```
R version 3.6.1 (2019-07-05) -- "Action of the Toes"
Copyright (C) 2019 The R Foundation for Statistical Computing
Platform: x86_64-apple-darwin15.6.0 (64-bit)

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  Natural language support but running in an English locale

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[R.app GUI 1.70 (7684) x86_64-apple-darwin15.6.0]

2020-01-28 13:08:48.884 R[5190:628985] Antidote - Texteurs: Module texteur installé dans /Applications/R.app
(org.R-project.R)
> ########################
> #JF GODBOUT MANUSCRIPT##
> #CHAPTER 8##############
> #September 11, 2018#####
> ########################
> #Figure 8.3#############
> ########################
>
> ##############################################################################################
> #Figure 8.3: The Influence of Private Member Motions/Same Party Amendment on Party Unity#
> ##############################################################################################
>
> rm(list=ls())
>
> library(mfx);library(car)
Loading required package: sandwich
Loading required package: lmtest
Loading required package: zoo

Attaching package: ‘zoo’

The following objects are masked from ‘package:base’:

    as.Date, as.Date.numeric

Loading required package: MASS
Loading required package: betareg
Loading required package: carData
>
> cons <- read.csv(file="~/Dropbox/Canada-Manuscript/Analysis/cons-vote.csv", header=T)
> libs <- read.csv(file="~/Dropbox/Canada-Manuscript/Analysis/libs-vote.csv", header=T)
>
> ########################
> #1. Create dummy terms#
> ########################
>
> cons$parl1 <- ifelse(cons$parlement==1,1,0)
> cons$parl2 <- ifelse(cons$parlement==2,1,0)
> cons$parl3 <- ifelse(cons$parlement==3,1,0)
> cons$parl4 <- ifelse(cons$parlement==4,1,0)
> cons$parl5 <- ifelse(cons$parlement==5,1,0)
> cons$parl6 <- ifelse(cons$parlement==6,1,0)
> cons$parl7 <- ifelse(cons$parlement==7,1,0)
> cons$parl8 <- ifelse(cons$parlement==8,1,0)
> cons$parl9 <- ifelse(cons$parlement==9,1,0)
> cons$parl10 <- ifelse(cons$parlement==10,1,0)
> cons$parl11 <- ifelse(cons$parlement==11,1,0)
> cons$parl12 <- ifelse(cons$parlement==12,1,0)
```

```
> cons$parl13 <- ifelse(cons$parlement==13,1,0)
> cons$parl14 <- ifelse(cons$parlement==14,1,0)
> cons$parl15 <- ifelse(cons$parlement==15,1,0)
> cons$parl16 <- ifelse(cons$parlement==16,1,0)
> cons$parl17 <- ifelse(cons$parlement==17,1,0)
> cons$parl18 <- ifelse(cons$parlement==18,1,0)
> cons$parl19 <- ifelse(cons$parlement==19,1,0)
> cons$parl20 <- ifelse(cons$parlement==20,1,0)
> cons$parl21 <- ifelse(cons$parlement==21,1,0)
> cons$parl22 <- ifelse(cons$parlement==22,1,0)
> cons$parl23 <- ifelse(cons$parlement==23,1,0)
> cons$parl24 <- ifelse(cons$parlement==24,1,0)
> cons$parl25 <- ifelse(cons$parlement==25,1,0)
> cons$parl26 <- ifelse(cons$parlement==26,1,0)
> cons$parl27 <- ifelse(cons$parlement==27,1,0)
> cons$parl28 <- ifelse(cons$parlement==28,1,0)
> cons$parl29 <- ifelse(cons$parlement==29,1,0)
> cons$parl30 <- ifelse(cons$parlement==20,1,0)
> cons$parl31 <- ifelse(cons$parlement==31,1,0)
> cons$parl32 <- ifelse(cons$parlement==32,1,0)
> cons$parl33 <- ifelse(cons$parlement==33,1,0)
> cons$parl34 <- ifelse(cons$parlement==34,1,0)
> cons$parl35 <- ifelse(cons$parlement==35,1,0)
> cons$parl36 <- ifelse(cons$parlement==36,1,0)
> cons$parl37 <- ifelse(cons$parlement==37,1,0)
> cons$parl38 <- ifelse(cons$parlement==38,1,0)
> cons$parl39 <- ifelse(cons$parlement==39,1,0)
> cons$parl40 <- ifelse(cons$parlement==40,1,0)
> libs$parl1 <- ifelse(libs$parlement==1,1,0)
> libs$parl2 <- ifelse(libs$parlement==2,1,0)
> libs$parl3 <- ifelse(libs$parlement==3,1,0)
> libs$parl4 <- ifelse(libs$parlement==4,1,0)
> libs$parl5 <- ifelse(libs$parlement==5,1,0)
> libs$parl6 <- ifelse(libs$parlement==6,1,0)
> libs$parl7 <- ifelse(libs$parlement==7,1,0)
> libs$parl8 <- ifelse(libs$parlement==8,1,0)
> libs$parl9 <- ifelse(libs$parlement==9,1,0)
> libs$parl10 <- ifelse(libs$parlement==10,1,0)
> libs$parl11 <- ifelse(libs$parlement==11,1,0)
> libs$parl12 <- ifelse(libs$parlement==12,1,0)
> libs$parl13 <- ifelse(libs$parlement==13,1,0)
> libs$parl14 <- ifelse(libs$parlement==14,1,0)
> libs$parl15 <- ifelse(libs$parlement==15,1,0)
> libs$parl16 <- ifelse(libs$parlement==16,1,0)
> libs$parl17 <- ifelse(libs$parlement==17,1,0)
> libs$parl18 <- ifelse(libs$parlement==18,1,0)
> libs$parl19 <- ifelse(libs$parlement==19,1,0)
> libs$parl20 <- ifelse(libs$parlement==20,1,0)
> libs$parl21 <- ifelse(libs$parlement==21,1,0)
> libs$parl22 <- ifelse(libs$parlement==22,1,0)
> libs$parl23 <- ifelse(libs$parlement==23,1,0)
> libs$parl24 <- ifelse(libs$parlement==24,1,0)
> libs$parl25 <- ifelse(libs$parlement==25,1,0)
> libs$parl26 <- ifelse(libs$parlement==26,1,0)
> libs$parl27 <- ifelse(libs$parlement==27,1,0)
> libs$parl28 <- ifelse(libs$parlement==28,1,0)
> libs$parl29 <- ifelse(libs$parlement==29,1,0)
> libs$parl30 <- ifelse(libs$parlement==20,1,0)
> libs$parl31 <- ifelse(libs$parlement==31,1,0)
> libs$parl32 <- ifelse(libs$parlement==32,1,0)
> libs$parl33 <- ifelse(libs$parlement==33,1,0)
> libs$parl34 <- ifelse(libs$parlement==34,1,0)
> libs$parl35 <- ifelse(libs$parlement==35,1,0)
> libs$parl36 <- ifelse(libs$parlement==36,1,0)
> libs$parl37 <- ifelse(libs$parlement==37,1,0)
> libs$parl38 <- ifelse(libs$parlement==38,1,0)
> libs$parl39 <- ifelse(libs$parlement==39,1,0)
> libs$parl40 <- ifelse(libs$parlement==40,1,0)
>
> ############################################################
> #MODEL 8.3 own party + origin of motion + same.party.amendment#
```

```
> ############################################################
>
> #cons
>
> data1 <- cons
>
> m8.3 <- rice.bill ~ ownparty + origin + same.party.amendment.check
>
> m1 <- lm(m8.3,data=data1[data1$parlement==1,],)
> m2 <- lm(m8.3,data=data1[data1$parlement==2,],)
> m3 <- lm(m8.3,data=data1[data1$parlement==3,],)
> m4 <- lm(m8.3,data=data1[data1$parlement==4,],)
> m5 <- lm(m8.3,data=data1[data1$parlement==5,],)
> m6 <- lm(m8.3,data=data1[data1$parlement==6,],)
> m7 <- lm(m8.3,data=data1[data1$parlement==7,],)
> m8 <- lm(m8.3,data=data1[data1$parlement==8,],)
> m9 <- lm(m8.3,data=data1[data1$parlement==9,],)
> m10 <- lm(m8.3,data=data1[data1$parlement==10,],)
> m11 <- lm(m8.3,data=data1[data1$parlement==11,],)
> m12 <- lm(m8.3,data=data1[data1$parlement==12,],)
> m13 <- lm(m8.3,data=data1[data1$parlement==13,],)
> m14 <- lm(m8.3,data=data1[data1$parlement==14,],)
> #m15 <- lm(m8.3,data=data1[data1$parlement==15,],)
> m16 <- lm(m8.3,data=data1[data1$parlement==16,],)
> m17 <- lm(m8.3,data=data1[data1$parlement==17,],)
> m18 <- lm(m8.3,data=data1[data1$parlement==18,],)
> m19 <- lm(m8.3,data=data1[data1$parlement==19,],)
> m20 <- lm(m8.3,data=data1[data1$parlement==20,],)
> m21 <- lm(m8.3,data=data1[data1$parlement==21,],)
> m22 <- lm(m8.3,data=data1[data1$parlement==22,],)
> #m23 <- lm(m8.3,data=data1[data1$parlement==23,],)
> #m24 <- lm(m8.3,data=data1[data1$parlement==24,],)
> #m25 <- lm(m8.3,data=data1[data1$parlement==25,],)
> m26 <- lm(m8.3,data=data1[data1$parlement==26,],)
> m27 <- lm(m8.3,data=data1[data1$parlement==27,],)
>
>
> summary(m1)

Call:
lm(formula = m8.3, data = data1[data1$parlement == 1, ])

Residuals:
     Min       1Q   Median       3Q      Max
-0.72519 -0.16177  0.06822  0.19846  0.55305

Coefficients:
                            Estimate Std. Error t value Pr(>|t|)
(Intercept)                  0.98022    0.05807  16.881  < 2e-16 ***
ownparty                    -0.23448    0.05424  -4.323 2.15e-05 ***
originprivate.member        -0.22725    0.04234  -5.367 1.69e-07 ***
same.party.amendment.check -0.09654    0.03710  -2.602  0.00976 **
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.2705 on 279 degrees of freedom
Multiple R-squared:  0.1177,
  Adjusted R-squared:  0.1082
F-statistic: 12.41 on 3 and 279 DF,  p-value: 1.219e-07

> nobs(m1)
[1] 283
> summary(m2)

Call:
lm(formula = m8.3, data = data1[data1$parlement == 2, ])

Residuals:
     Min       1Q   Median       3Q      Max
-0.60421 -0.27582  0.00373  0.29740  0.37334
```

```
Coefficients:
                            Estimate Std. Error t value Pr(>|t|)
(Intercept)                  1.2956     0.1653   7.837 3.29e-09 ***
ownparty                    -0.2993     0.1187  -2.522   0.0164 *
originprivate.member        -0.3650     0.1432  -2.548   0.0154 *
same.party.amendment.check  -0.2399     0.1338  -1.792   0.0817 .
