SurveyResearch @ SurveyMonkey

SurveyMonkey @ AAPOR

Revisiting Sample Frame and Mode Effects: A Comparison of Point Estimates

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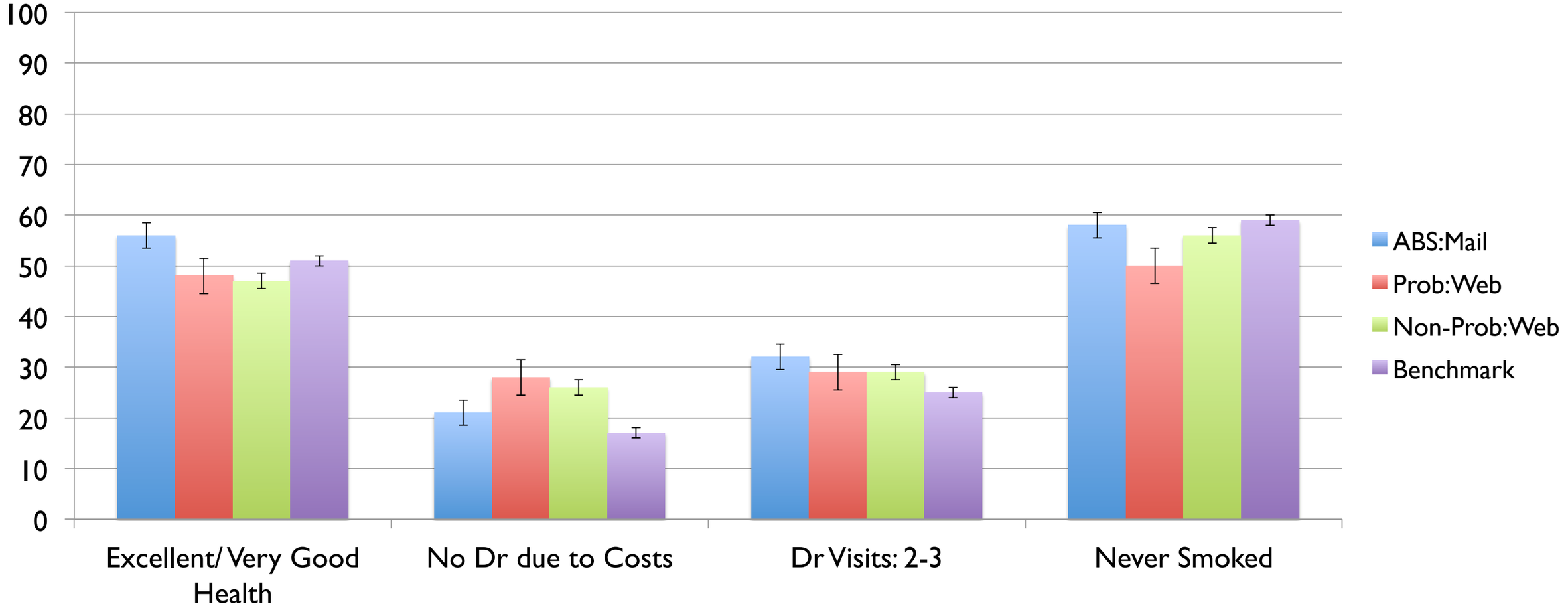
Sarah Cho and Jon Cohen, SurveyMonkey

Ruth Igielnik, Scott Keeter, Andrew Mercer, and Kyley McGeeney, Pew Research Center

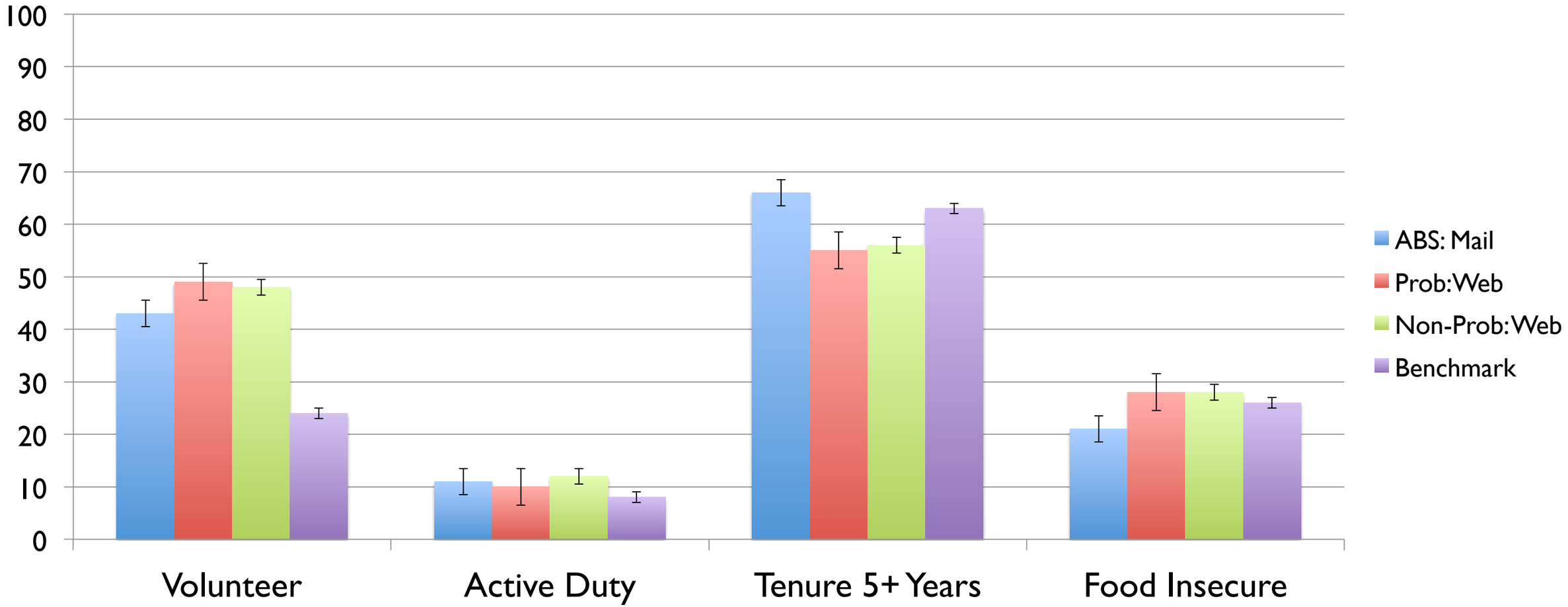
Benchmarks

- American Community Survey
- Current Population Survey
  - Internet Supplement
  - Supplement on Volunteering
- National Health Interview Survey

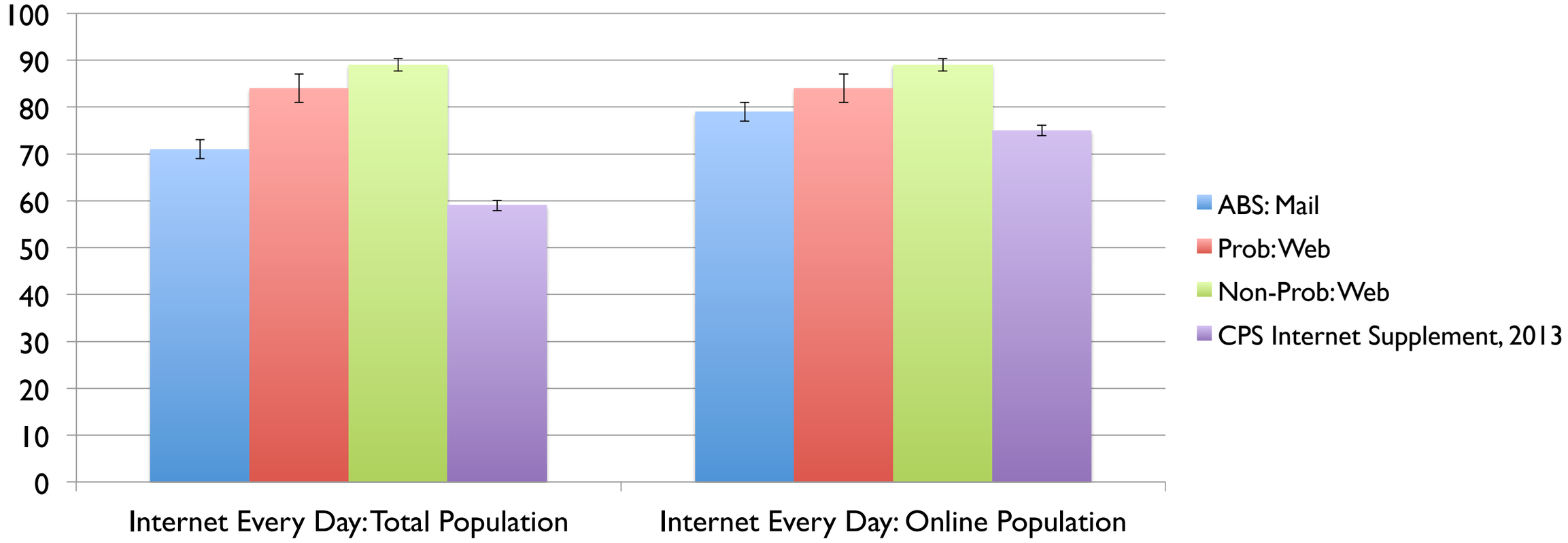
Estimates and Benchmarks: Health Items



Estimates and Benchmarks: Volunteer, Active Duty, Home Tenure, and Food Insecurity



Internet Use Every Day:
Expected Differences; Differences not eliminated by weighting



Summary: Point Estimates

- Median Difference between sample and benchmark
  - ABS: 5.4 percentage points
  - Probability-based Web: 9.1 percentage points
  - Non-probability based Web: 6.5 percentage points

Do the samples lead to different predicted probabilities?

