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Data Literacy and Voting

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Data Literacy and Voting

Martha Stuit
University of Michigan

Friday, July 15, 2016,
1:15 p.m. - 2:15 p.m.

Image: "Voting United States.jpg" by Tom Arthur, on Wikimedia Commons. CC BY-SA 2.0.

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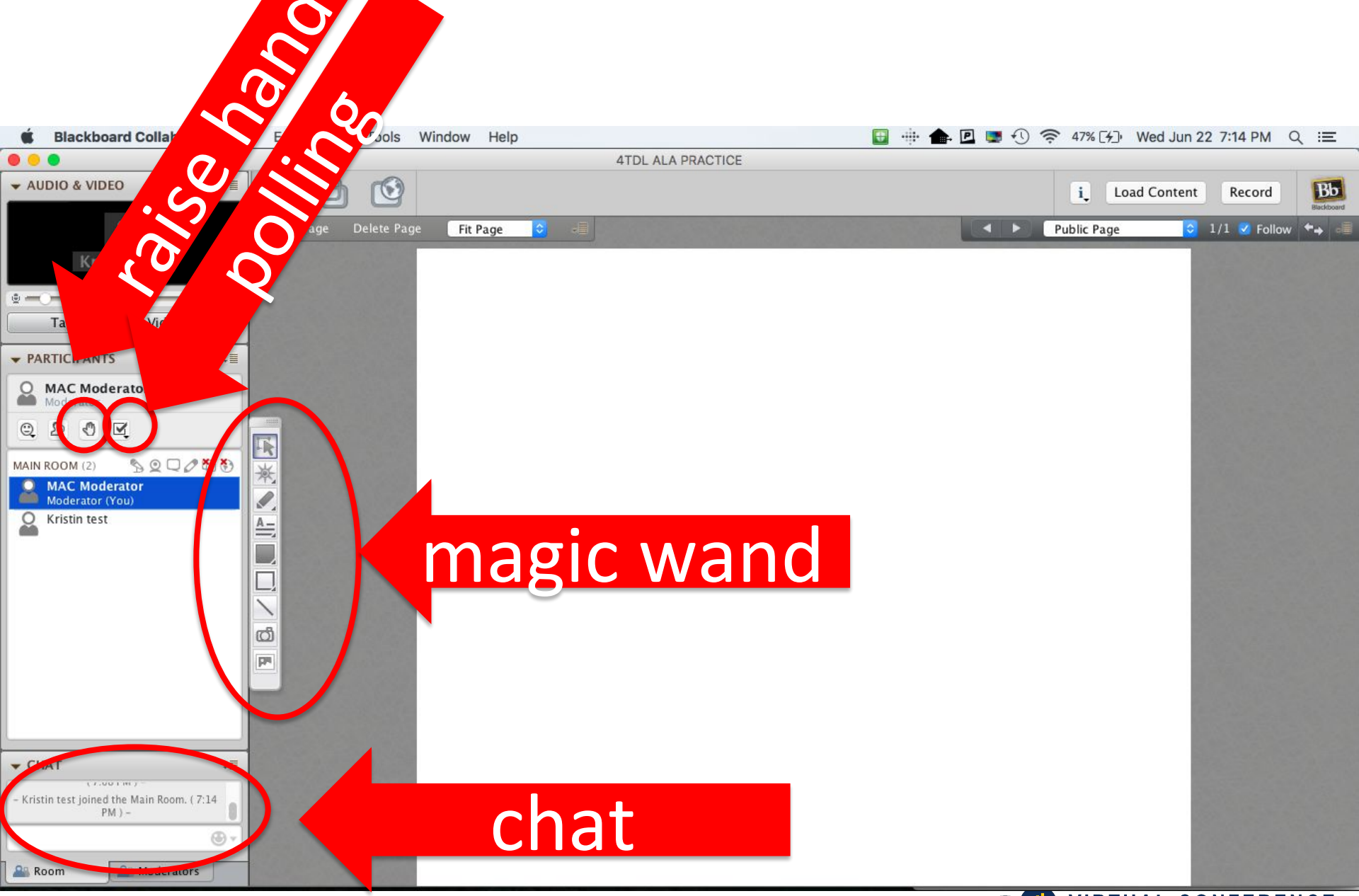

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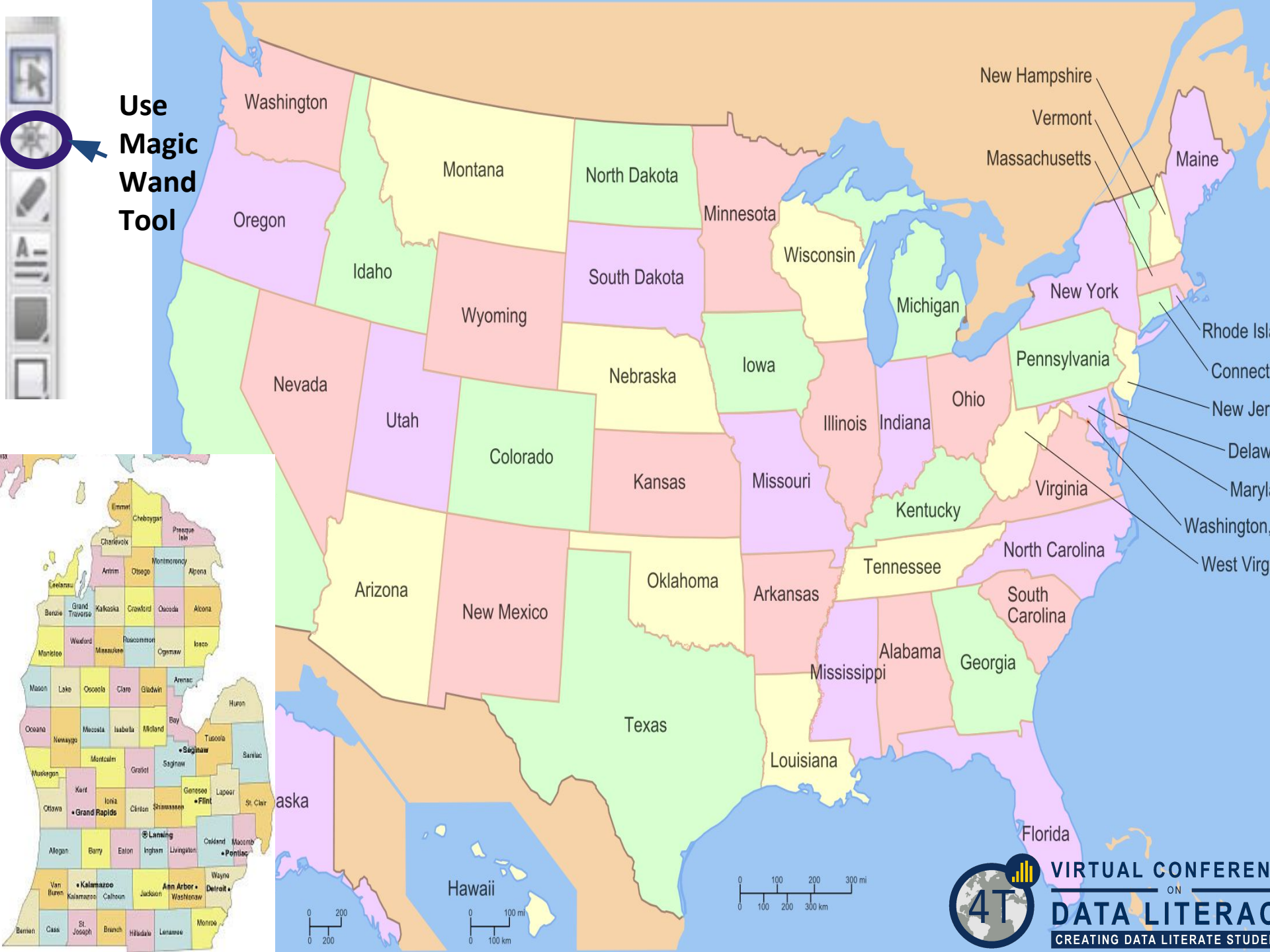
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Martha Stuit
Presenter

