Descriptives

2024-03-15

setwd("~/Dissertation")  
  
library("haven")  
library("dplyr")

##   
## 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("broom")  
library("ggplot2")  
library("psych")

##   
## Attaching package: 'psych'

## The following objects are masked from 'package:ggplot2':  
##   
## %+%, alpha

f<- read\_sav("ESS8csFRe01.sav")  
a<- read.csv("ESS8e02\_3.csv")  
  
b <- a[a$cntry == "FR", ]  
  
b$inwyys<-as.factor(b$inwyys)  
summary(b$inwyys)

## 2016 2017   
## 1467 603

length(which(b$inwmms=="1" & b$inwdds < "25"))

## [1] 160

d <- b %>% select(idno, anweight, gndr, agea, edlvdfr, eduyrs, icpdwrk,hinctnta, region, prtvtcfr, clsprty, prtclefr,ccnthum, elgcoal, elgngas, elghydr, elgnuc, elgsun, elgwind, elgbio, inctxff, sbsrnen, banhhap )  
names(d) <-c("ID", "anweight", "Gender", "Age", "HighestEducation", "EducationYears", "Employment","IncomeDecile", "Region", "ElectionVote", "FeelClose", "PartyAffiliation", "ClimateChange", "Coal", "NaturalGas", "Hydro", "Nuclear", "Solar", "Wind", "Bio", "Policy1", "Policy2", "Policy3")  
  
summary(d)

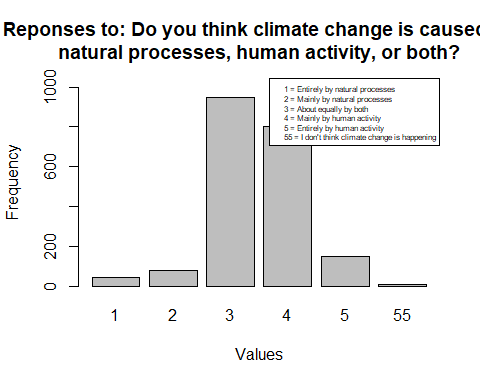
## ID anweight Gender Age   
## Min. : 1.0 Min. : 0.6009 Min. :1.00 Min. : 15.00   
## 1st Qu.: 968.2 1st Qu.: 1.4192 1st Qu.:1.00 1st Qu.: 38.00   
## Median :2161.0 Median : 2.1128 Median :2.00 Median : 53.00   
## Mean :2113.3 Mean : 2.6295 Mean :1.54 Mean : 52.84   
## 3rd Qu.:3236.8 3rd Qu.: 3.1642 3rd Qu.:2.00 3rd Qu.: 67.00   
## Max. :4300.0 Max. :10.5181 Max. :2.00 Max. :999.00   
## HighestEducation EducationYears Employment IncomeDecile   
## Min. : 1.00 Min. : 0.00 Min. :1.000 Min. : 1.00   
## 1st Qu.: 6.00 1st Qu.:10.00 1st Qu.:1.000 1st Qu.: 3.00   
## Median : 7.00 Median :12.00 Median :2.000 Median : 5.00   
## Mean : 17.64 Mean :12.91 Mean :1.535 Mean :11.65   
## 3rd Qu.: 15.00 3rd Qu.:15.00 3rd Qu.:2.000 3rd Qu.: 8.00   
## Max. :7777.00 Max. :88.00 Max. :2.000 Max. :88.00   
## Region ElectionVote FeelClose PartyAffiliation  
## Length:2070 Min. : 1.00 Min. :1.000 Min. : 1.00   
## Class :character 1st Qu.: 9.00 1st Qu.:1.000 1st Qu.:11.00   
## Mode :character Median :15.00 Median :2.000 Median :66.00   
## Mean :37.76 Mean :1.625 Mean :39.77   
## 3rd Qu.:66.00 3rd Qu.:2.000 3rd Qu.:66.00   
## Max. :88.00 Max. :8.000 Max. :88.00   
## ClimateChange Coal NaturalGas Hydro   
## Min. : 1.000 Min. : 1.000 Min. : 1.000 Min. : 1.000   
## 1st Qu.: 3.000 1st Qu.: 4.000 1st Qu.: 3.000 1st Qu.: 2.000   
## Median : 3.000 Median : 4.000 Median : 3.000 Median : 2.000   
## Mean : 5.299 Mean : 6.961 Mean : 5.882 Mean : 4.209   
## 3rd Qu.: 4.000 3rd Qu.: 5.000 3rd Qu.: 4.000 3rd Qu.: 3.000   
## Max. :99.000 Max. :88.000 Max. :88.000 Max. :88.000   
## Nuclear Solar Wind Bio   
## Min. : 1.000 Min. : 1.000 Min. : 1.000 Min. : 1.00   
## 1st Qu.: 3.000 1st Qu.: 1.000 1st Qu.: 1.000 1st Qu.: 2.00   
## Median : 4.000 Median : 2.000 Median : 2.000 Median : 2.00   
## Mean : 6.039 Mean : 3.213 Mean : 3.868 Mean : 6.39   
## 3rd Qu.: 4.000 3rd Qu.: 2.000 3rd Qu.: 3.000 3rd Qu.: 3.00   
## Max. :88.000 Max. :88.000 Max. :88.000 Max. :88.00   
## Policy1 Policy2 Policy3   
## Min. :1.000 Min. :1.000 Min. :1.000   
## 1st Qu.:3.000 1st Qu.:1.000 1st Qu.:1.000   
## Median :4.000 Median :2.000 Median :2.000   
## Mean :3.514 Mean :2.165 Mean :2.357   
## 3rd Qu.:4.000 3rd Qu.:2.000 3rd Qu.:3.000   
## Max. :8.000 Max. :8.000 Max. :8.000

# Convert Missing values to NA   
# gender: 6, 7, 9   
# age: 999  
# highest level of education: 5555,7777,9999   
# years of full time education completed: 77, 88, 99   
# employment: 6,7,8,9,  
# income decile: 77. 88, 99   
# region: 99999  
# vote at last election: 66,77,88,99 Y  
# feel close to a particulary party: 7,8,9 Y  
# which party: 66,77,88,99 Y  
# how much electricity from: 55,77,88,99 Y  
# policy: 7,8,9 Y  
  
d[d ==5555] <-NA  
d[d ==7777] <-NA  
d[d ==9999] <-NA  
d$Age[d$Age==999]<-NA  
val\_rep <- c(77,88,99)  
d$EducationYears[d$EducationYears %in%val\_rep] <-NA  
d$IncomeDecile[d$IncomeDecile %in% val\_rep] <-NA  
val\_rep <- c(66,77,88,99)  
d$PartyAffiliation[d$PartyAffiliation %in% val\_rep] <-NA  
d$ClimateChange[d$ClimateChange %in% val\_rep] <-NA  
val\_rep <- c(15,16,66,77,88,99)  
d$ElectionVote[d$ElectionVote %in% val\_rep] <-NA  
val\_rep <- c(7,8,9)  
d$FeelClose[d$FeelClose %in% val\_rep] <-NA  
d$Policy1[d$Policy1 %in% val\_rep] <-NA   
d$Policy2[d$Policy2 %in% val\_rep] <-NA   
d$Policy3[d$Policy3 %in% val\_rep] <-NA   
val\_rep <- c(55,77,88,99)  
d$Coal[d$Coal %in% val\_rep] <-NA   
d$NaturalGas[d$NaturalGas %in% val\_rep] <-NA   
d$Hydro[d$Hydro %in% val\_rep] <-NA   
d$Nuclear[d$Nuclear %in% val\_rep] <-NA   
d$Solar[d$Solar %in% val\_rep] <-NA   
d$Wind[d$Wind %in% val\_rep] <-NA   
d$Bio[d$Bio %in% val\_rep] <-NA   
  
##Recode such that 1 = none at all and 5 = very large amount  
d$Coal<- 6-(d$Coal)  
d$NaturalGas<-6-(d$NaturalGas)  
d$Hydro <- 6-(d$Hydro)  
d$Nuclear <- 6-(d$Nuclear)  
d$Solar <- 6 - (d$Solar)  
d$Wind <- 6- (d$Wind)  
d$Bio <- 6- (d$Bio)  
  
##Combine to have 1 measure for non-renewables and 1 for renewables   
d$Renewable<- rowMeans(d[,c("Hydro", "Solar", "Wind", "Bio")]) #excluding nuclear  
d$NonRenewable <-rowMeans(d[,c("Coal","NaturalGas")])  
  
## Recode Policy such that 1 = none at all and 5 = very large amount   
d$Policy1 <- 6-(d$Policy1)  
d$Policy2 <- 6-(d$Policy2)  
d$Policy3 <- 6-(d$Policy3)  
  
##Education to ISCED (2011) Categories   
d$Education<- as.factor(d$Education)  
levels(d$Education) <- list("<Primary" = "1", "<Primary" ="2", "Primary"="3", "LowerSecondary"="4", "LowerSecondary"="5","UpperSecondary"="6", "UpperSecondary"="7", "UpperSecondary"="8", "UpperSecondary" = "9", "UpperSecondary" = "10", "UpperSecondary"="11", "PostSecondary"="12", "PostSecondary"="13", "ShortCycle"="14", "ShortCycle"="15","ShortCycle"="16",   
 "Bachelors"="17", "Bachelors"="18", "Bachelors"="19",   
 "Masters"="20", "Masters"="21","Masters"="22","Masters"="23","Masters"="24",  
 "Doctoral"="25", "Doctoral"="26")  
table(d$Education)

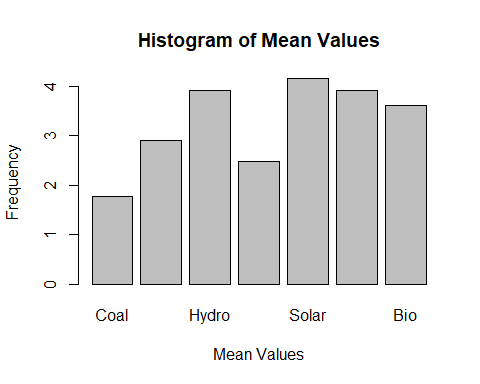
##   
## <Primary Primary LowerSecondary UpperSecondary PostSecondary   
## 2 4 55 772 432   
## ShortCycle Bachelors Masters Doctoral   
## 463 248 70 2

#Gender   
d$Gender <- ifelse(d$Gender == 1, 0, 1) # Male = 0, Female =1  
  
#Employment   
d$Employment<- ifelse(d$Employment==1,1,0)#1 = in pain work, 0=not   
  
#Feel close to a party  
d$FeelClose<-ifelse(d$FeelClose==1,1,0) #1=yes, feel close to one particular party, #0 = no  
  
#IncomeDecile   
d$IncomeDecile <-as.factor(d$IncomeDecile)  
  
summary(d)

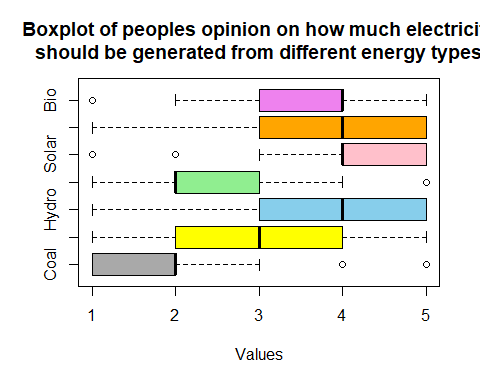
##Do you think that climate change is caused by natural processes,human activity, or both?  
  
