

Interactively Mapping Significant Differences Between Areas

Jerzy Wieczorek^{1*}

1. U.S. Census Bureau

*Contact author: jerzy.wieczorek@census.gov

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Geographers have proposed several ways to convey uncertainty and compare the statistical quality of the area-level estimates they are mapping in choropleth maps [1]. One idea is to ensure that significantly-different estimates have different colors or shadings. In this approach, the colors ought to indicate the significances of all pairwise comparisons at once. This is not always practical or even possible, much less easy [2]. We present an alternative approach that uses the **mmaps** package in *R* to display significance of differences between areas in choropleth maps, color-coded relative to one (interactively-selected) baseline area at a time. This is similar to another Census Bureau effort [3], for mapping American Community Survey data in ArcGIS. However, whereas that effort is a plugin to a proprietary tool and focuses on a specific dataset, the R code presented in this talk is flexible enough to use with any dataset that includes estimated variances or margins of error. We illustrate the approach using state and county data from the Small Area Income and Poverty Estimates program.

References

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