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.3256 on 35 degrees of freedom
Multiple R-squared:  0.3074,
  Adjusted R-squared:  0.248
F-statistic: 5.178 on 3 and 35 DF,  p-value: 0.00457

> nobs(m2)
[1] 39
> summary(m3)

Call:
lm(formula = m8.3, data = data1[data1$parlement == 3, ])

Residuals:
     Min       1Q   Median       3Q      Max
-0.56747 -0.31624  0.07611  0.27452  0.46194

Coefficients:
                            Estimate Std. Error t value Pr(>|t|)
(Intercept)                 0.575884   0.044763  12.865   <2e-16 ***
ownparty                   -0.029407   0.082259  -0.357    0.721
originprivate.member       -0.008412   0.060163  -0.140    0.889
same.party.amendment.check -0.007218   0.064114  -0.113    0.911
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.3159 on 123 degrees of freedom
Multiple R-squared:  0.001757,
  Adjusted R-squared:  -0.02259
F-statistic: 0.07218 on 3 and 123 DF,  p-value: 0.9748

> nobs(m3)
[1] 127
> summary(m4)

Call:
lm(formula = m8.3, data = data1[data1$parlement == 4, ])

Residuals:
     Min       1Q   Median       3Q      Max
-0.61463 -0.01675  0.00090  0.09157  0.46611

Coefficients:
                            Estimate Std. Error t value Pr(>|t|)
(Intercept)                 0.982561   0.053421  18.393  < 2e-16 ***
ownparty                   -0.002511   0.049770  -0.050     0.96
originprivate.member       -0.216991   0.035386  -6.132 8.71e-09 ***
same.party.amendment.check -0.247865   0.047462  -5.222 6.42e-07 ***
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.1851 on 137 degrees of freedom
Multiple R-squared:  0.4156,
  Adjusted R-squared:  0.4028
F-statistic: 32.48 on 3 and 137 DF,  p-value: 6.402e-16

> nobs(m4)
[1] 141
> summary(m5)

Call:
lm(formula = m8.3, data = data1[data1$parlement == 5, ])
```

```
Residuals:
     Min       1Q   Median       3Q      Max
-0.70806 -0.04163  0.04221  0.13527  0.57627

Coefficients:
                           Estimate Std. Error t value Pr(>|t|)
(Intercept)                 0.89970    0.05508  16.335  < 2e-16 ***
ownparty                    0.05809    0.04962   1.171    0.243
originprivate.member       -0.18065    0.04202  -4.299 2.64e-05 ***
same.party.amendment.check -0.29532    0.04327  -6.825 9.65e-11 ***
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.2481 on 206 degrees of freedom
Multiple R-squared:  0.3399,
  Adjusted R-squared:  0.3303
F-statistic: 35.36 on 3 and 206 DF,  p-value: < 2.2e-16

> nobs(m5)
[1] 210
> summary(m6)

Call:
lm(formula = m8.3, data = data1[data1$parlement == 6, ])

Residuals:
     Min       1Q   Median       3Q      Max
-0.89830 -0.09325  0.06598  0.13035  0.47152

Coefficients:
                           Estimate Std. Error t value Pr(>|t|)
(Intercept)                 1.23692    0.06875  17.991  < 2e-16 ***
ownparty                   -0.30290    0.05789  -5.233 7.35e-07 ***
originprivate.member       -0.24017    0.05324  -4.511 1.53e-05 ***
same.party.amendment.check -0.30572    0.05686  -5.377 3.88e-07 ***
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.2518 on 118 degrees of freedom
Multiple R-squared:  0.4023,
  Adjusted R-squared:  0.3871
F-statistic: 26.47 on 3 and 118 DF,  p-value: 3.644e-13

> nobs(m6)
[1] 122
> summary(m7)

Call:
lm(formula = m8.3, data = data1[data1$parlement == 7, ])

Residuals:
     Min       1Q   Median       3Q      Max
-0.64057  0.01823  0.06497  0.08517  0.21551

Coefficients:
                           Estimate Std. Error t value Pr(>|t|)
(Intercept)                 0.92343    0.05099  18.111   <2e-16 ***
ownparty                    0.03416    0.03740   0.913   0.3629
originprivate.member       -0.04277    0.04163  -1.027   0.3064
same.party.amendment.check -0.09617    0.04159  -2.312   0.0225 *
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.179 on 116 degrees of freedom
Multiple R-squared:  0.06163,
  Adjusted R-squared:  0.03736
F-statistic:  2.54 on 3 and 116 DF,  p-value: 0.05991

> nobs(m7)
[1] 120
> summary(m8)
```

```
Call:
lm(formula = m8.3, data = data1[data1$parlement == 8, ])

Residuals:
     Min       1Q   Median       3Q      Max
-0.73270 -0.03305  0.05196  0.10367  0.34660

Coefficients:
                            Estimate Std. Error t value Pr(>|t|)
(Intercept)                 0.905916   0.040592  22.317  < 2e-16 ***
ownparty                   -0.018716   0.071270  -0.263    0.794
originprivate.member       -0.009583   0.049980  -0.192    0.848
same.party.amendment.check -0.242935   0.054252  -4.478 2.41e-05 ***
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.2101 on 82 degrees of freedom
Multiple R-squared:  0.1995,
  Adjusted R-squared:  0.1702
F-statistic:  6.81 on 3 and 82 DF,  p-value: 0.0003724

> nobs(m8)
[1] 86
> summary(m9)

Call:
lm(formula = m8.3, data = data1[data1$parlement == 9, ])

Residuals:
     Min       1Q   Median       3Q      Max
-0.80379  0.01203  0.06785  0.07907  0.32129

Coefficients:
                           Estimate Std. Error t value Pr(>|t|)
(Intercept)                 0.92144    0.03578  25.752  < 2e-16 ***
ownparty                   -0.02036    0.06210  -0.328  0.74380
originprivate.member       -0.02929    0.04547  -0.644  0.52117
same.party.amendment.check -0.21345    0.07801  -2.736  0.00752 **
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.1981 on 88 degrees of freedom
Multiple R-squared:  0.08371,
  Adjusted R-squared:  0.05247
F-statistic:  2.68 on 3 and 88 DF,  p-value: 0.05179

> nobs(m9)
[1] 92
> summary(m10)

Call:
lm(formula = m8.3, data = data1[data1$parlement == 10, ])

Residuals:
     Min       1Q   Median       3Q      Max
-0.73620 -0.01320  0.03957  0.08733  0.20488

Coefficients:
                           Estimate Std. Error t value Pr(>|t|)
(Intercept)                 0.82105    0.02552  32.174   <2e-16 ***
ownparty                    0.04776    0.04212   1.134    0.259
originprivate.member        0.09162    0.03392   2.701    0.008 **
same.party.amendment.check -0.02593    0.05449  -0.476    0.635
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.1615 on 111 degrees of freedom
Multiple R-squared:  0.1117,
  Adjusted R-squared:  0.08767
F-statistic: 4.652 on 3 and 111 DF,  p-value: 0.004216
```

```
> nobs(m10)
[1] 115
> summary(m11)

Call:
lm(formula = m8.3, data = data1[data1$parlement == 11, ])

Residuals:
     Min       1Q   Median       3Q      Max
-0.69925  0.04327  0.05036  0.08210  0.16172

Coefficients:
                           Estimate Std. Error t value Pr(>|t|)
(Intercept)                 0.83828    0.05422  15.459   <2e-16 ***
ownparty                   -0.02715    0.07403  -0.367    0.715
originprivate.member        0.07962    0.06271   1.270    0.210
same.party.amendment.check  0.04989    0.14671   0.340    0.735
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.2019 on 55 degrees of freedom
Multiple R-squared:  0.03353,
  Adjusted R-squared:  -0.01918
F-statistic: 0.6361 on 3 and 55 DF,  p-value: 0.595

> nobs(m11)
[1] 59
> summary(m12)

Call:
lm(formula = m8.3, data = data1[data1$parlement == 12, ])

Residuals:
     Min       1Q   Median       3Q      Max
-0.72389 -0.01794  0.02564  0.04486  0.11168

Coefficients:
                           Estimate Std. Error t value Pr(>|t|)
(Intercept)                 0.99243    0.02696  36.812   <2e-16 ***
ownparty                   -0.04405    0.02469  -1.784    0.077 .
originprivate.member       -0.02450    0.02016  -1.215    0.227
same.party.amendment.check -0.03557    0.03374  -1.054    0.294
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.09127 on 117 degrees of freedom
Multiple R-squared:  0.04049,
  Adjusted R-squared:  0.01589
F-statistic: 1.646 on 3 and 117 DF,  p-value: 0.1826

> nobs(m12)
[1] 121
> summary(m13)

Call:
lm(formula = m8.3, data = data1[data1$parlement == 13, ])

Residuals:
     Min       1Q   Median       3Q      Max
-0.67046 -0.04038  0.02491  0.06488  0.27781

Coefficients:
                           Estimate Std. Error t value Pr(>|t|)
(Intercept)                 0.90351    0.05781  15.628  < 2e-16 ***
ownparty                    0.03161    0.05489   0.576 0.566552
originprivate.member       -0.07767    0.03791  -2.049 0.044264 *
same.party.amendment.check -0.18698    0.04892  -3.822 0.000286 ***
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1
```

```
Residual standard error: 0.1411 on 69 degrees of freedom
Multiple R-squared:  0.2712,
  Adjusted R-squared:  0.2396
F-statistic: 8.561 on 3 and 69 DF,  p-value: 6.567e-05

> nobs(m13)
[1] 73
> summary(m14)

Call:
lm(formula = m8.3, data = data1[data1$parlement == 14, ])

Residuals:
     Min       1Q   Median       3Q      Max
-0.80960 -0.00517  0.09040  0.17665  0.32064

Coefficients:
                            Estimate Std. Error t value Pr(>|t|)
(Intercept)                  0.90960    0.04887  18.614   <2e-16 ***
ownparty                     0.10770    0.10617   1.014    0.313
originprivate.member        -0.08625    0.06148  -1.403    0.164
same.party.amendment.check -0.14399    0.13470  -1.069    0.288
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.262 on 81 degrees of freedom
Multiple R-squared:  0.04642,
  Adjusted R-squared:  0.0111
F-statistic: 1.314 on 3 and 81 DF,  p-value: 0.2754

> nobs(m14)
[1] 85
> summary(m16)

Call:
lm(formula = m8.3, data = data1[data1$parlement == 16, ])

Residuals:
    Min      1Q  Median      3Q     Max
-0.8000 -0.0062  0.0572  0.1412  0.3280

Coefficients:
                            Estimate Std. Error t value Pr(>|t|)
(Intercept)                  0.96801    0.04811  20.123   <2e-16 ***
ownparty                     0.08395    0.05097   1.647   0.1030
originprivate.member        -0.10917    0.05586  -1.954   0.0538 .