## 1 = Entirely by natural process   
## 3 = About equal between natural and human activity   
## 5 = Entirely by human activity   
## 55 = i don't think its happening   
v\_c <- table(d$ClimateChange)  
u\_v <- as.numeric(names(v\_c))  
v\_c <- as.numeric(v\_c)  
max\_f <- max(v\_c)  
barplot(v\_c, names.arg = u\_v,   
 main = "Reponses to: Do you think climate change is caused by\nnatural processes, human activity, or both?",  
 xlab="Values", ylab="Frequency",   
 ylim = c(0, max\_f \* 1.1))  
legend\_labels <- c("1 = Entirely by natural processes",   
 "2 = Mainly by natural processes",  
 "3 = About equally by both",   
 "4 = Mainly by human activity",   
 "5 = Entirely by human activity",   
 "55 = I don't think climate change is happening")  
legend("topright",legend=legend\_labels, cex=0.5)



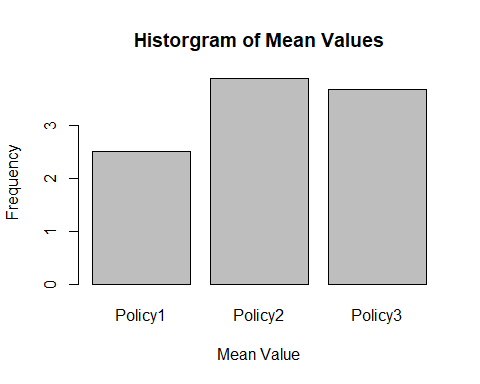
##How much of the electricity used in [country] should be generated from each energy source?  
## 1 = Very large amount   
## 5 = None at all   
#average opinion of all energy types   
mean\_v <- colMeans(d[,c("Coal", "NaturalGas", "Hydro","Nuclear","Solar","Wind", "Bio")], na.rm=TRUE)  
barplot(mean\_v, main = "Histogram of Mean Values", xlab = "Mean Values", ylab = "Frequency")



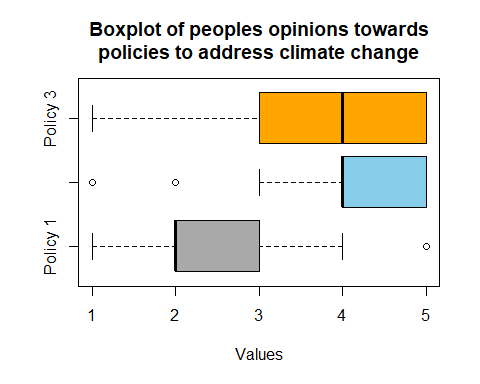
boxplot(d$Coal, d$NaturalGas, d$Hydro, d$Nuclear, d$Solar, d$Wind, d$Bio,  
 main = "Boxplot of peoples opinion on how much electricity\nshould be generated from different energy types",  
 names=c("Coal", "NaturalGas","Hydro","Nuclear","Solar","Wind", "Bio" ),  
 col = c("darkgrey", "yellow", "skyblue", "lightgreen", "pink", "orange", "violet"),  
 xlab = "Values",   
 horizontal = TRUE)



## To what extent are you in favor or against the following policies in [country] to reduce climate change?   
## Policy 1 = Increasing taxes on fossil fuels, such as oil, gas and coal.  
## Policy 2 = Using public money to subsidise renewable energy such as wind and solar power   
## Policy 3 = A law banning the sale of the least energy efficient household appliances   
mean\_p <- colMeans(d[c("Policy1","Policy2","Policy3")], na.rm =TRUE)  
barplot(mean\_p, main = "Historgram of Mean Values", xlab="Mean Value", ylab="Frequency")



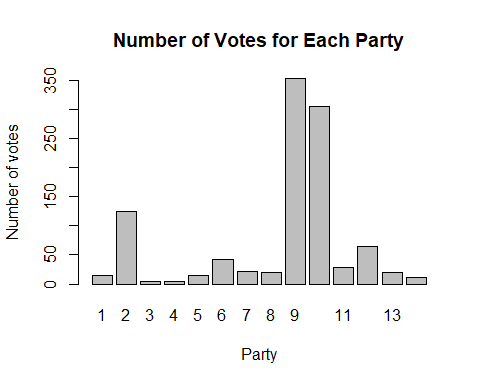
boxplot(d$Policy1, d$Policy2, d$Policy3,   
 main="Boxplot of peoples opinions towards\npolicies to address climate change",   
 names=c("Policy 1", "Policy 2", "Policy 3"),   
 col = c("darkgrey", "skyblue", "orange"),   
 xlab="Values",   
 horizontal = TRUE)



X<-d  
table(X$ElectionVote)

##   
## 1 2 3 4 5 6 7 8 9 10 11 12 13 14   
## 15 125 4 5 15 42 22 20 353 305 28 64 20 11

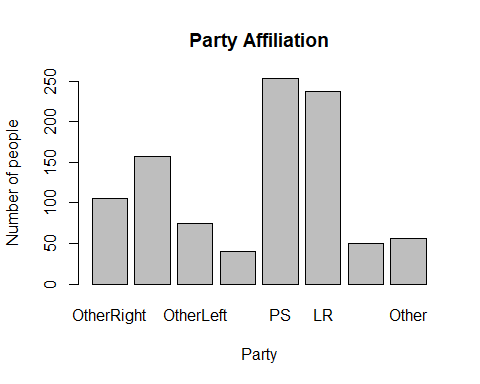
d$ElectionVote<- as.factor(X$ElectionVote)  
levels(X$ElectionVote) <- list("OtherRight" = "1", "FN" ="2", "OtherLeft"="3", "OtherCommunist"="4", "OtherCommunist"="5","OtherLeft"="6", "OtherLeft"="7", "OtherRight"="8", "PS" = "9", "UMP" = "10", "OtherRight"="11", "EELV"="12", "Other"="13", "Other"="14" )  
E\_VC <- table(X$ElectionVote)  
barplot(E\_VC, main="Number of Votes for Each Party", xlab="Party", ylab="Number of votes")



table(X$PartyAffiliation)

##   
## 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16   
## 12 157 4 5 11 52 24 19 29 38 253 237 26 50 15 41

X$PartyAffiliation<- as.factor(X$PartyAffiliation)  
levels(X$PartyAffiliation) <- list("OtherRight" = "1", "FN" ="2", "OtherLeft"="3", "OtherCommunist"="4", "OtherCommunist"="5","OtherLeft"="6", "OtherCommunist"="7","OtherLeft"="8", "OtherRight" = "9", "OtherRight" = "10", "PS"="11", "LR"="12", "OtherRight"="13", "EELV"="14", "Other" = "15", "Other" = "16" )  
A\_VC <- table(X$PartyAffiliation)  
barplot(A\_VC, main="Party Affiliation", xlab = "Party", ylab="Number of people")



## Create Dummy Variables   
# Election Vote first   
d\_Elec <- d[!is.na(X$ElectionVote),]  
dummy\_v <- model.matrix(~ ElectionVote-1,data=X)  
colnames(dummy\_v)<-gsub("ElectionVote","",colnames(dummy\_v))  
d\_Elec<-cbind(d\_Elec,dummy\_v)  
  
  
# Party Affiliation   
d\_Afil <- d[!is.na(X$PartyAffiliation),]  
dummy\_v2 <- model.matrix(~PartyAffiliation-1, data =X)  
colnames(dummy\_v2) <-gsub("PartyAffiliation", "Af",colnames(dummy\_v2))  
d\_Afil<-cbind(d\_Afil, dummy\_v2)

##REMOVE FROM FINAL VERSION ##  
  
#Association between whether someone things climate change is mostly caused by human factors and their partisan identification   
  
d\_Afil$HumanClim <- ifelse(d\_Afil$ClimateChange %in% c("4","5"), 1, 0) # binary, where 1 = climate change mostly or entirely caused by humans, 0 otherwise   
  
  
AfFN<-tidy(lm(HumanClim~AfFN+ Gender+ Age+ EducationYears+ Employment+   
 IncomeDecile + as.factor(Region),data=d\_Afil, weights=d\_Afil$anweight))  
print(AfFN)[1:5,]

## # A tibble: 35 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 0.677 0.113 5.98 0.00000000316  
## 2 AfFN 0.121 0.0451 2.68 0.00749   
## 3 Gender -0.0863 0.0325 -2.66 0.00804   
## 4 Age -0.00507 0.00109 -4.64 0.00000411   
## 5 EducationYears 0.0152 0.00497 3.07 0.00221   
## 6 Employment -0.115 0.0390 -2.94 0.00340   
## 7 IncomeDecile2 0.0594 0.0763 0.778 0.437   
## 8 IncomeDecile3 0.0719 0.0799 0.899 0.369   
## 9 IncomeDecile4 -0.0650 0.0692 -0.940 0.348   
## 10 IncomeDecile5 -0.0437 0.0709 -0.616 0.538   
## # ℹ 25 more rows

## # A tibble: 5 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 0.677 0.113 5.98 0.00000000316  
## 2 AfFN 0.121 0.0451 2.68 0.00749   
## 3 Gender -0.0863 0.0325 -2.66 0.00804   
## 4 Age -0.00507 0.00109 -4.64 0.00000411   
## 5 EducationYears 0.0152 0.00497 3.07 0.00221

ATE.1 <- AfFN[AfFN$term == "AfFN", "estimate"]  
se.1 <- AfFN[AfFN$term == "AfFN", "std.error"]  
ATE.1 <- as.numeric(ATE.1)  
se.1 <- as.numeric(se.1)  
  
AfEELV<-tidy(lm(HumanClim~AfEELV+ Gender+ Age+ EducationYears+ Employment+   
 IncomeDecile + as.factor(Region) ,data=d\_Afil, weights=d\_Afil$anweight))  
print(AfEELV)[1:5,]

## # A tibble: 35 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 0.700 0.112 6.26 6.11e-10  
## 2 AfEELV 0.221 0.0705 3.13 1.81e- 3  
## 3 Gender -0.0956 0.0324 -2.95 3.30e- 3  
## 4 Age -0.00494 0.00109 -4.52 7.13e- 6  
## 5 EducationYears 0.0126 0.00495 2.54 1.12e- 2  
## 6 Employment -0.104 0.0391 -2.66 8.06e- 3  
## 7 IncomeDecile2 0.0495 0.0762 0.650 5.16e- 1  
## 8 IncomeDecile3 0.0423 0.0801 0.527 5.98e- 1  
## 9 IncomeDecile4 -0.0584 0.0691 -0.846 3.98e- 1  
## 10 IncomeDecile5 -0.0432 0.0708 -0.610 5.42e- 1  
## # ℹ 25 more rows

## # A tibble: 5 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 0.700 0.112 6.26 6.11e-10  
## 2 AfEELV 0.221 0.0705 3.13 1.81e- 3  
## 3 Gender -0.0956 0.0324 -2.95 3.30e- 3  
## 4 Age -0.00494 0.00109 -4.52 7.13e- 6  
## 5 EducationYears 0.0126 0.00495 2.54 1.12e- 2

