

data volně ke stažení zde <https://www.psp.cz/sqw/hp.sqw?k=1300>

```
library(tidyverse)
```

```
library(sjPlot)
```

```
library(ggrepel)
```

```
poslanci <- read_delim("C:/Users/honza/OneDrive/Plocha/RSTUDIO FINAL DIPLOMKA/poslanec.unl",  
"|",
```

```
  escape_double = FALSE, locale = locale(encoding = "windows-1250"), col_names = FALSE,  
  trim_ws = TRUE)
```

```
osoby <- read_delim("C:/Users/honza/OneDrive/Plocha/RSTUDIO FINAL DIPLOMKA/osoby.unl", "|",
```

```
  escape_double = FALSE, locale = locale(encoding = "windows-1250"), col_names = FALSE,  
  trim_ws = TRUE)
```

```
organy <- read_delim("C:/Users/honza/OneDrive/Plocha/RSTUDIO FINAL DIPLOMKA/organy.unl", "|",
```

```
  escape_double = FALSE, locale = locale(encoding = "windows-1250"), col_names = FALSE,  
  trim_ws = TRUE)
```

```
poslanci <- rename(poslanci, ID=X2)
```

```
osoby <- rename(osoby, ID=X1)
```

```
organy <- rename(organy, ID_org=X1)
```

```
osoby <- left_join(osoby, poslanci, by="ID")
```

```
osoby <- rename(osoby, ID_org=X4.y)
```

```
osoby <- left_join(osoby, organy, by="ID_org")
```

```
osoby <- rename(osoby, ID_posl="X1")
```

```
hl1998s <- read_delim("C:/Users/honza/OneDrive/Plocha/RSTUDIO FINAL DIPLOMKA/hl1998s.unl",
```

```
  "|", escape_double = FALSE, col_names = FALSE,
```

```
  trim_ws = TRUE, locale = locale(encoding = "windows-1250"))
```

```
hl1998h1 <- read_delim("C:/Users/honza/OneDrive/Plocha/RSTUDIO FINAL  
DIPLOMKA/hl1998h1.unl",
```

```
  "|", escape_double = FALSE, col_names = FALSE,
```

```
  trim_ws = TRUE)
```

```
hl1998h2 <- read_delim("C:/Users/honza/OneDrive/Plocha/RSTUDIO FINAL  
DIPLOMKA/hl1998h2.unl",
```

```
  "|", escape_double = FALSE, col_names = FALSE,
```

```
  trim_ws = TRUE)
```

```
hl1998h1 <- bind_rows(hl1998h1, hl1998h2)
```

```
hl1998h1 <- rename(hl1998h1, ID_posl="X1")
```

```
hl1998h1 <- inner_join(hl1998h1, osoby, by="ID_posl")
```

```
hl2002h1 <- read_delim("C:/Users/honza/OneDrive/Plocha/RSTUDIO FINAL  
DIPLOMKA/hl2002h1.unl",
```

```
  "|", escape_double = FALSE, col_names = FALSE,
```

```
  trim_ws = TRUE)
```

```
hl2002h2 <- read_delim("C:/Users/honza/OneDrive/Plocha/RSTUDIO FINAL  
DIPLOMKA/hl2002h2.unl",
```

```
  "|", escape_double = FALSE, col_names = FALSE,
```

```
  trim_ws = TRUE)
```

```
hl2002h3 <- read_delim("C:/Users/honza/OneDrive/Plocha/RSTUDIO FINAL  
DIPLOMKA/hl2002h3.unl",
```

```
  "|", escape_double = FALSE, col_names = FALSE,
```

```
  trim_ws = TRUE)
```

```
hl2002h1 <- bind_rows(hl2002h1, hl2002h2, hl2002h3)