same.party.amendment.check -0.18683    0.12024  -1.554   0.1238
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.2041 on 90 degrees of freedom
Multiple R-squared:  0.08127,
  Adjusted R-squared:  0.05065
F-statistic: 2.654 on 3 and 90 DF,  p-value: 0.05333

> nobs(m16)
[1] 94
> summary(m17)

Call:
lm(formula = m8.3, data = data1[data1$parlement == 17, ])

Residuals:
     Min       1Q   Median       3Q      Max
-0.67668 -0.00147  0.01524  0.01524  0.07332

Coefficients:
                            Estimate Std. Error t value Pr(>|t|)
(Intercept)                  1.05954    0.02208  47.995  < 2e-16 ***
ownparty                    -0.05807    0.01915  -3.033 0.002871 **
originprivate.member        -0.07479    0.01907  -3.922 0.000135 ***
```

```
same.party.amendment.check -0.09122    0.03928  -2.323 0.021593 *
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.08954 on 145 degrees of freedom
Multiple R-squared:  0.1076,
  Adjusted R-squared:  0.08917
F-statistic:  5.83 on 3 and 145 DF,  p-value: 0.000867

> nobs(m17)
[1] 149
> summary(m18)

Call:
lm(formula = m8.3, data = data1[data1$parlement == 18, ])

Residuals:
     Min       1Q   Median       3Q      Max
-0.52493  0.00000  0.04650  0.04650  0.07068

Coefficients: (1 not defined because of singularities)
                           Estimate Std. Error t value Pr(>|t|)
(Intercept)                 0.92932    0.03915  23.736   <2e-16 ***
ownparty                    0.04650    0.06604   0.704    0.485
originprivate.member        0.02417    0.04540   0.532    0.597
same.party.amendment.check       NA         NA      NA       NA
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.1238 on 40 degrees of freedom
Multiple R-squared:  0.02298,
  Adjusted R-squared:  -0.02587
F-statistic: 0.4704 on 2 and 40 DF,  p-value: 0.6282

> nobs(m18)
[1] 43
> summary(m19)

Call:
lm(formula = m8.3, data = data1[data1$parlement == 19, ])

Residuals:
     Min       1Q   Median       3Q      Max
-0.86319  0.02352  0.03571  0.06538  0.06538

Coefficients:
                           Estimate Std. Error t value Pr(>|t|)
(Intercept)                0.976482   0.030373  32.149   <2e-16 ***
ownparty                   0.029669   0.062098   0.478    0.634
originprivate.member      -0.041865   0.038827  -1.078    0.284
same.party.amendment.check 0.009967   0.082774   0.120    0.904
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.1607 on 75 degrees of freedom
Multiple R-squared:  0.01616,
  Adjusted R-squared:  -0.0232
F-statistic: 0.4105 on 3 and 75 DF,  p-value: 0.7459

> nobs(m19)
[1] 79
> summary(m20)

Call:
lm(formula = m8.3, data = data1[data1$parlement == 20, ])

Residuals:
     Min       1Q   Median       3Q      Max
-0.87259  0.00162  0.06491  0.07818  0.07818

Coefficients:
```

```
                           Estimate Std. Error t value Pr(>|t|)
(Intercept)                 0.93509    0.02368  39.486   <2e-16 ***
ownparty                    0.07656    0.03863   1.982   0.0493 *
originprivate.member       -0.01327    0.03149  -0.421   0.6741
same.party.amendment.check  0.06491    0.12419   0.523   0.6020
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.1724 on 148 degrees of freedom
Multiple R-squared:  0.02792,
  Adjusted R-squared:  0.008213
F-statistic: 1.417 on 3 and 148 DF,  p-value: 0.2402

> nobs(m20)
[1] 152
> summary(m21)

Call:
lm(formula = m8.3, data = data1[data1$parlement == 21, ])

Residuals:
     Min       1Q   Median       3Q      Max
-0.73108  0.00000  0.02704  0.03815  0.03815

Coefficients:
                           Estimate Std. Error t value Pr(>|t|)
(Intercept)                 0.97296    0.01334  72.930   <2e-16 ***
ownparty                    0.03815    0.02393   1.595    0.112
originprivate.member       -0.01111    0.01626  -0.683    0.495
same.party.amendment.check  0.02927    0.04740   0.617    0.538
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.1032 on 201 degrees of freedom
Multiple R-squared:  0.01511,
  Adjusted R-squared:  0.0004143
F-statistic: 1.028 on 3 and 201 DF,  p-value: 0.3812

> nobs(m21)
[1] 205
> summary(m22)

Call:
lm(formula = m8.3, data = data1[data1$parlement == 22, ])

Residuals:
     Min       1Q   Median       3Q      Max
-0.93910  0.01125  0.01494  0.06090  0.06090

Coefficients:
                           Estimate Std. Error t value Pr(>|t|)
(Intercept)                 0.98506    0.01305  75.488  < 2e-16 ***
ownparty                    0.04965    0.02151   2.308  0.02176 *
originprivate.member       -0.04596    0.01673  -2.748  0.00643 **
same.party.amendment.check  0.03026    0.07076   0.428  0.66924
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.1215 on 259 degrees of freedom
Multiple R-squared:  0.03791,
  Adjusted R-squared:  0.02676
F-statistic: 3.402 on 3 and 259 DF,  p-value: 0.01833

> nobs(m22)
[1] 263
> summary(m26)

Call:
lm(formula = m8.3, data = data1[data1$parlement == 26, ])

Residuals:
```

```
     Min       1Q   Median       3Q      Max
-0.73000  0.00368  0.03923  0.03923  0.04151

Coefficients:
                           Estimate Std. Error t value Pr(>|t|)
(Intercept)                0.958487   0.015618  61.372   <2e-16 ***
ownparty                   0.035553   0.023235   1.530    0.129
originprivate.member       0.002279   0.018819   0.121    0.904
same.party.amendment.check 0.031486   0.045917   0.686    0.494
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.08969 on 120 degrees of freedom
Multiple R-squared:  0.02611,
  Adjusted R-squared:  0.001764
F-statistic: 1.072 on 3 and 120 DF,  p-value: 0.3635

> nobs(m26)
[1] 124
> summary(m27)

Call:
lm(formula = m8.3, data = data1[data1$parlement == 27, ])

Residuals:
     Min       1Q   Median       3Q      Max
-0.78470  0.02930  0.06489  0.06489  0.25825

Coefficients:
                           Estimate Std. Error t value Pr(>|t|)
(Intercept)                0.935114   0.020916  44.708   <2e-16 ***
ownparty                   0.061457   0.079252   0.775   0.4400
originprivate.member       0.003429   0.042816   0.080   0.9363
same.party.amendment.check -0.193363   0.088120  -2.194   0.0307 *
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.1712 on 94 degrees of freedom
Multiple R-squared:  0.05942,
  Adjusted R-squared:  0.02941
F-statistic:  1.98 on 3 and 94 DF,  p-value: 0.1223

> nobs(m27)
[1] 98
>
> mm1 <- coeftest(m1, vcov = vcovHAC(m1))
> mm1

t test of coefficients:

                           Estimate Std. Error t value  Pr(>|t|)
(Intercept)                0.980216   0.091393 10.7252 < 2.2e-16 ***
ownparty                  -0.234477   0.087447 -2.6814 0.0077688 **
originprivate.member      -0.227252   0.064861 -3.5037 0.0005343 ***
same.party.amendment.check -0.096538   0.043188 -2.2353 0.0261909 *
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

> mm2 <- coeftest(m2, vcov = vcovHAC(m2))
> mm2

t test of coefficients:

                           Estimate Std. Error t value  Pr(>|t|)
(Intercept)                 1.29560    0.17023  7.6111 6.327e-09 ***
ownparty                   -0.29933    0.17048 -1.7558   0.08787 .
originprivate.member       -0.36503    0.14984 -2.4362   0.02007 *
same.party.amendment.check -0.23987    0.15285 -1.5693   0.12556
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1
```

```
> mm3 <- coeftest(m3, vcov = vcovHAC(m3))
> mm3

t test of coefficients:

                             Estimate Std. Error t value Pr(>|t|)
(Intercept)                 0.5758837  0.0542604 10.6133   <2e-16 ***
ownparty                   -0.0294073  0.0985693 -0.2983   0.7659
originprivate.member       -0.0084117  0.0778733 -0.1080   0.9142
same.party.amendment.check -0.0072182  0.0563479 -0.1281   0.8983
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

> mm4 <- coeftest(m4, vcov = vcovHAC(m4))
> mm4

t test of coefficients:

                             Estimate Std. Error t value  Pr(>|t|)
(Intercept)                 0.9825606  0.0874251 11.2389 < 2.2e-16 ***
ownparty                   -0.0025109  0.0893857 -0.0281 0.9776306
originprivate.member       -0.2169908  0.0610565 -3.5539 0.0005213 ***
same.party.amendment.check -0.2478649  0.0779229 -3.1809 0.0018162 **
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

> mm5 <- coeftest(m5, vcov = vcovHAC(m5))
> mm5

t test of coefficients:

                             Estimate Std. Error t value  Pr(>|t|)
(Intercept)                  0.899702   0.073584 12.2268 < 2.2e-16 ***
ownparty                     0.058087   0.071635  0.8109    0.4184
originprivate.member        -0.180649   0.045259 -3.9914 9.131e-05 ***
same.party.amendment.check -0.295324   0.061025 -4.8394 2.551e-06 ***
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

> mm6 <- coeftest(m6, vcov = vcovHAC(m6))
> mm6

t test of coefficients:

                             Estimate Std. Error t value  Pr(>|t|)
(Intercept)                  1.236917   0.060951 20.2937 < 2.2e-16 ***
ownparty                    -0.302899   0.053423 -5.6698 1.032e-07 ***
originprivate.member        -0.240172   0.063680 -3.7715 0.0002551 ***
same.party.amendment.check -0.305716   0.073589 -4.1543 6.202e-05 ***
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

> mm7 <- coeftest(m7, vcov = vcovHAC(m7))
> mm7

t test of coefficients:

                             Estimate Std. Error t value Pr(>|t|)
(Intercept)                  0.923431   0.046992 19.6507  < 2e-16 ***
ownparty                     0.034164   0.043047  0.7936  0.42902
originprivate.member        -0.042768   0.029395 -1.4550  0.14838
same.party.amendment.check -0.096171   0.052575 -1.8292  0.06993 .
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

> mm8 <- coeftest(m8, vcov = vcovHAC(m8))
> mm8

t test of coefficients:

                             Estimate Std. Error t value  Pr(>|t|)
```

```
(Intercept)                 0.9059158  0.0256777 35.2802 < 2.2e-16 ***
ownparty                   -0.0187161  0.0802288 -0.2333  0.816122
originprivate.member       -0.0095834  0.0495587 -0.1934  0.847144
same.party.amendment.check -0.2429348  0.0743838 -3.2660  0.001593 **
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

> mm9 <- coeftest(m9, vcov = vcovHAC(m9))
> mm9

t test of coefficients:

                            Estimate Std. Error t value Pr(>|t|)
(Intercept)                 0.921441   0.051306 17.9597   <2e-16 ***
ownparty                   -0.020359   0.064134 -0.3174   0.7517
originprivate.member       -0.029289   0.056572 -0.5177   0.6060
same.party.amendment.check -0.213448   0.139899 -1.5257   0.1307
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

> mm10 <- coeftest(m10, vcov = vcovHAC(m10))
> mm10

t test of coefficients:

                            Estimate Std. Error t value Pr(>|t|)
(Intercept)                 0.821048   0.032899 24.9564  < 2e-16 ***
ownparty                    0.047759   0.024573  1.9436  0.05448 .
originprivate.member        0.091620   0.039052  2.3461  0.02075 *
same.party.amendment.check -0.025927   0.050127 -0.5172  0.60602
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

> mm11 <- coeftest(m11, vcov = vcovHAC(m11))
> mm11

t test of coefficients:

                            Estimate Std. Error t value Pr(>|t|)
(Intercept)                 0.838278   0.066496 12.6064   <2e-16 ***
ownparty                   -0.027155   0.089833 -0.3023   0.7636
originprivate.member        0.079617   0.071028  1.1209   0.2672
same.party.amendment.check  0.049888   0.028358  1.7592   0.0841 .
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

> mm12 <- coeftest(m12, vcov = vcovHAC(m12))
> mm12

t test of coefficients:

                            Estimate Std. Error t value Pr(>|t|)
(Intercept)                 0.992433   0.031725 31.2819   <2e-16 ***
ownparty                   -0.044045   0.031536 -1.3967   0.1652
originprivate.member       -0.024497   0.031263 -0.7836   0.4349
same.party.amendment.check -0.035574   0.024694 -1.4406   0.1524
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

> mm13 <- coeftest(m13, vcov = vcovHAC(m13))
> mm13

t test of coefficients:

                            Estimate Std. Error t value Pr(>|t|)
(Intercept)                 0.903509   0.083277 10.8495  < 2e-16 ***
ownparty                    0.031611   0.080583  0.3923  0.69606
originprivate.member       -0.077674   0.040989 -1.8950  0.06228 .
same.party.amendment.check -0.186981   0.081286 -2.3003  0.02446 *
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1
```

```
> mm14 <- coeftest(m14, vcov = vcovHAC(m14))
> mm14

t test of coefficients:

                            Estimate Std. Error t value Pr(>|t|)
(Intercept)                 0.909604   0.045389 20.0404   <2e-16 ***
ownparty                    0.107701   0.074684  1.4421   0.1531
originprivate.member       -0.086252   0.066704 -1.2931   0.1997
same.party.amendment.check -0.143993   0.184084 -0.7822   0.4364
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

> mm16 <- coeftest(m16, vcov = vcovHAC(m16))
> mm16

t test of coefficients:

                            Estimate Std. Error t value  Pr(>|t|)
(Intercept)                 0.968014   0.015455 62.6331 < 2.2e-16 ***
ownparty                    0.083953   0.045440  1.8476  0.067949 .
originprivate.member       -0.109172   0.038093 -2.8660  0.005176 **
same.party.amendment.check -0.186826   0.151504 -1.2331  0.220734
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

> mm17 <- coeftest(m17, vcov = vcovHAC(m17))
> mm17

t test of coefficients:

                            Estimate Std. Error t value  Pr(>|t|)
(Intercept)                 1.059544   0.028355 37.3674 < 2.2e-16 ***
ownparty                   -0.058072   0.029255 -1.9851  0.049023 *
originprivate.member       -0.074789   0.028664 -2.6091  0.010029 *
same.party.amendment.check -0.091224   0.022968 -3.9718  0.000112 ***
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

> mm18 <- coeftest(m18, vcov = vcovHAC(m18))
> mm18

t test of coefficients:

                    Estimate Std. Error t value Pr(>|t|)
(Intercept)         0.929323   0.039015 23.8195  < 2e-16 ***
ownparty            0.046503   0.023579  1.9722  0.05553 .
