

Design and Analysis of Sample Surveys

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Class 13a: Low response rates in U.S. surveys

Census undercount

From an official press release:

"The Census Bureau estimates that among the 300.7 million people who live in housing units, about 94.7 percent were counted correctly, about 3.3 percent were counted erroneously, 1.6 percent provided only a census count and had their demographic characteristics imputed, or statistically inserted, and 0.4 percent needed more extensive imputation after all census follow-up efforts were attempted. . . .

The Census Bureau estimated 16.0 million omissions in the census. Omissions include people missed in the census and people whose census records could not be verified in the post-enumeration survey because they did not answer enough of the demographic characteristic questions in the census. Of the 16.0 million omissions, about 6.0 million were likely counted in the census but couldn't be verified in the post-enumeration survey."

Demographics of Census undercount

- ▶ Homeowners +0.6% (overcount), renters -1.1% (undercount)
- ▶ Non-Hispanic whites +0.8%, blacks -2.1%, Hispanics -1.5%
- ▶ Native Americans on reservations -4.9%
- ▶ Men 18–49 undercounted, women 30–49 overcounted
- ▶ No statistically significant overcount or undercount in any state

Estimating the Census undercount

From the press release:

The post-enumeration survey is one of three types of indicators that measure the quality of a census. The others consist of process indicators, which measure the quality of census operations and data collection, and comparisons to other methods of estimating population size.

Low response rates in U.S. public opinion polls

- ▶ Logic of survey responses
- ▶ Methods for increasing response rates
- ▶ Are low response rates a problem?
- ▶ Validation of surveys

Other U.S. surveys

- ▶ Academic (other than public opinion)
- ▶ Marketing
- ▶ Specialized (e.g., surveys of doctors)
- ▶ Public health

Hard-to-reach populations

- ▶ Small subsets defined by demographics or interests
- ▶ People with some medical condition
- ▶ Rich people
- ▶ Poor people
- ▶ Survey nonrespondents

The divide-and-conquer method

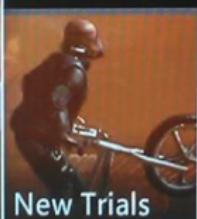
- ▶ Goal: learning about hard-to-reach groups
- ▶ Challenge: can't get a representative sample
- ▶ Solution: estimate subgroups
- ▶ For example, instead of surveying rich Americans, survey rich people in each state or each region, maybe further subdivide by age, . . .

Xbox during the 2012 campaign

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Election 2012



Which Party Should Control the House?



Xbox Poll Results



VP Poll Results



Debate #3 Results



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Xbox survey question

If the election were held today, who would you vote for?

