

Lab 9: APIs

MinJae Jo

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Lab report

Exercises

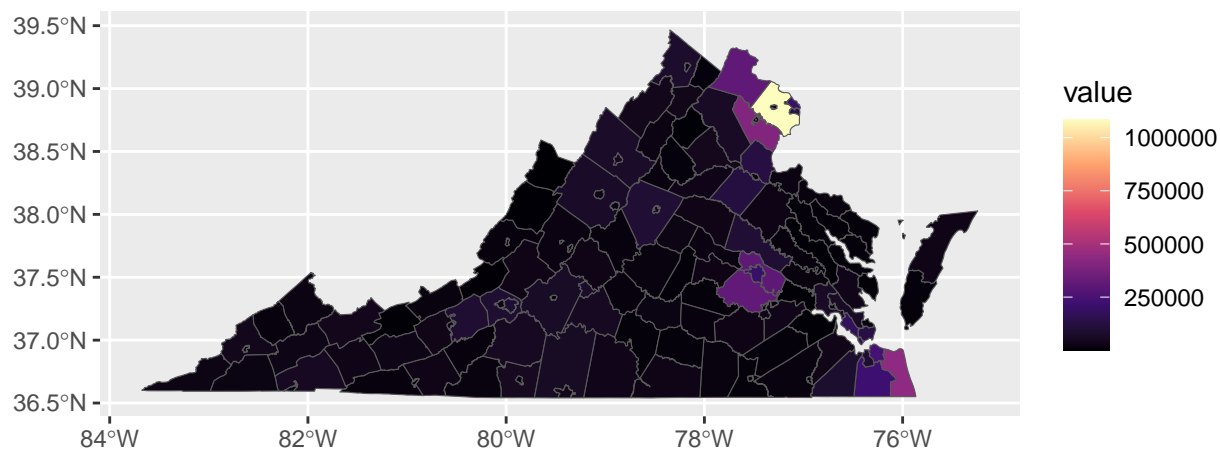
Exercise 1

Getting data from the 2010 decennial Census

Warning: * You have not set a Census API key. Users without a key are limited to 500
queries per day and may experience performance limitations.
i For best results, get a Census API key at
http://api.census.gov/data/key_signup.html and then supply the key to the
'census_api_key()' function to use it throughout your tidycensus session.
This warning is displayed once per session.

Census API call: [https://api.census.gov/data/2010/dec/sf1?get=P001001%2CNAME&for=county%3A%](https://api.census.gov/data/2010/dec/sf1?get=P001001%2CNAME&for=county%3A%2Cstate)

Using Census Summary File 1



Exercise 2

Exercise 3

Getting data from the 2010 decennial Census

Using Census Summary File 1

```
library(tidyr)

va_tracts_wide <- va_tracts_2010 %>%
  pivot_wider(
    names_from = variable,
    values_from = value
  )
```

Exercise 4

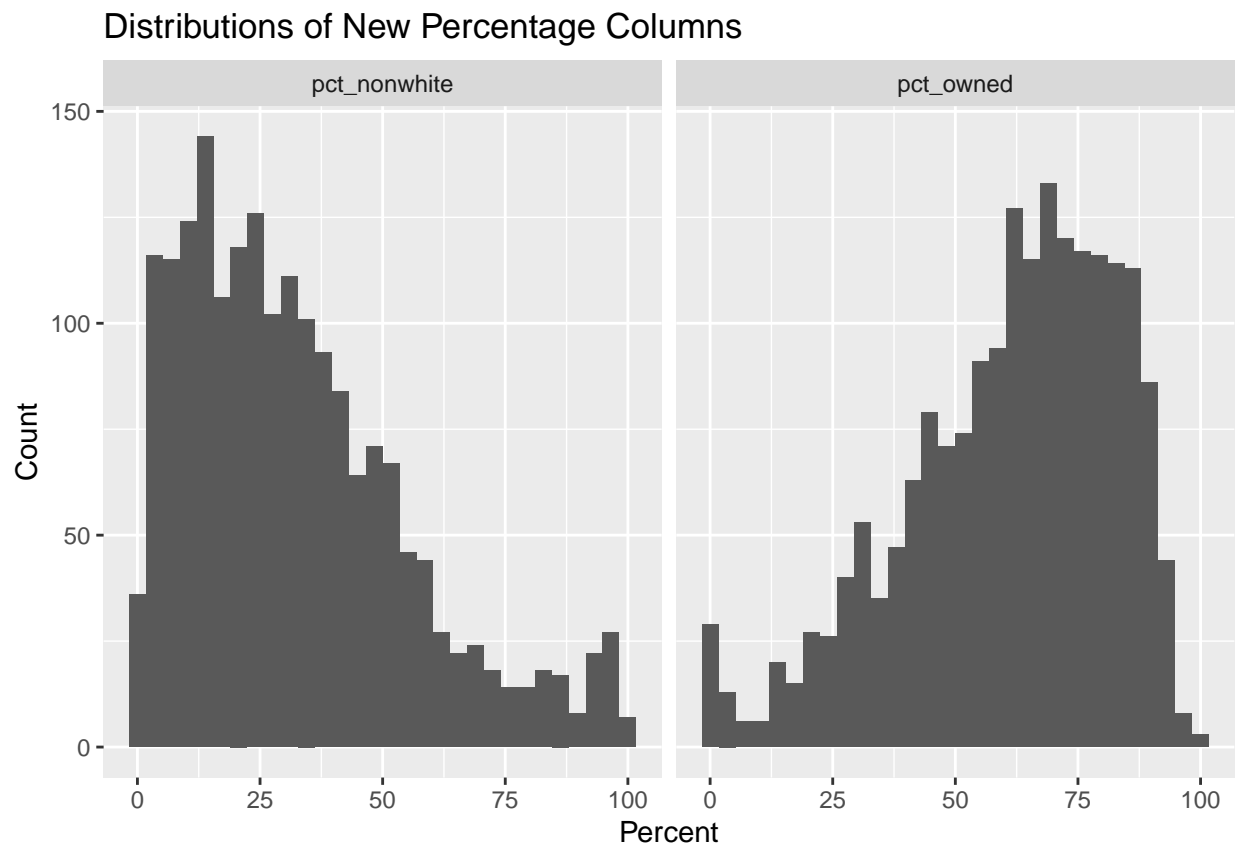
```
library(dplyr)

va_tracts_final <- va_tracts_wide %>%
  mutate(
    pct_nonwhite = ((P001001 - P003002) / P001001) * 100,
    pct_owned = ((H004002 + H004003) / H001001) * 100
  )
```

