

**On Climbing Stairs Many Steps at a Time:  
The New Normal in Survey Methodology**

**Don A. Dillman**

**September, 2015**

**Hulbert Hall 27**

**3:10 – 4:30**

**<http://ses.wsu.edu/seminars/>**

# **On Climbing Stairs Many Steps at a Time: The New Normal in Survey Methodology**

**For**

**The School of Economics  
Washington State University  
September 18, 2015**

**By**

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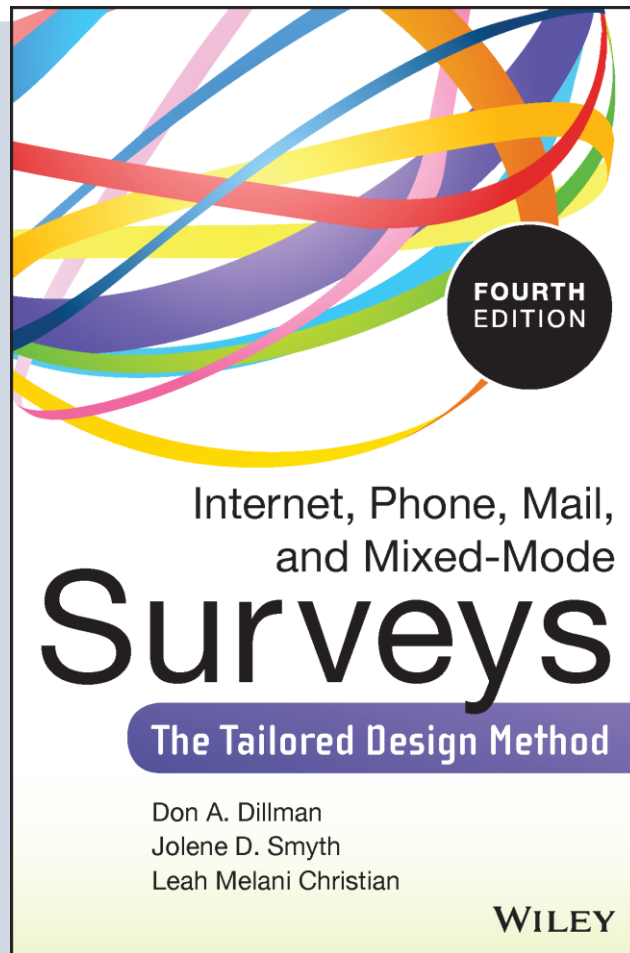
# Thank you!

- Another title: **Mixed-Mode Solutions to the People Problems Facing Web Surveys**
- My purpose is to talk about “the people problem” that makes it so difficult to get internet surveys to replace other modes of surveying.
- I will:
  - Start with some background on this problem
  - Describe and elaborate on seven guidelines for designing surveys that will increase the likelihood of obtaining web responses in household surveys.
  - These guidelines illustrate trying to solve many challenges at once,

# Some Background

- In the U.S. is that we are not doing very well in getting ordinary people (the general public) to respond to web surveys, especially when we want only to use email contact.
- My major research concern is to successfully conduct household surveys that can be used used for public policy purposes.
- My intellectual framework is the simultaneous reduction of sampling, coverage, nonresponse and measurement errors.

# Changes over the last 35 years have caused me to continuously “rethink” how sample surveys can be implemented



- 1978- Mail and Telephone Surveys—first step-by-step methods.
- 2000-Mail and Internet Surveys (95% revision)
- 2009-Internet, Mail and Mixed-Mode Surveys (75% revision)
- 2014-Internet, Phone, Mail and Mixed-Mode Surveys (a 65% revision)
- Each addition focused on different combinations of survey mode, and the revisions became more frequent (22, 9 and 5 years) but why bring back telephone?

# Stand-alone telephone surveys no longer work well in the U.S.

- Response rates are dismal—10-20%; loss of credibility
- Telephone coverage is not a problem--it's ~98%
- Household land line samples can be supplemented with cell phone numbers, but require adding questions to figure out household sampling probabilities and to deal with children, and response situation (driving).
- Regulatory changes (transportability of numbers across regions) and difficulty in getting people to answer the telephone add to the challenge.
- Our national government surveys are rapidly moving away from RDD telephone!

# Stand-alone telephone surveys no longer work well in the U.S. (2)

- But, an even larger problem is how telephone survey requests fit with most people's lives.
- The problem is CULTURE --We no longer use the telephone for interactive conversations unless special arrangements are made
- Most communication is asynchronous.
- Poor response rates are a result of people finally controlling their telephone access.
- A sociology friend describes the situation: "A cultural misfit is someone who actually answers a ringing phone!"
- Yet, telephone has a significant role to play in many mixed-mode surveys both as a contact mode and a response mode.

