How to use the Map Reliability Calculator

Addison Larson

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1. Download your data.

You can do this using the Census API (as seen below) or by visiting American FactFinder and downloading your data from there. The chunk below downloads the number of Hispanic or Latino residents at the census tract level for PA and NJ and subsets the data for Burlington, Camden, Gloucester, and Mercer Counties in NJ; and Bucks, Chester, Delaware, Montgomery, and Philadelphia Counties in PA.

```
library(tidycensus); library(tidyverse)
trct <- get_acs(state = c("PA", "NJ"), geography = "tract",
                variables = "B03003_003",
                output = "wide") %>%
  mutate(stcty = substr(GEOID, 1, 5)) %>%
  subset(stcty %in% c("34005", "34007", "34015", "34021",
                      "42017", "42029", "42045", "42091", "42101")) %>%
  select(-stcty)
```

Here's what the results look like:

```
head(trct)
```

```
## # A tibble: 6 x 4
##   GEOID      NAME                                      B03003_003E B03003_003M
##   <chr>      <chr>                                           <dbl>       <dbl>
## 1 420171001~ Census Tract 1001.02, Bucks County, ~         118          72
## 2 420171001~ Census Tract 1001.03, Bucks County, ~         161         108
## 3 420171001~ Census Tract 1001.04, Bucks County, ~         666         299
## 4 420171001~ Census Tract 1001.05, Bucks County, ~         248         259
## 5 420171002~ Census Tract 1002.01, Bucks County, ~         173         143
## 6 420171002~ Census Tract 1002.06, Bucks County, ~         360         215
```

2. Prep your data.

The calculator will not work if you supply it extra columns, blank cells, or special characters. The chunk below grabs the estimate and the MOE columns and drops any observations with NAs.

```
trct <- trct %>%
  select(B03003_003E, B03003_003M) %>%
  drop_na()
```

Here's what the results look like:

```
head(trct)
```

```
## # A tibble: 6 x 2
##   B03003_003E B03003_003M
##         <dbl>       <dbl>
## 1         118          72
## 2         161         108
## 3         666         299
```

```
## 4         248         259
## 5         173         143
## 6         360         215
```

3. Export your data.

Export data as a .csv. Change the file path below to somewhere on your PC.

```
setwd("D:/alarson")
write.csv(trct, file = "export.csv", row.names = FALSE)
```

4. Use the calculator.

Visit the Map Reliability Calculator and drop in your new dataset.