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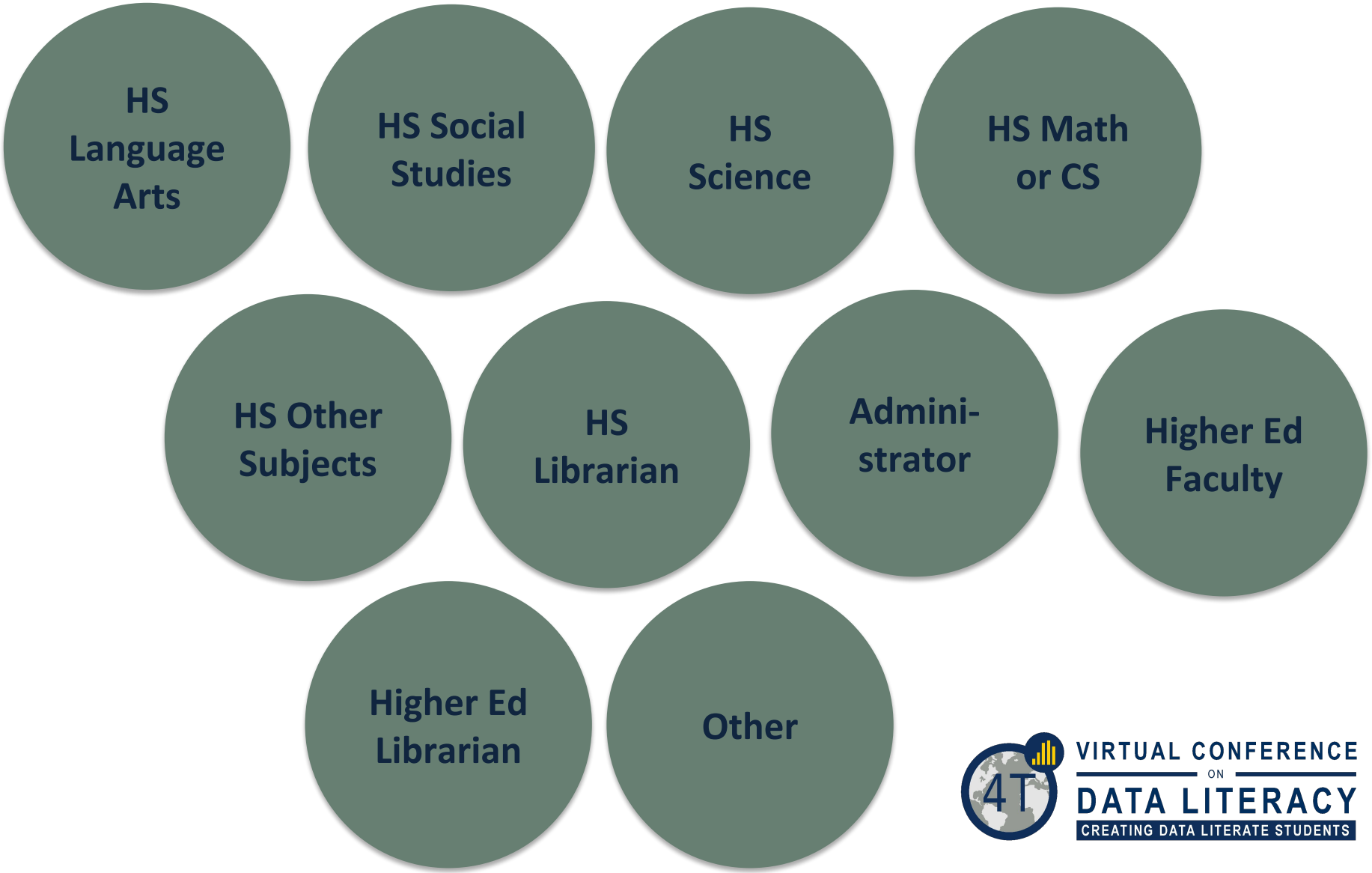
What Do You Teach?