```

```
hl2002h1 <- rename(hl2002h1, ID_posl="X1")
```

```
hl2002h1 <- inner_join(hl2002h1, osoby, by="ID_posl")
```

```
hl2002s <- read_delim("C:/Users/honza/OneDrive/Plocha/RSTUDIO FINAL DIPLOMKA/hl2002s.unl",
```

```
"|", escape_double = FALSE, locale = locale(encoding = "windows-1250"), col_names = FALSE,  
trim_ws = TRUE)
```

```
hl2017h1 <- read_delim("C:/Users/honza/OneDrive/Plocha/RSTUDIO FINAL  
DIPLOMKA/hl2017h1.unl",
```

```
"|", escape_double = FALSE, col_names = FALSE,  
trim_ws = TRUE)
```

```
hl2017h2 <- read_delim("C:/Users/honza/OneDrive/Plocha/RSTUDIO FINAL  
DIPLOMKA/hl2017h2.unl",
```

```
"|", escape_double = FALSE, col_names = FALSE,  
trim_ws = TRUE)
```

```
hl2017v <- read_delim("C:/Users/honza/OneDrive/Plocha/RSTUDIO FINAL DIPLOMKA/hl2017v.unl",
```

```
"|", escape_double = FALSE, col_names = FALSE,  
trim_ws = TRUE)
```

```
hl2017x <- read_delim("C:/Users/honza/OneDrive/Plocha/RSTUDIO FINAL DIPLOMKA/hl2017x.unl",
```

```
"|", escape_double = FALSE, col_names = FALSE,  
trim_ws = TRUE)
```

```
hl2017z <- read_delim("C:/Users/honza/OneDrive/Plocha/RSTUDIO FINAL DIPLOMKA/hl2017z.unl",
```

```
"|", escape_double = FALSE, col_names = FALSE,  
trim_ws = TRUE)
```

```
hl2017s <- read_delim("C:/Users/honza/OneDrive/Plocha/RSTUDIO FINAL DIPLOMKA/hl2017s.unl",
```

```
"|", escape_double = FALSE, locale = locale(encoding = "windows-1250"), col_names = FALSE,  
trim_ws = TRUE)
```

```
hl2017h1 <- bind_rows(hl2017h1, hl2017h2)
```

```
hl2017h1 <- rename(hl2017h1, ID_posl="X1")
```

```
hl2017h1 <- inner_join(hl2017h1, osoby, by="ID_posl")
```

```
hl2002h1 <- read_delim("C:/Users/honza/OneDrive/Plocha/RSTUDIO FINAL  
DIPLOMKA/hl2002h1.unl",
```

```
"|", escape_double = FALSE, col_names = FALSE,
```

```

        trim_ws = TRUE)
hl2002h2 <- read_delim("C:/Users/honza/OneDrive/Plocha/RSTUDIO FINAL
DIPLOMKA/hl2002h2.unl",
        "|", escape_double = FALSE, col_names = FALSE,
        trim_ws = TRUE)
hl2002h3 <- read_delim("C:/Users/honza/OneDrive/Plocha/RSTUDIO FINAL
DIPLOMKA/hl2002h3.unl",
        "|", escape_double = FALSE, col_names = FALSE,
        trim_ws = TRUE)
hl2002h1 <- bind_rows(hl2002h1, hl2002h2, hl2002h3)

hl2002h1 <- rename(hl2002h1, ID_posl="X1")
hl2002h1 <- inner_join(hl2002h1, osoby, by="ID_posl")

hl2021h1 <- read_delim("C:/Users/honza/OneDrive/Plocha/RSTUDIO FINAL
DIPLOMKA/hl2021h1.unl",
        "|", escape_double = FALSE, col_names = FALSE,
        trim_ws = TRUE)
hl2021h2 <- read_delim("C:/Users/honza/OneDrive/Plocha/RSTUDIO FINAL
