[Survey research in the digital age], [Probability and non-probability sampling], [Computer-administered interviews], [Combining surveys and big data], [Additions and extensions]

Matthew J. Salganik
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1) Introduction
2) Observing behavior
3) Asking questions
4) Running experiments
5) Mass collaboration
6) Ethics
7) The future


R. MUTT
1917


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1917

readymades

custommades

https://commons.wikimedia.org/wiki/File:Duchamp_Fountaine.jpg
https://commons.wikimedia.org/wiki/File:%27David%27_by_Michelangelo_JBU0001.JPG

A few notes on my teaching:

- Anti-status quo bias

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- Anti-formality bias (formality is important, but just not right now)

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- Very brief, more information in Ch. 3 of *Bit by Bit*

Why should I care about surveys?

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in the age of big data?

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But how we are going to ask is going to change

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1st era	Area probability	Face-to-face

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	Sampling	Interviews	Data environment
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Total survey error framework

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Insight 1: Errors can come from bias or variance

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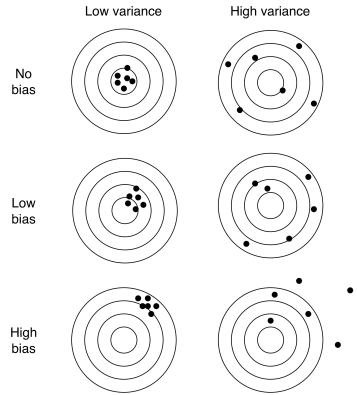

Total survey error framework

Insight 2: Total survey error = measurement error + representation error

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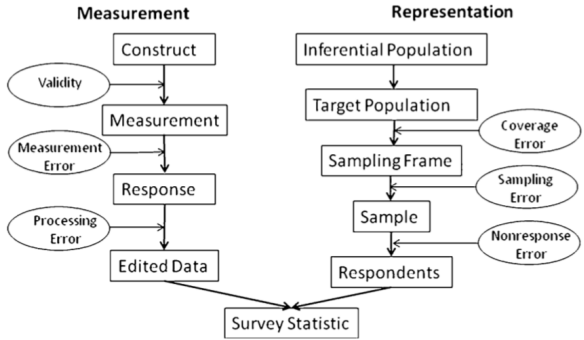
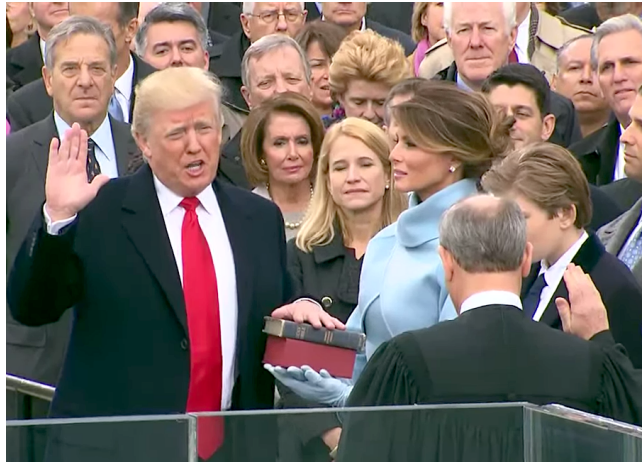


Groves and Lyberg 2010, Fig 3

Case study of total survey error framework



https://commons.wikimedia.org/wiki/File:Donald_Trump_taking_his_Oath_of_Office.png

Case study of total survey error framework

An Evaluation of 2016 Election Polls in the U.S.

Ad Hoc Committee on 2016 Election Polling

Courtney Kennedy, Pew Research Center
Mark Blumenthal, SurveyMonkey
Scott Clement, Washington Post
JoshUA d. Clinton, Vanderbilt University
Claire Durand, University of Montreal
Charles Franklin, Marquette University
Kyley McGeeney, Pew Research Center[1]

Lee Miringoff, Marist College
Kristen Olson, University of Nebraska-Lincoln
Doug Rivers, Stanford University, YouGov
Lydia Saad, Gallup
Evans Witt, Princeton Survey Research Associates
Chris Wlezien, University of Texas at Austin

http://www.aapor.org/Education-Resources/Reports/An-Evaluation-of-2016-Election-Polls-in-the-U-S.aspx

Case study of total survey error framework

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- State-level polls showed a competitive, uncertain contest . . .

Case study of total survey error framework

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- State-level polls showed a competitive, uncertain contest . . .
- . . . but clearly under-estimated Trump's support in the Upper Midwest.

Case study of total survey error framework

"There are a number of reasons as to why polls under-estimated support for Trump. The explanations for which we found the most evidence are:"

- "Real change in vote preference during the final week or so of the campaign"

Case study of total survey error framework

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Case study of total survey error framework

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- "Real change in vote preference during the final week or so of the campaign"
- "Adjusting for over-representation of college graduates was critical, but many polls did not do it"
- "Some Trump voters who participated in pre-election polls did not reveal themselves as Trump voters until after the election, and they outnumbered late-revealing Clinton voters"

Full report: http://www.aapor.org/Education-Resources/Reports/An-Evaluation-of-2016-Election-Polls-in-the-U-S.aspx

Conclusion

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Wrapping up:

- Total survey error framework 1st key insight: errors can be caused by bias or variance
- Total survey error framework 2nd key insight: errors can be related to representation and measurement
- Total survey error framework also helps us think about how digital age can create new opportunities (who to ask and how to ask)
- To learn more: Groves et al (2009)

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