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Agenda

1. News media
2. 2016 Presidential election overview
3. Rules of thumb for data literacy and voting
4. Sources of election information
5. Questions/discussion

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News Media

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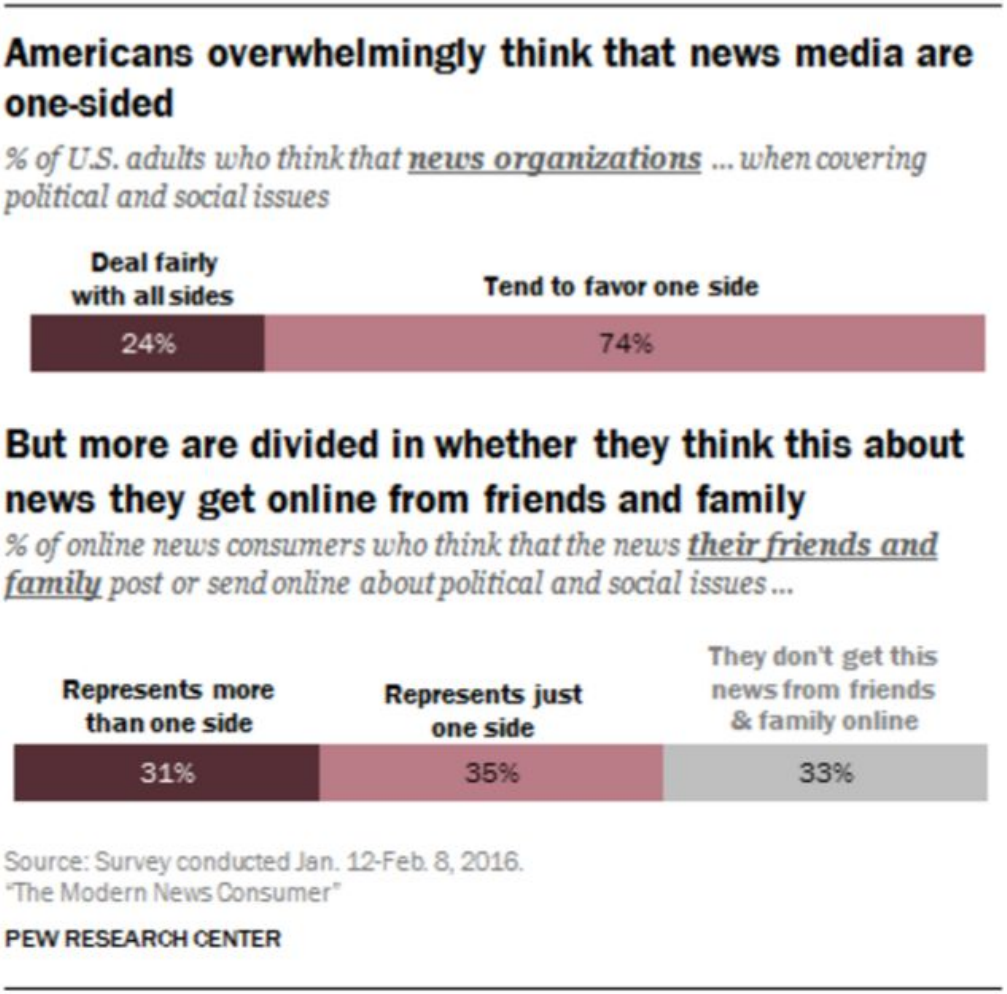
Americans overwhelmingly think that news media are one-sided



*See end of presentation for a list of resources used in this webinar.

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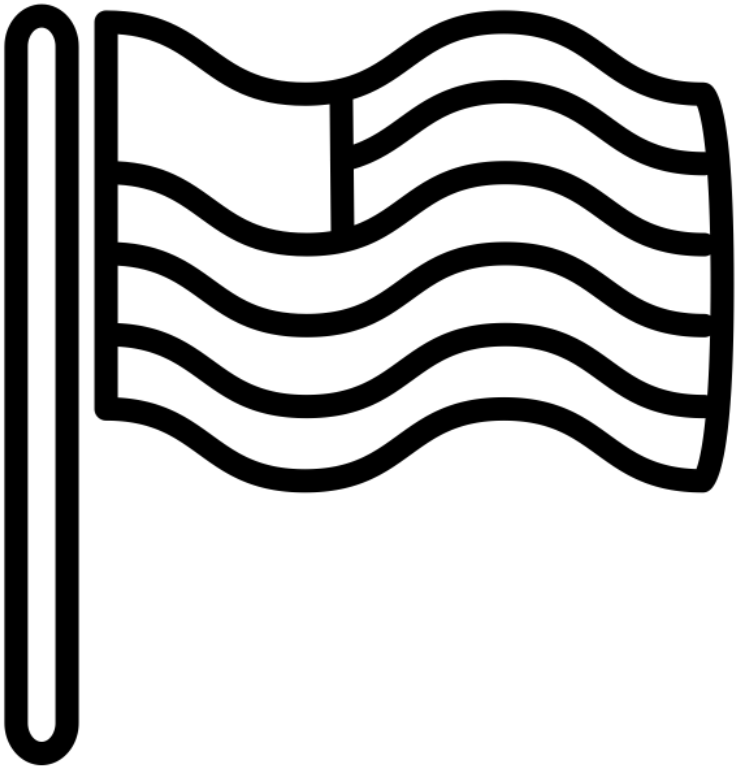
2016 Presidential Election



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2016 Presidential Election

- **February 1 to June 14**: Primaries
- **May 3**: Donald Trump became the presumptive Republican nominee
- **June 6**: Hillary Clinton became the presumptive Democratic nominee
  - Bernie Sanders is still active
- National conventions to determine the parties' nominees for president and vice president:
  - **July 18-21**: Republican National Convention
  - **July 25-28**: Democratic National Convention
- **November 8**: Election

Image: "US Flag Backlit.jpg" by Jnn13, on Wikimedia Commons. CC BY-SA 2.0.

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Rules of Thumb for Data Literacy and Voting

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1. Know how polling works.

What is polling? How do they get those numbers?

As Charles Wheelan writes:

"...one might reasonably ask, How do we know all this? How can we draw such sweeping conclusions about the attitudes of hundreds of millions of adults? And how do we know whether those sweeping conclusions are accurate?" (170)

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Definition, from Wheelan:

“A poll (or survey) is an inference about the opinions of some population that is based on the views expressed by some sample drawn from that population.” (170)

*A “poll” is also the place where voters cast their votes.

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Ways that polls trip us up:

- Polls are formed from **samples** of a **population**.
  - *Is the sample representative of the population?*

- Types of bias:
  - **Nonresponse bias**: who chose *not* to participate in the poll
  - **Selection bias**: who participated in the poll

- Question **wording** and **order**
  - *How might respondents respond?*

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There are different types of polls:

- **Interactive polls**: an interviewer speaks with a respondent.
- **Automated polls**: a robo-call to respondents. Respondents use their phone keypad to respond.
- **Online polls**: polls completed online, which are questionable because not all people have Internet access, and they have issues with bias.

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Indications of a good poll:

- **Transparency -** Participates with these organizations:

American Association for Public Opinion Research (AAPOR)
National Council on Public Polls (NCPP) ■ Includes article called "20 Questions A Journalist Should Ask About Polls Results"
Roper Center's Polling Data

  - **Tip*: Check out FiveThirtyEight's Pollster Ratings! (You can delve *even* deeper by clicking on "How this works.")