ATE.2 <- AfEELV[AfEELV$term == "AfEELV", "estimate"]  
se.2 <- AfEELV[AfEELV$term == "AfEELV", "std.error"]  
ATE.2 <- as.numeric(ATE.2)  
se.2 <- as.numeric(se.2)  
  
AfLeft<-tidy(lm(HumanClim~AfOtherLeft+ Gender+ Age+ EducationYears+ Employment+   
 IncomeDecile + as.factor(Region),data=d\_Afil, weights=d\_Afil$anweight))  
print(AfLeft)[1:5,]

## # A tibble: 35 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 0.726 0.112 6.49 1.48e-10  
## 2 AfOtherLeft 0.110 0.0596 1.85 6.48e- 2  
## 3 Gender -0.0872 0.0326 -2.68 7.60e- 3  
## 4 Age -0.00541 0.00109 -4.98 7.80e- 7  
## 5 EducationYears 0.0131 0.00498 2.63 8.81e- 3  
## 6 Employment -0.117 0.0391 -2.99 2.84e- 3  
## 7 IncomeDecile2 0.0587 0.0764 0.768 4.43e- 1  
## 8 IncomeDecile3 0.0593 0.0801 0.740 4.60e- 1  
## 9 IncomeDecile4 -0.0682 0.0694 -0.982 3.26e- 1  
## 10 IncomeDecile5 -0.0429 0.0711 -0.603 5.47e- 1  
## # ℹ 25 more rows

## # A tibble: 5 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 0.726 0.112 6.49 1.48e-10  
## 2 AfOtherLeft 0.110 0.0596 1.85 6.48e- 2  
## 3 Gender -0.0872 0.0326 -2.68 7.60e- 3  
## 4 Age -0.00541 0.00109 -4.98 7.80e- 7  
## 5 EducationYears 0.0131 0.00498 2.63 8.81e- 3

ATE.3 <- AfLeft[AfLeft$term == "AfOtherLeft", "estimate"]  
se.3 <- AfLeft[AfLeft$term == "AfOtherLeft", "std.error"]  
ATE.3 <- as.numeric(ATE.3)  
se.3<- as.numeric(se.3)  
  
AfPS<-tidy(lm(HumanClim~AfPS+ Gender+ Age+ EducationYears+ Employment+   
 IncomeDecile + as.factor(Region),data=d\_Afil, weights=d\_Afil$anweight))  
print(AfPS)[1:5,]

## # A tibble: 35 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 0.723 0.112 6.44 1.92e-10  
## 2 AfPS -0.0107 0.0381 -0.280 7.80e- 1  
## 3 Gender -0.0903 0.0327 -2.76 5.90e- 3  
## 4 Age -0.00539 0.00110 -4.91 1.06e- 6  
## 5 EducationYears 0.0139 0.00496 2.80 5.15e- 3  
## 6 Employment -0.114 0.0392 -2.91 3.69e- 3  
## 7 IncomeDecile2 0.0582 0.0766 0.760 4.48e- 1  
## 8 IncomeDecile3 0.0645 0.0803 0.803 4.22e- 1  
## 9 IncomeDecile4 -0.0622 0.0695 -0.894 3.71e- 1  
## 10 IncomeDecile5 -0.0442 0.0712 -0.620 5.35e- 1  
## # ℹ 25 more rows

## # A tibble: 5 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 0.723 0.112 6.44 1.92e-10  
## 2 AfPS -0.0107 0.0381 -0.280 7.80e- 1  
## 3 Gender -0.0903 0.0327 -2.76 5.90e- 3  
## 4 Age -0.00539 0.00110 -4.91 1.06e- 6  
## 5 EducationYears 0.0139 0.00496 2.80 5.15e- 3

ATE.4 <- AfPS[AfPS$term == "AfPS", "estimate"]  
se.4 <- AfPS[AfPS$term == "AfPS", "std.error"]  
ATE.4 <- as.numeric(ATE.4)  
se.4 <- as.numeric(se.4)  
  
AfLR<-tidy(lm(HumanClim~AfLR+ Gender+ Age+ EducationYears+ Employment+   
 IncomeDecile + as.factor(Region),data=d\_Afil, weights=d\_Afil$anweight))  
print(AfLR)[1:5,]

## # A tibble: 35 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 0.753 0.111 6.77 2.44e-11  
## 2 AfLR -0.159 0.0384 -4.14 3.81e- 5  
## 3 Gender -0.0900 0.0323 -2.79 5.41e- 3  
## 4 Age -0.00502 0.00108 -4.64 4.09e- 6  
## 5 EducationYears 0.0140 0.00492 2.85 4.43e- 3  
## 6 Employment -0.116 0.0388 -2.99 2.89e- 3  
## 7 IncomeDecile2 0.0507 0.0759 0.668 5.05e- 1  
## 8 IncomeDecile3 0.0424 0.0796 0.533 5.94e- 1  
## 9 IncomeDecile4 -0.0639 0.0688 -0.928 3.53e- 1  
## 10 IncomeDecile5 -0.0486 0.0705 -0.690 4.91e- 1  
## # ℹ 25 more rows

## # A tibble: 5 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 0.753 0.111 6.77 2.44e-11  
## 2 AfLR -0.159 0.0384 -4.14 3.81e- 5  
## 3 Gender -0.0900 0.0323 -2.79 5.41e- 3  
## 4 Age -0.00502 0.00108 -4.64 4.09e- 6  
## 5 EducationYears 0.0140 0.00492 2.85 4.43e- 3

ATE.5 <- AfLR[AfLR$term == "AfLR", "estimate"]  
se.5 <- AfLR[AfLR$term == "AfLR", "std.error"]  
ATE.5 <- as.numeric(ATE.5)  
se.5 <- as.numeric(se.5)  
  
AfRight<- tidy(lm(HumanClim~AfOtherRight+ Gender+ Age+ EducationYears+ Employment+   
 IncomeDecile + as.factor(Region),data=d\_Afil, weights=d\_Afil$anweight))  
print(AfRight)[1:5,]

## # A tibble: 35 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 0.731 0.112 6.51 1.29e-10  
## 2 AfOtherRight -0.0598 0.0550 -1.09 2.77e- 1  
## 3 Gender -0.0920 0.0326 -2.82 4.86e- 3  
## 4 Age -0.00544 0.00109 -5.00 6.94e- 7  
## 5 EducationYears 0.0139 0.00496 2.81 5.13e- 3  
## 6 Employment -0.116 0.0392 -2.97 3.06e- 3  
## 7 IncomeDecile2 0.0626 0.0766 0.817 4.14e- 1  
## 8 IncomeDecile3 0.0708 0.0803 0.881 3.78e- 1  
## 9 IncomeDecile4 -0.0611 0.0694 -0.880 3.79e- 1  
## 10 IncomeDecile5 -0.0455 0.0711 -0.639 5.23e- 1  
## # ℹ 25 more rows

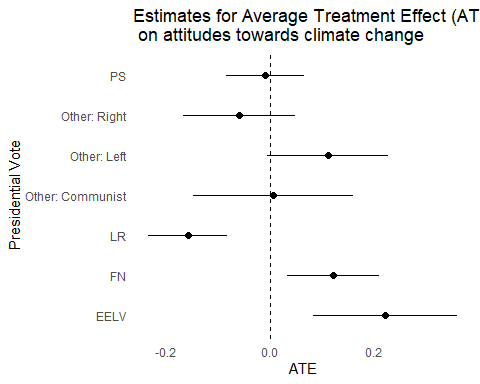
## # A tibble: 5 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 0.731 0.112 6.51 1.29e-10  
## 2 AfOtherRight -0.0598 0.0550 -1.09 2.77e- 1  
## 3 Gender -0.0920 0.0326 -2.82 4.86e- 3  
## 4 Age -0.00544 0.00109 -5.00 6.94e- 7  
## 5 EducationYears 0.0139 0.00496 2.81 5.13e- 3

ATE.6 <- AfRight[AfRight$term == "AfOtherRight", "estimate"]  
se.6 <- AfRight[AfRight$term == "AfOtherRight", "std.error"]  
ATE.6 <- as.numeric(ATE.6)  
se.6 <- as.numeric(se.6)  
  
AfCom<- tidy(lm(HumanClim~AfOtherCommunist+ Gender+ Age+ EducationYears+ Employment+   
 IncomeDecile + as.factor(Region),data=d\_Afil, weights=d\_Afil$anweight))  
print(AfCom)[1:5,]

## # A tibble: 35 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 0.723 0.112 6.43 2.05e-10  
## 2 AfOtherCommunist 0.00454 0.0784 0.0580 9.54e- 1  
## 3 Gender -0.0911 0.0326 -2.79 5.31e- 3  
## 4 Age -0.00544 0.00109 -4.99 7.40e- 7  
## 5 EducationYears 0.0139 0.00497 2.80 5.18e- 3  
## 6 Employment -0.115 0.0392 -2.93 3.51e- 3  
## 7 IncomeDecile2 0.0590 0.0766 0.770 4.41e- 1  
## 8 IncomeDecile3 0.0653 0.0803 0.813 4.16e- 1  
## 9 IncomeDecile4 -0.0612 0.0695 -0.880 3.79e- 1  
## 10 IncomeDecile5 -0.0448 0.0712 -0.629 5.30e- 1  
## # ℹ 25 more rows

## # A tibble: 5 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 0.723 0.112 6.43 2.05e-10  
## 2 AfOtherCommunist 0.00454 0.0784 0.0580 9.54e- 1  
## 3 Gender -0.0911 0.0326 -2.79 5.31e- 3  
## 4 Age -0.00544 0.00109 -4.99 7.40e- 7  
## 5 EducationYears 0.0139 0.00497 2.80 5.18e- 3

ATE.7 <- AfCom[AfCom$term == "AfOtherCommunist", "estimate"]  
se.7 <- AfCom[AfCom$term == "AfOtherCommunist", "std.error"]  
ATE.7 <- as.numeric(ATE.7)  
se.7 <- as.numeric(se.7)  
  
# Create a dataframe for plotting  
results <- data.frame(  
 Party = c("FN", "EELV", "Other: Left", "PS", "LR", "Other: Right", "Other: Communist"),  
 ATE = c(ATE.1, ATE.2,ATE.3,ATE.4,ATE.5,ATE.6, ATE.7),  
 ATE\_se = c(se.1, se.2,se.3,se.4,se.5,se.6, se.7)  
)  
  
ggplot(results, aes(x = ATE, y = Party)) +  
 geom\_point(size =2) +  
 geom\_errorbarh(aes(xmin = ATE - 1.96 \* ATE\_se, xmax = ATE + 1.96 \* ATE\_se), height = 0) +  
 geom\_vline(xintercept = 0, linetype = "dashed") +  
 labs(title = "Estimates for Average Treatment Effect (ATE) of party affiliation\n on attitudes towards climate change ", x = "ATE", y = "Presidential Vote") +  
 theme\_minimal()+  
 theme(panel.grid.major = element\_blank(),  
 panel.grid.minor = element\_blank())



Is there a particular political party you feel closer to than all the other parties? IF YES Which one? => Affiliation

#describe(d\_Afil)

