

The End is Nigh? *Survey research and socio-technological change*

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NCRM 2014-2019

- Southampton-Manchester-Edinburgh
- Methodological research and training
- £6.25 million commissioned research programme (call issued April 2015)
- Face-to-Face short course programme
- Online training portal
- Research events (cf Methods Festival)
- International exchange scheme
- User placements

Outline

- Problems facing random sample survey research
- Is big data the answer?
- Is moving surveys online the answer?
- 2 optimistic scenarios for the future
- Conclusions

“It is unlikely...that in the future the sample survey will be a particularly important research tool, and those sociologists who stake the expertise of their discipline to this method might want to reflect on whether this might leave them exposed to marginalization or even redundancy”

Savage and Burrows (2007)

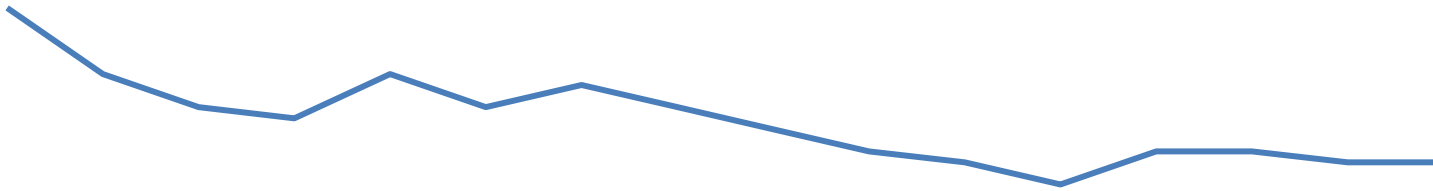
The End is Nigh?

- Many now position survey research as a ‘20th Century’ methodology
- Knocking on doors to ask people questions just isn’t very sexy
- Particularly when we are deluged with new forms of ‘unplanned’ data that can be used for research purposes
- At vastly reduced cost
- To be sure, survey research has it’s problems...

