

Week 2 Report

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General information on the data

Data was downloaded from: https://www.europeansocialsurvey.org/download.html?file=ESS9e03_1&y=2018.

Codebook fro the data can be found by the following link: chrome-extension://efaidnbmnnibpcajpcglclefindmkaj/viewer.html?pdfurl=https%3A%2F%2Fwww.europeansocialsurvey.org%2Fdocs%2Fround9%2Fsurvey%2FESS9_appendix_a7_e03_1.pdf&clen=2111156.

The European Social Survey (ESS) is an academically-driven multi-country survey, which has been administered in over 35 countries to date. Its three aims are, firstly – to monitor and interpret changing public attitudes and values within Europe and to investigate how they interact with Europe's changing institutions, secondly – to advance and consolidate improved methods of cross-national survey measurement in Europe and beyond, and thirdly – to develop a series of European social indicators, including attitudinal indicators. For the course we will use round 9 ESS.

Variables of the datasets are separated for the following groups:

Country

Weights

Media and social trust

Politics

Subjective well-being, social exclusion, religion, national and ethnic identity

Timing of life

Gender, Year of birth and Household grid

Socio-demographics

Justice and Fairness

Human values

Administrative variables

Sample Design variables

User defined variables

```
“‘{r include=FALSE} setwd(“C:/R scripts/DWA2022”)
```

load/attach package

```
library(haven)
```

import data

```
data <- read_sav(“C:/R scripts/DWA2022/ESS9e03_1.sav”)
#View(data)
```

```

save(data,file="data.csv")

## Part 1. Explore the European Social Survey (ESS) data.
I am interested in the following self-made groups of variables:
*Involvement in politics*
1) *polintr* -How interested in politics (scale from 1 to 4, 1 = Very interested, 4 = Not at all)
2) *psppipla* -Political system allows people to have influence on politics (scale from 1 to 5, 1 = Not at all)
*Attitude to immigrants*
3) *imwbcnt* -Immigrants make country worse or better place to live (scale from 0 to 10, 0 = Worse place)
4) *imbgeco* -Immigration bad or good for country's economy (scale from 0 to 10, 0 = Bad for the economy)
5) *imueclt* -Country's cultural life undermined or enriched by immigrants (scale from 0 to 10, 0 = Cul...
6) *imsmetn* -Allow many/few immigrants of same race/ethnic group as majority (scale from 1 to 4, 1 = Allow)
7) *imdfetn* -Allow many/few immigrants of different race/ethnic group from majority (scale from 1 to 4)
8) *impctr* -Allow many/few immigrants from poorer countries outside Europe (scale from 1 to 4, 1 = Allow)
*General information on participants*
9) *stflife* -How satisfied with life as a whole (from 0 to 10, 0 = extremely dissatisfied, 10 = extremely satisfied)
10) *gndr*-Gender (1 = Male, 2 = Female)
11) *agea* -Age of respondent, calculated (integer)

```

Comments on the variables:

- there is just one continuous variable that is agea, while gender is binary. The rest of the variables are categorical.

I will display descriptive statistics by variable groups:

General information on participants

```

```{r}
#load necessary libraries
library(ggplot2)
library(GGally)
library(haven)
library(tidyverse)
library(corrplot)
library(tidyverse)
library(dplyr)

#make one dataframe that contains all the cat variables. Dont do the same for age and gender since they are continuous
data <- as.data.frame(data)
interested_var_cat <- select(data, "stflife", "psppipla", "polintr", "imwbcnt", "imbgeco", "imueclt", "imsmetn", "imdfetn")
data$gndr = as.factor(data$gndr)
interested_var <- select(data, "stflife", "psppipla", "polintr", "imwbcnt", "imbgeco", "imueclt", "imsmetn", "imdfetn")
"gndr"
agea

gather(interested_var_cat) %>% ggplot(aes(value)) + geom_bar(col ="dark red", fill = "dark red", alpha = 0.5)

```

Bar plot indicates that: - there are people who think that political system doesn't allow people to have influence on politics or allows on insufficient level (\*psppipla\*). While participants are rather interested in politics than not interested (\*polintr\*); - in majority people are satisfied with life as whole (\*stflife\*); - participants tend to be neutral about their opinion regarding immigrants influence on a country in general as well as in economic and cultural sense (*imwbcnt*, *imbgeco*, *imueclt*). However there are slightly more people who think of positive influence of immigrants. - participants tend to be more acceptable towards immigrants of similar ethnicity (*imsmetn* vs *imdfetn*), and tend to accept the least immigrants from poorer countries outside Europe (*impctr*).

The level of acceptance can be pictured as following: same ethnicity > different ethnicity > from poorer countries out of Europe.

Next, descriptive statistics for age and gender. As we can see there are slightly more women who participated in the survey.

Average age of participants is 51 years. People from 15 to 90 years old took part in the survey. 50% of all ages are from approximately 37 to 67 years.

```
#rstudio was complaining that gndr was a list, so I unlisted it
data$gndr <- unlist(data$gndr)
#summary for gndr
summary(data$gndr)
#some visualization to make the eyes happy
col <- c(rep("dark blue", 1), rep("dark red", 1))
ggplot(data = data, aes(data$gndr)) + geom_histogram(col = col, fill = col, alpha = 0.7, bins = "free",
#descriptives for agea
summary(data$agea)
#visualization to make the eyes happy again
ggplot(data = data, aes(agea)) + geom_histogram(breaks = seq(15,90,1), col = "dark orange", fill = "dark orange",
col2 = rep("dark orange", alpha = 0.7)

ggplot(data = data, aes(agea, y = " ")) + geom_boxplot(fill = "dark orange", alpha = 0.7)

##Part 2. Copy a small text file data (week2data) from Moodle

#load the data for part 2 ex
library(readxl)
part2_data <- read_excel("C:/R scripts/DWA2022/part_two_data.xlsx")

View(part2_data) #good!
save(part2_data,file="part2_data.csv")
```

*Task 1:* Add variable labels: id = “ID number”, agea = “Age of respondent”, q1 = “How often you read newspaper?”, q2 = “Government should reduce differences in income levels?”

```
#install.packages("expss")
library(expss)
part2_data = apply_labels(part2_data, id = "ID number",
 agea = "Age of respondent",
 q1 = "How often you read newspaper?",
 q2 = "Government should reduce differences in income levels?")
View(part2_data) #we can see labels in the dataset
get_label(part2_data$id) #also worked
```

*Task 2:* Add value labels to variables q1 and q2

Q1: 1 = “Never”, 2 = “Only occasionally”, 3 = “A few times a week”, 4 = “Most days”, 5 = “Every day, 8 = “Don’t know”, 9 = “No answer”

Q2: 1 = “Agree strongly”, 2 = “Agree”, 3 = “Neither agree nor disagree”, 4 = “Disagree”, 5 = “Disagree strongly”, -1 = “missing”

```
part2_data$q1 <- ordered(part2_data$q1,
 levels = c(1, 2, 3, 4, 5, 8, 9),
 labels = c("Never", "Only occasionally", "A few times a week", "Most days", "Every day", "Don't know", "No answer"))
```

```
get_labels(part2_data$q1) #worked!
View(part2_data) #I can see the labels fro q1 in the table

part2_data$q2 <- ordered(part2_data$q2,
 levels = c(1, 2, 3, 4, 5, -1),
 labels = c("Agree strongly", "Agree", "Neither agree nor disagree", "Disagree"))

View(part2_data) # can see the lables fro q1 and q2 in the table
```