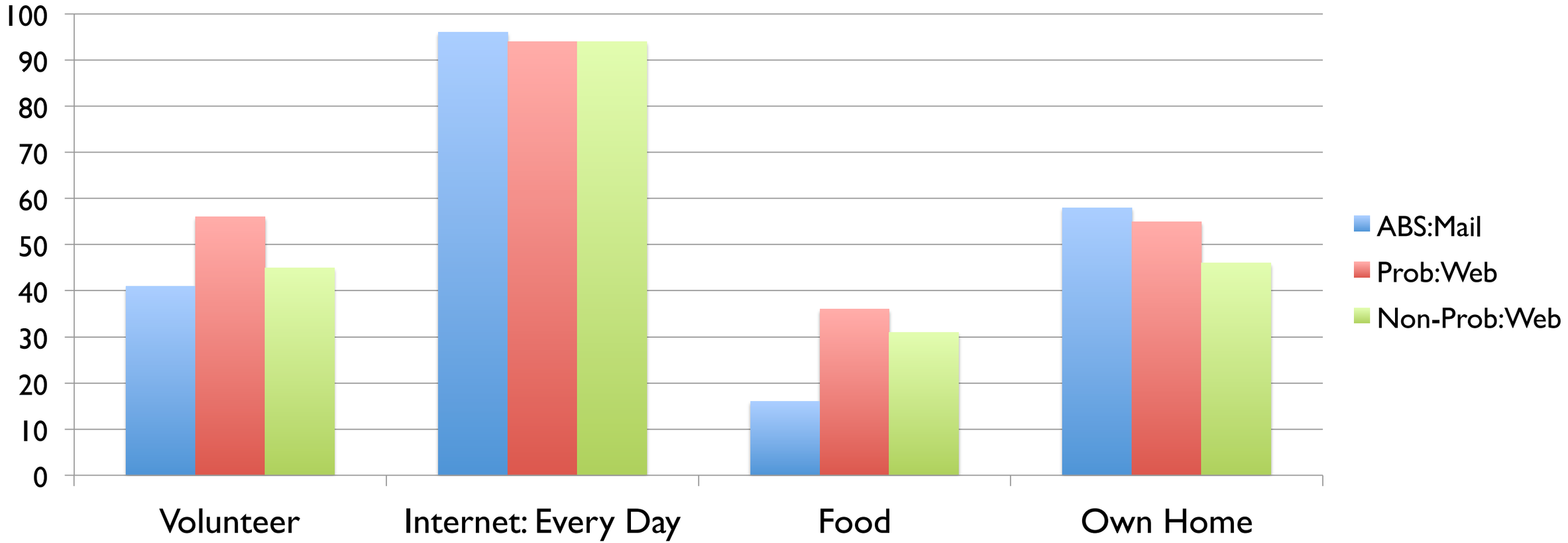
- Logistic regression models for each of the samples
- Independent Variables

  Gender, age, Race, Education, Income, Currently Employed

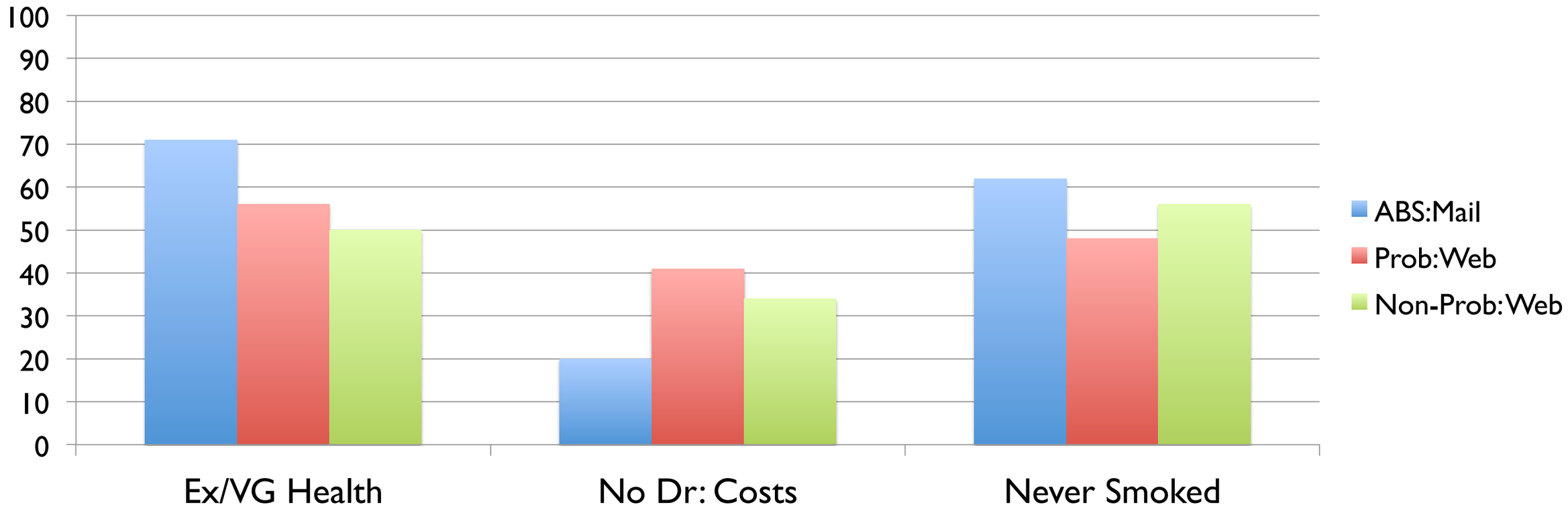
  Not necessarily great models, but consistent!

Predicted Probabilities: Illustrative case

Female, 25-34 years of age, white, some college, $40,000-$99,999, employed



Predicted Probabilities—health items



Conclusions

- Point estimates:
  - No one design consistently superior when compared to benchmarks
  - Variability we would expect
  - The findings suggest that estimates from the ABS differs from both the non-probability and the probability web surveys
    - Coverage and mode confounded
- Multivariate models (not shown) show surprisingly few differences with respect to direction or significance
  - Although the size of the coefficients in these models were substantively different—evident in the predicted probabilities

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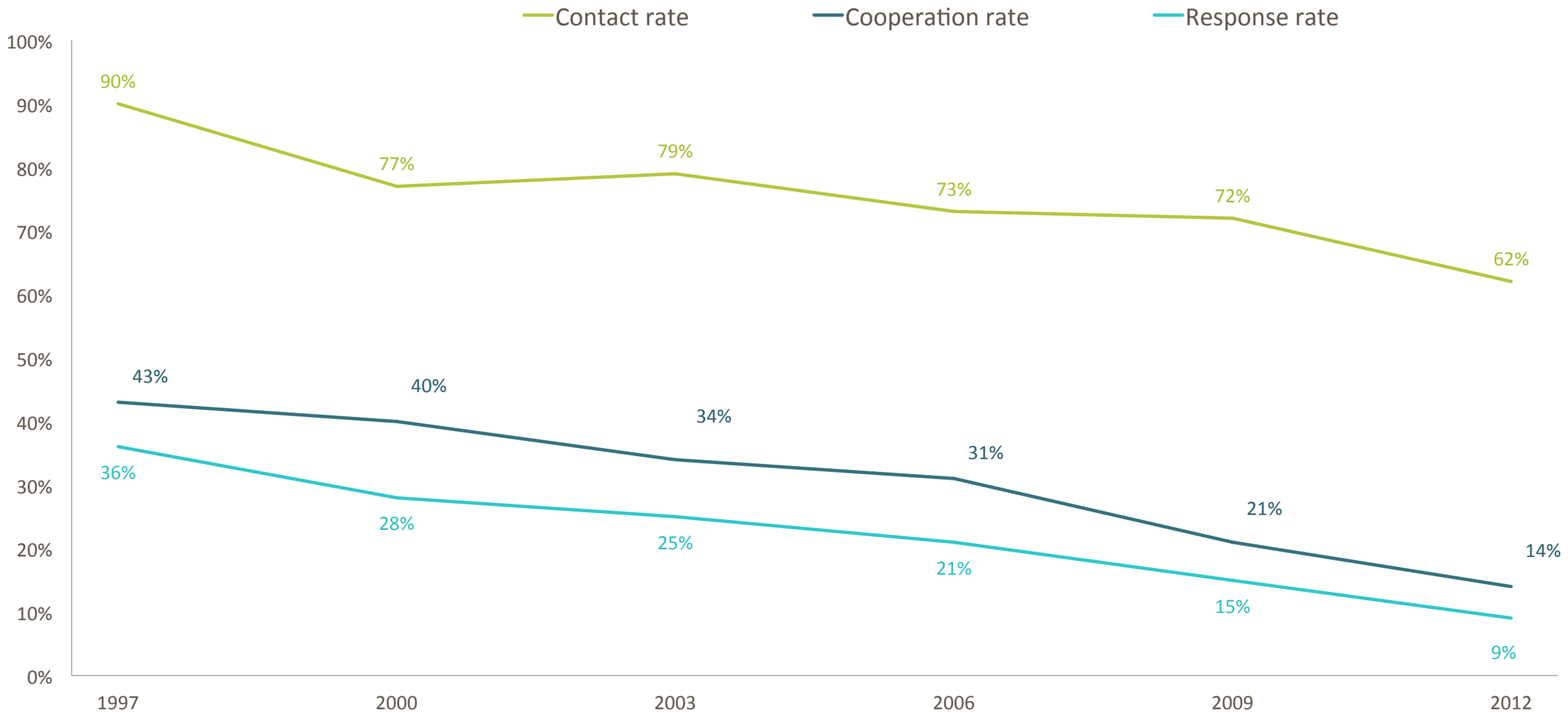
Election Polling

Everyone is hard to reach



SOURCE: Pew Research Center Assessing the Representativeness of Telephone Surveys

TALKING TURKEY

$50

$25

$2,100!

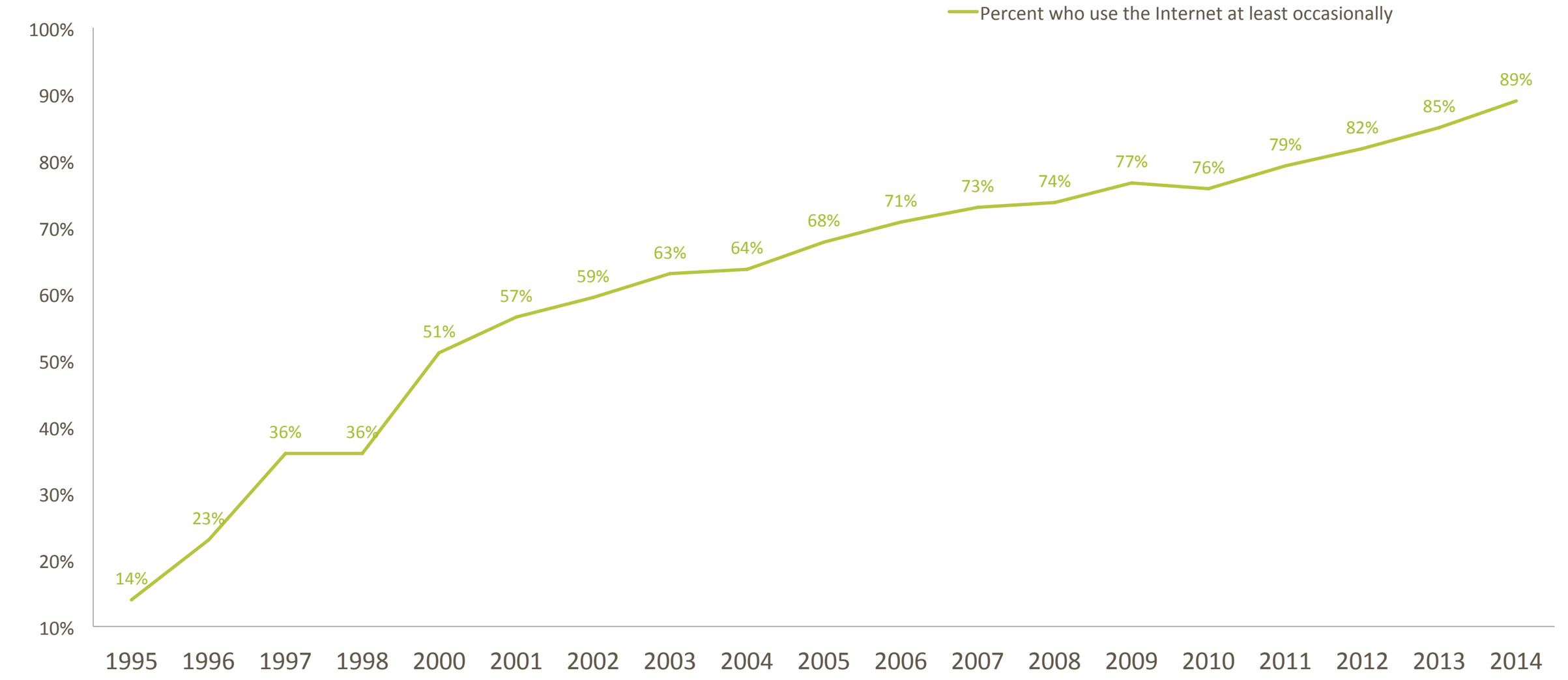
SurveyMonkey™

COLORADO > U.S. SENATE

RACE

CATEGORY	TOTAL	UDALL	GARDNER
White	80%	45%	50%
Black	3%	-	-
Hispanic or Latino	13%	-	-
Asian	1%	-	-
Other	4%	-	-

