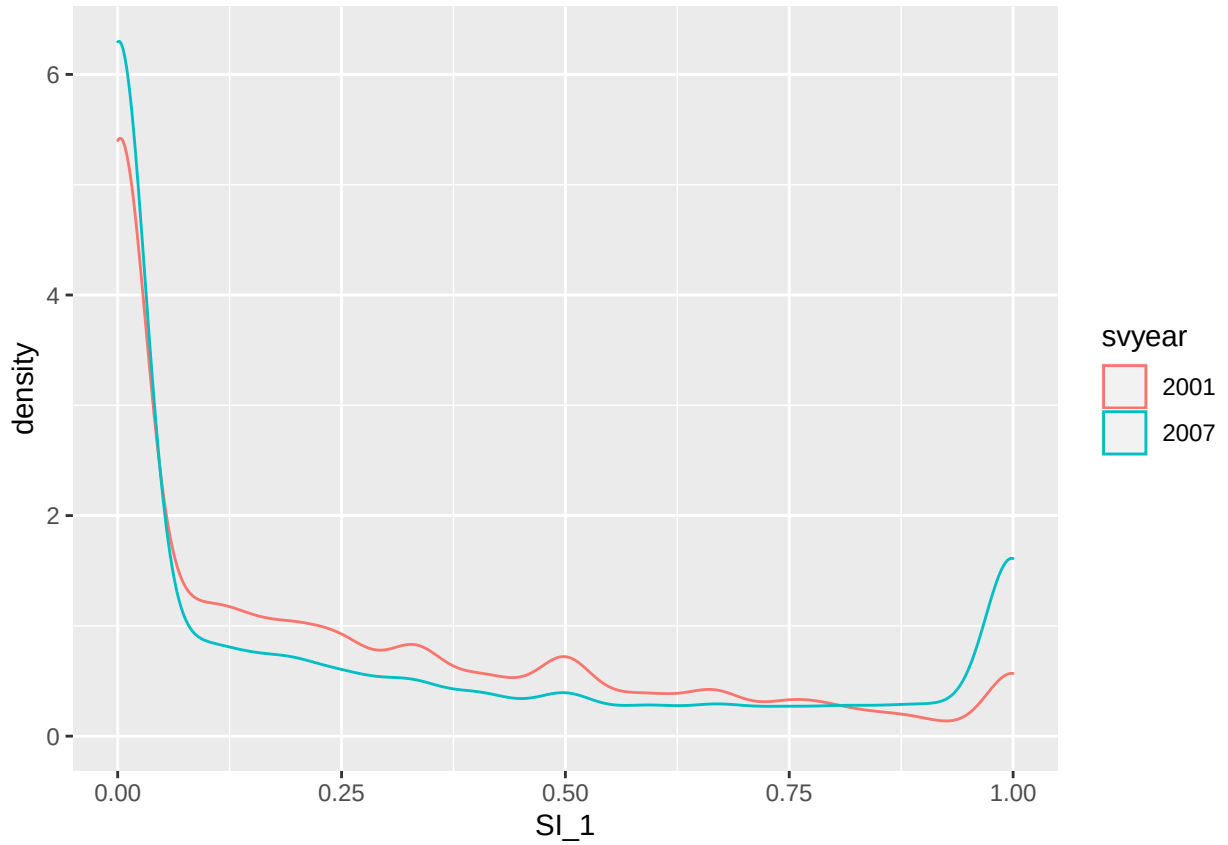
Skill intensity over years

Contents

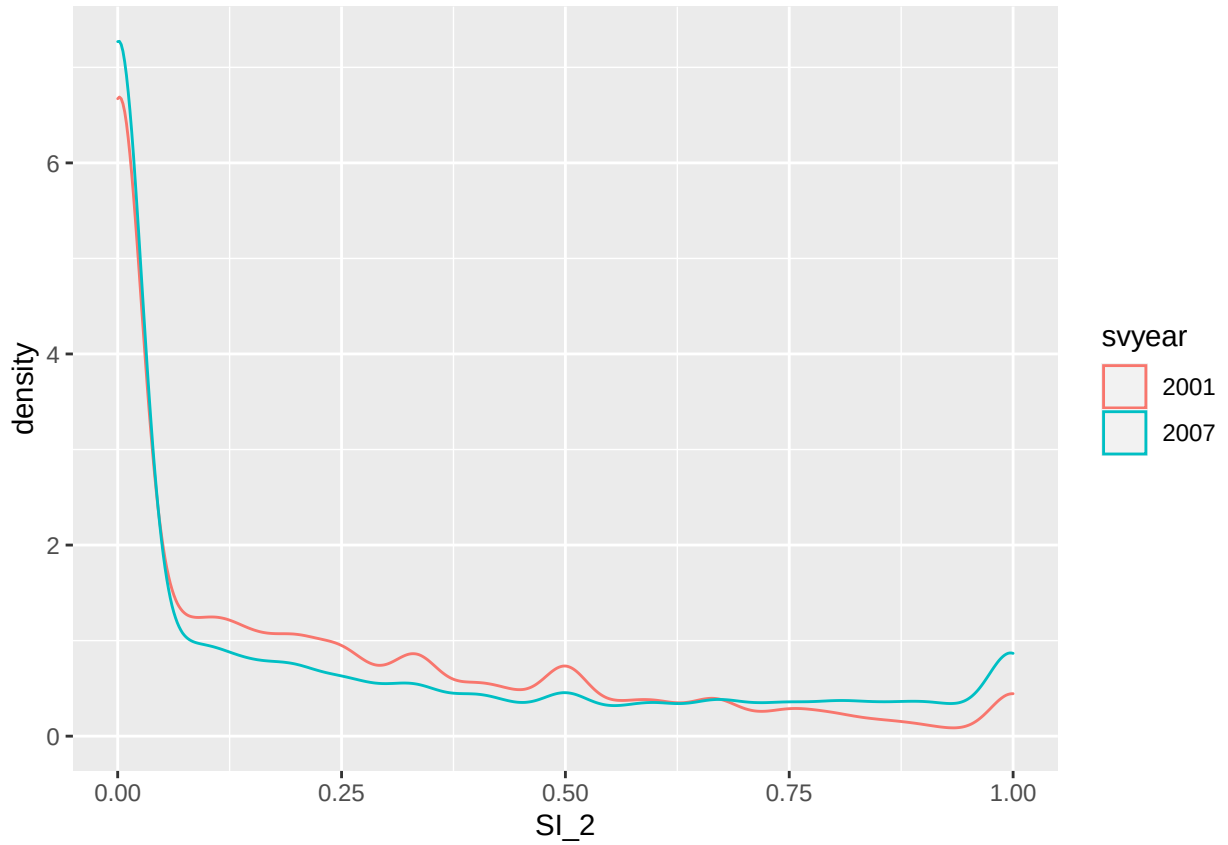

```
library(VNFirmSurvey)
library(data.table)
library(ggplot2)
library(DataExplorer)
library(here)
#> here() starts at /Users/nghiem/Documents/data-projects/VNFirmSurvey
library(haven)
library(labelled)
```

```
data("skill_07_dta")
data("skill_01_dta")

dta_list <- list(skill_07_dta, skill_01_dta)

stacked_data <- rbindlist(dta_list)
```