originprivate.member 0.024175   0.046807  0.5165  0.60837
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

> mm19 <- coeftest(m19, vcov = vcovHAC(m19))
> mm19

t test of coefficients:

                             Estimate Std. Error t value Pr(>|t|)
(Intercept)                 0.9764824  0.0128140 76.2042   <2e-16 ***
ownparty                    0.0296686  0.0480415  0.6176   0.5387
originprivate.member       -0.0418653  0.0343249 -1.2197   0.2264
same.party.amendment.check  0.0099675  0.0403430  0.2471   0.8055
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

> mm20 <- coeftest(m20, vcov = vcovHAC(m20))
> mm20

t test of coefficients:

                            Estimate Std. Error t value  Pr(>|t|)
```

```
(Intercept)                0.935086   0.026706 35.0140 < 2.2e-16 ***
ownparty                   0.076559   0.023015  3.3266  0.001109 **
originprivate.member      -0.013269   0.035206 -0.3769  0.706797
same.party.amendment.check 0.064914   0.026706  2.4307  0.016267 *
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

> mm21 <- coeftest(m21, vcov = vcovHAC(m21))
> mm21

t test of coefficients:

                            Estimate Std. Error t value  Pr(>|t|)
(Intercept)                0.9729561  0.0100367 96.9395 < 2.2e-16 ***
ownparty                   0.0381548  0.0112707  3.3853 0.0008549 ***
originprivate.member      -0.0111110  0.0148969 -0.7459 0.4566251
same.party.amendment.check 0.0292661  0.0086565  3.3808 0.0008682 ***
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

> mm22 <- coeftest(m22, vcov = vcovHAC(m22))
> mm22

t test of coefficients:

                            Estimate Std. Error  t value  Pr(>|t|)
(Intercept)                0.9850562  0.0052178 188.7892 < 2.2e-16 ***
ownparty                   0.0496500  0.0164543   3.0175  0.002803 **
originprivate.member      -0.0459595  0.0171894  -2.6737  0.007978 **
same.party.amendment.check 0.0302636  0.0142933   2.1173  0.035185 *
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

> mm26 <- coeftest(m26, vcov = vcovHAC(m26))
> mm26

t test of coefficients:

                           Estimate Std. Error t value  Pr(>|t|)
(Intercept)                0.9584865  0.0126781 75.6014 < 2.2e-16 ***
ownparty                   0.0355533  0.0132346  2.6864  0.008247 **
originprivate.member       0.0022787  0.0179031  0.1273  0.898931
same.party.amendment.check 0.0314858  0.0110404  2.8519  0.005119 **
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

> mm27 <- coeftest(m27, vcov = vcovHAC(m27))
> mm27

t test of coefficients:

                            Estimate Std. Error t value Pr(>|t|)
(Intercept)                0.9351135  0.0228890 40.8542  < 2e-16 ***
ownparty                   0.0614571  0.0441441  1.3922  0.16715
originprivate.member       0.0034294  0.0502644  0.0682  0.94575
same.party.amendment.check -0.1933625  0.0837915 -2.3077  0.02321 *
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

>
> #run graphic
>
> coef <- mm1[3,1]
> se <- mm1[3,2]
> conf1 <- coef + c(-1,1)*se*qt(0.975, m1$df.residual)
> conf1 <- c(conf1,coef,"1st (1867-1872)")
> coef <- mm1[4,1]
> se <- mm1[4,2]
> conf11 <- coef + c(-1,1)*se*qt(0.975, m1$df.residual)
> conf11 <- c(conf11,coef,"1st (1867-1872)")
>
```

```
> coef <- mm2[3,1]
> se <- mm2[3,2]
> conf2 <- coef + c(-1,1)*se*qt(0.975, m2$df.residual)
> conf2 <- c(conf2,coef,"2nd (1872-1874)")
> coef <- mm2[4,1]
> se <- mm2[4,2]
> conf22 <- coef + c(-1,1)*se*qt(0.975, m2$df.residual)
> conf22 <- c(conf22,coef,"2nd (1872-1874)")
>
> coef <- mm3[3,1]
> se <- mm3[3,2]
> conf3 <- coef + c(-1,1)*se*qt(0.975, m3$df.residual)
> conf3 <- c(conf3,coef,"3rd (1874-1878)")
> coef <- mm3[4,1]
> se <- mm3[4,2]
> conf33 <- coef + c(-1,1)*se*qt(0.975, m3$df.residual)
> conf33 <- c(conf33,coef,"3rd (1874-1878)")
>
> coef <- mm4[3,1]
> se <- mm4[3,2]
> conf4 <- coef + c(-1,1)*se*qt(0.975, m4$df.residual)
> conf4 <- c(conf4,coef,"4th (1879-1882)")
> coef <- mm4[4,1]
> se <- mm4[4,2]
> conf44 <- coef + c(-1,1)*se*qt(0.975, m4$df.residual)
> conf44 <- c(conf44,coef,"4th (1879-1882)")
>
> coef <- mm5[3,1]
> se <- mm5[3,2]
> conf5 <- coef + c(-1,1)*se*qt(0.975, m5$df.residual)
> conf5 <- c(conf5,coef,"5th (1883-1887)")
> coef <- mm5[4,1]
> se <- mm5[4,2]
> conf55 <- coef + c(-1,1)*se*qt(0.975, m5$df.residual)
> conf55 <- c(conf55,coef,"5th (1883-1887)")
>
> coef <- mm6[3,1]
> se <- mm6[3,2]
> conf6 <- coef + c(-1,1)*se*qt(0.975, m6$df.residual)
> conf6 <- c(conf6,coef,"6th (1887-1891)")
> coef <- mm6[4,1]
> se <- mm6[4,2]
> conf66 <- coef + c(-1,1)*se*qt(0.975, m6$df.residual)
> conf66 <- c(conf66,coef,"6th (1887-1891)")
>
> coef <- mm7[3,1]
> se <- mm7[3,2]
> conf7 <- coef + c(-1,1)*se*qt(0.975, m7$df.residual)
> conf7 <- c(conf7,coef,"7th (1891-1896)")
> coef <- mm7[4,1]
> se <- mm7[4,2]
> conf77 <- coef + c(-1,1)*se*qt(0.975, m7$df.residual)
> conf77 <- c(conf77,coef,"7th (1891-1896)")
>
> coef <- mm8[3,1]
> se <- mm8[3,2]
> conf8 <- coef + c(-1,1)*se*qt(0.975, m8$df.residual)
> conf8 <- c(conf8,coef,"8th (1896-1900)")
> coef <- mm8[4,1]
> se <- mm8[4,2]
> conf88 <- coef + c(-1,1)*se*qt(0.975, m8$df.residual)
> conf88 <- c(conf88,coef,"8th (1896-1900)")
>
> coef <- mm9[3,1]
> se <- mm9[3,2]
> conf9 <- coef + c(-1,1)*se*qt(0.975, m9$df.residual)
> conf9 <- c(conf9,coef,"9th (1901-1904)")
> coef <- mm9[4,1]
> se <- mm9[4,2]
> conf99 <- coef + c(-1,1)*se*qt(0.975, m9$df.residual)
> conf99 <- c(conf99,coef,"9th (1901-1904)")
```

```
>
> coef <- mm10[3,1]
> se <- mm10[3,2]
> conf10 <- coef + c(-1,1)*se*qt(0.975, m10$df.residual)
> conf10 <- c(conf10,coef,"10th (1905-1908)")
> coef <- mm10[4,1]
> se <- mm10[4,2]
> conf100 <- coef + c(-1,1)*se*qt(0.975, m10$df.residual)
> conf100 <- c(conf100,coef,"10th (1905-1908)")
>
> coef <- mm11[3,1]
> se <- mm11[3,2]
> conf11 <- coef + c(-1,1)*se*qt(0.975, m11$df.residual)
> conf11 <- c(conf11,coef,"11th (1909-1911)")
> coef <- mm11[4,1]
> se <- mm11[4,2]
> conf110 <- coef + c(-1,1)*se*qt(0.975, m11$df.residual)
> conf110 <- c(conf110,coef,"11th (1909-1911)")
>
> coef <- mm12[3,1]
> se <- mm12[3,2]
> conf12 <- coef + c(-1,1)*se*qt(0.975, m12$df.residual)
> conf12 <- c(conf12,coef,"12th (1911-1917)")
> coef <- mm12[4,1]
> se <- mm12[4,2]
> conf120 <- coef + c(-1,1)*se*qt(0.975, m12$df.residual)
> conf120 <- c(conf120,coef,"12th (1911-1917)")
>
> coef <- mm13[3,1]
> se <- mm13[3,2]
> conf13 <- coef + c(-1,1)*se*qt(0.975, m13$df.residual)
> conf13 <- c(conf13,coef,"13th (1917-1921)")
> coef <- mm13[4,1]
> se <- mm13[4,2]
> conf130 <- coef + c(-1,1)*se*qt(0.975, m13$df.residual)
> conf130 <- c(conf130,coef,"13th (1917-1921)")
>
> coef <- mm14[3,1]
> se <- mm14[3,2]
> conf14 <- coef + c(-1,1)*se*qt(0.975, m14$df.residual)
> conf14 <- c(conf14,coef,"14th (1921-1925)")
> coef <- mm14[4,1]
> se <- mm14[4,2]
> conf140 <- coef + c(-1,1)*se*qt(0.975, m14$df.residual)
> conf140 <- c(conf140,coef,"14th (1921-1925)")
>
> coef <- mm16[3,1]
> se <- mm16[3,2]
> conf16 <- coef + c(-1,1)*se*qt(0.975, m16$df.residual)
> conf16 <- c(conf16,coef,"16th (1926-1930)")
> coef <- mm16[4,1]
> se <- mm16[4,2]
> conf160 <- coef + c(-1,1)*se*qt(0.975, m16$df.residual)
> conf160 <- c(conf160,coef,"16th (1926-1930)")
>
> coef <- mm17[3,1]
> se <- mm17[3,2]
> conf17 <- coef + c(-1,1)*se*qt(0.975, m17$df.residual)
> conf17 <- c(conf17,coef,"17th (1930-1935)")
> coef <- mm17[4,1]
> se <- mm17[4,2]
> conf170 <- coef + c(-1,1)*se*qt(0.975, m17$df.residual)
> conf170 <- c(conf170,coef,"17th (1930-1935)")
>
> coef <- mm19[3,1]
> se <- mm19[3,2]
> conf19 <- coef + c(-1,1)*se*qt(0.975, m19$df.residual)
> conf19 <- c(conf19,coef,"19th (1940-1945)")
> coef <- mm19[4,1]
> se <- mm19[4,2]
> conf190 <- coef + c(-1,1)*se*qt(0.975, m19$df.residual)
```

```
> conf190 <- c(conf190,coef,"19th (1940-1945)")
>
> coef <- mm20[3,1]
> se <- mm20[3,2]
> conf20 <- coef + c(-1,1)*se*qt(0.975, m20$df.residual)
> conf20 <- c(conf20,coef,"20th (1945-1949)")
> coef <- mm20[4,1]
> se <- mm20[4,2]
> conf200 <- coef + c(-1,1)*se*qt(0.975, m20$df.residual)
> conf200 <- c(conf200,coef,"20th (1945-1949)")
>
> coef <- mm21[3,1]
> se <- mm21[3,2]
> conf21 <- coef + c(-1,1)*se*qt(0.975, m21$df.residual)
> conf21 <- c(conf21,coef,"21st (1949-1953)")
> coef <- mm21[4,1]
> se <- mm21[4,2]
> conf210 <- coef + c(-1,1)*se*qt(0.975, m21$df.residual)
> conf210 <- c(conf210,coef,"21st (1949-1953)")
>
> coef <- mm22[3,1]
> se <- mm22[3,2]
> conf22 <- coef + c(-1,1)*se*qt(0.975, m22$df.residual)
> conf22 <- c(conf22,coef,"22nd (1953-1957)")
> coef <- mm22[4,1]
> se <- mm22[4,2]
> conf220 <- coef + c(-1,1)*se*qt(0.975, m22$df.residual)
> conf220 <- c(conf220,coef,"22nd (1953-1957)")
>
> coef <- mm26[3,1]
> se <- mm26[3,2]
> conf26 <- coef + c(-1,1)*se*qt(0.975, m26$df.residual)
> conf26 <- c(conf26,coef,"26th (1963-1965)")
> coef <- mm26[4,1]
> se <- mm26[4,2]
> conf260 <- coef + c(-1,1)*se*qt(0.975, m26$df.residual)
> conf260 <- c(conf260,coef,"26th (1963-1965)")
>
> coef <- mm27[3,1]
> se <- mm27[3,2]
> conf27 <- coef + c(-1,1)*se*qt(0.975, m27$df.residual)
> conf27 <- c(conf27,coef,"27th (1965-1968)")
> coef <- mm27[4,1]
> se <- mm27[4,2]
> conf270 <- coef + c(-1,1)*se*qt(0.975, m27$df.residual)
> conf270 <- c(conf270,coef,"27th (1965-1968)")
>
> #libs
>
> data1 <- libs
>
> m8.3 <- rice.bill ~ ownparty + origin + same.party.amendment.check
>
> m1 <- lm(m8.3,data=data1[data1$parlement==1,],)
> m2 <- lm(m8.3,data=data1[data1$parlement==2,],)
> m3 <- lm(m8.3,data=data1[data1$parlement==3,],)
> m4 <- lm(m8.3,data=data1[data1$parlement==4,],)
> m5 <- lm(m8.3,data=data1[data1$parlement==5,],)
> m6 <- lm(m8.3,data=data1[data1$parlement==6,],)
> m7 <- lm(m8.3,data=data1[data1$parlement==7,],)
> m8 <- lm(m8.3,data=data1[data1$parlement==8,],)
> m9 <- lm(m8.3,data=data1[data1$parlement==9,],)
> m10 <- lm(m8.3,data=data1[data1$parlement==10,],)
> m11 <- lm(m8.3,data=data1[data1$parlement==11,],)
> m12 <- lm(m8.3,data=data1[data1$parlement==12,],)
> m13 <- lm(m8.3,data=data1[data1$parlement==13,],)
> m14 <- lm(m8.3,data=data1[data1$parlement==14,],)
> #m15 <- lm(m8.3,data=data1[data1$parlement==15,],)
> m16 <- lm(m8.3,data=data1[data1$parlement==16,],)
> m17 <- lm(m8.3,data=data1[data1$parlement==17,],)
> m18 <- lm(m8.3,data=data1[data1$parlement==18,],)
```

```
> m19 <- lm(m8.3,data=data1[data1$parlement==19,],)
> m20 <- lm(m8.3,data=data1[data1$parlement==20,],)
> m21 <- lm(m8.3,data=data1[data1$parlement==21,],)
> m22 <- lm(m8.3,data=data1[data1$parlement==22,],)
> #m23 <- lm(m8.3,data=data1[data1$parlement==23,],)
> #m24 <- lm(m8.3,data=data1[data1$parlement==24,],)
> #m25 <- lm(m8.3,data=data1[data1$parlement==25,],)
> m26 <- lm(m8.3,data=data1[data1$parlement==26,],)
> m27 <- lm(m8.3,data=data1[data1$parlement==27,],)
>
>
> summary(m1)

Call:
lm(formula = m8.3, data = data1[data1$parlement == 1, ])

Residuals:
     Min       1Q   Median       3Q      Max
-0.56240 -0.20812  0.01726  0.20147  0.52021

Coefficients:
                           Estimate Std. Error t value Pr(>|t|)
(Intercept)                 0.51215    0.02043  25.064  < 2e-16 ***
ownparty                    0.15487    0.05353   2.893  0.00412 **
originprivate.member       -0.07887    0.04020  -1.962  0.05074 .
