

GA + HUBWAY PRESENT: DATA VISUALIZATION CRASH COURSE



WELCOME TO GENERAL ASSEMBLY



What is General Assembly?

Established in early 2011 as an innovative community in New York City for entrepreneurs and startup companies, General Assembly is an educational institution that transforms thinkers into creators through education in technology, business, and design at 16 campuses across four continents.

Choose your own path...

WORKSHOPS

Two hour to 2-day, hands-on workshops teaching practical skills in an informal setting.

Sample offerings:

- › Intro to HTML + CSS
- › SQL Bootcamp
- › UX Bootcamp
- › Intro to Adobe Illustrator
- › Advanced Topics in Excel
- › Intro to App Development

PART TIME COURSES

8–12 week evening and weekend courses for individuals looking to learn a new skill or level up in their career.

Current offerings:

- › Data Analytics
- › Digital Marketing
- › Front-End Development
- › Product Management
- › User Experience Design
- › Visual Design

IMMERSIVE COURSES

10-12 week, full-time programs for individuals looking to pursue a new technical career path.

Current offerings:

- › Data Science Immersive
- › Web Development Immersive
- › User Experience Design Immersive

Our data offerings...



DATA SCIENCE PART-TIME

Learn to navigate the product cycle, from evaluating users and managing a roadmap to developing an MVP and creating metrics to support a product launch.

12 weeks, twice weekly

Starts April 4

DATA SCIENCE IMMERSIVE

Create a full suite of UX documentation for a digital product, from user personas and wireframes to interactive prototypes, to optimize any product or service.

12 weeks, full time

Starts April 10

DATA ANALYTICS

Learn to leverage Excel & SQL to manipulate large datasets, and turn your findings into an actionable, visual narrative with Tableau.

10 weeks, twice weekly

Starts April 10

About the Hubway Data Challenge





Thank you to our sponsors at b.good



DATA VISUALIZATION CRASH COURSE

Lisa Williams, Data For Radicals

AGENDA

- History of Data Visualization
- Matching Data to Visuals
- When Charts Go Horribly, Horribly Wrong
- Team Matching
- Inspiration for Your Hubway Data Challenge

CRASH COURSE IN DATA VISUALIZATION

HISTORY OF DATA VISUALIZATION

CRASH COURSE IN DATA VISUALIZATION



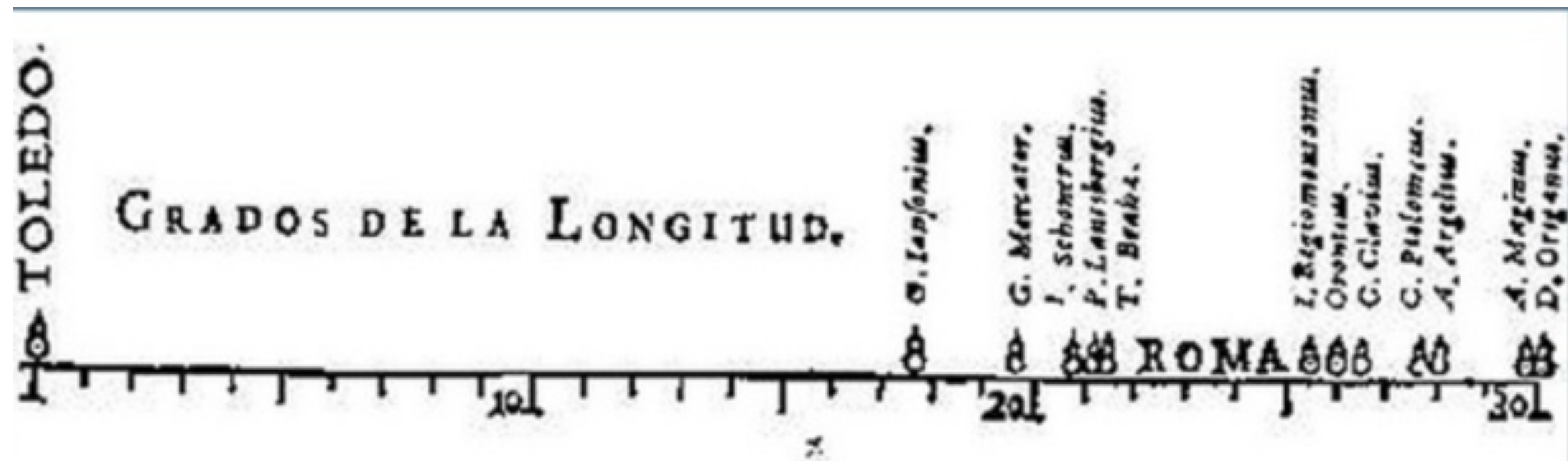
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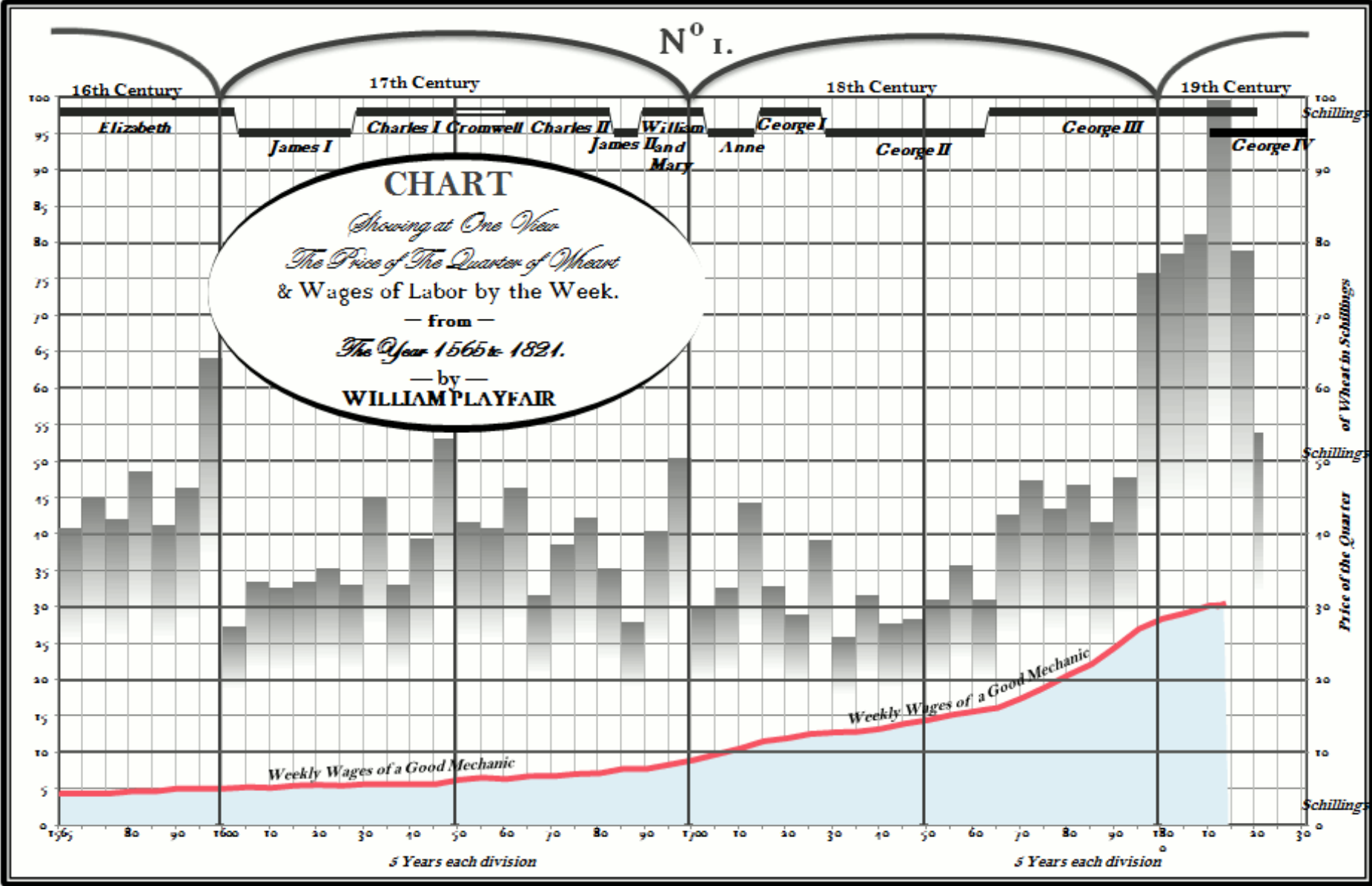
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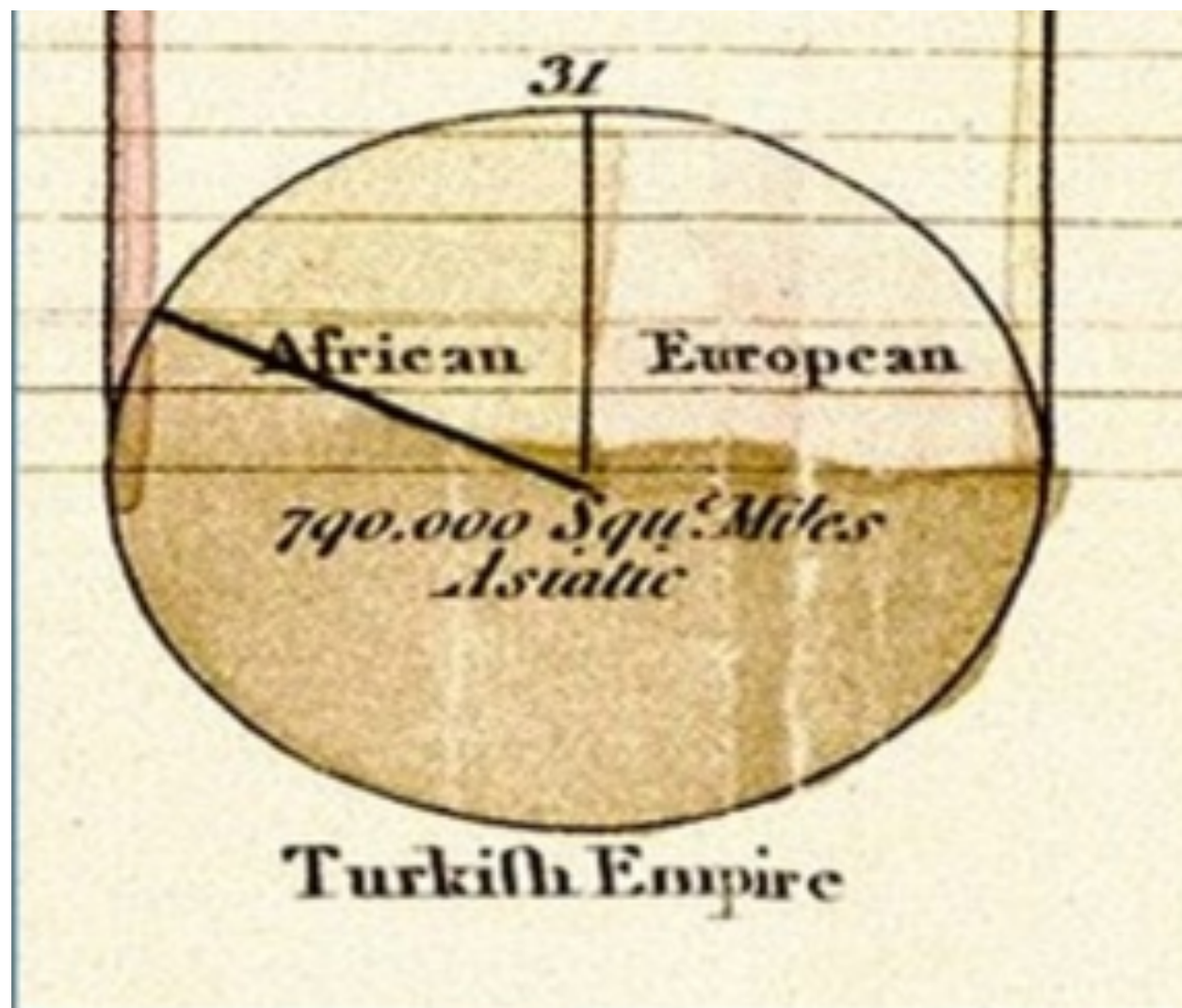
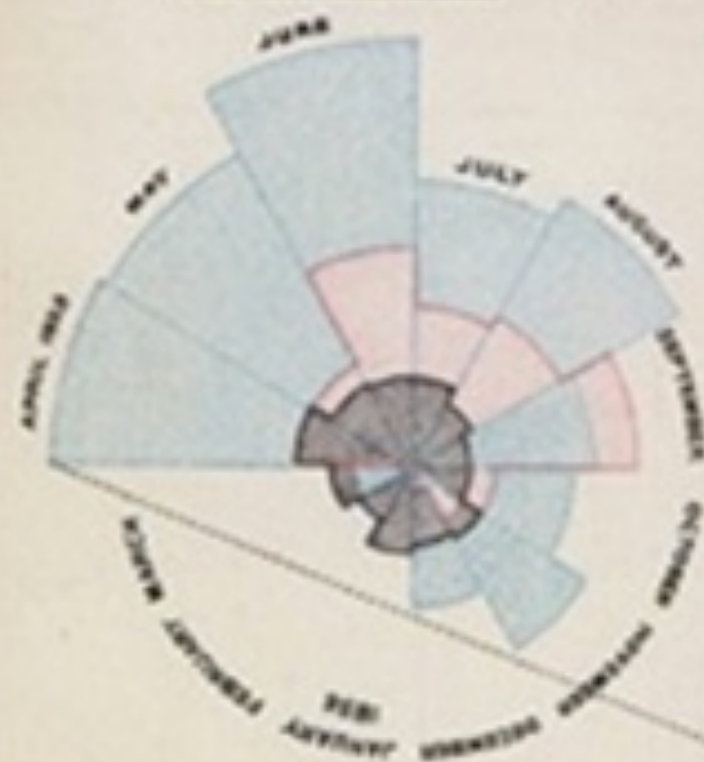
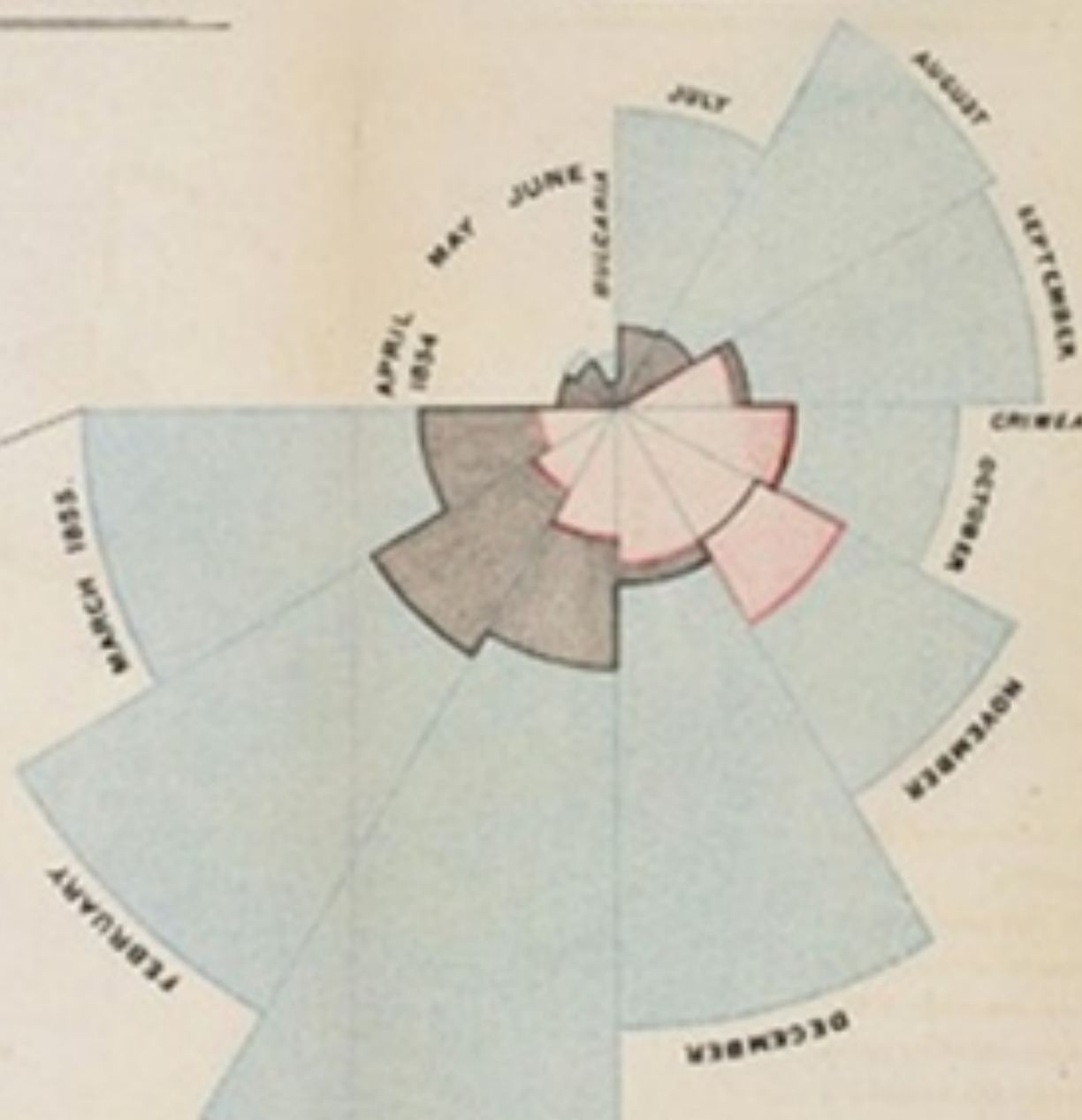


DIAGRAM OF THE CAUSES OF MORTALITY IN THE ARMY IN THE EAST.

2.
APRIL 1855 TO MARCH 1856



1.
APRIL 1854 TO MARCH 1855

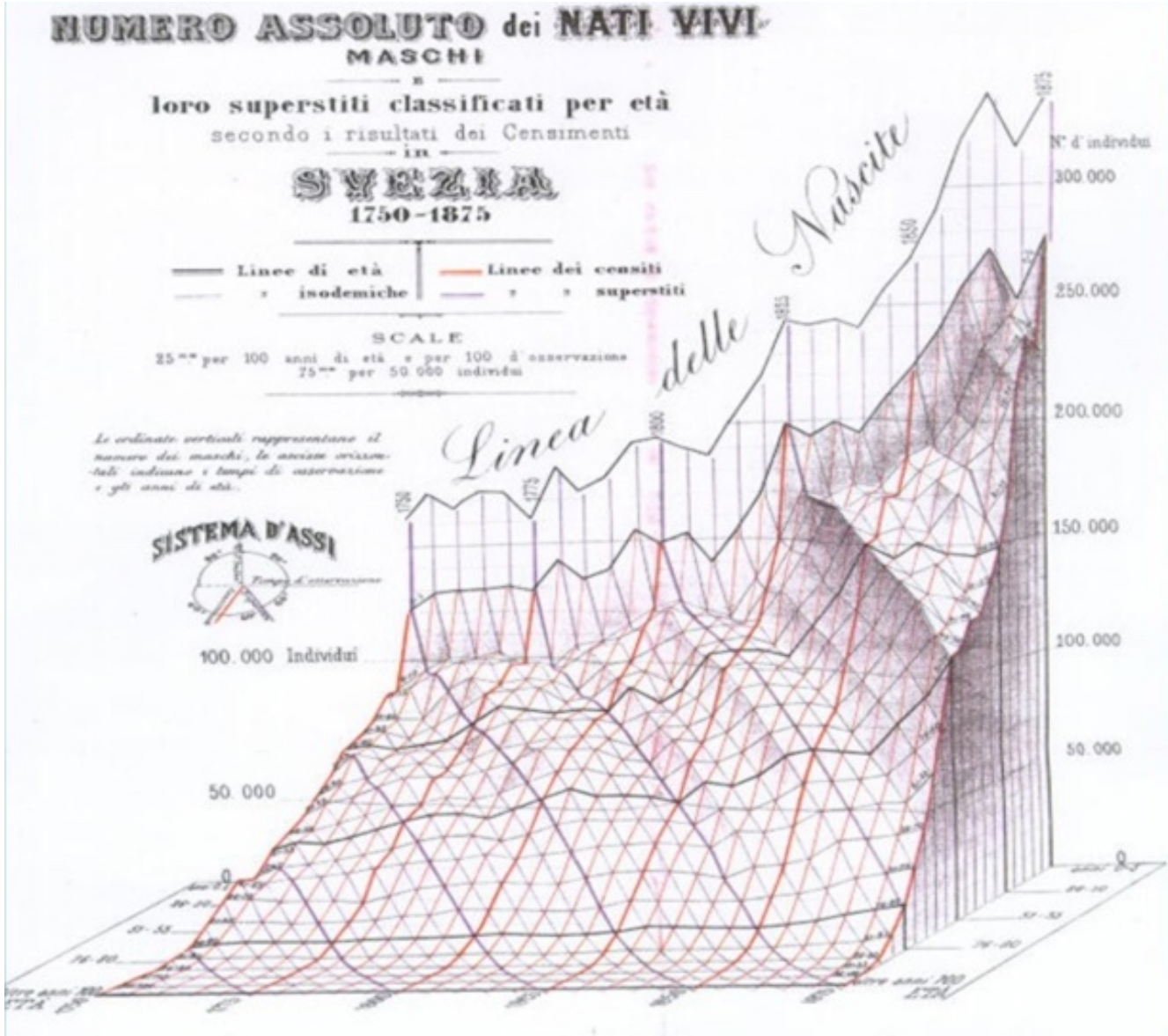


The areas of the blue, red, & black wedges are each measured from the centre as the common vertex.

