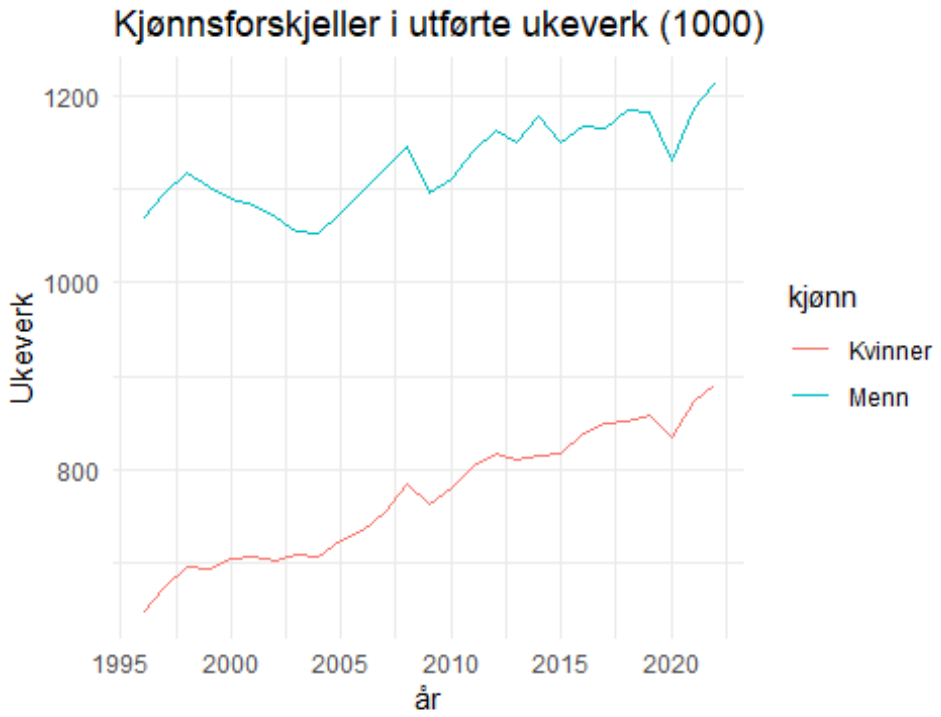
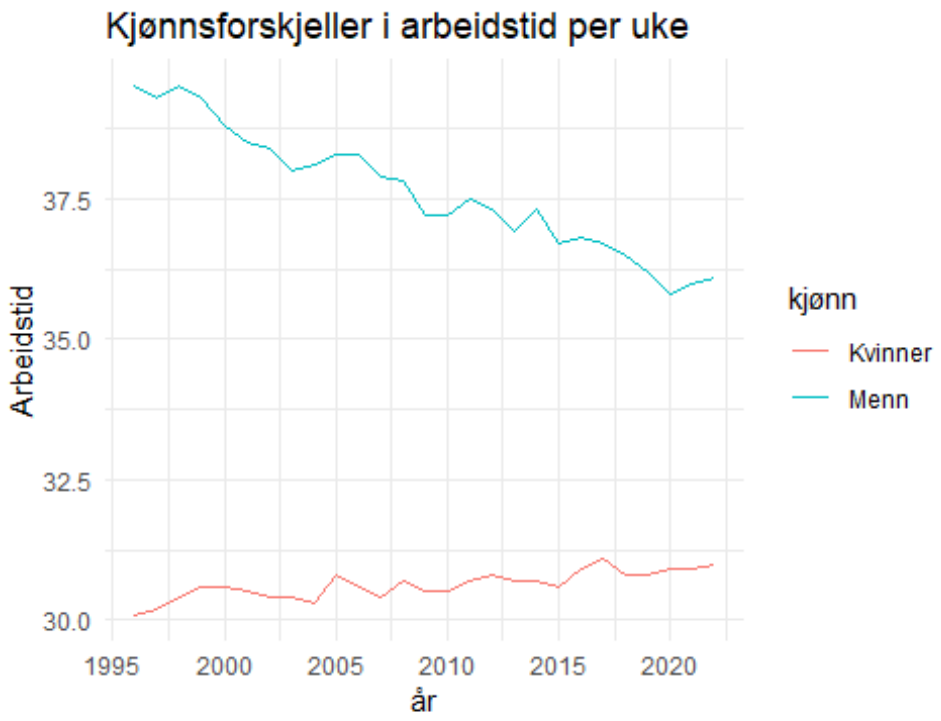
```
rm(list=ls())

Sys.setlocale(locale='no_NB.utf8')

[1]
"LC_COLLATE=no_NB.utf8;LC_CTYPE=no_NB.utf8;LC_MONETARY=no_NB.utf8;LC_NUMERIC=
C;LC_TIME=no_NB.utf8"

suppressPackageStartupMessages({
library(tidyverse)
library(dplyr)
library(jsonlite)
library(httr)
library(jsonstat)
library(rjstat)
library(ggplot2)
library(janitor)
})

url <- "https://data.ssb.no/api/v0/no/table/04544/"

query <- '{
  "query": [
    {
      "code": "Kjonn",
      "selection": {
        "filter": "item",
        "values": [
          "0",
          "1",
          "2"
        ]
      }
    },
    {
      "code": "Yrkesstatus",
      "selection": {
        "filter": "item",
        "values": [
          "00",
          "01",
          "02",
          "03"
        ]
```

```
      }
    }
  ],
  "response": {
    "format": "json-stat2"
  }
}'

tabell.tmp <- url %>%
  POST(body = query, encode = "json")

df <- tabell.tmp %>%
  content("text") %>%
  fromJSONstat() %>%
  as_tibble()

df <- df %>%
  filter(kjønn != 'Begge kjønn')

df$år <- as.numeric(df$år)

df_ukeverk <- df %>%
  filter(statistikkvariabel == 'Utførte ukeverk (à 37,5 timer) (1 000)') %>%
  filter(yrkesstatus == 'I alt')

df_ukeverk %>%
  ggplot(aes(x=år,y=value, color = kjønn)) + geom_line() + theme_minimal() +
ylab('Ukeverk') + ggtitle('Kjønnsforskjeller i utførte ukeverk (1000)') +
labs(caption = 'Figur 1')
```