- **Methodology**
  - Representative of population
  - Type of poll

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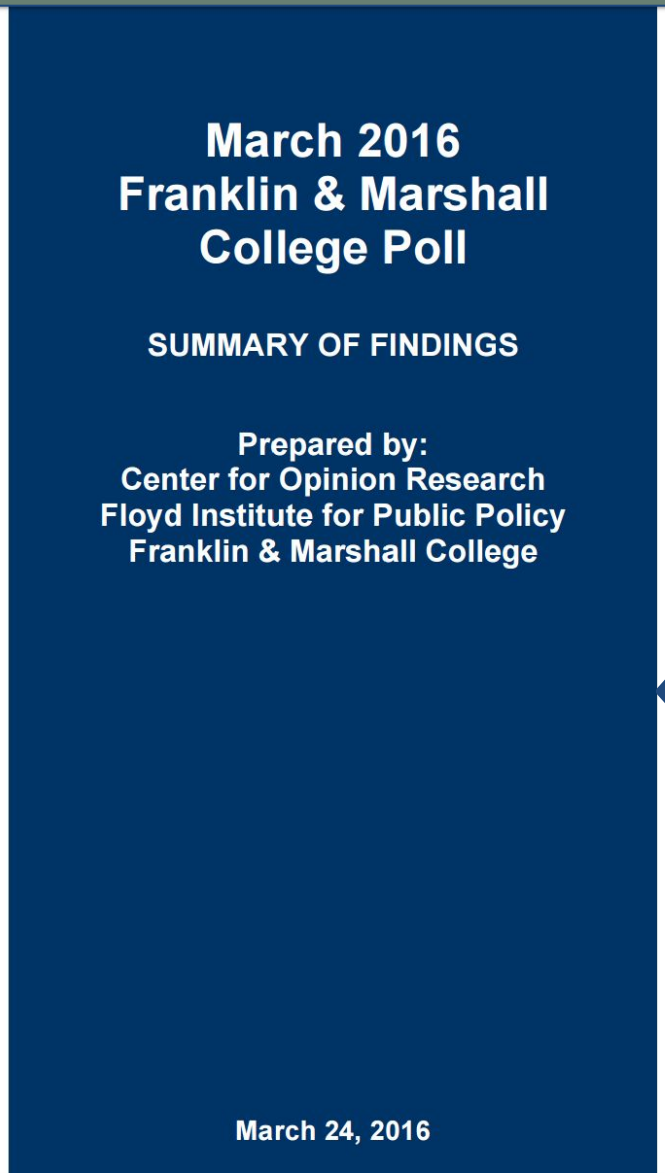
Example: Franklin and Marshall College Poll



RACE. Which of the following categories best describes your racial background?

93% White
8% Non-white

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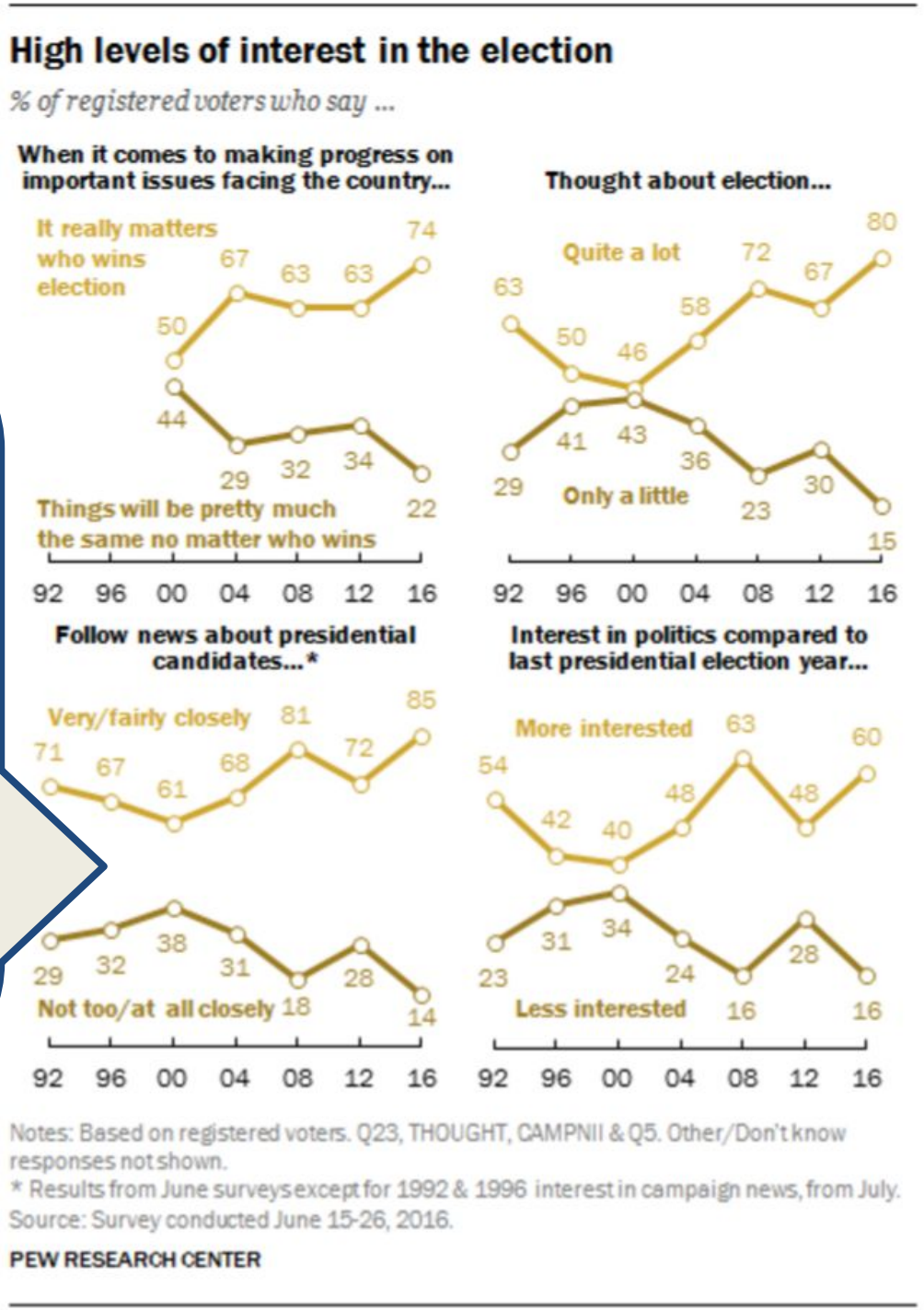
Example: Pew Research Center report

- **Sample**: 2,245 adults, who are 18 and older, in the United States.
- **Methodology**: telephone interviews
  - 559 contacted by landlines
  - 1,686 contacted by cell phones



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2. Apply statistical skills.