The blue wedges measured from the centre of the circle represent area for area the deaths from Preventable or Mitigable Zymotic diseases, the red wedges measured from the centre the deaths from wounds, & the black wedges measured from the centre the deaths from all other causes.

The black line across the red triangle in Nov 1854 marks the boundary

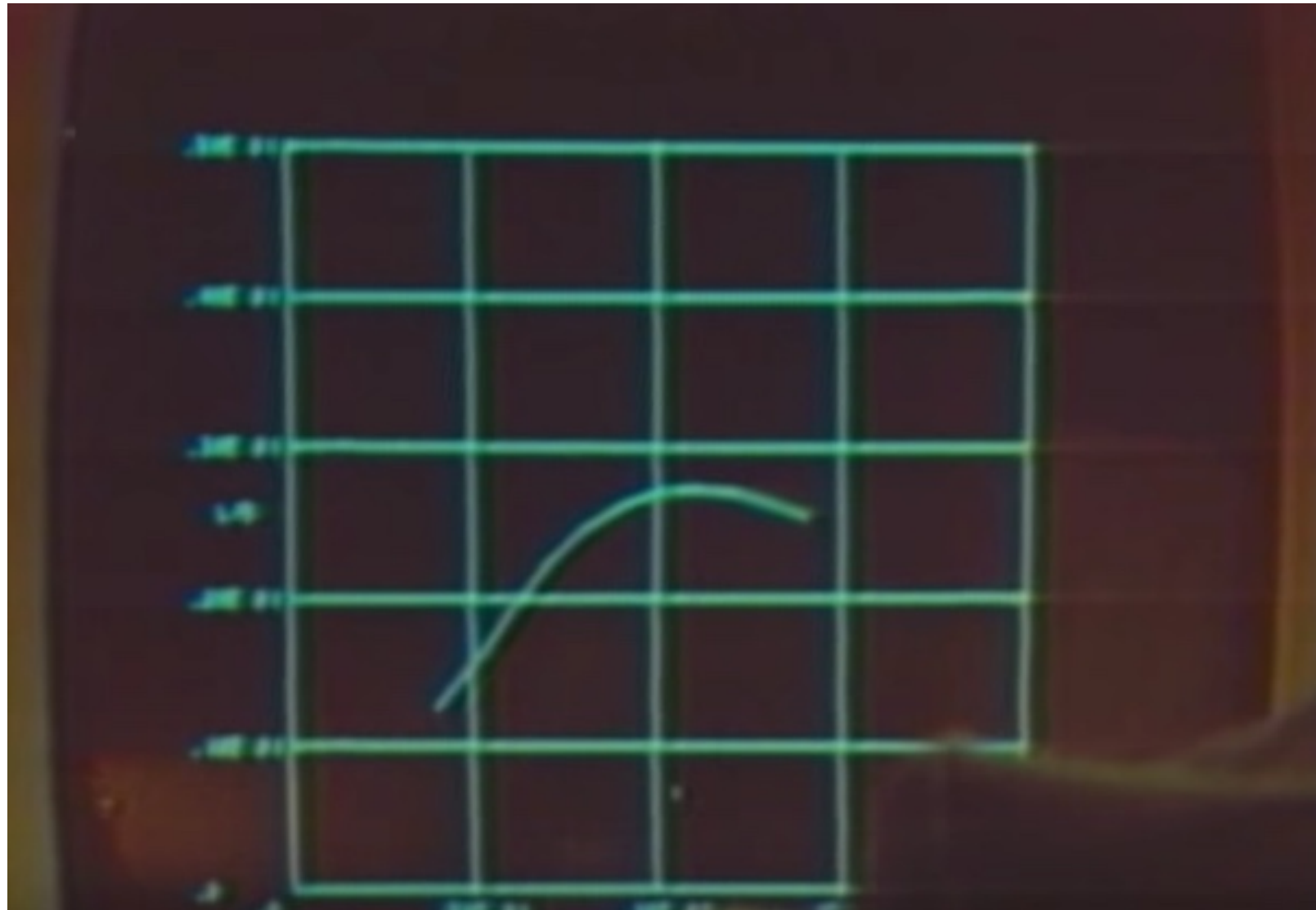
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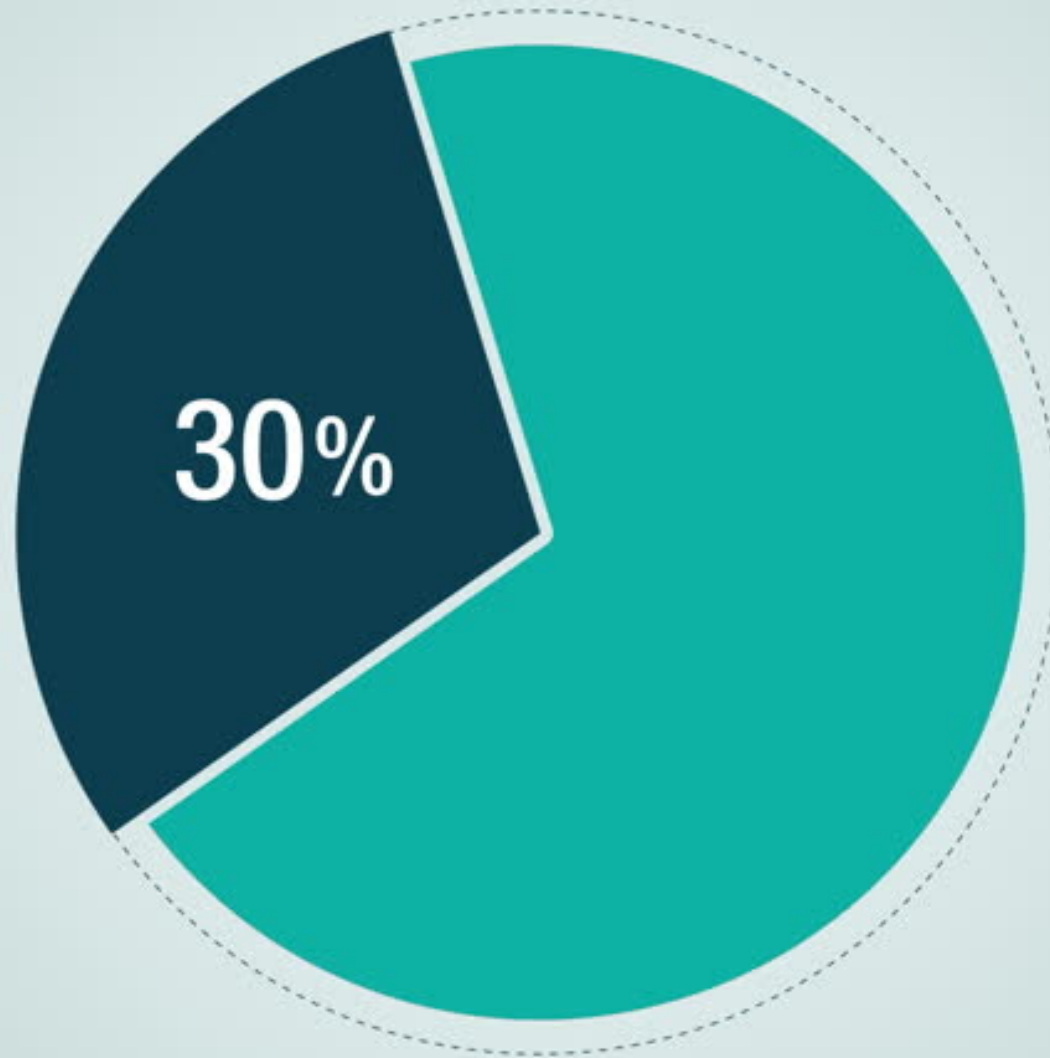
CRASH COURSE IN DATA VISUALIZATION

MATCHING DATA TO VISUALS

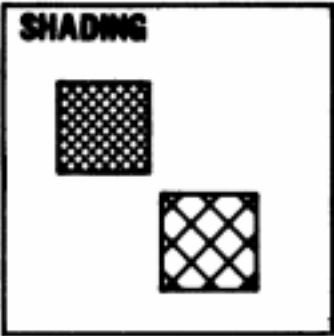
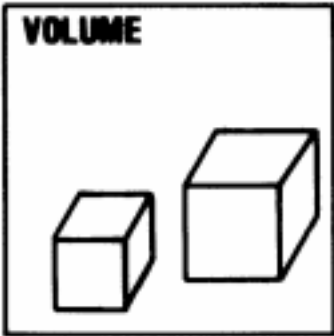
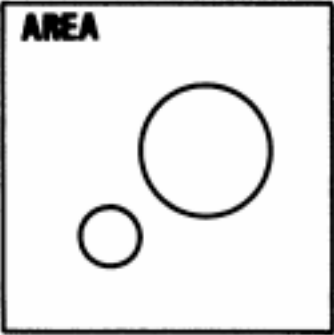
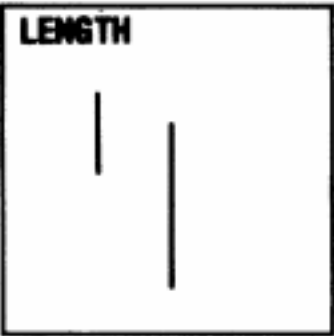
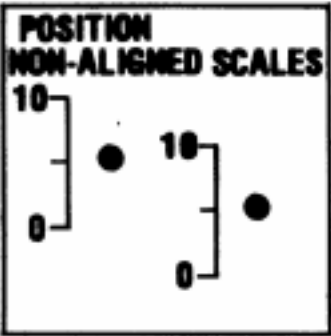
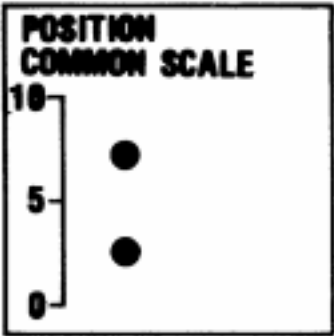
AGENDA

- **When One Number Is The Most Important**
- Comparing Two (Or Two Thousand) Data Points
- It's All Relative: Comparing Relative Data
- Surveys, Networks, and Groups
- Correlation
- Maps

