

Zip Property Values

Taylor Williams

8/25/2019

Property Values by Zip

Using the individual property values from Zillow, we need to find the average value for each zip code.

First read in the files and create the relevant columns.

```
loc <- "C:/Users/taylo/OneDrive/Documents/School/Data Engineering  
Platforms/Final Project/Data/"  
prop.values <- read.csv(paste0(loc,"Chicago_Values_Zillow_Clean.csv"),  
                        header = T,  
                        stringsAsFactors = F)  
zip.pop <- read.csv(paste0(loc,"PopTable.csv"),  
                   header = T,  
                   stringsAsFactors = F)  
fact_values <- read.csv(paste0(loc,"Fact_Values.csv"),  
                       header = T,  
                       stringsAsFactors = F)  
  
# Aggregate property values by zip  
fact_values$actual_aug_value <- rep(0, nrow(fact_values))  
zip.values <- data.frame(zipcode = fact_values$zip_code, prop.sum = rep(0,  
nrow(fact_values)), prop.count = rep(0, nrow(fact_values)))
```

Find the sum and count of values for each zip code.

```
for (i in 1:nrow(prop.values)) {  
  for (j in 1:nrow(zip.values)) {  
    if (zip.values$zipcode[j] == prop.values$Zipcode[i]) {  
      zip.values$prop.sum[j] <- zip.values$prop.sum[j] +  
prop.values$Zestimate[i]  
      zip.values$prop.count[j] <- zip.values$prop.count[j] + 1  
    }  
  }  
}
```

Next check if any zip codes didn't have any property values.

```
# Check how many zips had no properties  
zip.values[zip.values$prop.count == 0,]  
  
##      zipcode prop.sum prop.count  
## 2      60602         0          0
```

```
## 4      60604      0      0
## 60     60714      0      0
```

Only 3 of 64 isn't too bad. We'll drop those zips from the analysis. Now find the average values for each zip by dividing the sum and the count and write to CSV.

```
# Find average property value of each zip
for (i in 1:nrow(fact_values)) {
  if (zip.values$prop.count[i] > 0) {
    fact_values$actual_avg_value[i] <- zip.values$prop.sum[i] /
zip.values$prop.count[i]
  }
}

write.csv(fact_values, file = "Zip Property Values.csv")
```