

Using the tidyverse

Data Manipulation

1. We learned that we can read data in the .csv format using `read.csv` and `read.csv2`, and we also got to know the `haven` library. Load the dataset “ISSP.dat” using one of `haven`’s `read_` functions and store it in a variable.

2. The ISSP dataset consists of many single observations from many countries. We are only interested in observations from Germany. The variable **V3** signifies the country, the value 276.1 stands for West Germany, the value 276.2 for East Germany. Using `dplyr`’s `filter()`, select only the rows containing observations from Germany. Store the resulting table in the variable “Germany_raw”.

3. Now, we want to do some subsequent data manipulation.
 - a. First, the dataset still consists of unnecessarily many variables. We only want to look at the variables “sex”, “age”, and “DE_RINC” (Real Income). Use `dplyr`’s `select()` to select only the variables in question.
 - b. Looking at the result, it becomes apparent that the “DE_RINC” variable is stored as a string. Since we want to work with numbers, we need to convert the variable to a numeric format. Use `mutate()` to redefine the “DE_RINC” variable by calling `as.numeric()` on it.
 - c. We have also noted that we cannot really infer anything from our sex variable, since it only consists of 1s and 2s. Use `mutate()` and `factor()` to convert sex to a factor with the levels / labels 1=“m”, 2=“w”.
 - d. Lastly, we want to create a dichotomous variable “highInc” that indicates whether the person in question has a monthly real income of 5000 or more. Use `mutate()` in combination with `if_else` (or if you like: `case_when()`) to create this variable.
 - e. Store the resulting table in a variable called “Germany”

4. Have a look at the share of men and women who have a “high income”. Of all men, what is the percentage of men with a high income? And of all women, what is the percentage of women with a high income? Use `group_by()` and `summarise()` to calculate the mean of the “highInc” variable within each group. Finally, arrange the resulting table by your percentage variable (ascending).