Coding Book Camp project 1

What school ratings were available for the city of “Austin”?

We found two websites with relevant data called School Digger: <https://developer.schooldigger.com/> and Great Schools: <https://www.greatschools.org/api/request-api-key>. We choose School Digger since it offered a free option to do API calls. Great Schools didn’t offer free API calls and there was a 3-5 day wait for an API key. In the end we paid for the API calls with School Digger since we quickly exhausted our calls. School Digger only allows you to call one page at a time with up to 50 schools per page and 20 calls per day. Once we started working with School Digger we quickly noticed there were some zip codes that did have any schools or did not have all three stages of primary schools in its zip code. We decided early on to use zip codes as the primary key between all our data sets. We didn’t average school ratings for all schools in a zip code since some school boundaries would cover several zip codes. Finally, we decided to focus on elementary school ratings. Elementary schools located in zip code were more likely to cover a smaller area and fewer zip codes.

The ratings scale was on a scale of 0 to 5. School Digger ranks schools based on test scores supplied by the state’s Department of Education. An average standard score is calculated and is assumed to be the norm. The average is calculated across all tests and grades. Schools ranked in the top 10% are given five stars. School Digger calculates an Average Standard Score by normalizing and averaging each school's test scores across all tests and grades.

We initially found 41 zip codes in the Austin area. Not all zip codes had schools and all three stages of primary education. We decided to focus on elementary schools since their ratings were more likely connected to only one zip code. Our initial data set consisted 324 schools on 7 combined pages and dictionaries within dictionaries. Once we sorted and narrowed our data set we had 132 elementary schools. We experimented with different bar charts. It showed there were great disparities between schools in different zip codes throughout the city. There were more zip codes better than average. The overall average star rating was 2.7. 22 zip codes were above this average.

What census data was available for the city of “Austin”?

What crime data was available for the city of “Austin”?

How are all these data sets related?

What trends and analysis could be observed when we combined the data sets?