

Exercise 9: Airbnb Statistics

ECON 256

Data Analysis and Visualization

Objective

Produce summary statistics.

1 Set up Your R Workspace

Set up your R script with a working directory and initializing TidyVerse.

2 Download/Load the Data

Download the “oahulistings.csv” data on Airbnb from Laulima. The data set contains all AirBnb listings on Oahu from 2016 and 2018, with one observation for each listing.

Use the `read_csv()` command to load the .csv file into R.

3 Your Report

Use functions in R (such as `table()`, `summary()`, `range()`, `lm()` and `filter()`) to generate the statistics needed to complete the following paragraphs:

The use of Airbnb has expanded significantly on Oahu in recent years. In 2016 there were ____ units listed on Airbnb. By 2018 that number had grown to _____. Airbnb units are concentrated in particular neighbourhoods. The Zip Code with the most Airbnb units on Oahu in 2018 was _____, which contained _____ units.

There are a diversity of property types listed on Airbnb. In 2018 there were ____ Apartments, ____ Condominiums and ____ Houses listed on Airbnb. Prices vary widely. The average nightly price of an Airbnb listing in 2018 was \$ _____, while the median was \$ _____, and the range was \$ _____-\$ _____. Much of the variation in price is attributable to differences in the size of the listings. A linear bivariate regression suggests that the price of a listing in 2018 goes up by \$ _____ for every additional person the unit can accommodate.

Some are concerned about the role of large corporations managing multiple listings. There is some evidence of this in the data. For example, an Airbnb host going by the name of “Evolve Vacation Rental” managed _____ unique listings in _____ different zip codes on Oahu in 2018.

4 Send me Your Code

Save your R code. Your code should produce all of the information required to fill out Section 3. Use comments (`#`) in your code to indicate where you calculated all the needed values. (There are multiple ways to get the answers, use whichever functions you prefer.)

Name the R code with your last name followed by the exercise number and submit it on Laulima.