same.party.amendment.check -0.02574    0.03500  -0.736  0.46262
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.2549 on 279 degrees of freedom
Multiple R-squared:  0.03061,
  Adjusted R-squared:  0.02019
F-statistic: 2.937 on 3 and 279 DF,  p-value: 0.03373

> nobs(m1)
[1] 283
> summary(m2)

Call:
lm(formula = m8.3, data = data1[data1$parlement == 2, ])

Residuals:
     Min       1Q   Median       3Q      Max
-0.48809 -0.09089  0.04660  0.12496  0.38748

Coefficients:
                           Estimate Std. Error t value Pr(>|t|)
(Intercept)                 0.54524    0.07702   7.079 3.02e-08 ***
ownparty                    0.28286    0.07940   3.562  0.00108 **
originprivate.member       -0.04382    0.09585  -0.457  0.65034
same.party.amendment.check -0.13771    0.08954  -1.538  0.13306
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.2178 on 35 degrees of freedom
Multiple R-squared:  0.3122,
  Adjusted R-squared:  0.2533
F-statistic: 5.296 on 3 and 35 DF,  p-value: 0.004072

> nobs(m2)
[1] 39
> summary(m3)

Call:
lm(formula = m8.3, data = data1[data1$parlement == 3, ])

Residuals:
     Min       1Q   Median       3Q      Max
-0.63053 -0.21859  0.08354  0.15810  0.31961

Coefficients:
```

```
                           Estimate Std. Error t value Pr(>|t|)
(Intercept)                 0.77761    0.06115  12.717   <2e-16 ***
ownparty                    0.05722    0.05394   1.061   0.2908
originprivate.member       -0.11064    0.04313  -2.565   0.0115 *
same.party.amendment.check -0.03991    0.04469  -0.893   0.3736
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.2206 on 123 degrees of freedom
Multiple R-squared:  0.09433,
  Adjusted R-squared:  0.07224
F-statistic:  4.27 on 3 and 123 DF,  p-value: 0.006619

> nobs(m3)
[1] 127
> summary(m4)

Call:
lm(formula = m8.3, data = data1[data1$parlement == 4, ])

Residuals:
     Min       1Q   Median       3Q      Max
-0.68330 -0.04825  0.02440  0.13721  0.44190

Coefficients:
                           Estimate Std. Error t value Pr(>|t|)
(Intercept)                0.878037   0.022456  39.100  < 2e-16 ***
ownparty                   0.004157   0.055907   0.074 0.940833
originprivate.member      -0.169095   0.036793  -4.596 9.68e-06 ***
same.party.amendment.check -0.198462   0.050489  -3.931 0.000134 ***
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.1969 on 137 degrees of freedom
Multiple R-squared:  0.2801,
  Adjusted R-squared:  0.2643
F-statistic: 17.77 on 3 and 137 DF,  p-value: 8.448e-10

> nobs(m4)
[1] 141
> summary(m5)

Call:
lm(formula = m8.3, data = data1[data1$parlement == 5, ])

Residuals:
     Min       1Q   Median       3Q      Max
-0.81111 -0.00391  0.03965  0.07414  0.26699

Coefficients:
                           Estimate Std. Error t value Pr(>|t|)
(Intercept)                 0.92586    0.01850  50.055  < 2e-16 ***
ownparty                    0.13736    0.03882   3.538 0.000498 ***
originprivate.member       -0.11173    0.03136  -3.563 0.000455 ***
same.party.amendment.check -0.12112    0.03325  -3.642 0.000342 ***
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.1886 on 206 degrees of freedom
Multiple R-squared:  0.162,
  Adjusted R-squared:  0.1498
F-statistic: 13.28 on 3 and 206 DF,  p-value: 5.855e-08

> nobs(m5)
[1] 210
> summary(m6)

Call:
lm(formula = m8.3, data = data1[data1$parlement == 6, ])

Residuals:
```

```
     Min       1Q   Median       3Q      Max
-0.61947 -0.08014  0.02080  0.20015  0.51206

Coefficients:
                            Estimate Std. Error t value Pr(>|t|)
(Intercept)                  0.90152    0.04043  22.298  < 2e-16 ***
ownparty                     0.30094    0.06357   4.734 6.17e-06 ***
originprivate.member        -0.24450    0.05519  -4.430 2.12e-05 ***
same.party.amendment.check -0.16909    0.05890  -2.871  0.00486 **
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.2574 on 118 degrees of freedom
Multiple R-squared:  0.3045,
  Adjusted R-squared:  0.2868
F-statistic: 17.22 on 3 and 118 DF,  p-value: 2.431e-09

> nobs(m6)
[1] 122
> summary(m7)

Call:
lm(formula = m8.3, data = data1[data1$parlement == 7, ])

Residuals:
     Min       1Q   Median       3Q      Max
-0.69308  0.00382  0.06948  0.09946  0.39838

Coefficients:
                            Estimate Std. Error t value Pr(>|t|)
(Intercept)                  0.78521    0.04839  16.228  < 2e-16 ***
ownparty                    -0.02982    0.05265  -0.566  0.57216
originprivate.member         0.11999    0.05544   2.164  0.03250 *
same.party.amendment.check -0.18360    0.05573  -3.294  0.00131 **
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.2378 on 116 degrees of freedom
Multiple R-squared:  0.1212,
  Adjusted R-squared:  0.09846
F-statistic: 5.332 on 3 and 116 DF,  p-value: 0.001776

> nobs(m7)
[1] 120
> summary(m8)

Call:
lm(formula = m8.3, data = data1[data1$parlement == 8, ])

Residuals:
     Min       1Q   Median       3Q      Max
-0.83527  0.01201  0.03457  0.11473  0.33199

Coefficients:
                            Estimate Std. Error t value Pr(>|t|)
(Intercept)                  1.01810    0.08981  11.336  < 2e-16 ***
ownparty                    -0.05267    0.07943  -0.663 0.509109
originprivate.member        -0.08016    0.05570  -1.439 0.153950
same.party.amendment.check -0.21726    0.06046  -3.593 0.000556 ***
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.2341 on 82 degrees of freedom
Multiple R-squared:  0.1676,
  Adjusted R-squared:  0.1371
F-statistic: 5.503 on 3 and 82 DF,  p-value: 0.001709

> nobs(m8)
[1] 86
> summary(m9)
```

```
Call:
lm(formula = m8.3, data = data1[data1$parlement == 9, ])

Residuals:
     Min       1Q   Median       3Q      Max
-0.85127  0.01467  0.02227  0.07181  0.11027

Coefficients:
                           Estimate Std. Error t value Pr(>|t|)
(Intercept)                 0.93928    0.05235  17.944   <2e-16 ***
ownparty                    0.03845    0.04473   0.860    0.392
originprivate.member       -0.04955    0.03759  -1.318    0.191
same.party.amendment.check  0.04811    0.06603   0.729    0.468
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.1651 on 88 degrees of freedom
Multiple R-squared:  0.04118,
  Adjusted R-squared:  0.008492
F-statistic:  1.26 on 3 and 88 DF,  p-value: 0.2932

> nobs(m9)
[1] 92
> summary(m10)

Call:
lm(formula = m8.3, data = data1[data1$parlement == 10, ])

Residuals:
     Min       1Q   Median       3Q      Max
-0.40355  0.00656  0.01751  0.02609  0.08719

Coefficients:
                            Estimate Std. Error t value Pr(>|t|)
(Intercept)                 0.998323   0.019750  50.547  < 2e-16 ***
ownparty                   -0.008585   0.016668  -0.515  0.60753
originprivate.member       -0.015829   0.014545  -1.088  0.27883
same.party.amendment.check -0.076931   0.023651  -3.253  0.00151 **
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.06947 on 111 degrees of freedom
Multiple R-squared:  0.08797,
  Adjusted R-squared:  0.06332
F-statistic: 3.569 on 3 and 111 DF,  p-value: 0.01643

> nobs(m10)
[1] 115
> summary(m11)

Call:
lm(formula = m8.3, data = data1[data1$parlement == 11, ])

Residuals:
     Min       1Q   Median       3Q      Max
-0.66852  0.00356  0.02564  0.04116  0.04116

Coefficients:
                           Estimate Std. Error t value Pr(>|t|)
(Intercept)                 1.02608    0.05207  19.707   <2e-16 ***
ownparty                   -0.02964    0.04410  -0.672    0.504
originprivate.member       -0.03760    0.03736  -1.006    0.319
same.party.amendment.check  0.01552    0.08741   0.178    0.860
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.1203 on 55 degrees of freedom
Multiple R-squared:  0.02319,
  Adjusted R-squared:  -0.03009
F-statistic: 0.4352 on 3 and 55 DF,  p-value: 0.7287
```

```
> nobs(m11)
[1] 59
> summary(m12)

Call:
lm(formula = m8.3, data = data1[data1$parlement == 12, ])

Residuals:
     Min       1Q   Median       3Q      Max
-0.93478  0.03399  0.06522  0.09113  0.11326

Coefficients:
                             Estimate Std. Error t value Pr(>|t|)
(Intercept)                 0.9088703  0.0262752  34.590   <2e-16 ***
ownparty                    0.0262092  0.0558494   0.469    0.640
originprivate.member       -0.0002977  0.0456084  -0.007    0.995
same.party.amendment.check -0.0218359  0.0763410  -0.286    0.775
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.2065 on 117 degrees of freedom
Multiple R-squared:  0.00386,
  Adjusted R-squared:  -0.02168
F-statistic: 0.1511 on 3 and 117 DF,  p-value: 0.9288

> nobs(m12)
[1] 121
> summary(m13)

Call:
lm(formula = m8.3, data = data1[data1$parlement == 13, ])

Residuals:
     Min       1Q   Median       3Q      Max
-0.79560  0.03018  0.05272  0.05272  0.15521

Coefficients:
                            Estimate Std. Error t value Pr(>|t|)
(Intercept)                 0.947284   0.027719  34.175   <2e-16 ***
ownparty                    0.009158   0.078113   0.117    0.907
originprivate.member       -0.002781   0.051477  -0.054    0.957
same.party.amendment.check -0.099717   0.064259  -1.552    0.125
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.1841 on 69 degrees of freedom
Multiple R-squared:  0.03615,
  Adjusted R-squared:  -0.00576
F-statistic: 0.8626 on 3 and 69 DF,  p-value: 0.4648

> nobs(m13)
[1] 73
> summary(m14)

Call:
lm(formula = m8.3, data = data1[data1$parlement == 14, ])

Residuals:
     Min       1Q   Median       3Q      Max
-0.50323 -0.02493  0.02724  0.02807  0.33721

Coefficients:
                             Estimate Std. Error t value Pr(>|t|)
(Intercept)                 0.7376966  0.0505759  14.586  < 2e-16 ***
ownparty                    0.2342344  0.0416619   5.622  2.6e-07 ***
originprivate.member        0.0008246  0.0416619   0.020    0.984
same.party.amendment.check -0.0757349  0.0798657  -0.948    0.346
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.1553 on 81 degrees of freedom
```

```
Multiple R-squared:  0.3502,
  Adjusted R-squared:  0.3261
F-statistic: 14.55 on 3 and 81 DF,  p-value: 1.146e-07

> nobs(m14)
[1] 85
> summary(m16)

Call:
lm(formula = m8.3, data = data1[data1$parlement == 16, ])

Residuals:
     Min       1Q   Median       3Q      Max
-0.80603 -0.14754  0.00742  0.16540  0.35153

Coefficients:
                           Estimate Std. Error t value Pr(>|t|)
(Intercept)                 0.80645    0.09053   8.908 5.34e-14 ***
ownparty                    0.18613    0.06455   2.884  0.00492 **
originprivate.member       -0.15798    0.08215  -1.923  0.05764 .
