0.1; **p<0.05; ***p<0.01

Table 5: Logit Models Comparison - Pandemic

	Dependent variable:			
	shared_fake_news_19			
sex_men	−0.070	−0.066	−0.145	−0.106
	(0.112)	(0.112)	(0.117)	(0.119)
age_full	0.005	0.006	0.006	0.007*
	(0.004)	(0.004)	(0.004)	(0.004)
race_is_white	−0.067	−0.059	−0.067	−0.114
	(0.116)	(0.117)	(0.117)	(0.119)
education_high	0.025	0.029	0.040	0.063
	(0.126)	(0.127)	(0.127)	(0.129)
class_ab	0.207	0.302*	0.282	0.234
	(0.175)	(0.179)	(0.179)	(0.184)
class_c	0.362**	0.426***	0.431***	0.386**
	(0.154)	(0.156)	(0.157)	(0.160)
has_religion	−0.077			
	(0.172)			
religion_Catholic		−0.232	−0.229	−0.176
		(0.182)	(0.183)	(0.186)
religion_Evangelicals		0.117	0.109	0.185
		(0.190)	(0.191)	(0.195)
‘religion_Other religion‘		−0.013	−0.021	0.036
		(0.254)	(0.255)	(0.259)
region_North		0.333	0.361	0.272
		(0.288)	(0.290)	(0.295)
region_Northeast		0.100	0.124	0.072
		(0.239)	(0.240)	(0.245)
region_Southeast		0.326	0.255	0.129
		(0.226)	(0.229)	(0.233)
region_South		0.029	0.010	−0.008
		(0.259)	(0.261)	(0.266)
capital_metrop		−0.156	−0.166	−0.174
		(0.114)	(0.115)	(0.117)
pol_orientation_right			0.369**	0.357**
			(0.152)	(0.177)
pol_orientation_center			0.521***	0.488**
			(0.195)	(0.199)
pol_orientation_left			0.309**	0.282*
			(0.148)	(0.154)
approves_gov				−0.093
				(0.164)
pand2_worse_perception_media				−0.096
				(0.128)
pand3_trust_vaccine				0.238*
				(0.144)
pand3_seek_science				0.323**
				(0.133)
pand3_preventive_treat				0.231
				(0.157)
pand3_masks				0.124
				(0.177)
pand5_increased_interest_science				0.846***
				(0.153)
Constant	−1.653***	−1.870***	−2.021***	−2.938***
	(0.257)	(0.332)	(0.339)	(0.378)
Observations	1,934	1,934	1,934	1,934
Log Likelihood	−995.995	−988.789	−983.451	−956.683
Akaike Inf. Crit.	2,007.991	2,007.579	2,002.902	1,963.366

