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MUSA Capstone

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Proposal 0

Motivation:

This project will establish a typology of small towns in America using demographic and economic information. Large cities (threshold TBD) and their surrounding suburbs will be excluded from this investigation. Rural towns, way-point towns and middle cities (constraints TBD) will be compared using several census and business variables. Way-point towns are within X miles from a major transit route and the local economy is somewhat dependent on that route – either due to the export of the goods the town produces or the tourism that comes from the route. Middle towns are not suburbs, but not rural either; many state capitals would fall into this category. And the rural town category is a catch all for the rest, however, there will be a minimum population (or perhaps population density) established as well. Understanding these towns can provide a better picture of the economic status of America outside of dense population centers and could greatly inform policy and business approaches.

Existing Research:

Small towns have been the focus of many research projects, however, the typology on this scale is perhaps more inventive.

Datasets:

* Census and ACS – This will provide demographic, income, and other identity characteristics.
* Open Street Maps – This can determine the number of businesses by industry in each town.

Methods: This is a major work in progress – not sure exactly where it goes

* Pull relevant census variables
* Use the variables to establish population constraints
* Use ArcGIS to establish distances from major routes and big cities to identify way-point towns and suburbs (which will be excluded)
* Once the towns subject to the investigation are identified, pull open street map data for business types of the town
* ML?

Deliverables:

A report displayed on a website with interactive maps and graphics

Use:

Classifying towns and establishing economic and demographic trends have tremendous implications for businesses and policies. Economic trends for towns can inform resource allocation policy, especially considering the infrastructure bill. If certain towns are struggling with internet connection (a census variable) for example, the infrastructure bill’s resources pertaining to internet can address these needs. Furthermore, this information could help businesses market a product or determine where to open stores.