```
R version 3.6.1 (2019-07-05) -- "Action of the Toes"
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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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Type 'demo()' for some demos, 'help()' for on-line help, or
'help.start()' for an HTML browser interface to help.
Type 'q()' to quit R.

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

2020-01-28 12:40:47.026 R[4709:573626] Antidote - Texteurs: Module texteur installé dans /Applications/R.app
(org.R-project.R)
> ########################
> #JF GODBOUT MANUSCRIPT##
> #CHAPTER 5##############
> #August 22, 2018########
> ########################
> #FIGURE 5.3#############
> ########################
>
> ######################################################################
> #Figure 5.3: The Influence of Party Loyalty on Patronage (1867-1945)#
> ######################################################################
>
> #############
> #Postmasters#
> #############
>
> rm(list=ls())
>
> data1 <- read.csv(file="~/Dropbox/Canada-Manuscript/Analysis/data1.csv",header =TRUE)
> data1 <- subset(data1,data1$conservative==1 | data1$liberal==1)
>
> #drop turnout < .10
> data1 <- subset(data1,data1$turnout>.10)
>
> #drop total vote <10
> #Note that 31st Parliament is dropped
> data1 <- subset(data1,data1$total.vote>10)
> data33 <- data1
>
> #Add postal data
>
> post <- read.csv(file="~/Dropbox/Canada-Manuscript/Data-Final/postal.csv",header =TRUE)
>
> post$riding.name <- post$riding.el
> post$parliament <- post$term
>
> #clean election
> data33$riding.name <- tolower(data33$el.riding.name)
> data33$riding.name <- gsub("st. ","saint ",data33$riding.name)
> data33$riding.name <- factor(data33$riding.name)
>
> data33 <- subset(data33,data33$parliament<21)
>
> #merge
>
> postal <- merge(data33,post,by=c('riding.name','parliament'))
>
> file.remove("~/Dropbox/Canada-Manuscript/Analysis/vote-info.txt", recursive=TRUE)
```

```
[1] TRUE
>
> for(j in factor(postal$id2)){ #change to number of files
+
+ x <- subset(postal,postal$id2==j)
+ career.loyalty <- mean(x$loyalty,na.rm=TRUE)
+ career.term <- length(x$no.term)
+ patronage <- sum(x$appointments)
+ government <- sum(x$government)
+ quebec <- x$quebec
+ maritime <- x$maritime
+ west <- x$west
+ titirve <- cbind(j,career.loyalty,career.term,patronage,government,quebec,maritime,west)
+
+ if (j == 1)
+   {
+     tab <- write.table(titirve,"~/Dropbox/Canada-Manuscript/Analysis/vote-info.txt",col.names = FALSE,sep =
";")
+   }
+ else
+   {
+     tab <- write.table(titirve,"~/Dropbox/Canada-Manuscript/Analysis/vote-info.txt", append = TRUE, col.names
= FALSE,sep = ";")
+   }
+
+ }
>
>
> titirve3 <- read.table("~/Dropbox/Canada-Manuscript/Analysis/vote-info.txt", header = FALSE, sep = ";")
> titirve3 <- titirve3[,-1]
> titirve3 <- unique(titirve3)
> colnames(titirve3) <-
c("id2","career.loyalty","career.term","patronage","government.lenght","quebec","maritime","west")
>
> write.csv(titirve3,file="~/Dropbox/Canada-Manuscript/Analysis/postmaster.csv")
>
> ##############################################################################################
> #Analysis postmaster appointments, note career term is before being appointed, same with loyalty#
> ##############################################################################################
>
> dat <- data.frame(titirve3)
>
> #Analysis
>
> mod5.3 <- patronage ~ career.loyalty + career.term + government.lenght*career.loyalty + quebec + maritime +
west
>
> dat$career.loyalty <- dat$career.loyalty * 100
> m1 <- lm(mod5.3, data = dat)
>
> library(mfx)
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
>
> mm1 <- coeftest(m1, vcov = vcovHAC(m1))
>
> #Graphic simulation
>
> #newdata <- with(dat,data.frame(career.loyalty = 0:100,career.term = mean(career.term, na.rm=TRUE),
government.lenght = #mean(government.lenght, na.rm=TRUE), quebec = 0, maritime = 0, west = 0))
>
```

```
> #preds <- predict(m1, newdata, type="response", se.fit=TRUE)
>
> #predf <- preds$fit # predicted
> #lower <- preds$fit - (1.96*preds$se.fit) # lower bounds
> #upper <- preds$fit + (1.96*preds$se.fit) # upper bounds
>
> #x <- 0:100/100
> #tiff(file = "~/Dropbox/Canada-Manuscript/Figures-Final/Figure-5.3.jpg", width = 8, height = 8, units = 'in',
res = 200)
> #plot(0:100, predf, type="l", ylab="Totol Career Posmasters Appointments", xlab="95% Confidence Intervals for
Average Career Party Loyalty", bty="n",ylim=c(0,50),xlim=c(52,102),col="black",xaxt='n')
> #axis(1, at=0:100, labels=x)
> #lines(0:100, lower, lty=2,col="black")
> #lines(0:100, upper, lty=2,col="black")
> #points(dat$career.loyalty,dat$patronage,pch=16,cex=.5,col="grey")
> #dev.off()
> #main="The Influence of Party Loyalty on Patronage (1867-1945)"
>
> #Print results Figure 5.3
>
> summary(m1)

Call:
lm(formula = mod5.3, data = dat)

Residuals:
    Min      1Q  Median      3Q     Max
-73.268 -12.867  -4.352   5.034 233.004

Coefficients:
                                Estimate Std. Error t value Pr(>|t|)
(Intercept)                     29.30647    8.93264   3.281 0.001061 **
career.loyalty                  -0.33063    0.09398  -3.518 0.000449 ***
career.term                      6.34327    0.71452   8.878  < 2e-16 ***
government.lenght              -36.89393    8.10507  -4.552 5.79e-06 ***
quebec                          -9.44237    1.86744  -5.056 4.86e-07 ***
maritime                        -0.58026    2.15077  -0.270 0.787363
west                            10.59209    2.14650   4.935 9.03e-07 ***
career.loyalty:government.lenght  0.44770    0.08618   5.195 2.37e-07 ***
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 26.71 on 1348 degrees of freedom
Multiple R-squared:  0.2546,
  Adjusted R-squared:  0.2507
F-statistic: 65.76 on 7 and 1348 DF,  p-value: < 2.2e-16

> nobs(m1)
[1] 1356
> mm1

t test of coefficients:

                                Estimate Std. Error t value  Pr(>|t|)
(Intercept)                     29.30647   10.68225  2.7435  0.006160 **
career.loyalty                  -0.33063    0.12906 -2.5619  0.010518 *
career.term                      6.34327    0.95731  6.6262 4.967e-11 ***
government.lenght              -36.89393   14.95233 -2.4674  0.013732 *
quebec                          -9.44237    2.29642 -4.1118 4.163e-05 ***
maritime                        -0.58026    3.82771 -0.1516  0.879530
west                            10.59209    4.52236  2.3422  0.019317 *
career.loyalty:government.lenght  0.44770    0.16912  2.6471  0.008212 **
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

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