same.party.amendment.check  0.26372    0.15865   1.662  0.09993 .
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.2693 on 90 degrees of freedom
Multiple R-squared:  0.2198,
  Adjusted R-squared:  0.1938
F-statistic: 8.453 on 3 and 90 DF,  p-value: 5.226e-05

> nobs(m16)
[1] 94
> summary(m17)

Call:
lm(formula = m8.3, data = data1[data1$parlement == 17, ])

Residuals:
     Min       1Q   Median       3Q      Max
-0.74813  0.02189  0.04867  0.08990  0.24457

Coefficients:
                           Estimate Std. Error t value Pr(>|t|)
(Intercept)                 0.91359    0.02593  35.230   <2e-16 ***
ownparty                    0.09042    0.04293   2.106   0.0369 *
originprivate.member       -0.08350    0.03673  -2.273   0.0245 *
same.party.amendment.check -0.13716    0.08251  -1.662   0.0986 .
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.1963 on 145 degrees of freedom
Multiple R-squared:  0.06111,
  Adjusted R-squared:  0.04169
F-statistic: 3.146 on 3 and 145 DF,  p-value: 0.02705

> nobs(m17)
[1] 149
> summary(m18)

Call:
lm(formula = m8.3, data = data1[data1$parlement == 18, ])

Residuals:
     Min       1Q   Median       3Q      Max
-0.42831  0.02113  0.03710  0.04310  0.05740

Coefficients: (1 not defined because of singularities)
                           Estimate Std. Error t value Pr(>|t|)
(Intercept)                 0.99917    0.04685  21.328   <2e-16 ***
ownparty                   -0.02030    0.03469  -0.585    0.562
originprivate.member       -0.03627    0.04014  -0.904    0.372
same.party.amendment.check       NA         NA      NA       NA
```

```
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.09958 on 40 degrees of freedom
Multiple R-squared:  0.02101,
  Adjusted R-squared:  -0.02794
F-statistic: 0.4292 on 2 and 40 DF,  p-value: 0.654

> nobs(m18)
[1] 43
> summary(m19)

Call:
lm(formula = m8.3, data = data1[data1$parlement == 19, ])

Residuals:
     Min       1Q   Median       3Q      Max
-0.43524 -0.00603  0.02010  0.02807  0.12032

Coefficients:
                            Estimate Std. Error t value Pr(>|t|)
(Intercept)                 0.884301   0.040097  22.054  < 2e-16 ***
ownparty                   -0.004619   0.033857  -0.136  0.89185
originprivate.member        0.095597   0.031990   2.988  0.00379 **
same.party.amendment.check -0.125016   0.061502  -2.033  0.04562 *
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.1184 on 75 degrees of freedom
Multiple R-squared:  0.1916,
  Adjusted R-squared:  0.1593
F-statistic: 5.925 on 3 and 75 DF,  p-value: 0.001104

> nobs(m19)
[1] 79
> summary(m20)

Call:
lm(formula = m8.3, data = data1[data1$parlement == 20, ])

Residuals:
     Min       1Q   Median       3Q      Max
-0.76246  0.02550  0.03316  0.05572  0.05642

Coefficients:
                            Estimate Std. Error t value Pr(>|t|)
(Intercept)                 0.9738079  0.0363255  26.808   <2e-16 ***
ownparty                    0.0006943  0.0301737   0.023    0.982
originprivate.member       -0.0302236  0.0304192  -0.994    0.322
same.party.amendment.check  0.0254978  0.1060662   0.240    0.810
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.1472 on 148 degrees of freedom
Multiple R-squared:  0.01115,
  Adjusted R-squared:  -0.008892
F-statistic: 0.5564 on 3 and 148 DF,  p-value: 0.6447

> nobs(m20)
[1] 152
> summary(m21)

Call:
lm(formula = m8.3, data = data1[data1$parlement == 21, ])

Residuals:
     Min       1Q   Median       3Q      Max
-0.96031  0.00309  0.01612  0.02477  0.02920

Coefficients:
                            Estimate Std. Error t value Pr(>|t|)
```

```
(Intercept)                0.992488   0.017560  56.521   <2e-16 ***
ownparty                   0.004426   0.014049   0.315    0.753
originprivate.member      -0.021684   0.013846  -1.566    0.119
same.party.amendment.check 0.007423   0.037801   0.196    0.845
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.08225 on 201 degrees of freedom
Multiple R-squared:  0.0187,
  Adjusted R-squared:  0.004053
F-statistic: 1.277 on 3 and 201 DF,  p-value: 0.2835

> nobs(m21)
[1] 205
> summary(m22)

Call:
lm(formula = m8.3, data = data1[data1$parlement == 22, ])

Residuals:
     Min       1Q   Median       3Q      Max
-0.75708  0.00103  0.01485  0.01533  0.01533

Coefficients:
                           Estimate Std. Error t value Pr(>|t|)
(Intercept)                0.9984957  0.0105062  95.038   <2e-16 ***
ownparty                   0.0004773  0.0085906   0.056    0.956
originprivate.member      -0.0138266  0.0084897  -1.629    0.105
same.party.amendment.check 0.0061132  0.0338070   0.181    0.857
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.05672 on 259 degrees of freedom
Multiple R-squared:  0.014,
  Adjusted R-squared:  0.002579
F-statistic: 1.226 on 3 and 259 DF,  p-value: 0.3008

> nobs(m22)
[1] 263
> summary(m26)

Call:
lm(formula = m8.3, data = data1[data1$parlement == 26, ])

Residuals:
      Min        1Q    Median        3Q       Max
-0.031436  0.001306  0.001463  0.003652  0.003652

Coefficients:
                           Estimate Std. Error t value Pr(>|t|)
(Intercept)                0.9995859  0.0018639 536.287   <2e-16 ***
ownparty                  -0.0023458  0.0014432  -1.625    0.107
originprivate.member      -0.0008922  0.0015928  -0.560    0.576
same.party.amendment.check 0.0020331  0.0035555   0.572    0.569
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.006937 on 120 degrees of freedom
Multiple R-squared:  0.02591,
  Adjusted R-squared:  0.001559
F-statistic: 1.064 on 3 and 120 DF,  p-value: 0.3671

> nobs(m26)
[1] 124
> summary(m27)

Call:
lm(formula = m8.3, data = data1[data1$parlement == 27, ])

Residuals:
     Min       1Q   Median       3Q      Max
```

```
-0.78715  0.00220  0.03543  0.03543  0.45156

Coefficients:
                            Estimate Std. Error t value Pr(>|t|)
(Intercept)                 0.966765   0.065522  14.755  < 2e-16 ***
ownparty                   -0.002199   0.063352  -0.035    0.972
originprivate.member        0.033235   0.034226   0.971    0.334
same.party.amendment.check -0.436962   0.070442  -6.203 1.47e-08 ***
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.1369 on 94 degrees of freedom
Multiple R-squared:  0.309,
  Adjusted R-squared:  0.287
F-statistic: 14.01 on 3 and 94 DF,  p-value: 1.265e-07

> nobs(m27)
[1] 98
>
> mmm1 <- coeftest(m1, vcov = vcovHAC(m1))
> mmm1

t test of coefficients:

                            Estimate Std. Error t value  Pr(>|t|)
(Intercept)                 0.512148   0.023294 21.9858 < 2.2e-16 ***
ownparty                    0.154867   0.058745  2.6363  0.008852 **
originprivate.member       -0.078872   0.038377 -2.0552  0.040793 *
same.party.amendment.check -0.025741   0.039525 -0.6513  0.515416
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

> mmm2 <- coeftest(m2, vcov = vcovHAC(m2))
> mmm2

t test of coefficients:

                            Estimate Std. Error t value  Pr(>|t|)
(Intercept)                 0.545235   0.067462  8.0821 1.625e-09 ***
ownparty                    0.282855   0.099260  2.8496  0.007286 **
originprivate.member       -0.043823   0.114590 -0.3824  0.704453
same.party.amendment.check -0.137705   0.089884 -1.5320  0.134505
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

> mmm3 <- coeftest(m3, vcov = vcovHAC(m3))
> mmm3

t test of coefficients:

                            Estimate Std. Error t value Pr(>|t|)
(Intercept)                 0.777607   0.070422 11.0421  < 2e-16 ***
ownparty                    0.057222   0.063455  0.9018  0.36894
originprivate.member       -0.110642   0.052264 -2.1170  0.03628 *
same.party.amendment.check -0.039911   0.044657 -0.8937  0.37321
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

> mmm4 <- coeftest(m4, vcov = vcovHAC(m4))
> mmm4

t test of coefficients:

                             Estimate Std. Error  t value  Pr(>|t|)
(Intercept)                 0.8780374  0.0083920 104.6282 < 2.2e-16 ***
ownparty                    0.0041573  0.0817518   0.0509 0.9595174
originprivate.member       -0.1690947  0.0434379  -3.8928 0.0001541 ***
same.party.amendment.check -0.1984619  0.0858306  -2.3123 0.0222546 *
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1
```

```
> mmm5 <- coeftest(m5, vcov = vcovHAC(m5))
> mmm5

t test of coefficients:

                            Estimate Std. Error t value  Pr(>|t|)
(Intercept)                 0.925860   0.014058 65.8591 < 2.2e-16 ***
ownparty                    0.137356   0.040498  3.3917 0.0008328 ***
originprivate.member       -0.111734   0.039865 -2.8028 0.0055501 **
same.party.amendment.check -0.121119   0.042751 -2.8331 0.0050673 **
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

> mmm6 <- coeftest(m6, vcov = vcovHAC(m6))
> mmm6

t test of coefficients:

                            Estimate Std. Error t value  Pr(>|t|)
(Intercept)                 0.901524   0.020666 43.6245 < 2.2e-16 ***
ownparty                    0.300943   0.057928  5.1951 8.665e-07 ***
originprivate.member       -0.244500   0.054615 -4.4768 1.759e-05 ***
same.party.amendment.check -0.169087   0.073318 -2.3062   0.02284 *
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

> mmm7 <- coeftest(m7, vcov = vcovHAC(m7))
> mmm7

t test of coefficients:

                            Estimate Std. Error t value Pr(>|t|)
(Intercept)                 0.785214   0.054995 14.2780  < 2e-16 ***
ownparty                   -0.029824   0.056459 -0.5282  0.59834
originprivate.member        0.119992   0.065216  1.8399  0.06834 .