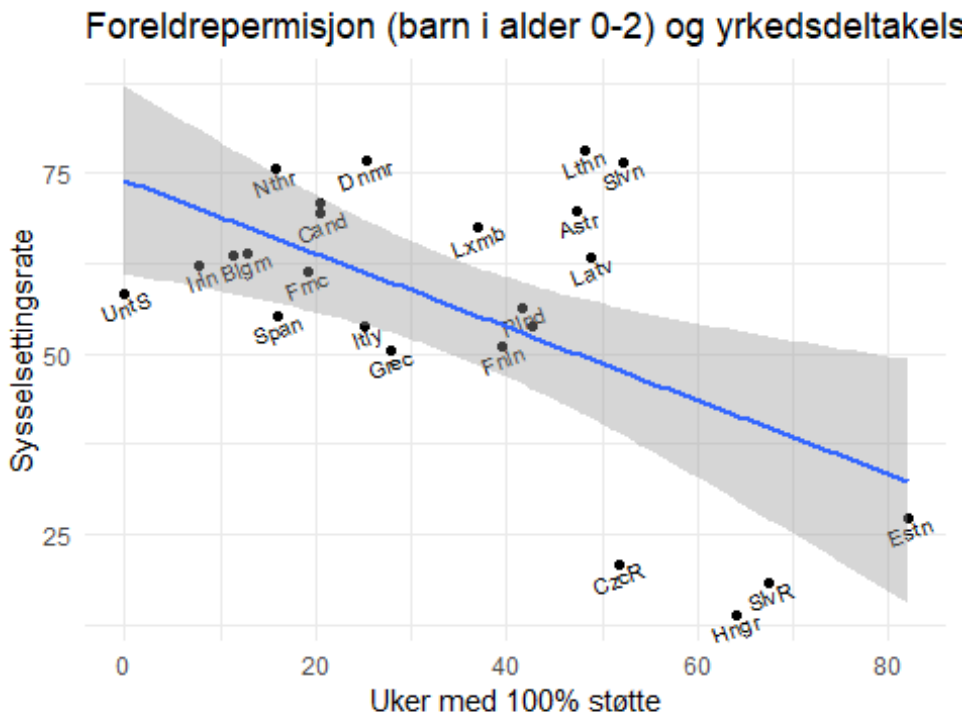
Figur 1

```
df_arbeidstid <- df %>%
  filter(statistikkvariabel == 'Faktisk arbeidstid (timer per uke)') %>%
  filter(yrkesstatus == 'I alt')

df_arbeidstid %>%
  ggplot(aes(x=år,y=value, color = kjønn)) + geom_line() + theme_minimal() +
ylab('Arbeidstid') + ggtitle('Kjønnsforskjeller i arbeidstid per uke') +
labs(caption = 'Figur 2')
```