CRASH COURSE IN DATA VISUALIZATION

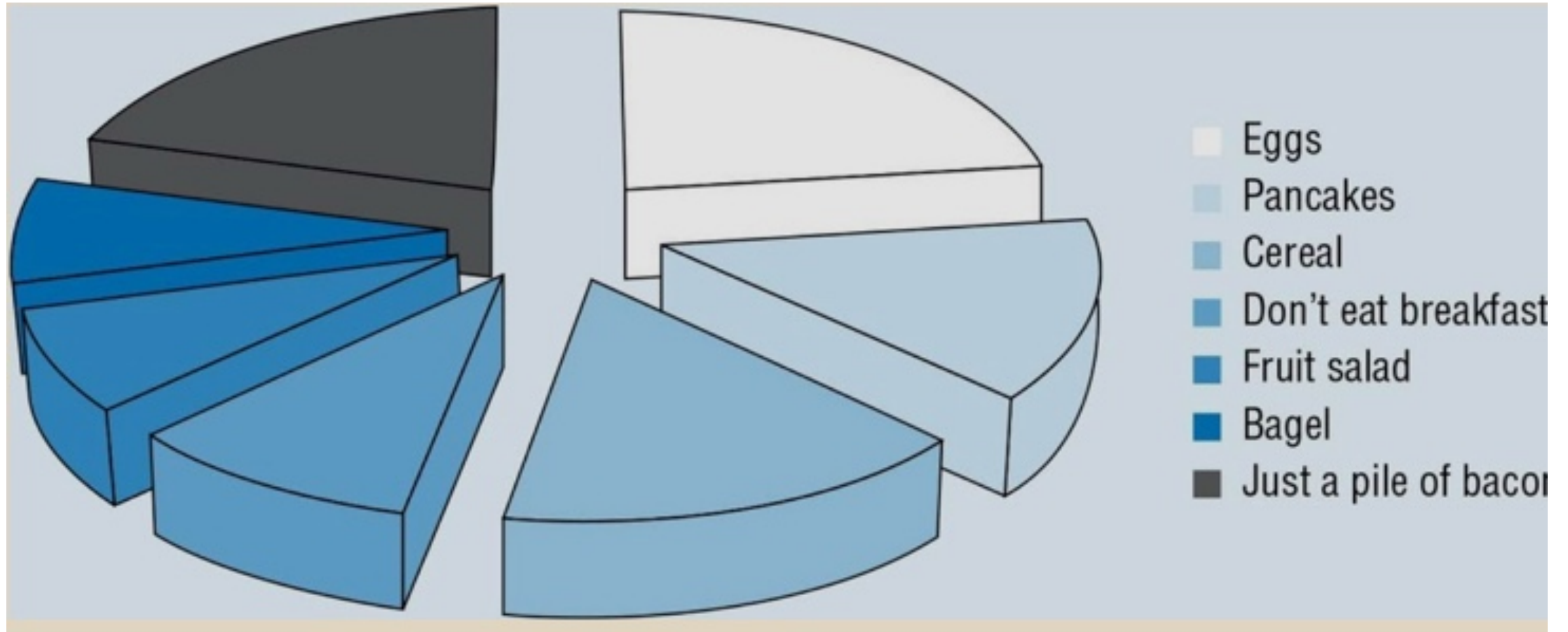


CRASH COURSE IN DATA VISUALIZATION



COLOR SATURATION

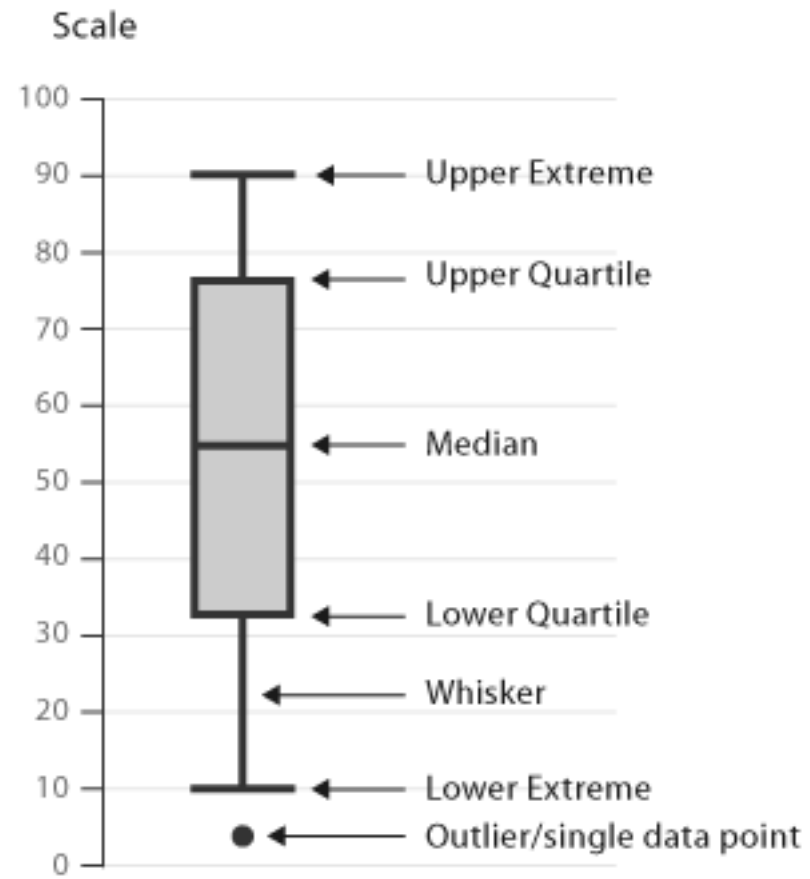
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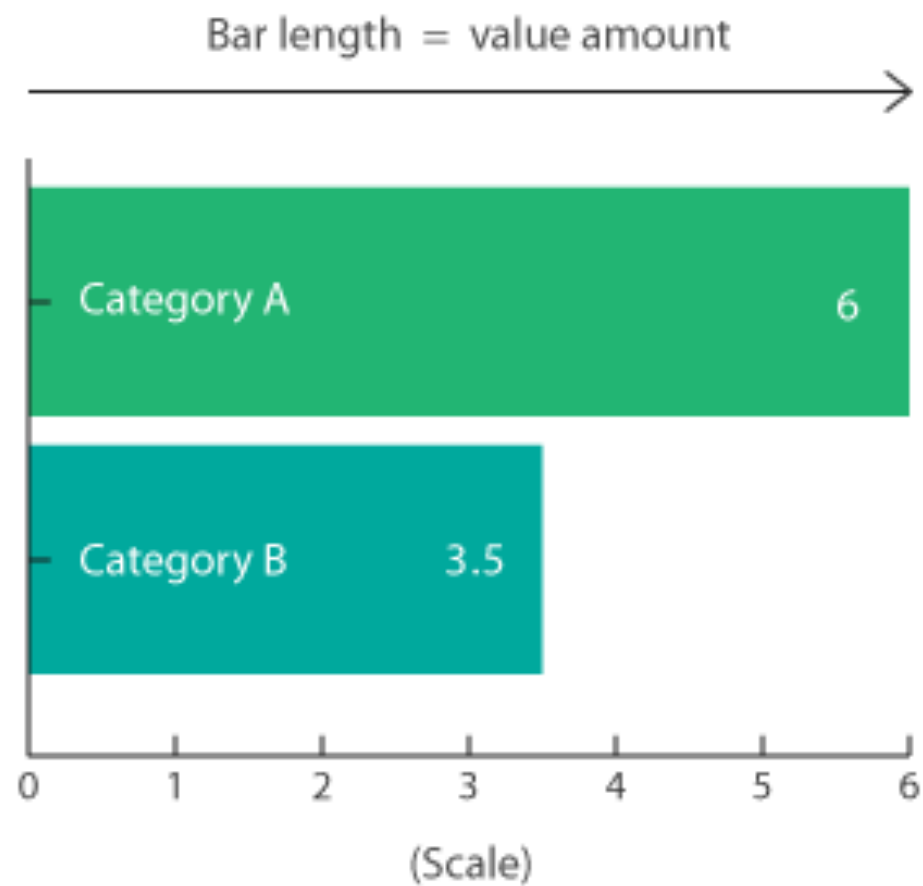
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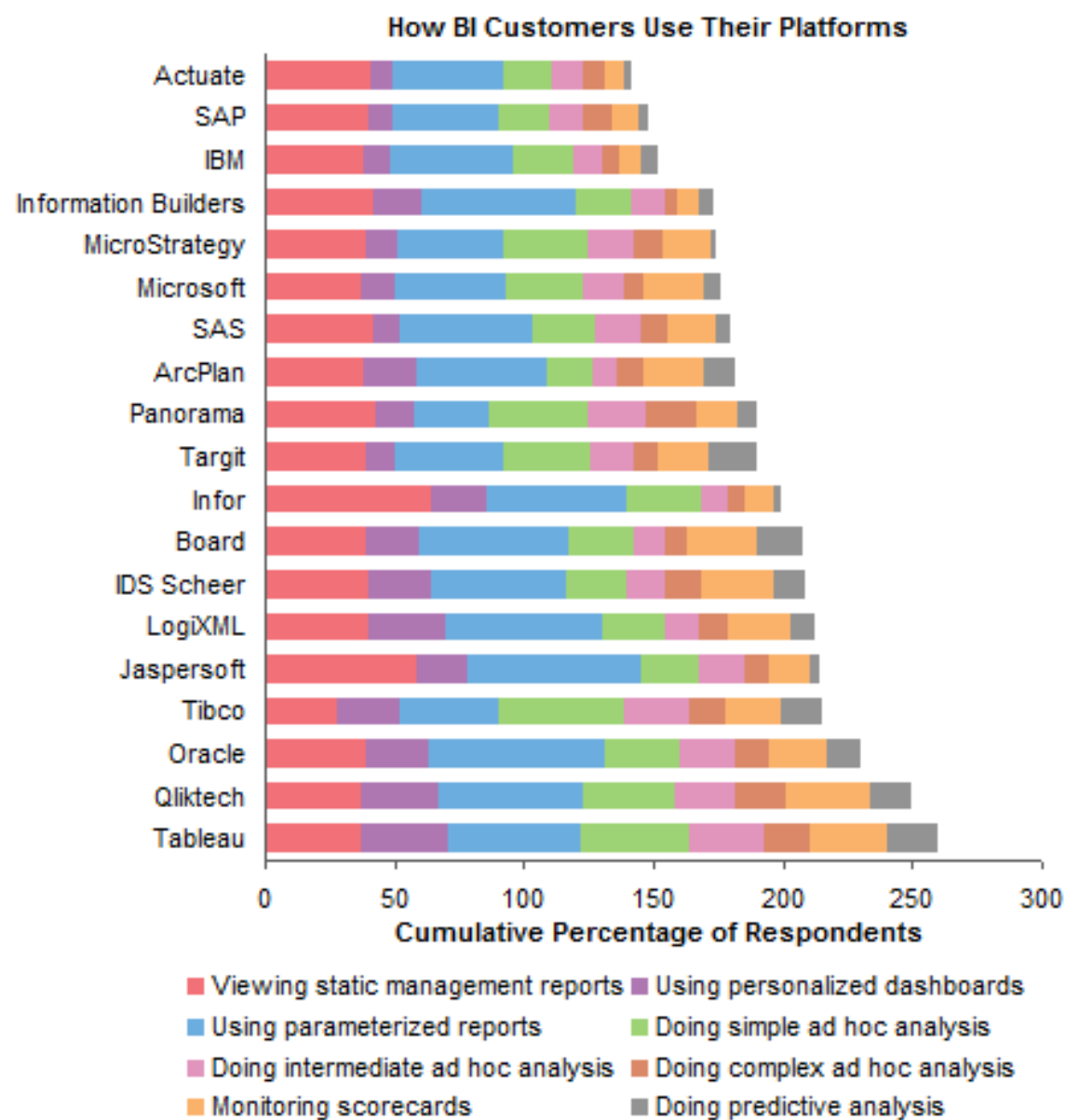
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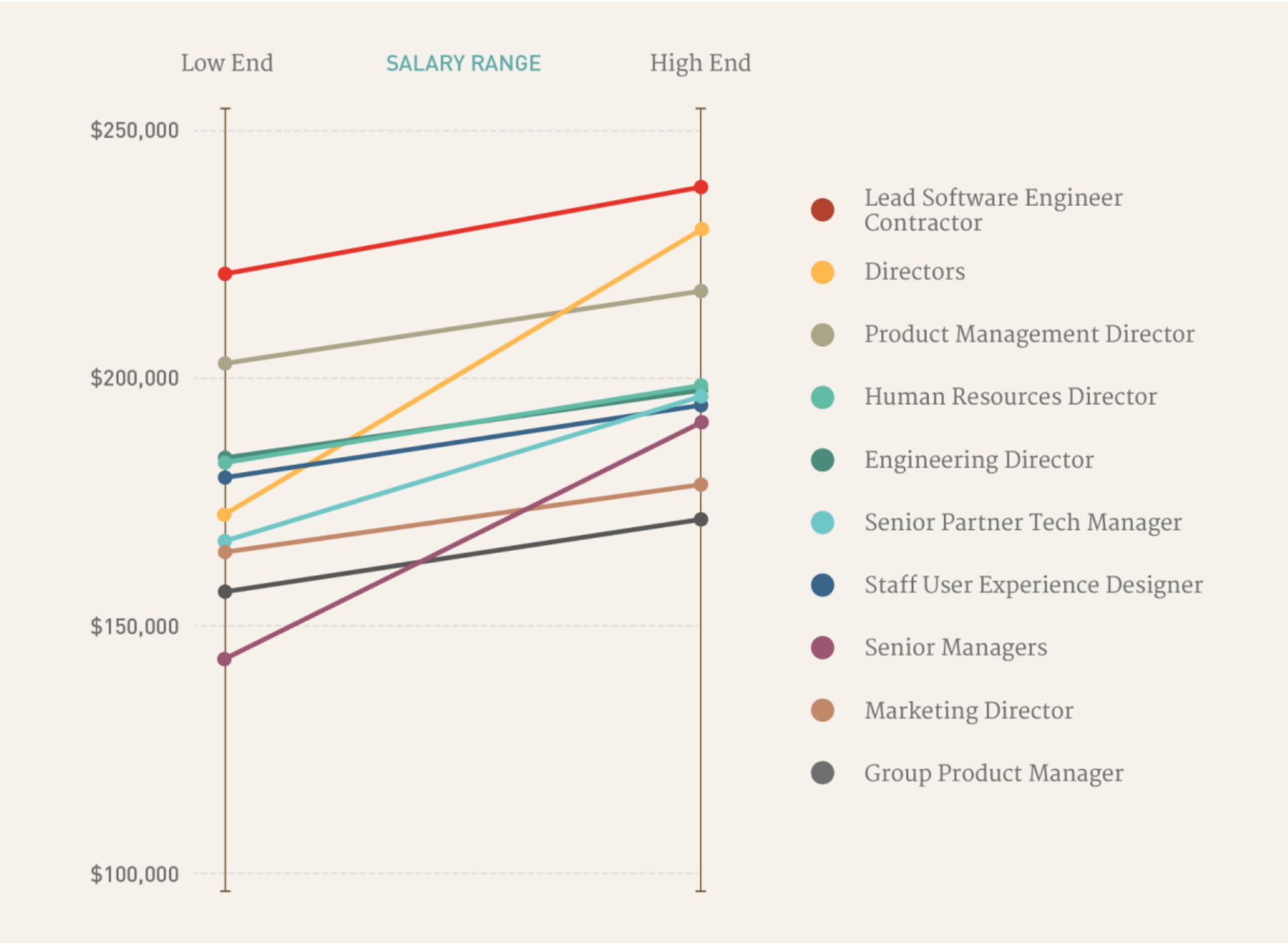
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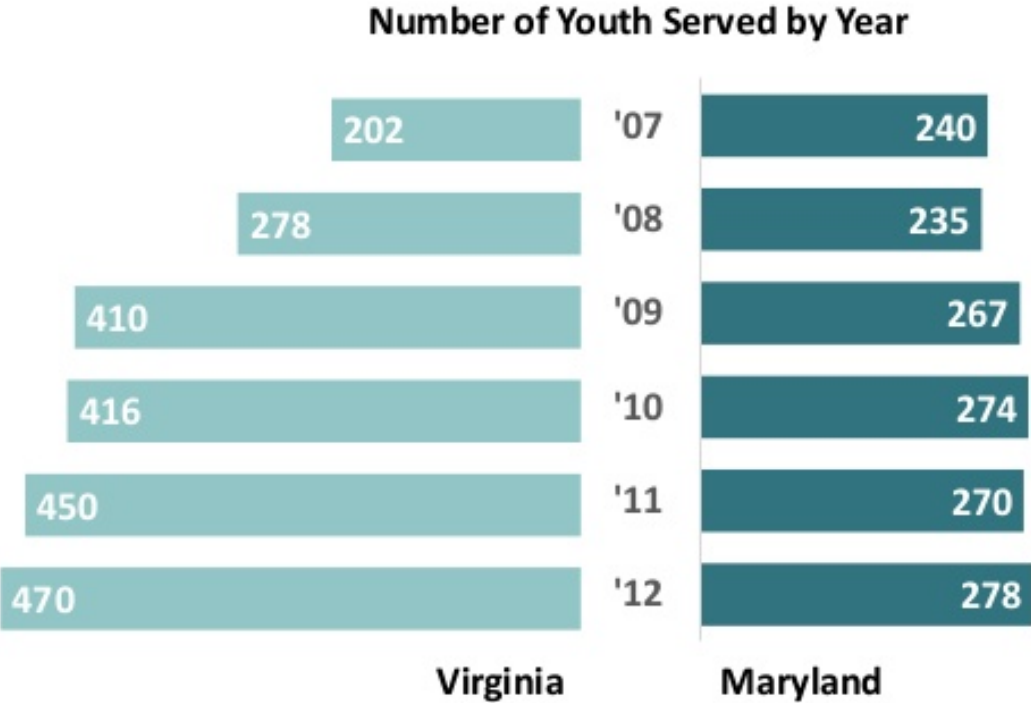
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AB	4.2	4.9	3.5	4.2	4.2
CD	4	4.1	3.3	4	3.8
EF	3.2	2	4.2	2	2.8
GH	3.1	2.5	2.9	3.1	2.8
IJ	1.5	1.9	2.2	1.5	1.9

CRASH COURSE IN DATA VISUALIZATION

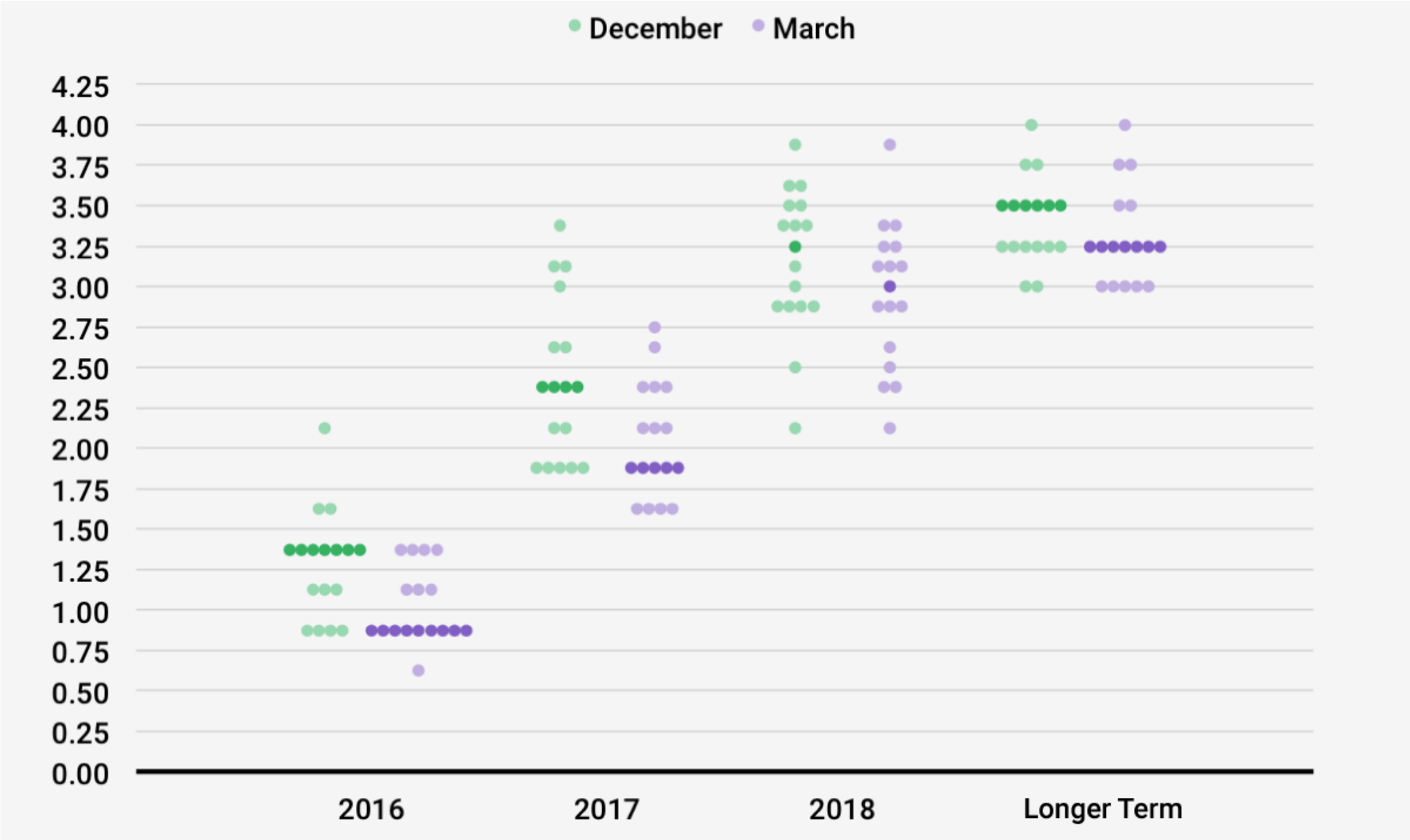


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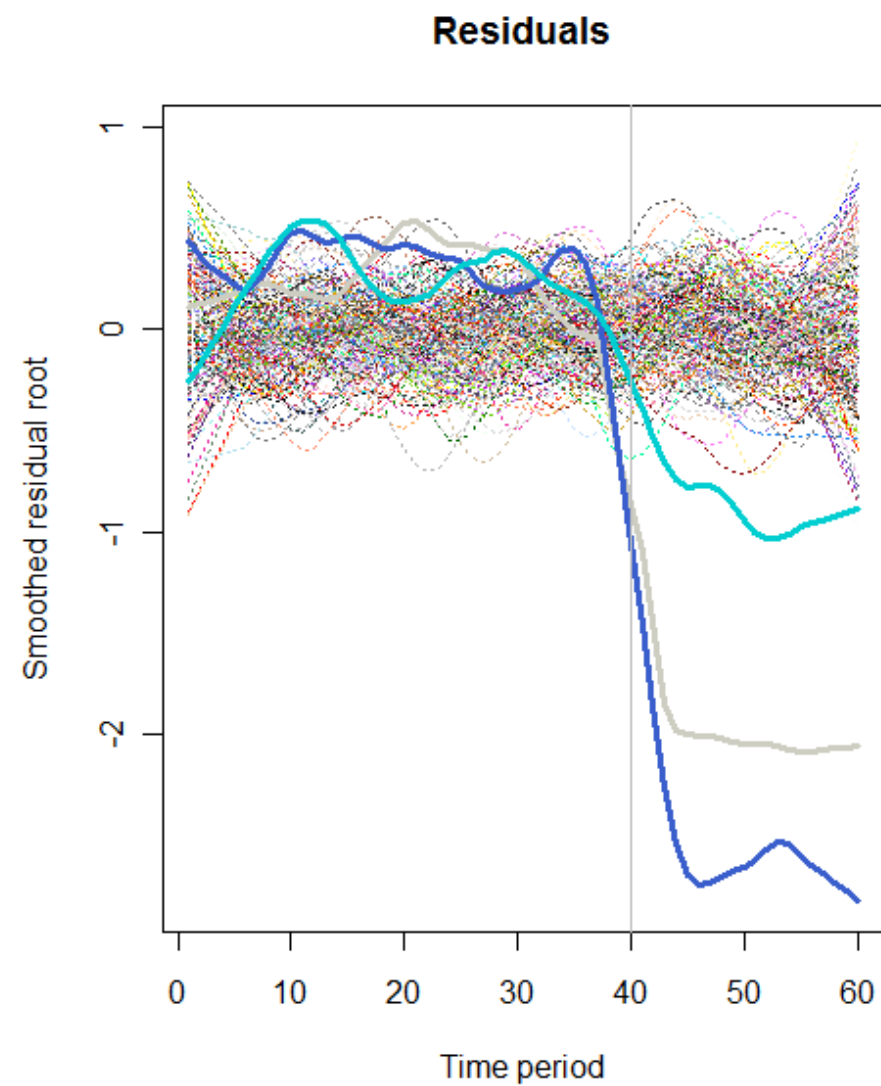
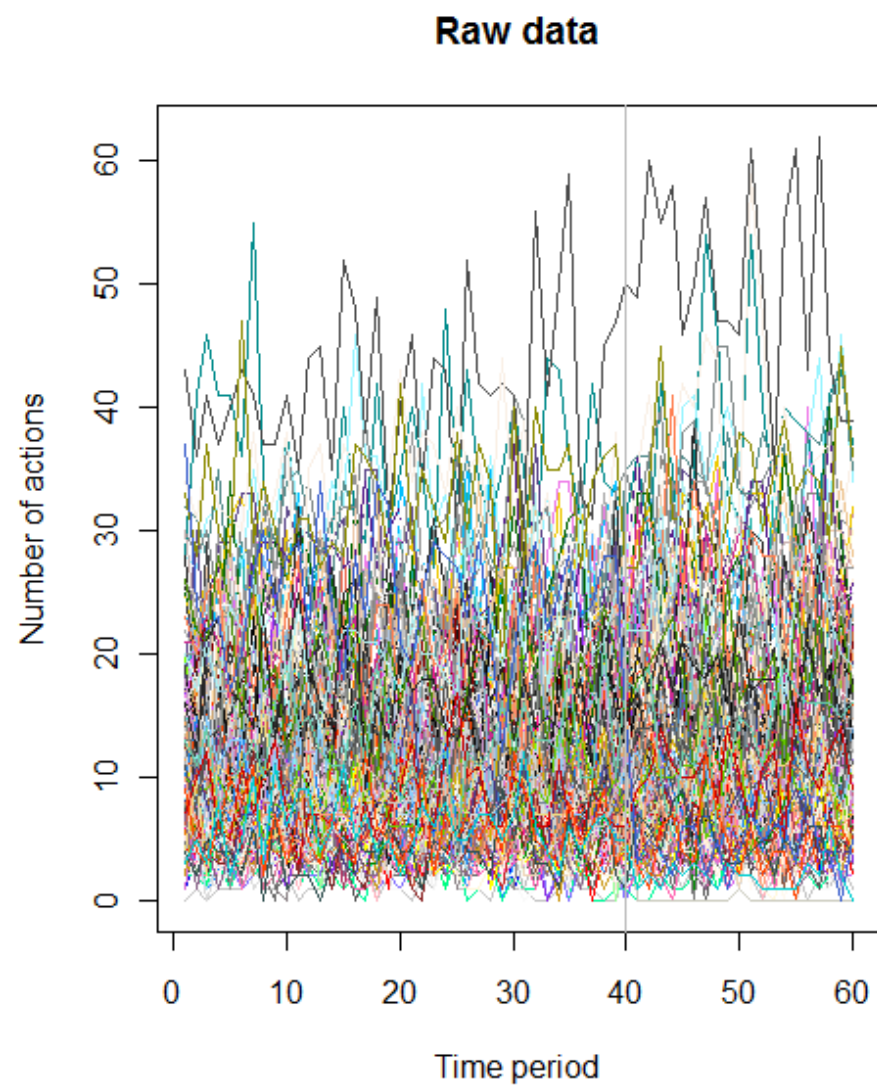
Back to Back Bar Chart