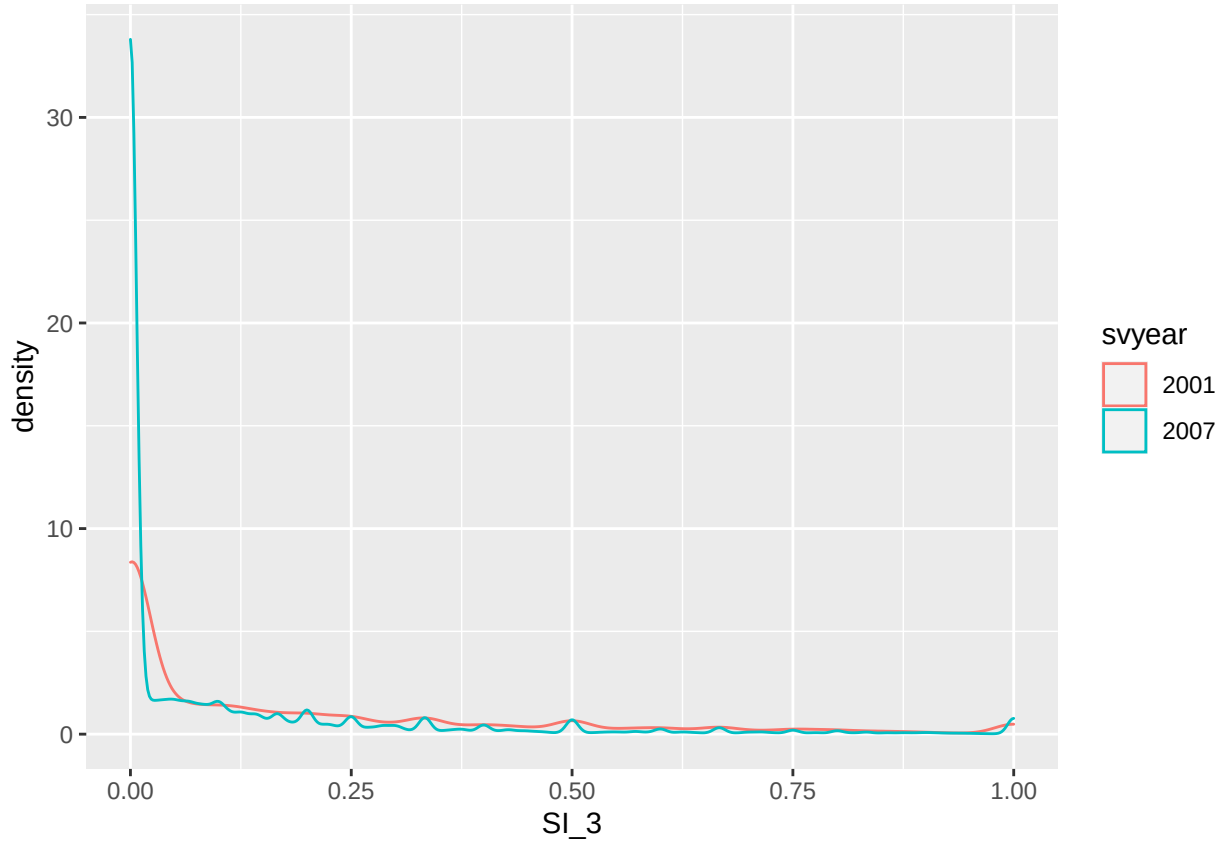
```
stacked_data$svyear <- as.factor(stacked_data$svyear)

ggplot(stacked_data, aes(x = SI_1, col = svyear)) +
  geom_density()
```




```
ggplot(stacked_data, aes(x = SI_2, col = svyear)) +
  geom_density()
```




```
ggplot(stacked_data, aes(x = SI_3, col = svyear)) +
  geom_density()
```