# The hoped for replacement, stand-alone Email/Web Surveys, are not yet working well.

- Coverage for household populations remains limited (~80%), some on slow connections.
- Individual internet skills are limited among some adults, especially the less educated, older and lower income individuals.
- There is no email sample frame for household selection comparable to telephone RDD.
- Lack of TRUST prevails on multiple levels
  - Who is sponsoring this survey.
  - Misrepresentation of purpose and likely use.
  - Threat of malware.
  - The consequences of making a mistake can be huge.
- We've gone from age of desktops, to laptops, to devices, which are not optimally designed for answering surveys—screen size affects when and how they get used.



# Stand-alone Email/Web Surveys do not (yet) work well (2)

- Email is a very crowded space; in the past most people had to deal with frequently ringing telephone; now it's 100+ daily emails
- The age of constant contact devices has created the swipe and delete age; responding to survey requests is not compatible with walking, eating, and quick checks of who has sent you what. The response from many is just, “get rid of it”.
- Response rates are poor (often single digits) and may get worse.

# Current survey practices are exacerbating the Email/Web Survey response problem.

- The “I can do it myself, using “X” software,” is creating a new do it yourself age.
- And, surveyors are substituting a focus on number of completes and not sampling or non-response error; send a lot get a few is often the guiding norm.
  - Many of these surveys go to the entire population, all students, all faculty, and sponsors only focus on number of responses, and not response rate or non-response error.
  - My survey practicum example, Spring 2015
  - A Tragedy of the Commons (think, Garrett Hardin) kind of problem may be lurking
  - The deluge of telephone marketing, fund-raising, and yes—surveys—contributed to the culture of voice telephone avoidance we now have, and may have a similar effect on web survey requests.

# Is mixed-mode a solution?

- Perhaps.
- A lot of survey designs are trying, but are also making significant mistakes in their design.
- I want to suggest seven guidelines for designing “partial” web surveys that can improve response quality.
- These guidelines are based on experimentation as well as some anticipatory thinking.

## **Guideline 1. Contact sample members by mail but “push-to-web” by initially withholding a paper questionnaire**

- Address Based Samples (ABS) from U.S. Postal Service now provide our best U.S. household coverage (we don't have address registers).
- Experiments show we can obtain overall response rates of and 40-50% while successfully pushing 60-70% of responses to the web.
- This is far better than we can do by telephone or email only.

# **Some Evidence: Five large-scale tests were initiated over six years in efforts to develop a web-push methodology**

- |                                                   |             |
|---------------------------------------------------|-------------|
| <b>1. Lewiston, ID-Clarkston, WA Survey</b>       | <b>2007</b> |
| <b>2. Washington Community Survey</b>             | <b>2008</b> |
| <b>3. Washington Economic Survey</b>              | <b>2009</b> |
| <b>4. WA, PA, AL Tri-state Electricity Survey</b> | <b>2011</b> |
| <b>5. WA and NE Water Management Survey</b>       | <b>2012</b> |

**For additional detail, see Chapter 11 of Dillman, D., Smyth, J.D., Christian, L.M. 2014. “Internet, Phone, Mail and Mixed-Mode Surveys: The Tailored Design Method, 4<sup>th</sup> Edition. (John Wiley, Hoboken, NJ)**

# Test results from a push-to-web methodology for the general public


- Questionnaire— 20-30 minutes to complete.  
(equivalent to ten 8 ½ x 11” pages of paper. Up to 140 individual questions
- General Implementation Protocol : specifics varied somewhat across studies
  - Week 1: Postal request that includes \$4- \$5 token cash incentive with request to respond by web.
  - Week 2: A thank you/reminder letter.
  - Week 5: Another letter request with a mail questionnaire and, in some cases, an additional smaller token cash incentive
  - Week 6: A final thankyou/reminder.

# Example of a statewide mail questionnaire 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)

**Are You Better or Worse Off Than A Year Ago?**

A study of how households throughout Washington may have been affected by changes in the economy.



To be completed by an adult at this address with knowledge of the household's economic situation since September 2008.

Social and Economic Sciences Research Center  
Washington State University  
Pullman, WA 99164  
1-800-833-0867

Washington Economic Survey

Q14. How long has your household lived at your current residence?