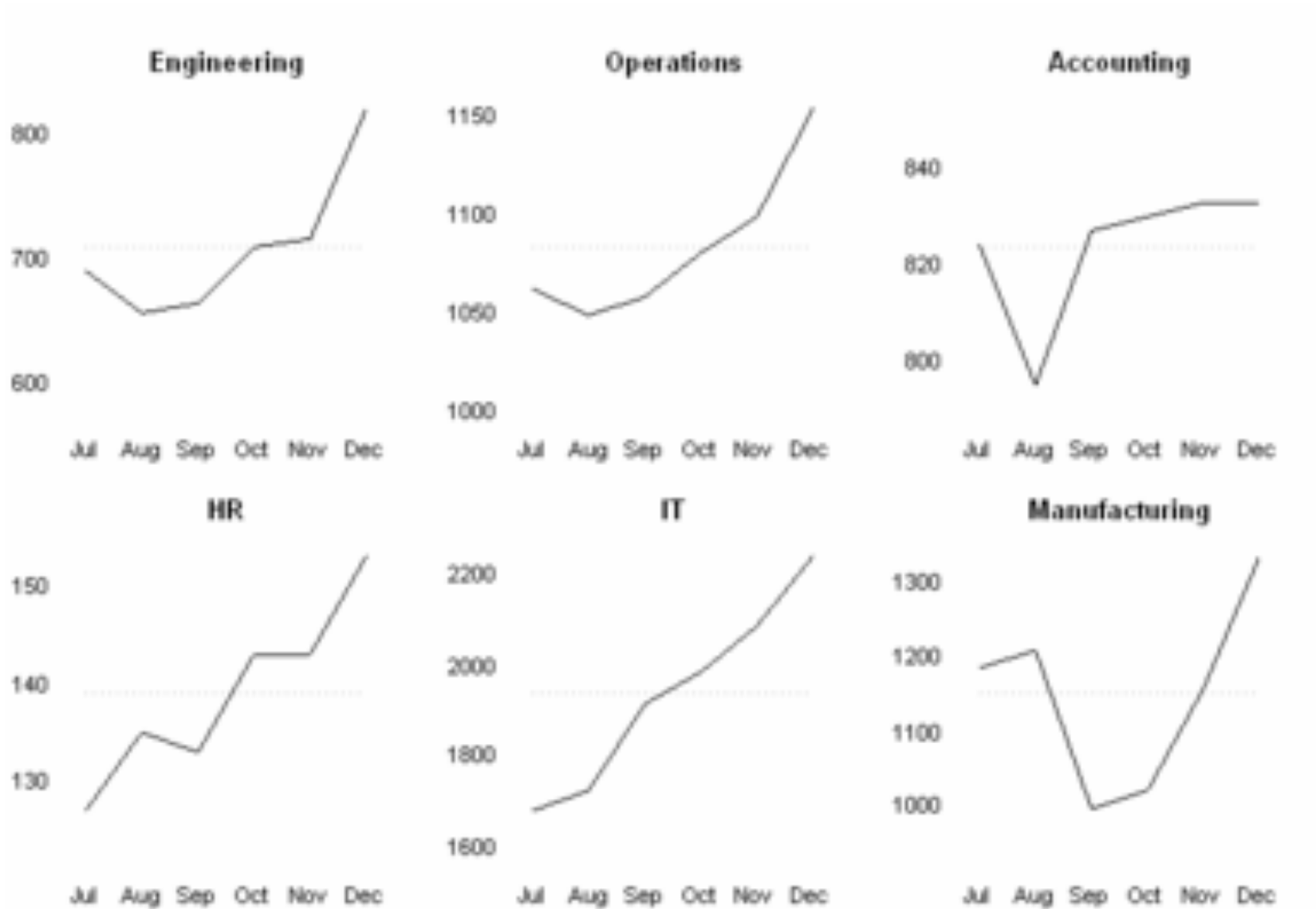
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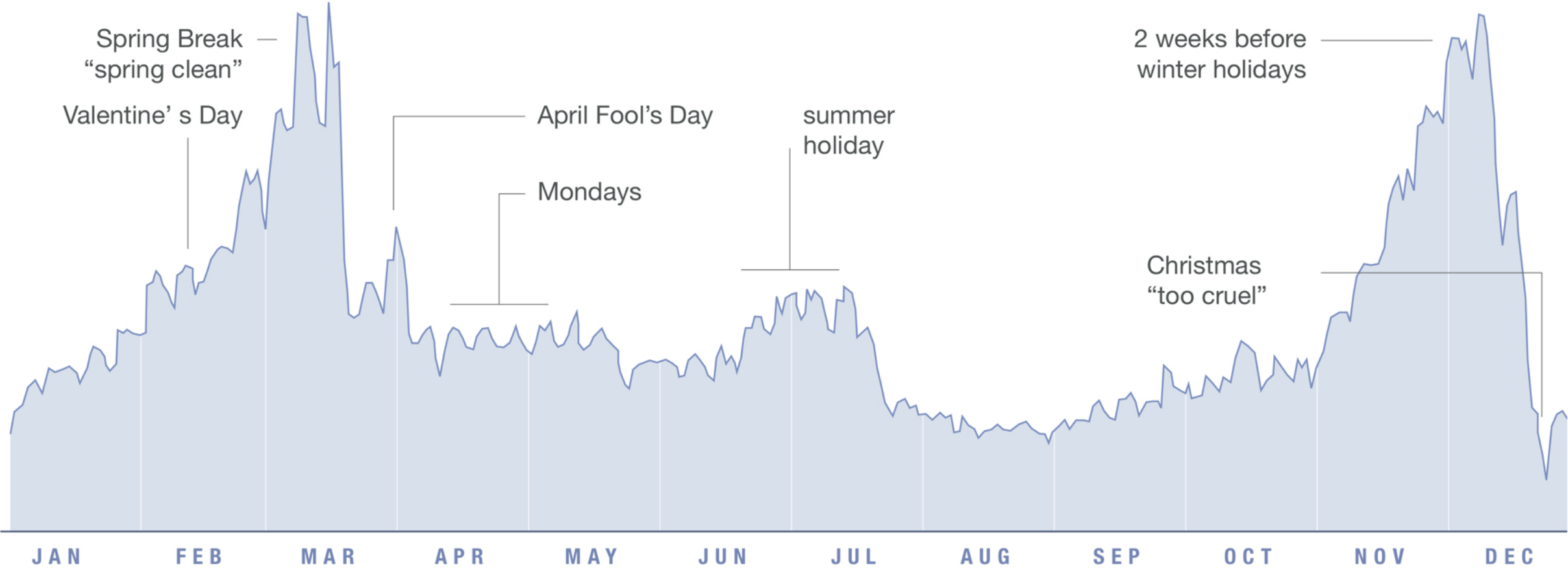
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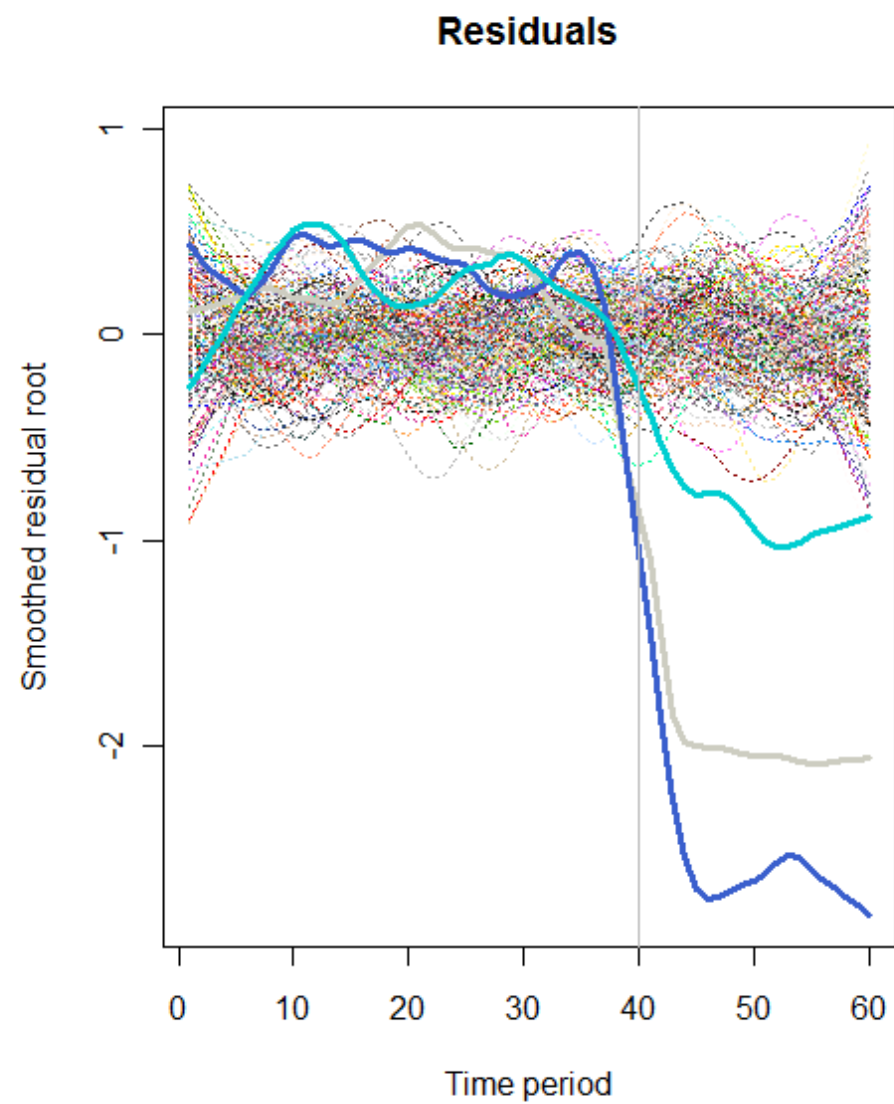
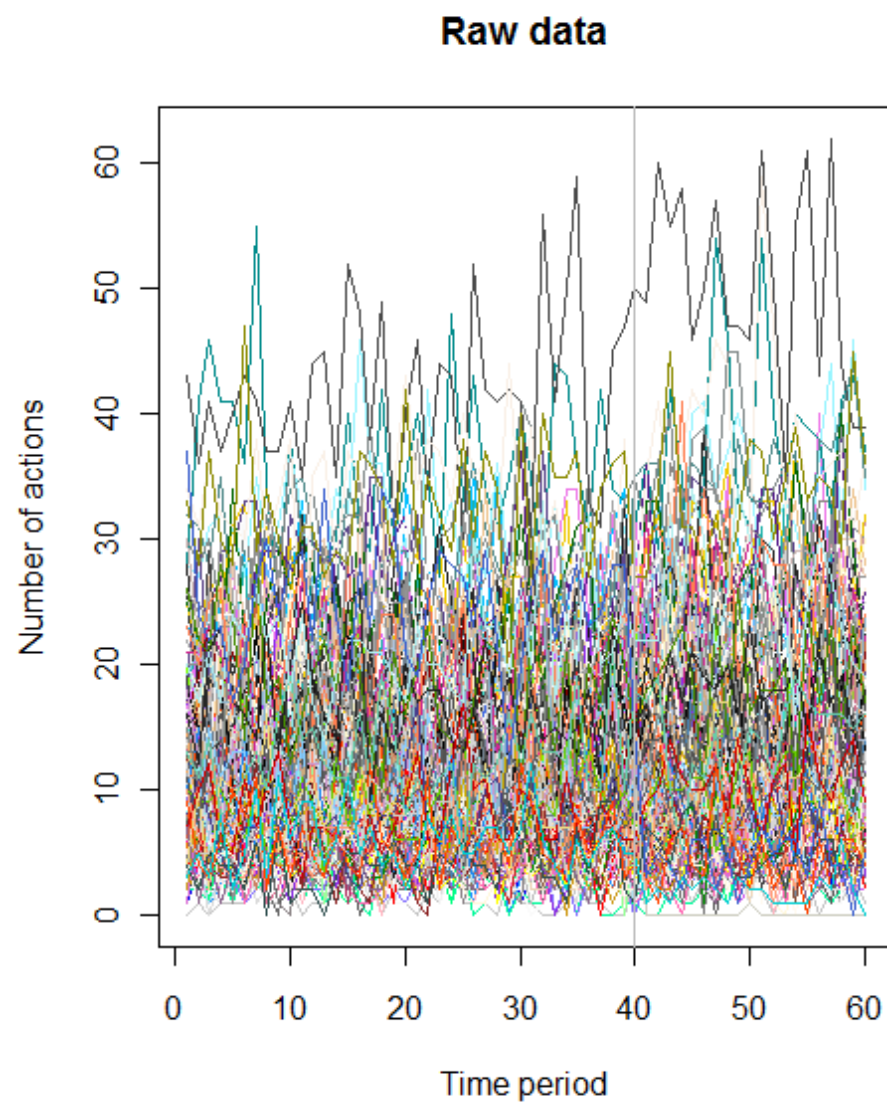
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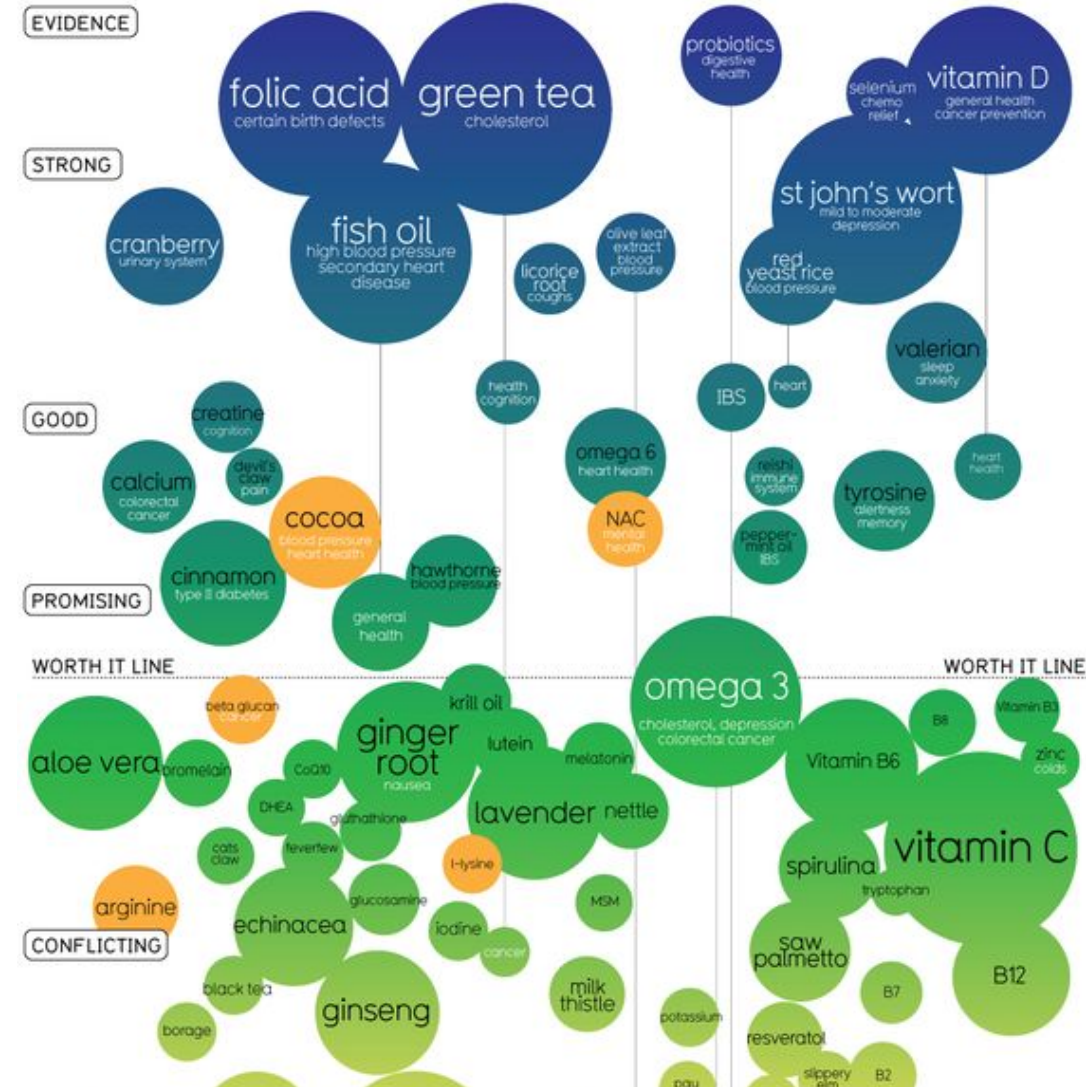
CRASH COURSE IN DATA VISUALIZATION

Stock	Latest Week Volume	Prior Week Volume	Change	% Change	
Amazon	37,327,292	12,731,774	24,595,518	193.2%	
eBay	80,979,296	138,645,908	(57,666,612)	(41.6%)	
Facebook	458,966,258	213,771,768	245,194,490	114.7%	
Google	19,703,243	9,432,935	10,270,308	108.9%	
Netflix	21,059,698	28,806,420	(7,746,722)	(26.9%)	
QlikTech	5,587,004	4,780,692	806,312	16.9%	
Tableau	3,073,042	3,001,208	71,834	2.4%	
Twitter	70,921,395	49,061,016	21,860,379	44.6%	
Yahoo	197,332,255	76,277,172	121,055,083	158.7%	

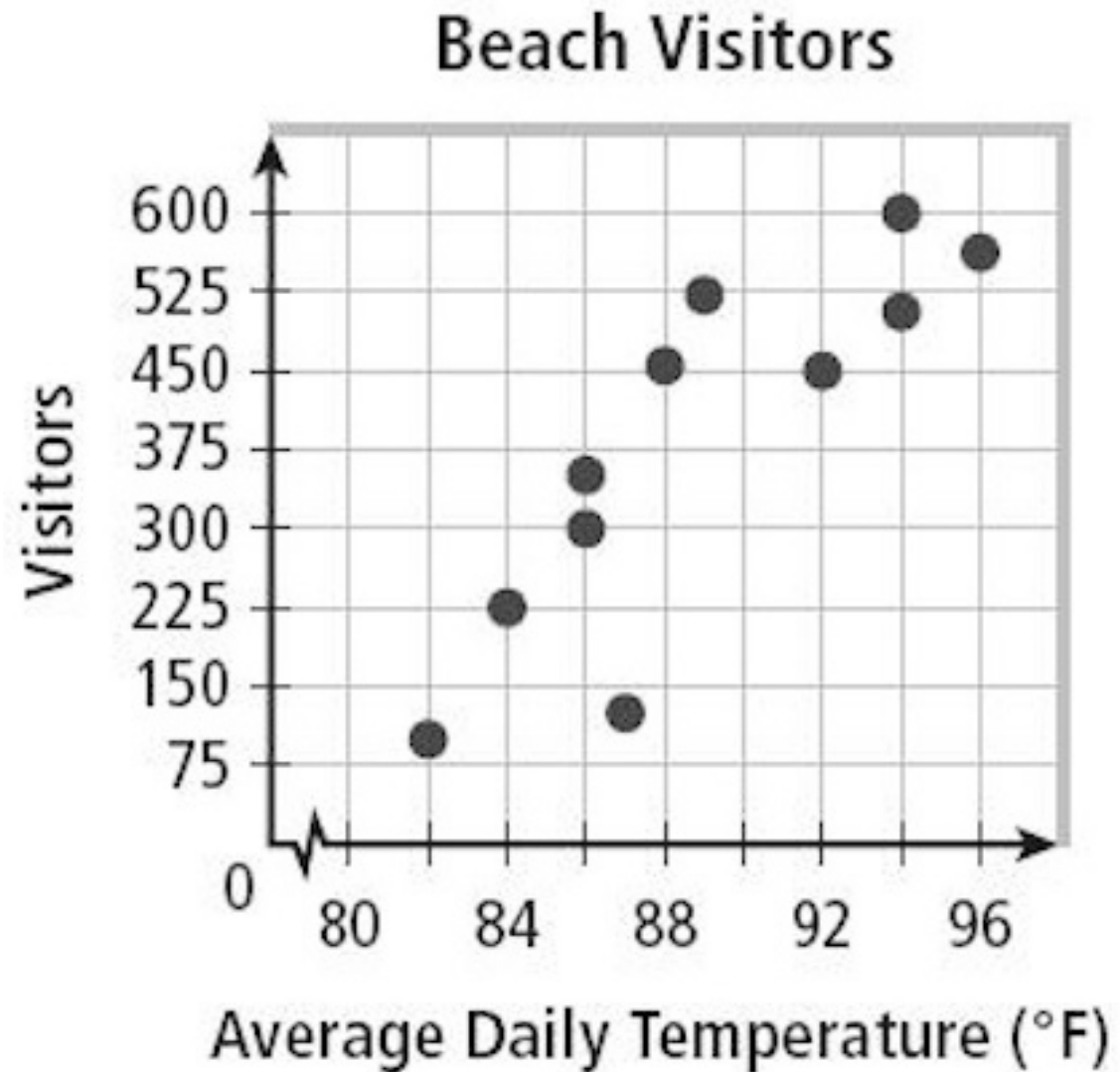
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Snake Oil?