Breaking news …



SOURCE: Internet penetration data (percent who at least occasionally use the internet, read or check email, or use the internet on their mobile device) from Pew Research Internet Project

SurveyMonkey by the numbers

500K

Surveys sent out every month

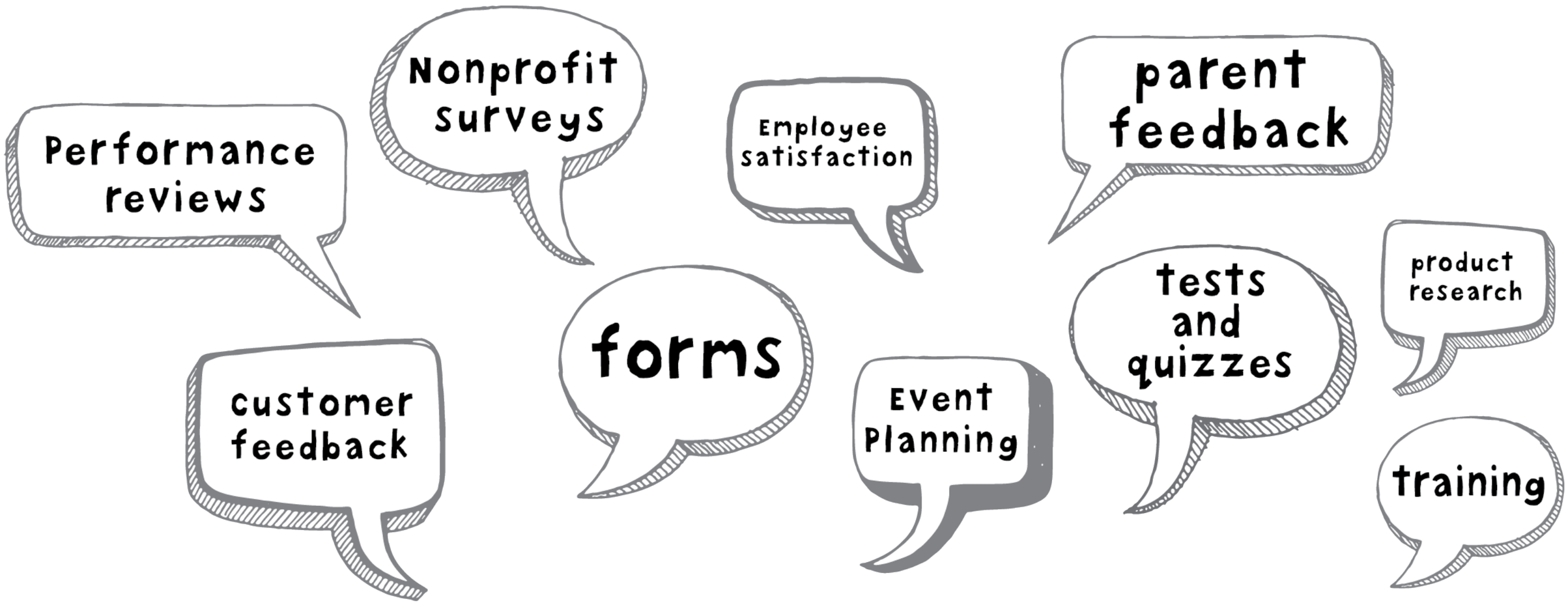
50M

Surveys finished every month

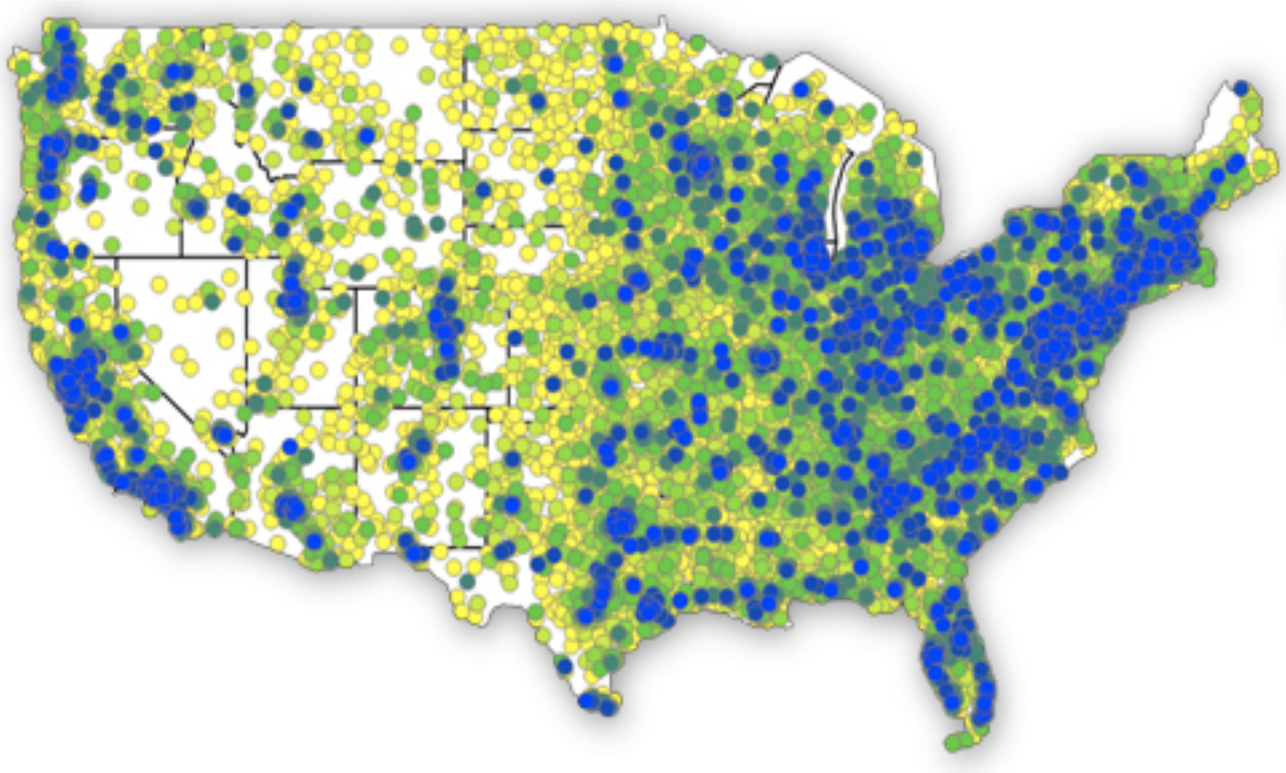
90M

Unique visitors every month

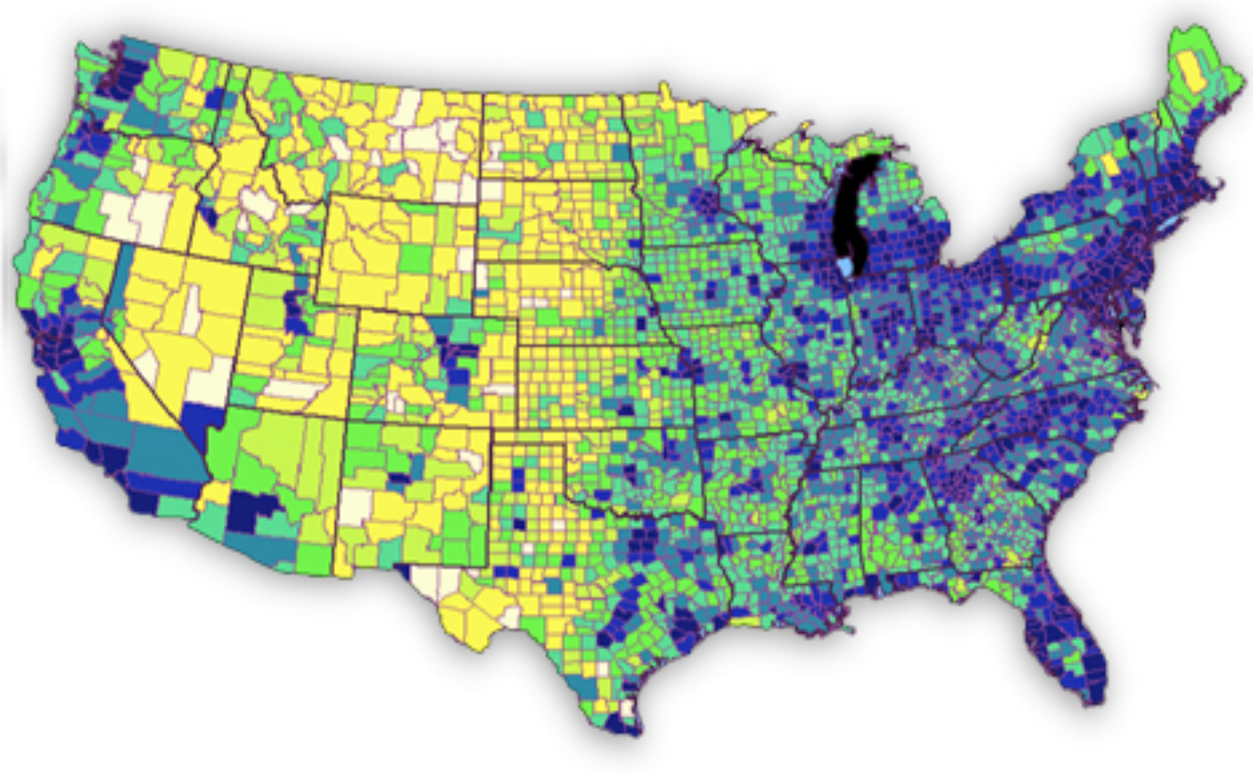
Not just “surveys”



Geographic diversity



SurveyMonkey Monthly Traffic Density



U.S. Population Density

So what now?

