Adapting Push-to-Web Survey Designs for Use in Different Countries and Situations

Webinar for:

The World Association for Public Opinion Research (WAPOR)

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Why this webinar?

- In the last 10 years I have interacted with surveyors of the general public in at least 15 countries on four continents where web-push data collection methods were being attempted.

- I have been intrigued with the adaptations needed in order for these methods to be used effectively.

- Today's purpose is to describe specific concerns, and objections, encountered in efforts to use these "new methods".

- I hope that these comments will be useful to WAPOR members and others around the world interested in the development of effective web-push methodologies for their country.

What are web-push methods?

- My use of the term, web-push, describes contacting individuals or households by a different mode, such as mail or telephone, to request that the respondent answer a web questionnaire.

- The respondent is later offered the opportunity to respond by another mode—mail, telephone or in-person—in order to improve response rates and data quality.

- The usual goals are to reduce survey costs and produce quicker results.

- Today I am focusing on the general public (household) surveys, but web-push methods are also being used for other more specialized populations.

Why interest exists in applying web-push methods?

- We live in an era of "tailored-design" whereby different ways of sampling and surveying populations are used for different populations, survey topics, and data collection situations.

- We are past the era of trying to do most surveys in just one way (voice interviews) as persisted through most of the 20th century.

- Voice telephone surveys of the general public are increasingly ineffective. "Culture" does not encourage such conversations with strangers and texting has largely replaced voice exchanges.

- COVID-19 is making the conduct of in-person surveys increasingly difficult in many locales.

Two Parts to this presentation

Part 1.

> **A brief overview of efforts to develop and test the effectiveness of web-push methods, from 2006-2014.**

Part 2.

> **<u>Twelve challenges</u> encountered in efforts to convince surveyors in other countries of web-push possibilities.**

Part 1. A brief overview of efforts to develop and test the effectiveness of web-push methods, from 2006-2014.

Troubling ironies that coalesced around 2006

- More and more people had postal, email and telephone contacts, but fewer and fewer people were willing to release to others those ways of contacting them. (coverage was becoming a huge survey challenge)

- The desire to do everything over the internet was growing while the desire to do things by telephone or in-person was plummeting. (Harder to find people at home, harder to get people to talk by phone, harder to ask for personal/agency help by phone).

- Combining aural and visual-based communications could improve survey response, but also resulted in different answers being provided to many types of survey questions.

- Email contact/web response surveys made it possible to survey thousands for nearly the same costs as a few hundred **but** produced low response rates as well as coverage limitations.

- The ease of contacting nearly anyone by phone and email and spoofing (being untruthful) about the source, resulted in trust of unknown parties declining sharply.

Putting pieces together in five U.S. field studies

- Sampling: In 2006 papers at the Joint Statistical Meetings argued that residential address listings from the U.S. Postal Service could be used to draw national samples for in-person interviews. My reaction: why can't we do that for mail?

- Research had shown that Censuses and other surveys could effectively contact households by mail and obtain good response.

- A series of field studies conducted by my research team showed that in the U.S. responses from about half of general public households could be achieved with most of those responses coming over the Internet and the rest by mail.

Response rates for ten comparisons using 12 page questionnaires; mail only (mean, 53%) vs. web-push (mean, 43%, with 62% over the web) response rates for 10 tests of 12 page (70-140 questions) conducted 2007-2014 (Dillman, 2017)
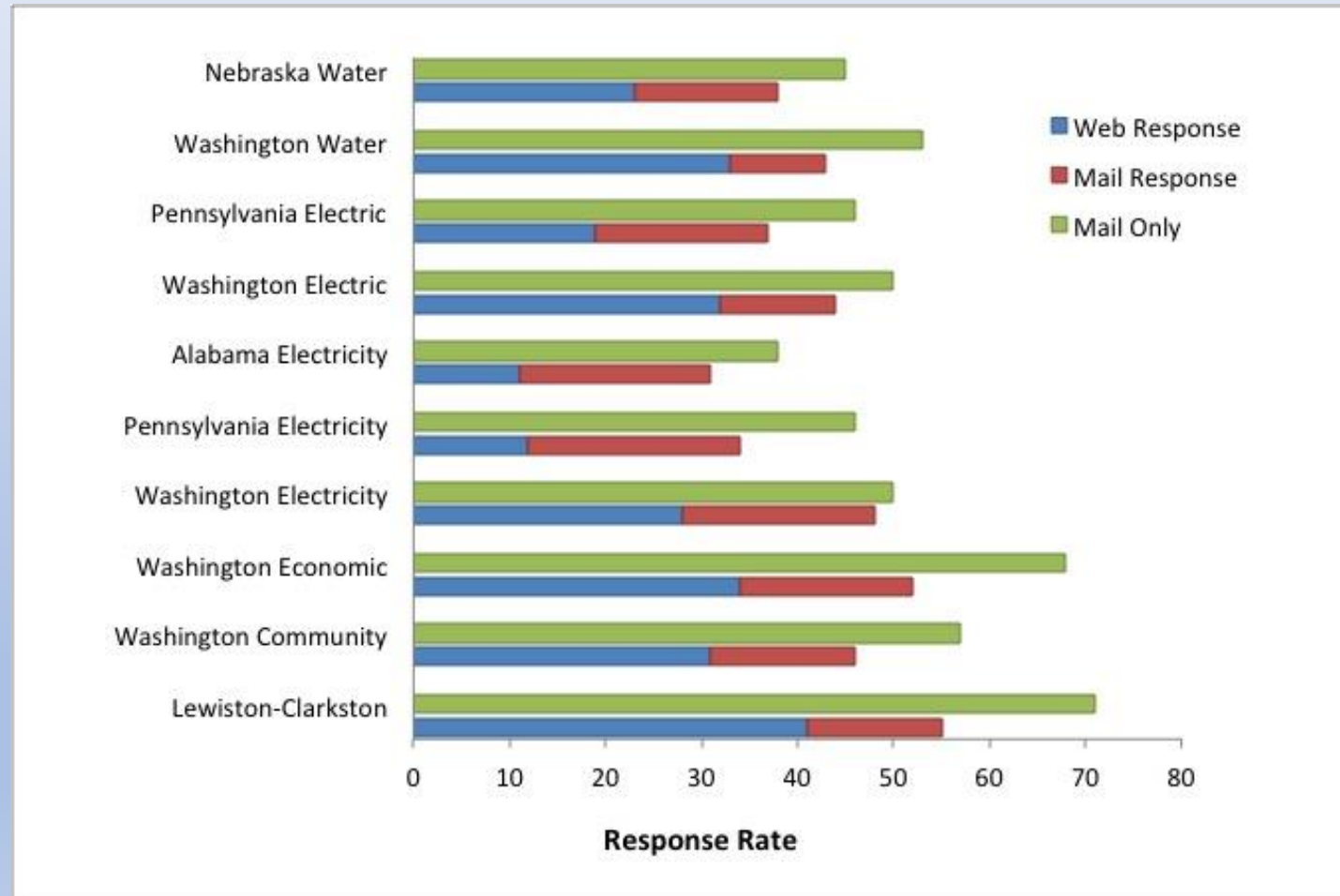
What design elements contributed to the response rate?

