

caccamo3

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Buildings and Chicago Energy Rating 2020

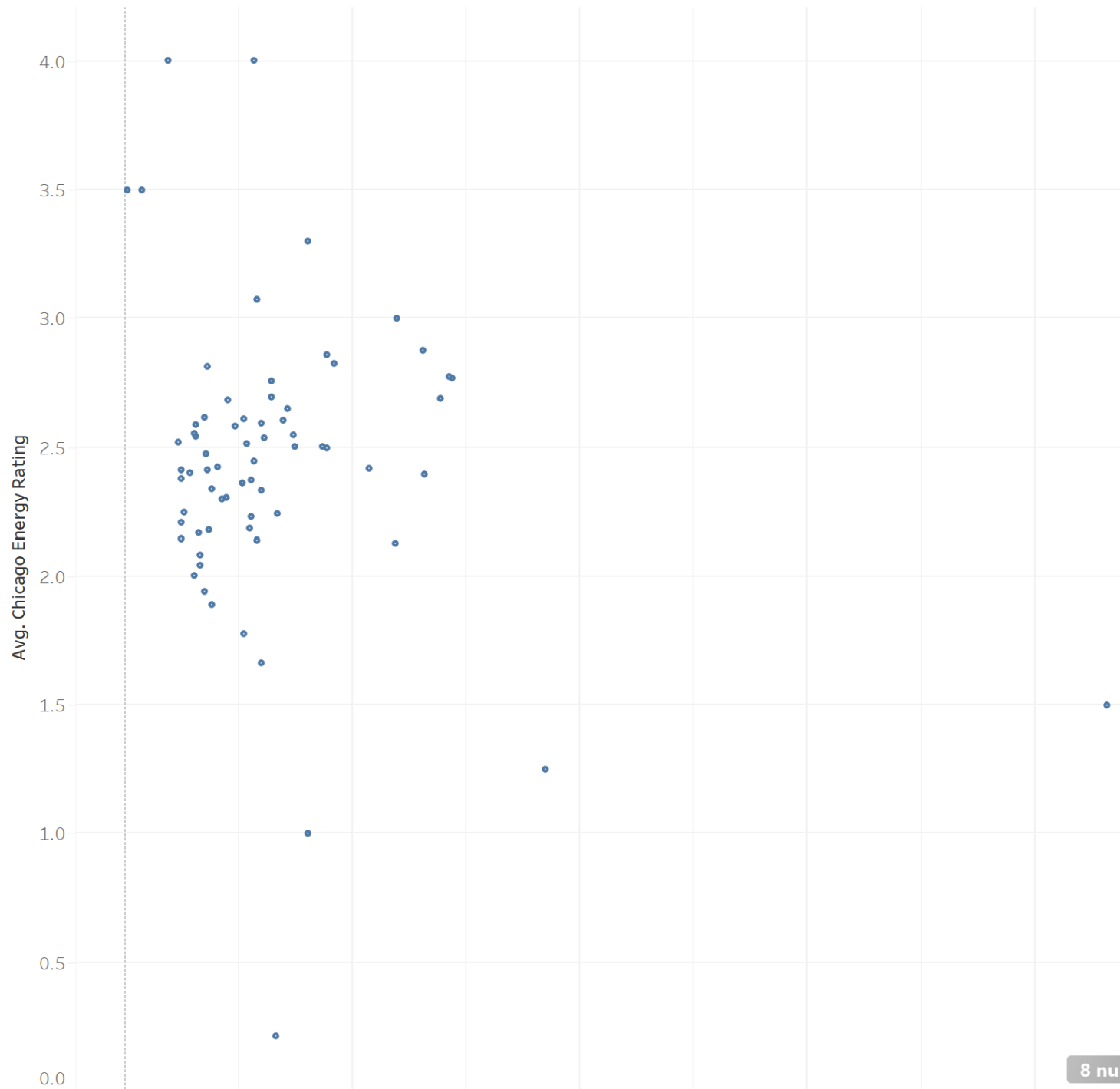
Chicago Energy Rating by Zip Code	Average Natural Gas Usage vs Energy Star Rating over zip codes	Average Chicago and Energy Star Score over zip codes	Reporting Status of Buildings
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Observation:

An observation in this dataset is each unique building in the Chicago area. More specifically, each building is characterized by type of building, ID, year built, etc.