Scientific evidence for popular dietary supplements
Showing tangible health benefits when taken orally by an adult with a healthy diet



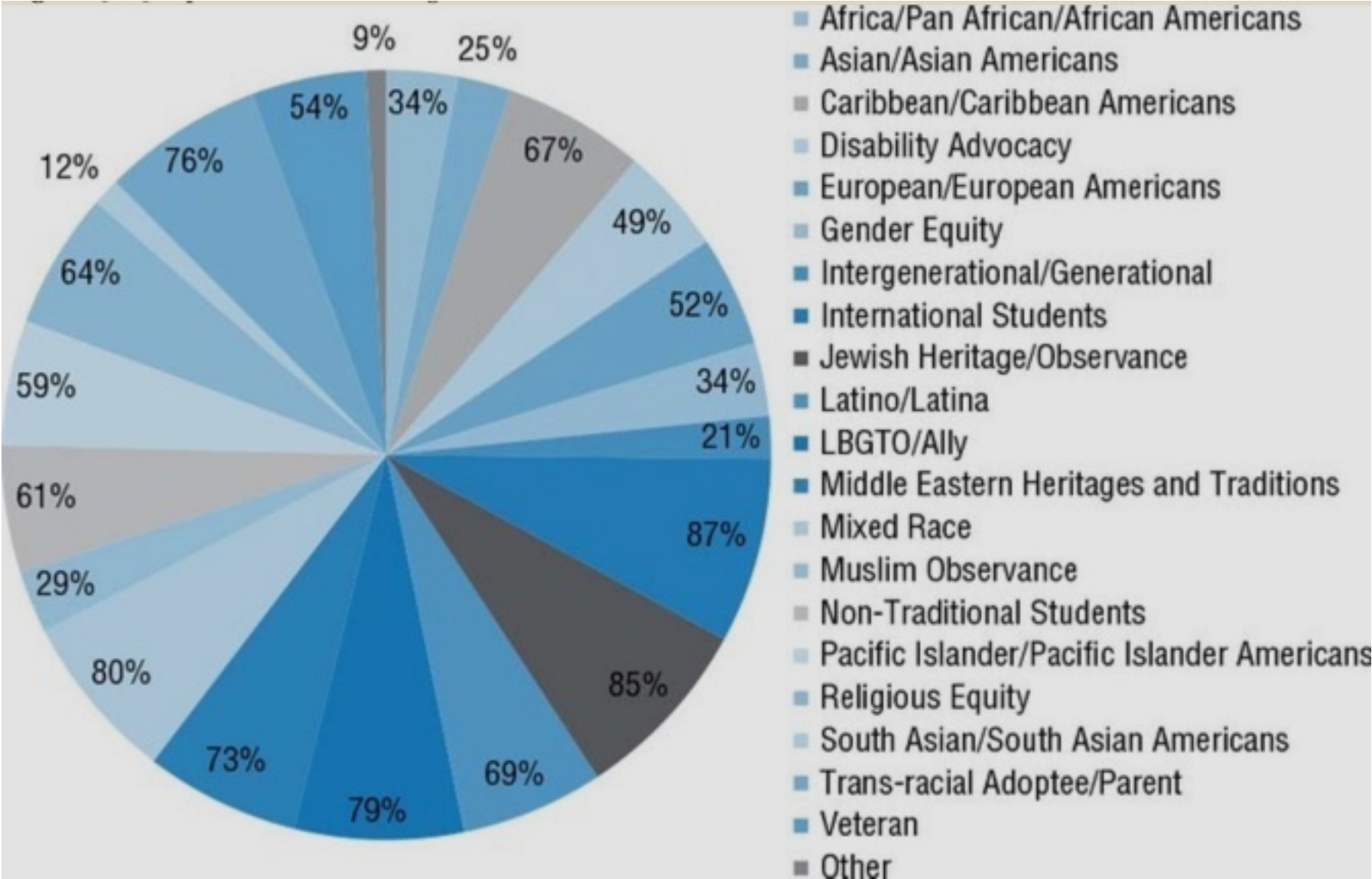
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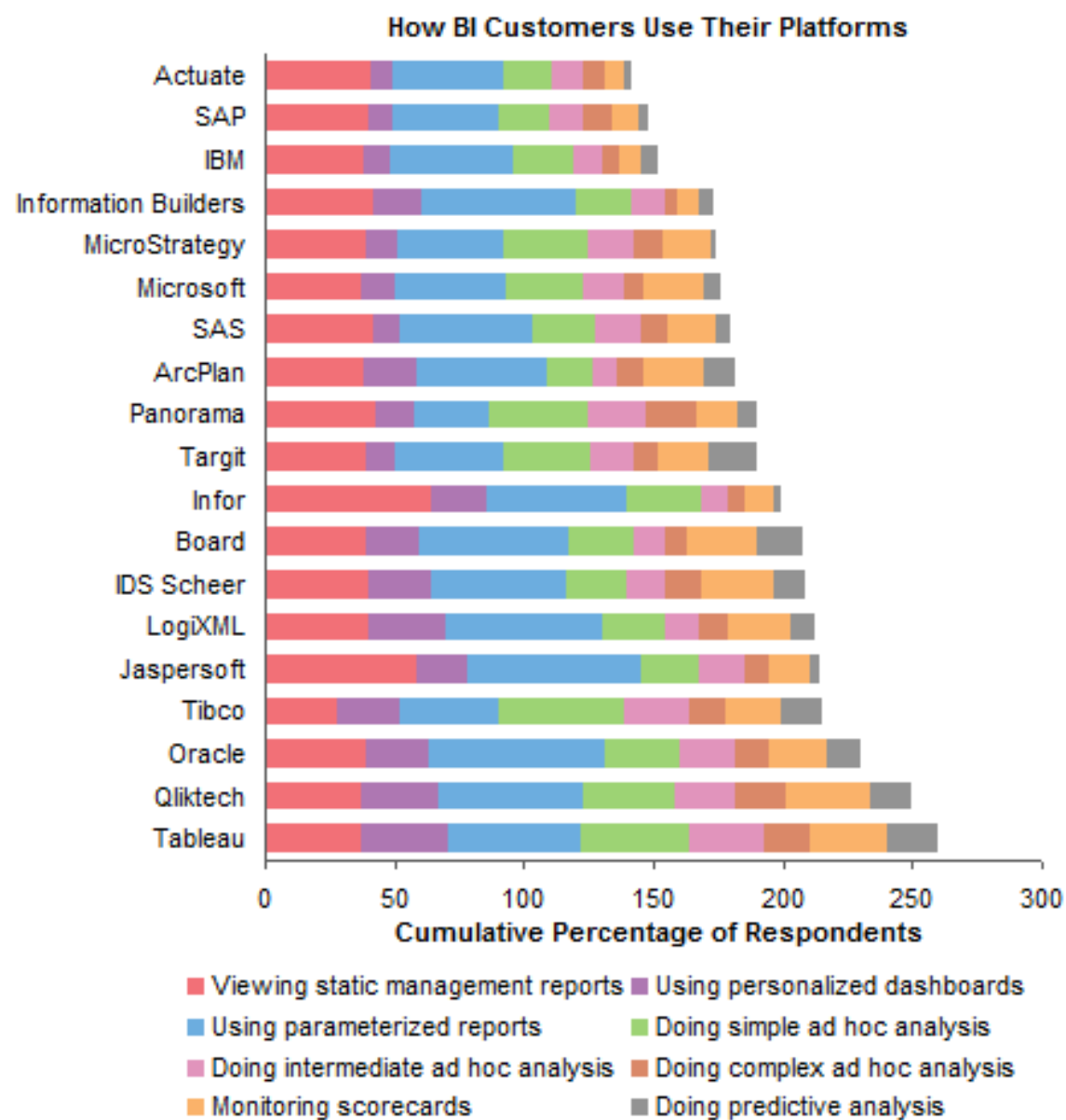
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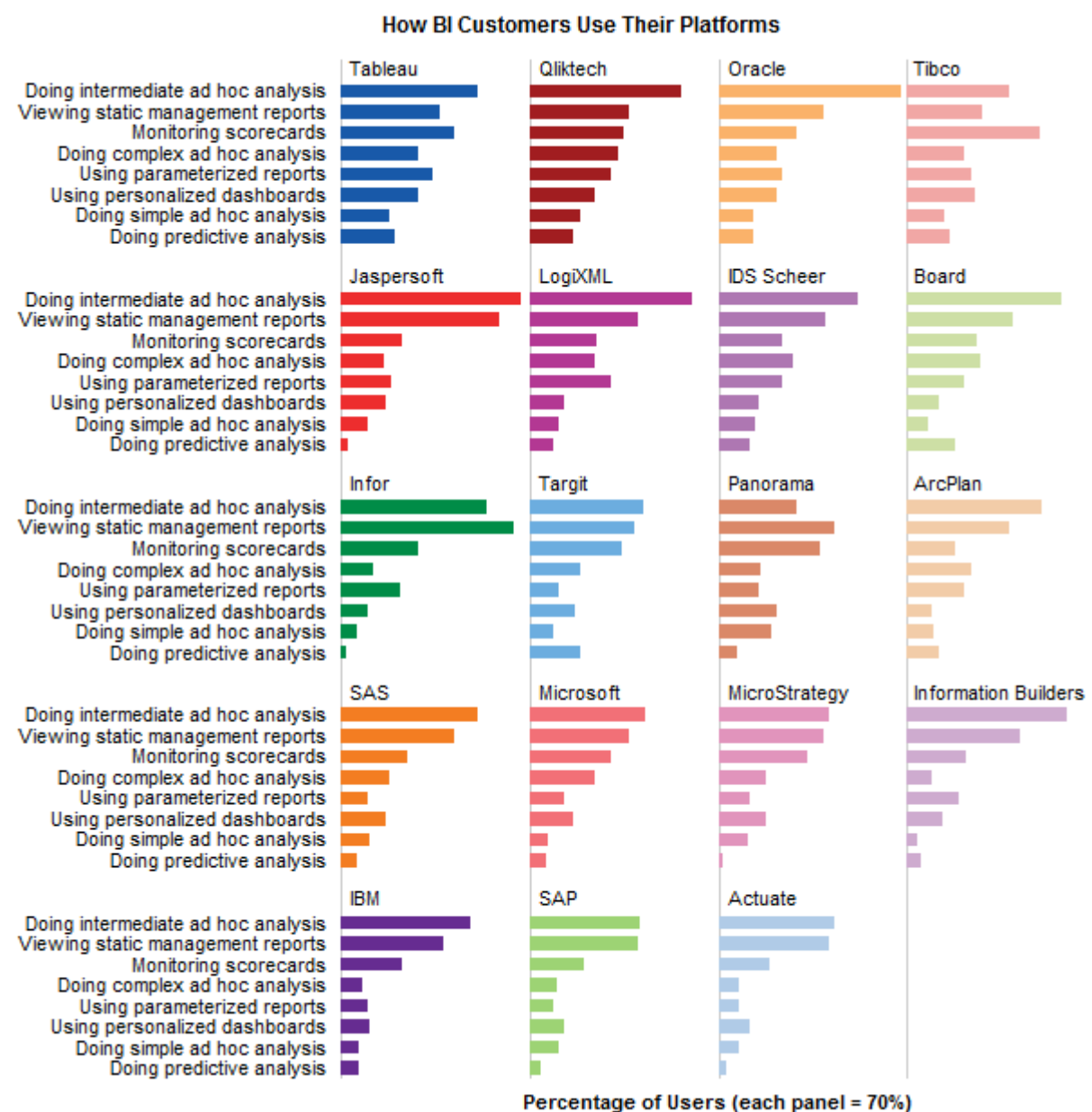
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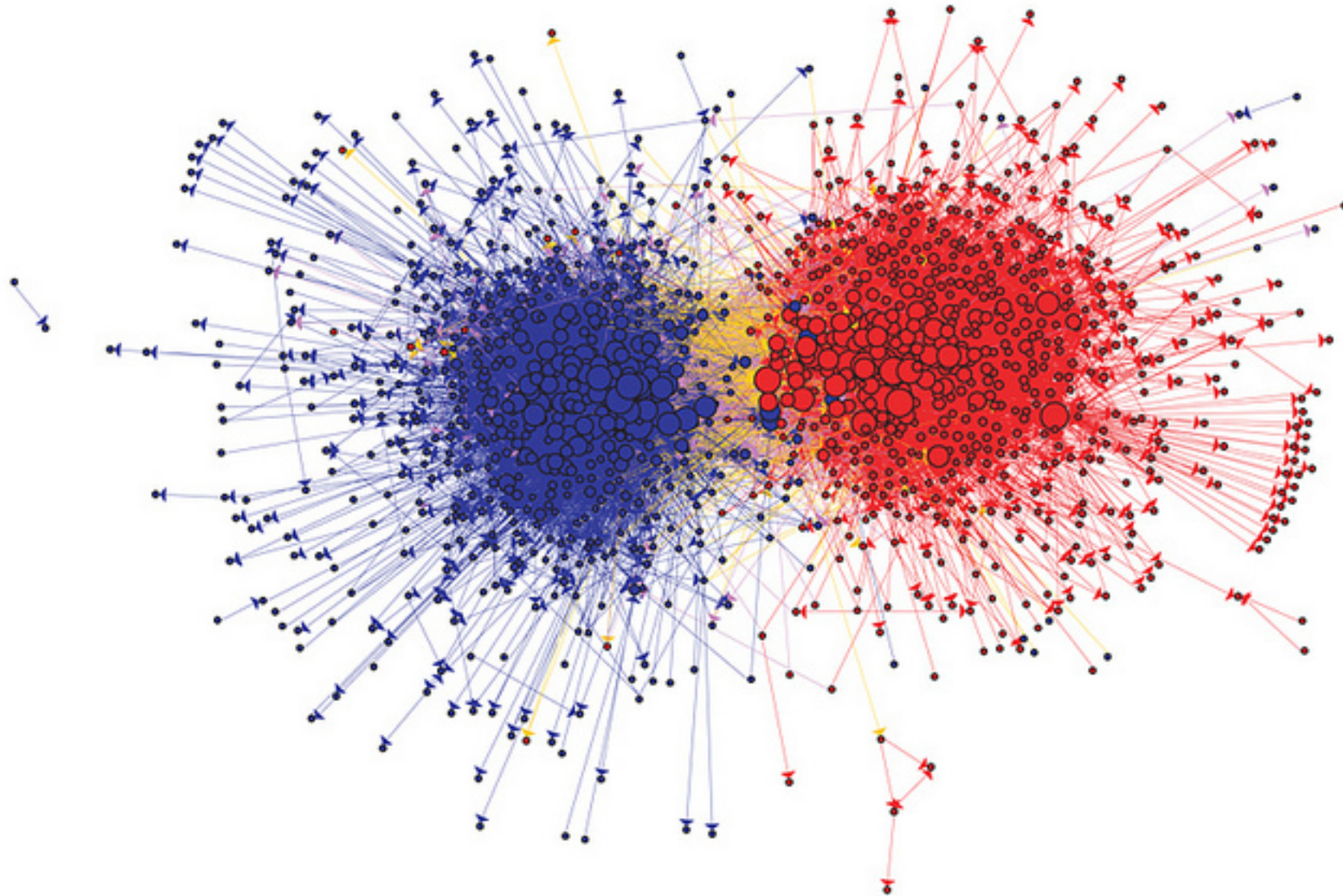
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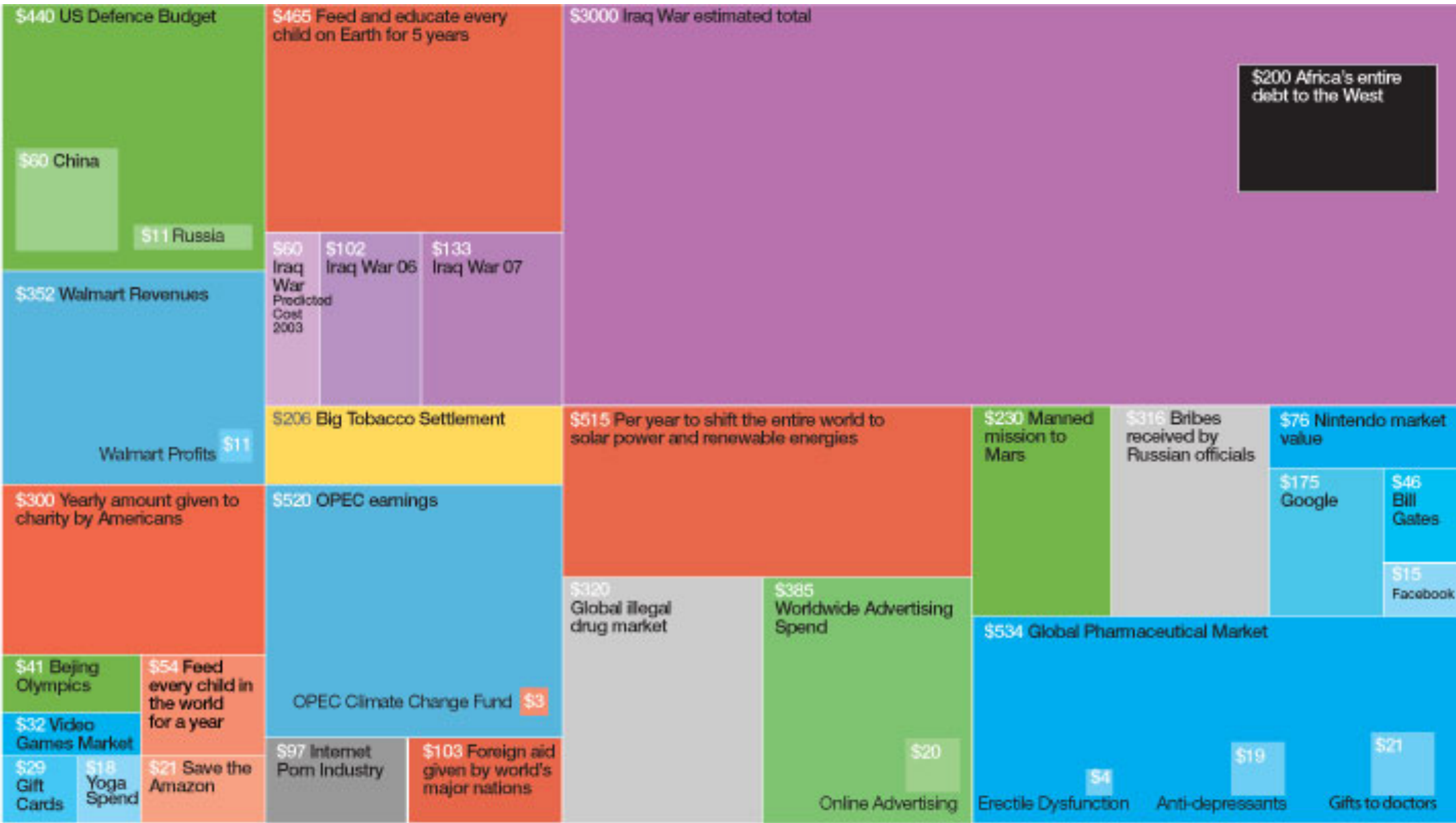