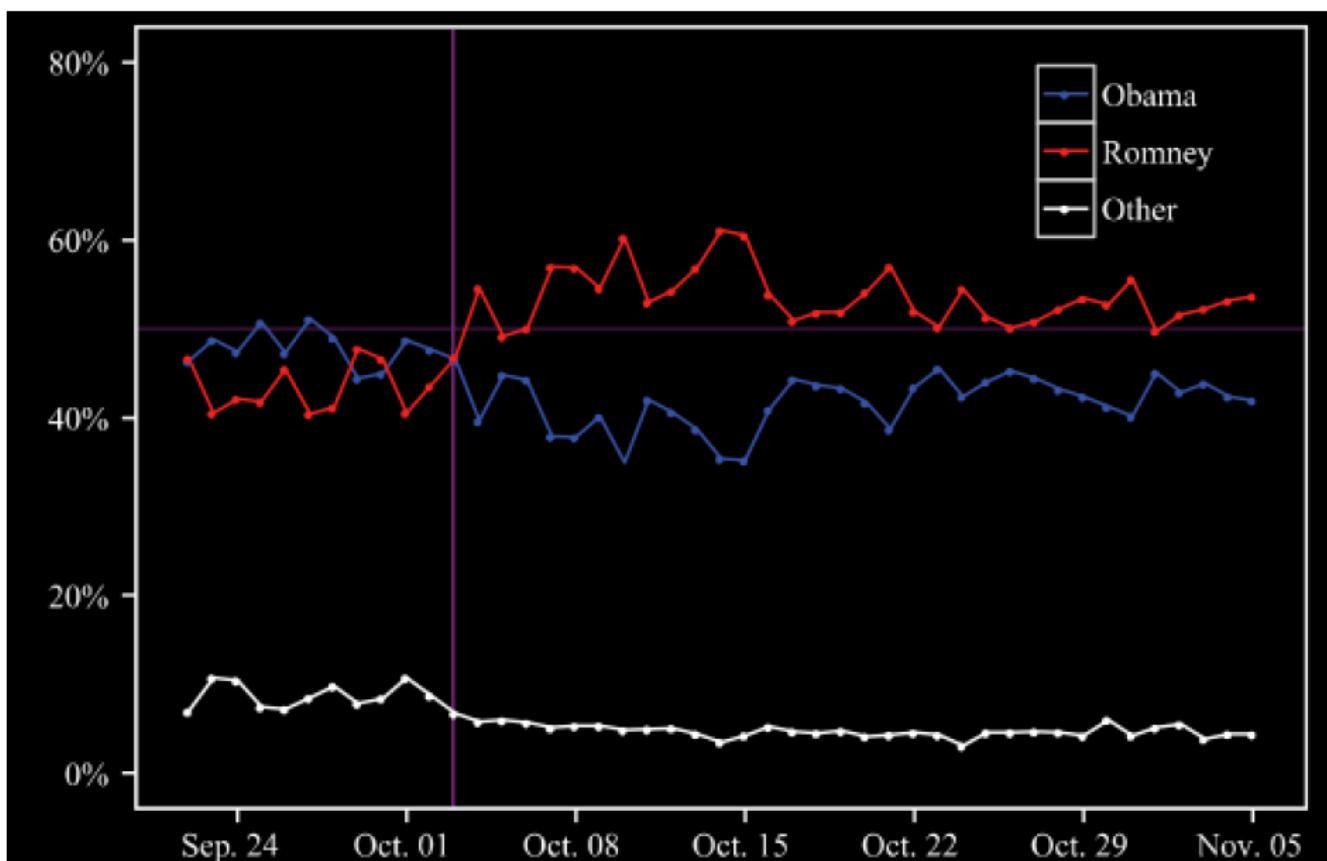
Barack Obama

Mitt Romney

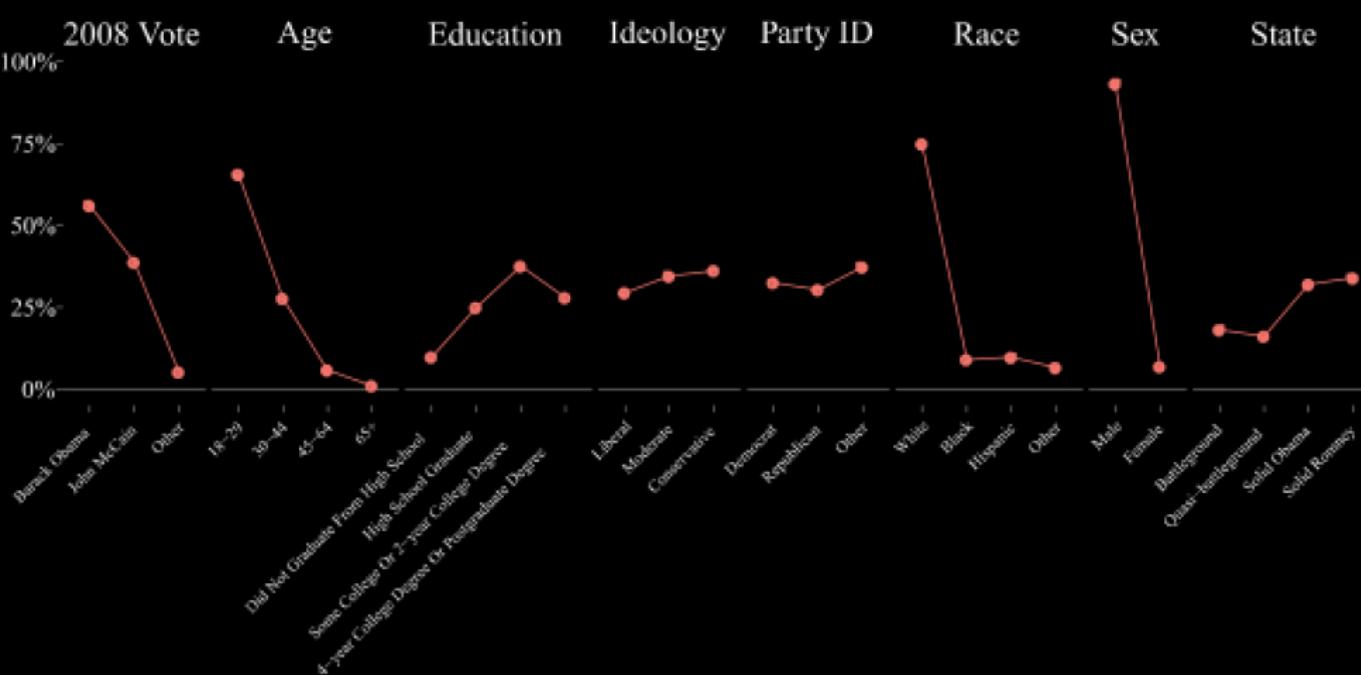
Other

Not sure

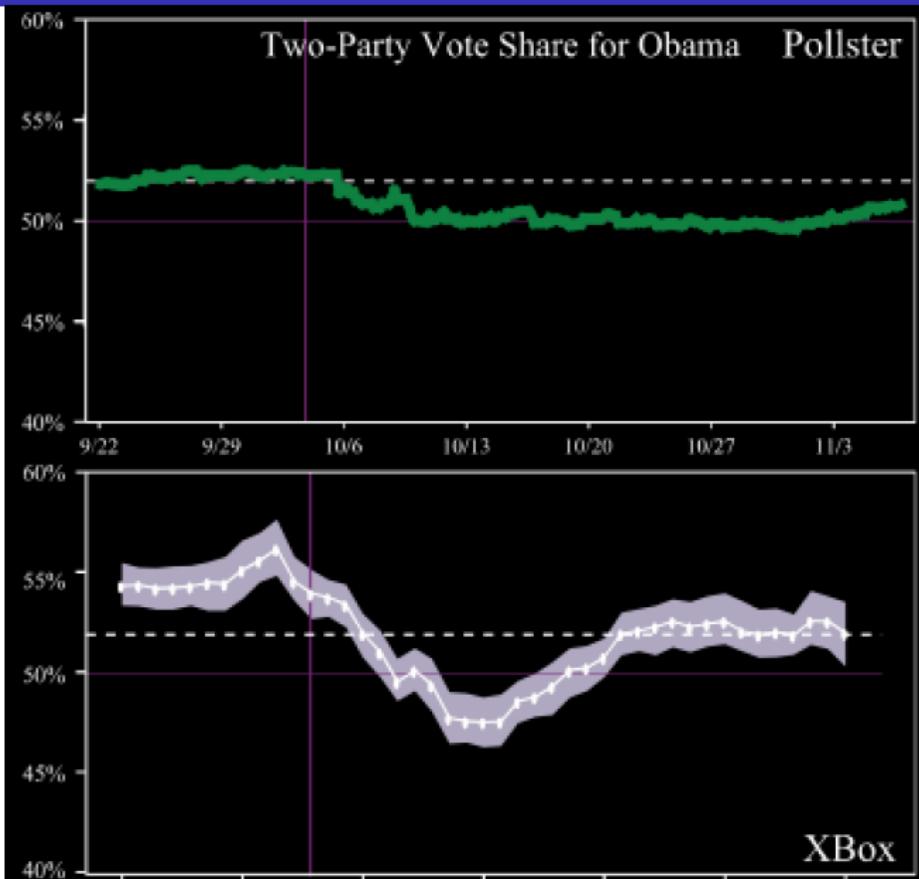
Xbox time series



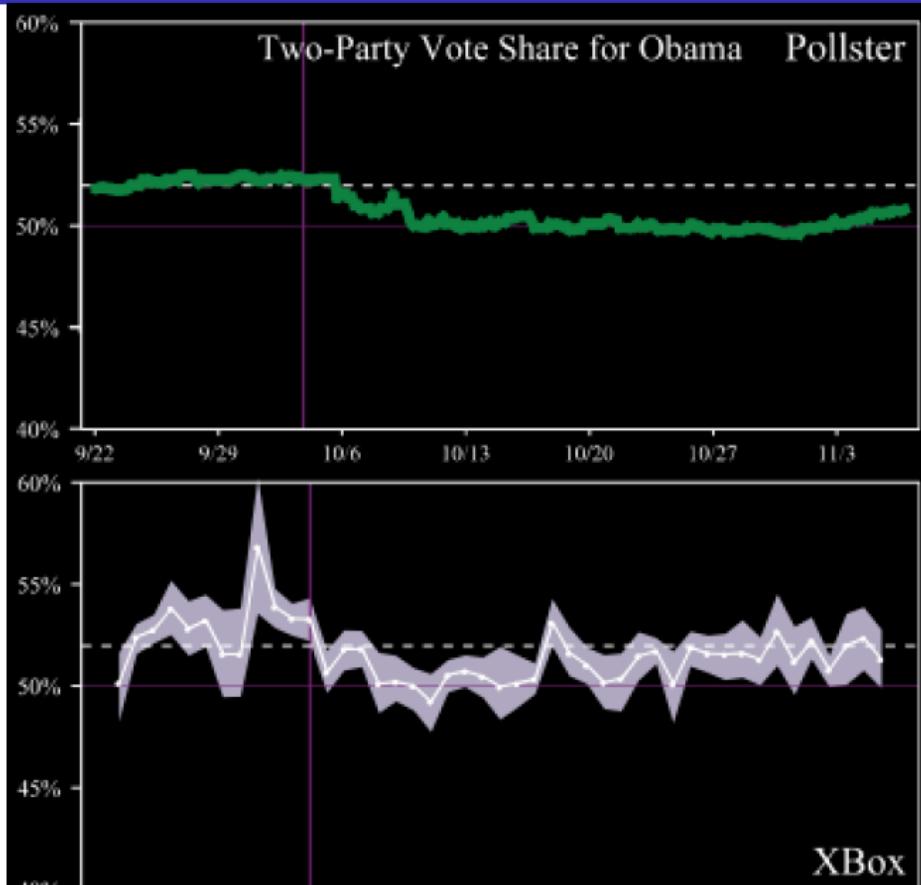
Xbox poll demographics



Xbox with demographic poststrat



Xbox poststrat on demog and pid



A survey of rich people

- ▶ Page, Bartels, Seawright survey of Chicago-area riches:
 $n = 83$
- ▶ “The Wealthfinder ‘rank A’ list of roughly the top 4 percent of US wealth-holding households”
- ▶ Thresholds on “incomes, home values, and income-producing assets of households”
- ▶ “Weighted . . . toward cases that overlap with a separate list of business executives”
- ▶ Median household wealth: \$7 million

