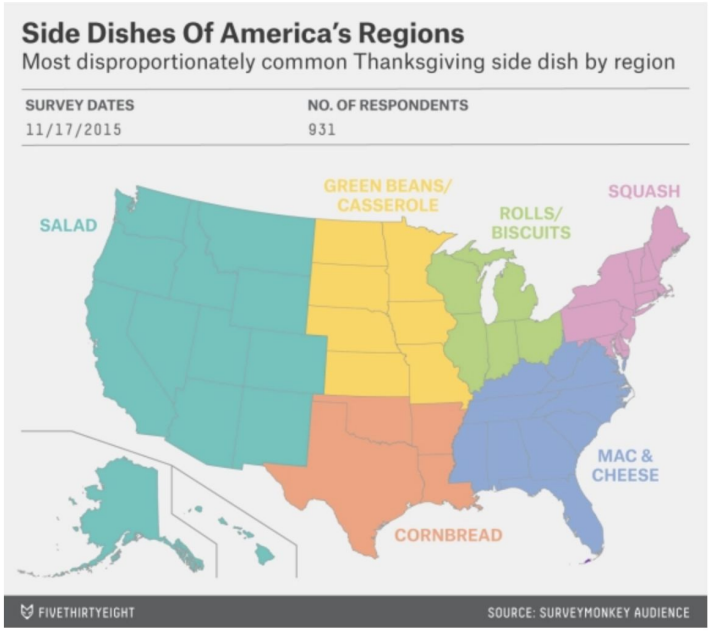
DataViz Midterm #2

Part #3: Create or Recreate a polished graphic in R

Learning Objective:

- **Use color** in visualization appropriately for the variable it is encoding and with sensitivity to visually impaired viewers.
- **Polish** a visualization to publication-read standards.

Motivation: Thanksgiving is just around the corner. Let's celebrate the best way we know how, by analyzing some festive data! I hope you have fun making graphics! Happy Thanksgiving!



Dataset/Article: *Here's What Your Part of America Eats on Thanksgiving*

- Article:
  - https://fivethirtyeight.com/features/heres-what-your-part-of-america-eats-on-thanksgiving/
- Variable description can be found here:
  - https://github.com/fivethirtyeight/data/tree/master/thanksgiving-2015
- Original data can be found here:
  - https://raw.githubusercontent.com/fivethirtyeight/data/master/thanksgiving-2015/thanksgiving-2015-poll-data.csv
- I cleaned up the data, selected a subset of variables, and created binary variables. My dataset can be found here:
  - https://raw.githubusercontent.com/kitadasmalley/FA2020_DataViz/main/data/useThanks.csv

Directions:

Use either the original dataset from fivethirtyeight or my cleaned dataset for one of the following options. This part of the assessment focuses not only on your finished polished product, but on your process. Please be sure to document how you polish your graphic in your code.

- **OPTION 1: Create**
    - **Step 1: Use the variables from the dataset to ask a question about Thanksgiving**
        - Examples:
            - What proportion of households celebrate Thanksgiving by region/division?
            - What proportion of households pray by region/division?
            - What proportion of eat (FILL IN THE BLANK) by region/division?
    - **Step 2: Make your first attempt at creating a graphic**
        - It shouldn't be perfect
        - You can use any appropriate geometry
            - Bonus points for making a map (see hints)
    - **Step 3: Color palette**
        - Choose an appropriate color palette for the variable type
            - You can use a palette from `library(colorspace)`
            - Bonus points for creating your own palette
    - **Step 4: Brainstorming/Planning**
        - **What polishing needs to be done?**
        - Ask yourself:
            - What do you find confusing?
            - What do you find distracting?
        - Elements of a polished plot:
            - All text should be unobscured and readable (make sure it's big enough)
            - All legends should be fully viewable and readable
            - Grid (major and minor breaks) should be meaningful and not distracting
            - Aspect ratio of plot should be appropriate
        - Remember everything is open to polishing
    - **Step 5: Update your plot**
        - Work with scales to polish your graphic
    - **Step 6: Final polished plot**
        - Iterate between steps 4 and 5 until your
        - Make sure you have an insightful title
        - Save your graphic as a pdf

- **OPTION 2: (Challenge) Recreate**
    - This is pretty tough and requires a fair bit of data wrangling.
    - I put together an RPub with a few hints to help you along the way.
        - https://rpubs.com/hsmalley/dvThanks
    - **Start at Step 2: Make your first attempt at creating a graphic**
        - It shouldn't be perfect
        - You can use any appropriate geometry
            - Bonus points for making a map (see hints)
    - **Step 3: Color palette**
        - Choose an appropriate color palette for the variable type
            - You can use a palette from `library(colorspace)`
            - Bonus points for creating your own palette
    - **Step 4: Brainstorming/Planning**
        - **What polishing needs to be done?**
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    - **Step 6: Final polished plot**
        - Iterate between steps 4 and 5 until your
        - Make sure you have an insightful title
        - Save your graphic as a pdf

What to submit: Please submit to WISE

- ***pdfs*** for your first graphic AND your final polished graphic
- your notes about your polishing process
- your ***code*** (either the R file or an Rmarkdown file)

Grading: 50 points possible

	Excellent	**Good**	**Satisfactory**	**Fair**	**Poor**
Initial Graphic (PDF)	10 points	8 points	6 points	4 points	2 points
Color palette	6 points	5 points	4 points	3 points	1 point
Brainstorming	6 points	5 points	4 points	3 points	1 point
Polishing - text	6 points	5 points	4 points	3 points	1 point
Polishing - theme and axes	6 points	5 points	4 points	3 points	1 point
Polishing - Title	6 points	5 points	4 points	3 points	1 point
Final Graphic (PDF)	10 points	8 points	6 points	4 points	2 points