DIPLOMKA/hl2021h2.unl",
        "|", escape_double = FALSE, col_names = FALSE,
        trim_ws = TRUE)
hl2021v <- read_delim("C:/Users/honza/OneDrive/Plocha/RSTUDIO FINAL DIPLOMKA/hl2021v.unl",
        "|", escape_double = FALSE, col_names = FALSE,
        trim_ws = TRUE)
hl2021x <- read_delim("C:/Users/honza/OneDrive/Plocha/RSTUDIO FINAL DIPLOMKA/hl2021x.unl",
        "|", escape_double = FALSE, col_names = FALSE,
        trim_ws = TRUE)
hl2021s <- read_delim("C:/Users/honza/OneDrive/Plocha/RSTUDIO FINAL DIPLOMKA/hl2021s.unl",
        "|", escape_double = FALSE, locale = locale(encoding = "windows-1250"), col_names =
FALSE,
        trim_ws = TRUE)
hl2021h1 <- bind_rows(hl2021h1, hl2021h2)

```

```
hl2021h1 <- rename(hl2021h1, ID_posl="X1")
hl2021h1 <- inner_join(hl2021h1, osoby, by="ID_posl")
```

```
sjetnot <- function (x){
  if (x == "A")
    return("Ano")
  else if (x %in% c("N", "B"))
    return("Ne")
  else if (x %in% c("F", "K", "C"))
    return("Zdr")
  else
    return("Ost")
}
```

```
##### 1998 #####
```

```
hlasovani <- hl1998s %>%
  rename(nazev_dlouhy=X16, nazev_kratky=X17, hlasovani=X1)
```

```
hlasovani <- hlasovani %>%
  select(hlasovani, nazev_dlouhy, nazev_kratky)
```

```
hl1998_raw <- hl1998h1 %>%
  filter(X4.y %in% c("KDU-ČSL", "US")) %>%
```

```
rowwise() %>%  
mutate(vysledek=sjetnot(X3.x.x))
```

```
hl1998 <- hl1998_raw%>%  
  group_by(X2, X4.y) %>%  
  count(hl=vysledek) %>%  
  spread(hl, n)
```

```
hl1998[is.na(hl1998)] <- 0
```

```
hl1998 <- hl1998 %>%  
  rowwise() %>%  
  mutate(max = max(Ano, Ne, Zdr, Ost), total = sum(Ano, Ne, Zdr, Ost))%>%  
  mutate(Ano_p = Ano/ total,  
         Ne_p = Ne/ total,  
         Zdr_p = Zdr/ total)%>%  
  rename(strana=X4.y, hlasovani=X2)
```

```
kdu <- hl1998 %>%  
  filter(strana=="KDU-ČSL")
```

```
us <- hl1998 %>%  
  filter(strana=="US")
```

```
srovnani_kdu_us <- left_join(kdu, us, by="hlasovani", suffix = c(".kdu", ".us"))  
srovnani_kdu_us <- srovnani_kdu_us %>%  
  mutate(rozdil=abs(Ano_p.kdu - Ano_p.us))
```

```
srovnani_kdu_us = left_join(srovnani_kdu_us, hlasovani, by="hlasovani", suffix = c("", ".hlas") )
```

```
mean(srovnani_kdu_us$rozdil)
```

```
##### 2017 #####
```

```
hlasovani2017 <- hl2017s %>%
```

```
  rename(nazev_dlouhy=X16, nazev_kratky=X17, hlasovani=X1)
```

```
hlasovani2017 <- hlasovani2017 %>%
```

```
  select(hlasovani, nazev_dlouhy, nazev_kratky)
```

```
hl2017_raw <- hl2017h1 %>%
```

```
  filter(X4.y %in% c("ODS", "TOP09", "KDU-ČSL" )) %>%
```

```
  rowwise() %>%
```

```
