Understanding Expedia Usage Across the United States

Where and When Expedia Should Advertise

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Predicting Click Density by County Characteristics

```
Call:
lm(formula = (clickdensity) ~ HouseIncomeAvg + HouseValueAvg +
    intmig, data = newdataout)

Residuals:
      Min        1Q    Median        3Q       Max
-0.037907 -0.004938 -0.001950  0.002822  0.196125

Coefficients:
                 Estimate Std. Error t value Pr(>|t|)
(Intercept)    -2.486e-03  8.469e-04  -2.936  0.00335 **
HouseIncomeAvg  1.459e-07  3.120e-08   4.675 3.07e-06 ***
HouseValueAvg   1.049e-07  6.073e-09  17.269  < 2e-16 ***
intmig          8.006e-07  9.672e-08   8.278  < 2e-16 ***
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Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.01044 on 2944 degrees of freedom
Multiple R-squared:  0.298,     Adjusted R-squared:  0.2973
F-statistic: 416.6 on 3 and 2944 DF,  p-value: < 2.2e-16
```
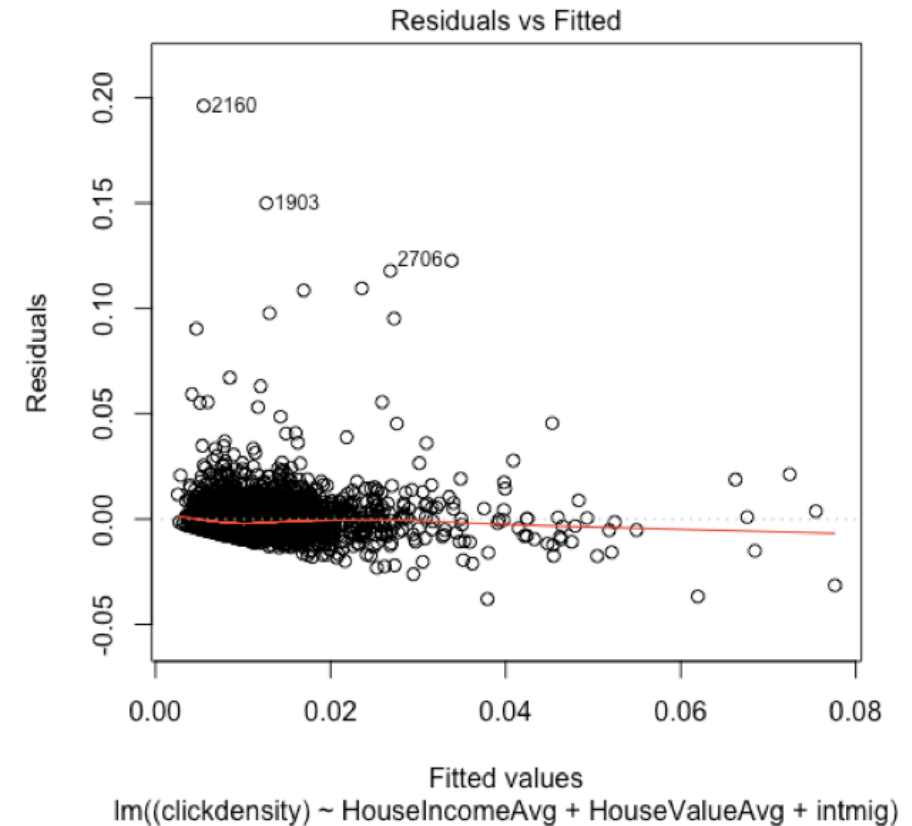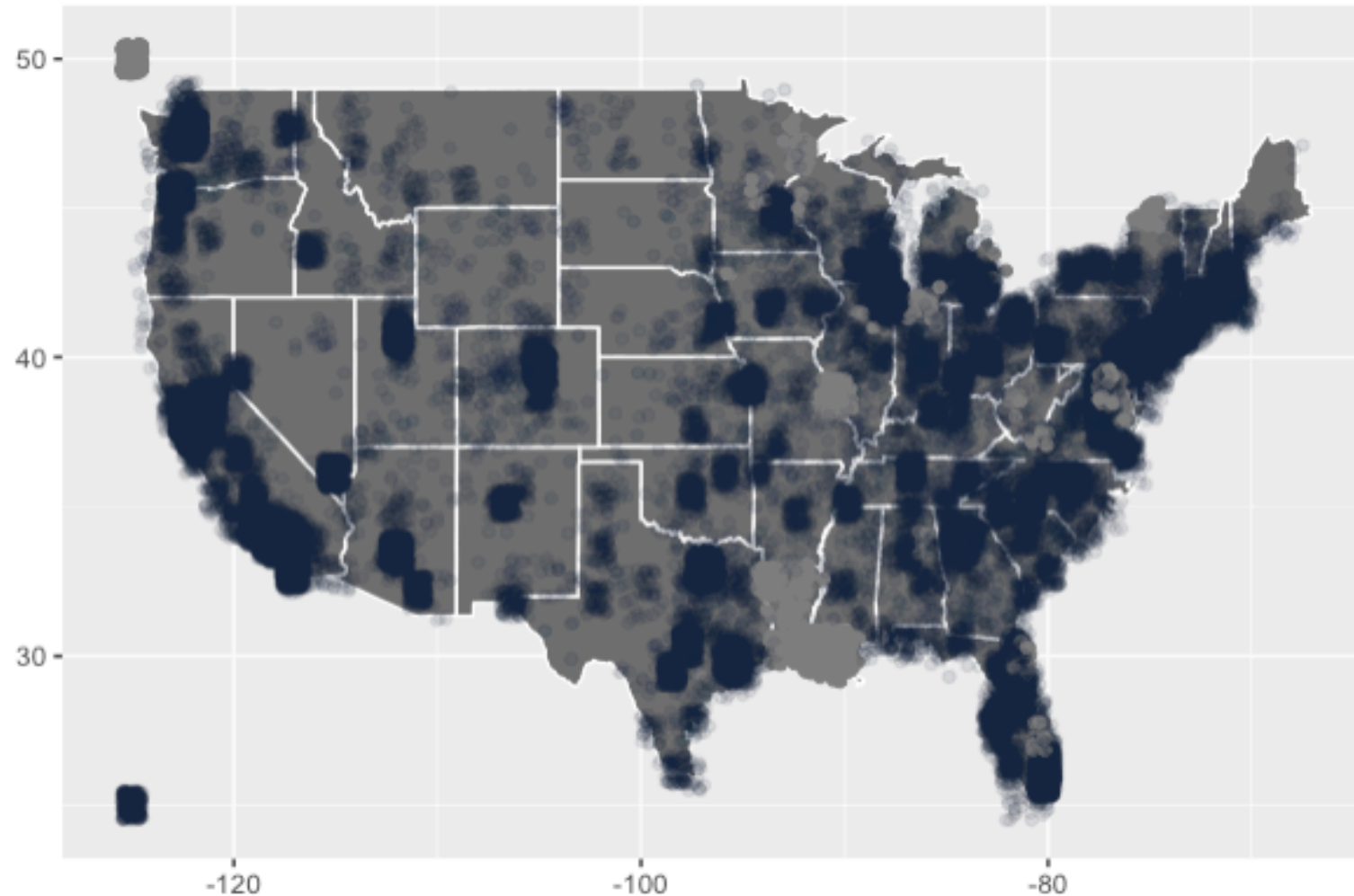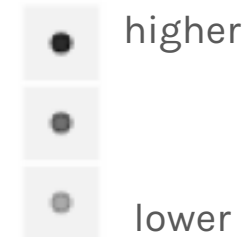