Note: *p<0.1; **p<0.05; ***p<0.01

Table 6: Logit Models Comparison - Electronic Vote

	Dependent variable:			
	shared_fake_news_19			
sex_men	−0.070	−0.066	−0.145	−0.139
	(0.112)	(0.112)	(0.117)	(0.118)
age_full	0.005	0.006	0.006	0.006
	(0.004)	(0.004)	(0.004)	(0.004)
race_is_white	−0.067	−0.059	−0.067	−0.076
	(0.116)	(0.117)	(0.117)	(0.119)
education_high	0.025	0.029	0.040	0.024
	(0.126)	(0.127)	(0.127)	(0.129)
class_ab	0.207	0.302*	0.282	0.282
	(0.175)	(0.179)	(0.179)	(0.182)
class_c	0.362**	0.426***	0.431***	0.432***
	(0.154)	(0.156)	(0.157)	(0.159)
has_religion	−0.077			
	(0.172)			
religion_Catholic		−0.232	−0.229	−0.260
		(0.182)	(0.183)	(0.185)
religion_Evangelicals		0.117	0.109	0.100
		(0.190)	(0.191)	(0.194)
‘religion_Other religion‘		−0.013	−0.021	−0.026
		(0.254)	(0.255)	(0.257)
region_North		0.333	0.361	0.365
		(0.288)	(0.290)	(0.292)
region_Northeast		0.100	0.124	0.105
		(0.239)	(0.240)	(0.242)
region_Southeast		0.326	0.255	0.237
		(0.226)	(0.229)	(0.230)
region_South		0.029	0.010	0.006
		(0.259)	(0.261)	(0.263)
capital_metrop		−0.156	−0.166	−0.166
		(0.114)	(0.115)	(0.116)
pol_orientation_right			0.369**	0.422**
			(0.152)	(0.175)
pol_orientation_center			0.521***	0.553***
			(0.195)	(0.197)
pol_orientation_left			0.309**	0.270*
			(0.148)	(0.154)
approves_gov				−0.007
				(0.162)
vote1_trust_ballot				0.016
				(0.158)
vote2_eletronic_best_option				0.307*
				(0.158)
vote3_worried_hacker				0.685***
				(0.204)
vote3_worried_politics				−0.717***
				(0.253)
vote3_worried_transparency				0.065
				(0.237)
vote3_worried_tech				0.011
				(0.191)
vote3_worried_tse				−0.192
				(0.180)
Constant	−1.653***	−1.870***	−2.021***	−2.040***
	(0.257)	(0.332)	(0.339)	(0.374)
Observations	1,934	1,934	1,934	1,934
Log Likelihood	−995.995	−988.789	−983.451	−970.965
Akaike Inf. Crit.	2,007.991	2,007.579	2,002.902	1,993.930
Note:				*p<0.1; **p<0.05; ***p<0.01

Table 7: Logit Models Comparison - All Variables

	Dependent variable:			
	shared_fake_news_19			
sex_men	−0.139	−0.106	−0.139	−0.093
	(0.118)	(0.119)	(0.118)	(0.121)
age_full	0.007*	0.007*	0.006	0.007*
	(0.004)	(0.004)	(0.004)	(0.004)
race_is_white	−0.056	−0.114	−0.076	−0.121
	(0.118)	(0.119)	(0.119)	(0.122)
education_high	0.029	0.063	0.024	0.021
	(0.128)	(0.129)	(0.129)	(0.131)
class_ab	0.218	0.234	0.282	0.240
	(0.182)	(0.184)	(0.182)	(0.188)
class_c	0.373**	0.386**	0.432***	0.396**
	(0.159)	(0.160)	(0.159)	(0.163)
religion_Catholic	−0.208	−0.176	−0.260	−0.198
	(0.185)	(0.186)	(0.185)	(0.189)
religion_Evangelicals	0.154	0.185	0.100	0.200
	(0.195)	(0.195)	(0.194)	(0.199)
‘religion_Other religion‘	−0.042	0.036	−0.026	0.036
	(0.257)	(0.259)	(0.257)	(0.262)
region_North	0.295	0.272	0.365	0.289
	(0.295)	(0.295)	(0.292)	(0.301)
region_Northeast	0.033	0.072	0.105	0.032
	(0.244)	(0.245)	(0.242)	(0.249)
region_Southeast	0.142	0.129	0.237	0.064
	(0.233)	(0.233)	(0.230)	(0.237)
region_South	−0.074	−0.008	0.006	−0.053
	(0.265)	(0.266)	(0.263)	(0.271)
capital_metrop	−0.181	−0.174	−0.166	−0.192
	(0.116)	(0.117)	(0.116)	(0.118)
pol_orientation_right	0.367**	0.357**	0.422**	0.339*
	(0.176)	(0.177)	(0.175)	(0.180)
pol_orientation_center	0.491**	0.488**	0.553***	0.517**
	(0.197)	(0.199)	(0.197)	(0.201)
pol_orientation_left	0.263*	0.282*	0.270*	0.237
	(0.153)	(0.154)	(0.154)	(0.157)
approves_gov	−0.047	−0.093	−0.007	−0.056
	(0.162)	(0.164)	(0.162)	(0.167)
frequency_fake_news	0.595***			0.461***
	(0.147)			(0.157)
resp_population	−0.209			−0.263
	(0.179)			(0.183)
resp_gov	0.481**			0.419*
	(0.233)			(0.234)
resp_politicians	−0.173			−0.044
	(0.233)			(0.236)
resp_press	0.127			0.129
	(0.199)			(0.204)
resp_social_media	−0.014			0.010
	(0.181)			(0.185)
severity_fake_news	−0.007			−0.158
	(0.190)			(0.196)
fact_checking	0.071			0.016
	(0.118)			(0.121)
pand2_worse_perception_media		−0.096		−0.016
		(0.128)		(0.136)
pand3_trust_vaccine		0.238*		0.289*
		(0.144)		(0.149)
pand3_seek_science		0.323**		0.279**
		(0.133)		(0.138)
pand3_preventive_treat		0.231		0.305*
		(0.157)		(0.165)
pand3_masks		0.124		0.209
		(0.177)		(0.182)
pand5_increased_interest_science		0.846***		0.755***
		(0.153)		(0.163)
vote1_trust_ballot			0.016	−0.086
			(0.158)	(0.164)
vote2_eletronic_best_option			0.307*	0.249
			(0.158)	(0.170)
vote3_worried_hacker			0.685***	0.700***
			(0.204)	(0.212)
vote3_worried_politics			−0.717***	−0.882***
			(0.253)	(0.262)
vote3_worried_transparency			0.065	0.011
			(0.237)	(0.239)
vote3_worried_tech			0.011	−0.025
			(0.191)	(0.191)
vote3_worried_tse			−0.192	−0.182
			(0.180)	(0.183)
Constant	−2.569***	−2.938***	−2.040***	−3.063***
	(0.395)	(0.378)	(0.374)	(0.446)
Observations	1,934	1,934	1,934	1,934
Log Likelihood	−970.837	−956.683	−970.965	−936.435
Akaike Inf. Crit.	1,995.674	1,963.366	1,993.930	1,952.871

