Show me the data!

Week11: Geographic Information System

Big Data & Social Analysis R

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Geographic Information System

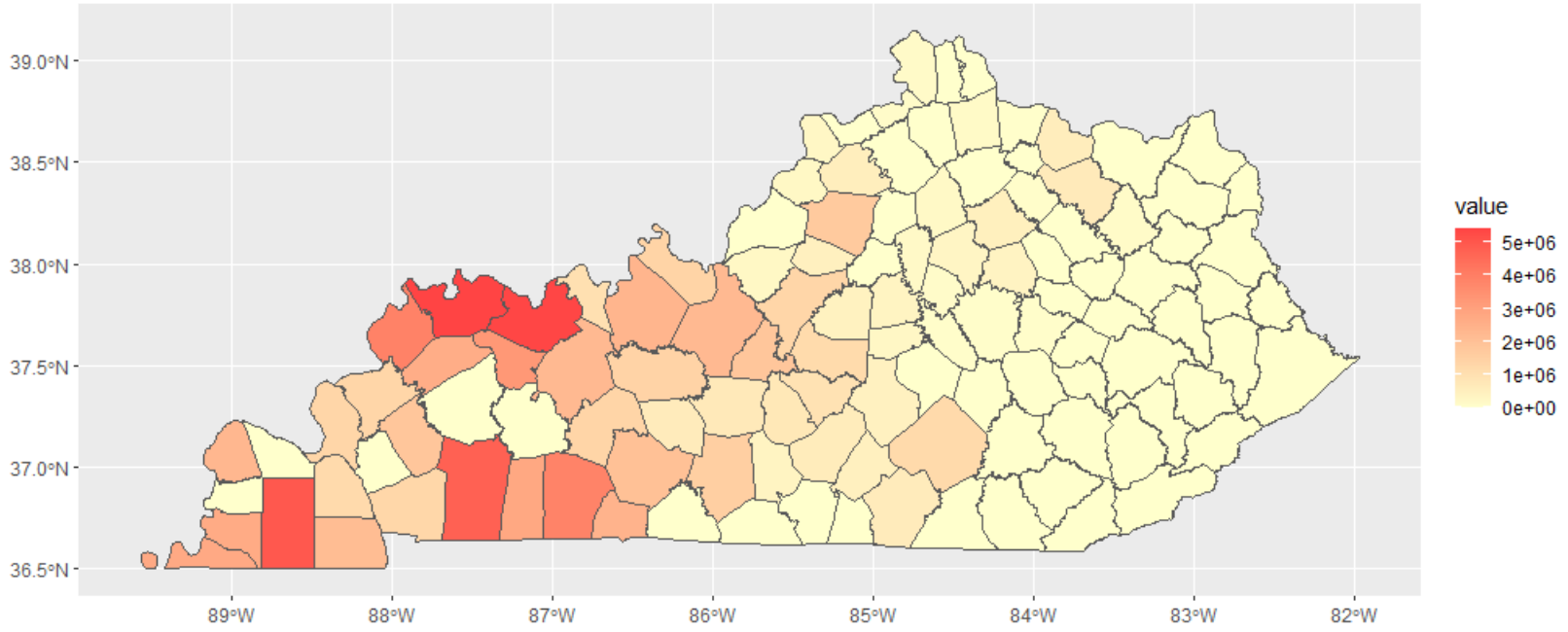
01 Introduction of GIS

“A geographic information system (GIS) is a computer system for capturing, storing, checking, and displaying data related to positions on Earth’s surface (National Geographic n. d.).”

01 Introduction of GIS

Kentucky Soybean Production

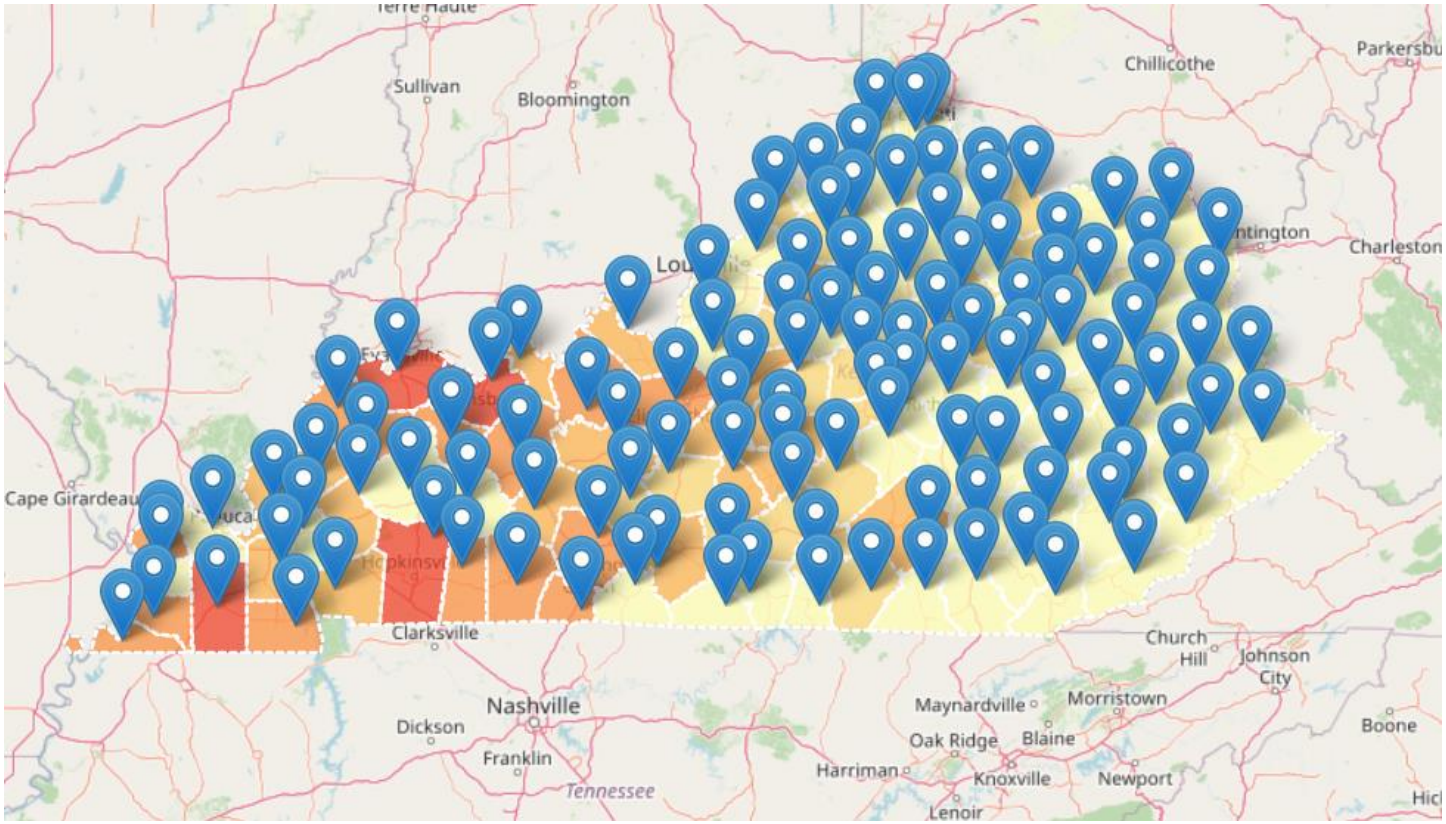
We will use the data of US soybean production by county to show how to produce GIS plots.