Residuals vs Fitted

lm((clickdensity) ~ HouseIncomeAvg + HouseValueAvg + intmig)

Expedia Usage in the United States


CLICK DENSITY

● higher

● lower

Darker areas indicate higher Expedia usage compared to total population in the city

Visually illustrates which regions of the US are Expedia's target audience

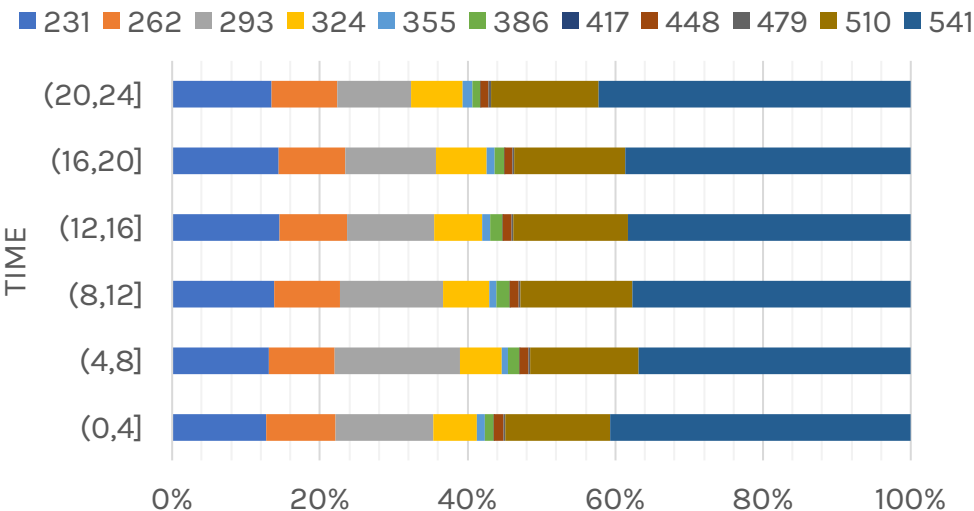* Scaled by population density (Click / population of the county)

Distribution of Expedia Visits Over Channels

Distribution of Channels Over Regions

231 262 293 324 355 386 417 448 479 510 541
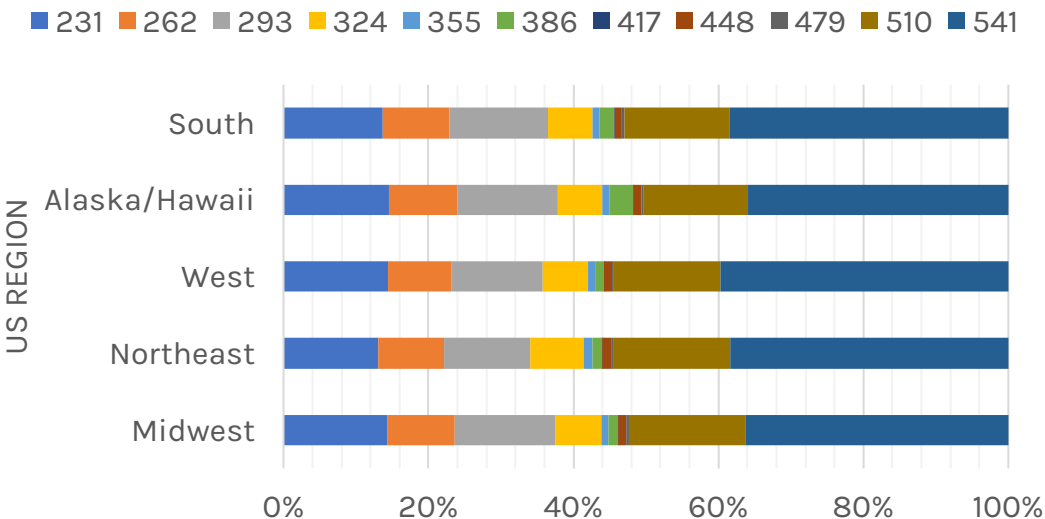
Tested for relationship between channel used to access Expedia and region of the US (p < 2.2e-16)*

Distribution of Channels Over Time of Day

231 262 293 324 355 386 417 448 479 510 541

Tested for relationship between channel used to access Expedia and time of the visit (p < 2.2e-16)*

Results provide insight on when/where to direct funding for different channels

Ex: Funding for Channel 386 could be more focused in Alaska and Hawaii from 8 AM to 12 PM compared to other regions and times.

May or may not be practically significant due to the large amount of observations