1 Wage Data

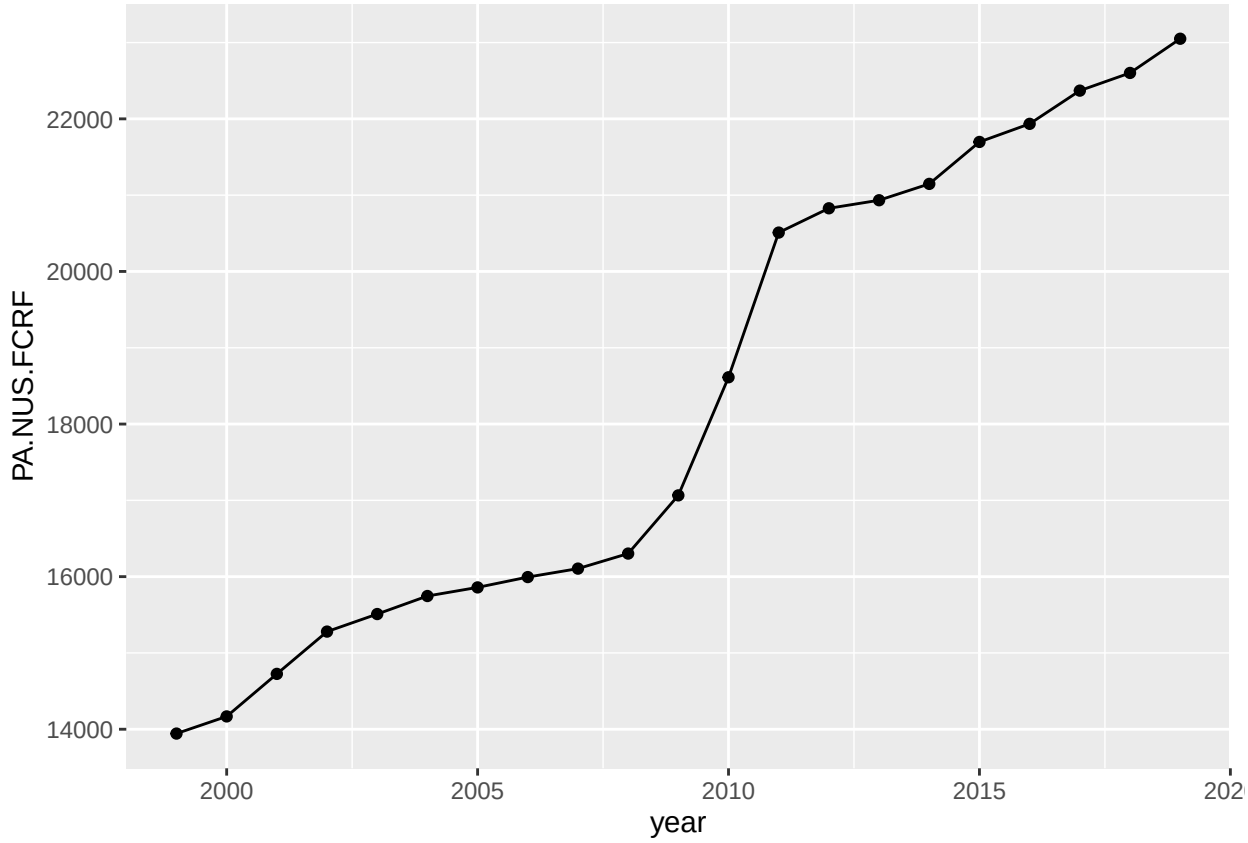
```
dta_list <- list(here("inst", "extdata",
                      "Stata_2001",
                      "dn2001.dta"),
                 here("inst", "extdata",
                      "Stata_2007",
                      "dn2007.dta") )


wage_dta <- getWage(dta_list)
```

1.1 Convert wage bill to USD

Let's get exchange rate from the World Bank (PA.NUS.FCRF)

```
library(WDI)
exchange_rate_US_VN <- WDI(country = "VN",
    indicator = "PA.NUS.FCRF",
    start = 1999,
    end = 2019)


ggplot(exchange_rate_US_VN,
       aes(x = year, y = PA.NUS.FCRF)) +
```

```
  geom_line() +
  geom_point()
```




```
wage_dta_merged <- merge(wage_dta,
     exchange_rate_US_VN,
     by.x = "svyear",
     by.y = "year")

wage_dta_merged[, wage_bill_USD := (wage_bill*1000000/PA.NUS.FCRF)]
```