- *Questions to ask*:
  - What is the **sample**, and is it **representative**?
  - What kind of **average** is it?
    - Mean, median, or mode
  - What is the **inverse** of the statistic?
  - What is the **margin of error**?
    - + or - percentage points

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3. Apply data visualization skills.

- **Type of chart or graph**
  - Is it the right one?
  - Is it used correctly?
  - Is it misleading?

- **Colors**
  - What are the colors supposed to indicate?
  - Do they make the data seem dramatic?

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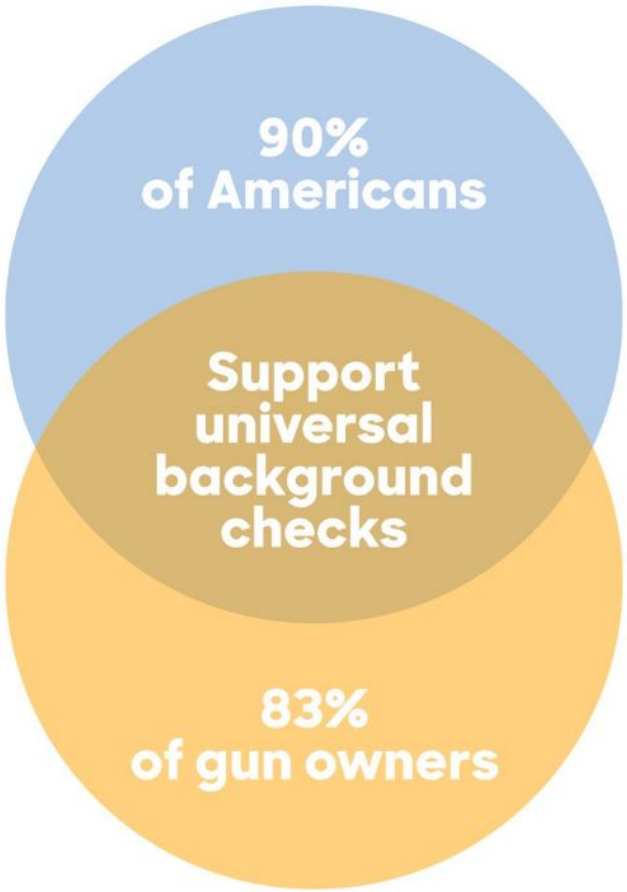
Example: Venn diagram by Hillary Clinton



Hillary Clinton @HillaryClinton

Follow

Dear Congress,

Let's get this done.

Thanks,

The vast majority of Americans

12:21 PM - 20 May 2016

Example: Revised visualization

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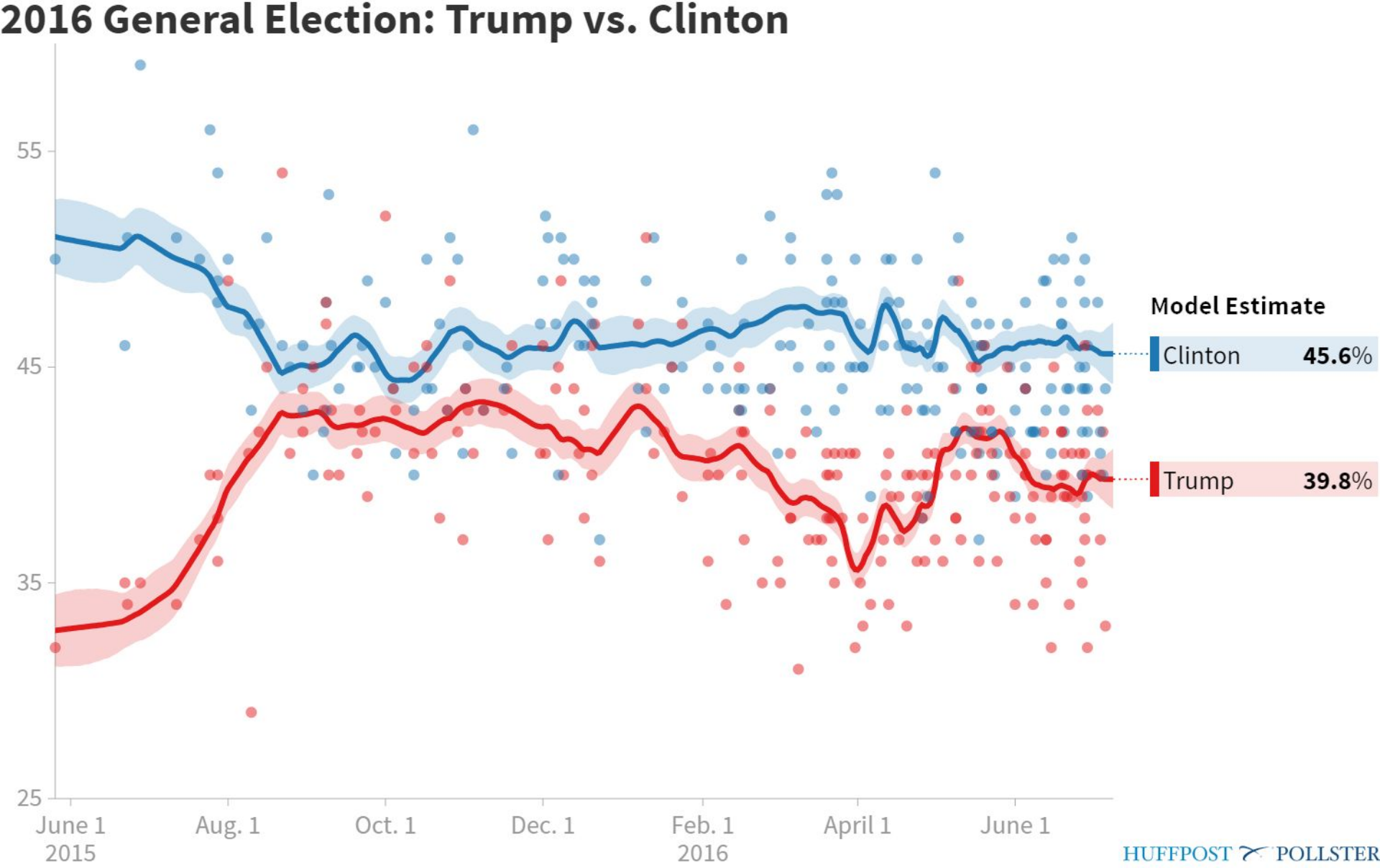

Each dot is an opinion poll, and the lines indicate trends generated by HuffPost Pollster's poll-tracking model. This chart is as of July 8, 2016.