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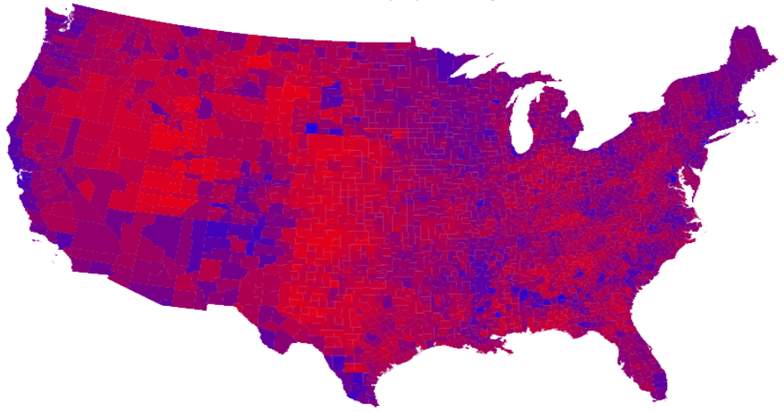

Photo by Michael Gastner / CC BY

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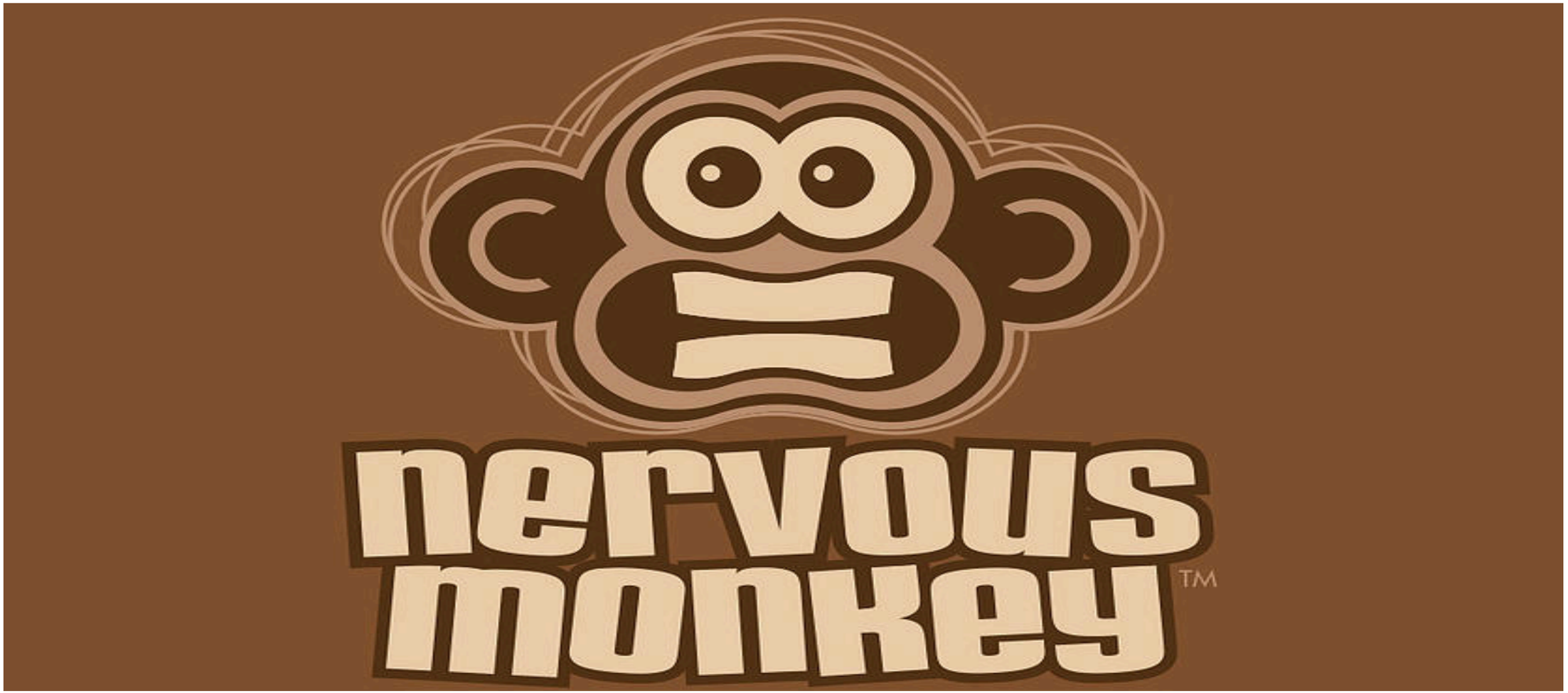
2014 Election project overview

- Conducted Oct. 3 to Nov. 6
- 199,699 total interviews; 171,909 completes
- 34,405 “already voted,” including 13,828 before Election Day
- Click-thru rate of 7 to 14 percent across geographies
- 8,296 completes with teens under 18

What was worrisome



UPDATED / Public story of 2014

SurveyMonkey Vs. Pollster

Experimental Polls Show Less Bias & Total Error

	Average	Median
Bias		
SurveyMonkey: All	+0.3%D	+0.2%R
SurveyMonkey: RV	+1.0%R	+1.4%R
SurveyMonkey: LV	+2.4%R	+1.9%R
Pollster	+4.2%D	+3.8%D
Total Error		
SurveyMonkey: All	4.2%	3.4%
SurveyMonkey: RV	4.2%	3.3%
SurveyMonkey: LV	4.8%	4.0%
Pollster	5.3%	4.1%

Unique insight / expansive state-level data

COLORADO > U.S. SENATE

	Total	Udall	Gardner
White	76	43	52
Black	4	64	25
Hispanic or Latino	16	58	39
Asian	1	66	33
Other	4	42	49

UK – May 2015

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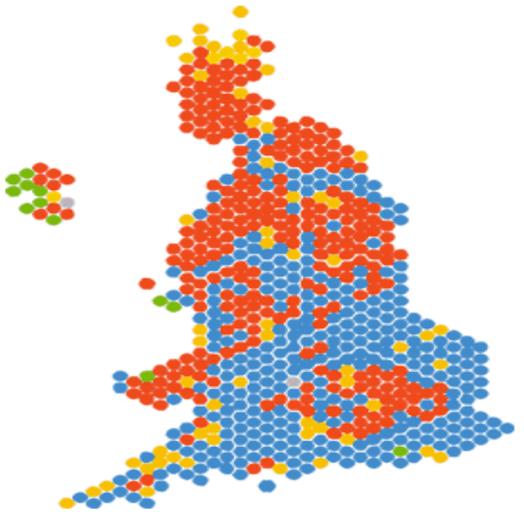
Sign In

Which way will you swing in May?

Share your thoughts ahead of the general election.

Take the survey

Your responses will remain confidential and are for research purposes only.



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British election project overview

- Conducted April 30 to May 6
- Reported on interviews with 18,131 voters
- Average click-thru rate of 16 percent
- Compelling campaign storyline
  - Unpopular PM, economy as No. 1, SNP
- Conservatives +6 over Labour

U.K. ELECTION | 4:42 PM | MAY 13, 2015

SurveyMonkey Was The Other Winner Of The U.K. Election

By CARL BIALIK

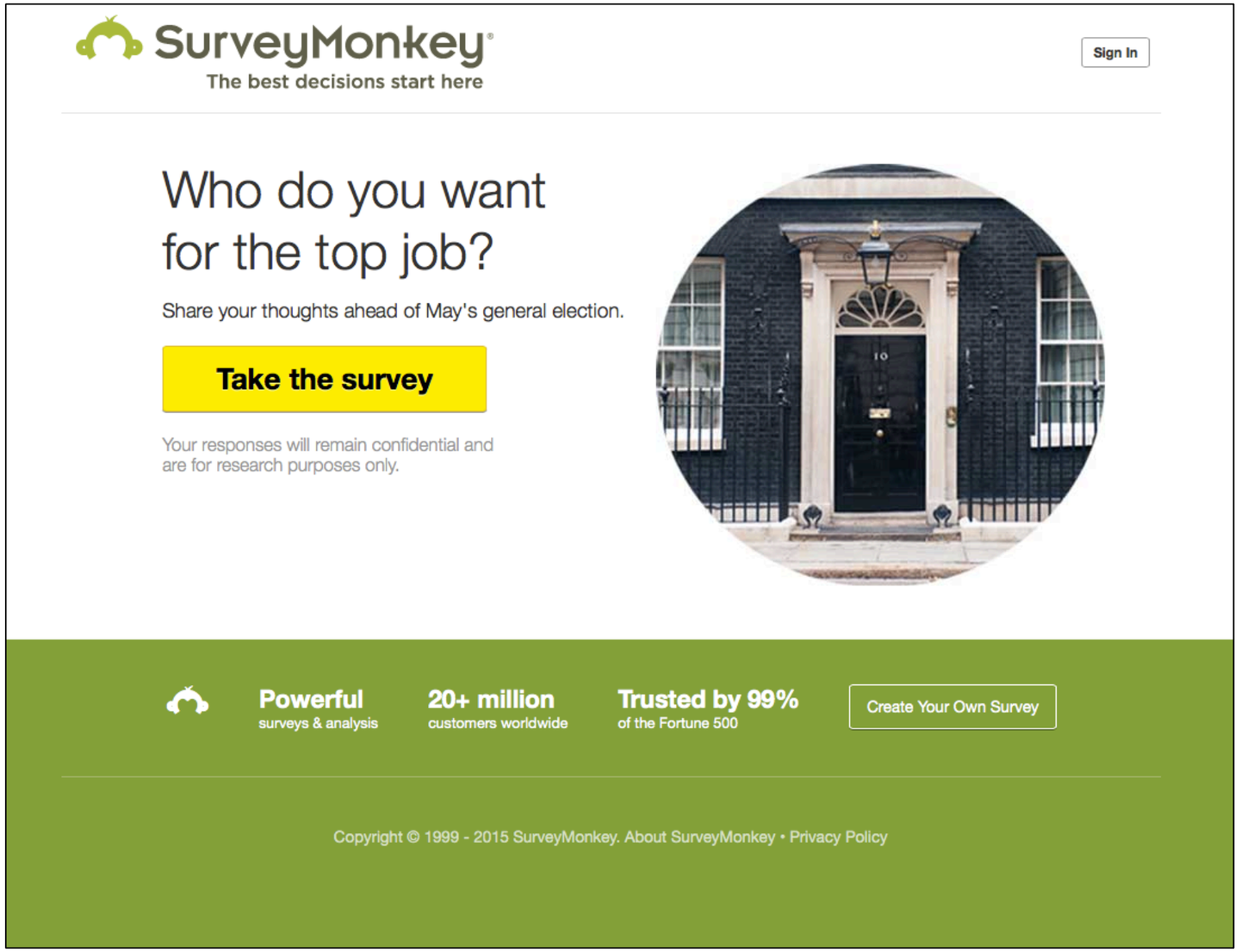
Impact Of Images On Survey Participation, Respondents, And Online Panel Recruitment