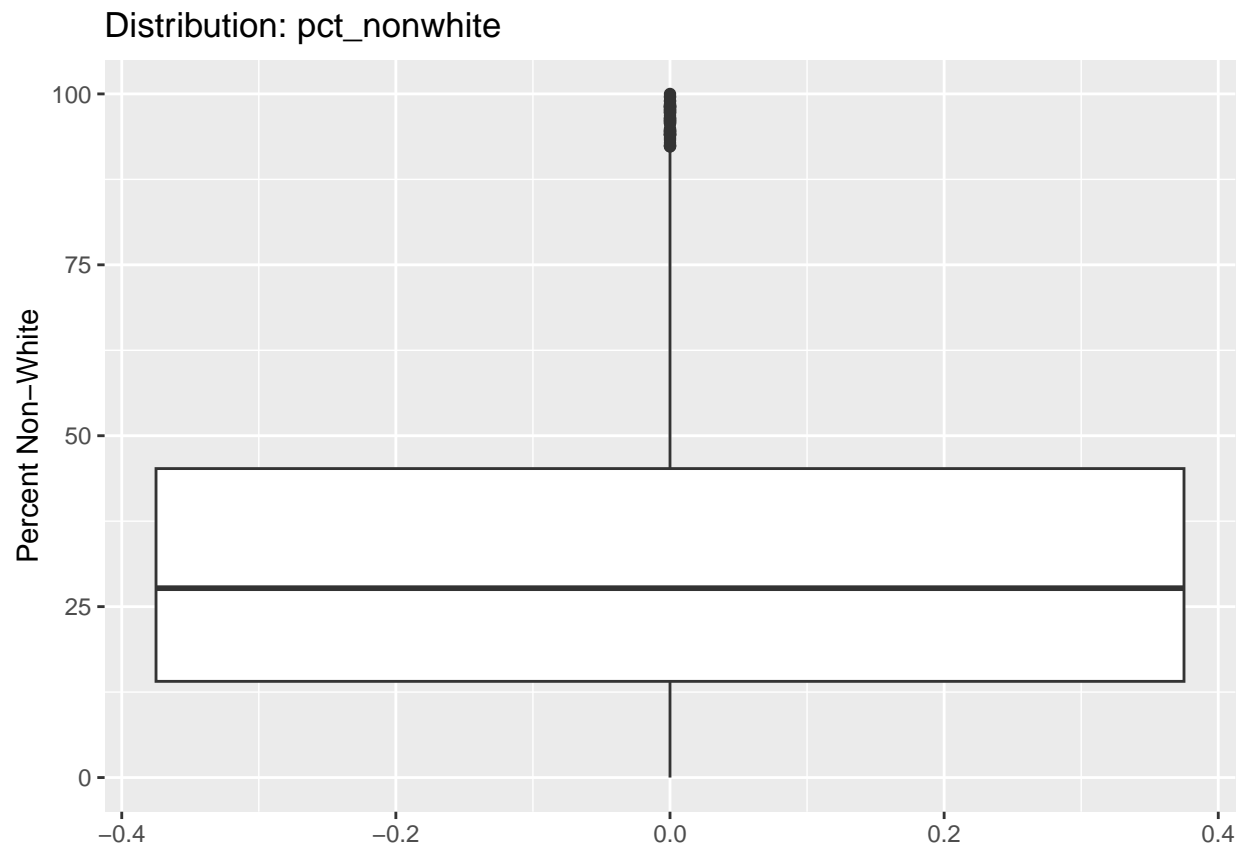
Exercise 5

Exercise 6

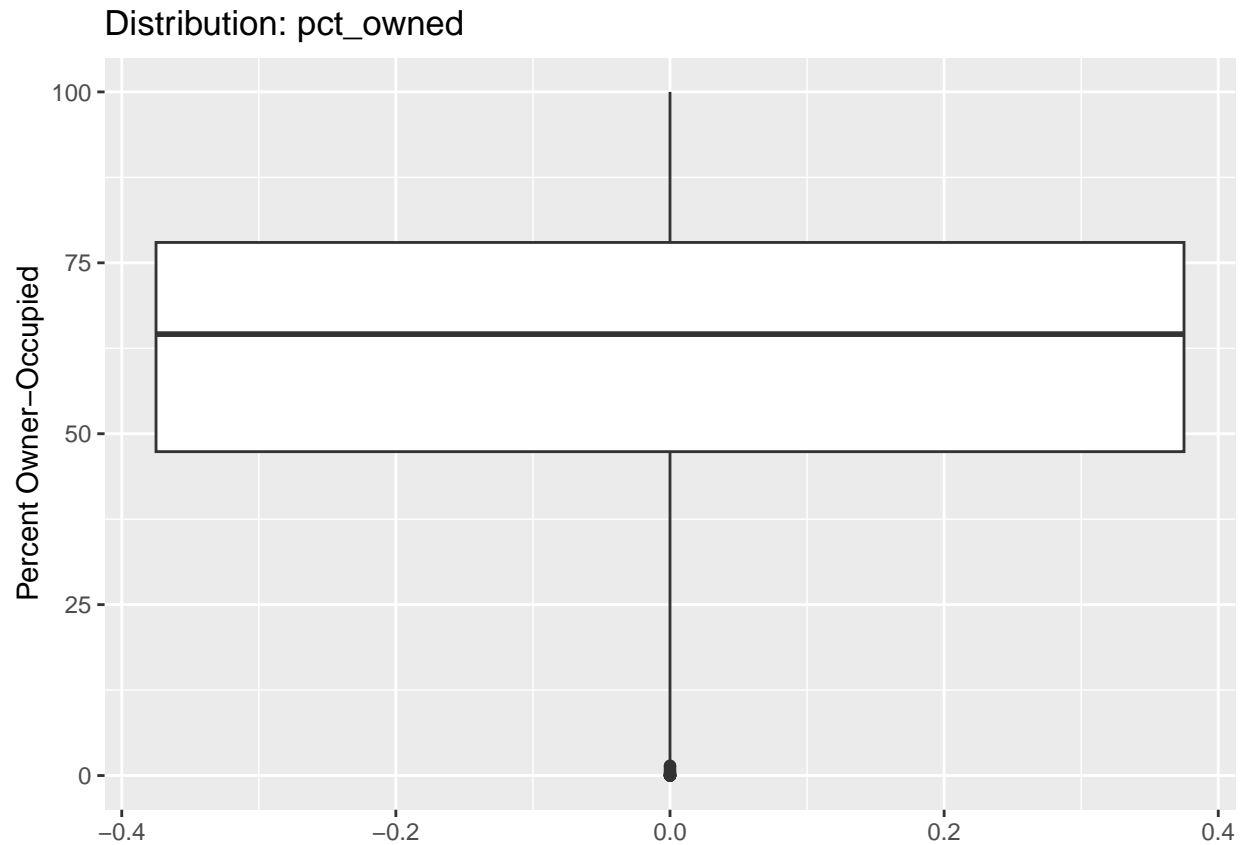
```
## Warning: Removed 43 rows containing non-finite outside the scale range
## ('stat_bin()').
```



```
## Warning: Removed 21 rows containing non-finite outside the scale range
## ('stat_boxplot()').
```



```
## Warning: Removed 22 rows containing non-finite outside the scale range
## ('stat_boxplot()').
```



Exercise 7

```
## 'geom_smooth()' using formula = 'y ~ x'
```

```
## Warning: Removed 24 rows containing non-finite outside the scale range  
## ('stat_smooth()').
```

```
## Warning: Removed 24 rows containing missing values or values outside the scale range  
## ('geom_point()').
```

Relationship between Racial Composition and Home Ownership in Virginia

