Module 2 Instructor Notes

Carolyn Koehn

Data

ID_counties_tot_pop_med_age.csv

These data were retrieved from the American Community Survey through the `tidycensus` package and cleaned with the following code:

```r
# import libraries
library(tidycensus)
library(tidyverse)
# load API key - see tidycensus documentation for more information
readRenviron("../.Renviron")
census_api_key(Sys.getenv("CENSUS_API_KEY"))

population <- get_acs(geography = "county",
                      state = "ID",
                      year = 2017,
                      survey = "acs5",
                      table = "B01001")

population <- population %>%
  filter(variable %in% c("B01001_001", "B01001_002", "B01001_026")) %>%
  select(-c(GEOID, moe)) %>%
  mutate(variable = case_match(variable,
           "B01001_001" ~ "Total_population",
           "B01001_002" ~ "Total_male",
           "B01001_026" ~ "Total_female")) %>%
  pivot_wider(names_from = variable,
              values_from = estimate)

age <- get_acs(geography = "county",
```

```
              state = "ID",
              year = 2017,
              survey = "acs5",
              variables = "B01002_001")

population <- left_join(population, age[,c(2,4)]) %>%
  rename(Median_age = estimate, County = NAME)

write.csv(population,
          "data/ID_counties_tot_pop_med_age.csv",
          row.names = FALSE)
```

producer_age_2017_ID.csv

These data were downloaded from the USDA NASS QuickStats tool with the following parameters:

- Program: CENSUS
- Sector: DEMOGRAPHICS
- Group: PRODUCERS
- Commodity: PRODUCERS
- Category: AGE, AVG

- Data Item: PRODUCERS - AGE, AVG, MEASURED IN YEARS
- Domain: TOTAL
- Geographic Level: COUNTY
- State: IDAHO
- Year: 2017

producers_persons_in_household_2017_ID.csv

These data were downloaded from the USDA NASS QuickStats tool with the following parameters:

- Program: CENSUS
- Sector: DEMOGRAPHICS
- Group: PRODUCERS
- Commodity: PRODUCERS
- Category: PERSONS IN HOUSEHOLD

- Data Item: PRODUCERS - PERSONS IN HOUSEHOLD, MEASURED IN PERSONS

- Domain: TOTAL
- Geographic Level: COUNTY
- State: IDAHO
- Year: 2017

`cropland_pastureland_total_acres_ID_1997-2017.csv`

These data were downloaded from the USDA NASS QuickStats tool with the following parameters:

- Program: CENSUS
- Sector: ECONOMICS
- Group: FARMS & LAND & ASSETS
- Commodity:
    - AG LAND
    - LAND AREA
- Category: AREA

- Data Item:
    - AG LAND, CROPLAND - ACRES
    - AG LAND, PASTURELAND - ACRES
    - LAND AREA, INCL NON-AG - ACRES
- Domain: TOTAL
- Geographic Level: COUNTY
- State: IDAHO
- Year: 2017

Teaching notes

- You may need to use in-person meeting time to make sure the file pathways are working correctly. Attached is a conceptual diagram we used to review how files and file names work through the process of importing data into R. You may want to begin this module as a live coding session.
- It is helpful to tell students that they will need to re-run all their code if they save and close their work, then come back to it later.
- I had students add the data for their counties to a shared Google sheet so that students could compare their counties with others. You may wish to record data in a different way. If you do, you will want to find and replace mentions of the shared Google sheet throughout these modules.

- I had students email me their finished PDFs. If you have a different way of collecting assignments, you will want to change the instructions at the end of the module to reflect that.