Mingnan Liu

Experiment

- U.K. SurveyMonkey end page
- March 12-24, 2015
- Views = 218,846
- Completes = 13,354

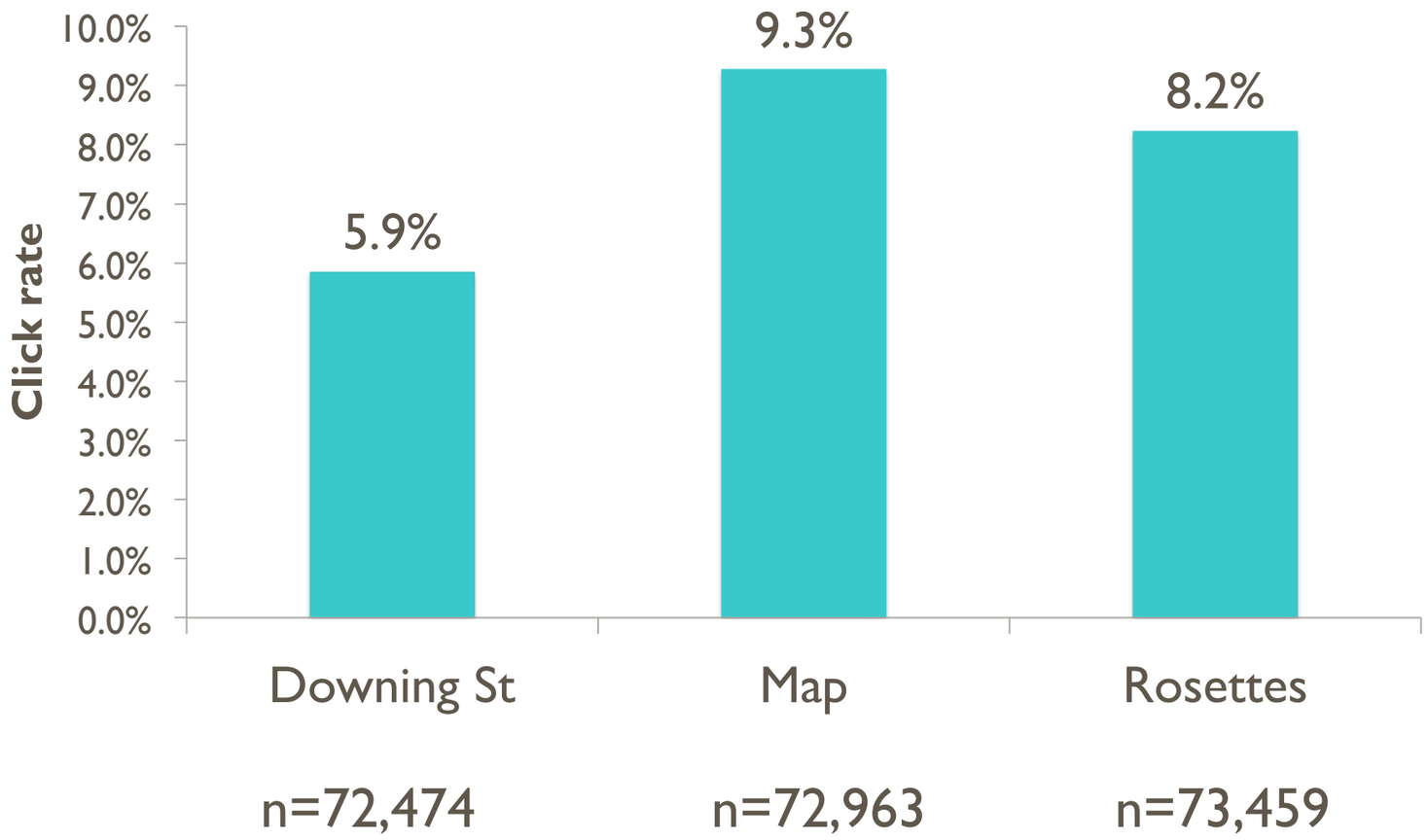
Experimental condition 1 - Downing Street