Research Question:

Is there a relationship between location and energy rating? In particular, how does the natural gas usage, zip code, and reporting status influence the Chicago energy rating?



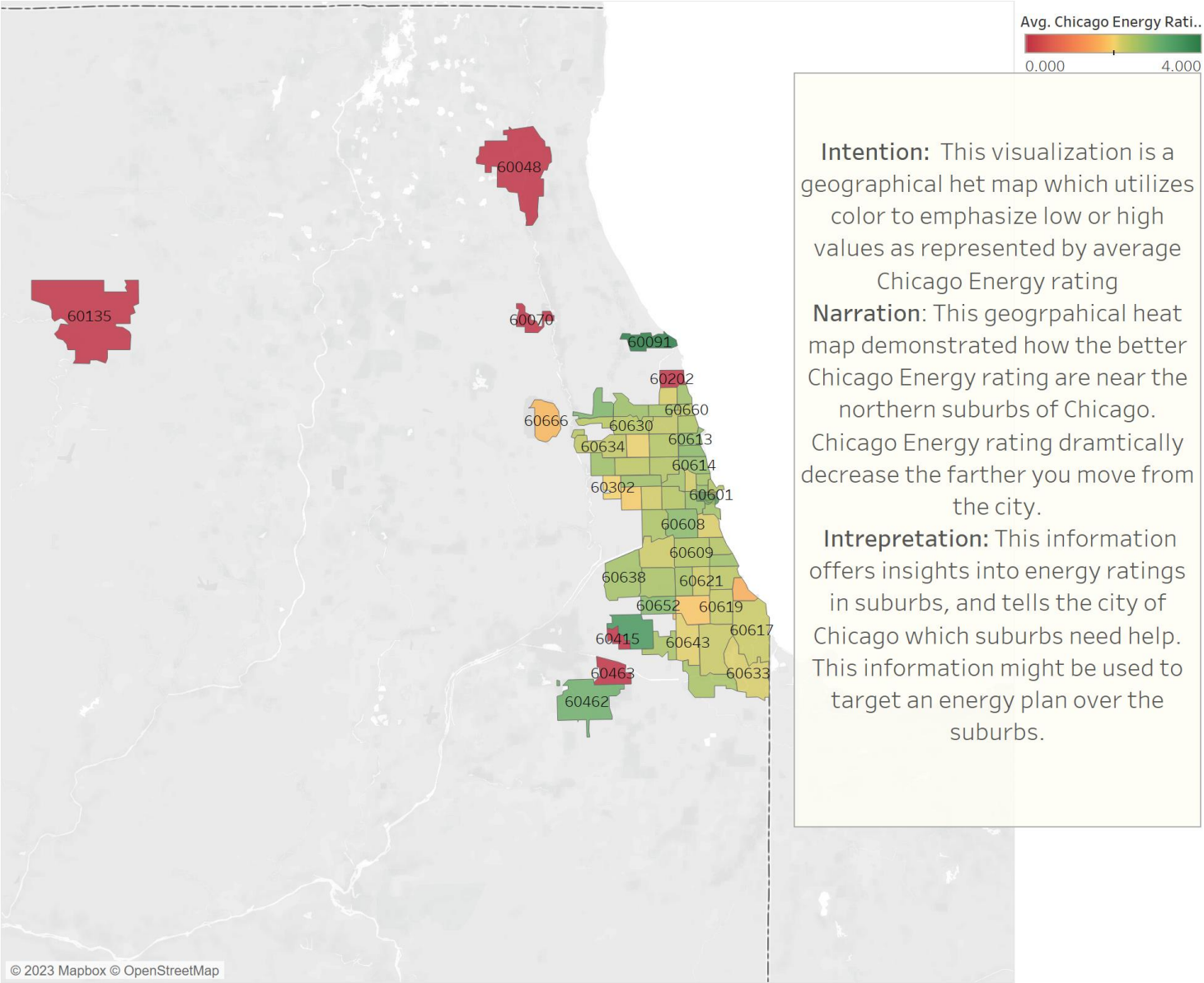
Intention: The above visualization presents a scatter plot which is useful for analyzing correlation between two categorical variables, represented by average natural gas use and average energy star score in this case.

Narration: This visual shows a general trend that zip codes that have less energy usage also have a better Chicago Enerergy rating.