same.party.amendment.check -0.183596   0.081986 -2.2394  0.02704 *
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

> mmm8 <- coeftest(m8, vcov = vcovHAC(m8))
> mmm8

t test of coefficients:

                            Estimate Std. Error t value  Pr(>|t|)
(Intercept)                 1.018102   0.072053 14.1299 < 2.2e-16 ***
ownparty                   -0.052672   0.066303 -0.7944  0.429248
originprivate.member       -0.080157   0.056572 -1.4169  0.160303
same.party.amendment.check -0.217260   0.073357 -2.9617  0.004002 **
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

> mmm9 <- coeftest(m9, vcov = vcovHAC(m9))
> mmm9

t test of coefficients:

                            Estimate Std. Error t value Pr(>|t|)
(Intercept)                 0.939282   0.052002 18.0624  < 2e-16 ***
ownparty                    0.038452   0.052579  0.7313  0.46653
originprivate.member       -0.049549   0.027404 -1.8081  0.07401 .
same.party.amendment.check  0.048114   0.030282  1.5888  0.11568
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

> mmm10 <- coeftest(m10, vcov = vcovHAC(m10))
> mmm10

t test of coefficients:

                             Estimate Std. Error t value Pr(>|t|)
```

```
(Intercept)                 0.9983228  0.0267180 37.3652   <2e-16 ***
ownparty                   -0.0085854  0.0217324 -0.3951   0.6936
originprivate.member       -0.0158290  0.0175879 -0.9000   0.3701
same.party.amendment.check -0.0769315  0.0486004 -1.5829   0.1163
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

> mmm11 <- coeftest(m11, vcov = vcovHAC(m11))
> mmm11

t test of coefficients:

                            Estimate Std. Error t value Pr(>|t|)
(Intercept)                 1.026078   0.022653 45.2945   <2e-16 ***
ownparty                   -0.029638   0.023925 -1.2388   0.2207
originprivate.member       -0.037601   0.024237 -1.5514   0.1265
same.party.amendment.check  0.015520   0.033417  0.4644   0.6442
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

> mmm12 <- coeftest(m12, vcov = vcovHAC(m12))
> mmm12

t test of coefficients:

                              Estimate  Std. Error t value Pr(>|t|)
(Intercept)                 0.90887030  0.02563636 35.4524   <2e-16 ***
ownparty                    0.02620924  0.06338954  0.4135   0.6800
originprivate.member       -0.00029766  0.05305455 -0.0056   0.9955
same.party.amendment.check -0.02183592  0.06370768 -0.3428   0.7324
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

> mmm13 <- coeftest(m13, vcov = vcovHAC(m13))
> mmm13

t test of coefficients:

                             Estimate Std. Error t value Pr(>|t|)
(Intercept)                 0.9472837  0.0344085 27.5305   <2e-16 ***
ownparty                    0.0091584  0.0393960  0.2325   0.8169
originprivate.member       -0.0027811  0.0446961 -0.0622   0.9506
same.party.amendment.check -0.0997175  0.0770380 -1.2944   0.1998
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

> mmm14 <- coeftest(m14, vcov = vcovHAC(m14))
> mmm14

t test of coefficients:

                              Estimate  Std. Error t value  Pr(>|t|)
(Intercept)                 0.73769657  0.04847381 15.2185 < 2.2e-16 ***
ownparty                    0.23423442  0.04732907  4.9491 3.987e-06 ***
originprivate.member        0.00082462  0.01475032  0.0559    0.9556
same.party.amendment.check -0.07573488  0.12907563 -0.5867    0.5590
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

> mmm16 <- coeftest(m16, vcov = vcovHAC(m16))
> mmm16

t test of coefficients:

                            Estimate Std. Error t value  Pr(>|t|)
(Intercept)                 0.806448   0.076541  10.536 < 2.2e-16 ***
ownparty                    0.186134   0.076599   2.430  0.017085 *
originprivate.member       -0.157982   0.057848  -2.731  0.007598 **
same.party.amendment.check  0.263722   0.061019   4.322  3.98e-05 ***
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1
```

```
> mmm17 <- coeftest(m17, vcov = vcovHAC(m17))
> mmm17

t test of coefficients:

                            Estimate Std. Error t value Pr(>|t|)
(Intercept)                 0.913594   0.021612 42.2734  < 2e-16 ***
ownparty                    0.090421   0.038380  2.3560  0.01981 *
originprivate.member       -0.083498   0.040457 -2.0638  0.04081 *
same.party.amendment.check -0.137163   0.125773 -1.0906  0.27727
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

> mmm18 <- coeftest(m18, vcov = vcovHAC(m18))
> mmm18

t test of coefficients:

                      Estimate Std. Error t value Pr(>|t|)
(Intercept)           0.999171   0.038151 26.1898   <2e-16 ***
ownparty             -0.020298   0.035866 -0.5660   0.5746
originprivate.member -0.036274   0.034418 -1.0539   0.2982
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

> mmm19 <- coeftest(m19, vcov = vcovHAC(m19))
> mmm19

t test of coefficients:

                             Estimate Std. Error t value Pr(>|t|)
(Intercept)                 0.8843012  0.0430982 20.5183  < 2e-16 ***
ownparty                   -0.0046187  0.0183754 -0.2514  0.80223
originprivate.member        0.0955967  0.0390202  2.4499  0.01662 *
same.party.amendment.check -0.1250159  0.0866057 -1.4435  0.15304
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

> mmm20 <- coeftest(m20, vcov = vcovHAC(m20))
> mmm20

t test of coefficients:

                              Estimate  Std. Error t value Pr(>|t|)
(Intercept)                 0.97380790  0.03815134 25.5249  < 2e-16 ***
ownparty                    0.00069433  0.03524212  0.0197  0.98431
originprivate.member       -0.03022355  0.03351032 -0.9019  0.36857
same.party.amendment.check  0.02549777  0.01390405  1.8338  0.06869 .
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

> mmm21 <- coeftest(m21, vcov = vcovHAC(m21))
> mmm21

t test of coefficients:

                             Estimate Std. Error t value Pr(>|t|)
(Intercept)                 0.9924879  0.0158828 62.4881  < 2e-16 ***
ownparty                    0.0044262  0.0159735  0.2771  0.78199
originprivate.member       -0.0216837  0.0125107 -1.7332  0.08459 .
same.party.amendment.check  0.0074227  0.0049064  1.5129  0.13188
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

> mmm22 <- coeftest(m22, vcov = vcovHAC(m22))
> mmm22

t test of coefficients:

                              Estimate  Std. Error t value Pr(>|t|)
```

```
(Intercept)                 0.99849570  0.01024616 97.4507   <2e-16 ***
ownparty                    0.00047733  0.01029628  0.0464   0.9631
originprivate.member       -0.01382663  0.00892293 -1.5496   0.1225
same.party.amendment.check  0.00611318  0.00867820  0.7044   0.4818
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

> mmm26 <- coeftest(m26, vcov = vcovHAC(m26))
> mmm26

t test of coefficients:

                             Estimate  Std. Error  t value Pr(>|t|)
(Intercept)                 0.99958586  0.00211759 472.0399  < 2e-16 ***
ownparty                   -0.00234583  0.00153848  -1.5248  0.12995
originprivate.member       -0.00089216  0.00207467  -0.4300  0.66795
same.party.amendment.check  0.00203313  0.00105685   1.9238  0.05675 .
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

> mmm27 <- coeftest(m27, vcov = vcovHAC(m27))
> mmm27

t test of coefficients:

                             Estimate Std. Error t value Pr(>|t|)
(Intercept)                 0.9667652  0.0210893 45.8414  < 2e-16 ***
ownparty                   -0.0021994  0.0013769 -1.5974  0.11354
originprivate.member        0.0332348  0.0210893  1.5759  0.11841
same.party.amendment.check -0.4369621  0.2480740 -1.7614  0.08142 .
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

>
> #run graphics
>
> coef <- mmm1[3,1]
> se <- mmm1[3,2]
> conff1 <- coef + c(-1,1)*se*qt(0.975, m1$df.residual)
> conff1 <- c(conff1,coef,"1st (1867-1872)")
> coef <- mmm1[4,1]
> se <- mmm1[4,2]
> conff11 <- coef + c(-1,1)*se*qt(0.975, m1$df.residual)
> conff11 <- c(conff11,coef,"1st (1867-1872)")
>
> coef <- mmm2[3,1]
> se <- mmm2[3,2]
> conff2 <- coef + c(-1,1)*se*qt(0.975, m2$df.residual)
> conff2 <- c(conff2,coef,"2nd (1872-1874)")
> coef <- mmm2[4,1]
> se <- mmm2[4,2]
> conff22 <- coef + c(-1,1)*se*qt(0.975, m2$df.residual)
> conff22 <- c(conff22,coef,"2nd (1872-1874)")
>
> coef <- mmm3[3,1]
> se <- mmm3[3,2]
> conff3 <- coef + c(-1,1)*se*qt(0.975, m3$df.residual)
> conff3 <- c(conff3,coef,"3rd (1874-1878)")
> coef <- mmm3[4,1]
> se <- mmm3[4,2]
> conff33 <- coef + c(-1,1)*se*qt(0.975, m3$df.residual)
> conff33 <- c(conff33,coef,"3rd (1874-1878)")
>
> coef <- mmm4[3,1]
> se <- mmm4[3,2]
> conff4 <- coef + c(-1,1)*se*qt(0.975, m4$df.residual)
> conff4 <- c(conff4,coef,"4th (1879-1882)")
> coef <- mmm4[4,1]
> se <- mmm4[4,2]
> conff44 <- coef + c(-1,1)*se*qt(0.975, m4$df.residual)
> conff44 <- c(conff44,coef,"4th (1879-1882)")
```

```
>
> coef <- mmm5[3,1]
> se <- mmm5[3,2]
> conff5 <- coef + c(-1,1)*se*qt(0.975, m5$df.residual)
> conff5 <- c(conff5,coef,"5th (1883-1887)")
> coef <- mmm5[4,1]
> se <- mmm5[4,2]
> conff55 <- coef + c(-1,1)*se*qt(0.975, m5$df.residual)
> conff55 <- c(conff55,coef,"5th (1883-1887)")
>
> coef <- mmm6[3,1]
> se <- mmm6[3,2]
> conff6 <- coef + c(-1,1)*se*qt(0.975, m6$df.residual)
> conff6 <- c(conff6,coef,"6th (1887-1891)")
> coef <- mmm6[4,1]
> se <- mmm6[4,2]
> conff66 <- coef + c(-1,1)*se*qt(0.975, m6$df.residual)
