**Chapter 1**

1. Import Excel, SPSS, CSV
   1. Excel—
      1. Library(readxl)
      2. read\_excel()
   2. Spss—
      1. library(haven)
      2. read\_sav()
   3. csv—
      1. read\_csv()
2. Cleaning data
   1. Haven labeled, characters to factors
      1. as.factor()
   2. whole dataset to certain type
      1. map\_df(as.numeric)
      2. map\_df(as.factor)
   3. janitor package
      1. clean\_names()
         1. makes variables consistent and handles special characters
      2. remove\_empty(c(“rows”, “cols”))
   4. furniture package
      1. washer(x, 99, value = NA)
   5. forcats package
      1. labels
      2. relabel
      3. relevel
         1. fct\_relevel() – manually reorder our factor levels
      4. reorder
         1. by frequency—fct\_infreq()
         2. ordering by another variable—fct\_reorder(gender, income\_1)
      5. lump
         1. fct\_lump(variable, n = 5)
            1. when you have too many categories and want to reduce the number. This example takes a variable and lumps the most infrequent into one category “other”. So there will only be 5 categories rather than however many were there before.
3. Tidyverse
   1. Pipes
   2. Select function
   3. Starts\_with(), ends\_with(), contains()
   4. Mutate
   5. Filter, equality/inequality, and/or, within
   6. Pivot Longer & pivot wider
   7. Case\_when