The choroplethr package

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Choropleth maps are maps which a) show boundaries and b) color each region according to a certain metric. The most common choropleth in the US is the presidential election map, which colors states according to which presidential candidate they voted for. In general, choropleth maps are useful ways to understand regional patterns in spatial data.

Despite the utility of these maps, *R* has lacked a consistent interface for creating choropleth maps. In the *R Graphics Cookbook* [1], Winston Chang explains how to create a state choropleth map in the popular **ggplot2** graphing library. His method requires several lines of code and is a different technique than that required for creating a choropleth of US Counties. And that, in turn, is a different technique than that required for creating a map of US ZIP codes. **choroplethr** provides a consistent, one-line, interface to create maps at these three different levels of detail. Currently **choroplethr** renders ZIP level maps as scatterplots; technically they are no longer choropleths because they do not show geographic boundaries. A discussion of this design decision is provided.

choroplethr also provides native support for accessing and viewing data from the US Census Bureau via the **acs** package. This allows **choroplethr** to create hundreds of thousands of choropleths of modern demographic data for the US, at multiple levels of detail (state, county and ZIP), with minimal effort on the part of the user.

Once choropleths become easy to create new discussions arise. A thorough discussion of the impact of level of detail and scale type is provided.

References

[1] Chang, Winston. R Graphics Cookbook. Sebastopol: O'Reilly, 2012. Print.