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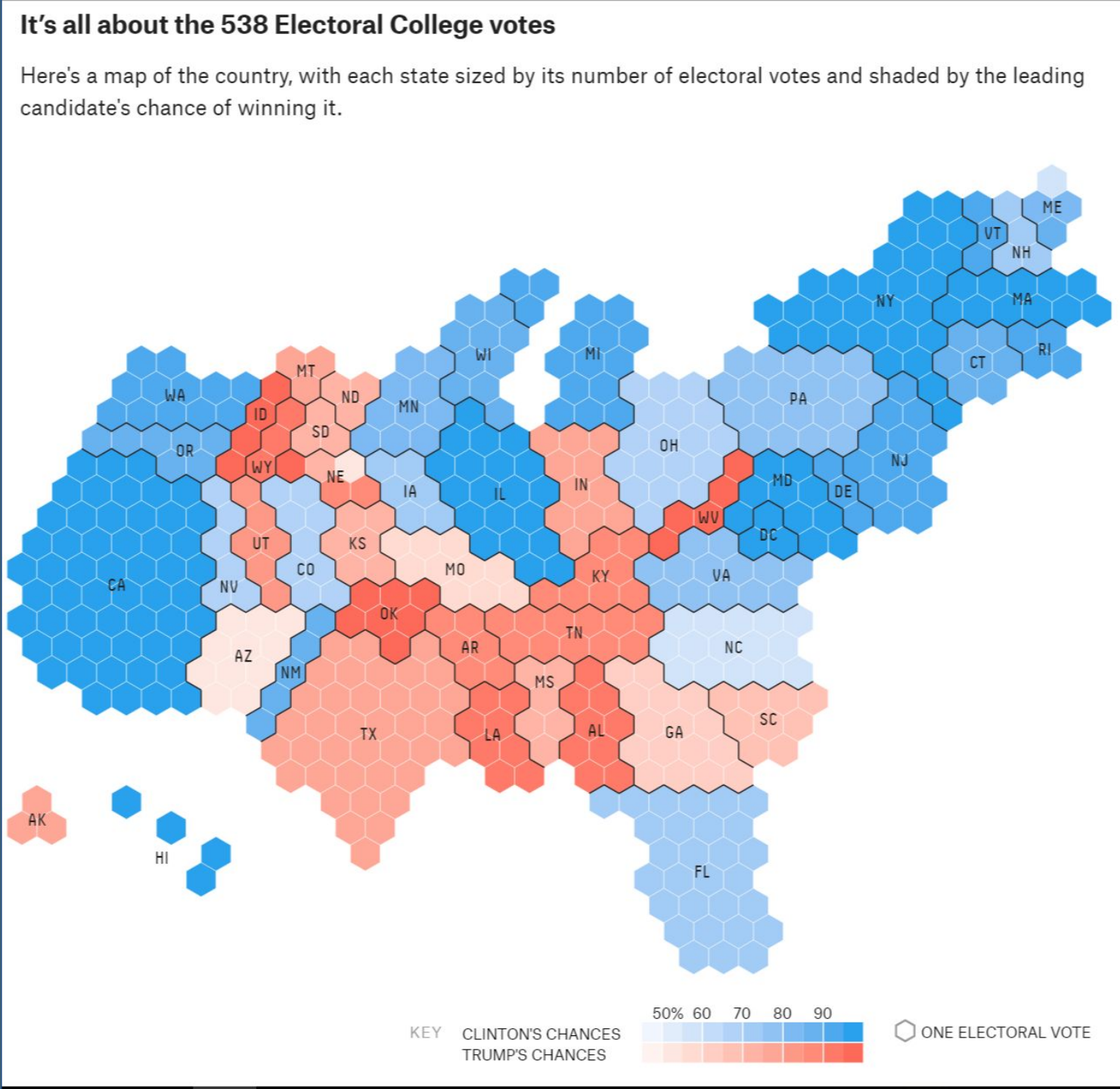
Example: FiveThirty Eight Electoral College Map



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4. Look at multiple sources.

- We often talk about **unbiased sources** or reporting, which do not exist. Good methodology and bad methodology do exist.
- To combat that, look for **multiple sources** to understand an issue. Also, apply the **statistics** and **data visualization skills** that you have learned from other webinars.
- Making good, informed decisions about the sources of information that you read and cite is key.
- How?
  - Look for counterarguments on the issue.
  - Peruse a variety of sources, including ones that lean left and ones that lean right.

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Sources for Election Information

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FiveThirtyEight

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FiveThirtyEight

Politics Sports Science & Health Economics Culture

Just launched: NBA player projections

LAW ENFORCEMENT

The Dallas Shooting Was Among The Deadliest For Police In U.S. History

By Carl Bialik, Ritchie King and Andrew Flowers

THE LATEST

JUL 9
Serena Williams Ties Graf's Majors Record Thanks To A Remarkable Run In Her 30s

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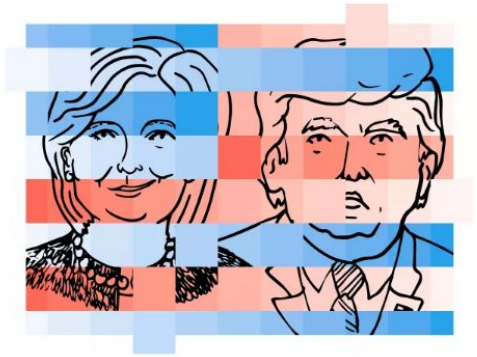
What Our NBA Projections Got Right (And Wrong) Last Season

INTERACTIVES

2016 General Election Forecast



MLB Predictions

UPDATED 8 HOURS AGO

Upcoming games

Blue Jays def. Tigers	61%
Mets def. Nationals	53%
Indians def. Yankees	58%
Cubs def. Pirates	53%

https://fivethirtyeight.com/

Flowing Data

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FLOWINGDATA

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Recent SEE ALL →

History lesson on data visualization

Clive Thompson for Smithsonian Magazine gives a quick history lesson on infographics. [D]ata visualization was rare because data was rare. ...