Interpretation: This information offers insights for building owers on how to improve their Chicago Enerergy rating. With lots of components being included in the energy rating such as water usage, electrical usage, etc, lowering the natural gas usage will help improve the building's rating.

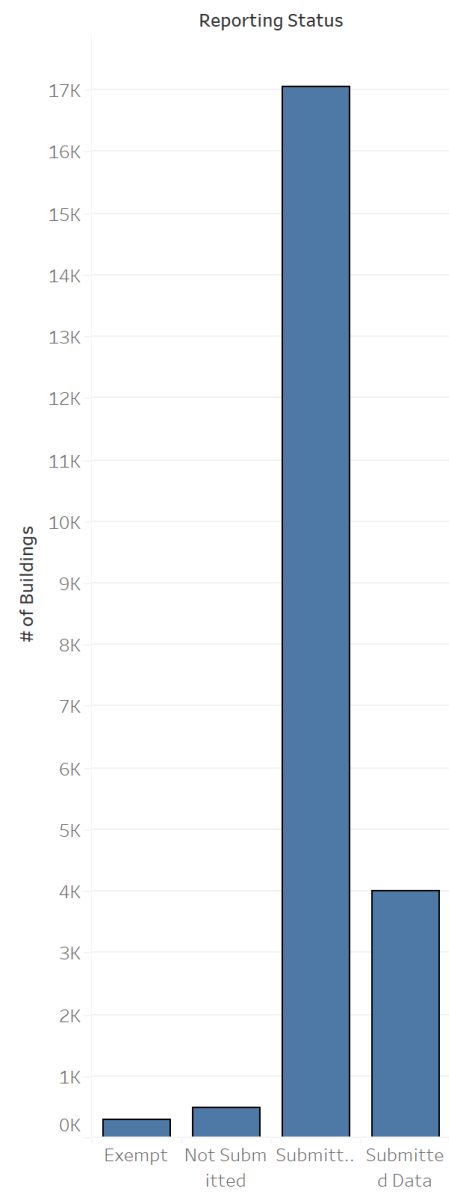
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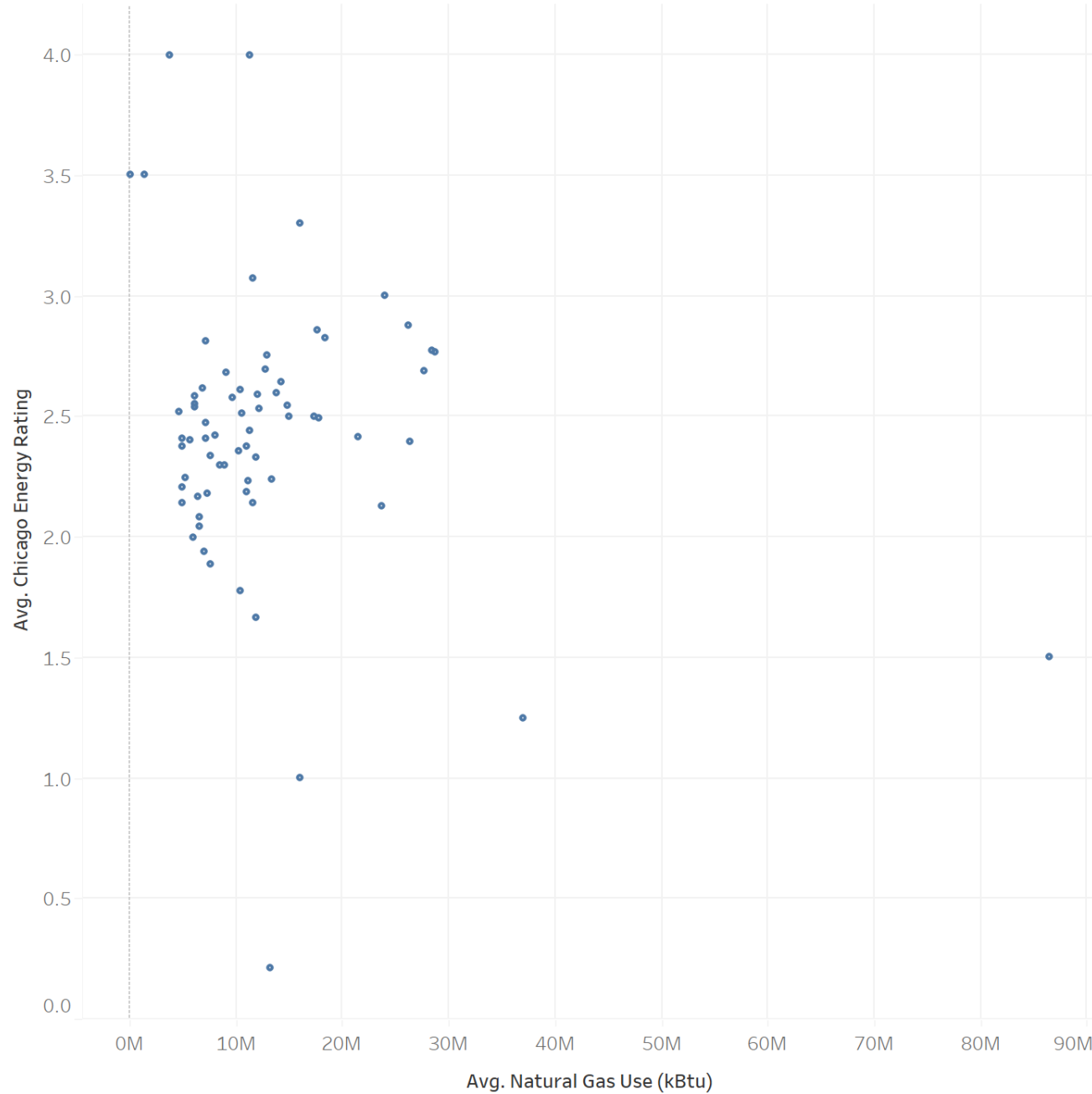


Intention: This visualization shows a column chart which is useful in analyzing the reporting status with number of buildings

Narration: The data is skewed to the left and provides details about outliers. For the buildings that were “not submitted”, the subsequent Chicago energy rating is automatically a zero. This brings down the average Chicago energy rating for certain zip codes.

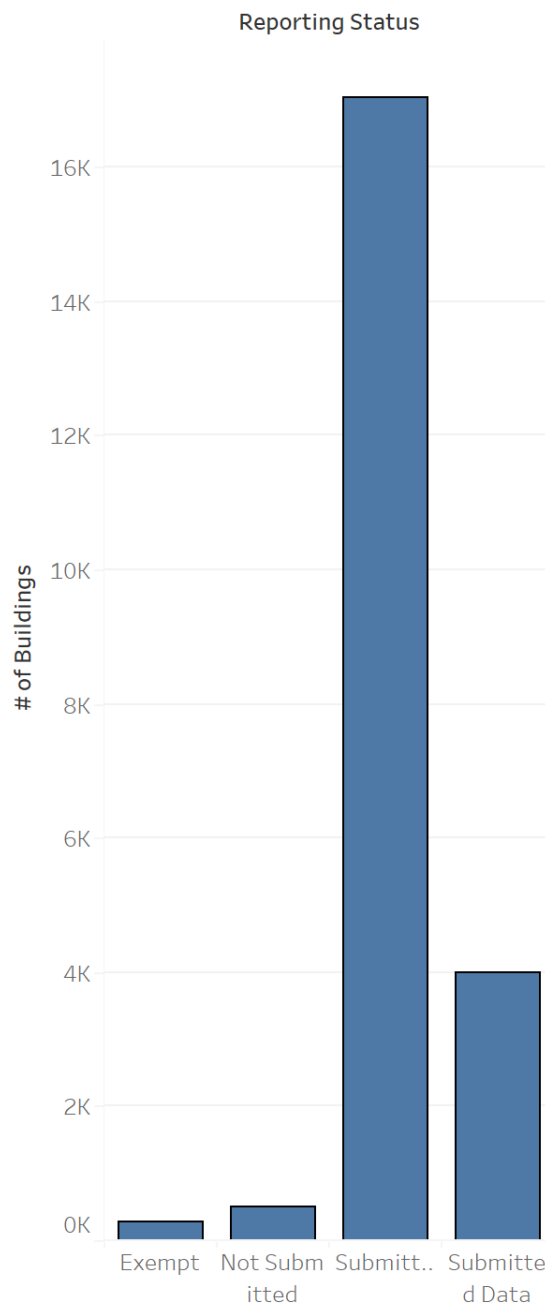
Interpretation: This information offer insights for analysts and the city of Chicago in understanding how outliers effect Chicago energy rating.