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The Billion Dollar O-Gram

David McCandless

- Spending
- Earning
- Donating
- Fighting
- Crying
- Illing



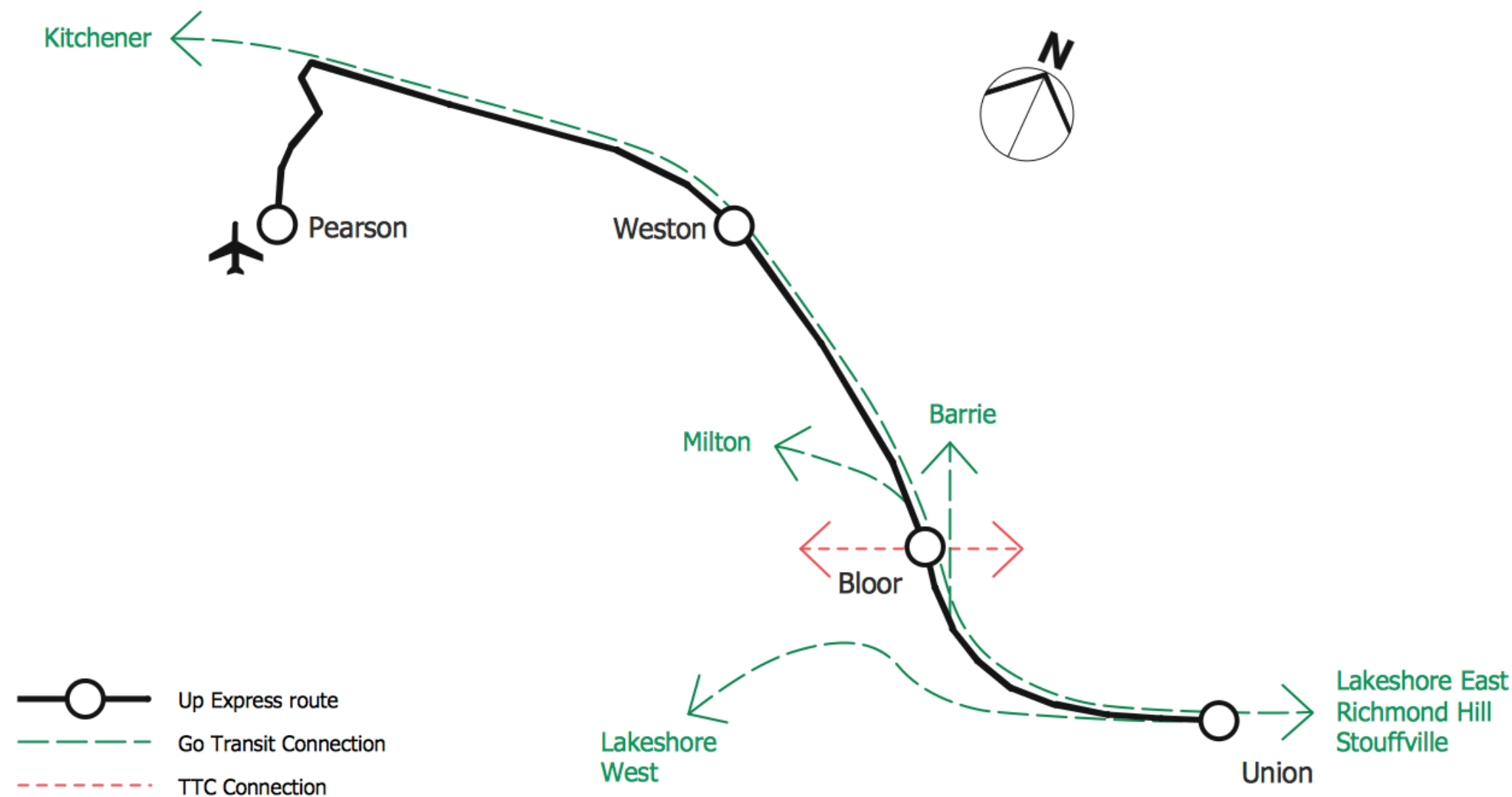
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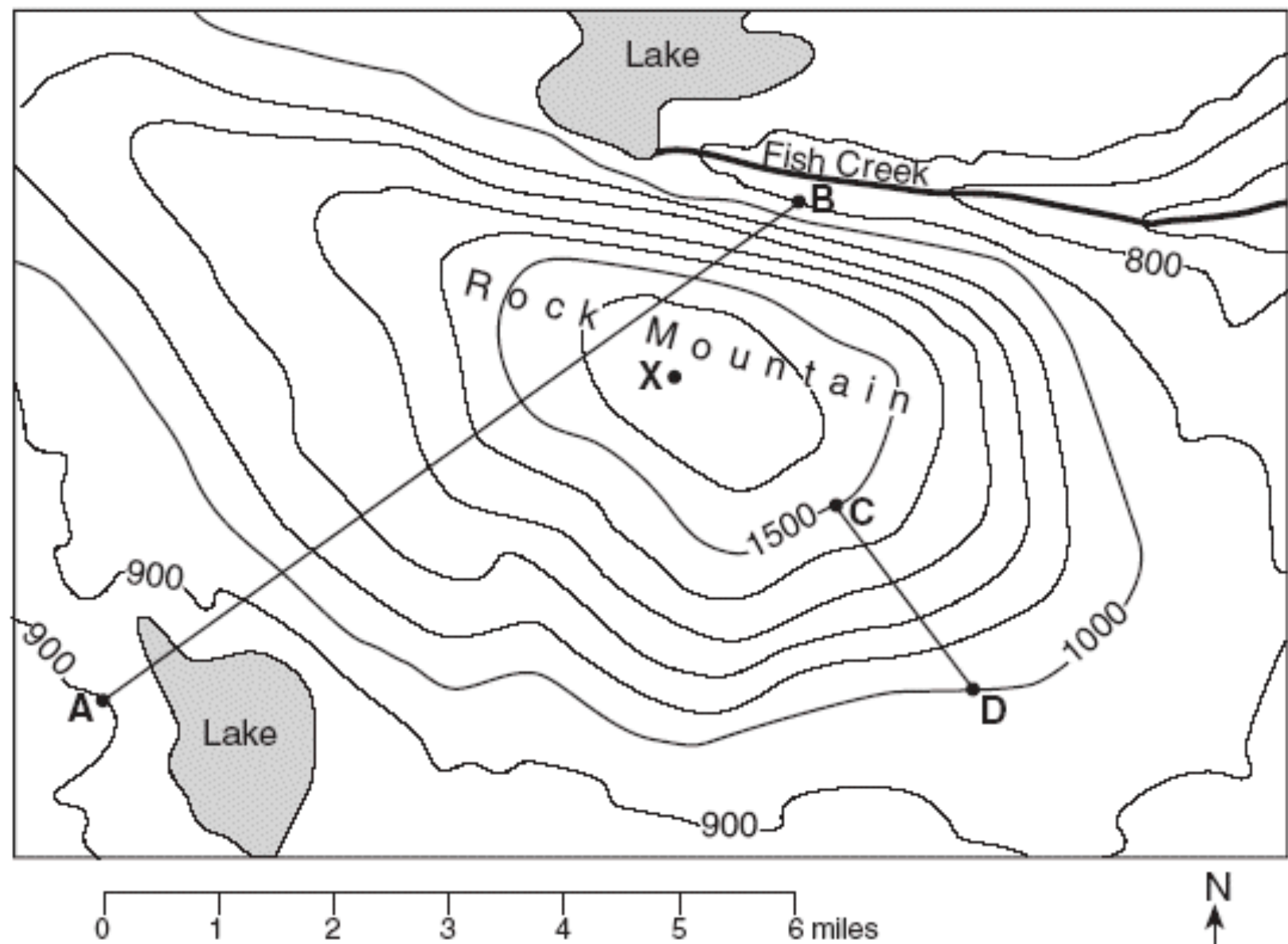
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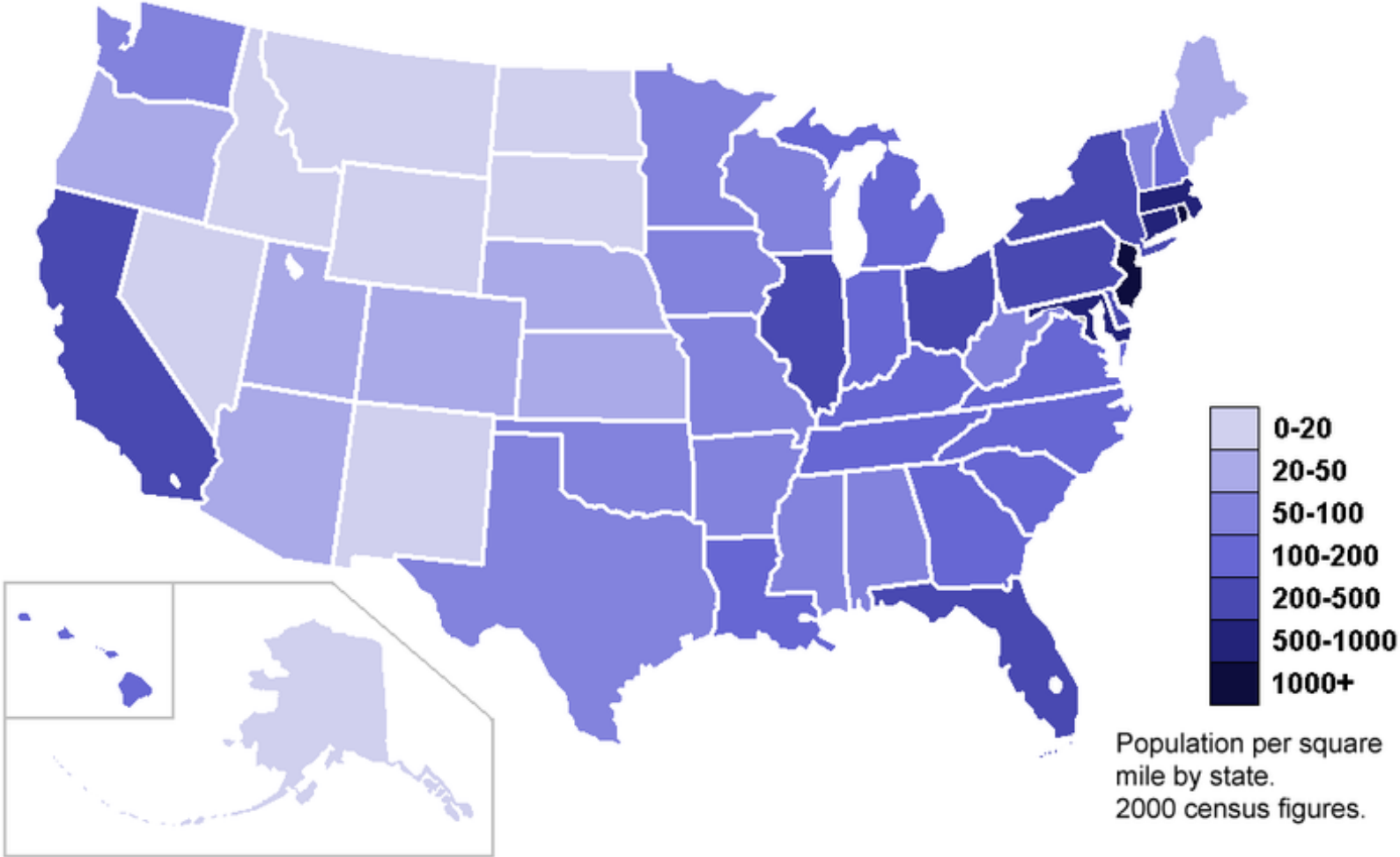
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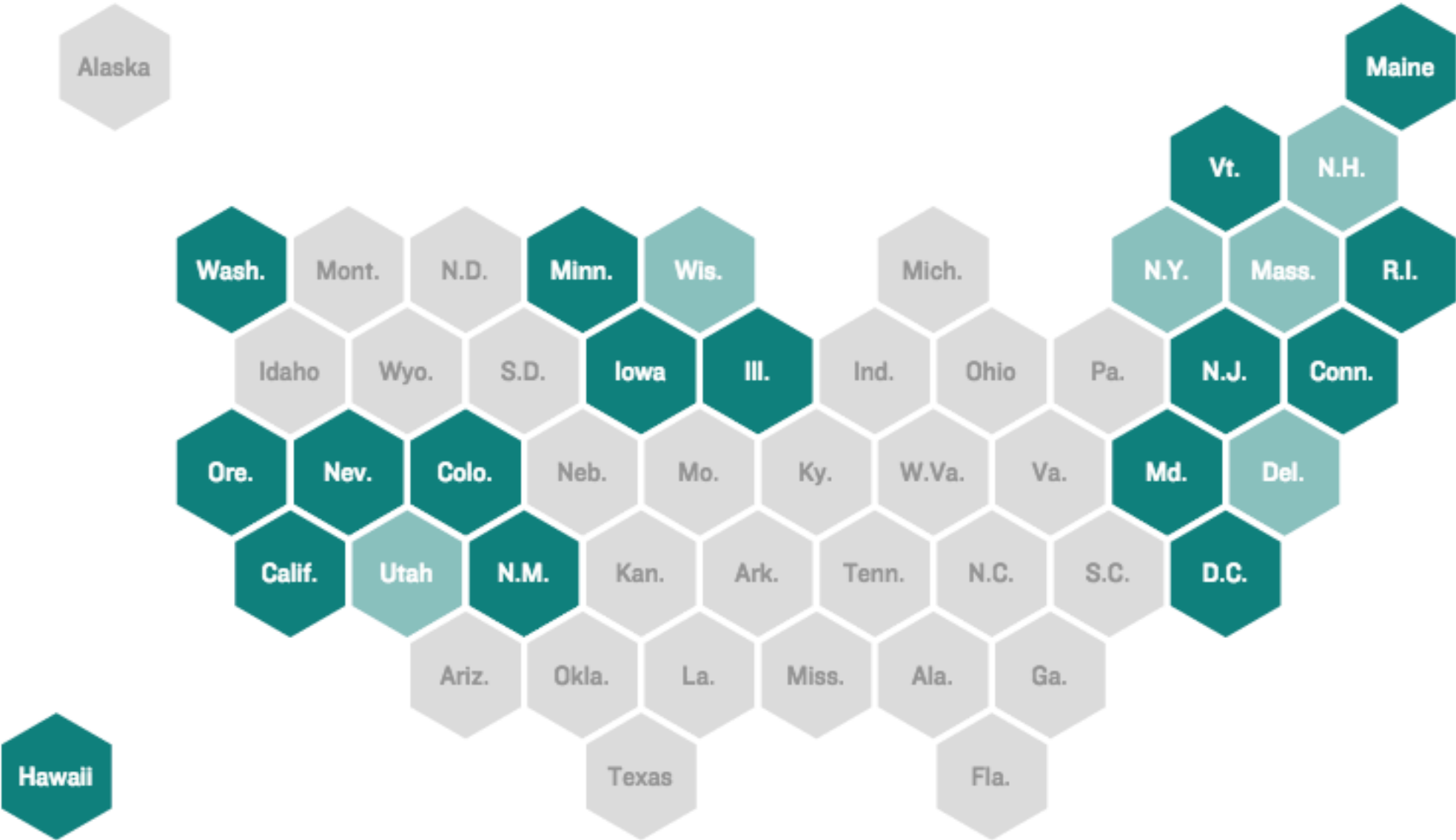
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WHEN CHARTS GO HORRIBLY, HORRIBLY WRONG

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HOW 2012 STACKS UP

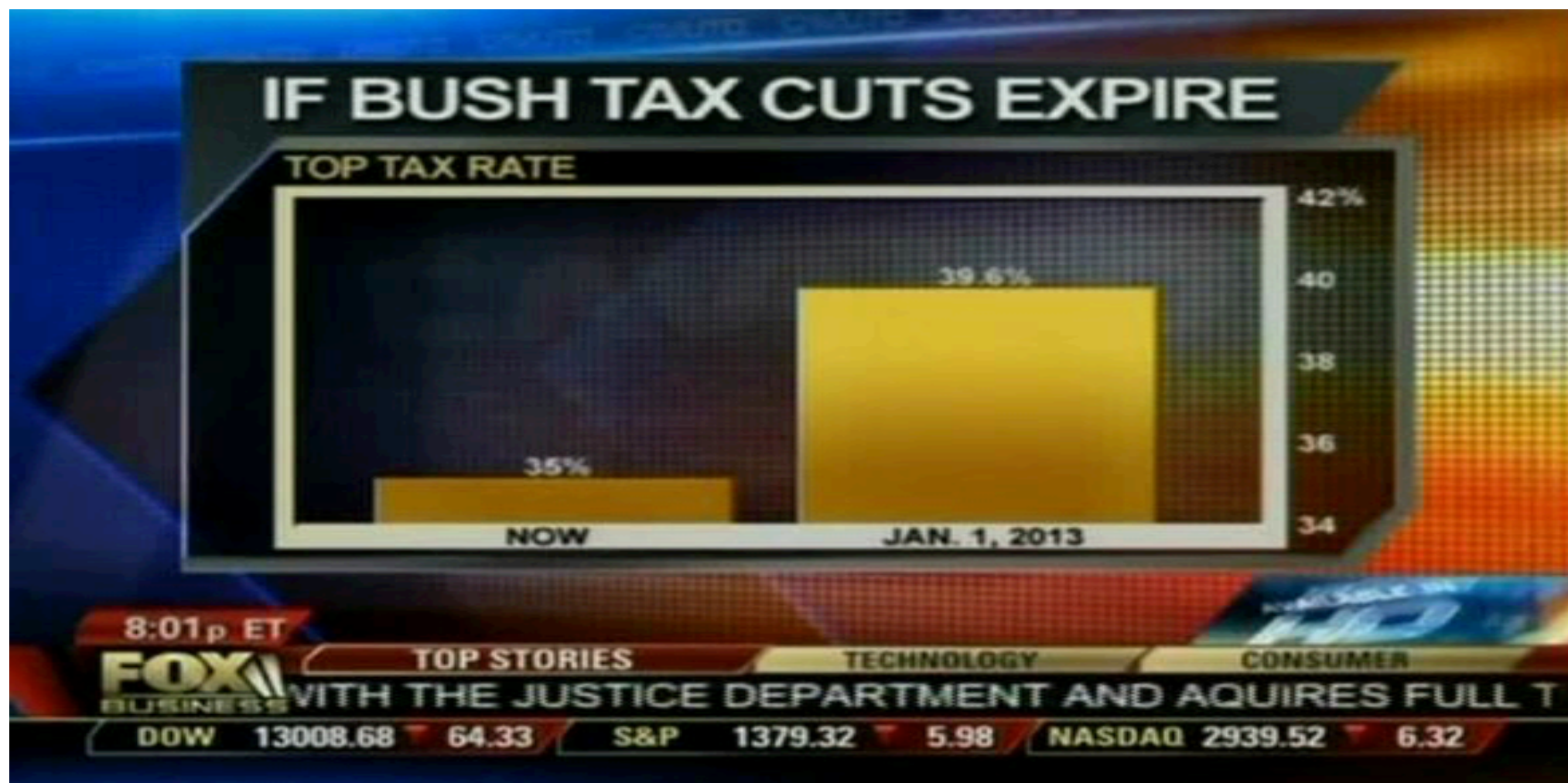
THE WARMEST YEARS ON RECORD
CONTIGUOUS U.S.