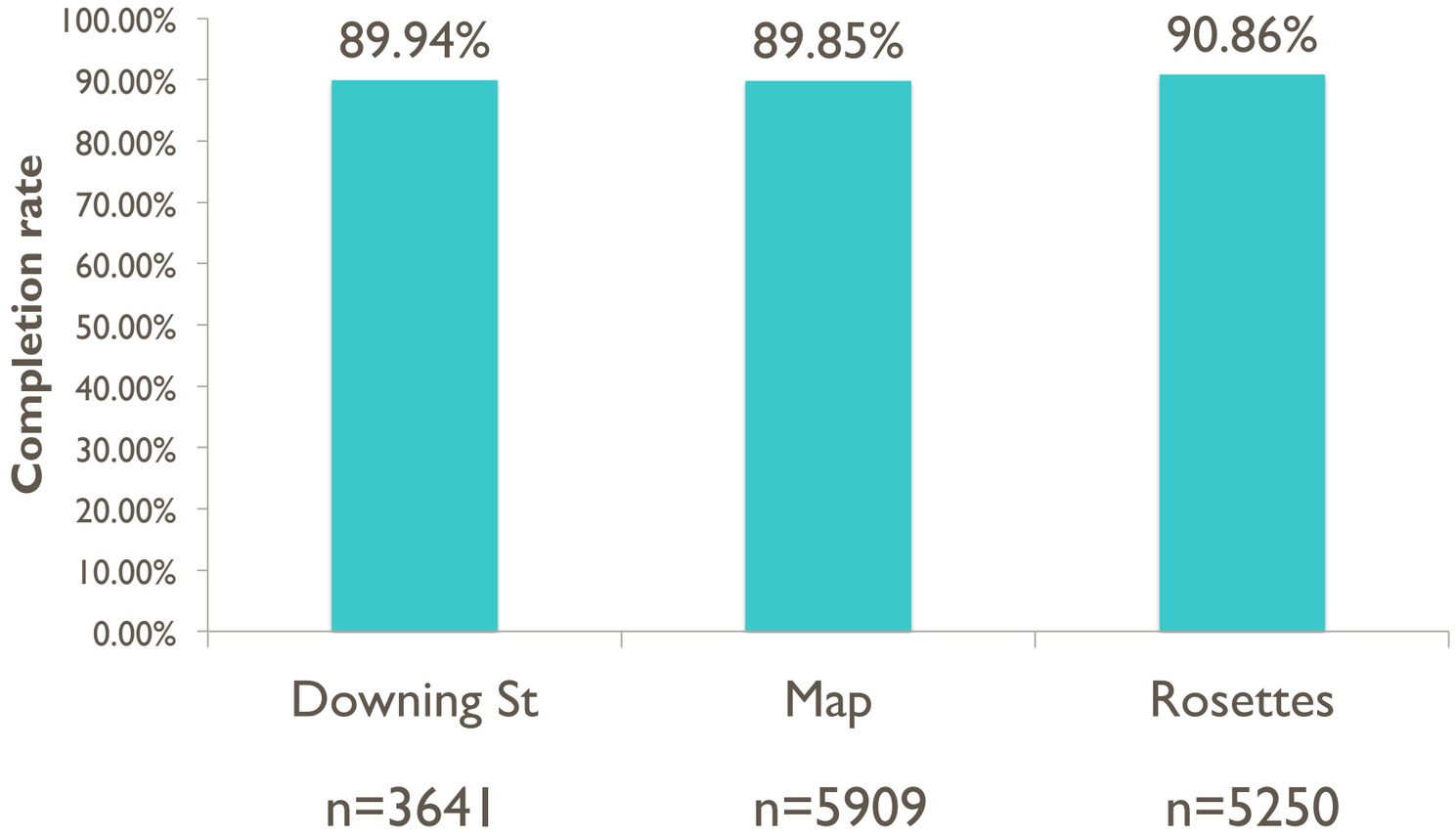
Experimental condition 2 – Voting map

Experimental condition 3 - Rosettes

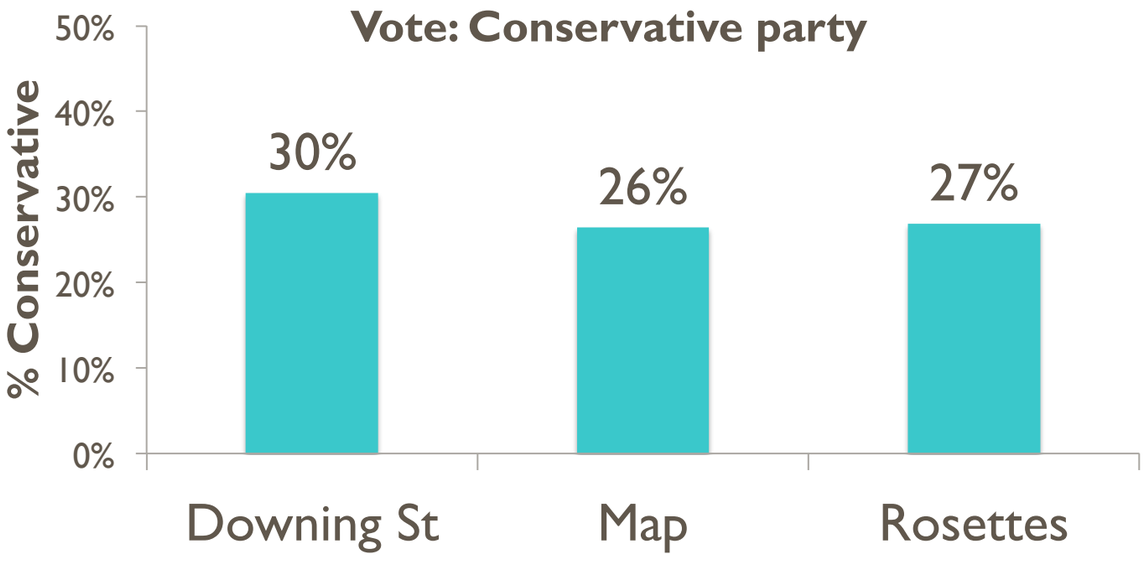
Findings – Click rate



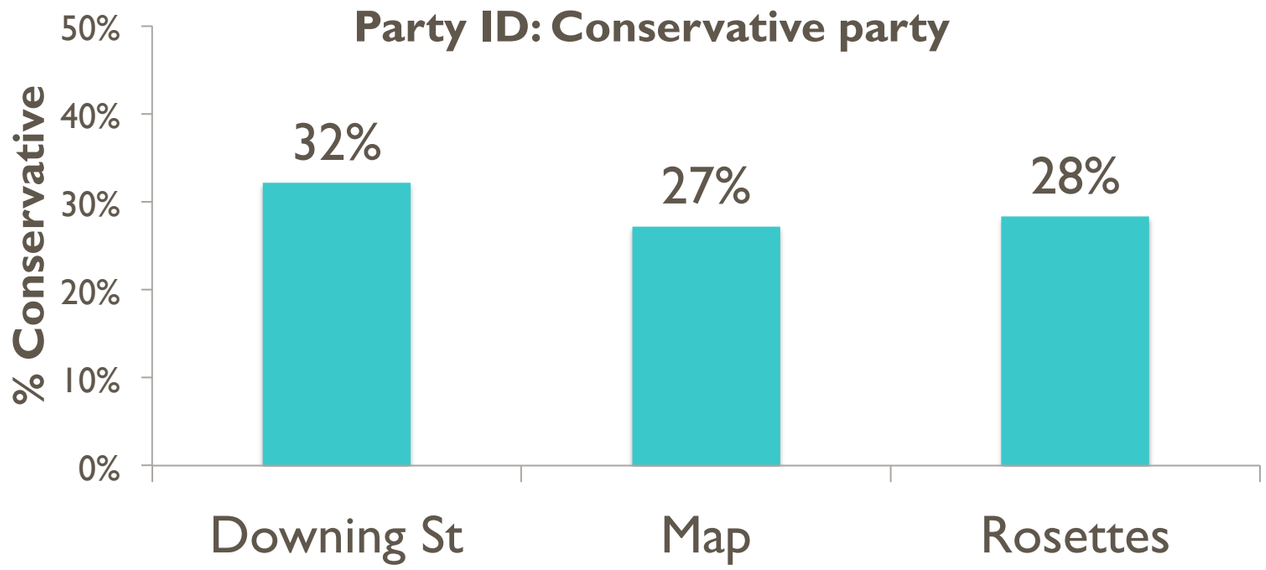
Findings – Completion rate



Findings – Political questions

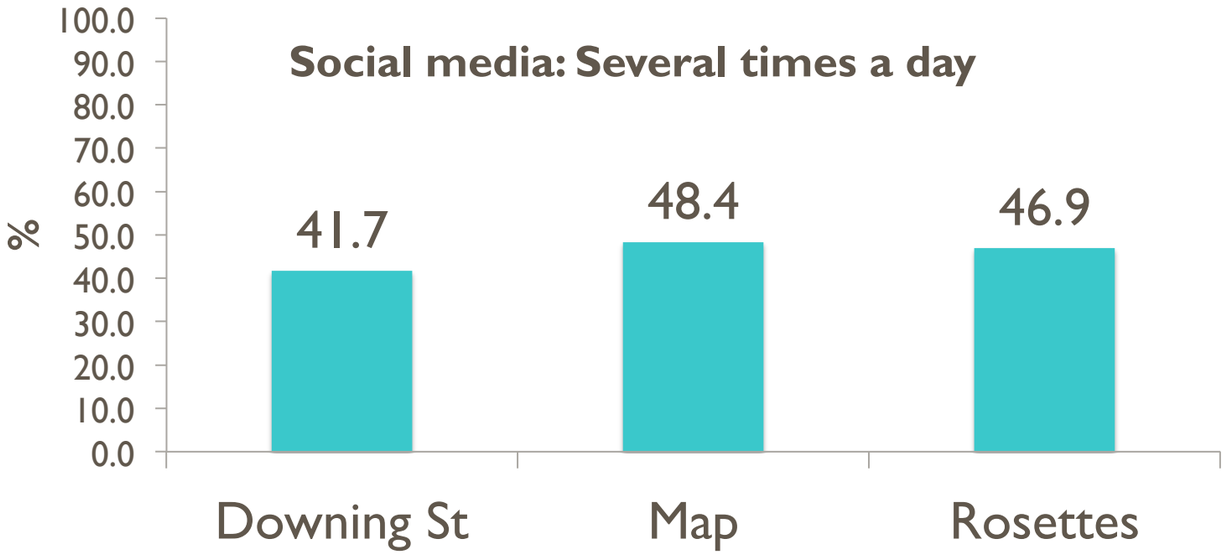


$X^2 = 36.4$, $p = 0.006$

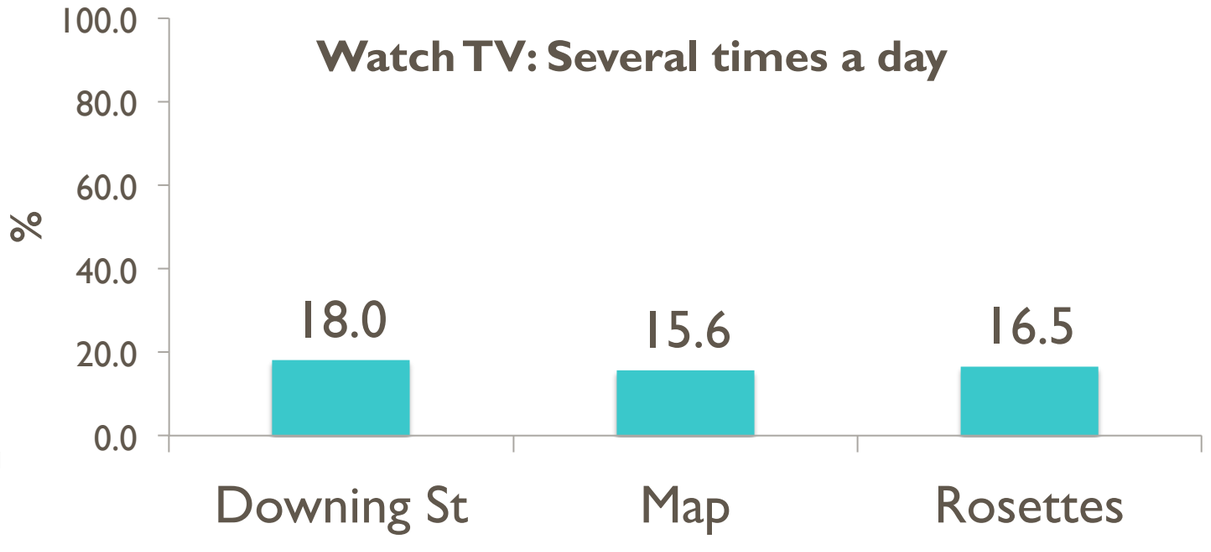


$X^2 = 39.9$, $p = 0.002$

Findings – Media questions



$\chi^2 = 33.0, p < .001$

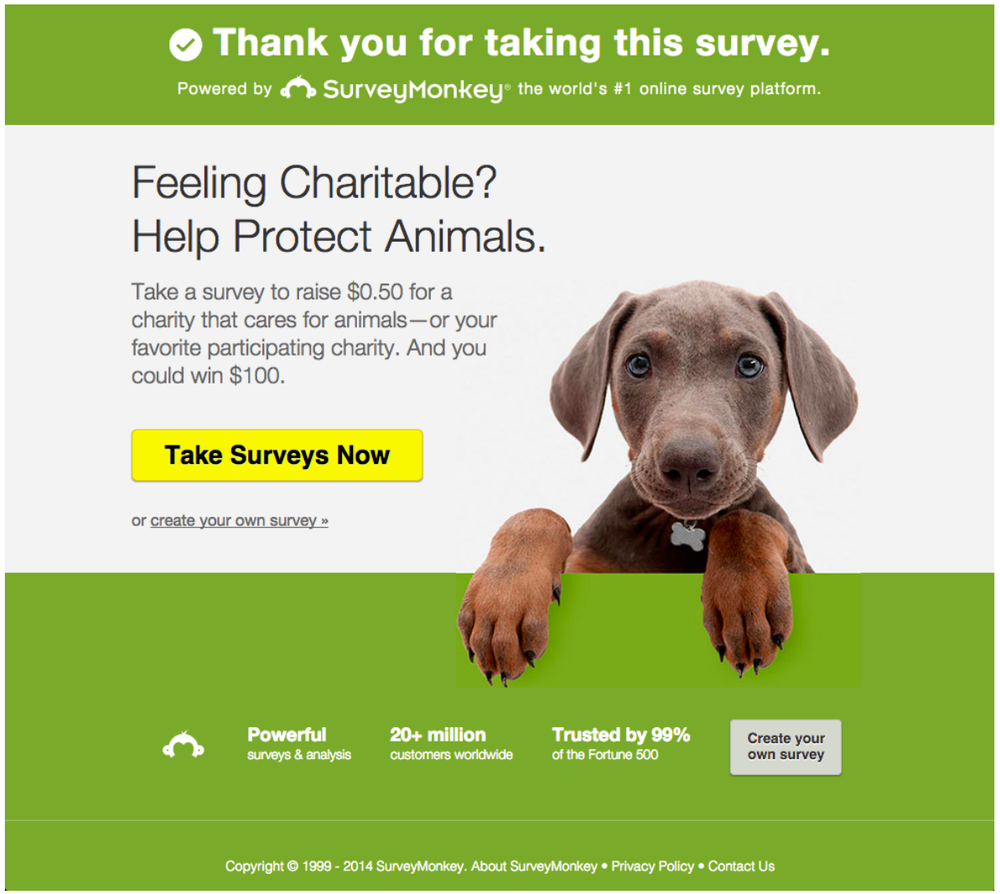


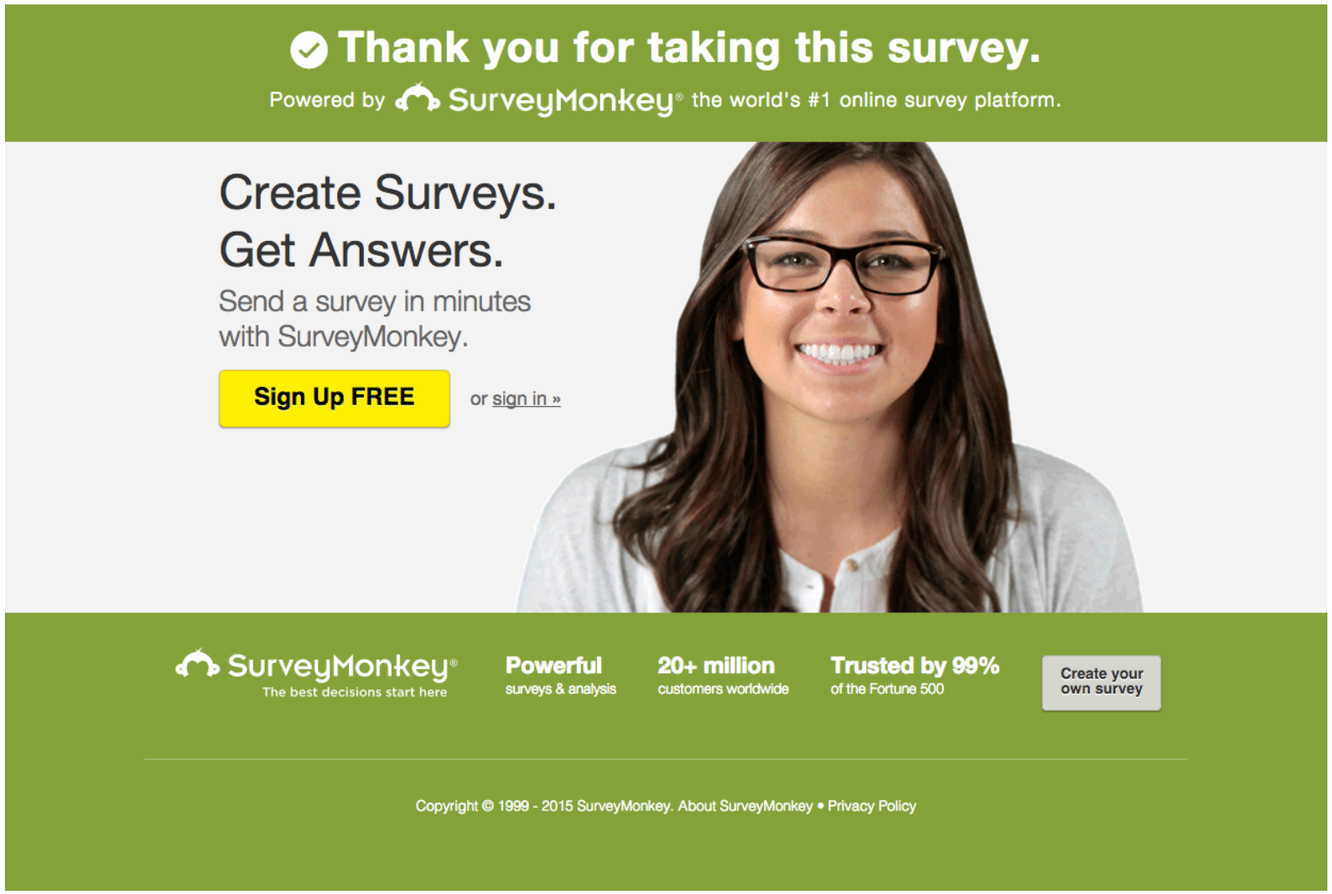
$\chi^2 = 7.4, p<.05$

Non-probability surveys online: Does “empanelment” affect results?