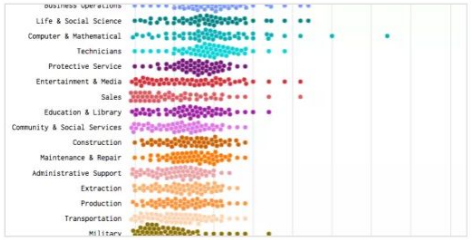
Making the Seinfeld theme song with Bieber, Diplo, and Skrillex

Last year the New York Times interviewed Justin Bieber, Diplo, and Skrillex about how they put together their song Where ...

Moving drought boundaries

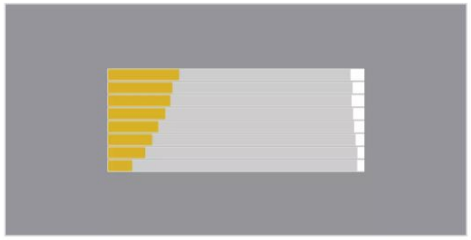
Drought continues to trudge along. My grass is just about dead, save a few hearty patches clinging on to the ...

Features SEE ALL →



Shifting Incomes for American Jobs

For various occupations, the difference between the person who makes the most and the one who makes the least can be significant.



Who Still Smokes?

Two decades out from the first statewide ban on smoking in enclosed workplaces, here's who still smokes.

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League of Women Voters

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http://lwv.org/

LWV's VOTE411

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Find voting information by state or by topic.

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The New York Times: The Upshot

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TheUpshot

ECONOMIC VIEW

America Can Fix Its Student Loan Crisis. Just Ask Australia.

Other countries offer plans that give students more time to repay loans or that make provisions for fluctuating earnings, so fewer borrowers default.

12h ago · By SUSAN DYNARSKI

JOSEPH LANEY

http://www.nytimes.com/section/upshot

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The New Yorker

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DAILY COMMENT

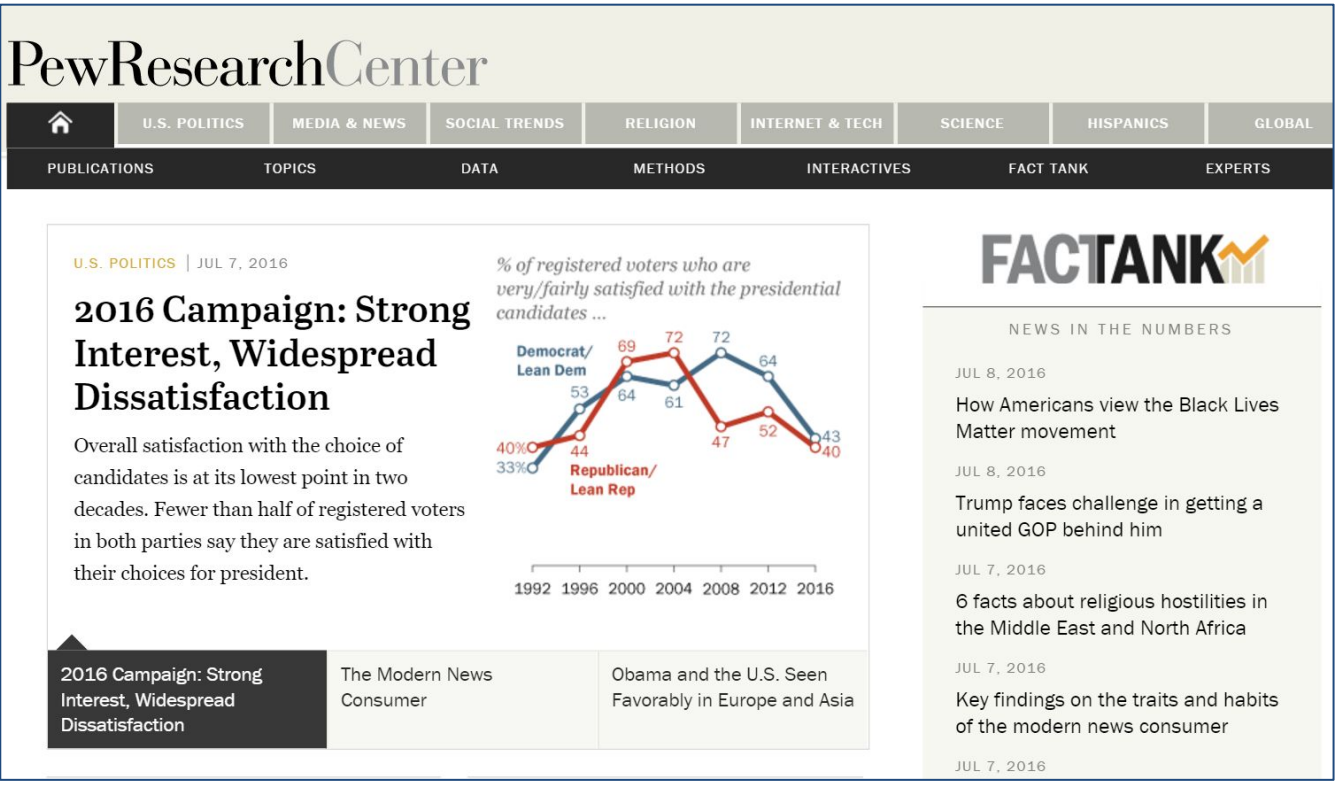
OBAMA AND TRUMP AFTER DALLAS

BY DAVID REMNICK

A President can be judged on his ability to explain, to console, and to frame tragedy in the realm of both politics and emotion.

http://www.newyorker.com/

Pew Research Center



http://www.pewresearch.org/

You can look many of these sources up on FiveThirtyEight's Pollster ratings (*next slide*). For instance, Pew gets a B+.

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Aggregators of Polls: FiveThirtyEight

UPDATED 11:00 AM EDT | JUN 29, 2016

FiveThirtyEight's Pollster Ratings

By Nate Silver

FiveThirtyEight's pollster ratings are calculated by analyzing the historical accuracy and the methodology of each firm's polls. Accuracy scores account for the type of election, a poll's sample size, the performance of other polls surveying the same race and other factors. We also calculate measures of statistical bias in the polls.