#1097 people did not provide an answer, more than 1/2 sample   
##Renewables~Affiliation   
AfFN<-tidy(lm(Renewable~AfFN+ Gender+ Age+ EducationYears+ Employment+   
 IncomeDecile + as.factor(Region),data=d\_Afil, weights=d\_Afil$anweight))  
print(AfFN)[1:5,]

## # A tibble: 35 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 4.50 0.153 29.4 2.51e-131  
## 2 AfFN -0.00490 0.0610 -0.0803 9.36e- 1  
## 3 Gender 0.0960 0.0439 2.19 2.91e- 2  
## 4 Age -0.00785 0.00149 -5.26 1.82e- 7  
## 5 EducationYears -0.0211 0.00667 -3.16 1.62e- 3  
## 6 Employment 0.106 0.0524 2.03 4.27e- 2  
## 7 IncomeDecile2 0.0133 0.105 0.126 9.00e- 1  
## 8 IncomeDecile3 -0.0498 0.109 -0.456 6.48e- 1  
## 9 IncomeDecile4 -0.0475 0.0929 -0.511 6.09e- 1  
## 10 IncomeDecile5 -0.00821 0.0950 -0.0864 9.31e- 1  
## # ℹ 25 more rows

## # A tibble: 5 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 4.50 0.153 29.4 2.51e-131  
## 2 AfFN -0.00490 0.0610 -0.0803 9.36e- 1  
## 3 Gender 0.0960 0.0439 2.19 2.91e- 2  
## 4 Age -0.00785 0.00149 -5.26 1.82e- 7  
## 5 EducationYears -0.0211 0.00667 -3.16 1.62e- 3

ATE.1 <- AfFN[AfFN$term == "AfFN", "estimate"]  
se.1 <- AfFN[AfFN$term == "AfFN", "std.error"]  
ATE.1 <- as.numeric(ATE.1)  
se.1 <- as.numeric(se.1)  
  
AfEELV<-tidy(lm(Renewable~AfEELV+ Gender+ Age+ EducationYears+ Employment+   
 IncomeDecile + as.factor(Region) ,data=d\_Afil, weights=d\_Afil$anweight))  
print(AfEELV)[1:5,]

## # A tibble: 35 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 4.49 0.151 29.7 5.21e-133  
## 2 AfEELV 0.0740 0.0938 0.789 4.30e- 1  
## 3 Gender 0.0948 0.0438 2.16 3.09e- 2  
## 4 Age -0.00766 0.00149 -5.13 3.56e- 7  
## 5 EducationYears -0.0215 0.00665 -3.23 1.29e- 3  
## 6 Employment 0.110 0.0526 2.10 3.64e- 2  
## 7 IncomeDecile2 0.0100 0.105 0.0953 9.24e- 1  
## 8 IncomeDecile3 -0.0581 0.110 -0.530 5.96e- 1  
## 9 IncomeDecile4 -0.0469 0.0929 -0.505 6.14e- 1  
## 10 IncomeDecile5 -0.00798 0.0950 -0.0841 9.33e- 1  
## # ℹ 25 more rows

## # A tibble: 5 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 4.49 0.151 29.7 5.21e-133  
## 2 AfEELV 0.0740 0.0938 0.789 4.30e- 1  
## 3 Gender 0.0948 0.0438 2.16 3.09e- 2  
## 4 Age -0.00766 0.00149 -5.13 3.56e- 7  
## 5 EducationYears -0.0215 0.00665 -3.23 1.29e- 3

ATE.2 <- AfEELV[AfEELV$term == "AfEELV", "estimate"]  
se.2 <- AfEELV[AfEELV$term == "AfEELV", "std.error"]  
ATE.2 <- as.numeric(ATE.2)  
se.2 <- as.numeric(se.2)  
  
AfLeft<-tidy(lm(Renewable~AfOtherLeft+ Gender+ Age+ EducationYears+ Employment+   
 IncomeDecile + as.factor(Region),data=d\_Afil, weights=d\_Afil$anweight))  
print(AfLeft)[1:5,]

## # A tibble: 35 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 4.50 0.151 29.8 9.57e-134  
## 2 AfOtherLeft 0.00233 0.0805 0.0290 9.77e- 1  
## 3 Gender 0.0962 0.0439 2.19 2.88e- 2  
## 4 Age -0.00784 0.00148 -5.30 1.47e- 7  
## 5 EducationYears -0.0211 0.00666 -3.16 1.62e- 3  
## 6 Employment 0.106 0.0525 2.03 4.30e- 2  
## 7 IncomeDecile2 0.0133 0.105 0.126 9.00e- 1  
## 8 IncomeDecile3 -0.0496 0.109 -0.454 6.50e- 1  
## 9 IncomeDecile4 -0.0479 0.0931 -0.515 6.07e- 1  
## 10 IncomeDecile5 -0.00816 0.0950 -0.0858 9.32e- 1  
## # ℹ 25 more rows

## # A tibble: 5 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 4.50 0.151 29.8 9.57e-134  
## 2 AfOtherLeft 0.00233 0.0805 0.0290 9.77e- 1  
## 3 Gender 0.0962 0.0439 2.19 2.88e- 2  
## 4 Age -0.00784 0.00148 -5.30 1.47e- 7  
## 5 EducationYears -0.0211 0.00666 -3.16 1.62e- 3

ATE.3 <- AfLeft[AfLeft$term == "AfOtherLeft", "estimate"]  
se.3 <- AfLeft[AfLeft$term == "AfOtherLeft", "std.error"]  
ATE.3 <- as.numeric(ATE.3)  
se.3<- as.numeric(se.3)  
  
AfPS<-tidy(lm(Renewable~AfPS+ Gender+ Age+ EducationYears+ Employment+   
 IncomeDecile + as.factor(Region),data=d\_Afil, weights=d\_Afil$anweight))  
print(AfPS)[1:5,]

## # A tibble: 35 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 4.50 0.150 29.9 4.93e-134  
## 2 AfPS 0.0767 0.0508 1.51 1.31e- 1  
## 3 Gender 0.0907 0.0439 2.07 3.92e- 2  
## 4 Age -0.00810 0.00149 -5.45 6.71e- 8  
## 5 EducationYears -0.0211 0.00662 -3.19 1.49e- 3  
## 6 Employment 0.103 0.0524 1.97 4.97e- 2  
## 7 IncomeDecile2 0.0181 0.105 0.173 8.63e- 1  
## 8 IncomeDecile3 -0.0428 0.109 -0.392 6.95e- 1  
## 9 IncomeDecile4 -0.0413 0.0929 -0.444 6.57e- 1  
## 10 IncomeDecile5 -0.0124 0.0949 -0.131 8.96e- 1  
## # ℹ 25 more rows

## # A tibble: 5 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 4.50 0.150 29.9 4.93e-134  
## 2 AfPS 0.0767 0.0508 1.51 1.31e- 1  
## 3 Gender 0.0907 0.0439 2.07 3.92e- 2  
## 4 Age -0.00810 0.00149 -5.45 6.71e- 8  
## 5 EducationYears -0.0211 0.00662 -3.19 1.49e- 3

ATE.4 <- AfPS[AfPS$term == "AfPS", "estimate"]  
se.4 <- AfPS[AfPS$term == "AfPS", "std.error"]  
ATE.4 <- as.numeric(ATE.4)  
se.4 <- as.numeric(se.4)  
  
AfLR<-tidy(lm(Renewable~AfLR+ Gender+ Age+ EducationYears+ Employment+   
 IncomeDecile + as.factor(Region),data=d\_Afil, weights=d\_Afil$anweight))  
print(AfLR)[1:5,]

## # A tibble: 35 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 4.53 0.150 30.2 5.70e-136  
## 2 AfLR -0.170 0.0518 -3.27 1.10e- 3  
## 3 Gender 0.0974 0.0435 2.24 2.55e- 2  
## 4 Age -0.00746 0.00147 -5.06 5.11e- 7  
## 5 EducationYears -0.0209 0.00659 -3.18 1.53e- 3  
## 6 Employment 0.105 0.0521 2.02 4.41e- 2  
## 7 IncomeDecile2 0.00200 0.104 0.0192 9.85e- 1  
## 8 IncomeDecile3 -0.0727 0.109 -0.669 5.04e- 1  
## 9 IncomeDecile4 -0.0509 0.0923 -0.552 5.81e- 1  
## 10 IncomeDecile5 -0.0131 0.0944 -0.139 8.90e- 1  
## # ℹ 25 more rows

## # A tibble: 5 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 4.53 0.150 30.2 5.70e-136  
## 2 AfLR -0.170 0.0518 -3.27 1.10e- 3  
## 3 Gender 0.0974 0.0435 2.24 2.55e- 2  
## 4 Age -0.00746 0.00147 -5.06 5.11e- 7  
## 5 EducationYears -0.0209 0.00659 -3.18 1.53e- 3

ATE.5 <- AfLR[AfLR$term == "AfLR", "estimate"]  
se.5 <- AfLR[AfLR$term == "AfLR", "std.error"]  
ATE.5 <- as.numeric(ATE.5)  
se.5 <- as.numeric(se.5)  
  
AfRight<- tidy(lm(Renewable~AfOtherRight+ Gender+ Age+ EducationYears+ Employment+   
 IncomeDecile + as.factor(Region),data=d\_Afil, weights=d\_Afil$anweight))  
print(AfRight)[1:5,]

## # A tibble: 35 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 4.50 0.151 29.8 1.37e-133  
## 2 AfOtherRight -0.0148 0.0738 -0.201 8.41e- 1  
## 3 Gender 0.0961 0.0438 2.19 2.86e- 2  
## 4 Age -0.00783 0.00148 -5.30 1.48e- 7  
## 5 EducationYears -0.0210 0.00663 -3.17 1.56e- 3  
## 6 Employment 0.106 0.0525 2.02 4.38e- 2  
## 7 IncomeDecile2 0.0142 0.105 0.135 8.93e- 1  
## 8 IncomeDecile3 -0.0480 0.109 -0.439 6.61e- 1  
## 9 IncomeDecile4 -0.0477 0.0929 -0.513 6.08e- 1  
## 10 IncomeDecile5 -0.00842 0.0950 -0.0886 9.29e- 1  
## # ℹ 25 more rows

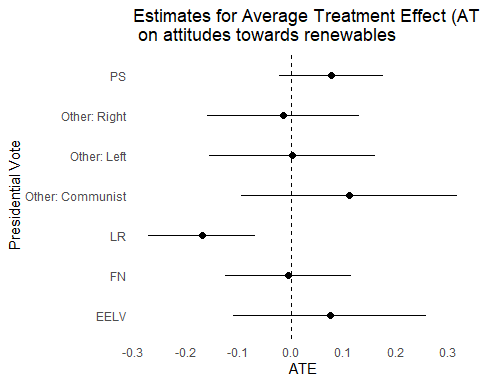
## # A tibble: 5 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 4.50 0.151 29.8 1.37e-133  
## 2 AfOtherRight -0.0148 0.0738 -0.201 8.41e- 1  
## 3 Gender 0.0961 0.0438 2.19 2.86e- 2  
## 4 Age -0.00783 0.00148 -5.30 1.48e- 7  
## 5 EducationYears -0.0210 0.00663 -3.17 1.56e- 3

