EC 103–003

Lab Practice 2

Prof. Santetti

Spring 2023

`INSTRUCTIONS`: *Lab Practices* have the purpose of reviewing the previous applied video lecture(s) and introducing new content to improve students' empirical macroeconomic analysis using R and RStudio.

In this practice, you will improve your **intuition** about the main `{tidyverse}` functions: `select()`, `filter()`, `mutate()`, and `group_by()`. Not only is it important to know how to apply them in your own tasks, but also to **interpret** what a *pipeline* is doing when you are manipulating your data.

There is 1 problem, worth 5 points.

`Assignment due February 6 (M), by the end of class`.
`Points Possible: 5`

- Our *course syllabus* covers late submission policies. Turn in your assignment by the due date.
- Be honest. Don't cheat.
- As a Skidmore student, always recall your votes of academic integrity, and the **`Honor Code`** you have abided by:

> *"I hereby accept membership in the Skidmore College community and, with full realization of the responsibilities inherent in membership, do agree to adhere to honesty and integrity in all relationships, to be considerate of the rights of others, and to abide by the college regulations."*

Have fun!

Problem 1

Suppose you are working with an R object called `price_data` in your RStudio environment. It looks like the following:

```
price_data
```

```
## # A tibble: 9 × 3
##    year price state
##   <dbl> <dbl> <chr>
## 1  2006  2.5  NY
## 2  2007  3    LA
## 3  2008  3.15 CA
## 4  2015  2    ID
## 5  2006  1.15 VT
## 6  2008  2.75 NY
## 7  2008  4    CT
## 8  2007  5.15 CT
## 9  2015  2    NY
```

For the following 5 parts, write down, in plain English, what each pipeline is trying to extract from this data set:

(a)

```
price_data %>%
  select(year, price)
```

(b)

```
price_data %>%
  filter(year > 2008)
```

(c)

```
price_data_subset ← price_data %>%
  filter(state %in% c("NY", "CT"))
```

(d)

```
price_data %>%
  mutate(price_cents = price * 100)
```

(e)

```
price_data %>%
  group_by(year) %>%
  summarize(mean_price = mean(price))
```

Write your answers as **plain text** in a fresh R script. When you are done, save it and submit this single R file through `theSpring`.