  mutate(vysledek=sjetnot(X3.x.x))
```

```
hl2017 <- hl2017_raw%>%
```

```
  group_by(X2, X4.y) %>%
```

```
  count(hl=vysledek) %>%
```

```
  spread(hl, n)
```

```
hl2017[is.na(hl2017)] <- 0
```

```
hl2017 <- hl2017 %>%
```

```
  rowwise() %>%
```

```
  mutate(max = max(Ano, Ne, Zdr, Ost), total = sum(Ano, Ne, Zdr, Ost))%>%
```

```
  mutate(Ano_p = Ano/ total,
```

```
         Ne_p = Ne/ total,
```

```
         Zdr_p = Zdr/ total)%>%
```

```
rename(strana=X4.y, hlasovani=X2)
```

```
top09 <- hl2017 %>%
```

```
  filter(strana=="TOP09")
```

```
ods2017 <- hl2017 %>%
```

```
  filter(strana=="ODS")
```

```
kdu2017 <- hl2017 %>%
```

```
  filter(strana=="KDU-ČSL")
```

```
##### TOP 09 + ODS #####
```

```
rovnani_spolu_TOP09_ODS <- left_join(top09, ods2017, by = "hlasovani", suffix = c(".TOP09",  
".ODS"))
```

```
rovnani_spolu_TOP09_ODS <- rovnani_spolu_TOP09_ODS %>%
```

```
  mutate(rozdil=abs(Ano_p.TOP09 - Ano_p.ODS))
```

```
rovnani_spolu_TOP09_ODS = left_join(rovnani_spolu_TOP09_ODS, hlasovani2017, by="hlasovani",  
suffix = c("", ".hlas") )
```

```
##### KDU-CSL + ODS #####
```

```
rovnani_spolu_ODS_KDU <- left_join(kdu2017, ods2017, by = "hlasovani", suffix = c("KDU-ČSL",  
".ODS"))
```

```
rovnani_spolu_ODS_KDU <- rovnani_spolu_ODS_KDU %>%
```

```
  mutate(rozdil=abs(`Ano_pKDU-ČSL` - Ano_p.ODS))
```

```
rovnani_spolu_ODS_KDU = left_join(rovnani_spolu_ODS_KDU, hlasovani2017, by="hlasovani", suffix  
= c("", ".hlas") )
```

```
##### KDU -CSL + TOP 09 #####
```



```
srovnani_spolu_TOP09_KDU <- left_join(kdu2017, top09, by = "hlasovani", suffix = c("KDU-ČSL", ".TOP09"))
```

```
srovnani_spolu_TOP09_KDU <- srovnani_spolu_TOP09_KDU %>%  
  mutate(rozdil=abs(`Ano_pKDU-ČSL` - Ano_p.TOP09))
```

```
srovnani_spolu_TOP09_KDU = left_join(srovnani_spolu_TOP09_KDU, hlasovani2017, by="hlasovani",  
  suffix = c("", ".hlas") )
```

```
mean(srovnani_spolu_TOP09_KDU$rozdil)
```

```
##### PIRstan #####
```

```
hlasovani2017 <- hl2017s %>%  
  rename(nazev_dlouhy=X16, nazev_kratky=X17, hlasovani=X1)
```

```
hlasovani2017 <- hlasovani2017 %>%  
  select(hlasovani, nazev_dlouhy, nazev_kratky)
```

```
hl2017_rawPIRSTAN <- hl2017h1 %>%  
  filter(X4.y %in% c("STAN", "Piráti")) %>%  
  rowwise() %>%  
  mutate(vysledek=sjetnot(X3.x.x))
```

```
hl2017PIRSTAN <- hl2017_rawPIRSTAN %>%  
  group_by(X2, X4.y) %>%  
  count(hl=vysledek) %>%  
  spread(hl, n)
```

```
hl2017PIRSTAN[is.na(hl2017PIRSTAN)] <- 0
```

```
hl2017PIRSTAN <- hl2017PIRSTAN %>%  
  rowwise() %>%  
