

USMACROTRENDS: A GEOSPATIAL ANALYSIS OF MACROECONOMIC TRENDS

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This project is a web-based interactive map display of macroeconomic indicators such as labor, capital, unemployment, and gross product. By examining the change in these terms over time, the map is colored as a heatmap and the elements can be compared against one another. Utilizing the graph database Neo4j, the data is represented in three node types, namely Counties, States, and Metropolitan Areas, and each has their own set of visualizations. For example, it is very easy to demonstrate which metropolitan area was hit the hardest by the Great Recession. In the front-end Javascript provides quick map updates via display library D3, and when combined with the Cypher query to Neo4j, the map updates almost instantly. Front-end packages such as Bootstrap were utilized to make the design minimalist and appealing. The result is a dynamic, aesthetically pleasing map display that will be useful and interesting to the casual user and economist alike.