Figur 2

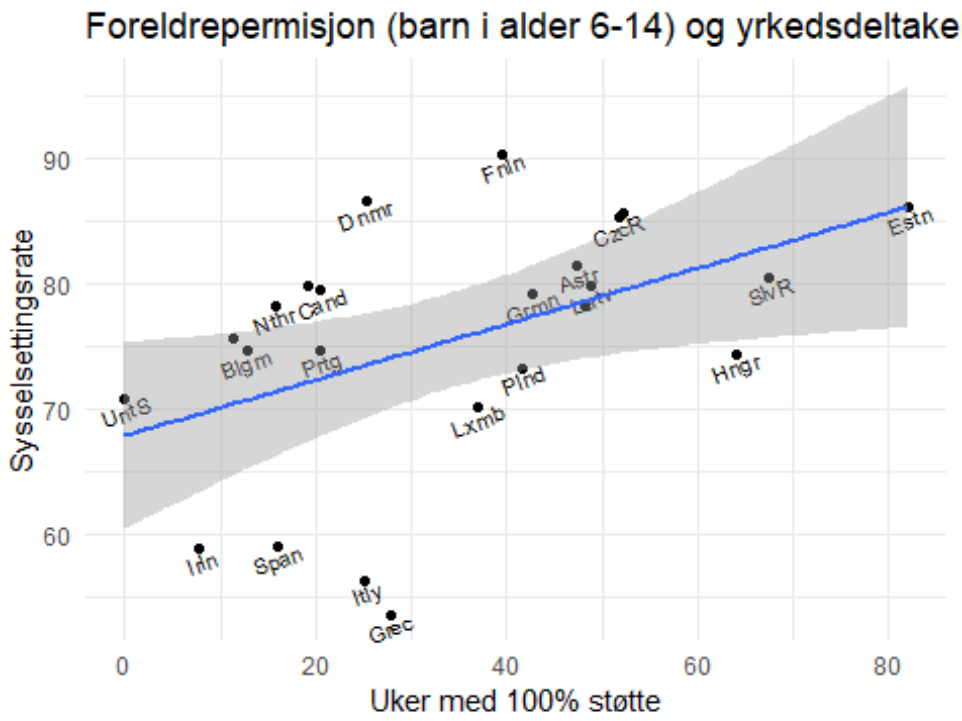
```
df2 <- read.csv("https://raw.githubusercontent.com/uit-sok-2008-h23/uit-sok-2008-h23.github.io/main/assets/women.csv", sep = ";")

df2 <- df2 %>%
  mutate(country_abbr = abbreviate(country,4,strict = FALSE))

fig2 <- df2 %>%
  ggplot(aes(x=tot_full_rate,y=fem_emp_rate_0_2, label = country_abbr)) +
  geom_point() + theme_minimal() +labs(title = "Foreldrepermisjon (barn i alder 0-2) og yrkedsdeltakelse", caption = "Figur 3") +
  xlab('Uker med 100% støtte') + ylab('Sysselsettingsrate') +

  geom_text(size = 3, hjust=0.6, vjust=1.1, check_overlap = TRUE, angle= 20) + geom_smooth(method = lm)

fig2

`geom_smooth()` using formula = 'y ~ x'

Warning: The following aesthetics were dropped during statistical transformation: label
ℹ This can happen when ggplot fails to infer the correct grouping structure in
  the data.
ℹ Did you forget to specify a `group` aesthetic or to convert a numerical
  variable into a factor?
```



Figur 3

```
fig3 <- df2 %>%
  ggplot(aes(x=tot_full_rate,y=fem_emp_rate_6_14, label = country_abbr)) +
geom_point() + theme_minimal() +
  labs(title = "Foreldrepermisjon (barn i alder 6-14) og yrkedsdeltakelse",
caption = "Figur 4") +
  xlab('Uker med 100% støtte') +ylab('Sysselsettingsrate') +

  geom_text(size = 3, hjust=0.6, vjust=1.1, check_overlap = TRUE, angle= 20)
+ geom_smooth(method = lm)

fig3
```

```
`geom_smooth()` using formula = 'y ~ x'

Warning: The following aesthetics were dropped during statistical
transformation: label
ℹ This can happen when ggplot fails to infer the correct grouping structure
in
  the data.
ℹ Did you forget to specify a `group` aesthetic or to convert a numerical
  variable into a factor?
```