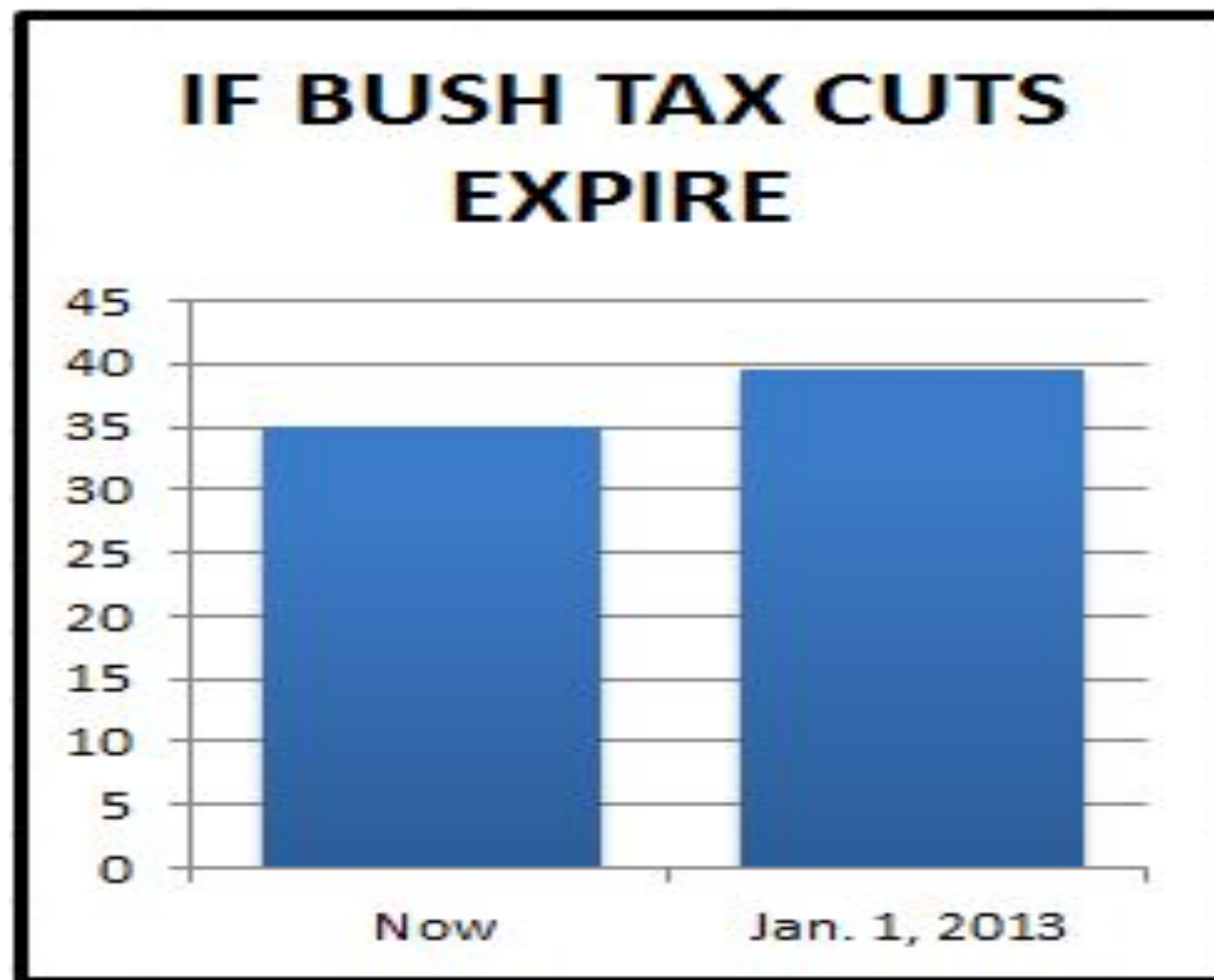
Source: NOAA's National Climatic Data Center - State of the Climate National Overview

CLIMATE  CENTRAL

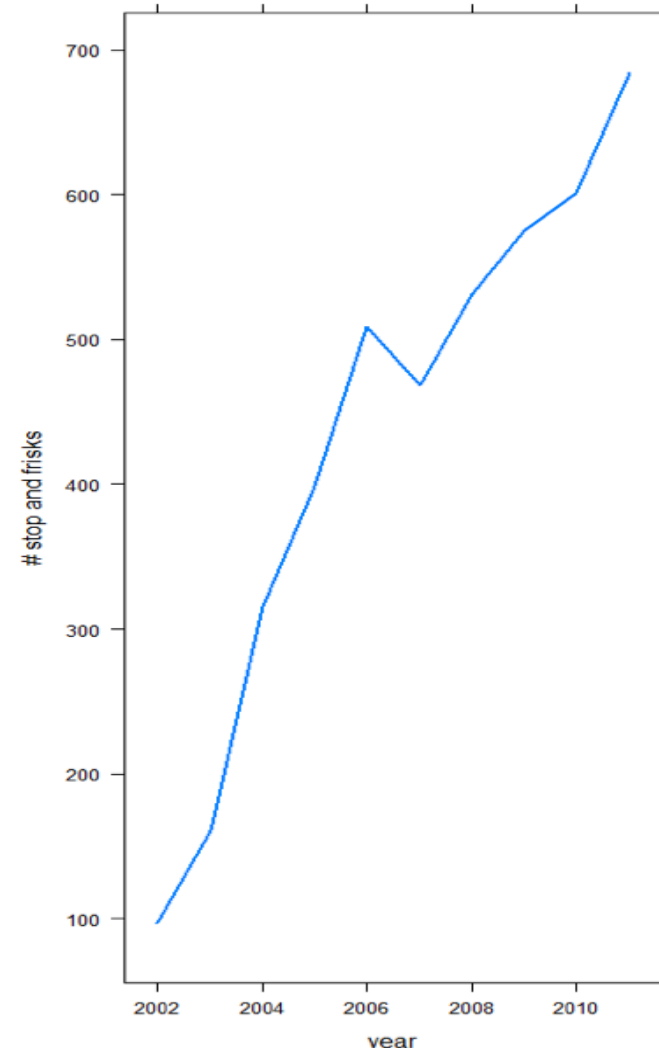
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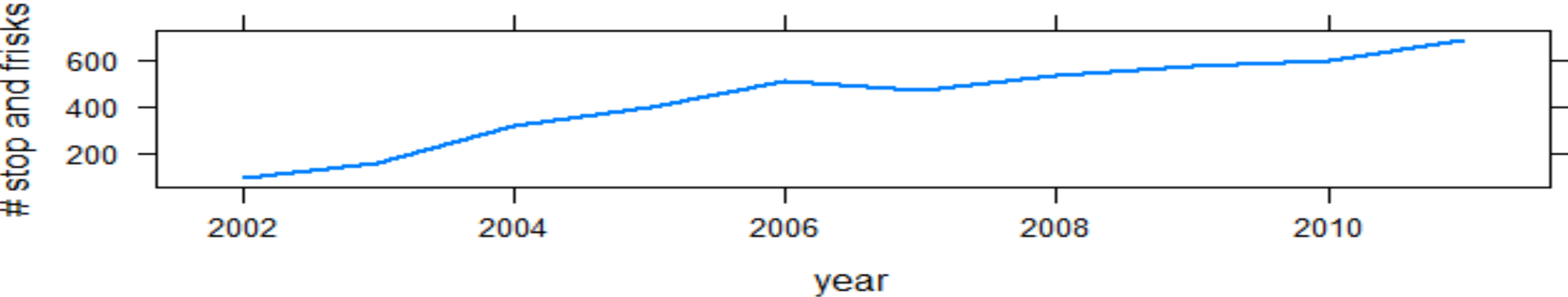
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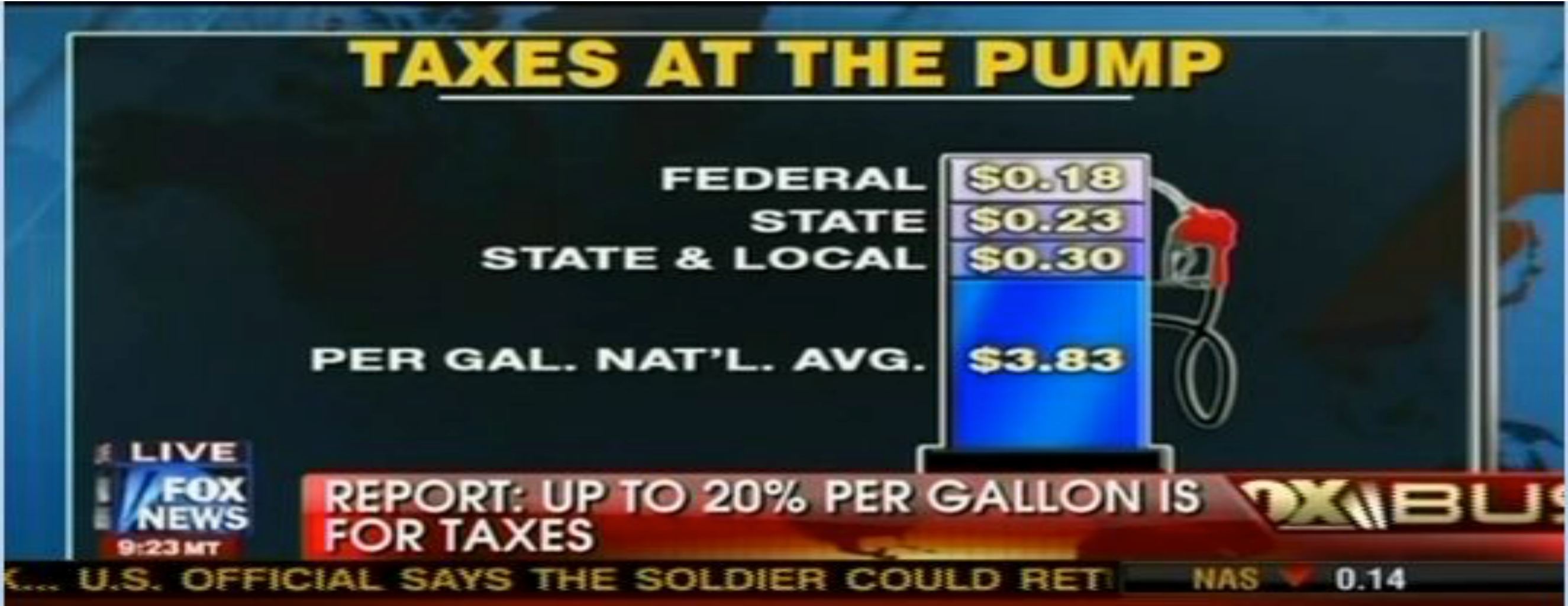
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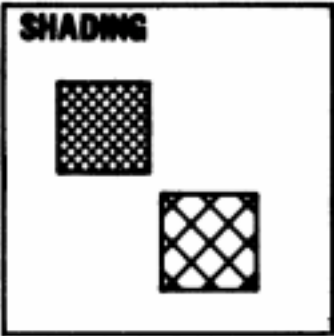
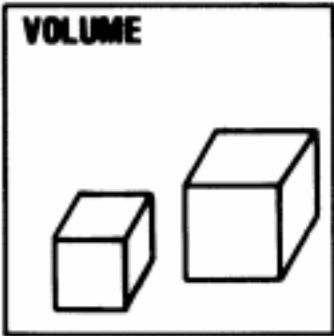
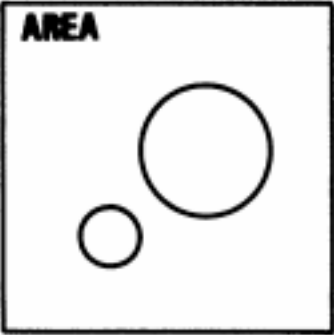
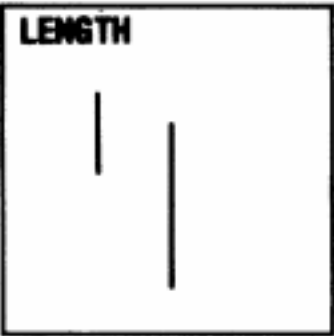
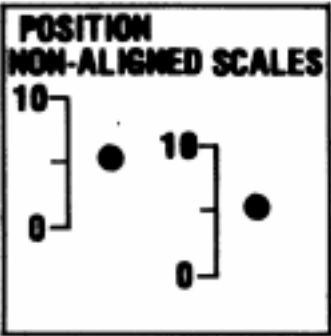
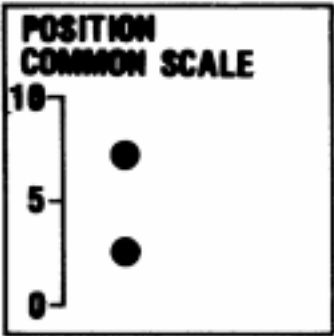
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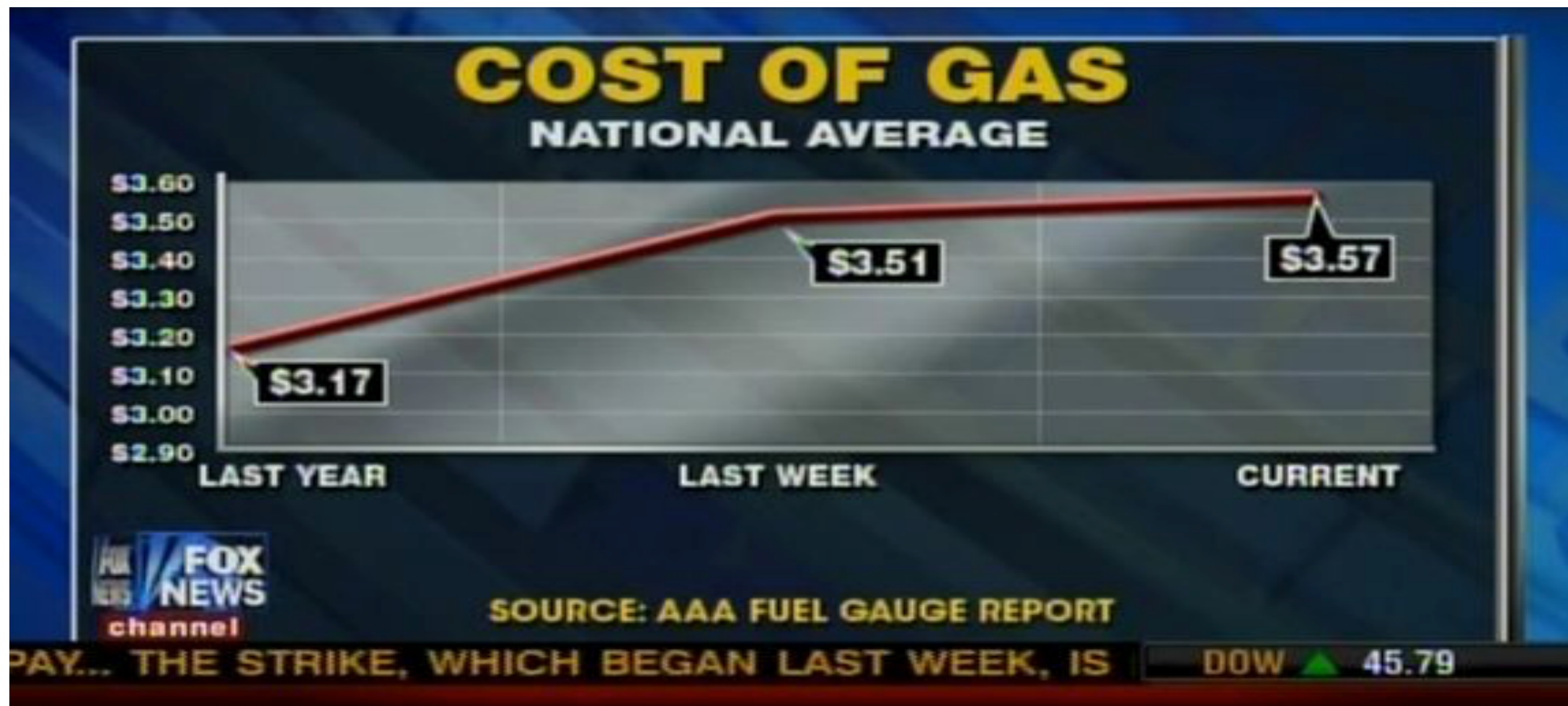


