REM Tutorial 2: R Markdown, Descriptive Statistics, Maps

Prof. Dr. Kathleen Kürschner Rauck

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Today's Agenda

Learning Outcomes	R Functions	Packages	Data
Understand what R markdown is			
Know how to generate R markdown-html-files		rmarkdown; knitr	
Know how to query data frame dimension	dim()		Lucas_County_data
Know how to generate factor variables	as.factor(); levels()		
& query/store factor information	table()		
	as.data.frame()		
	colnames()		
Know how to query info on extreme values	which.min()		
Be able to obtain selected descriptive statistics	stat.desc(); t()	pastecs	
Be able to prepare a map widget using R	leaflet()	leaflet	
	setView(); mean()	leaflet.extras	
	addTiles()	leaflet.providers	
	addProviderTiles()		
Be able to use R to plot data in a map	palette_explorer()	tmap; tmaptools	
	colorQuantile()	shiny; shinyjs	
	addCircleMarkers()		
	addLegend()		
	quantile(); seq()		
	markerClusterOptions()		

R Markdown

- ▶ Submit solutions to R assignments in html format
  ⇒ Can be generated using R Markdown in R Studio

- ▶ **What is R Markdown?**
  File format → used to produce interactive documents to report:
  embedded R code with comments, output, messages, annotations in one document

- ▶ Helps document your work in an accessible way

- ▶ **How to?**
  - ▶ Write report of work in markdown
  - ▶ Render into html document

- ▶ R Markdown **cheat sheet on Canvas**

Practice

Work through **Tutorial 2 - Workbook** to solve the practical problems provided in **Tutorial 2 - Problem Set**.