+ Token cash incentive ($2-$5) enclosed with the initial web request.

+ Large, non-standard envelope (gets it open so cash can be seen).

+ Multiple contacts (4 or 5);

+ Providing alternative response mode--paper Qx. in 3rd or 4th contact.

+ A second incentive ($2-$4) enclosed with paper questionnaire.

+ Visual layout of questionnaire.

+ Content of 4-5 connected communications—different details.

+ Known legitimate (University) sponsor within geographic region.

Effects of other design elements in 2007-2014 tests

Paper questionnaire was essential for bringing in less educated and older people

Cover of questionnaire communicated important information to respondent (e.g. who should complete it).

Unified mode construction of questions needed to get same answers.

<u>Controlled elements that were similar for all studies</u>

Paper length was 12 pages for all studies; goal was to have equivalent of 20-30 minute interview.

Graphically designed covers; state photos or maps.

Letters on sponsor letterhead to "household address" (no names)

Web and paper pages were about the same with simple (word) URLs and pass codes.

No email contacts were possible or attempted.

Among the common features; Larger plain envelopes (even for web-only request) to get letters opened

- Normal business stationery more likely to be ignored.
- Used a return label showing the photo from survey cover and the survey title to increase familiarity.
- Goal—get the envelope opened—otherwise incentive was invisible

Correspondence on stationery, with tailored address and date

- All letters used WSU stationary (legitimation).

- Addressed to resident of the city to which sent.

- $5 affixed to letter with sticker so it would be taken out of envelope.

- Purpose of $5; get the letter read.

Version 1 – Mail Only
Washington State University

Social and Economic Sciences Research Center
Wilson Hall 133; P.O. Box 644014
Pullman, WA 99164-4014
509-335-1511
Fax 509-335-0116

October 8, 2007

<CITY> Area Resident
<ADDRESS>
<CITY>, <STATE> <ZIP-ZIP4>

Dear <CITY> Area Resident,

I am writing to ask for your help in understanding the quality of life in the Lewiston/Clarkston area and how residents are being affected by a variety of things from the availability of jobs and healthcare to the use of cell phones. The best way we have of learning about these issues is by asking all different kinds of people who live in the area to share their thoughts and opinions. Your address is one of only a small number that have been randomly selected to help in this study.

To help us make sure we hear from all different types of people who live in the area, please have the adult (age 18 or over) in your household who has had **the most recent birthday** be the one to complete the enclosed questionnaire.

The questions should only take about 15 minutes to complete. Your responses are voluntary and will be kept confidential. Your names are not on our mailing list, and no one's answers will ever be associated with the mailing address. If you have any questions about this survey of Lewiston/Clarkston area residents, please call Thom Allen, the study director, by telephone at 509-335-1511 or by email at sesrc@wsu.edu. This study has been reviewed and approved by the Washington State University Institutional Review Board, and if you have any questions about your rights as a participant in this study, you may contact them by telephone at 509-335-3668.

By taking a few minutes to share your thoughts and opinions about life in the Lewiston-Clarkston area you will be helping us out a great deal, and a small token of appreciation is enclosed as a way of saying thank you.

I hope you enjoy completing the questionnaire and look forward to receiving your responses.

Many Thanks,

Don A. Dillman
Regents Professor and Deputy Director

Building local identify that is linked in the paper and web surveys

- Initially photos taken of local landmarks and symbols to make survey recognizable and visually attractive.

- For broader surveys, we switched to maps

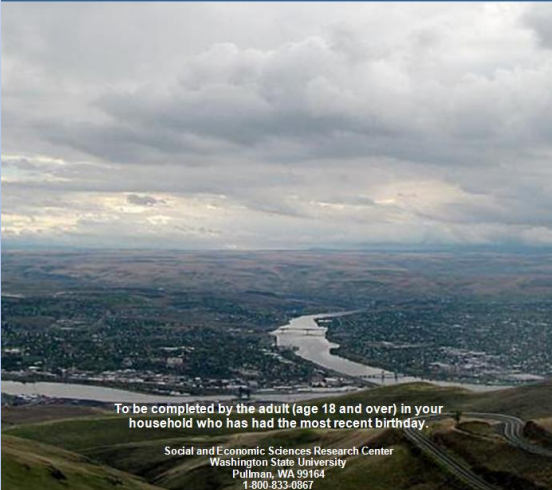- These themes carried out with similar construction in paper and web

Mail Questionnaire tailored with broad survey topic, who should respond, and back-page pictures

Use of tailored images to help connect respondents to survey and to place an emphasis on study area instead of on survey source. 90 answers to questions, 10 pages of questions in 12 page questionnaire.

Web questionnaire was similarly tailored

- Used an entry page similar to front cover of paper survey, still focusing on making the survey recognizable through familiar images.

Web survey followed unified mode construction principles to link modes

- Question 2
  - Similar design format to paper survey, and use of familiar image in upper left-hand corner of the screen. Emphasized respondents over sponsors (using other communications to do that).

Lewiston and Clarkston
Quality of Life Survey

Question 2 of 51
Overall, how satisfied are you with living in this area?

○ Very satisfied
○ Somewhat satisfied
○ Neutral
○ Somewhat dissatisfied
○ Very dissatisfied

○ Not sure

Next >>   << Back

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Second example of unifying web presentation with mail presentation

- Question 13
  - The small image would change every ten questions. Trying to show all of the same images as the paper survey, as well as keep interest and familiarity.

Lewiston and Clarkston
Quality of Life Survey

Question 13 of 51
How much of a threat, if any, do you think gray wolves pose to each of the following?

	Major threat	Minor threat	No threat at all	Not Sure
Residents of the Lewiston-Clarkston area	○	○	○	○
Other residents in Northern Idaho and Eastern Washington	○	○	○	○
Pets and other domestic animals	○	○	○	○
Farm animals	○	○	○	○
Wildlife or game	○	○	○	○

[Next >>]   [<< Back]

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Mail (on left) and web (on right) unified to control measurement

2009 statewide economic survey, tailored to state with map and pictures

- 11" X 8.5" booklet with 'personalized' images to help respondents feel connected to survey and to place an emphasis on study area instead of on survey source. Also used similar color and design to connect to web survey. (Messer and Dillman, 2012)

2011 Electricity Survey, with tailored covers in three different states with high and low education

- Examples of the mail covers:
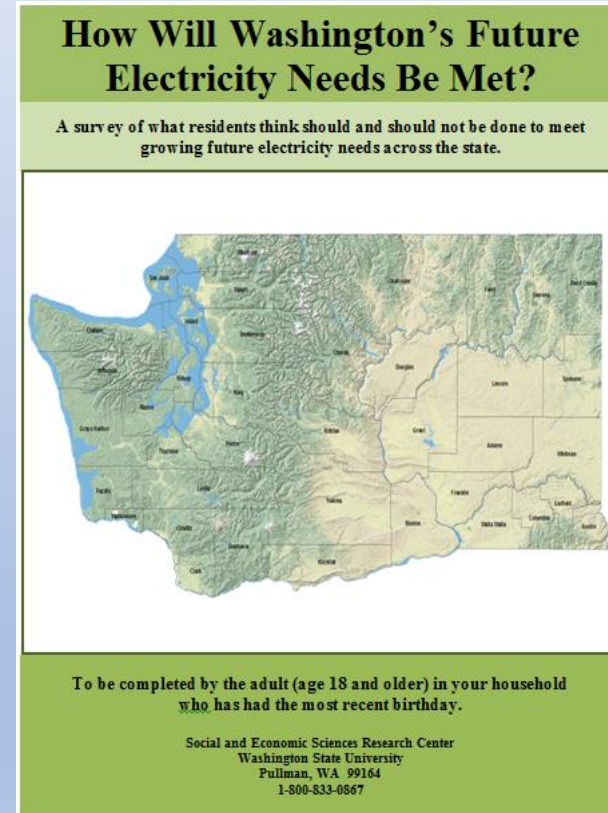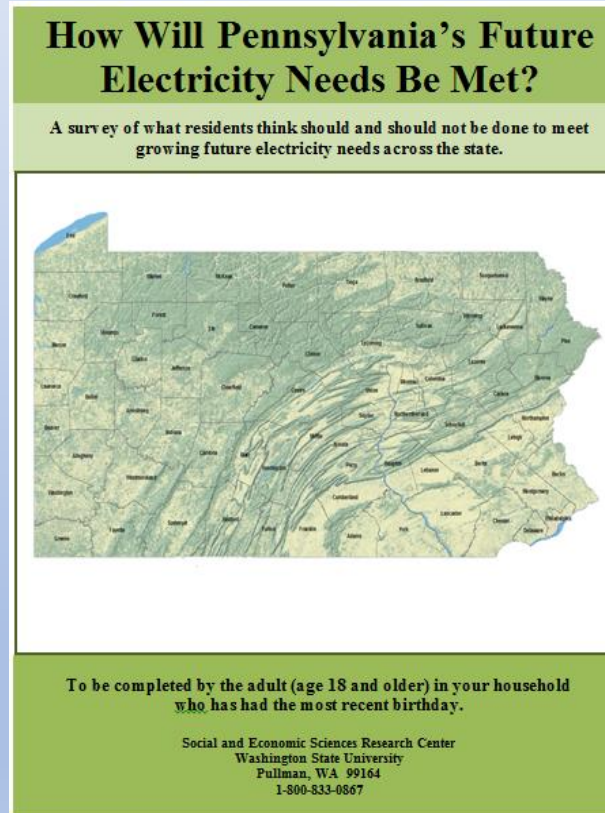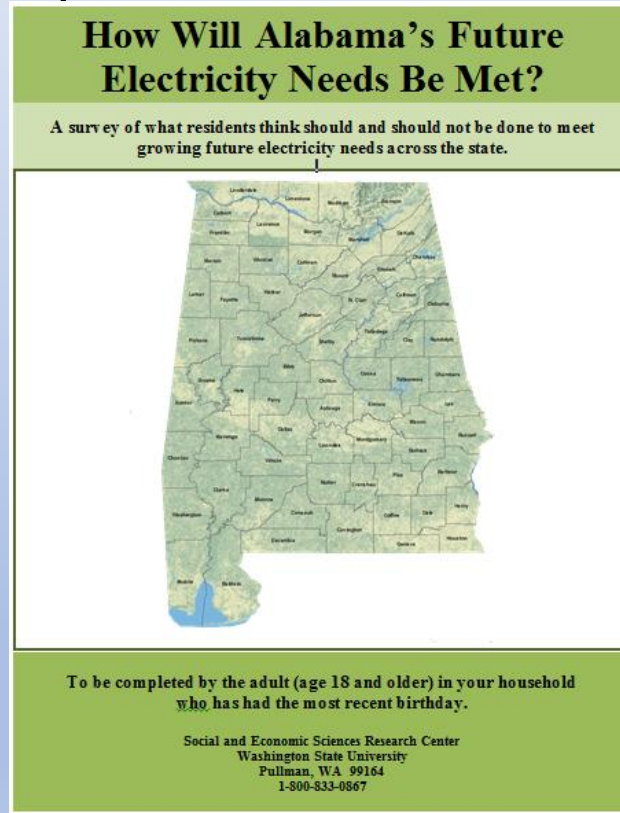
2012 water management survey: tailored to state by sponsorship, pictures with implementation across states
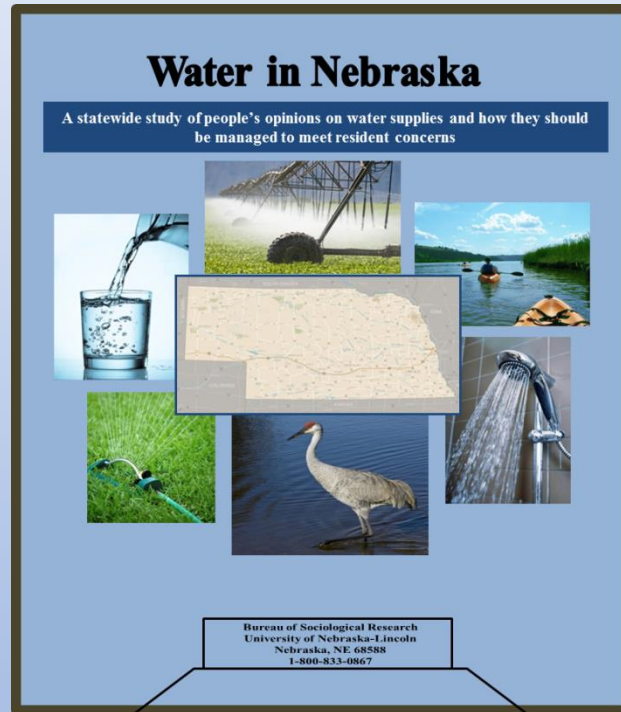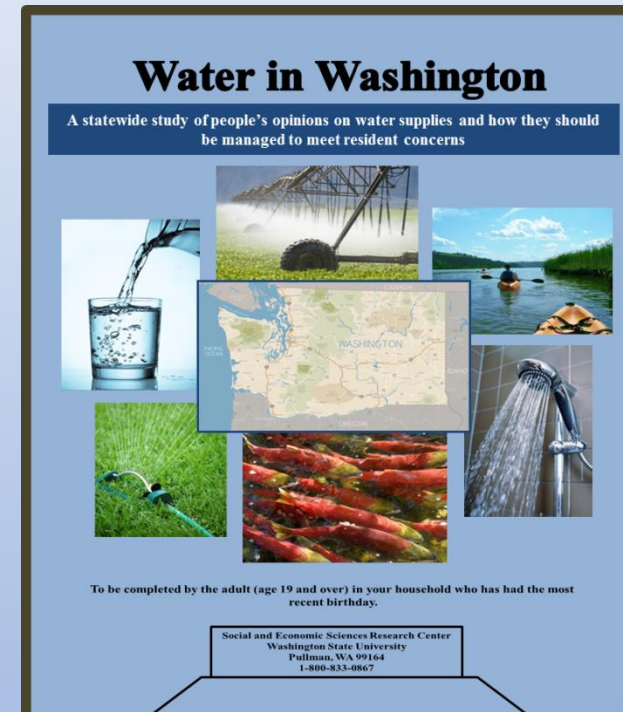
The key findings from these studies

- A heavy emphasis was placed on building trust (See Gloria Origgi's book, Reputation) that included: postal requests on stationary with contact information, token cash incentives, specific attention to the population being studied, etc. in order to achieve much higher response rates than by other survey modes except for very expensive personal interviews.

- Token cash incentives sent with the request can overcome the **gap** between needing to go from a URL and PASSWORD in postal request entering that into a computer.

- Follow-up with alternatives to the internet are essential for bringing in less educated, lower income, older households. (Exceptions may exist for college-educated-only populations).

- But, are these results applicable to other countries?

Part II. Challenges encountered in efforts to encourage surveyors in other countries of web-push possibilities.

Background on specific challenges and a caveat

- These challenges are compiled from notes kept from interactions with surveyors in ~15 different countries for which I have tried to understand why they have sometimes found it difficult to adapt web-push methods for their use.

- This list emphasizes issues faced in multiple countries.

- With a few exceptions I do not identify specific countries in this talk:
  - I did not ask and receive specific permission to talk about their country.
  - Although I have spent considerable time over the last 8-10 years talking with surveyors in multiple countries, I am hesitant to claim a full understanding of the issues faced in each of the countries.

- I would welcome comments from others on these issues as I continue my efforts to be helpful to those wanting to consider the use of web-push data collection.

1. Many if not most surveyors want to do far less to improve response rates than is possible

- The search for a <u>single magic bullet</u> persists, from cash pre-incentives to envelope messages and offers of post-payments

- I found it hard to convince people that many separate elements of survey implementation strategies are necessary and need to take each other into account.

- We need better theory to provide guidance for making those connections.

- Good theory can provide a useful guide for simultaneously connecting survey design and implementation procedures in ways that will improve response rates and data quality.

Many theories have been offered to explain <u>why people respond</u> to surveys

Theories and dates

- **Cognitive Dissonance** (Festinger, 1957)
- **Reasoned Action and Planned Behavior** (Fishbein and Ajzen, 1975)
- **Adult-to-adult communication** (Comley, 2006)
- **Gamification** (Pulleston, 2012)
- **Influence** (Cialdini, 1984; Groves, Cialdini, Couper, 1992)
- **Presuasion** (Cialdini, 2016)
- **Leverage-Saliency** (Groves, Singer and Corning, 2000)
- **Benefit-Cost** (Singer, 2011)
- **Social-Exchange** (Dillman, 1978; Dillman, Smyth and Christian, 2014

Limitations and the Search for Better Theoretical Guidance

- Recent book edited by Philip Brenner emphasizes this need. <u>Understanding Survey Methodology: Sociological Theory and applications.</u> Springer. 978-3-030-47255-9

- In one of the chapters (title: ***Towards survey response rate theories that no longer pass each other like strangers in the night****) I suggest ways of improving upon their capabilities and use*.)

What is wrong with these theories?

- Most theories were developed for <u>interview surveys</u>

- Most theories are <u>pre-internet</u> and out-of-date!

- Each theory tends to touch human behavior in <u>different places</u>,

- Most are <u>incomplete</u>, emphasizing certain determinants of response of respondent behavior.

- Each theory tends to <u>ignore other theories</u>, much like strangers who pass in the night.

- Most theories are <u>not used to determine details </u>of how surveys get designed and implemented.

- The realities of what contributes to higher response rates have **changed significantly** since most of these theories were developed!

Surveyors need to think simultaneously about:

1. **Survey modes—contact and response modes**

2. **Survey sponsorship**

3. **Response task-topic and length**

4. **Incentives—pre and post**

5. **Structure of requests to respond--# of contacts and mode**

6. **Communication content**

7. **Respondent Attributes**

- **How to improve response rates need to take into consideration each of these seven factors.**

- **The elements in each category need to connect in a synergistic way with elements in the other categories.**

- **There is NO magic bullet—an entire system has to be rethought.**

2 Reluctance or difficulty of leaving behind in-person interviewing practices.

- This issue has multiple aspects that constitute a gauntlet of needed changes when shifting to self-administration
    - Changing from aural to visual modes of asking questions.
    - Integrating the traditional "interviewer-persuasion" efforts into written communications and the questionnaire.
    - Rewriting questions so they will work across multiple modes (e.g. mail, traditional web, smartphone and perhaps telephone follow-up).
    - Need to recognize that the principal reader of questionnaires is no longer the interviewer who sees the same questionnaire over and over and is trained to do that. It needs to be redesigned into a respondent-friendly format. (Fewer pages, less generous spacing, elimination of code language.)

3 Understanding how <u>contact</u> and <u>response modes</u> affect coverage and response

- The use of <u>multiple survey modes</u> can improve response rates in two ways.
  - When used as a <u>contact</u> mode
  - When used as a <u>response</u> mode
  - These were not major concerns until mixed-mode data collection became the norm.
- Also, <u>multiple contact modes</u> may increase the likelihood that all members of a survey sample are actually reached effectively.
- Offering multiple <u>response modes</u> can obtain responses from people not responding to the original mode, who are quite different than the first mode responders.
- When possible obtain <u>multiple ways of contacting</u> sample units.

4   Sample frame alternatives and constraints that differ across countries

- The U.S. Postal Service makes a list all residential households available, without names, and postal residential address lists are available in certain other countries.
- Some countries in Asia and Europe maintain registration lists
  - Certain lists identify individual persons.
  - Other lists may provide only household addresses.
- Special challenges for address-samples.
  - Some lists are available by law only to certain survey sponsors, and requests have to be submitted and approved.
  - Obtaining lists may require obtaining them individually from cities or other jurisdictions; this can be time-consuming.
  - All residences in multi-unit buildings may have the same address, so prelisting of sampled addresses to identify individual households may be required. (Occasionally happens in the U.S. as well.)
- Lists may be irregularly updated and require voluntary compliance from people who move from one address to another. This varies greatly by country.

5   Respondent Selection methods that are controversial

- Traditional methods for selecting respondents for in-person household interviews involves <u>listing all adult household members</u> (e.g. Kish method) and randomly selecting the person to answer survey questions.

- It is difficult to do this successfully when conducting self-administered surveys.

- An alternative method of selection is to request completion of the survey by the "adult member of the household who had the most recent birthday", but this often results in the wrong person responding to the questionnaire.

- Research on embedding this requirement into the questionnaire (e.g. Olson and Smyth) shows promise for solving this problem.

- The success of recent birthday method may vary by country; there is still a lot to be learned on this topic.

6   Substituting household respondents is a consideration that needs attention

- In some countries a significant proportion of household members work and stay for lengthy periods outside the region or country. Thus, they are unavailable for completing the questionnaire.

- In addition, when in-person interviews are done, some selected respondents are not present during the hours that interviewers are able to make house-calls.

- Web-push methods may facilitate making contact with the absent individual who is selected for the survey, but these procedures have to be worked out.

- This is an area where web-push methodologies may improve survey success.

7 Changing from interviewer-read to visual self-administered questionnaires

- Questionnaires need to be <u>shorter</u> especially for smartphone use. Cannot add "10 minutes" with impunity as often done for in-person surveys.

- Survey sponsors often object to a unified-mode approach to writing questions.

- Transformation from interview to self-administration increases likelihood that measurement will change, especially for scale questions. For example, smartphones make it difficult to ask certain kinds of questions, e.g.

    0-1-2-3-4-5-6-7-8-9-10 opinion scales.

- Questionnaire covers need to be persuasive, communicate who should respond, and other things.

- These changes require changes from staff long-accustomed to their current procedures and methods.

8 Questionnaire construction raises multiple transformation issues

- Questionnaire covers need to be persuasive, communicate who should respond, and why.

- Respondent selection needs to be reinforced—especially if a "transfer" occurs within a household. One person may hand it to another.

- Maps and pictures (e.g. in this survey, Mt. Rainier the tallest mountain in the state).

Washington Community Survey

An effort to better understand how Washington communities serve the people who live in them

To be completed by the adult (age 18 and over) in your household who has had the most recent birthday.

Social and Economic Sciences Research Center
Washington State University
Pullman, WA 99164
1-800-833-0867
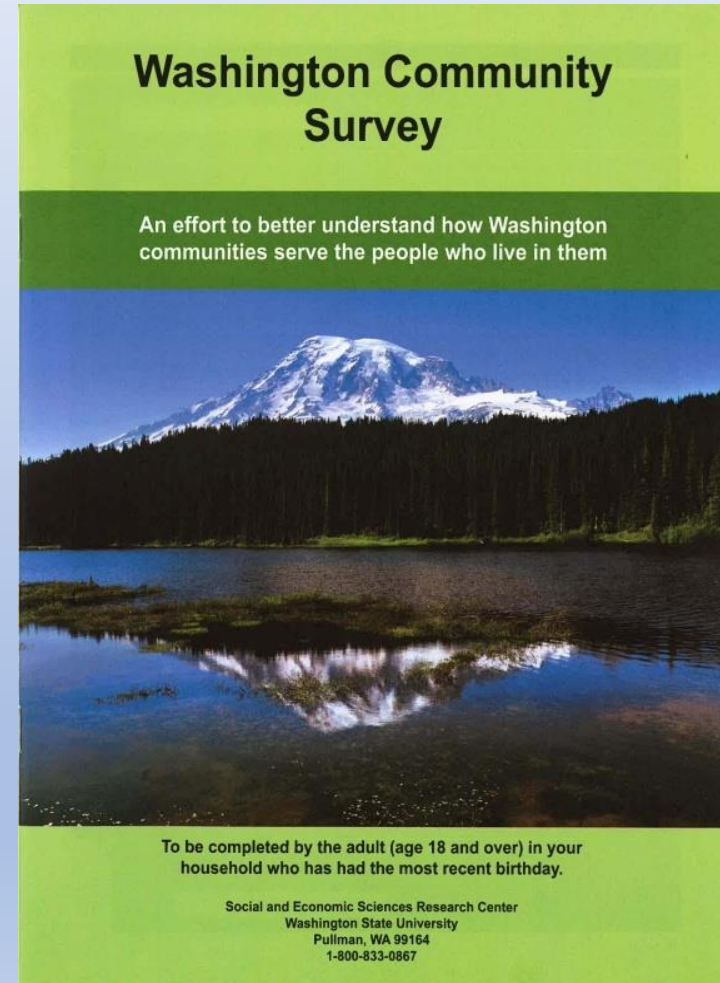
Back page in 12 page booklet

- No questions should appear here except an open-end like this. It invites additional thoughts that can only be provided after seeing the earlier questions.

- Where is the questionnaire to be returned (and how).

- This cover has pictures from regions being surveyed, and not always appropriate.

Thanks again for completing this survey!

If you have any additional thoughts about any of the above topics or the survey itself, please share them here.

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PO Box 641801
Pullman, WA 99164-1801
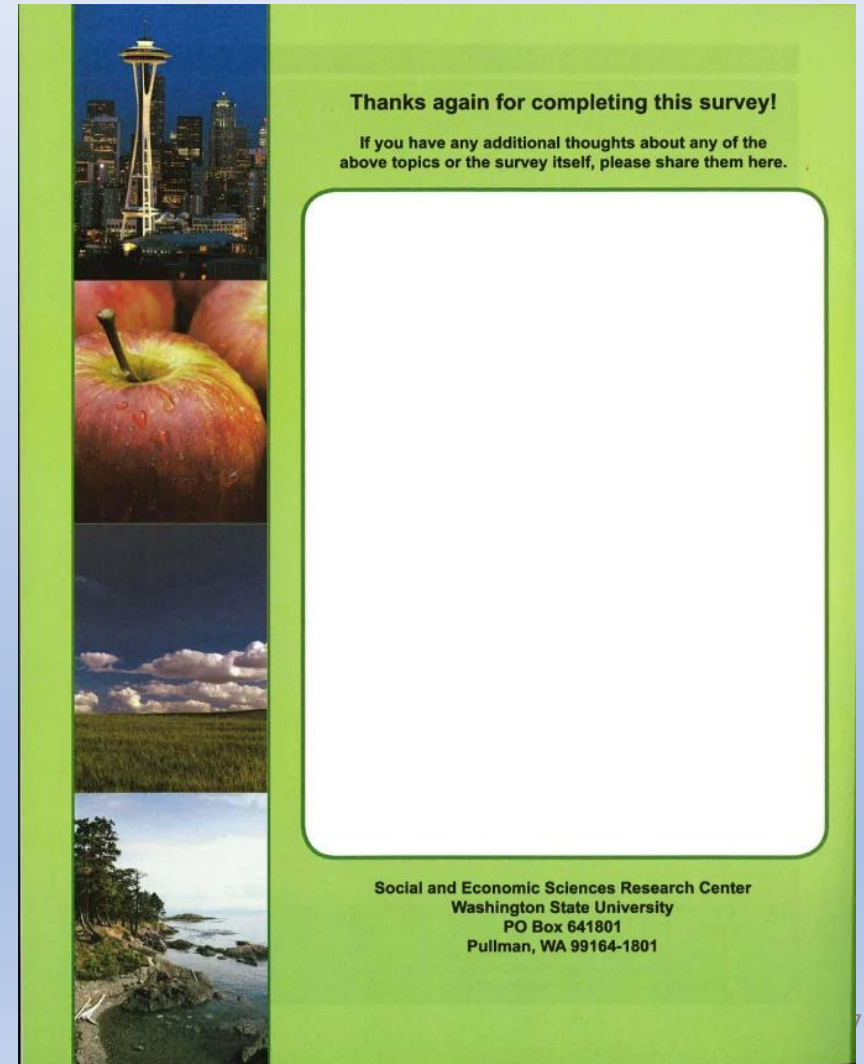
Mail Methods in the 2000's are much improved

- Inviting questionnaires

- Application of visual design concepts has improved measurement and response (Christian and Dillman, 2004).

- Process design from envelopes to visual layout and design is greatly improved.

- Token cash incentives with the request.

- Multiple communications are synchronized for effectiveness.

- Using old methods invites failure.

(see: **Dillman, Smyth and Christian, Internet, Phone, Mail and Mixed-mode Surveys, 2014, 4th edition**)
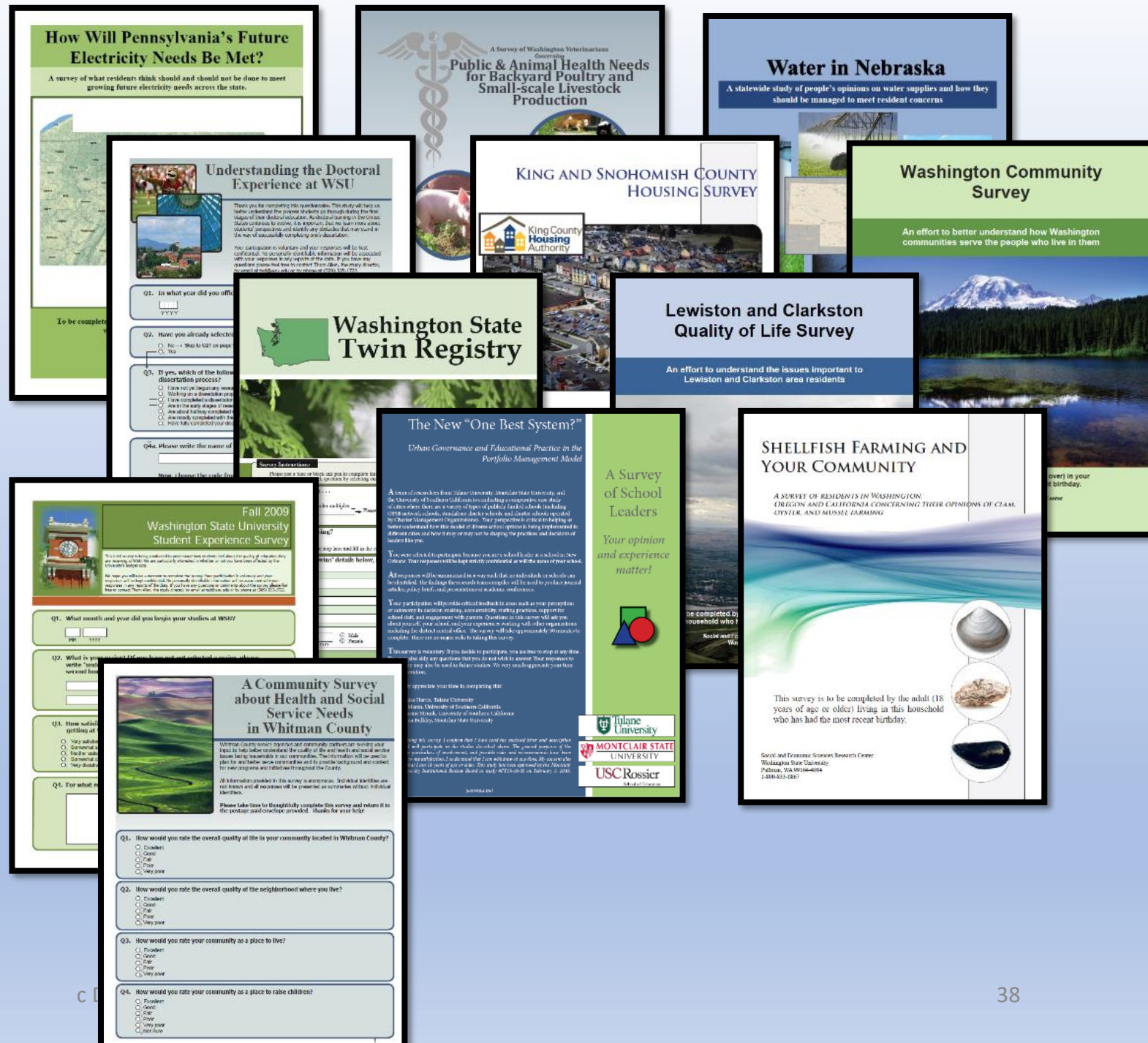
9 Objections to incentives and cash in particular

- Literature is compelling—token cash incentives sent with request to respond have greater effect than post-payments.

- Evidence is emerging that using a combination of pre-incentive and post payments is better than only use pre-incentives.

- But, opposition to cash and pre-incentives is strong:
  - It will not be approved by our organization.
  - It is illegal in "my country"
  - It is likely to get stolen in the mail.
  - People won't see it in the big brown envelope.
  - We send post-payments and think those work best in my country.
  - We cannot send cash; we can only send gift coupons to be redeemed.
  - In EU we have to send at least 5 Euros to avoid weight.

- Yet, cash incentives sent with request is the most powerful influence on web-response, because of their importance in getting people to go from letter to internet and enter URL.

In U.S. test, pre-incentive was essential for pushing people from a mail request to respond over the internet

In one household study, $5 incentive with request increased web response by about 18 percentage points. (Messer and Dillman,2011)

Final response for $5 internet increased to 48% compared to 57% for mail-only

PUSH-TO-WEB

RESPONSE RATE

$5 INTERNET — 31.3

INTERNET W/O $5 — 13.4

	$5 Push-to-web w/card	$5 Push-to-mail	$5 Mail-only
Blue	15.0	3.1	56.7
Gray	31.3	51.9	0

Chart axis values: 0, 10, 20, 30, 40, 50, 60
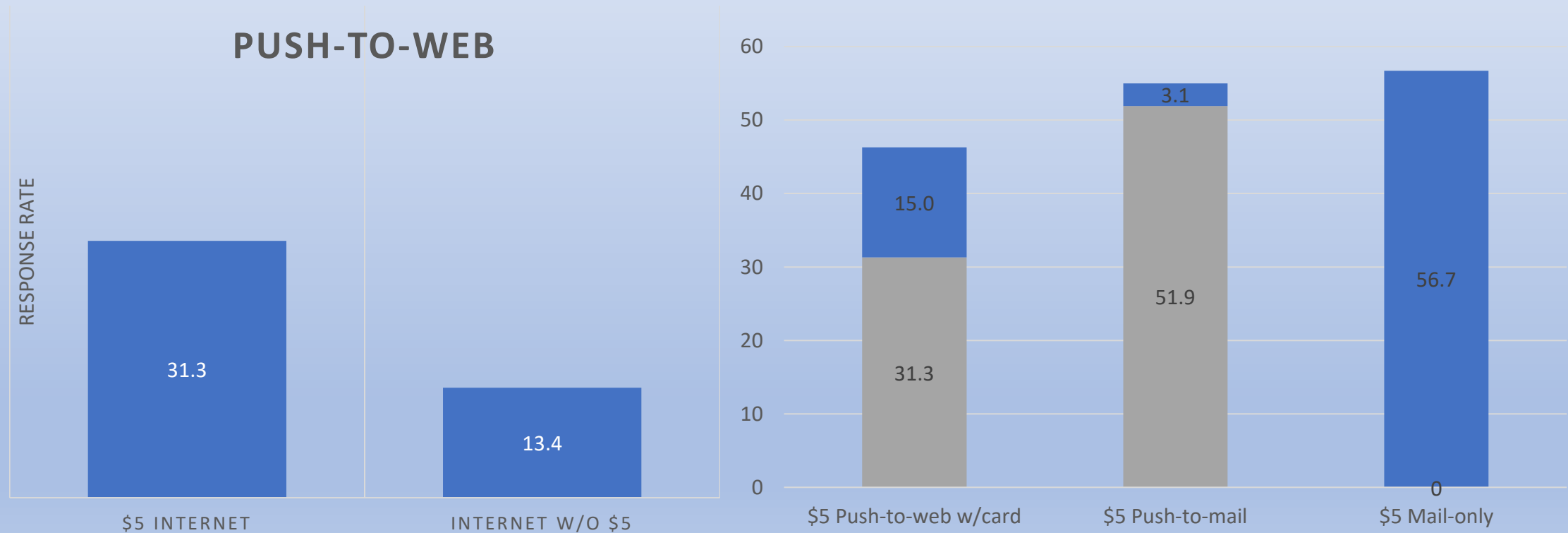
Philosophical considerations about how and where costs are allocated

- We are willing to pay enormous costs of completing in-person interviews but providing remuneration to respondents as an alternative is often deemed inappropriate.

- Yet, we do that readily on panels.

- If we are basically asking respondents to "interview themselves" doing the work associated with asking and answering questions, is it not appropriate to express our appreciation for that?

- Also, is sending cash to respondents legal in certain countries?

10 Transforming interviewer behaviors into written persuasion

- In interviews, "persuasion" was often left up to the interviewer.

- How is this study useful? Who is the sponsor? Why is it being done.

- There are multiple places were persuasion efforts must be made: envelopes, letters, "What you might like to know" statements, front matter to questionnaire, (web screens/cover pages), transition statements.

- Sponsors sometimes view this information as "directives", i.e. what and how to respond, rather than appeals for "help" that serve a good cause.

- Ordering questions in new ways with interest-getting questions first, is objected to by some sponsors.

11 Using more contacts than interviews typically allow

Interview fewer contacts

- Most common **telephone** connection lasts only 2-5 seconds and may not be able to contact again.

- **In-person** contact provides more opportunity, and remains our highest response mode, but once a refusal is made it's hard as well as expensive to convert.

Mail allows more contacts

- Letter requesting web response.
- Follow-up reminder
- Letter with the paper questionnaire
- Final reminder

Content of letters more effective if different and provide additional arguments for responding.

Doing this requires quite different thinking—how to get letters opened, and deliver incentives.

12 Convincing surveyors to develop communications as a sequence of compelling and mutually supportive messages

- Tendency exists among some organizations to use the same communication content and wording in every contact.

- Doing that contributes to communications being ignored. "I have already seen this".

- Evidence shows that sending the same message over and over reduces response.

- Here are some thoughts about how to connect messages across mail communications.

Initial contact

- Letterhead (not brochure)
- Why household is being contacted.
- Token of appreciation.
- A <u>simple</u> URL and passcode that can "easily" be entered in computer.
- Consistent with how letters are sent for non-marketing purposes.
- Provide effective way of contacting sender.
- Goal is to <u>legitimate</u> the study

One week later

Purpose:

Quick second contact conveys importance of the survey,

Reference to previous request, to encourage opening that letter if not yet done (to see incentive) if that has not happened.

Additional information about the study.

No repetition of previous sentences.

Synopsis of second content

- Last week I wrote to your household to let you know that you have been chosen randomly as part of a national sample to represent….

- Only a small number…asked to help….

- To thank you , we enclosed a small token of appreciation in our first letter….

- This study is being done because of the need to understand how people living in different countries face different challenges than those living in other EU locations.

- We are grateful….

2-3 weeks later, the paper questionnaire

Mailing looks different because of questionnaire and is bulkier.

Promise of "additional" payment after completion, building on <u>trust</u> from initial €5.

Questionnaire cover used for additional persuasion efforts—and respondent selection information.

Appeal is for either paper or web response.

Respondent can review questions before going online, if they want to respond that way.

Synopsis of content

- In the last few weeks we have contacted you… Many have already responded and we hope to hear from you soon.

- The survey asks about a number of important issues, including the coronavirus and how people are dealing with it.

- Because of the importance…when the person with the <u>next</u> birthday responds we will send them €10 as an expression of our appreciation….

- The enclosed paper questionnaire may be easier to complete and return…. Also, some people who prefer to respond by web may find it helpful for seeing the kinds of questions…. Either way to respond is okay.

- For questions call or email us at….

Communications bring the design strategy together

- They emulate what an interviewer might do when "hearing" respondent questions and adding new thoughts about how a response would be helpful.

- Envelope changes get mailings opened and read by being different.

- Later contacts provide a new opportunity and persuasive elements (e.g. additional incentive) for respondent.

- A fourth contact after mail, telephone messages (if number available) and later in-person contact may be used. Statistics Canada's 2016 Census is a useful example (68% by internet, 20% by mail, 10% by in-person contact = 98% of households).

- Additional modes (telephone and in-person) helpful for reducing nonresponse error.

The 12 challenges summarized:

1 Wanting to do far less than needed or possible.

2 Difficulty of leaving behind behaviors from interviewing practices

3 Accepting the need to consider the unique roles of both <u>contact</u> and <u>response</u> modes

4 Adapting to different sample frame alternatives and conditions

5 Respondent selection methods remain controversial.

6 Substituting household respondents may need attention.

7 Adapting from aural to visual questionnaires.

8 Transforming questionnaire construction practices.

9   Pre-incentive plus post-incentive cash incentives is controversial.

10 Transform interviewer behaviors into written messages in multiple places.

11 Use more contacts than interviews normally allow.

12 Convince surveyors to develop communications that are mutually supportive.

Back to theoretical reasons for this approach, and the categories of influences

1   **Survey modes:** multiple <u>response</u> (and where feasible, <u>contact</u>) modes improve response and reduce nonresponse error

2   **Survey sponsorship:** Bring closer to the respondent—not another country or unknown sponsor who provides no contact information

3   **Response task:** Questionnaire is shorter than in-person form, and designed for easy mental processing

4   **Incentives:** Combined used of pre-incentives with request to establish reciprocal obligation and offer of post-payment with mail.

5   **Structure of requests to respond:** Plain, contrasting envelopes and mailings, timed to help one another.

6   **Communication content:** Different content to legitimize and persuade, cumulative appeals, purpose of each made clear to respondent.

7   **Attributes of potential respondents:** Appeals modified to appeal to different types of respondents in later contacts.

Conclusion

- The shift from aural interviews to web-push methods, using postal contact and web/mail responses is challenging.

- It requires rethinking multiple elements of design and implementation plus linking them together.

- It is also necessary from the standpoint of cost and cultural changes that make voice telephone and visiting people's households less effective.

- But finding alternatives to stand-alone in-person and telephone interviews is, necessary.

- Web-push methods are not yet feasible or likely to be adopted in some countries, but I expect use of them to continue to increase worldwide.

Thank you!

- I want to thank many individuals from multiple countries who have helped me understand the challenges associated with adopting web-push survey methods in their region of the world.

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