☐ Over five years → Skip to G15  
☐ Over one year to five years → Skip to G15  
☐ One year or less

Q14a. (If one year or less) were each of the following a reason for moving to your current residence during the past year?

	No	Yes
A. Purchased your current residence	<input type="radio"/>	<input type="radio"/>
B. A foreclosure on your previous residence	<input type="radio"/>	<input type="radio"/>
C. Could not afford rent or mortgage at your previous residence	<input type="radio"/>	<input type="radio"/>

Q15. Do you think that your household's overall total income during 2009 will be:

☐ A lot more than in 2008  
☐ A little more than in 2008  
☐ About the same as in 2008  
☐ A little less than in 2008  
☐ A lot less than in 2008

Q16. Compared to one year ago, has the amount of income that your household saves each month:

☐ Increased a lot  
☐ Increased a little  
☐ Stayed about the same  
☐ Decreased a little  
☐ Decreased a lot  
☐ Does not apply, my household has not saved any income in over a year

Q17. During the past year, has the overall value of your household's retirement savings:


☐ Increased a lot  
☐ Increased a little  
☐ Stayed about the same  
☐ Decreased a little  
☐ Decreased a lot  
☐ Does not apply, my household has not had retirement savings during the past year

Q18. To what extent are you concerned that members of your household will be unable to afford to retire when planned?

☐ Very concerned  
☐ Somewhat concerned  
☐ A little concerned  
☐ Not at all concerned  
☐ Does not apply, all members of my household are currently retired

Thanks again for completing this survey!

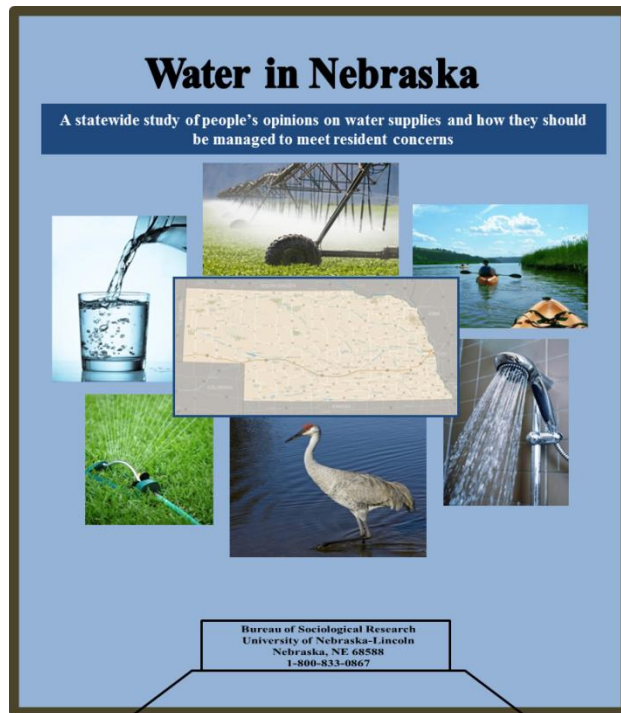
If you would like to clarify any of your answers, or share additional thoughts about how your household has been affected during this last year by changes in the economy, please do that here.



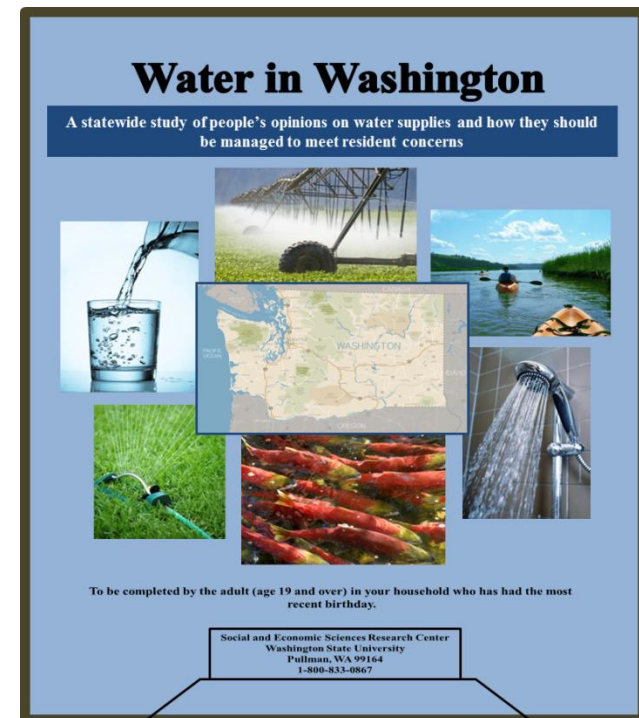
Social and Economic Sciences Research Center  
Washington State University  
PO Box 641801  
Pullman, WA 99164-1801

