

## Testing differences in contribution style on voting behavior

## Linear Probability Model without Fixed Effects

**all votes, without changes**

```
df_no_change_1 <- df_no_change %>% select(-c(state, seniority_114, seniority_115, seniority_116))  
no_change_ols_minus <- lm(all_votes_minus ~ . - all_votes_plus, data = df_no_change_1)  
summary(no_change_ols_minus)
```

Call:

```
lm(formula = all_votes_minus ~ . - all_votes_plus, data = df_no_change_1)
```

Residuals:

Min	1Q	Median	3Q	Max
-0.34085	-0.05971	-0.00743	0.02060	0.99061

Coefficients:

	Estimate	Std. Error	t value	Pr(> t )
(Intercept)	-6.869e-02	1.006e-01	-0.683	0.4958
district	-9.832e-04	1.983e-03	-0.496	0.6210
partyR	3.395e-03	4.304e-02	0.079	0.9373
Contribution_3_minus	-9.066e-07	1.249e-06	-0.726	0.4693
Contribution_3_plus	-1.388e-05	1.086e-05	-1.278	0.2036
Contribution_4_minus	-1.572e-06	1.535e-06	-1.024	0.3076
Contribution_4_plus	-1.868e-05	1.057e-05	-1.767	0.0796
Contribution_51_minus	6.700e-06	3.804e-06	1.761	0.0806
Contribution_51_plus	2.140e-05	1.880e-05	1.138	0.2572

Contribution_52_minus	-7.530e-07	3.337e-06	-0.226	0.8218
Contribution_52_plus	-1.480e-05	1.707e-05	-0.867	0.3878
Contribution_6_minus	1.885e-06	1.428e-06	1.320	0.1893
Contribution_6_plus	-1.408e-06	1.891e-05	-0.074	0.9408
Contribution_7_minus	-1.848e-06	1.230e-06	-1.503	0.1354
Contribution_7_plus	6.761e-06	1.549e-05	0.436	0.6634
GeographicalMW	8.865e-02	1.055e-01	0.840	0.4025
GeographicalNE	6.548e-02	1.076e-01	0.609	0.5439
GeographicalSO	5.521e-02	1.043e-01	0.529	0.5974
GeographicalWE	7.480e-02	1.067e-01	0.701	0.4846

---

Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.1924 on 125 degrees of freedom

(388 observations deleted due to missingness)

Multiple R-squared: 0.3053, Adjusted R-squared: 0.2053

F-statistic: 3.052 on 18 and 125 DF, p-value: 0.0001344

## each vote separately

```
# Vote 3 comparison
ols_3_1 <- lm(Vote3_minus ~ . - state - BioID - Vote3_plus - Vote3 - Vote_change_dummy - bir
summary(ols_3_1)
```

Call:

```
lm(formula = Vote3_minus ~ . - state - BioID - Vote3_plus - Vote3 -
    Vote_change_dummy - birthday - seniority_113 - nominate_dim1 -
    nominate_dim2, data = df_vote_3)
```

Residuals:

	Min	1Q	Median	3Q	Max
	-0.07385	-0.02860	-0.01397	0.00154	0.96310

Coefficients:

	Estimate	Std. Error	t value	Pr(> t )
(Intercept)	-4.817e-03	4.544e-02	-0.106	0.9156
partyR	9.470e-01	1.504e-02	62.982	<2e-16 ***
Contribution_3_minus	5.094e-07	2.513e-07	2.027	0.0434 *
Contribution_3_plus	-2.698e-06	3.117e-06	-0.866	0.3873

GeographicalMW	4.144e-02	4.793e-02	0.865	0.3878
GeographicalNE	1.866e-02	4.819e-02	0.387	0.6988
GeographicalSO	5.623e-02	4.720e-02	1.191	0.2344
GeographicalWE	2.944e-02	4.725e-02	0.623	0.5337

---

Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.1193 on 331 degrees of freedom

(20 observations deleted due to missingness)

Multiple R-squared: 0.9441, Adjusted R-squared: 0.9429

F-statistic: 798.8 on 7 and 331 DF, p-value: < 2.2e-16

### subsample analysis, only those who changed votes

```
df_subsample_1 <- df_subsample %>% select(party, vote_change_to_anti, year, Contribution_3_m
ols_subsample_2 <- lm(vote_change_to_anti ~ . - year, data = df_subsample_1)
summary(ols_subsample_2)
```

Call:

```
lm(formula = vote_change_to_anti ~ . - year, data = df_subsample_1)
```

Residuals:

Min	1Q	Median	3Q	Max
-0.5000	-0.3333	0.0000	0.5000	0.6667

Coefficients: (10 not defined because of singularities)

	Estimate	Std. Error	t value	Pr(> t )
(Intercept)	7.275e-01	1.018e+00	0.715	0.502
partyR	1.175e+00	2.122e+01	0.055	0.958
Contribution_3_minus	-4.008e-06	1.081e-04	-0.037	0.972
Contribution_3_plus	-5.570e-04	2.320e-03	-0.240	0.818
Contribution_4_minus	-4.672e-06	7.240e-05	-0.065	0.951
Contribution_4_plus	7.601e-05	2.981e-04	0.255	0.807
Contribution_51_minus	-4.861e-06	1.722e-04	-0.028	0.978
Contribution_51_plus	NA	NA	NA	NA
Contribution_52_minus	NA	NA	NA	NA
Contribution_52_plus	NA	NA	NA	NA
Contribution_6_minus	NA	NA	NA	NA

Contribution_6_plus	NA	NA	NA	NA
Contribution_7_minus	NA	NA	NA	NA
Contribution_7_plus	NA	NA	NA	NA
GeographicalNE	NA	NA	NA	NA
GeographicalSO	NA	NA	NA	NA
GeographicalWE	NA	NA	NA	NA

Residual standard error: 0.6009 on 6 degrees of freedom

(18 observations deleted due to missingness)

Multiple R-squared: 0.2176, Adjusted R-squared: -0.5648

F-statistic: 0.2781 on 6 and 6 DF, p-value: 0.9277