Sarah Cho

Survey Thanks Page





Survey Thanks Page - Recruitment into One Survey

Thank you for taking this survey.

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Red, blue, or purple?
Help us predict the 2014 elections.

Take the survey

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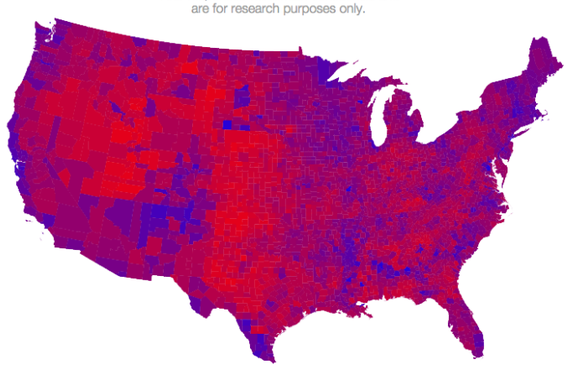

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Where do you stand on current events?
Share your opinion.

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Methods

- Conducted same survey on SurveyMonkey "survey thanks" page and SurveyMonkey Audience (panel)

- Thanks page survey
  - Conducted October 10-November 2, 2014
  - 90,932 completes throughout the US, oversamples in competitive races
- Audience survey
  - Conducted October 27-November 10, 2014
  - 3,393 completes in US, oversamples in HI, CA, NY

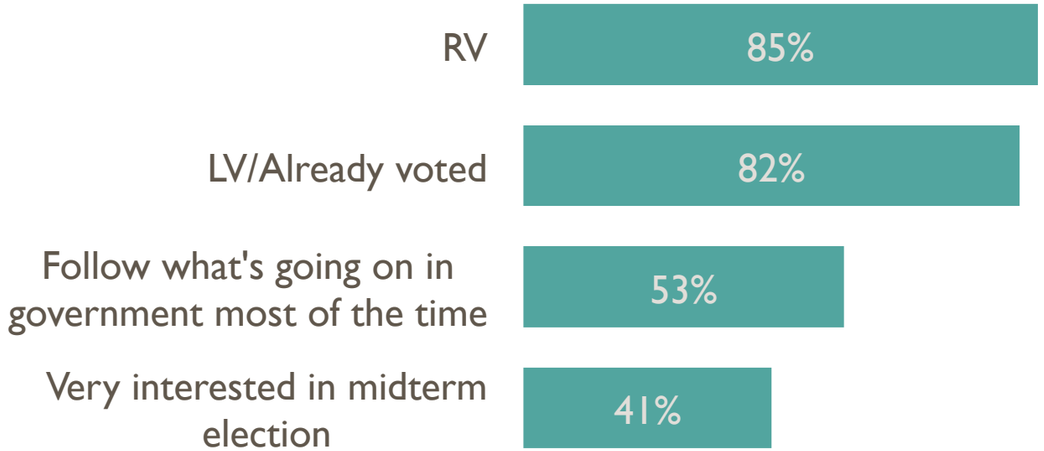
Opinions on Issues Similar, Party ID Different

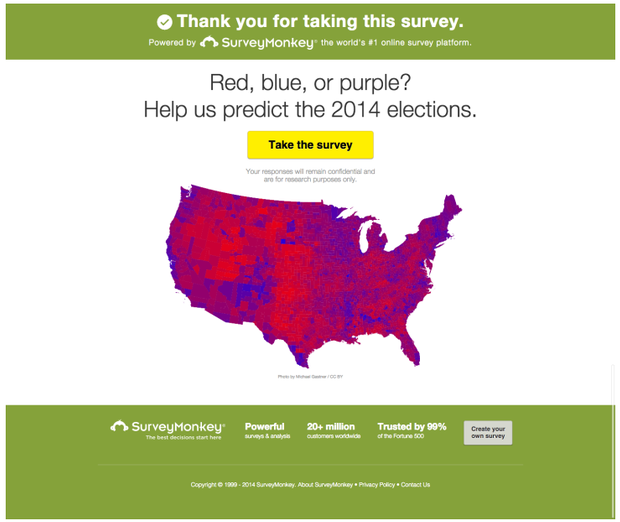
Weighted results	Thanks Page	Audience
Right direction	28%	32%
Wrong track	70	66
Most important issue		
Economy	45%	48%
Health care	21	24
Illegal immigration	17	14
Foreign policy	15	13
Have twitter account	27%	30%
Democrat	31%	35%
Independent	30	34
Republican	30	20
Other	7	8

NOTE: No answer not shown

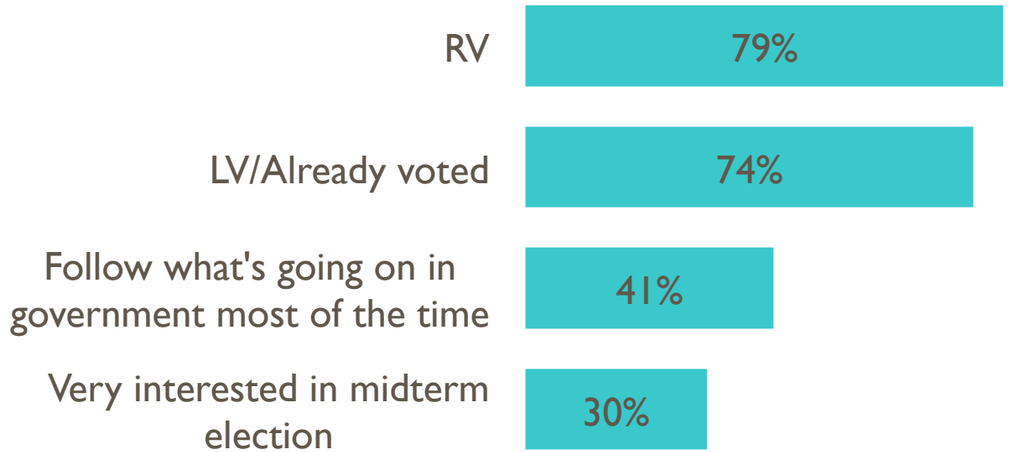
Differing "Call to Action"

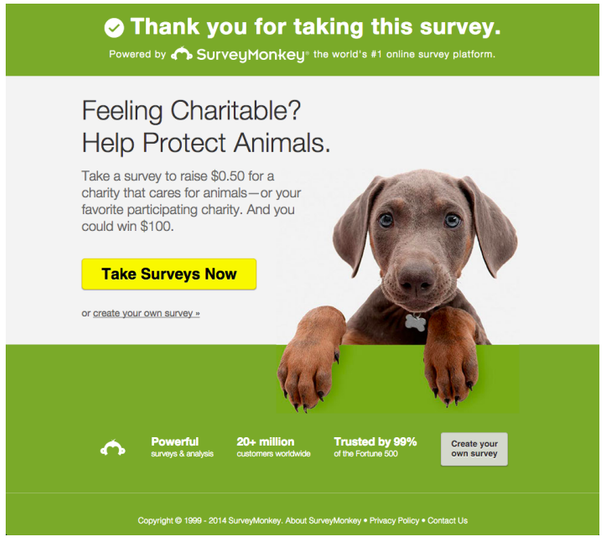
Thank You Page





Audience





NOTE: No answer not shown

Potential Additional Weighting Variables

Weighted demographics	Thanks Page	Audience
Have children under 18 in HH	31%	22%
Currently married	56%	47%
Religious attendance		
More than once a week	11%	9%
Once a week	22	16
A few times a month	12	9
A few times a year	27	26
Never	25	39
Identify as having no religion	16%	24%