# 2012 water management survey: tailored to state by pictures and sponsorship

- Examples of the mail covers:



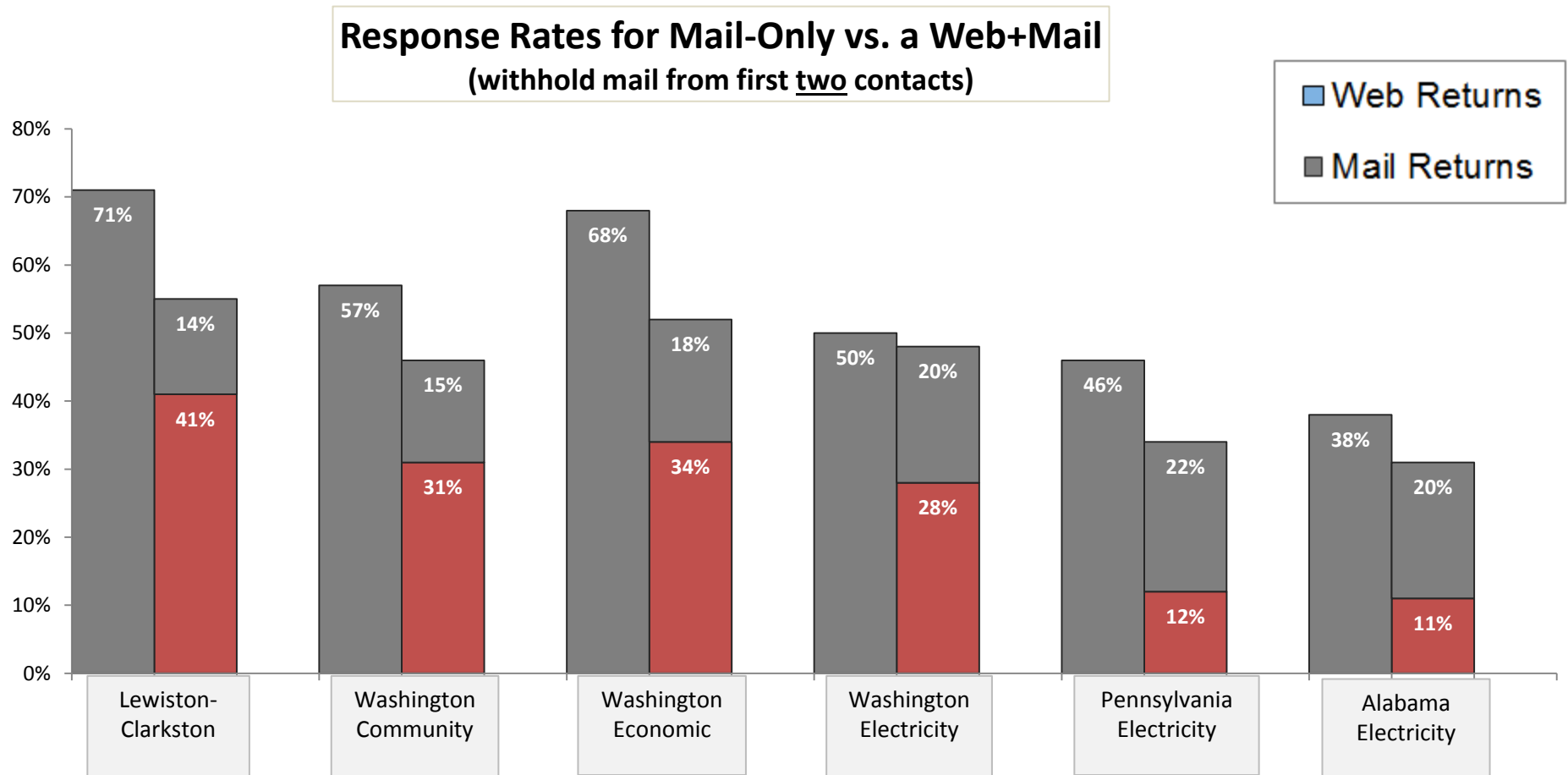
Bureau of Sociological Research  
University of Nebraska-Lincoln  
Lincoln, NE 68588  
1-800-833-0867