ATE.6 <- AfRight[AfRight$term == "AfOtherRight", "estimate"]  
se.6 <- AfRight[AfRight$term == "AfOtherRight", "std.error"]  
ATE.6 <- as.numeric(ATE.6)  
se.6 <- as.numeric(se.6)  
  
AfCom<- tidy(lm(Renewable~AfOtherCommunist+ Gender+ Age+ EducationYears+ Employment+   
 IncomeDecile + as.factor(Region),data=d\_Afil, weights=d\_Afil$anweight))  
print(AfCom)[1:5,]

## # A tibble: 35 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 4.49 0.151 29.8 2.58e-133  
## 2 AfOtherCommunist 0.111 0.105 1.06 2.90e- 1  
## 3 Gender 0.0972 0.0438 2.22 2.68e- 2  
## 4 Age -0.00791 0.00148 -5.35 1.13e- 7  
## 5 EducationYears -0.0206 0.00664 -3.11 1.92e- 3  
## 6 Employment 0.103 0.0525 1.97 4.95e- 2  
## 7 IncomeDecile2 0.0141 0.105 0.134 8.93e- 1  
## 8 IncomeDecile3 -0.0513 0.109 -0.471 6.38e- 1  
## 9 IncomeDecile4 -0.0451 0.0929 -0.486 6.27e- 1  
## 10 IncomeDecile5 -0.0103 0.0950 -0.108 9.14e- 1  
## # ℹ 25 more rows

## # A tibble: 5 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 4.49 0.151 29.8 2.58e-133  
## 2 AfOtherCommunist 0.111 0.105 1.06 2.90e- 1  
## 3 Gender 0.0972 0.0438 2.22 2.68e- 2  
## 4 Age -0.00791 0.00148 -5.35 1.13e- 7  
## 5 EducationYears -0.0206 0.00664 -3.11 1.92e- 3

ATE.7 <- AfCom[AfCom$term == "AfOtherCommunist", "estimate"]  
se.7 <- AfCom[AfCom$term == "AfOtherCommunist", "std.error"]  
ATE.7 <- as.numeric(ATE.7)  
se.7 <- as.numeric(se.7)  
  
# Create a dataframe for plotting  
results <- data.frame(  
 Party = c("FN", "EELV", "Other: Left", "PS", "LR", "Other: Right", "Other: Communist"),  
 ATE = c(ATE.1, ATE.2,ATE.3,ATE.4,ATE.5,ATE.6, ATE.7),  
 ATE\_se = c(se.1, se.2,se.3,se.4,se.5,se.6, se.7)  
)  
  
ggplot(results, aes(x = ATE, y = Party)) +  
 geom\_point(size =2) +  
 geom\_errorbarh(aes(xmin = ATE - 1.96 \* ATE\_se, xmax = ATE + 1.96 \* ATE\_se), height = 0) +  
 geom\_vline(xintercept = 0, linetype = "dashed") +  
 labs(title = "Estimates for Average Treatment Effect (ATE) of party affiliation\n on attitudes towards renewables ", x = "ATE", y = "Presidential Vote") +  
 theme\_minimal()+  
 theme(panel.grid.major = element\_blank(),  
 panel.grid.minor = element\_blank())



#Wind~Party Affiliation   
AfFN<-tidy(lm(Wind~AfFN + Gender+ Age+ EducationYears+ Employment+   
 IncomeDecile + as.factor(Region),data=d\_Afil, weights=d\_Afil$anweight))  
print(AfFN)[1:5,]

## # A tibble: 35 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 5.08 0.228 22.2 5.53e-87  
## 2 AfFN -0.0763 0.0912 -0.837 4.03e- 1  
## 3 Gender 0.114 0.0656 1.74 8.24e- 2  
## 4 Age -0.0132 0.00221 -5.99 3.07e- 9  
## 5 EducationYears -0.0342 0.0100 -3.41 6.80e- 4  
## 6 Employment 0.0897 0.0788 1.14 2.55e- 1  
## 7 IncomeDecile2 -0.102 0.154 -0.661 5.09e- 1  
## 8 IncomeDecile3 0.154 0.162 0.949 3.43e- 1  
## 9 IncomeDecile4 -0.129 0.140 -0.926 3.55e- 1  
## 10 IncomeDecile5 -0.146 0.143 -1.02 3.09e- 1  
## # ℹ 25 more rows

## # A tibble: 5 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 5.08 0.228 22.2 5.53e-87  
## 2 AfFN -0.0763 0.0912 -0.837 4.03e- 1  
## 3 Gender 0.114 0.0656 1.74 8.24e- 2  
## 4 Age -0.0132 0.00221 -5.99 3.07e- 9  
## 5 EducationYears -0.0342 0.0100 -3.41 6.80e- 4

ATE.1 <- AfFN[AfFN$term == "AfFN", "estimate"]  
se.1 <- AfFN[AfFN$term == "AfFN", "std.error"]  
ATE.1 <- as.numeric(ATE.1)  
se.1 <- as.numeric(se.1)  
  
  
AfEELV<-tidy(lm(Wind~AfEELV + Gender+ Age+ EducationYears+ Employment+   
 IncomeDecile + as.factor(Region),data=d\_Afil, weights=d\_Afil$anweight))  
print(AfEELV)[1:5,]

## # A tibble: 35 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 5.02 0.226 22.2 5.47e-87  
## 2 AfEELV 0.235 0.142 1.66 9.80e- 2  
## 3 Gender 0.112 0.0655 1.72 8.63e- 2  
## 4 Age -0.0125 0.00221 -5.64 2.28e- 8  
## 5 EducationYears -0.0348 0.0100 -3.48 5.35e- 4  
## 6 Employment 0.101 0.0790 1.28 2.00e- 1  
## 7 IncomeDecile2 -0.112 0.154 -0.727 4.67e- 1  
## 8 IncomeDecile3 0.134 0.163 0.823 4.11e- 1  
## 9 IncomeDecile4 -0.129 0.139 -0.925 3.55e- 1  
## 10 IncomeDecile5 -0.144 0.143 -1.00 3.15e- 1  
## # ℹ 25 more rows

## # A tibble: 5 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 5.02 0.226 22.2 5.47e-87  
## 2 AfEELV 0.235 0.142 1.66 9.80e- 2  
## 3 Gender 0.112 0.0655 1.72 8.63e- 2  
## 4 Age -0.0125 0.00221 -5.64 2.28e- 8  
## 5 EducationYears -0.0348 0.0100 -3.48 5.35e- 4

ATE.2 <- AfEELV[AfEELV$term == "AfEELV", "estimate"]  
se.2 <- AfEELV[AfEELV$term == "AfEELV", "std.error"]  
ATE.2 <- as.numeric(ATE.2)  
se.2 <- as.numeric(se.2)  
  
AfLeft<-tidy(lm(Wind~AfOtherLeft+ Gender+ Age+ EducationYears+ Employment+   
 IncomeDecile + as.factor(Region),data=d\_Afil, weights=d\_Afil$anweight))  
print(AfLeft)[1:5,]

## # A tibble: 35 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 5.05 0.226 22.4 4.78e-88  
## 2 AfOtherLeft 0.173 0.120 1.45 1.48e- 1  
## 3 Gender 0.123 0.0656 1.88 6.03e- 2  
## 4 Age -0.0130 0.00219 -5.92 4.63e- 9  
## 5 EducationYears -0.0347 0.0100 -3.47 5.54e- 4  
## 6 Employment 0.0860 0.0788 1.09 2.75e- 1  
## 7 IncomeDecile2 -0.103 0.154 -0.664 5.07e- 1  
## 8 IncomeDecile3 0.149 0.162 0.918 3.59e- 1  
## 9 IncomeDecile4 -0.143 0.140 -1.02 3.06e- 1  
## 10 IncomeDecile5 -0.142 0.143 -0.996 3.19e- 1  
## # ℹ 25 more rows

## # A tibble: 5 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 5.05 0.226 22.4 4.78e-88  
## 2 AfOtherLeft 0.173 0.120 1.45 1.48e- 1  
## 3 Gender 0.123 0.0656 1.88 6.03e- 2  
## 4 Age -0.0130 0.00219 -5.92 4.63e- 9  
## 5 EducationYears -0.0347 0.0100 -3.47 5.54e- 4

ATE.3 <- AfLeft[AfLeft$term == "AfOtherLeft", "estimate"]  
se.3 <- AfLeft[AfLeft$term == "AfOtherLeft", "std.error"]  
ATE.3 <- as.numeric(ATE.3)  
se.3<- as.numeric(se.3)  
  
AfPS<-tidy(lm(Wind~AfPS + Gender+ Age+ EducationYears+ Employment+   
 IncomeDecile + as.factor(Region),data=d\_Afil, weights=d\_Afil$anweight))  
print(AfPS)[1:5,]

## # A tibble: 35 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 5.05 0.225 22.4 4.60e-88  
## 2 AfPS 0.139 0.0765 1.81 7.07e- 2  
## 3 Gender 0.107 0.0657 1.63 1.04e- 1  
## 4 Age -0.0135 0.00220 -6.12 1.42e- 9  
## 5 EducationYears -0.0335 0.00997 -3.36 8.15e- 4  
## 6 Employment 0.0835 0.0788 1.06 2.89e- 1  
## 7 IncomeDecile2 -0.0935 0.154 -0.606 5.45e- 1  
## 8 IncomeDecile3 0.170 0.162 1.05 2.94e- 1  
## 9 IncomeDecile4 -0.120 0.140 -0.863 3.89e- 1  
## 10 IncomeDecile5 -0.153 0.143 -1.07 2.86e- 1  
## # ℹ 25 more rows

## # A tibble: 5 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 5.05 0.225 22.4 4.60e-88  
## 2 AfPS 0.139 0.0765 1.81 7.07e- 2  
## 3 Gender 0.107 0.0657 1.63 1.04e- 1  
## 4 Age -0.0135 0.00220 -6.12 1.42e- 9  
## 5 EducationYears -0.0335 0.00997 -3.36 8.15e- 4

ATE.4 <- AfPS[AfPS$term == "AfPS", "estimate"]  
se.4 <- AfPS[AfPS$term == "AfPS", "std.error"]  
ATE.4 <- as.numeric(ATE.4)  
se.4 <- as.numeric(se.4)  
  
AfLR<-tidy(lm(Wind~AfLR + Gender+ Age+ EducationYears+ Employment+   
 IncomeDecile + as.factor(Region),data=d\_Afil, weights=d\_Afil$anweight))  
print(AfLR)[1:5,]

## # A tibble: 35 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 5.10 0.225 22.7 1.38e-89  
## 2 AfLR -0.250 0.0777 -3.22 1.32e- 3  
## 3 Gender 0.119 0.0651 1.83 6.80e- 2  
## 4 Age -0.0123 0.00219 -5.64 2.27e- 8  
## 5 EducationYears -0.0332 0.00993 -3.35 8.48e- 4  
## 6 Employment 0.0882 0.0784 1.12 2.61e- 1  
## 7 IncomeDecile2 -0.118 0.154 -0.770 4.42e- 1  
## 8 IncomeDecile3 0.123 0.162 0.759 4.48e- 1  
## 9 IncomeDecile4 -0.137 0.139 -0.986 3.25e- 1  
## 10 IncomeDecile5 -0.152 0.142 -1.07 2.85e- 1  
## # ℹ 25 more rows

