Univariate Analysis

2023-07-07

## Read in Packages

## R Markdown

The data\_readin function reads in the US Census data

ga\_map\_data <- data\_readin(acs\_vars = "DP03\_0119PE,DP04\_0003PE,DP03\_0009PE")

## Joining, by = "NAME"

## Including Plots

You can also embed plots, for example:

## Rows: 159  
## Columns: 14  
## $ NAME <chr> "Rabun", "Towns", "Fannin", "Murray", "Whitfield", "~  
## $ FIPS <chr> "13241", "13281", "13111", "13213", "13313", "13047"~  
## $ Mortality <dbl> 6, 2, 7, 8, 16, 24, 3, 14, 5, 10, 4, 2, 11, 2, 9, 6,~  
## $ Population <dbl> 16602, 11506, 25322, 39782, 104658, 66550, 23459, 68~  
## $ DP03\_0119PE <chr> "10.8", "10.3", "8.4", "11.2", "10.7", "7.4", "11.3"~  
## $ DP04\_0003PE <chr> "45.2", "37.6", "36.1", "9.9", "9.5", "8.5", "30.2",~  
## $ DP03\_0009PE <chr> "4.2", "5.0", "5.1", "6.8", "6.6", "3.5", "3.1", "6.~  
## $ state <chr> "13", "13", "13", "13", "13", "13", "13", "13", "13"~  
## $ county <chr> "241", "281", "111", "213", "313", "047", "291", "29~  
## $ pct\_poverty <dbl> 10.8, 10.3, 8.4, 11.2, 10.7, 7.4, 11.3, 9.1, 7.9, 10~  
## $ vacancy\_rate <dbl> 45.2, 37.6, 36.1, 9.9, 9.5, 8.5, 30.2, 12.4, 16.7, 2~  
## $ unemployment\_rate <dbl> 4.2, 5.0, 5.1, 6.8, 6.6, 3.5, 3.1, 6.6, 4.7, 3.4, 2.~  
## $ geometry <MULTIPOLYGON [US\_survey\_foot]> MULTIPOLYGON (((88129.72 1~  
## $ Incidence <dbl> 3.614022e-04, 1.738224e-04, 2.764395e-04, 2.010960e-~

percentile\_row <- function(dtfm, x, var\_name = ""){  
 dtfm <- dtfm %>%  
 st\_drop\_geometry() %>%   
 summarize(`0%` = quantile({{x}}, probs = 0),  
 `25%` = quantile({{x}}, probs = .25),  
 `50%` = quantile({{x}}, probs = .5),  
 `75%` = quantile({{x}}, probs = .75),  
 `100%` = quantile({{x}}, probs = 1)) %>%   
 mutate(`Variable` = var\_name) %>%   
 relocate(`Variable`)  
   
   
 return(dtfm)  
}  
  
percentile\_table <- bind\_rows(  
 percentile\_row(ga\_map\_data, pct\_poverty, "Poverty"),  
 percentile\_row(ga\_map\_data, vacancy\_rate, "Vacancy Rate"),  
 percentile\_row(ga\_map\_data, unemployment\_rate, "Unemployment Rate")  
 )  
  
# https://ardata-fr.github.io/flextable-book/  
  
  
ft <- flextable(percentile\_table)  
ft <- add\_header\_row(ft,  
 colwidths = c(1,5),  
 values = c("Variable", "Percentiles"))  
ft <- theme\_vanilla(ft)  
# ft <- add\_footer\_lines(ft, "Daily air quality measurements in New York, May to September 1973.")  
# ft <- color(ft, part = "footer", color = "#666666")  
ft <- set\_caption(ft, caption = "Summary distribution of covariates")  
ft

Summary distribution of covariates

| **Variable** | **Percentiles** | | | | |
| --- | --- | --- | --- | --- | --- |
| **Variable** | **0%** | **25%** | **50%** | **75%** | **100%** |
| Poverty | 3.7 | 9.75 | 13.8 | 18.1 | 27.1 |
| Vacancy Rate | 3.9 | 11.15 | 16.3 | 21.3 | 46.3 |
| Unemployment Rate | 1.5 | 4.25 | 5.6 | 7.1 | 21.0 |