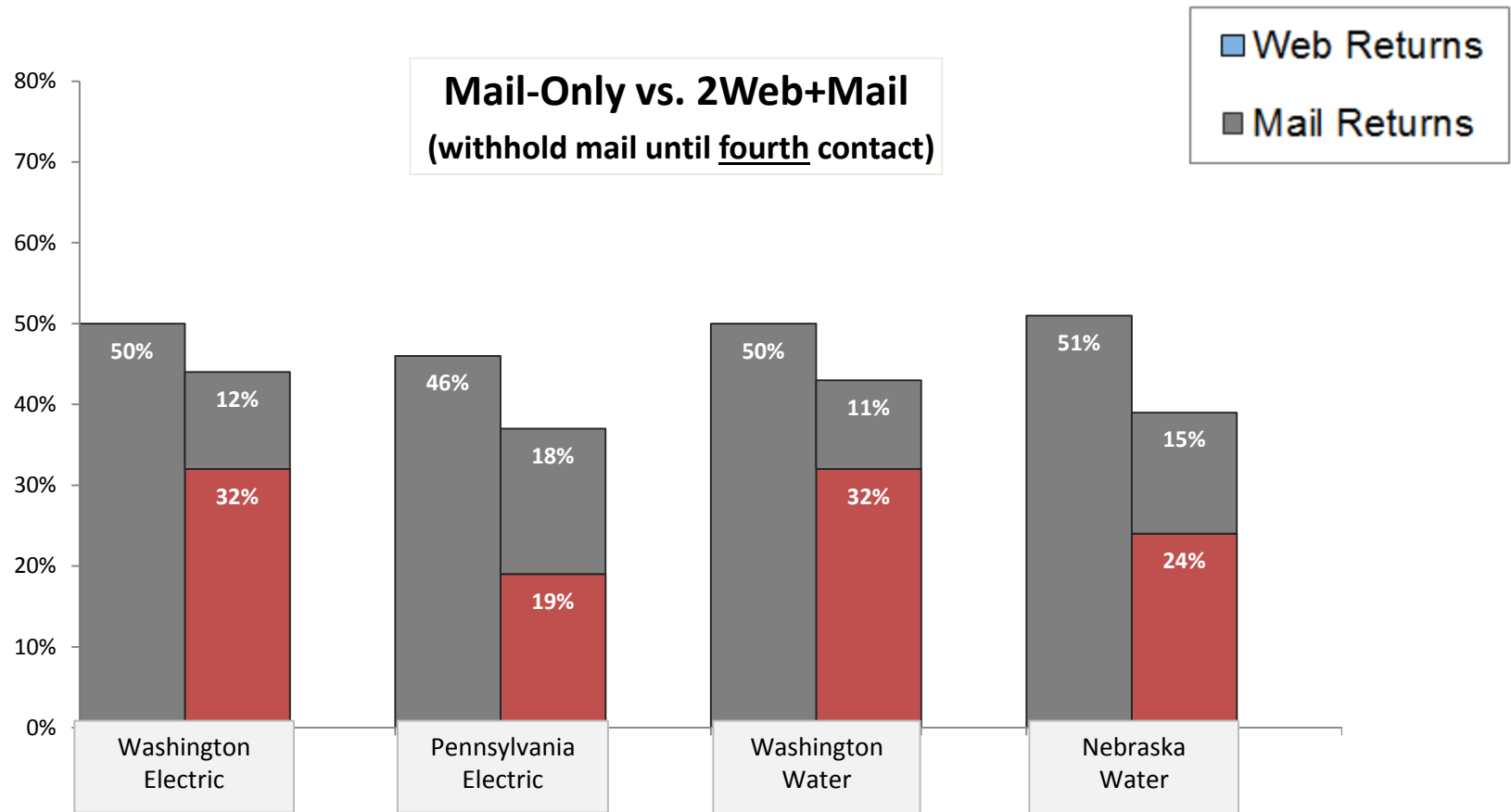
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Pullman, WA 99164  
1-800-833-0867



# Response rates for push-to-web versus mail-only designs, 2007-2012 studies



# Response rates for more stringent tests of 2web+mail vs. mail-only designs, 2011-2012



# Summary of findings

1. Postal-only: Response rates 53% (38% to 71%) across 10 tests on various state populations (Washington to Alabama)
2. Push-to-web response rates 43% (31%-55%) across 10 comparison groups.
3. There are significant differences between web and mail respondents (education, age, income, marital status).
4. Demographically, the web+mail treatment respondents are similar to mail-only respondents.
5. A web+mail approach results in an average of about 62% of responses coming in over the web.

## **Guideline 2. