

# DA Assignment 6 - Extra Work

Morgan Ford

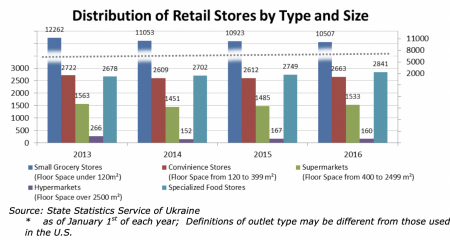


Figure 1: Distribution of Retail Food Stores in Ukraine

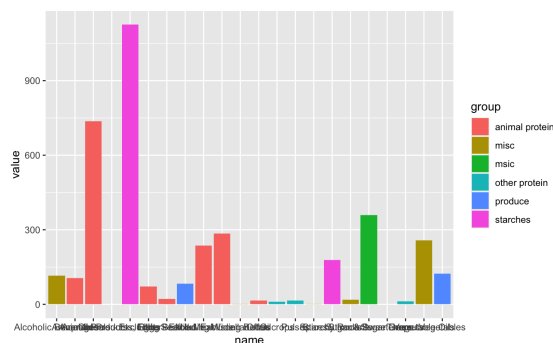


Figure 2: Distribution of Food Supply by Type in Ukraine

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I was able to find data regarding the total number of types of retail food vendors for a few years in Ukraine [1], see Figure 1. Using this data, I transformed it to be in the same format as the data I found

for the United States. I created a new random forest model, similar to the one I created for the United States. This time, however, I only used the retail food variables instead of including the restaurant and other variables. This model ran with 50 trees and 93.3% accuracy, very similar to the original random forest model.

Next, I applied the data to the Ukraine data. The data had to first be divided by the number of thousands of citizens of Ukraine. Then, the random forest model was applied. It predicted all of the years of data to be food deserts, as well as the data that was a mean of the years. While it is less accurate than zooming in and looking at where specifically the food deserts are, it is a good greater picture to give a general idea of what the food landscape in Ukraine might be.

I was able to find more information about food access in Ukraine [?] that was given by the food supply of different kinds of food. Figure 2 shows the food supply sorted by different types. While the labels of this graphic are hard to see (I really tried to get them to stack by group but it just wasn't working), you can see that there is a lot more access to starches and animal products than other sources of protein or produce. This may be indicative, as most food deserts have vastly more convenience stores than grocery stores, and convenience stores do not often carry fresh produce.

## REFERENCES

- [1] FAO. 2021. Europe and Central Asia – Regional Overview of Food Security and Nutrition 2021: Statistics and trends. (2021). <https://doi.org/10.4060/cb7493en>
- [2] JFAOSTAT title = FAO. [n.d.].

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