  mutate(max = max(Ano, Ne, Zdr, Ost), total = sum(Ano, Ne, Zdr, Ost))%>%  
  mutate(Ano_p = Ano/ total,  
         Ne_p = Ne/ total,  
         Zdr_p = Zdr/ total)%>%  
  rename(strana=X4.y, hlasovani=X2)
```

```
pirati <- hl2017PIRSTAN %>%  
  filter(strana=="Piráti")
```

```
stan <- hl2017PIRSTAN %>%  
  filter(strana=="STAN")
```

```
srovnani_PIRSTAN <- left_join(pirati, stan, by="hlasovani", suffix = c(".Piráti", "STAN"))  
srovnani_PIRSTAN <- srovnani_PIRSTAN %>%  
  mutate(rozdil=abs(Ano_pSTAN - Ano_p.Piráti))
```

```
srovnani_PIRSTAN = left_join(srovnani_PIRSTAN, hlasovani2017, by="hlasovani", suffix = c("", ".hlas"))
```

```
##### 2002 #####
```

```
hlasovani2002 <- hl2002s %>%  
  rename(nazev_dlouhy=X16, nazev_kratky=X17, hlasovani=X1)
```

```
hlasovani2002 <- hlasovani2002 %>%  
  select(hlasovani, nazev_dlouhy, nazev_kratky)
```

```
hl2002_raw <- hl2002h1 %>%  
  filter(X4.y %in% c("K")) %>%  
  rowwise() %>%  
  mutate(vysledek=sjetnot(X3.x.x))
```

```
hl2002 <- hl2002_raw %>%  
  group_by(X2, X4.y) %>%  
  count(hl=vysledek) %>%  
  spread(hl, n)
```

```
hl2002[is.na(hl2002)] <- 0
```

```
hl2002 <- hl2002 %>%  
  rowwise() %>%  
  mutate(max = max(Ano, Ne, Zdr, Ost), total = sum(Ano, Ne, Zdr, Ost)) %>%  
  mutate(Ano_p = Ano/ total,  
         Ne_p = Ne/ total,  
         Zdr_p = Zdr/ total) %>%  
  rename(strana=X4.y, hlasovani=X2)
```

```
hl2002 = left_join(hl2002, hlasovani2002, by="hlasovani", suffix = c("", ".hlas"))
```

```
##### 2021 #####
```

```
hlasovani2021 <- hl2021s %>%  
  rename(nazev_dlouhy=X16, nazev_kratky=X17, hlasovani=X1)
```

```
hlasovani2021 <- hlasovani2021 %>%
```

```
select(hlasovani, nazev_dlouhy, nazev_kratky)
```

```
hl2021_raw <- hl2021h1 %>%  
  filter(X4.y %in% c("PirSTAN", "SPOLU" )) %>%  
  rowwise() %>%  
  mutate(vysledek=sjetnot(X3.x.x))
```

```
hl2021 <- hl2021_raw%>%  
  group_by(X2, X4.y) %>%  
  count(hl=vysledek) %>%  
  spread(hl, n)
```

```
hl2021[is.na(hl2021)] <- 0
```

```
hl2021 <- hl2021 %>%  
  rowwise() %>%  
  mutate(max = max(Ano, Ne, Zdr, Ost), total = sum(Ano, Ne, Zdr, Ost))%>%  
  mutate(Ano_p = Ano/ total,  
         Ne_p = Ne/ total,  
         Zdr_p = Zdr/ total)%>%  
  rename(strana=X4.y, hlasovani=X2)
```

```
spolu <- hl2021 %>%  
  filter(strana=="SPOLU")
```

```
pirstan <- hl2021 %>%  
  filter(strana=="PirSTAN")
```

```
srovnani_2021 <- left_join(spolu, pirstan, by = "hlasovani", suffix = c(".SPOLU", ".PirSTAN"))  
srovnani_2021 <- srovnani_2021 %>%  
  mutate(rozdil=abs(Ano_p.SPOLU - Ano_p.PirSTAN))
```