

How Do Weighting Targets Affect Pre-Election Poll Results?

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Background

What we're looking at and why



Introduction

- Often need to interview likely voters (LVs)
 - Pre-election polls
 - Non-election years for public affairs clients
- How do we do it?
 - Publicly-released phone surveys: interview gen pop → filter for analysis
 - Nonprobability web surveys: screen out respondents up front
- If you screen on likely voters, what targets do you use to weight?

Research Question

- If you screen on likely voters, what targets do you use to weight?
 - American Community Survey (ACS)?
 - Current Population Survey (CPS) Voting and Registration Supplement?
 - Voterfile (VF)?
 - Exit Polls?

Literature

- Exit Poll is biased, Voterfile and CPS pretty similar
 - 2004 Exit Poll electorate younger, more minorities than VF, CPS (McDonald 2005)
 - Exit Poll: tendency to severely underrep. older, white voter w/o college degree (Cohn 2017)
 - Exit Poll 2012: younger, more educated, diverse than 2012 CPS (Cohn 2016)
 - Exit Poll 2014: more educated, younger than 2014 CPS (Pew 2016)
- How does this bias affects weighted horserace estimates?



Methods

How we conducted this research

Weighting Design

- Reweighted Nov 2016 pre-election poll using various targets
 - ACS (for Gen Pop and filtered on RV/LV)
 - CPS Voting and Registration Supplement (RV, LV)
 - Voterfile (RV, LV)
 - Exit Poll (LV)
- Weighted to targets that would have been available Nov 2016
- Weighted to targets that later became available

Targets Available in November 2016

- 2012 CPS Voting and Registration Supplement
 - RVs: who was registered in 2012
 - LVs: who voted in 2012
- Nov 2016 Voterfile data
 - RVs: who was registered to vote
 - LVs: Voted in 2012 or registered since 2012
- 2012 Exit Poll data
 - LVs: who voted in 2012

Targets Available After November 2016

- 2016 CPS Voting and Registration Supplement
 - RVs: who was registered in 2016
 - LVs: who voted in 2016
- 2017 Voterfile data
 - RVs: who was registered to vote
 - LVs: Voted in 2016
- 2016 Exit Poll data
 - LVs: who voted in 2016

Weighting Variables

- ACS, CPS, VF
 - Age x Gender
 - Gender x Education
 - Age x Education
 - Region
 - Race/Ethnicity x Education
- Exit Poll
 - Age
 - Gender
 - Race/Ethnicity x Education
(not available 2012)
 - Race/Ethnicity
 - Education

Data Collection

- General population survey
- Nonprobability web panel
- Quotas for age x gender, region, education, race/ethnicity
- Field dates: November 1-4, 2016
- Total n = 803, RV = 734, LV = 702
- Likely voter screen was single likelihood to vote question

Analysis

- Calculated poll error for each set of weights
- Poll error = poll margin – actual margin
 - E.g. (poll % Clinton - % Trump) – (actual % Clinton - % Trump)
- Actual margin = 2.1

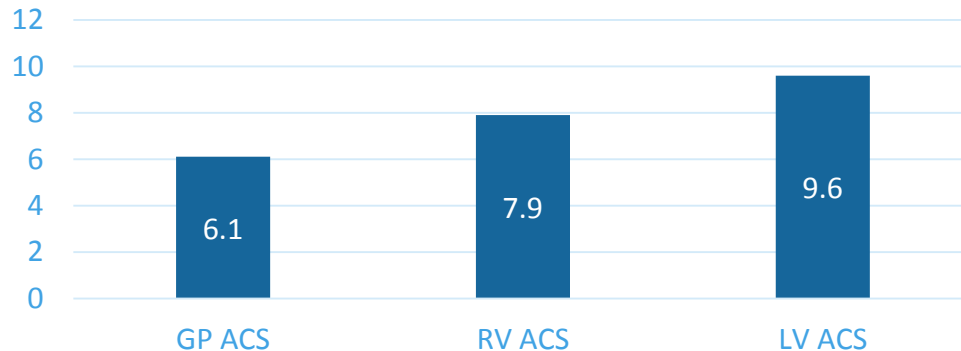
Results

What we found

ACS General Population Weights

- Weight total sample to ACS gen pop then filter to RV/LV
- Did not work very well here and error increased with filtering
- Selection bias and LV screen can play a part too

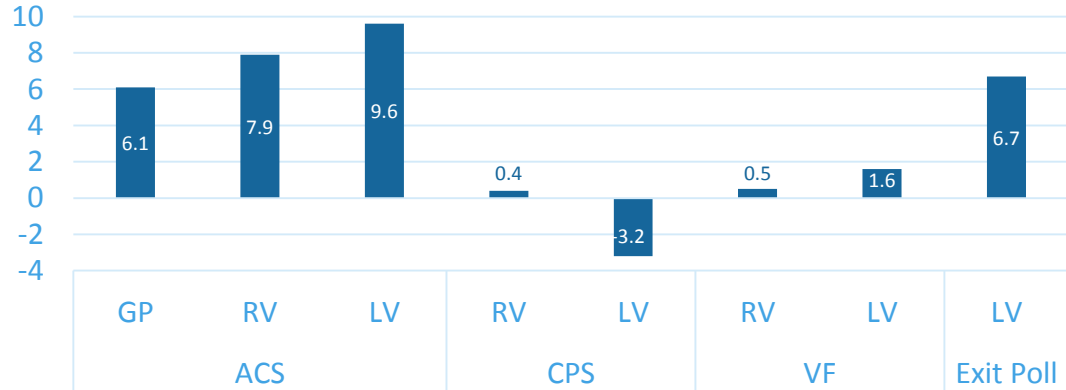
Poll Error Using the ACS Gen Pop Weights
(poll margin - actual margin)