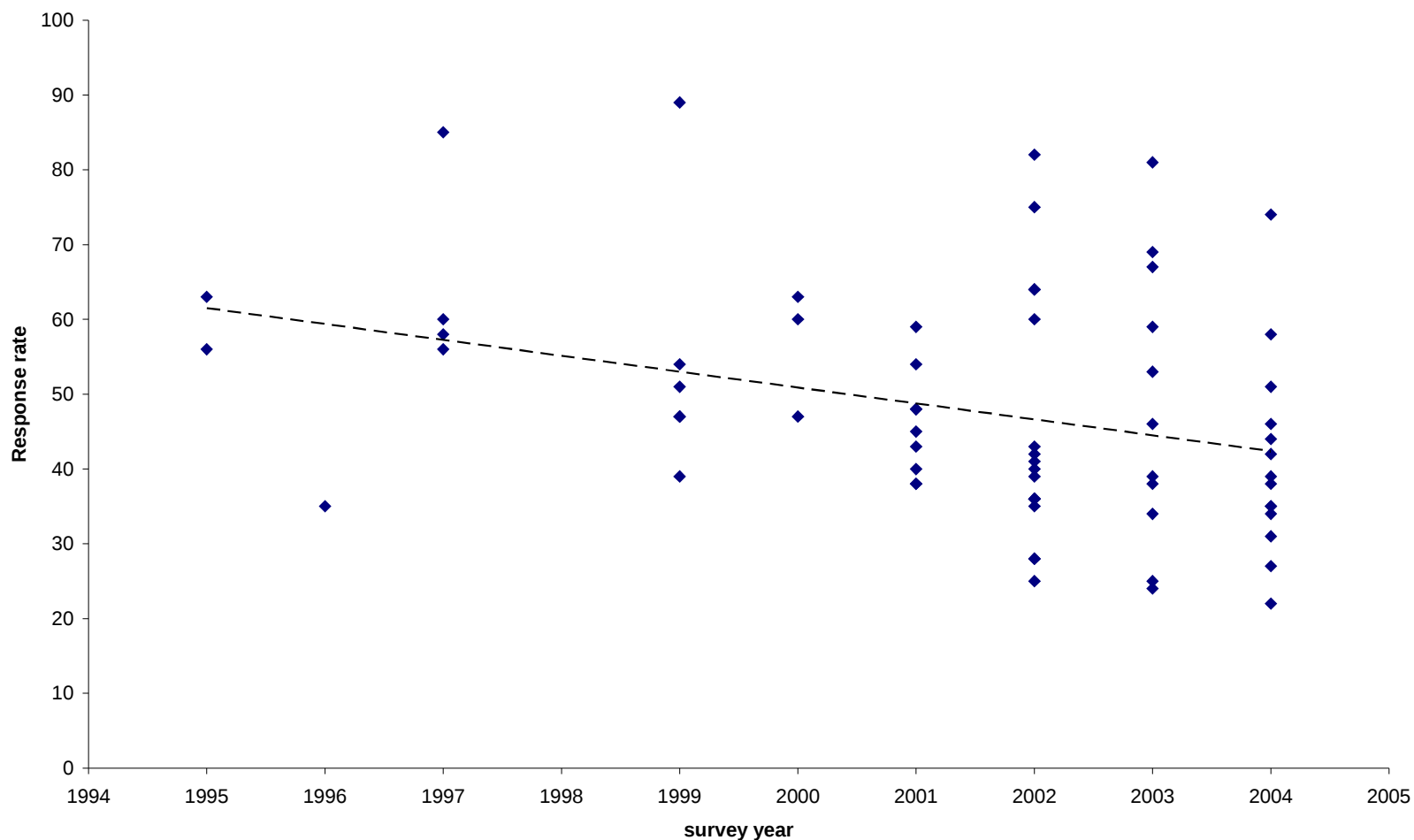
Declining Response Rates



British Social Attitudes Survey Response Rate 1996-2011



School Survey Response Rates 1995-2004



Sturgis, Patrick, Smith, Patten and Hughes, Graham (2006) [A study of suitable methods for raising response rates in school surveys](#), Department for Education and Skills.

Survey Costs



Random surveys are too costly

- Random, in-home surveys are expensive
- \$1000 per achieved case in US (less in UK)
- Getting more expensive?
- Need for more calls to addresses
 - Incentives
 - Refusal conversion
 - More interviewer training
- But should be some off-setting by (technological) cost-efficiencies, e.g. CAPI

Is Big Data the answer?



To a limited extent, yes

- Removes need to ask some types of questions:
 - Link to individual level admin records
 - Characteristics of area
 - Time use and movement
 - Social interaction?
 - Image capture

But mostly, no

- Fundamental limitations for valid inference to general populations (see Couper, 2013)
 - Low/non-random consent for linkage
 - variable definitions
 - Commercial/legal restrictions to access (replication?)
 - Opportunity for mischief
 - Prone to data dredging/file draw problem
 - Limited/no ability to gauge psychological states

Problem Gambling (Wardle et al, 2014)

- Good example of combining survey approach with big data
- Nearly 8 billion bets recorded in digital database during a 1 year period in Britain (2013-14)
- Can this be used to detect indicators of potential harm/problem gambling?
- Not, it turns out, from the gaming data alone
- Solution: conduct survey of loyalty card holders
- Link this to the betting database

Is moving surveys online the
answer?



Online Surveys

- Potentially huge cost efficiencies
- More timely and potential for improved measurement
- Shift to online likely to continue as austerity pushes more commissioners to opt-in panels
- Opt-in panels had a \$2 billion market-share in US in 2009 (*Inside Research*, 2009)
- But for official statistics and other studies where accuracy is paramount, opt-in panels are not acceptable

3 ways of conducting surveys online



1. Mail out invitation to complete online

- Recent experiments for Community Life Survey and European Social Survey
- Problems:
 - Non-coverage
 - Low response rates (20-30%)
 - Respondent selection problems
 - Concerns about response quality (satisficing)
 - Restricted to short/simple questionnaires

2. Piggyback on existing survey

- Big reduction in cost of initial recruitment stage
- Invitations can be sent by email
- But:
 - Low response rates
 - Respondent selection
 - Non-coverage
 - satisficing

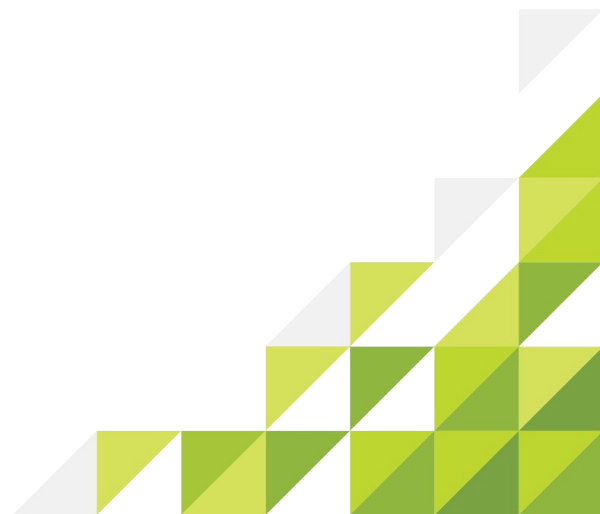
3. Establish online panel by face-to-face invite

- Provide online access for the offline sample members
- Conduct regular, short interviews
- Substantial setup costs but marginal cost of additional interviews very low
- Complete using mobile devices?
- Different kinds of survey possible (mood sampling, photo surveys)

Online surveys – summary of state of play

- Exciting developments but unlikely to replace (all) in-home surveys in medium term
- Substantial barriers to shifting large, in-home surveys online remain to be overcome
- High incentives are necessary but these offset cost efficiencies & create undesirable incentives for respondents
- Speed and unpredictability of technological and infrastructural development

2 (optimistic) possibilities for the future of random surveys



1: Greater tolerance for lower
response rates?



Response rates as survey quality indicator

- Much of the high cost of random in-home surveys is driven by requirement for high response rates
- This pressure comes from commissioners who see it as the key indicator of survey quality
- But increasingly recognised that RR weakly correlated with nonresponse bias
- And that adding a few percentage points to RR does little to change response distributions

Nonresponse Rates and Nonresponse Bias

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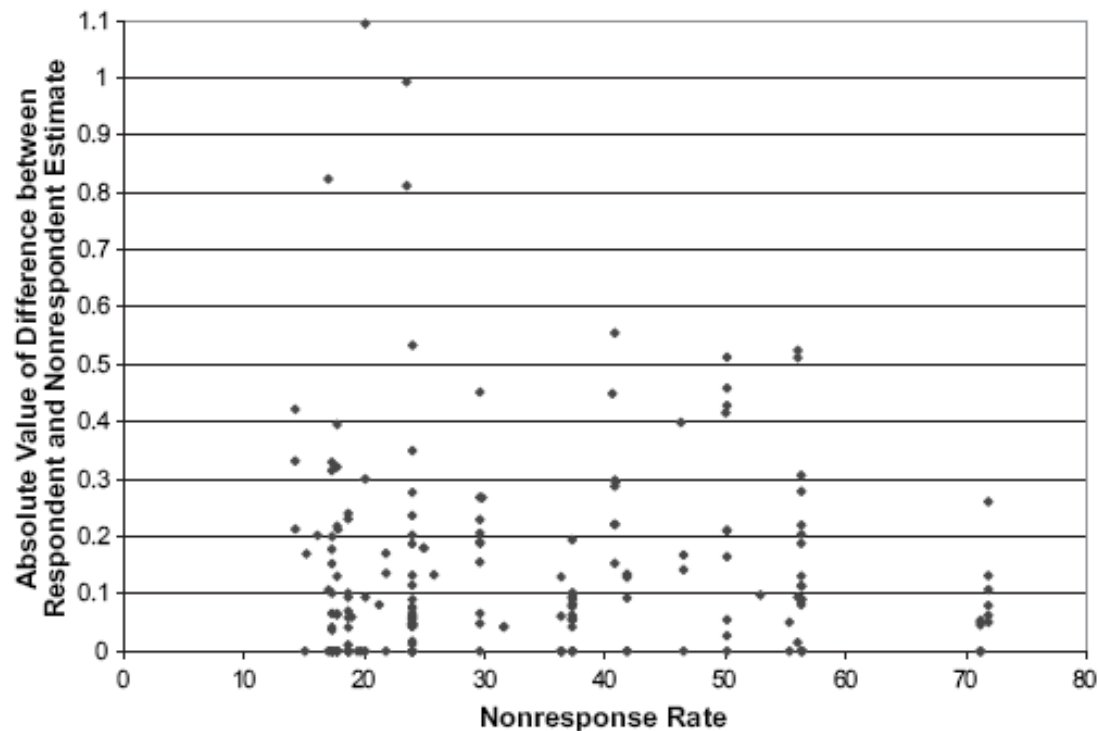


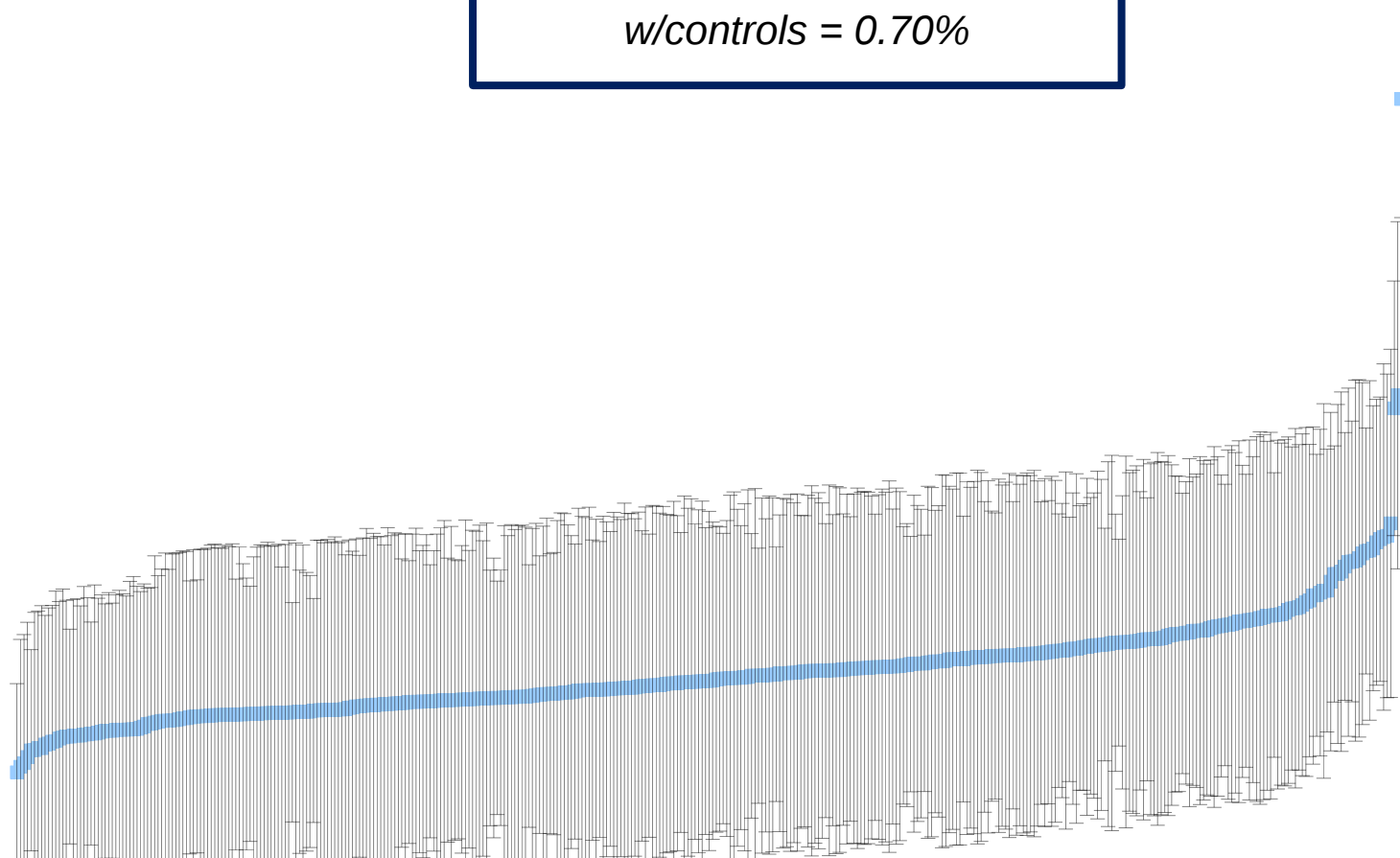
Figure 4. Estimated absolute difference between respondent and nonrespondent percentages for standardized variables $|(\bar{y}_r^{std} - \bar{y}_m^{std})|$, adjusted for sampling variance, for 191 percentages by nonresponse rate from 23 different methodological studies.

Williams et al (2014)

- 4 surveys (British Election Study, Crime Survey, Taking Part, Skills for life)
- Dichotomize ~ 400 variables across all for surveys
- Take difference in % on each variable after call n and % after all calls
- Estimate residual from multi-level meta-analysis

Difference after 2 visits to each address (n=393)

Mean 'difference' = 0.97%
w/controls = 0.70%



Low response rate surveys?

- Might survey commissioners and stakeholders be more tolerant of lower response rates?
- Would allow substantial cost reduction
- But evidence base currently rather thin
- RR still good indicator of risk of bias
- More research needed!

Possibility 2: Distinction and Differentiation





The 'Sailing Ship Effect'

- Advent of the steam ship in the 19th Century seemed to herald the demise of the sailing ship
- Yet, we still have very nice sailing ships today!
- 'acceleration of innovation in the old technology *in response to the threat from the new*' (Foster 1988)
- Might we see a 'sailing ship effect' for large, random (in-home) surveys?
- As online surveys become more common, in-home contact will be an increasingly distinctive experience

Summary and Conclusions

- Random, in-home surveys face pressures on a number of fronts
- This has led some to question their medium to long-term viability
- Yet 'big-data' should be seen as a complement rather than a replacement
- Online surveys may, in the longer term, reduce survey costs
- Yet we are still some way from being able to shift major sample surveys to online administration

What is to be done?

- It is likely that major government/academic surveys will need to be administered in broadly the same way for some time
- We are likely to see a reduction in the quantum of surveys done in this way, though this may be cyclical
- We need to be clear about the distinctive quality of this kind of research design
- And that, as with most things, quality does not come cheaply!

Thanks for your Attention

