

R Markdown and kableExtra

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R Markdown

This is an R Markdown document. Markdown is a simple formatting syntax for authoring HTML, PDF, MS Word documents and Beamer slides. For more details, see the R Markdown Cheat Sheet and <http://rmarkdown.rstudio.com>.

As mentioned above, R Markdown can facilitate presentation of R output in a variety of ways. However, in this document we're going to focus on output in the PDF format given this is a common format used in the corporate world. We're also going to focus mainly on producing tables in our PDF with the kableExtra package. For additional information on the capabilities of kableExtra, see https://haozhu233.github.io/kableExtra/awesome_table_in_pdf.pdf.

kableExtra

The tables below are produced with the `kable()` function. The brexit poll and murders data are pulled into an R script where they are manipulated and formatted to include appropriate columns, commas and percents. The data are then sourced into the Rmarkdown script and sorted based on their factor columns. In the polls table, the columns are grouped using the `add_column_above()` function and the rows are grouped using the `pack_rows()` function. Two footnotes are included at the bottom of the table. In the murders table, if the murders as a % of population is greater than 0.004%, the value is highlighted in orange using the `cell_spec()` function. Using `pack_rows()` the table is grouped by region. Other customized styling in the tables includes borders, the stripe index, font size and bolding. The `Table #` prefix is removed from all tables in the report by putting `\usepackage[labelformat = empty]{caption}` in the YAML header.

Brexit Poll Data

Pollster		Poll Responses		
		Remain	Leave	Undecided
Online				
BMG Research		41.2%	43.3%	15.7%
Greenberg Quinlan Rosner Research		45.0%	40.0%	16.0%
ICM		42.8%	43.3%	13.8%
Opinium		42.2%	42.2%	14.6%
ORB		49.0%	51.0%	0.0%
Panelbase		42.0%	45.0%	12.0%
Populus		55.0%	45.0%	0.0%
Populus/Number Cruncher Politics		43.5%	45.0%	12.5%
Survation		38.0%	40.0%	22.0%
TNS		38.1%	39.2%	22.8%
YouGov		41.4%	41.1%	13.8%
YouGov/The Times		36.0%	45.0%	19.0%
Telephone				
BMG Research		46.0%	43.0%	11.0%
ComRes		49.8%	40.9%	9.4%
ICM		45.5%	43.8%	11.2%
Ipsos MORI		50.6%	40.6%	6.6%
ORB		51.0%	44.6%	4.4%
ORB/Telegraph		53.0%	46.0%	2.0%
Populus/Number Cruncher Politics		48.5%	36.0%	15.0%
Survation		44.5%	38.3%	17.2%
Survation/IG Group		45.0%	44.0%	11.0%
YouGov		36.0%	39.0%	22.0%

Note: The poll responses are an average of the responses gathered by each pollster across all dates.

Note: Dataset is from the dslabs package in R.

U.S. Gun Murders By State for 2010

State	Population	Total Murders	Total Murders as % of Population
North Central			
Illinois	12,830,632	364	0.0028%
Indiana	6,483,802	142	0.0022%
Iowa	3,046,355	21	0.0007%
Kansas	2,853,118	63	0.0022%
Michigan	9,883,640	413	0.0042%
Minnesota	5,303,925	53	0.0010%
Missouri	5,988,927	321	0.0054%
Nebraska	1,826,341	32	0.0018%
North Dakota	672,591	4	0.0006%
Ohio	11,536,504	310	0.0027%
South Dakota	814,180	8	0.0010%
Wisconsin	5,686,986	97	0.0017%
Northeast			
Connecticut	3,574,097	97	0.0027%
Maine	1,328,361	11	0.0008%
Massachusetts	6,547,629	118	0.0018%
New Hampshire	1,316,470	5	0.0004%
New Jersey	8,791,894	246	0.0028%
New York	19,378,102	517	0.0027%
Pennsylvania	12,702,379	457	0.0036%
Rhode Island	1,052,567	16	0.0015%
Vermont	625,741	2	0.0003%
South			
Alabama	4,779,736	135	0.0028%
Arkansas	2,915,918	93	0.0032%
Delaware	897,934	38	0.0042%
District of Columbia	601,723	99	0.0165%
Florida	19,687,653	669	0.0034%
Georgia	9,920,000	376	0.0038%
Kentucky	4,339,367	116	0.0027%
Louisiana	4,533,372	351	0.0077%
Maryland	5,773,552	293	0.0051%
Mississippi	2,967,297	120	0.0040%
North Carolina	9,535,483	286	0.0030%
Oklahoma	3,751,351	111	0.0030%
South Carolina	4,625,364	207	0.0045%
Tennessee	6,346,105	219	0.0035%
Texas	25,145,561	805	0.0032%
Virginia	8,001,024	250	0.0031%
West Virginia	1,852,994	27	0.0015%
West			
Alaska	710,231	19	0.0027%
Arizona	6,392,017	232	0.0036%
California	37,253,956	1,257	0.0034%
Colorado	5,029,196	65	0.0013%
Hawaii	1,360,301	7	0.0005%
Idaho	1,567,582	12	0.0008%
Montana	989,415	12	0.0012%
Nevada	2,700,551	84	0.0031%
New Mexico	2,059,179	67	0.0033%
Oregon	3,831,074	36	0.0009%
Utah	2,763,885	22	0.0008%
Washington	6,724,540	93	0.0014%
Wyoming	563,626	5	0.0009%