Data Science Insight
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Choroplethr is an R software package. The name of Choroplethr comes from the fact that it produces choropleth maps in the R programming language. "A choropleth map is any map that shows regions and expresses values for those regions through color," said Ari Lamstein, author of Choroplethr. Choroplethr has its partner package ChoroplethrMaps which should be installed alongside it, using install.packages on ("choroplethr) and ("choroplethrMaps") then loading the corresponding libraries.

Public access datasets like those found on the Census Bureau page can be used with this package. However, given that the Census Bureau only conducts the survey questionnaire every ten years, decennially, there are other datasets that could provide a more streamlined depiction of data trends as they shift over the years. In the "Choroplethr Basics" online course module, taught by the author, users can learn how to visualize data from the U.S. Census Bureau's American Community Survey (ACS). The ACS is a subset of the Census Bureau that provides current socioeconomic information on communities every year, although it is only sent to a portion of the population on a rotating basis.

One application of Choroplethr would be mapping based upon population estimates by year and zooming in on specific areas of said map, like the western part of the United States. This package allows the user to map state population estimates, but that is not all that it does. Other variables such as per capita income can be applied to a map and vintages, or "data from different years", can also be added to the same map to convey the change in variable values over time.

Another Choroplethr package is "choroplethrAdmin1," a package that contains the Administrative Level 1 (or adm1) map of a majority of countries in the world. This package

allows the user to generate an adm1 map for a specified country with the function

"adm1_map()." Other functions make it possible to get all countries on the admin1 map, get an

admin1 map for a country, get all admin1 region names for a given country, etc.

A package group like this would likely be helpful for programmers looking to conduct

the early stages of agent based modelling. Choroplethr might make mapping the first

administrative subdivision of certain areas a little easier than other methods, given that it is

presented as a function in one of the packages.