Targets Available in November 2016

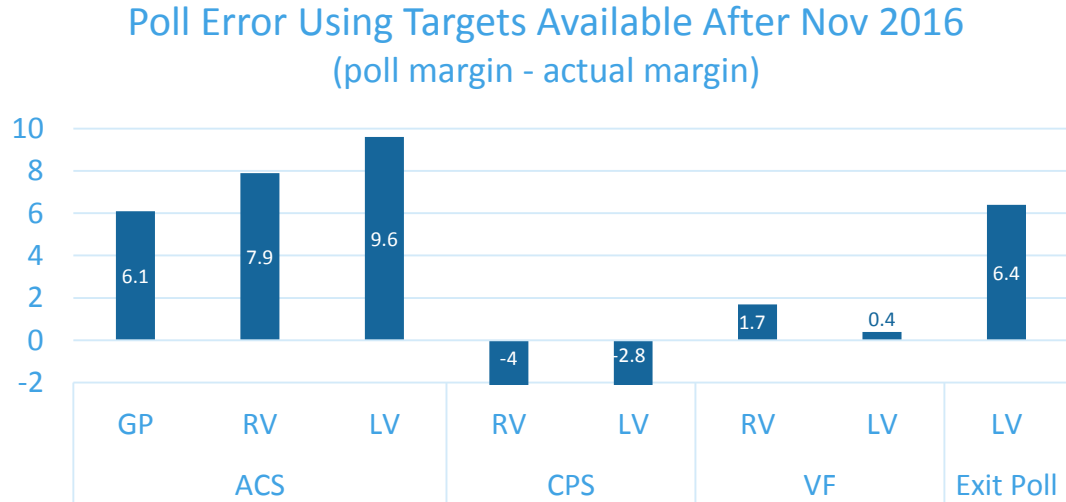
- Most accurate
 - Weighting RVs to CPS or voterfile RV targets
- Least accurate
 - Gen pop weights
 - Exit Poll

Poll Error Using Targets Available in Nov 2016
(poll margin - actual margin)



Targets Available After November 2016

- Most accurate
 - Weighting LVs to voterfile 2016 voter targets
- Least accurate
 - Gen pop weights
 - Exit Poll





Conclusion

What we learned and how to use it

Conclusion

Limitations

- Nonprobability sample
- LV screen = 1 question
- Voterfile LV definition might be defined differently by others

Conclusion

Summary

- Do we need to interview gen pop sample and then filter? No
 - Appears to be okay to screen out non-registered or non-likely voters and weight
- What targets should we use in non-election years for likely voters?
 - Voterfile targets for 2016 voters works well
- What targets leading up to an election?
 - CPS or voterfile RV targets

Thank you!

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Appendix

References

- Cohn, N. (2018). *Trump Losing College-Educated Whites? He Never Won Them in the First Place*. Retrieved from New York Times website: <https://www.nytimes.com/2018/02/27/upshot/trump-losing-college-educated-whites-he-never-won-them-in-the-first-place.html>
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- McDonald, M. (2005). *The True Electorate: A Cross-Validation of Voter Registration Files and Election Survey Demographics*. *Public Opinion Quarterly*, 71(4), 588-602.

Survey Questions

- Likely voters:
 - How likely are you to vote in the upcoming presidential election on November 8, 2016?
 - 1) Definitely will vote [LIKELY VOTER]
 - 2) Probably will vote [LIKELY VOTER]
 - 3) Might or might not vote
 - 4) Probably will not vote
 - 5) Definitely will not vote
- Registered voters:
 - Are you...?
 - 1) Currently registered to vote
 - 2) Not yet registered to vote
 - 3) Don't know
- Voter Behavior
 - In the 2016 general election for President, do you plan to vote for ?
 - 1) Democrat Hillary Clinton
 - 2) Republican Donald Trump
 - 3) Libertarian Gary Johnson
 - 4) I'm not sure about this

Appendix

Weight variables for each target

- 2015 ACS 1-year General Population
 - Age x Gender
 - Gender x Education
 - Age x Education
 - Region
 - Race/Ethnicity x Education
- 2012, 2016 CPS Registered/Likely Voter
 - Age x Gender
 - Gender x Education
 - Age x Education
 - Region
 - Race/Ethnicity x Education
- 2016 Catalist Voterfile/Pre-election Registered/Likely Voter
 - Age x Gender
 - Gender x Education
 - Age x Education
 - Region
 - Race/Ethnicity x Education
- 2016 Exit Poll Likely Voter
 - Age
 - Gender
 - Race/Ethnicity x Education
 - Race/Ethnicity
 - Education
- 2012 Exit Poll Likely Voter
 - Age
 - Gender
 - Race/Ethnicity
 - Education