> conff66 <- c(conff66,coef,"6th (1887-1891)")
>
> coef <- mmm7[3,1]
> se <- mmm7[3,2]
> conff7 <- coef + c(-1,1)*se*qt(0.975, m7$df.residual)
> conff7 <- c(conff7,coef,"7th (1891-1896)")
> coef <- mmm7[4,1]
> se <- mmm7[4,2]
> conff77 <- coef + c(-1,1)*se*qt(0.975, m7$df.residual)
> conff77 <- c(conff77,coef,"7th (1891-1896)")
>
> coef <- mmm8[3,1]
> se <- mmm8[3,2]
> conff8 <- coef + c(-1,1)*se*qt(0.975, m8$df.residual)
> conff8 <- c(conff8,coef,"8th (1896-1900)")
> coef <- mmm8[4,1]
> se <- mmm8[4,2]
> conff88 <- coef + c(-1,1)*se*qt(0.975, m8$df.residual)
> conff88 <- c(conff88,coef,"8th (1896-1900)")
>
> coef <- mmm9[3,1]
> se <- mmm9[3,2]
> conff9 <- coef + c(-1,1)*se*qt(0.975, m9$df.residual)
> conff9 <- c(conff9,coef,"9th (1901-1904)")
> coef <- mmm9[4,1]
> se <- mmm9[4,2]
> conff99 <- coef + c(-1,1)*se*qt(0.975, m9$df.residual)
> conff99 <- c(conff99,coef,"9th (1901-1904)")
>
> coef <- mmm10[3,1]
> se <- mmm10[3,2]
> conff10 <- coef + c(-1,1)*se*qt(0.975, m10$df.residual)
> conff10 <- c(conff10,coef,"10th (1905-1908)")
> coef <- mmm10[4,1]
> se <- mmm10[4,2]
> conff100 <- coef + c(-1,1)*se*qt(0.975, m10$df.residual)
> conff100 <- c(conff100,coef,"10th (1905-1908)")
>
> coef <- mmm11[3,1]
> se <- mmm11[3,2]
> conff11 <- coef + c(-1,1)*se*qt(0.975, m11$df.residual)
> conff11 <- c(conff11,coef,"11th (1909-1911)")
> coef <- mmm11[4,1]
> se <- mmm11[4,2]
> conff110 <- coef + c(-1,1)*se*qt(0.975, m11$df.residual)
> conff110 <- c(conff110,coef,"11th (1909-1911)")
>
> coef <- mmm12[3,1]
> se <- mmm12[3,2]
> conff12 <- coef + c(-1,1)*se*qt(0.975, m12$df.residual)
> conff12 <- c(conff12,coef,"12th (1911-1917)")
> coef <- mmm12[4,1]
> se <- mmm12[4,2]
> conff120 <- coef + c(-1,1)*se*qt(0.975, m12$df.residual)
```

```
> conff120 <- c(conff120,coef,"12th (1911-1917)")
>
> coef <- mmm13[3,1]
> se <- mmm13[3,2]
> conff13 <- coef + c(-1,1)*se*qt(0.975, m13$df.residual)
> conff13 <- c(conff13,coef,"13th (1917-1921)")
> coef <- mmm13[4,1]
> se <- mmm13[4,2]
> conff130 <- coef + c(-1,1)*se*qt(0.975, m13$df.residual)
> conff130 <- c(conff130,coef,"13th (1917-1921)")
>
> coef <- mmm14[3,1]
> se <- mmm14[3,2]
> conff14 <- coef + c(-1,1)*se*qt(0.975, m14$df.residual)
> conff14 <- c(conff14,coef,"14th (1921-1925)")
> coef <- mmm14[4,1]
> se <- mmm14[4,2]
> conff140 <- coef + c(-1,1)*se*qt(0.975, m14$df.residual)
> conff140 <- c(conff140,coef,"14th (1921-1925)")
>
> coef <- mmm16[3,1]
> se <- mmm16[3,2]
> conff16 <- coef + c(-1,1)*se*qt(0.975, m16$df.residual)
> conff16 <- c(conff16,coef,"16th (1926-1930)")
> coef <- mmm16[4,1]
> se <- mmm16[4,2]
> conff160 <- coef + c(-1,1)*se*qt(0.975, m16$df.residual)
> conff160 <- c(conff160,coef,"16th (1926-1930)")
>
> coef <- mmm17[3,1]
> se <- mmm17[3,2]
> conff17 <- coef + c(-1,1)*se*qt(0.975, m17$df.residual)
> conff17 <- c(conff17,coef,"17th (1930-1935)")
> coef <- mmm17[4,1]
> se <- mmm17[4,2]
> conff170 <- coef + c(-1,1)*se*qt(0.975, m17$df.residual)
> conff170 <- c(conff170,coef,"17th (1930-1935)")
>
> coef <- mmm19[3,1]
> se <- mmm19[3,2]
> conff19 <- coef + c(-1,1)*se*qt(0.975, m19$df.residual)
> conff19 <- c(conff19,coef,"19th (1940-1945)")
> coef <- mmm19[4,1]
> se <- mmm19[4,2]
> conff190 <- coef + c(-1,1)*se*qt(0.975, m19$df.residual)
> conff190 <- c(conff190,coef,"19th (1940-1945)")
>
> coef <- mmm20[3,1]
> se <- mmm20[3,2]
> conff20 <- coef + c(-1,1)*se*qt(0.975, m20$df.residual)
> conff20 <- c(conff20,coef,"20th (1945-1949)")
> coef <- mmm20[4,1]
> se <- mmm20[4,2]
> conff200 <- coef + c(-1,1)*se*qt(0.975, m20$df.residual)
> conff200 <- c(conff200,coef,"20th (1945-1949)")
>
> coef <- mmm21[3,1]
> se <- mmm21[3,2]
> conff21 <- coef + c(-1,1)*se*qt(0.975, m21$df.residual)
> conff21 <- c(conff21,coef,"21st (1949-1953)")
> coef <- mmm21[4,1]
> se <- mmm21[4,2]
> conff210 <- coef + c(-1,1)*se*qt(0.975, m21$df.residual)
> conff210 <- c(conff210,coef,"21st (1949-1953)")
>
> coef <- mmm22[3,1]
> se <- mmm22[3,2]
> conff22 <- coef + c(-1,1)*se*qt(0.975, m22$df.residual)
> conff22 <- c(conff22,coef,"22nd (1953-1957)")
> coef <- mmm22[4,1]
> se <- mmm22[4,2]
```

```
> conff220 <- coef + c(-1,1)*se*qt(0.975, m22$df.residual)
> conff220 <- c(conff220,coef,"22nd (1953-1957)")
>
> coef <- mmm26[3,1]
> se <- mmm26[3,2]
> conff26 <- coef + c(-1,1)*se*qt(0.975, m26$df.residual)
> conff26 <- c(conff26,coef,"26th (1963-1965)")
> coef <- mmm26[4,1]
> se <- mmm26[4,2]
> conff260 <- coef + c(-1,1)*se*qt(0.975, m26$df.residual)
> conff260 <- c(conff260,coef,"26th (1963-1965)")
>
> coef <- mmm27[3,1]
> se <- mmm27[3,2]
> conff27 <- coef + c(-1,1)*se*qt(0.975, m27$df.residual)
> conff27 <- c(conff27,coef,"27th (1965-1968)")
> coef <- mmm27[4,1]
> se <- mmm27[4,2]
> conff270 <- coef + c(-1,1)*se*qt(0.975, m27$df.residual)
> conff270 <- c(conff270,coef,"27th (1965-1968)")
>
> ###############
> #3. Figure 8.3#
> ###############
>
> #Libs
>
> a1 <-
rbind(conff27,conff26,conff22,conff21,conff20,conff19,conff17,conff16,conff14,conff13,conff12,conff11,conff10,c
onff9,conff8,conff7,conff6,conff5,conff4,conff3,conff2,conff1)
> a2 <-
rbind(conff270,conff260,conff220,conff210,conff200,conff190,conff170,conff160,conff140,conff130,conff120,conff1
10,conff100,conff99,conff88,conff77,conff66,conff55,conff44,conff33,conff22,conff11)
>
> colnames(a1) <- c("low","high","coef","V1")
> a1 <- data.frame(a1)
> a1$low <- as.numeric(as.character(a1$low))
> a1$high <- as.numeric(as.character(a1$high))
> a1$coef <- as.numeric(as.character(a1$coef))
> a1$specification <- 1:22
> a1$method <- paste("Private Member Motions/Bills")
>
> colnames(a2) <- c("low","high","coef","V1")
> a2 <- data.frame(a2)
> a2$low <- as.numeric(as.character(a2$low))
> a2$high <- as.numeric(as.character(a2$high))
> a2$coef <- as.numeric(as.character(a2$coef))
> a2$specification <- 1:22
> a2$method <- paste("Same Party Amendment")
>
> all <- rbind(a1,a2)
>
> #library(ggplot2)
> #tiff(file = "~/Dropbox/Canada-Manuscript/Figures-Final/Figure-8.3.2.jpg", width = 8, height = 8, units =
'in', res = 200)
> #pd <- position_dodge(width=0.5)
> #lab <- c("27th (1965-1968)","26th (1963-1965)","22nd (1953-1957)","21st (1949-1953)","20th
(1945-1949)","19th (1940-1945)","17th (1930-1935)","16th (1926-1930)","14th (1921-1925)","13th
(1917-1921)","12th (1911-1917)","11th (1909-1911)","10th (1905-1908)","9th (1901-1904)","8th (1896-1900)","7th
(1891-1896)","6th (1887-1891)","5th (1883-1887)","4th (1879-1882)","3rd (1874-1878)","2nd (1872-1874)","1st
(1867-1872)")
> #ggplot(all, aes(specification,coef, color=method,ymin = low,ymax = high)) +
> #geom_point(aes(shape=method),size=2, position=pd) +
> #scale_color_manual(name="Type",values=c("black","gray")) +
> #scale_shape_manual(name="Type",values=c(16,16)) +
> #theme_bw() +
> #scale_x_discrete("Parliaments (1867-1968)", breaks=1:22, labels=lab,limits = c(1:22)) +
> #scale_y_continuous("95% Confidence Intervals by Type of Vote",limits = c(-1,1)) +
> #geom_errorbar(aes(ymin=low,ymax=high),width=0.2,size=.3,position=pd)+
> #geom_hline(yintercept=0) +
> #ggtitle("Liberal MPs") +
```

```
> #theme(plot.title = element_text(hjust = 0.5)) +
> #coord_flip()
> #dev.off()
>
> #Cons
>
> a1 <-
rbind(conf27,conf26,conf22,conf21,conf20,conf19,conf17,conf16,conf14,conf13,conf12,conf11,conf10,conf9,conf8,co
nf7,conf6,conf5,conf4,conf3,conf2,conf1)
> a2 <-
rbind(conf270,conf260,conf220,conf210,conf200,conf190,conf170,conf160,conf140,conf130,conf120,conf110,conf100,c
onf99,conf88,conf77,conf66,conf55,conf44,conf33,conf22,conf11)
>
> colnames(a1) <- c("low","high","coef","V1")
> a1 <- data.frame(a1)
> a1$low <- as.numeric(as.character(a1$low))
> a1$high <- as.numeric(as.character(a1$high))
> a1$coef <- as.numeric(as.character(a1$coef))
> a1$specification <- 1:22
> a1$method <- paste("Private Member Motions/Bills")
>
> colnames(a2) <- c("low","high","coef","V1")
> a2 <- data.frame(a2)
> a2$low <- as.numeric(as.character(a2$low))
> a2$high <- as.numeric(as.character(a2$high))
> a2$coef <- as.numeric(as.character(a2$coef))
> a2$specification <- 1:22
> a2$method <- paste("Same Party Amendment")
>
> all <- rbind(a1,a2)
>
> #tiff(file = "~/Dropbox/Canada-Manuscript/Figures-Final/Figure-8.3.1.jpg", width = 8, height = 8, units =
'in', res = 200)
> #pd <- position_dodge(width=0.5)
> #lab <- c("27th (1965-1968)","26th (1963-1965)","22nd (1953-1957)","21st (1949-1953)","20th
(1945-1949)","19th (1940-1945)","17th (1930-1935)","16th (1926-1930)","14th (1921-1925)","13th
(1917-1921)","12th (1911-1917)","11th (1909-1911)","10th (1905-1908)","9th (1901-1904)","8th (1896-1900)","7th
(1891-1896)","6th (1887-1891)","5th (1883-1887)","4th (1879-1882)","3rd (1874-1878)","2nd (1872-1874)","1st
(1867-1872)")
> #ggplot(all, aes(specification,coef, color=method,ymin = low,ymax = high)) +
> #geom_point(aes(shape=method),size=2, position=pd) +
> #scale_color_manual(name="Type",values=c("black","gray")) +
> #scale_shape_manual(name="Type",values=c(16,16)) +
> #theme_bw() +
> #scale_x_discrete("Parliaments (1867-1968)", breaks=1:22, labels=lab,limits = c(1:22)) +
> #scale_y_continuous("95% Confidence Intervals by Type of Vote",limits = c(-1,1)) +
> #geom_errorbar(aes(ymin=low,ymax=high),width=0.2,size=.3,position=pd)+
> #geom_hline(yintercept=0) +
> #ggtitle("Conservative MPs") +
> #theme(plot.title = element_text(hjust = 0.5)) +
> #coord_flip()
> #dev.off()
>
>
```