

# table4

Sharon Hui

4/16/2022

## Table 4

```
library(dplyr)
```

```
## Warning: package 'dplyr' was built under R version 3.6.2
```

```
##
```

```
## Attaching package: 'dplyr'
```

```
## The following objects are masked from 'package:stats':
```

```
##
```

```
##      filter, lag
```

```
## The following objects are masked from 'package:base':
```

```
##
```

```
##      intersect, setdiff, setequal, union
```

```
library(foreign)
```

```
library(lfe)
```

```
## Warning: package 'lfe' was built under R version 3.6.2
```

```
## Loading required package: Matrix
```

```
library(lmtest)
```

```
## Loading required package: zoo
```

```
##
```

```
## Attaching package: 'zoo'
```

```
## The following objects are masked from 'package:base':
```

```
##
```

```
##      as.Date, as.Date.numeric
```

```
##
```

```
## Attaching package: 'lmtest'
```

```
## The following object is masked from 'package:lfe':
```

```
##
```

```
##      waldtest
```

```
library(car)
```

```
## Loading required package: carData
```

```
## Warning: package 'carData' was built under R version 3.6.2
```

```

##
## Attaching package: 'car'

## The following object is masked from 'package:dplyr':
##
##      recode
library(tidyr)

## Warning: package 'tidyr' was built under R version 3.6.2
##
## Attaching package: 'tidyr'

## The following objects are masked from 'package:Matrix':
##
##      expand, pack, unpack
library(plm)

##
## Attaching package: 'plm'

## The following object is masked from 'package:life':
##
##      sargan

## The following objects are masked from 'package:dplyr':
##
##      between, lag, lead
french_t5 = read.dta('french_t5.dta')
french_main = read.dta('french_main.dta')

a <- c("Rhineland", "Bavarian Palatinate", "Mark", "Westphalia without Mark",
      "Brunswick", "Saxony Province", "Hessen-Kassel", "Hanover")

b <- c("Baden", "Bavaria Old" , "Hessen-Darmstadt, right of the Rhine",
      "Saxony", "Wuerttemberg")
c <- c("Brandenburg" , "East Prussia" ,
      "Pomerania without Swedish Pomerania" , "Silesia",
      "Mecklenburg-Schwerin" , "Schleswig-Holstein" )

keep = french_main %>%
  filter(year==1700 | year==1750 | year==1800 | year==1850 | year==1875 | year==1900 )

new_keep = (keep %>% filter(westelbe==1))

each_id = data.frame( value = c('Years French presence x 1750',
                                'SD Years French presence x 1750',
                                'Years French presence x 1800',
                                'SD Years French presence x 1800',
                                'Years French presence x 1850',
                                'SD Years French presence x 1850',
                                'Years French presence x 1875',
                                'SD Years French presence x 1875',
                                'Years French presence x 1900',
                                'SD Years French presence x 1900',

```

```

                                'Lagged Urbanization',
                                'SD Lagged Urbanization',
                                'Observations',
                                'Number of states',
                                'p-value for joint significance after 1800',
                                'p-value for joint significance covariates') )

for (i in unique(new_keep$id)){

  table4_1 = new_keep %>%
    filter( id!= i )
  fe4_1 = feelm(formula = urbrate ~ fpresence1750 + fpresence1800 +
    fpresence1850 + fpresence1875 + fpresence1900 +
    yr1700 + yr1750 + yr1800 + yr1850 + yr1875 | id | 0 | id,
    data = table4_1, weights = table4_1$totalpop1750)

  coef1 <- coeftest(fe4_1)
  data_count <- dim(drop_na(table4_1))[1]
  state_count <- length(unique(table4_1$name))
  pval1 <- linearHypothesis(fe4_1, c("fpresence1850=0",
    "fpresence1875=0",
    "fpresence1900=0"),
    test = c("F"))$`Pr(>F)`[2]

  pval2 <- 0
  col1 <- c(rbind(coef1[1:5, 1], coef1[1:5, 2]))
  col1 <- c(col1, 0, 0, data_count, state_count, pval1, pval2)
  each_id = cbind(each_id, col1)
}
colnames(each_id ) = c('', paste('Removed ID', unique(new_keep$id)) )
each_id