## # A tibble: 5 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 5.10 0.225 22.7 1.38e-89  
## 2 AfLR -0.250 0.0777 -3.22 1.32e- 3  
## 3 Gender 0.119 0.0651 1.83 6.80e- 2  
## 4 Age -0.0123 0.00219 -5.64 2.27e- 8  
## 5 EducationYears -0.0332 0.00993 -3.35 8.48e- 4

ATE.5 <- AfLR[AfLR$term == "AfLR", "estimate"]  
se.5 <- AfLR[AfLR$term == "AfLR", "std.error"]  
ATE.5 <- as.numeric(ATE.5)  
se.5 <- as.numeric(se.5)  
  
AfRight<- tidy(lm(Wind~AfOtherRight+ Gender+ Age+ EducationYears+ Employment+   
 IncomeDecile + as.factor(Region),data=d\_Afil, weights=d\_Afil$anweight))  
print(AfRight)[1:5,]

## # A tibble: 35 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 5.06 0.226 22.4 9.33e-88  
## 2 AfOtherRight -0.0743 0.110 -0.673 5.01e- 1  
## 3 Gender 0.116 0.0655 1.78 7.60e- 2  
## 4 Age -0.0130 0.00219 -5.93 4.27e- 9  
## 5 EducationYears -0.0334 0.00999 -3.34 8.60e- 4  
## 6 Employment 0.0880 0.0789 1.12 2.65e- 1  
## 7 IncomeDecile2 -0.0976 0.155 -0.631 5.28e- 1  
## 8 IncomeDecile3 0.166 0.163 1.02 3.08e- 1  
## 9 IncomeDecile4 -0.132 0.140 -0.946 3.45e- 1  
## 10 IncomeDecile5 -0.146 0.143 -1.02 3.06e- 1  
## # ℹ 25 more rows

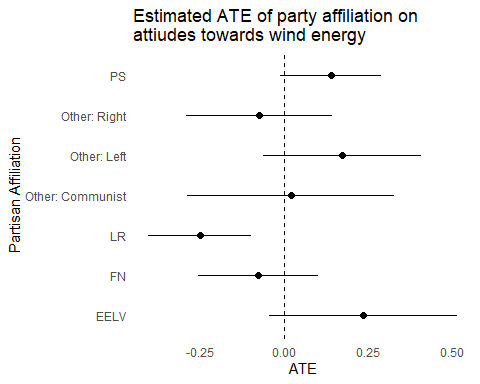
## # A tibble: 5 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 5.06 0.226 22.4 9.33e-88  
## 2 AfOtherRight -0.0743 0.110 -0.673 5.01e- 1  
## 3 Gender 0.116 0.0655 1.78 7.60e- 2  
## 4 Age -0.0130 0.00219 -5.93 4.27e- 9  
## 5 EducationYears -0.0334 0.00999 -3.34 8.60e- 4

ATE.6 <- AfRight[AfRight$term == "AfOtherRight", "estimate"]  
se.6 <- AfRight[AfRight$term == "AfOtherRight", "std.error"]  
ATE.6 <- as.numeric(ATE.6)  
se.6 <- as.numeric(se.6)  
  
AfCom<- tidy(lm(Wind~AfOtherCommunist+ Gender+ Age+ EducationYears+ Employment+   
 IncomeDecile + as.factor(Region),data=d\_Afil, weights=d\_Afil$anweight))  
print(AfCom)[1:5,]

## # A tibble: 35 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 5.05 0.226 22.3 1.53e-87  
## 2 AfOtherCommunist 0.0199 0.157 0.127 8.99e- 1  
## 3 Gender 0.117 0.0655 1.79 7.34e- 2  
## 4 Age -0.0130 0.00219 -5.93 4.39e- 9  
## 5 EducationYears -0.0333 0.0100 -3.33 9.06e- 4  
## 6 Employment 0.0894 0.0790 1.13 2.58e- 1  
## 7 IncomeDecile2 -0.102 0.155 -0.659 5.10e- 1  
## 8 IncomeDecile3 0.159 0.162 0.976 3.29e- 1  
## 9 IncomeDecile4 -0.132 0.140 -0.942 3.46e- 1  
## 10 IncomeDecile5 -0.146 0.143 -1.02 3.09e- 1  
## # ℹ 25 more rows

## # A tibble: 5 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 5.05 0.226 22.3 1.53e-87  
## 2 AfOtherCommunist 0.0199 0.157 0.127 8.99e- 1  
## 3 Gender 0.117 0.0655 1.79 7.34e- 2  
## 4 Age -0.0130 0.00219 -5.93 4.39e- 9  
## 5 EducationYears -0.0333 0.0100 -3.33 9.06e- 4

ATE.7 <- AfCom[AfCom$term == "AfOtherCommunist", "estimate"]  
se.7 <- AfCom[AfCom$term == "AfOtherCommunist", "std.error"]  
ATE.7 <- as.numeric(ATE.7)  
se.7 <- as.numeric(se.7)  
  
# Create a dataframe for plotting  
results <- data.frame(  
 Party = c("FN", "EELV", "Other: Left", "PS", "LR", "Other: Right", "Other: Communist"),  
 ATE = c(ATE.1, ATE.2,ATE.3,ATE.4,ATE.5,ATE.6, ATE.7),  
 ATE\_se = c(se.1, se.2,se.3,se.4,se.5,se.6, se.7)  
)  
  
ggplot(results, aes(x = ATE, y = Party)) +  
 geom\_point(size =2) +  
 geom\_errorbarh(aes(xmin = ATE - 1.96 \* ATE\_se, xmax = ATE + 1.96 \* ATE\_se), height = 0) +  
 geom\_vline(xintercept = 0, linetype = "dashed") +  
 labs(title = "Estimated ATE of party affiliation on\nattiudes towards wind energy", x = "ATE", y = "Partisan Affiliation") +  
 theme\_minimal()+  
 theme(panel.grid.major = element\_blank(),  
 panel.grid.minor = element\_blank())



## Political Affiliation and increasing fossil fuel taxes  
## Policy 1   
AfFN <- tidy(lm(Policy1~AfFN + Gender+ Age+ EducationYears+ Employment+   
 IncomeDecile + as.factor(Region),data=d\_Afil, weights=d\_Afil$anweight))  
print(AfFN)[1:5,]

## # A tibble: 35 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 3.30 0.271 12.2 1.70e-31  
## 2 AfFN -0.396 0.108 -3.66 2.70e- 4  
## 3 Gender -0.0773 0.0780 -0.991 3.22e- 1  
## 4 Age -0.0111 0.00262 -4.25 2.39e- 5  
## 5 EducationYears 0.0318 0.0119 2.67 7.83e- 3  
## 6 Employment -0.212 0.0937 -2.26 2.40e- 2  
## 7 IncomeDecile2 0.235 0.183 1.28 1.99e- 1  
## 8 IncomeDecile3 0.241 0.193 1.25 2.12e- 1  
## 9 IncomeDecile4 0.109 0.166 0.654 5.13e- 1  
## 10 IncomeDecile5 0.156 0.170 0.915 3.61e- 1  
## # ℹ 25 more rows

## # A tibble: 5 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 3.30 0.271 12.2 1.70e-31  
## 2 AfFN -0.396 0.108 -3.66 2.70e- 4  
## 3 Gender -0.0773 0.0780 -0.991 3.22e- 1  
## 4 Age -0.0111 0.00262 -4.25 2.39e- 5  
## 5 EducationYears 0.0318 0.0119 2.67 7.83e- 3

ATE.1 <- AfFN[AfFN$term == "AfFN", "estimate"]  
se.1 <- AfFN[AfFN$term == "AfFN", "std.error"]  
ATE.1 <- as.numeric(ATE.1)  
se.1 <- as.numeric(se.1)  
  
AfEELV <- tidy(lm(Policy1~AfEELV+ Gender+ Age+ EducationYears+ Employment+   
 IncomeDecile + as.factor(Region),data=d\_Afil, weights=d\_Afil$anweight))  
print(AfEELV)[1:5,]

## # A tibble: 35 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 3.07 0.268 11.5 2.14e-28  
## 2 AfEELV 0.668 0.169 3.95 8.40e- 5  
## 3 Gender -0.0759 0.0779 -0.974 3.30e- 1  
## 4 Age -0.00844 0.00263 -3.22 1.35e- 3  
## 5 EducationYears 0.0322 0.0119 2.71 6.91e- 3  
## 6 Employment -0.178 0.0939 -1.90 5.82e- 2  
## 7 IncomeDecile2 0.207 0.183 1.13 2.57e- 1  
## 8 IncomeDecile3 0.188 0.194 0.969 3.33e- 1  
## 9 IncomeDecile4 0.105 0.166 0.631 5.28e- 1  
## 10 IncomeDecile5 0.163 0.170 0.959 3.38e- 1  
## # ℹ 25 more rows

## # A tibble: 5 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 3.07 0.268 11.5 2.14e-28  
## 2 AfEELV 0.668 0.169 3.95 8.40e- 5  
## 3 Gender -0.0759 0.0779 -0.974 3.30e- 1  
## 4 Age -0.00844 0.00263 -3.22 1.35e- 3  
## 5 EducationYears 0.0322 0.0119 2.71 6.91e- 3

ATE.2 <- AfEELV[AfEELV$term == "AfEELV", "estimate"]  
se.2 <- AfEELV[AfEELV$term == "AfEELV", "std.error"]  
ATE.2 <- as.numeric(ATE.2)  
se.2 <- as.numeric(se.2)  
  
AfLeft<-tidy(lm(Policy1~AfOtherLeft+ Gender+ Age+ EducationYears+ Employment+   
 IncomeDecile + as.factor(Region),data=d\_Afil, weights=d\_Afil$anweight))  
print(AfLeft)[1:5,]

## # A tibble: 35 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 3.15 0.270 11.6 3.22e-29  
## 2 AfOtherLeft 0.0284 0.144 0.197 8.44e- 1  
## 3 Gender -0.0611 0.0787 -0.777 4.37e- 1  
## 4 Age -0.00993 0.00262 -3.79 1.64e- 4  
## 5 EducationYears 0.0360 0.0120 2.99 2.83e- 3  
## 6 Employment -0.212 0.0944 -2.24 2.52e- 2  
## 7 IncomeDecile2 0.236 0.184 1.28 2.01e- 1  
## 8 IncomeDecile3 0.257 0.195 1.32 1.86e- 1  
## 9 IncomeDecile4 0.0943 0.167 0.563 5.73e- 1  
## 10 IncomeDecile5 0.159 0.172 0.927 3.54e- 1  
## # ℹ 25 more rows

## # A tibble: 5 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 3.15 0.270 11.6 3.22e-29  
## 2 AfOtherLeft 0.0284 0.144 0.197 8.44e- 1  
## 3 Gender -0.0611 0.0787 -0.777 4.37e- 1  
## 4 Age -0.00993 0.00262 -3.79 1.64e- 4  
## 5 EducationYears 0.0360 0.0120 2.99 2.83e- 3

ATE.3 <- AfLeft[AfLeft$term == "AfOtherLeft", "estimate"]  
se.3 <- AfLeft[AfLeft$term == "AfOtherLeft", "std.error"]  
ATE.3 <- as.numeric(ATE.3)  
se.3<- as.numeric(se.3)  
  