Note: *p<0.1; **p<0.05; ***p<0.01

Variance Inflation Factor (VIF)

"For a given predictor (p), multicollinearity can assessed by computing a score called the variance inflation factor (or VIF), which measures how much the variance of a regression coefficient is inflated due to multicollinearity in the model.

The smallest possible value of VIF is one (absence of multicollinearity). As a rule of thumb, a VIF value that exceeds 5 or 10 indicates a problematic amount of collinearity (James et al. 2014)."

```
model_1 <- as.data.frame(car::vif(model_19_1)) %>%
  rownames_to_column("variables")

model_2 <- as.data.frame(car::vif(model_19_2)) %>%
  rownames_to_column("variables")

model_3 <- as.data.frame(car::vif(model_19_3)) %>%
  rownames_to_column("variables")

model_4 <- as.data.frame(car::vif(model_19_4)) %>%
  rownames_to_column("variables")

model_5 <- as.data.frame(car::vif(model_19_5)) %>%
  rownames_to_column("variables")

model_6 <- as.data.frame(car::vif(model_19_6)) %>%
  rownames_to_column("variables")

model_7 <- as.data.frame(car::vif(model_19_7)) %>%
  rownames_to_column("variables")

model_8 <- as.data.frame(car::vif(model_19_8)) %>%
  rownames_to_column("variables")

vif_test <- model_8 %>%
  left_join(model_1, by = c("variables" = "variables")) %>%
  left_join(model_2, by = c("variables" = "variables")) %>%
  left_join(model_3, by = c("variables" = "variables")) %>%
  left_join(model_4, by = c("variables" = "variables")) %>%
  left_join(model_5, by = c("variables" = "variables")) %>%
  left_join(model_6, by = c("variables" = "variables")) %>%
  left_join(model_7, by = c("variables" = "variables"))

names(vif_test) <- c("variables", "model_8", "model_1", "model_2", "model_3",
                     "model_4", "model_5", "model_6", "model_7")

vif_test <- relocate(vif_test, -model_8)

vif_test %>%
  kable(caption = "Variance Inflation Factor (VIF) per variable and model",
      align = "c")
```