Average Natural Gas Usage vs Energy Star Rating over zip codes



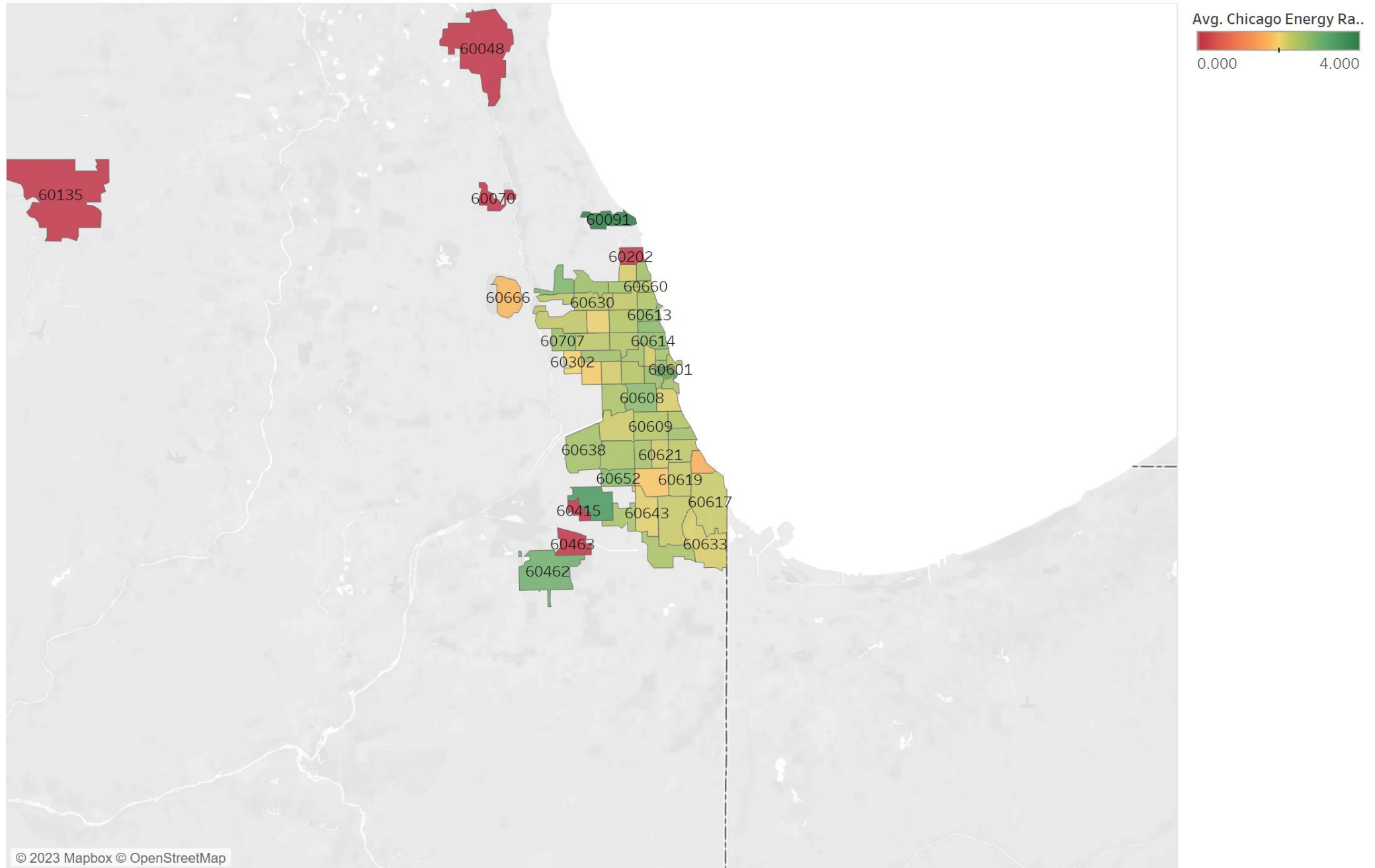
Average of Natural Gas Use (kBtu) vs. average of Chicago Energy Rating. Details are shown for ZIP Code.

Reporting Status of Buildings



Sum of # of Buildings for each Reporting Status.

Average Chicago and Energy Star Score over zip codes



Map based on Longitude (generated) and Latitude (generated). Color shows average of Chicago Energy Rating. The marks are labeled by ZIP Code.