AfPS <- tidy(lm(Policy1~AfPS+ Gender+ Age+ EducationYears+ Employment+   
 IncomeDecile + as.factor(Region),data=d\_Afil, weights=d\_Afil$anweight))  
print(AfPS)[1:5,]

## # A tibble: 35 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 3.15 0.270 11.6 3.17e-29  
## 2 AfPS 0.0456 0.0917 0.497 6.19e- 1  
## 3 Gender -0.0657 0.0788 -0.833 4.05e- 1  
## 4 Age -0.0101 0.00264 -3.82 1.42e- 4  
## 5 EducationYears 0.0362 0.0120 3.02 2.56e- 3  
## 6 Employment -0.213 0.0945 -2.26 2.42e- 2  
## 7 IncomeDecile2 0.239 0.184 1.30 1.95e- 1  
## 8 IncomeDecile3 0.263 0.194 1.35 1.77e- 1  
## 9 IncomeDecile4 0.100 0.167 0.598 5.50e- 1  
## 10 IncomeDecile5 0.156 0.172 0.910 3.63e- 1  
## # ℹ 25 more rows

## # A tibble: 5 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 3.15 0.270 11.6 3.17e-29  
## 2 AfPS 0.0456 0.0917 0.497 6.19e- 1  
## 3 Gender -0.0657 0.0788 -0.833 4.05e- 1  
## 4 Age -0.0101 0.00264 -3.82 1.42e- 4  
## 5 EducationYears 0.0362 0.0120 3.02 2.56e- 3

ATE.4 <- AfPS[AfPS$term == "AfPS", "estimate"]  
se.4 <- AfPS[AfPS$term == "AfPS", "std.error"]  
ATE.4 <- as.numeric(ATE.4)  
se.4 <- as.numeric(se.4)  
  
AfLR <- tidy(lm(Policy1~AfLR+ Gender+ Age+ EducationYears+ Employment+   
 IncomeDecile + as.factor(Region),data=d\_Afil, weights=d\_Afil$anweight))  
print(AfLR)[1:5,]

## # A tibble: 35 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 3.15 0.271 11.6 3.94e-29  
## 2 AfLR -0.00993 0.0935 -0.106 9.15e- 1  
## 3 Gender -0.0621 0.0785 -0.791 4.29e- 1  
## 4 Age -0.00991 0.00263 -3.76 1.79e- 4  
## 5 EducationYears 0.0362 0.0120 3.03 2.55e- 3  
## 6 Employment -0.211 0.0944 -2.24 2.55e- 2  
## 7 IncomeDecile2 0.236 0.184 1.28 2.02e- 1  
## 8 IncomeDecile3 0.258 0.195 1.32 1.86e- 1  
## 9 IncomeDecile4 0.0959 0.167 0.574 5.66e- 1  
## 10 IncomeDecile5 0.158 0.172 0.923 3.56e- 1  
## # ℹ 25 more rows

## # A tibble: 5 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 3.15 0.271 11.6 3.94e-29  
## 2 AfLR -0.00993 0.0935 -0.106 9.15e- 1  
## 3 Gender -0.0621 0.0785 -0.791 4.29e- 1  
## 4 Age -0.00991 0.00263 -3.76 1.79e- 4  
## 5 EducationYears 0.0362 0.0120 3.03 2.55e- 3

ATE.5 <- AfLR[AfLR$term == "AfLR", "estimate"]  
se.5 <- AfLR[AfLR$term == "AfLR", "std.error"]  
ATE.5 <- as.numeric(ATE.5)  
se.5 <- as.numeric(se.5)  
  
AfRight<- tidy(lm(Policy1~AfOtherRight+ Gender+ Age+ EducationYears+ Employment+   
 IncomeDecile + as.factor(Region),data=d\_Afil, weights=d\_Afil$anweight))  
print(AfRight)[1:5,]

## # A tibble: 35 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 3.14 0.271 11.6 5.83e-29  
## 2 AfOtherRight 0.0659 0.133 0.497 6.19e- 1  
## 3 Gender -0.0612 0.0785 -0.780 4.36e- 1  
## 4 Age -0.00993 0.00262 -3.79 1.64e- 4  
## 5 EducationYears 0.0362 0.0120 3.03 2.55e- 3  
## 6 Employment -0.209 0.0944 -2.22 2.70e- 2  
## 7 IncomeDecile2 0.232 0.185 1.26 2.09e- 1  
## 8 IncomeDecile3 0.253 0.195 1.30 1.94e- 1  
## 9 IncomeDecile4 0.0959 0.167 0.574 5.66e- 1  
## 10 IncomeDecile5 0.159 0.172 0.929 3.53e- 1  
## # ℹ 25 more rows

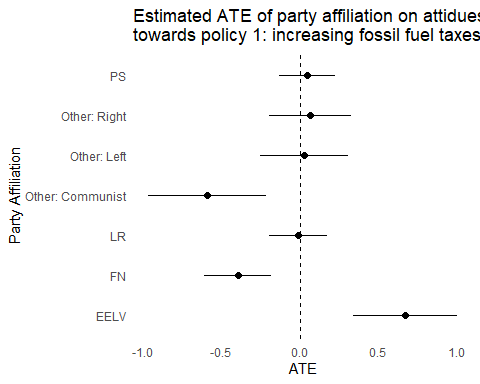
## # A tibble: 5 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 3.14 0.271 11.6 5.83e-29  
## 2 AfOtherRight 0.0659 0.133 0.497 6.19e- 1  
## 3 Gender -0.0612 0.0785 -0.780 4.36e- 1  
## 4 Age -0.00993 0.00262 -3.79 1.64e- 4  
## 5 EducationYears 0.0362 0.0120 3.03 2.55e- 3

ATE.6 <- AfRight[AfRight$term == "AfOtherRight", "estimate"]  
se.6 <- AfRight[AfRight$term == "AfOtherRight", "std.error"]  
ATE.6 <- as.numeric(ATE.6)  
se.6 <- as.numeric(se.6)  
  
AfCom<- tidy(lm(Policy1~AfOtherCommunist+ Gender+ Age+ EducationYears+ Employment+   
 IncomeDecile + as.factor(Region),data=d\_Afil, weights=d\_Afil$anweight))  
print(AfCom)[1:5,]

## # A tibble: 35 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 3.19 0.269 11.8 4.10e-30  
## 2 AfOtherCommunist -0.587 0.192 -3.06 2.26e- 3  
## 3 Gender -0.0675 0.0781 -0.864 3.88e- 1  
## 4 Age -0.00954 0.00261 -3.65 2.75e- 4  
## 5 EducationYears 0.0342 0.0119 2.87 4.23e- 3  
## 6 Employment -0.195 0.0940 -2.07 3.84e- 2  
## 7 IncomeDecile2 0.229 0.183 1.25 2.13e- 1  
## 8 IncomeDecile3 0.266 0.193 1.38 1.69e- 1  
## 9 IncomeDecile4 0.0825 0.166 0.496 6.20e- 1  
## 10 IncomeDecile5 0.168 0.171 0.982 3.27e- 1  
## # ℹ 25 more rows

## # A tibble: 5 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 3.19 0.269 11.8 4.10e-30  
## 2 AfOtherCommunist -0.587 0.192 -3.06 2.26e- 3  
## 3 Gender -0.0675 0.0781 -0.864 3.88e- 1  
## 4 Age -0.00954 0.00261 -3.65 2.75e- 4  
## 5 EducationYears 0.0342 0.0119 2.87 4.23e- 3

ATE.7 <- AfCom[AfCom$term == "AfOtherCommunist", "estimate"]  
se.7 <- AfCom[AfCom$term == "AfOtherCommunist", "std.error"]  
ATE.7 <- as.numeric(ATE.7)  
se.7 <- as.numeric(se.7)  
  
# Create a dataframe for plotting  
results <- data.frame(  
 Party = c("FN", "EELV", "Other: Left", "PS", "LR", "Other: Right", "Other: Communist"),  
 ATE = c(ATE.1, ATE.2,ATE.3,ATE.4,ATE.5,ATE.6, ATE.7),  
 ATE\_se = c(se.1, se.2,se.3,se.4,se.5,se.6, se.7)  
)  
  
ggplot(results, aes(x = ATE, y = Party)) +  
 geom\_point(size =2) +  
 geom\_errorbarh(aes(xmin = ATE - 1.96 \* ATE\_se, xmax = ATE + 1.96 \* ATE\_se), height = 0) +  
 geom\_vline(xintercept = 0, linetype = "dashed") +  
 labs(title = "Estimated ATE of party affiliation on attidues\ntowards policy 1: increasing fossil fuel taxes", x = "ATE", y = "Party Affiliation") +  
 theme\_minimal()+  
 theme(panel.grid.major = element\_blank(),  
 panel.grid.minor = element\_blank())



## Policy 2   
AfFN <- tidy(lm(Policy2~AfFN + Gender+ Age+ EducationYears+ Employment+   
 IncomeDecile + as.factor(Region),data=d\_Afil, weights=d\_Afil$anweight))  
print(AfFN)[1:5,]

## # A tibble: 35 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 4.21 0.213 19.7 5.43e-72  
## 2 AfFN -0.481 0.0850 -5.65 2.13e- 8  
## 3 Gender 0.00685 0.0613 0.112 9.11e- 1  
## 4 Age -0.00481 0.00206 -2.33 2.00e- 2  
## 5 EducationYears 0.00880 0.00937 0.939 3.48e- 1  
## 6 Employment 0.000899 0.0736 0.0122 9.90e- 1  
## 7 IncomeDecile2 -0.0478 0.144 -0.331 7.40e- 1  
## 8 IncomeDecile3 -0.118 0.151 -0.783 4.34e- 1  
## 9 IncomeDecile4 0.233 0.130 1.79 7.44e- 2  
## 10 IncomeDecile5 -0.0517 0.134 -0.387 6.99e- 1  
## # ℹ 25 more rows

## # A tibble: 5 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 4.21 0.213 19.7 5.43e-72  
## 2 AfFN -0.481 0.0850 -5.65 2.13e- 8  
## 3 Gender 0.00685 0.0613 0.112 9.11e- 1  
## 4 Age -0.00481 0.00206 -2.33 2.00e- 2  
## 5 EducationYears 0.00880 0.00937 0.939 3.48e- 1

ATE.1 <- AfFN[AfFN$term == "AfFN", "estimate"]  
se.1 <- AfFN[AfFN$term == "AfFN", "std.error"]  
ATE.1 <- as.numeric(ATE.1)  
se.1 <- as.numeric(se.1)  
  
AfEELV <- tidy(lm(Policy2~AfEELV+ Gender+ Age+ EducationYears+ Employment+   
 IncomeDecile + as.factor(Region),data=d\_Afil, weights=d\_Afil$anweight))  
print(AfEELV)[1:5,]