NOTE: No answer not shown

Predictors of Completion Rates in Online Surveys

Noble Kuriakose

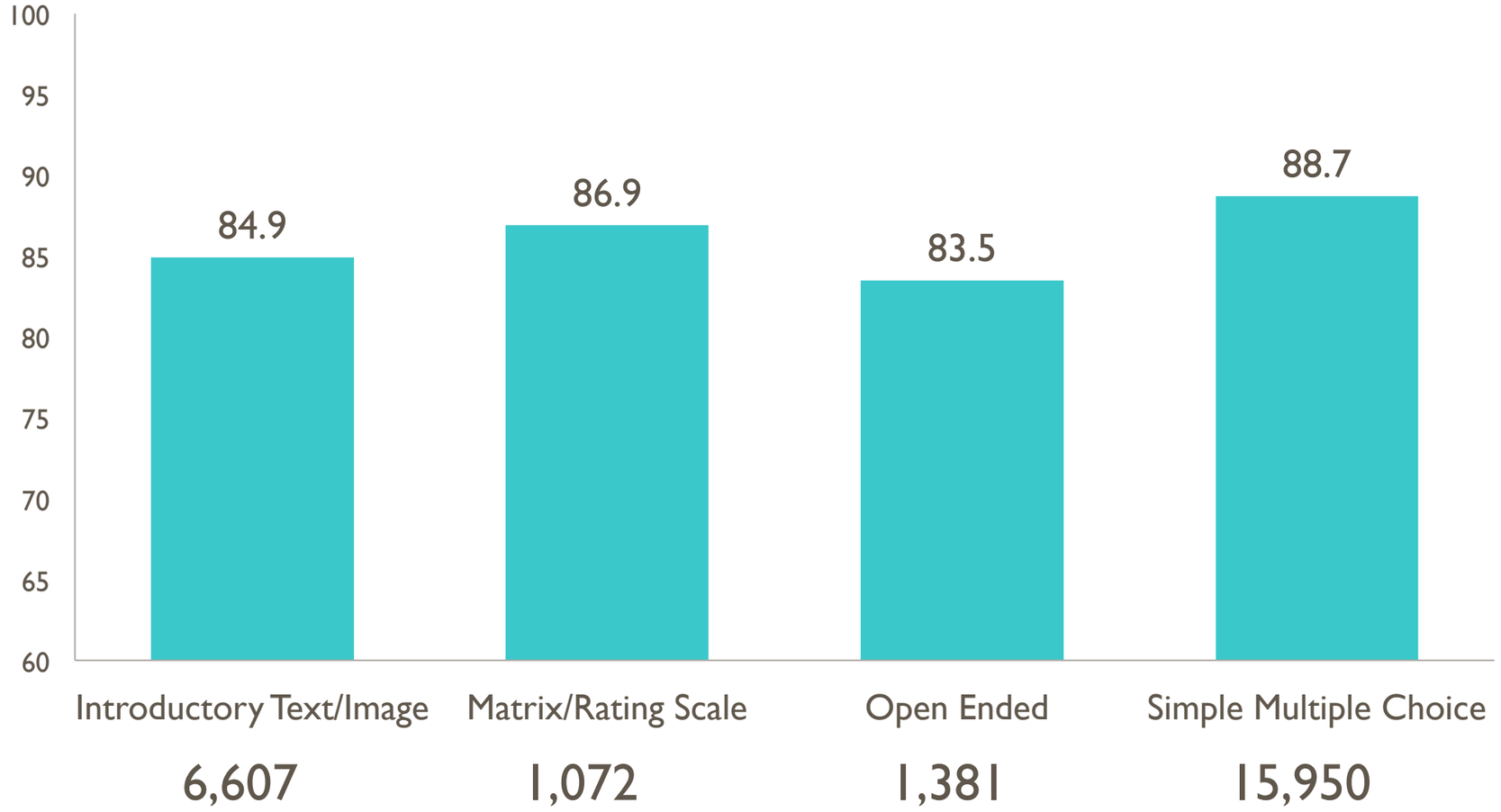
Data

25,080 customer surveys

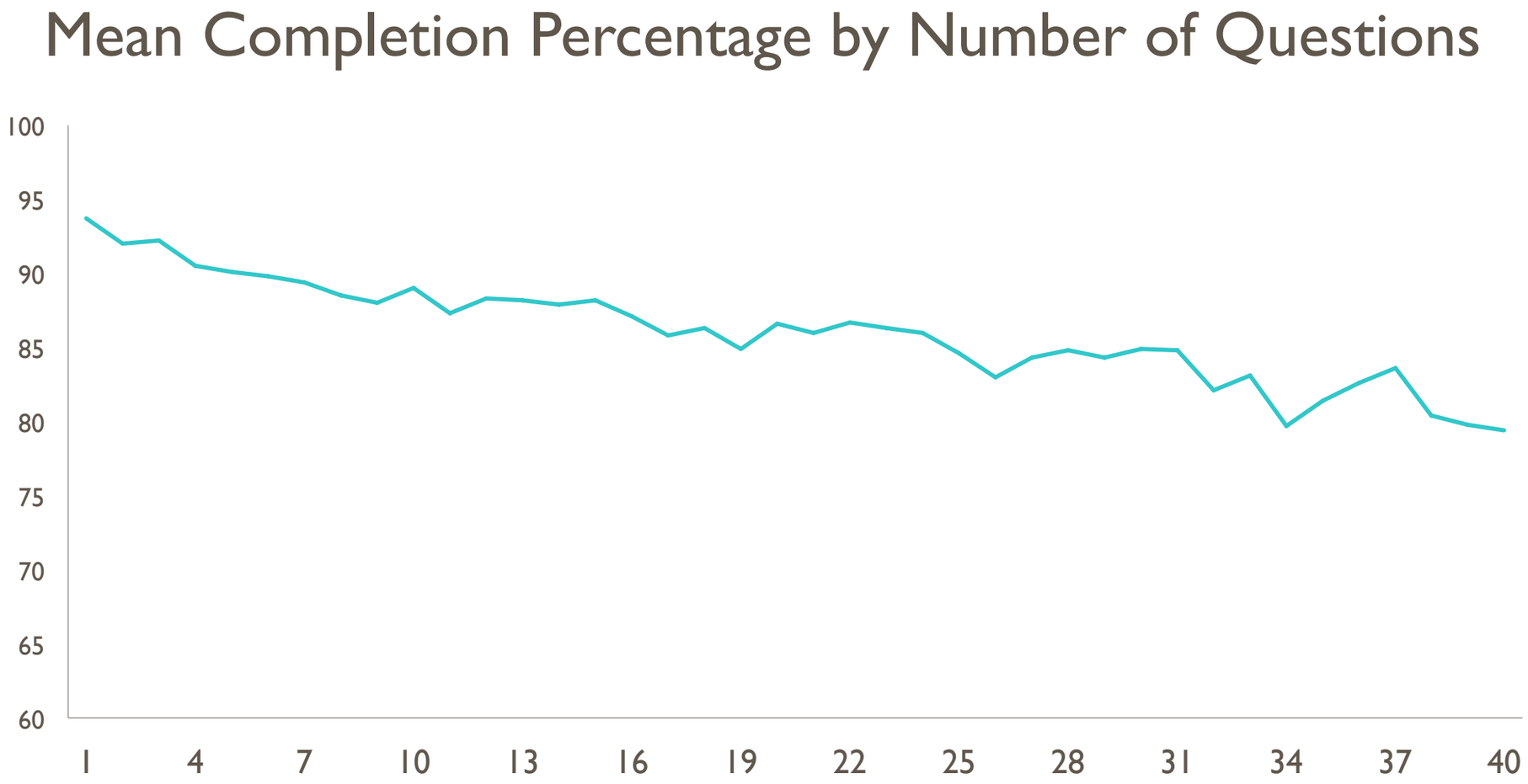
- Administered on SurveyMonkey's online panel, Contribute
- Conducted between May 2011 and April 2015
- At least 100 respondents per survey

Findings – Start simple

Mean Completion Percentage by Type of Opening Question

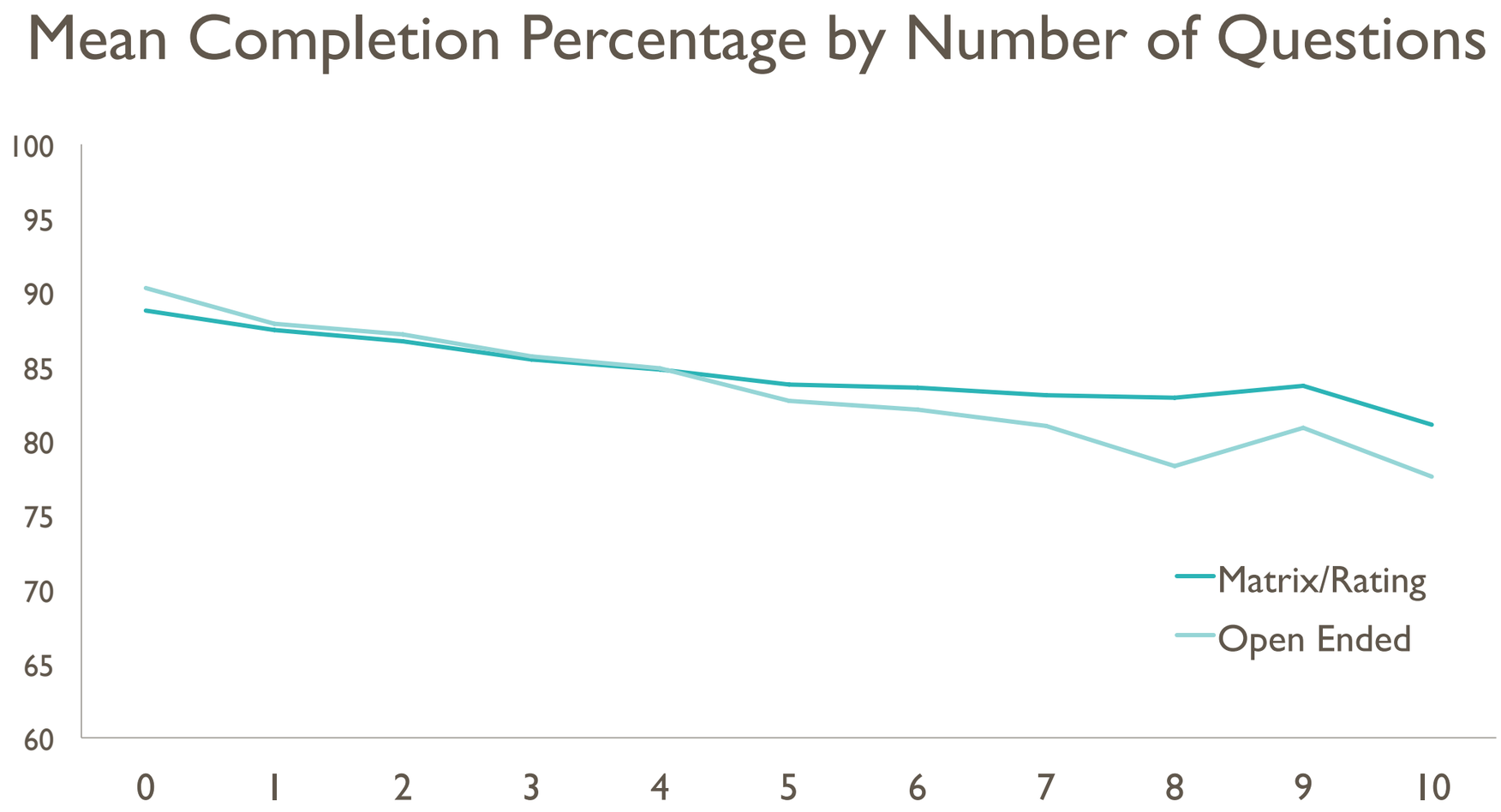


Findings – As with any survey, limit questions



At least 100 surveys in each category.

Findings – Avoid multiple tough questions



At least 100 surveys in each category.

Findings – What matters most?

OLS Regression, Highest (Absolute) Standardized Beta Coefficients

Variable (ref. group)	**Beta**
# of Open Ends- 5 or more (1)	-0.19
# of Words in Question Text (continuous)	-0.11
# of Answer Options (continuous)	-0.11
# of Words in Opening Question Text (continuous)	-0.10
# of Open Ends- 3 (1)	-0.09
# of Open Ends- 0 (1)	**+0.09**
# of Open Ends- 4 (1)	-0.07
# of Matrix Qs- 5 or more (1)	-0.07
# of Matrix Qs- 0 (1)	**+0.05**

All Coefficients are stat. sig. at <.0001

Conclusions

- Survey meta and para data explain 20% (R^2) of the variance in completion percentages– ignoring the type and content of the survey.
- As with all surveys, aim to reduce respondent burden
  - Respondents penalize surveys for making them use their keyboards
  - Avoid blocks of text in the question

Thanks for listening!

SurveyMonkey™

The best decisions start here

Email: research@surveymonkey.com