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_

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
-0.33086 -0.05694 -0.00574  0.01907  0.97769

Coefficients:
                       Estimate Std. Error t value Pr(>|t|)
(Intercept)          -3.720e-03  3.009e-02  -0.124   0.9018
district             -8.456e-04  1.891e-03  -0.447   0.6555
partyR                7.086e-03  3.910e-02   0.181   0.8565
Contribution_3_minus -9.390e-07  1.224e-06  -0.767   0.4444
Contribution_3_plus  -1.238e-05  1.061e-05  -1.166   0.2456
Contribution_4_minus -1.627e-06  1.509e-06  -1.078   0.2829
Contribution_4_plus  -1.666e-05  9.999e-06  -1.666   0.0981 .
Contribution_51_minus 6.404e-06  3.710e-06   1.726   0.0867 .
Contribution_51_plus  2.231e-05  1.846e-05   1.208   0.2292
```

```
Contribution_52_minus -5.076e-07  3.263e-06  -0.156   0.8766
Contribution_52_plus  -1.538e-05  1.678e-05  -0.917   0.3610
Contribution_6_minus   1.817e-06  1.391e-06   1.306   0.1939
Contribution_6_plus   -1.869e-06  1.859e-05  -0.101   0.9201
Contribution_7_minus  -1.842e-06  1.209e-06  -1.524   0.1300
Contribution_7_plus    7.650e-06  1.517e-05   0.504   0.6150
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.1902 on 129 degrees of freedom
  (388 observations deleted due to missingness)
Multiple R-squared:  0.2996,    Adjusted R-squared:  0.2235
F-statistic: 3.941 on 14 and 129 DF,  p-value: 1.324e-05
```

each vote separately

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

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

Residuals:
     Min       1Q   Median       3Q      Max
-0.06825 -0.03086 -0.01970  0.00618  0.97024

Coefficients:
                     Estimate Std. Error t value Pr(>|t|)
(Intercept)          2.937e-02  9.785e-03   3.001  0.00289 **
partyR               9.568e-01  1.431e-02  66.860  < 2e-16 ***
Contribution_3_minus 5.184e-07  2.500e-07   2.073  0.03890 *
Contribution_3_plus -3.500e-06  3.051e-06  -1.147  0.25216
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.1194 on 335 degrees of freedom
```

```
  (20 observations deleted due to missingness)
Multiple R-squared:  0.9433,    Adjusted R-squared:  0.9428
F-statistic:  1858 on 3 and 335 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: (7 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

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
```