## # A tibble: 35 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 3.97 0.213 18.6 2.14e-65  
## 2 AfEELV 0.486 0.135 3.61 3.24e- 4  
## 3 Gender 0.0159 0.0619 0.257 7.97e- 1  
## 4 Age -0.00227 0.00209 -1.09 2.78e- 1  
## 5 EducationYears 0.0112 0.00946 1.18 2.37e- 1  
## 6 Employment 0.0253 0.0747 0.338 7.35e- 1  
## 7 IncomeDecile2 -0.0672 0.146 -0.461 6.45e- 1  
## 8 IncomeDecile3 -0.143 0.153 -0.936 3.50e- 1  
## 9 IncomeDecile4 0.224 0.132 1.70 8.93e- 2  
## 10 IncomeDecile5 -0.0443 0.135 -0.328 7.43e- 1  
## # ℹ 25 more rows

## # A tibble: 5 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 3.97 0.213 18.6 2.14e-65  
## 2 AfEELV 0.486 0.135 3.61 3.24e- 4  
## 3 Gender 0.0159 0.0619 0.257 7.97e- 1  
## 4 Age -0.00227 0.00209 -1.09 2.78e- 1  
## 5 EducationYears 0.0112 0.00946 1.18 2.37e- 1

ATE.2 <- AfEELV[AfEELV$term == "AfEELV", "estimate"]  
se.2 <- AfEELV[AfEELV$term == "AfEELV", "std.error"]  
ATE.2 <- as.numeric(ATE.2)  
se.2 <- as.numeric(se.2)  
  
AfLeft<-tidy(lm(Policy2~AfOtherLeft+ Gender+ Age+ EducationYears+ Employment+   
 IncomeDecile + as.factor(Region),data=d\_Afil, weights=d\_Afil$anweight))  
print(AfLeft)[1:5,]

## # A tibble: 35 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 4.03 0.215 18.8 2.72e-66  
## 2 AfOtherLeft 0.0713 0.114 0.624 5.33e- 1  
## 3 Gender 0.0283 0.0624 0.453 6.51e- 1  
## 4 Age -0.00333 0.00208 -1.60 1.10e- 1  
## 5 EducationYears 0.0135 0.00953 1.42 1.56e- 1  
## 6 Employment -0.000144 0.0749 -0.00192 9.98e- 1  
## 7 IncomeDecile2 -0.0467 0.147 -0.318 7.50e- 1  
## 8 IncomeDecile3 -0.0962 0.154 -0.626 5.31e- 1  
## 9 IncomeDecile4 0.214 0.133 1.61 1.09e- 1  
## 10 IncomeDecile5 -0.0465 0.136 -0.342 7.33e- 1  
## # ℹ 25 more rows

## # A tibble: 5 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 4.03 0.215 18.8 2.72e-66  
## 2 AfOtherLeft 0.0713 0.114 0.624 5.33e- 1  
## 3 Gender 0.0283 0.0624 0.453 6.51e- 1  
## 4 Age -0.00333 0.00208 -1.60 1.10e- 1  
## 5 EducationYears 0.0135 0.00953 1.42 1.56e- 1

ATE.3 <- AfLeft[AfLeft$term == "AfOtherLeft", "estimate"]  
se.3 <- AfLeft[AfLeft$term == "AfOtherLeft", "std.error"]  
ATE.3 <- as.numeric(ATE.3)  
se.3<- as.numeric(se.3)  
  
AfPS <- tidy(lm(Policy2~AfPS+ Gender+ Age+ EducationYears+ Employment+   
 IncomeDecile + as.factor(Region),data=d\_Afil, weights=d\_Afil$anweight))  
print(AfPS)[1:5,]

## # A tibble: 35 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 4.03 0.214 18.8 1.10e-66  
## 2 AfPS 0.188 0.0726 2.59 9.76e- 3  
## 3 Gender 0.0115 0.0623 0.185 8.53e- 1  
## 4 Age -0.00403 0.00209 -1.93 5.44e- 2  
## 5 EducationYears 0.0140 0.00946 1.48 1.39e- 1  
## 6 Employment -0.00791 0.0747 -0.106 9.16e- 1  
## 7 IncomeDecile2 -0.0327 0.146 -0.224 8.23e- 1  
## 8 IncomeDecile3 -0.0761 0.153 -0.497 6.19e- 1  
## 9 IncomeDecile4 0.234 0.132 1.77 7.73e- 2  
## 10 IncomeDecile5 -0.0572 0.136 -0.422 6.73e- 1  
## # ℹ 25 more rows

## # A tibble: 5 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 4.03 0.214 18.8 1.10e-66  
## 2 AfPS 0.188 0.0726 2.59 9.76e- 3  
## 3 Gender 0.0115 0.0623 0.185 8.53e- 1  
## 4 Age -0.00403 0.00209 -1.93 5.44e- 2  
## 5 EducationYears 0.0140 0.00946 1.48 1.39e- 1

ATE.4 <- AfPS[AfPS$term == "AfPS", "estimate"]  
se.4 <- AfPS[AfPS$term == "AfPS", "std.error"]  
ATE.4 <- as.numeric(ATE.4)  
se.4 <- as.numeric(se.4)  
  
AfLR <- tidy(lm(Policy2~AfLR+ Gender+ Age+ EducationYears+ Employment+   
 IncomeDecile + as.factor(Region),data=d\_Afil, weights=d\_Afil$anweight))  
print(AfLR)[1:5,]

## # A tibble: 35 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 4.03 0.215 18.7 4.41e-66  
## 2 AfLR -0.0173 0.0742 -0.234 8.15e- 1  
## 3 Gender 0.0259 0.0623 0.415 6.78e- 1  
## 4 Age -0.00330 0.00209 -1.58 1.15e- 1  
## 5 EducationYears 0.0141 0.00949 1.49 1.38e- 1  
## 6 Employment 0.00127 0.0749 0.0170 9.86e- 1  
## 7 IncomeDecile2 -0.0474 0.147 -0.323 7.47e- 1  
## 8 IncomeDecile3 -0.0947 0.154 -0.616 5.38e- 1  
## 9 IncomeDecile4 0.218 0.133 1.64 1.01e- 1  
## 10 IncomeDecile5 -0.0481 0.136 -0.353 7.24e- 1  
## # ℹ 25 more rows

## # A tibble: 5 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 4.03 0.215 18.7 4.41e-66  
## 2 AfLR -0.0173 0.0742 -0.234 8.15e- 1  
## 3 Gender 0.0259 0.0623 0.415 6.78e- 1  
## 4 Age -0.00330 0.00209 -1.58 1.15e- 1  
## 5 EducationYears 0.0141 0.00949 1.49 1.38e- 1

ATE.5 <- AfLR[AfLR$term == "AfLR", "estimate"]  
se.5 <- AfLR[AfLR$term == "AfLR", "std.error"]  
ATE.5 <- as.numeric(ATE.5)  
se.5 <- as.numeric(se.5)  
  
AfRight<- tidy(lm(Policy2~AfOtherRight+ Gender+ Age+ EducationYears+ Employment+   
 IncomeDecile + as.factor(Region),data=d\_Afil, weights=d\_Afil$anweight))  
print(AfRight)[1:5,]

## # A tibble: 35 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 4.05 0.215 18.9 9.48e-67  
## 2 AfOtherRight -0.166 0.105 -1.58 1.14e- 1  
## 3 Gender 0.0234 0.0622 0.375 7.07e- 1  
## 4 Age -0.00337 0.00208 -1.62 1.06e- 1  
## 5 EducationYears 0.0141 0.00948 1.49 1.37e- 1  
## 6 Employment -0.00317 0.0749 -0.0423 9.66e- 1  
## 7 IncomeDecile2 -0.0361 0.147 -0.246 8.05e- 1  
## 8 IncomeDecile3 -0.0773 0.153 -0.503 6.15e- 1  
## 9 IncomeDecile4 0.219 0.133 1.65 9.98e- 2  
## 10 IncomeDecile5 -0.0499 0.136 -0.367 7.14e- 1  
## # ℹ 25 more rows

## # A tibble: 5 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 4.05 0.215 18.9 9.48e-67  
## 2 AfOtherRight -0.166 0.105 -1.58 1.14e- 1  
## 3 Gender 0.0234 0.0622 0.375 7.07e- 1  
## 4 Age -0.00337 0.00208 -1.62 1.06e- 1  
## 5 EducationYears 0.0141 0.00948 1.49 1.37e- 1

ATE.6 <- AfRight[AfRight$term == "AfOtherRight", "estimate"]  
se.6 <- AfRight[AfRight$term == "AfOtherRight", "std.error"]  
ATE.6 <- as.numeric(ATE.6)  
se.6 <- as.numeric(se.6)  
  
AfCom<- tidy(lm(Policy2~AfOtherCommunist+ Gender+ Age+ EducationYears+ Employment+   
 IncomeDecile + as.factor(Region),data=d\_Afil, weights=d\_Afil$anweight))  
print(AfCom)[1:5,]

## # A tibble: 35 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 4.01 0.215 18.7 7.72e-66  
## 2 AfOtherCommunist 0.172 0.150 1.15 2.52e- 1  
## 3 Gender 0.0268 0.0623 0.430 6.67e- 1  
## 4 Age -0.00346 0.00208 -1.66 9.75e- 2  
## 5 EducationYears 0.0147 0.00950 1.55 1.22e- 1  
## 6 Employment -0.00313 0.0750 -0.0417 9.67e- 1  
## 7 IncomeDecile2 -0.0447 0.147 -0.305 7.61e- 1  
## 8 IncomeDecile3 -0.0978 0.153 -0.638 5.24e- 1  
## 9 IncomeDecile4 0.222 0.133 1.67 9.50e- 2  
## 10 IncomeDecile5 -0.0511 0.136 -0.376 7.07e- 1  
## # ℹ 25 more rows

## # A tibble: 5 × 5  
## term estimate std.error statistic p.value  
## <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 (Intercept) 4.01 0.215 18.7 7.72e-66  
## 2 AfOtherCommunist 0.172 0.150 1.15 2.52e- 1  
## 3 Gender 0.0268 0.0623 0.430 6.67e- 1  
## 4 Age -0.00346 0.00208 -1.66 9.75e- 2  
## 5 EducationYears 0.0147 0.00950 1.55 1.22e- 1

ATE.7 <- AfCom[AfCom$term == "AfOtherCommunist", "estimate"]  
se.7 <- AfCom[AfCom$term == "AfOtherCommunist", "std.error"]  
ATE.7 <- as.numeric(ATE.7)  
se.7 <- as.numeric(se.7)  
  
# Create a dataframe for plotting  
results <- data.frame(  
 Party = c("FN", "EELV", "Other: Left", "PS", "LR", "Other: Right", "Other: Communist"),  
 ATE = c(ATE.1, ATE.2,ATE.3,ATE.4,ATE.5,ATE.6, ATE.7),  
 ATE\_se = c(se.1, se.2,se.3,se.4,se.5,se.6, se.7)  
)  
  
ggplot(results, aes(x = ATE, y = Party)) +  
 geom\_point(size =2) +  
 geom\_errorbarh(aes(xmin = ATE - 1.96 \* ATE\_se, xmax = ATE + 1.96 \* ATE\_se), height = 0) +  
 geom\_vline(xintercept = 0, linetype = "dashed") +  
 labs(title = "Estimated ATE of party affiliation on attidues\ntowards policy 2: subsidising renewable energy", x = "ATE", y = "Party Affiliation") +  
 theme\_minimal()+  
 theme(panel.grid.major = element\_blank(),  
 panel.grid.minor = element\_blank())