See more: The State Of The Polls, 2016 | How this works | Download the data

RATINGS | DEFINITIONS

POLLSTER	LIVE CALLER WITH CELLPHONES	INTERNET	NCPP/ AAPOR/ ROPER	POLLS ANALYZED	SIMPLE AVERAGE ERROR	RACES CALLED CORRECTLY	ADVANCED +/-	PREDICTIVE +/-	538 GRADE	BANNED BY 538	MEAN-REVERTED BIAS
SurveyUSA			●	763	4.6	90%	-1.0	-0.8	A		D+0.1
YouGov		●		707	6.7	93%	-0.3	+0.1	B		D+1.6
Rasmussen Reports/ Pulse Opinion Research				657	5.3	79%	+0.4	+0.7	C+		R+2.0
Zogby Interactive/JZ Analytics		●		465	5.6	78%	+0.8	+1.2	C-		R+0.8
Mason-Dixon Polling & Research, Inc.	●			415	5.2	86%	-0.4	-0.2	B+		R+1.0
Public Policy Polling				383	4.9	82%	-0.5	-0.1	B+		R+0.2
Research 2000				279	5.5	88%	+0.2	+0.6	F	✕	D+1.4

http://projects.fivethirtyeight.com/pollster-ratings/

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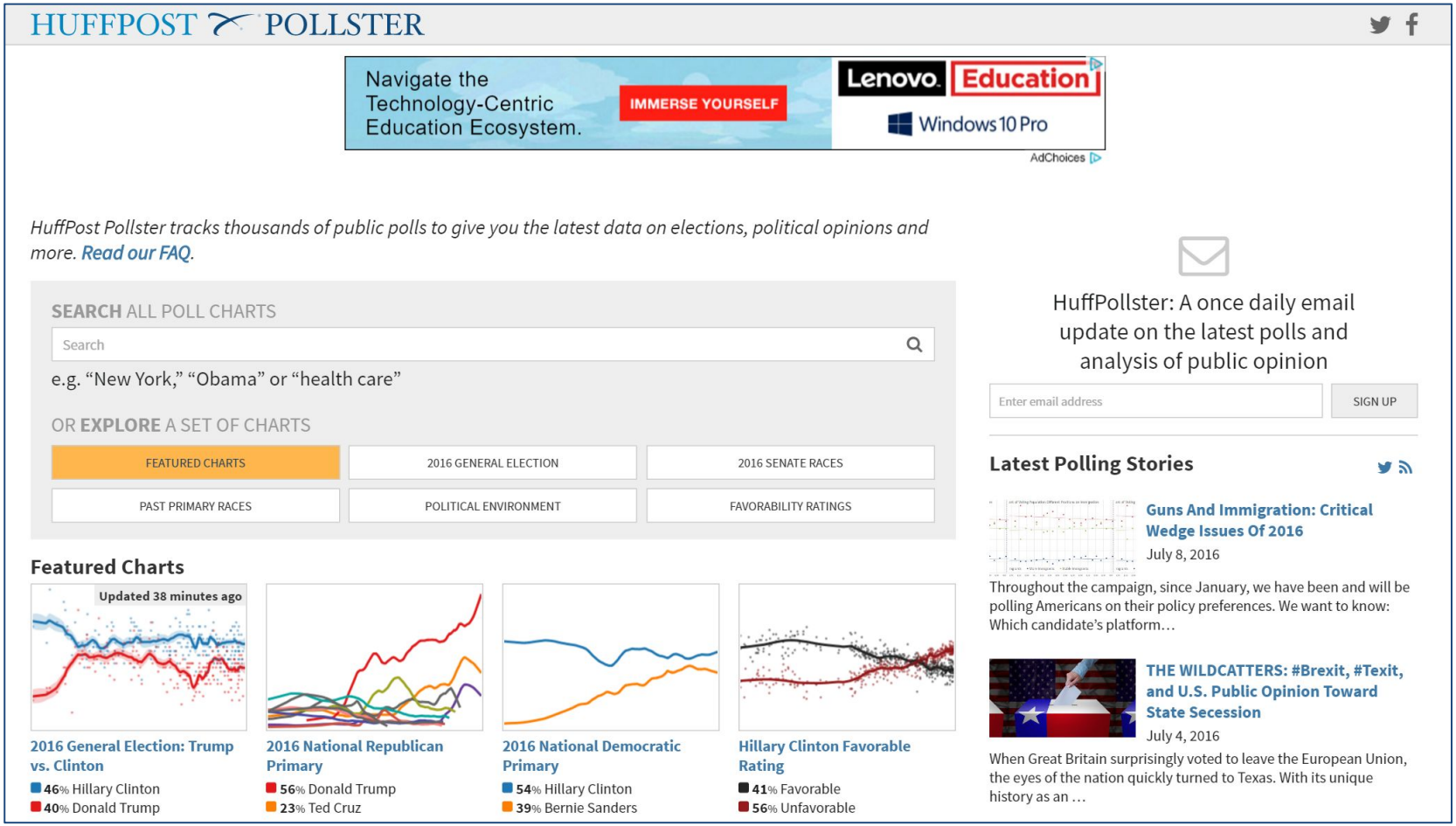
Aggregators of Polls: HuffPost Pollster



http://elections.huffingtonpost.com/pollster

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Aggregators of Polls: RealClearPolitics

RealClear Politics

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Saturday, July 9

Race/Topic (Click to Sort)	Poll	Results	Spread
President Obama Job Approval	Gallup	Approve 51, Disapprove 45	Approve +6

Friday, July 8

Race/Topic (Click to Sort)	Poll	Results	Spread
General Election: Trump vs. Clinton vs. Johnson	Rasmussen Reports	Clinton 38, Trump 40, Johnson 9	Trump +2
California Senate - Harris vs. Sanchez	Field	Harris 39, Sanchez 24	Harris +15
President Obama Job Approval	Rasmussen Reports	Approve 49, Disapprove 50	Disapprove +1

Recommended | Politics

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- Where Clinton, Trump Stand on Energy, Climate Change
- Giuliani: Clinton Broke the Law; Gross Negligence Means Extreme Carelessness
- Trump the Outsider Looks for Insider Running Mate
- President Obama Slows Troop Withdrawal From Afghanistan

http://www.realclearpolitics.com/

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Others...

What are your favorites?

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Resources

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Icons courtesy of The Noun Project.

Recap:

1. Know how **polling** works.
2. Apply **statistical skills**.
3. Apply **data visualization** skills.
4. Look at **multiple sources**.

Questions?

Martha Stuit

Email: stuitm@umich.edu

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Recap:

1. Know how **polling** works.
2. Apply **statistical skills**.
3. Apply **data visualization** skills.
4. Look at **multiple sources**.

Questions?

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Evaluation:

http://bit.ly/4TDL-voting