CSYS 300 Term Project

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Abstract

Topic: The Rearranging of Places

Conventional maps depict places in relation to one another in terms of physical space. People often express their location relative to another location not in terms of distance, however, but in terms of travel time. This report will explore the relative connectedness of places by using the travel time between points as the unit of distance. Closer places will be ones which can be reached faster, rather than ones which are physically closer. Postal codes stand in for places to simplify location pairing and time calculation. Two case studies, one for the State of Vermont and one for New York City, will be constructed with three modes of transportation: car, bicycle, and on foot. A fourth option, public transport, will be added to the New York City case study to create irregular emergence of locations reached. I hope to produce a metric for connectedness in terms of time, not distance. Ideally, I would like to also link in air travel, which can dramatically change the complexion of the analysis. My immediate task will be acquiring and visualising the data, and the findings of these activities will guide the next tasks.

Chapter 1

Project Content

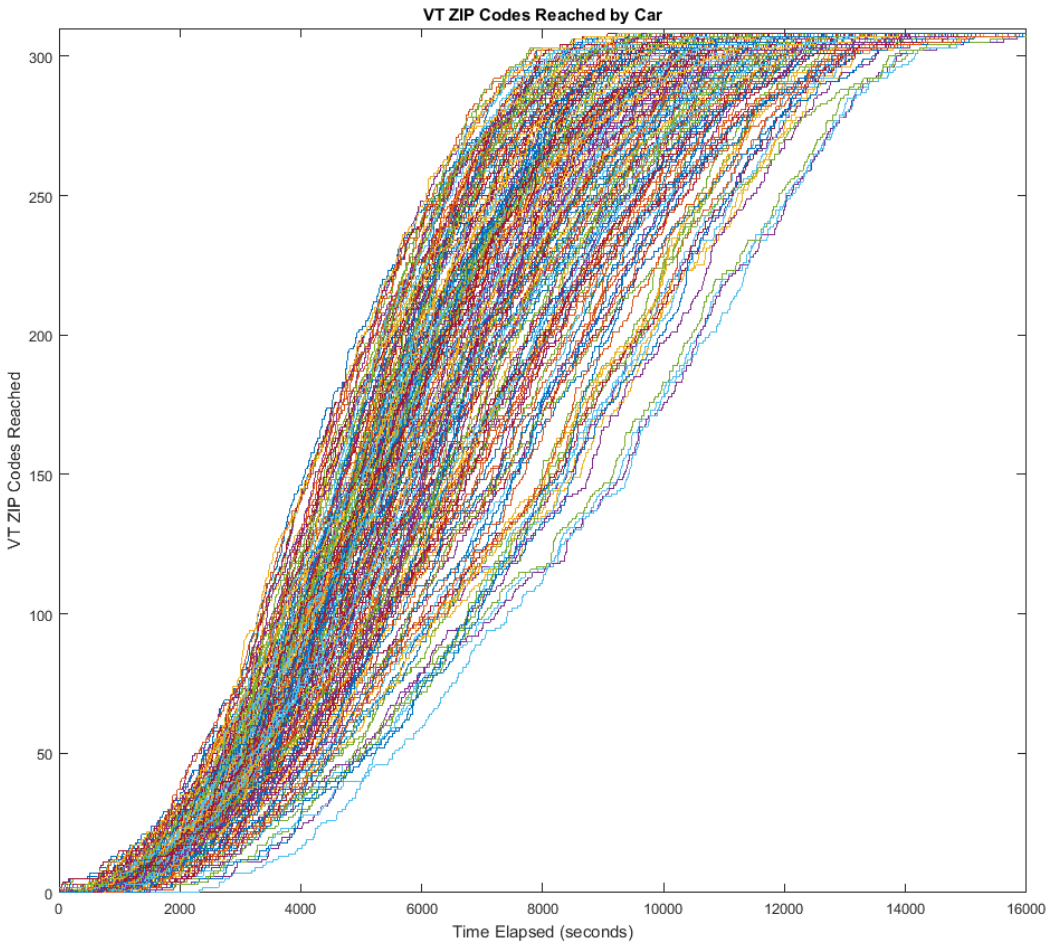

Figure 1.1: Preliminary VT drive times plot (141 of 309 complete).

I have begun to collect VT driving time data. So far, I've got times for trips between 260 ZIP codes and every other VT ZIP code. Figure 1 (above) shows this data. Figure 2 (below) shows the average z-score of the first 260 ZIP codes. This plot simply shows that some places are better connected than others, but further work can draw out much more useful information. I think a next step (other than completing the ZIP code list) would be to map these onto a traditional map and show which areas of the state are better connected than others.

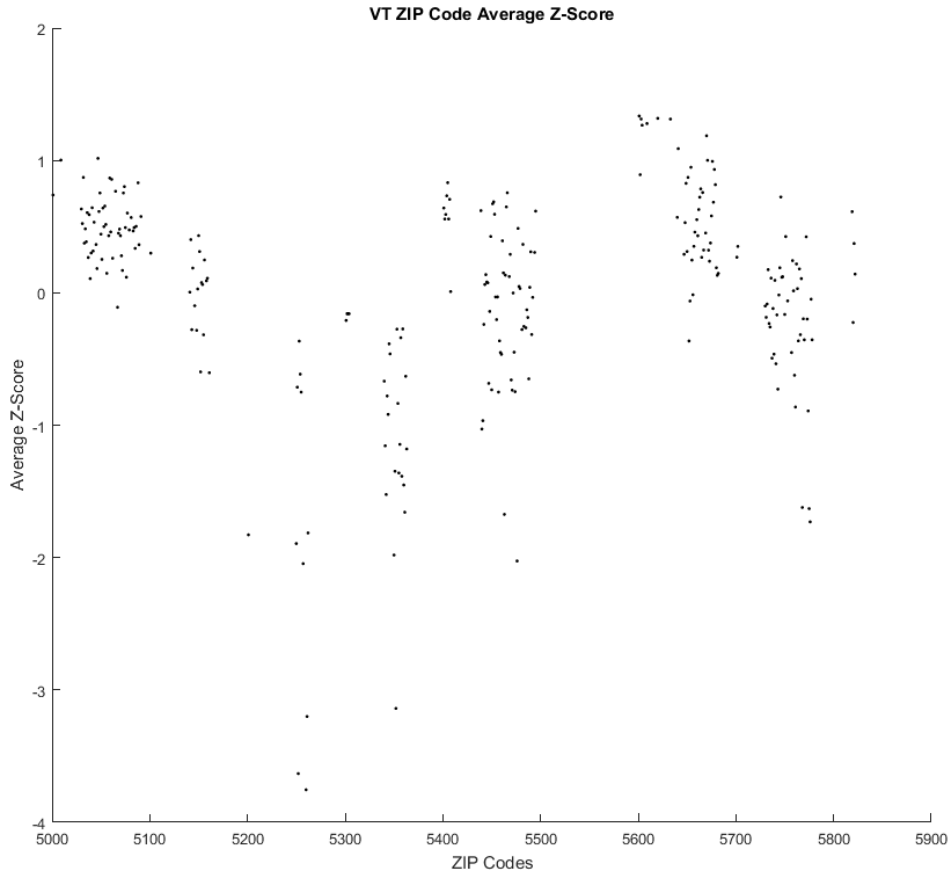

Figure 1.2: Preliminary Average Arrivals Z-Scores for VT (141 of 309 complete).