Table 8: Variance Inflation Factor (VIF) per variable and model

variables	model_1	model_2	model_3	model_4	model_5	model_6	model_7	model_8
sex_men	1.004308	1.005520	1.073139	1.076364	1.087463	1.084547	1.078035	1.099578
age_full	1.051315	1.064552	1.089755	1.097597	1.106797	1.103108	1.105598	1.117553
race_is_white	1.062172	1.062890	1.066925	1.067406	1.070112	1.076350	1.081443	1.097009
education_high	1.222273	1.230088	1.234109	1.234506	1.240995	1.240182	1.247977	1.253076
class_ab	2.100814	2.165661	2.167307	2.168804	2.195932	2.214504	2.202148	2.254991
class_c	1.910303	1.953584	1.952357	1.952612	1.973741	1.974670	1.988462	2.012129
religion_Catholic	NA	2.640486	2.654128	2.654521	2.674989	2.678001	2.673755	2.706370
religion_Evangelicals	NA	2.552041	2.576585	2.579948	2.628769	2.593961	2.610607	2.657104
`religion_Other religion`	NA	1.553789	1.553267	1.553233	1.559459	1.563922	1.563492	1.577206
region_North	NA	1.972952	1.974103	1.976626	2.016802	1.995823	1.969321	2.023809
region_Northeast	NA	3.425022	3.454071	3.464794	3.518412	3.505005	3.466150	3.540682
region_Southeast	NA	4.058071	4.132233	4.137907	4.218525	4.190639	4.136722	4.230179
region_South	NA	2.533003	2.550415	2.550419	2.603774	2.574239	2.544596	2.610168
capital_metrop	NA	1.031322	1.032403	1.032717	1.037431	1.038845	1.034414	1.046272
pol_orientation_right	NA	NA	1.327850	1.736097	1.746284	1.745826	1.739384	1.768705
pol_orientation_center	NA	NA	1.206375	1.208256	1.214938	1.211853	1.215635	1.227691
pol_orientation_left	NA	NA	1.286182	1.344969	1.350428	1.348058	1.363626	1.373996
approves_gov	NA	NA	NA	1.659339	1.662785	1.695184	1.677555	1.718732
frequency_fake_news	NA	NA	NA	NA	1.036508	NA	NA	1.123333
resp_population	NA	NA	NA	NA	1.830758	NA	NA	1.848637
resp_gov	NA	NA	NA	NA	2.802269	NA	NA	2.728549
resp_politicians	NA	NA	NA	NA	3.093521	NA	NA	3.066871
resp_press	NA	NA	NA	NA	1.946236	NA	NA	1.978261
resp_social_media	NA	NA	NA	NA	1.873606	NA	NA	1.892750
severity_fake_news	NA	NA	NA	NA	1.095608	NA	NA	1.120973
fact_checking	NA	NA	NA	NA	1.071141	NA	NA	1.094182
pand2_worse_perception_media	NA	NA	NA	NA	NA	1.071595	NA	1.198874
pand3_trust_vaccine	NA	NA	NA	NA	NA	1.171411	NA	1.224684
pand3_seek_science	NA	NA	NA	NA	NA	1.098868	NA	1.158505
pand3_preventive_treat	NA	NA	NA	NA	NA	1.244366	NA	1.354805
pand3_masks	NA	NA	NA	NA	NA	1.146828	NA	1.185761
pand5_increased_interest_science	NA	NA	NA	NA	NA	1.067790	NA	1.189476
vote1_trust_ballot	NA	NA	NA	NA	NA	NA	1.944949	2.024053
vote2_eletronic_best_option	NA	NA	NA	NA	NA	NA	1.874657	2.091897
vote3_worried_hacker	NA	NA	NA	NA	NA	NA	2.650328	2.759165
vote3_worried_politics	NA	NA	NA	NA	NA	NA	3.830494	3.968520
vote3_worried_transparency	NA	NA	NA	NA	NA	NA	3.376372	3.318076
vote3_worried_tech	NA	NA	NA	NA	NA	NA	2.289005	2.195239
vote3_worried_tse	NA	NA	NA	NA	NA	NA	2.114633	2.088703