```

```

##                                Removed ID 1 Removed ID 2
## 1      Years French presence x 1750 -0.10303771 -0.5646331
## 2      SD Years French presence x 1750  0.14926951  0.2814492
## 3      Years French presence x 1800  0.11829566 -0.3238465
## 4      SD Years French presence x 1800  0.12238765  0.2488094
## 5      Years French presence x 1850  0.07174871 -0.2351954
## 6      SD Years French presence x 1850  0.20414901  0.2752158
## 7      Years French presence x 1875 -0.01696376  0.3240238
## 8      SD Years French presence x 1875  0.38376691  0.3242079
## 9      Years French presence x 1900  0.06718921  0.5517881
## 10     SD Years French presence x 1900  0.56496343  0.4109023
## 11                                Lagged Urbanization  0.00000000  0.00000000
## 12                                SD Lagged Urbanization  0.00000000  0.00000000
## 13                                Observations  69.00000000  68.00000000
## 14                                Number of states  12.00000000  12.00000000
## 15 p-value for joint significance after 1800  0.69440248  0.1281511
## 16 p-value for joint significance covariates  0.00000000  0.00000000
##      Removed ID 3 Removed ID 4 Removed ID 5 Removed ID 6 Removed ID 7
## 1      -0.4921256 -0.7176649157 -0.49220115 -0.47833507 -0.41606214
## 2       0.2497122  0.5739082073  0.24936607  0.24226759  0.21091631
## 3      -0.2502154 -0.4521249650 -0.24767788 -0.23522819 -0.17307989
## 4       0.2232278  0.5636478653  0.22696919  0.21780066  0.19317088
## 5      -0.1587466 -0.3718022084 -0.16087328 -0.16092471 -0.08779979
## 6       0.2539315  0.5945851057  0.25210707  0.24612723  0.21373077

```

## 7	0.4049822	0.2897221059	0.40272356	0.40252090	0.48120220
## 8	0.3238562	0.6828573535	0.32761628	0.32627525	0.31264282
## 9	0.6333376	0.5477802150	0.63526086	0.62018886	0.71628966
## 10	0.4118258	0.7568346643	0.40874116	0.41030214	0.39170348
## 11	0.0000000	0.0000000000	0.00000000	0.00000000	0.00000000
## 12	0.0000000	0.0000000000	0.00000000	0.00000000	0.00000000
## 13	69.0000000	68.0000000000	69.00000000	68.00000000	68.00000000
## 14	12.0000000	12.0000000000	12.00000000	12.00000000	12.00000000
## 15	0.1007776	0.0003715274	0.05087057	0.07507103	0.02359867
## 16	0.0000000	0.0000000000	0.00000000	0.00000000	0.00000000
##	Removed ID 10	Removed ID 11	Removed ID 12	Removed ID 13	Removed ID 16
## 1	-0.5441511	-0.49327336	-0.6086993	-0.3410253647	-0.48905043
## 2	0.3009001	0.24877023	0.2903823	0.1451465605	0.26033379
## 3	-0.3099030	-0.24119663	-0.3491867	-0.1198308761	-0.25164761
## 4	0.2677884	0.22299932	0.2693297	0.1328524440	0.23479202
## 5	-0.2482350	-0.15672874	-0.2498593	0.0280533320	-0.15711458
## 6	0.2898030	0.25123893	0.3138815	0.1212169195	0.26366655
## 7	0.3340865	0.39699310	0.2628885	0.6948794479	0.39681542
## 8	0.3809938	0.33514369	0.3654006	0.1708917499	0.34417862
## 9	0.5238764	0.63143773	0.4841314	1.0041688263	0.62773332
## 10	0.4644150	0.42576342	0.4665864	0.1991806378	0.43035567
## 11	0.0000000	0.00000000	0.0000000	0.0000000000	0.00000000
## 12	0.0000000	0.00000000	0.0000000	0.0000000000	0.00000000
## 13	68.0000000	69.00000000	68.0000000	68.0000000000	68.00000000
## 14	12.0000000	12.00000000	12.0000000	12.0000000000	12.00000000
## 15	0.1142419	0.08360583	0.1183681	0.0006678682	0.06809304
## 16	0.0000000	0.00000000	0.0000000	0.0000000000	0.00000000
##	Removed ID 17				
## 1	-0.4476798				
## 2	0.2271961				
## 3	-0.2022129				
## 4	0.2091492				
## 5	-0.1149373				
## 6	0.2336895				
## 7	0.4504650				
## 8	0.3231190				
## 9	0.6853334				
## 10	0.4021978				
## 11	0.0000000				
## 12	0.0000000				
## 13	68.0000000				
## 14	12.0000000				
## 15	0.0301106				
## 16	0.0000000				