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COLOR SATURATION

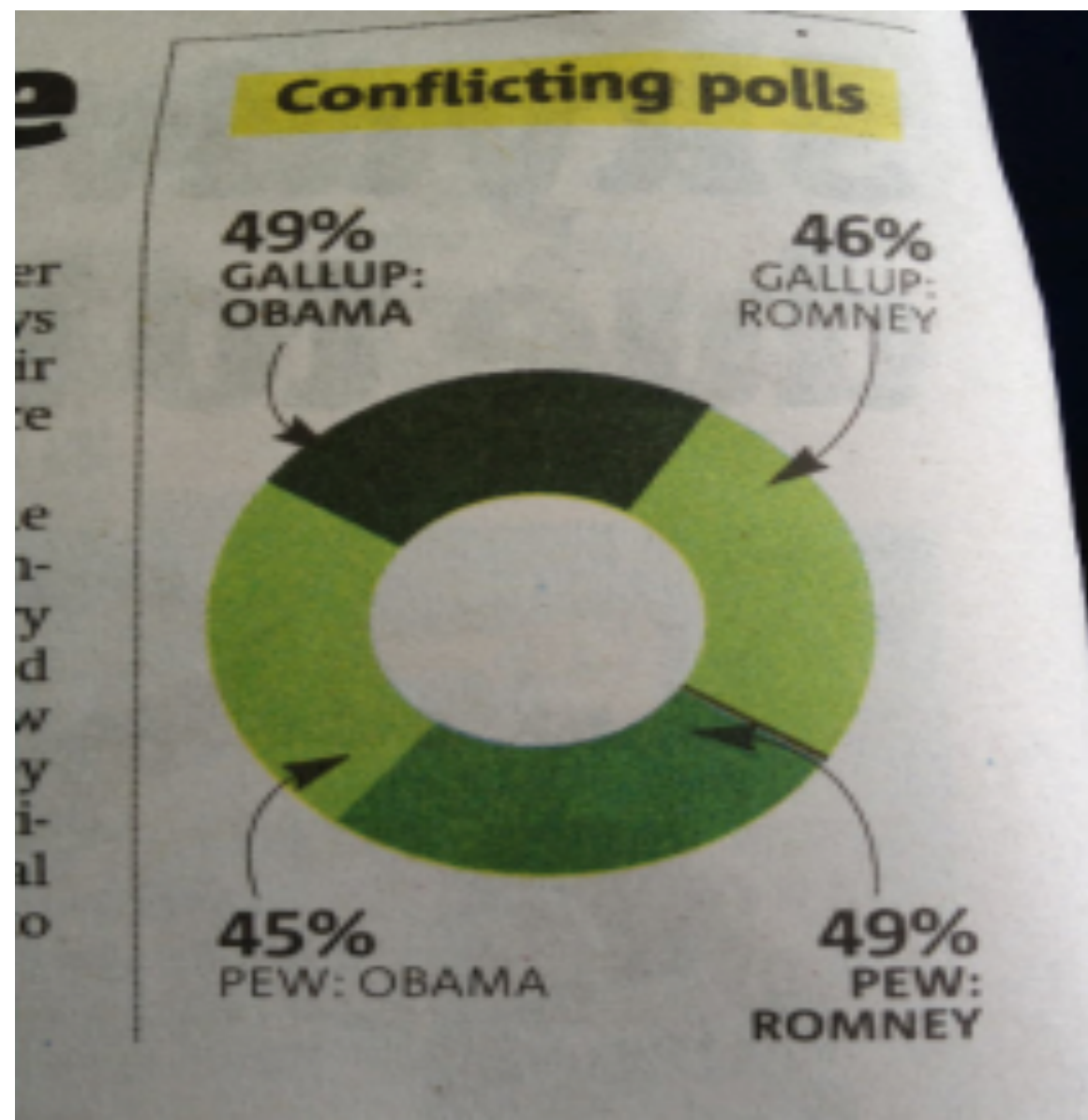
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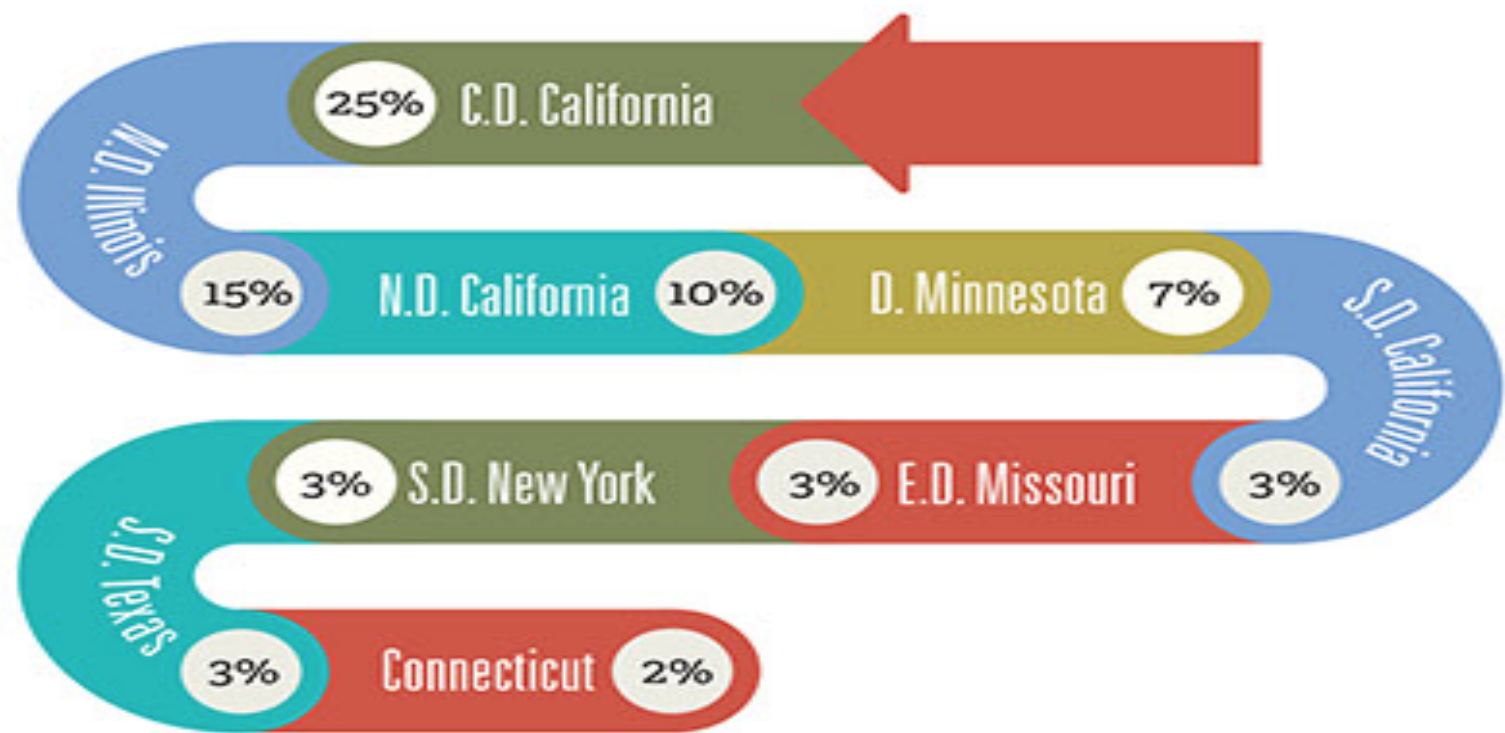
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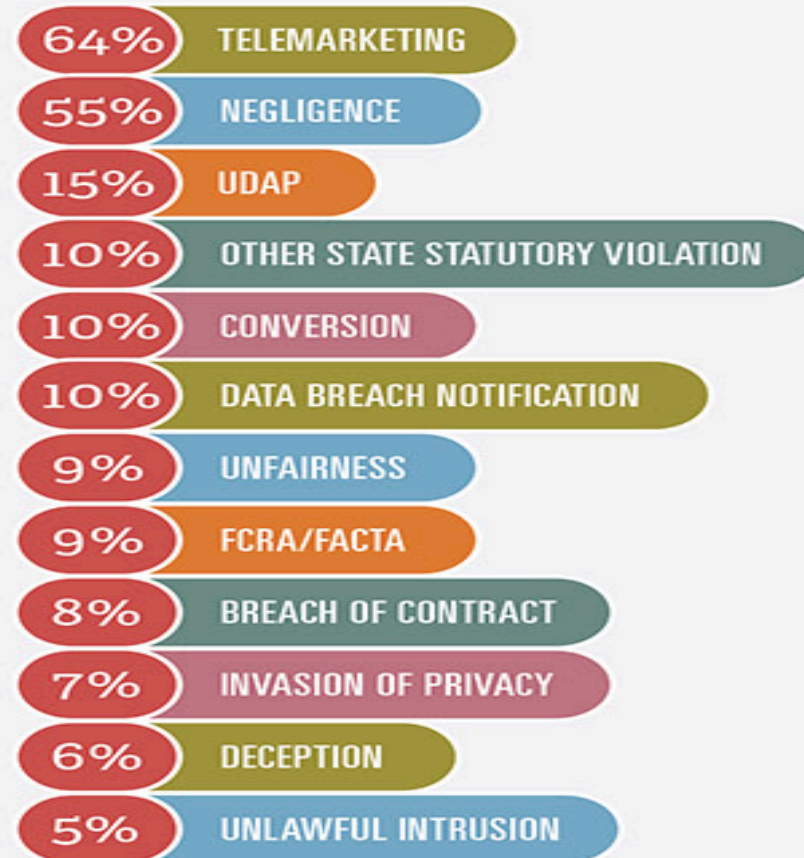
Courts in Which Complaints Were Filed



The largest number of complaints filed this quarter were filed in the Central District of California (25%) and the Northern District of Illinois (15% of complaints). The following chart shows the courts in which complaints were filed.

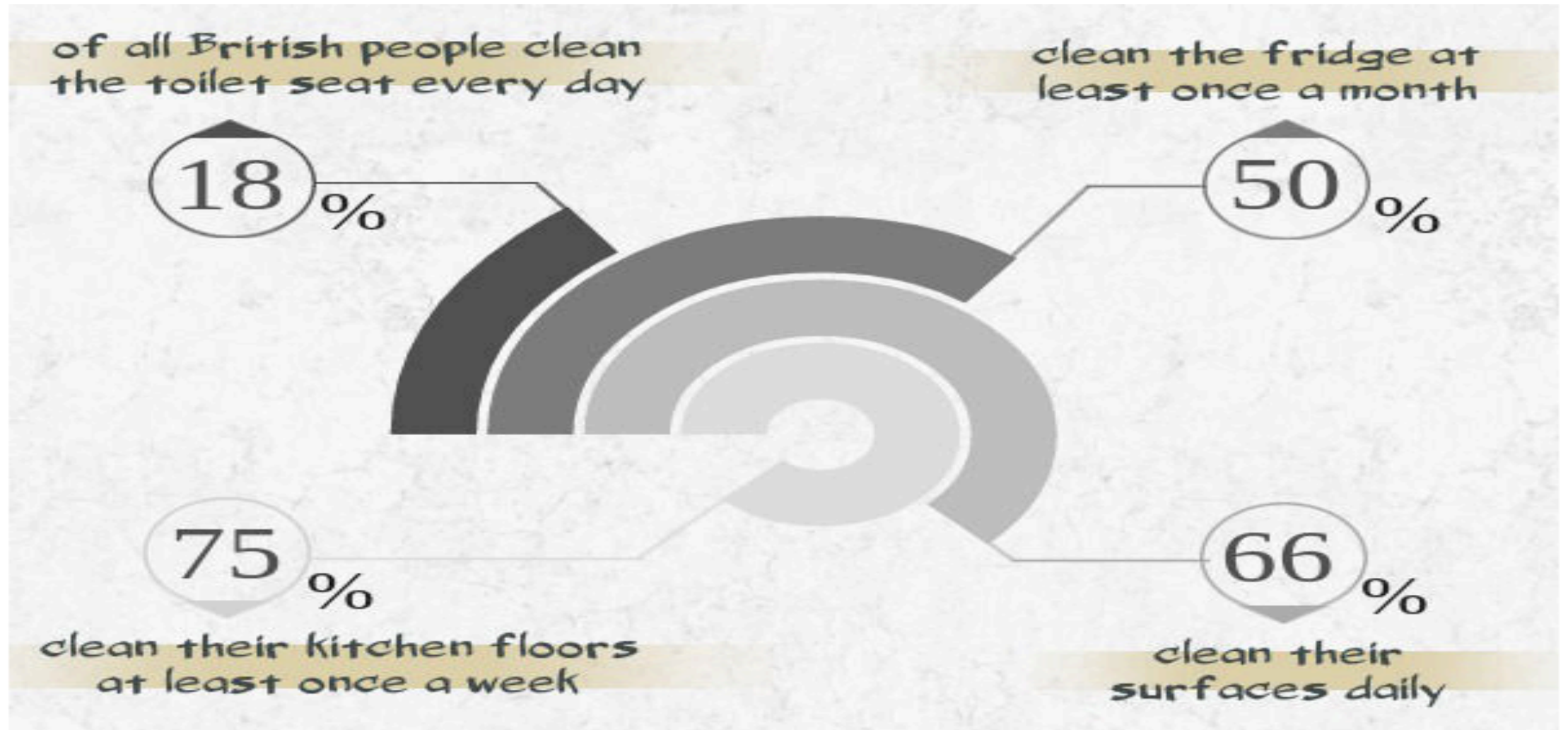
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Complaints Alleging a Particular Legal Theory



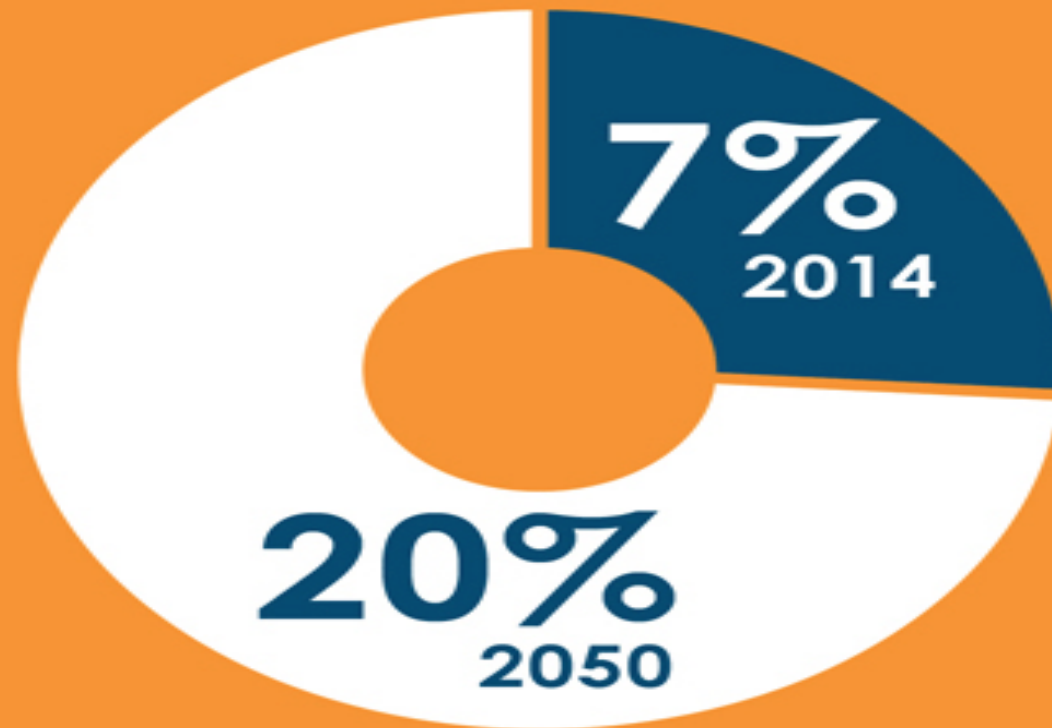
The largest category of complaints continue to relate to alleged telemarketing violations under the Telephone Consumer Protection Act ("TCPA") (64%). The next largest categories involved the Fair Credit Reporting Act ("FCRA") (10%), and negligence (5%).

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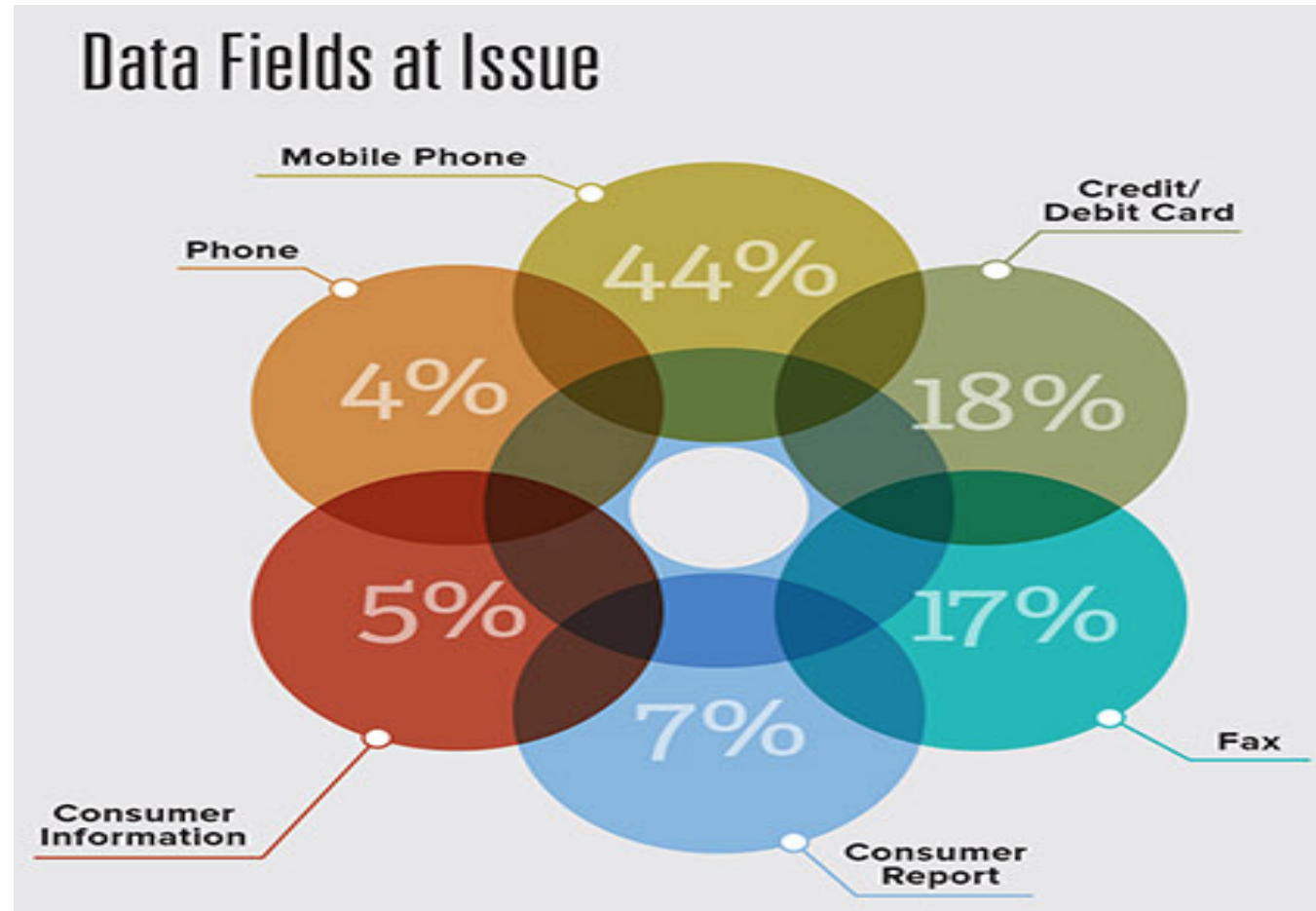
HISPANICS REPRESENT 7% OF THE OLDER POPULATION. A NUMBER THAT IS PROJECTED TO INCREASE TO 20% BY 2050.



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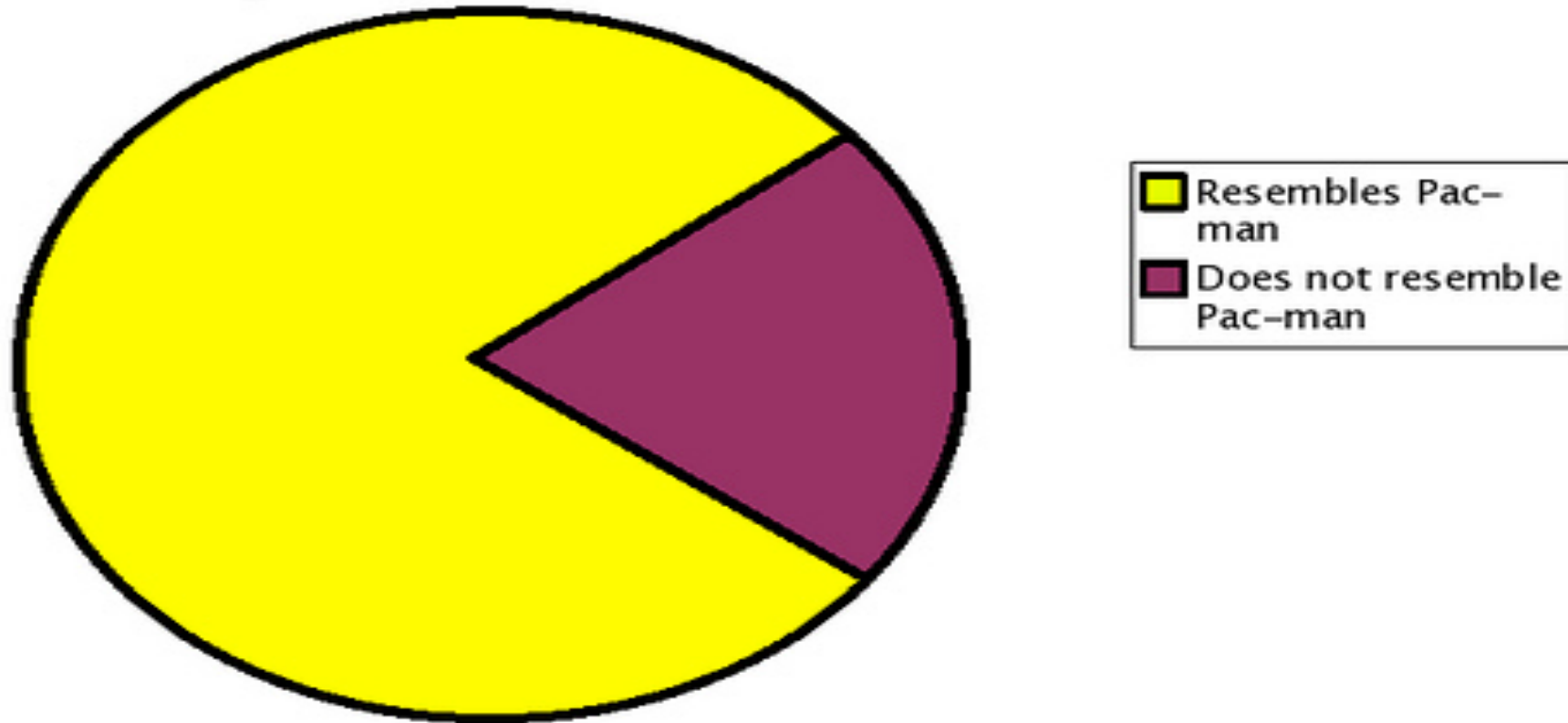


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Percentage of Chart Which Resembles Pac-man



CRASH COURSE IN DATA VISUALIZATION

TEAM MATCHING

AGENDA

- Are you a....
 - Designer, Artist, Graphic Artist
 - Programmer, Front End Designer, Coder, Data Scientist
 - Something Else?
-
- Put your name on a Post-It and put it on the wall
 - If you are a Something Else, use a big Post-It and tell us what that something else is under your name!

CRASH COURSE IN DATA VISUALIZATION

INSPIRATION FOR YOUR HUBWAY DATA CHALLENGE

CRASH COURSE IN DATA VISUALIZATION

- ▶ Let's look at some amazing data visualizations:
<http://dataforradicals.com/2017/03/16/inspirations/>

THANKS!

LISA WILLIAMS

- Twitter: @lisawilliams
- Tutorials: <http://dataforradicals.com>

CRASH COURSE IN DATA VISUALIZATION

Q&A

CRASH COURSE IN DATA VISUALIZATION