01 Introduction of GIS

Kentucky Soybean Production

Download soybean.html and open it



Powerful leaflet package

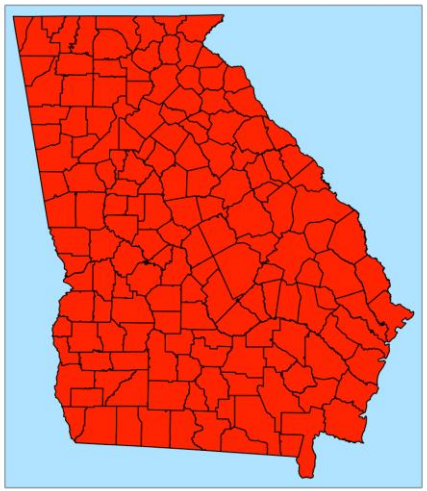
01 Introduction of GIS

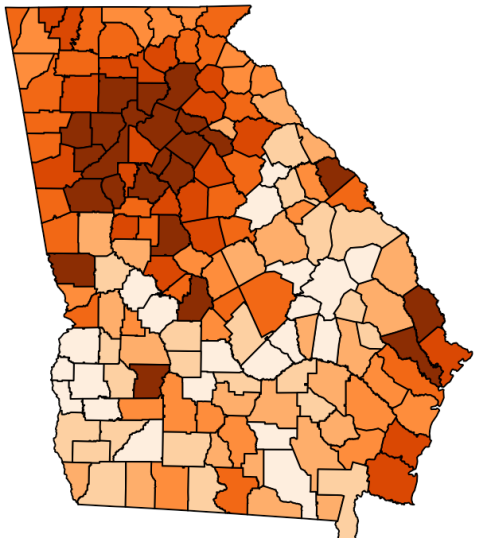
Kentucky Soybean Production

geospatial data

your data

shapefile





Therefore, we need to find the same level of GIS file: county level

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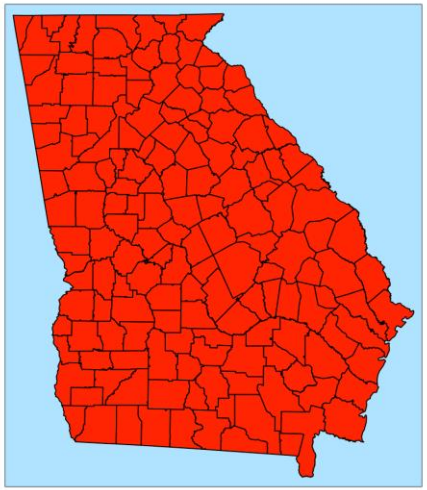
Geospatial Data



You can’t produce geospatial data by yourself. However, many websites provide geospatial data.

In the US, you can try US Census Bureau website.

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Geospatial Data

shorturl.at/glpG8

KML- Cartographic Boundary Files

2017 Entity Name Description [<1.0 MB]

Nation-based Files

American Indian/Alaska Native Areas/Hawaiian Home Lands

cb_2017_us_aiannh_500k.zip [1.0 MB]

Congressional Districts: 115th Congress

cb_2017_us_cd115_500k.zip [5.1 MB]

cb_2017_us_cd115_5m.zip [1.2 MB]

cb_2017_us_cd115_20m.zip [287 KB]

Introduction of GIS

Geospatial Data

In Taiwan, you can download diverse levels geospatial data through SEGIS website

https://segis.moi.gov.tw/

01 Introduction of GIS

Geospatial Data

When you click a data you want to download, SEGIS shows a window with SHP icon.

01 Introduction of GIS

Geospatial Data

You can click it and download a zip file.

Introduction of GIS

leaflet

Leaflet package is a powerful tool to create an interactive GIS map.

Leaflet also uses shapefile to create maps.

Go to Leaflet for R website to get more information: https://rstudio.github.io/leaflet/