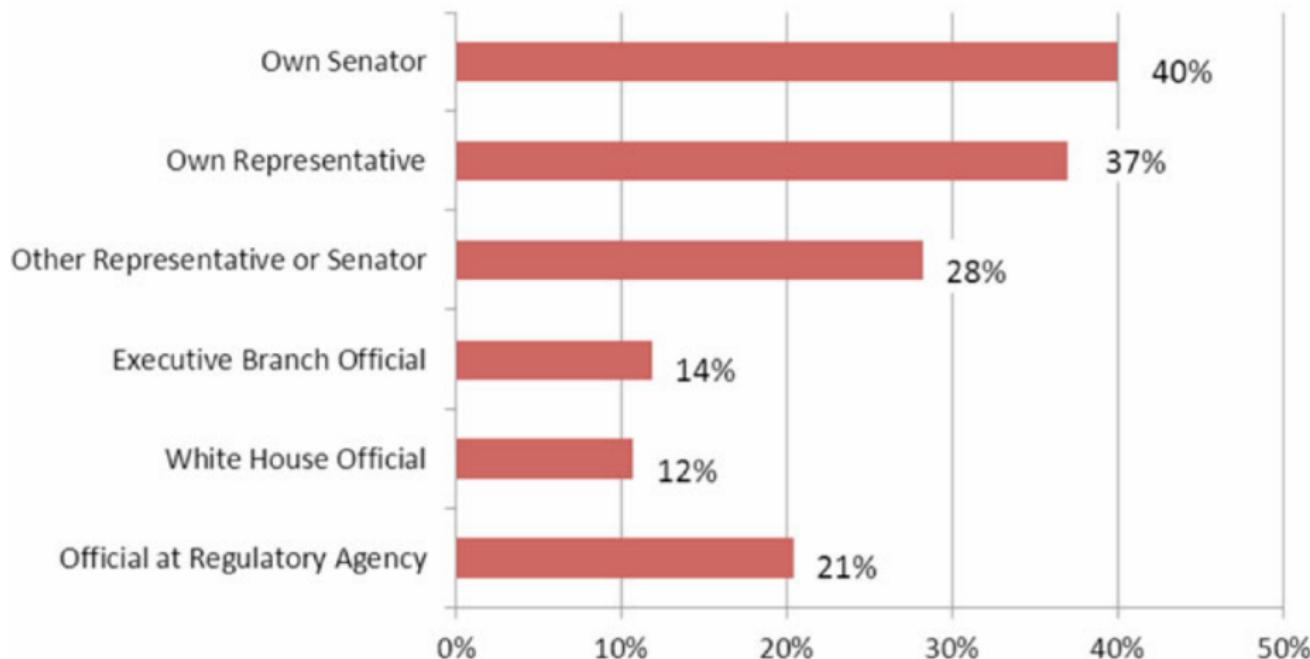
Rich people's political participation

Activity	Participating
Attend to politics "most of the time"	84%
Talk politics (median)	5 days per week
Voted in 2008	99%
Attended political meetings, rallies, speeches, or dinners	41%
Contributed money	68%
Helped solicit or bundle contributions	21%

- ▶ Is this a representative group?

Rich people's political participation

Made Contacts With:



Rich people's political attitudes

Federal Government Program	Wealthy (SESA)	General Public
Improving public infrastructure such as highways, bridges, and airports	+50	+44(a)
Scientific research	+45	+27(b)
Aid to education	+31	+50(a)
Job programs	-7	
Environmental protection	-8	+29(b)
Homeland security	-9	+41(a)
Health care	-19	+44(a)
Food Stamps	-28	
Social Security	-33	+46(a)
Defense spending	-42	+3(a)
Economic aid to other nations	-53	-53(a)
Farm subsidies	-80	

- ▶ Do we believe this?

Learning about vote intentions

- ▶ Who do you plan to vote for?
- ▶ Who do you think will win?
- ▶ Who do your friends plan to vote for?
- ▶ How many people do you know who are changing their votes?
- ▶ Rothschild and Wolfers paper