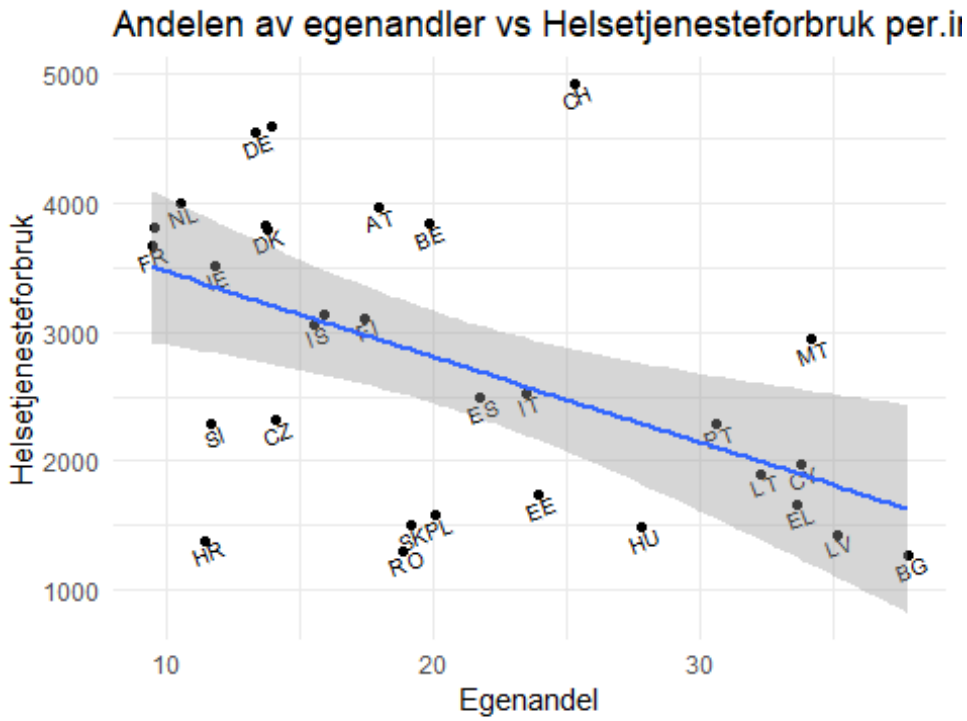


Figur 4

```
library(eurostat)

df3 <- get_eurostat('hlth_sha11_hf')

df3 <- df3 %>%
  filter(time == "2019-01-01") %>%
  select(-time)

x <- df3 %>%
  filter(icha11_hf == "HF3") %>%
  filter(unit == "PC_CHE")

y <- df3 %>%
  filter(icha11_hf == "TOT_HF") %>%
  filter(unit == "PPS_HAB")

df4 <- x %>%
  left_join(y, by = "geo")

df4 <- na.omit(df4)

df4 <- df4[!grepl("EU",df4$geo),]
df4 <- df4[!grepl("EA",df4$geo),]

fig4 <- df4 %>%
  ggplot(aes(values.x,values.y, label = geo)) + geom_point() +
```

```
theme_minimal() + geom_text(size = 3, hjust=0.6, vjust=1.1, check_overlap =
TRUE, angle= 20) + geom_smooth(method = lm) + labs(title = "Andelen av
egenandler vs Helsetjenesteforbruk per.innbygger", caption = "Figur 5") +
xlab("Egenandel") + ylab("Helsetjenesteforbruk")

fig4
```

```
`geom_smooth()` using formula = 'y ~ x'

Warning: The following aesthetics were dropped during statistical
transformation: label
ℹ This can happen when ggplot fails to infer the correct grouping structure
in
  the data.
ℹ Did you forget to specify a `group` aesthetic or to convert a numerical
  variable into a factor?
```



Figur 5

```
cor.test(df4$values.x,df4$values.y)
```

```

    Pearson's product-moment correlation

data:  df4$values.x and df4$values.y
t = -3.2266, df = 29, p-value = 0.0031
alternative hypothesis: true correlation is not equal to 0
95 percent confidence interval:
 -0.7345331 -0.1951687
```

```
sample estimates:
      cor
-0.513965
```