analysis

March 6, 2019

0.1 Newport Beach Analysis

An analysis of race/ethnicity categories in Newport Beach, California.

0.1.1 Load libraries and read in data

The data are from the Census Bureau's 2013-2017 American Community Survey (Five-Year Estimates), table B03002, HISPANIC OR LATINO ORIGIN BY RACE. The numbers represent estimates over the five year period.

```
In [6]: suppressMessages(library('tidyverse'))
        newport.beach <- suppressMessages(read_csv('input/newport_beach.csv'))
```

0.1.2 Create race/ethnicity categories

Rename the race/ethnicity variables we want to keep into more intuitive names; e.g., "white" for non-Hispanic white, "black" for non-Hispanic black, etc. The "other" category includes non-Hispanic American Indian and Alaskan Native, Native Hawaiian and Other Pacific Islander, Some other race alone, and Two or more races.

```
In [7]: newport.beach <- newport.beach %>% select(-summary_moe) %>%
          mutate(cat = case_when(
            variable == 'B03002_003' ~ "white",
            variable == 'B03002_004' ~ "black",
            variable == 'B03002_005' | variable == 'B03002_007' | variable == 'B03002_008' | va
            variable == 'B03002_006' ~ "asian",
            variable == 'B03002_012' ~ "hisp"))
```

0.1.3 Filter out unwanted categories and summarize the data by the newly-created categories

```
In [8]: newport.beach <- newport.beach %>%
          filter(!is.na(cat)) %>%
          group_by(GEOID, NAME, cat, summary_est) %>%
          summarise(estimate = sum(estimate))
```

0.1.4 Calculate each category's percentage of total population and sort categories by percentage, from highest to lowest

Notice how the table is automatically formatted nicely.

```
In [9]: newport.beach <- newport.beach %>%
          mutate(perc = estimate/summary_est * 100) %>%
          arrange(desc(perc))

        newport.beach
```

GEOID	NAME	cat	summary_est	estimate	perc
0651182	Newport Beach city, California	white	86793	70471	81.1943359
0651182	Newport Beach city, California	hisp	86793	6915	7.9672324
0651182	Newport Beach city, California	asian	86793	6604	7.6089086
0651182	Newport Beach city, California	other	86793	2267	2.6119618
0651182	Newport Beach city, California	black	86793	536	0.6175613

0.1.5 Write to a CSV

```
In [10]: write_csv(newport.beach, 'output/newport_beach_cleaned.csv')
```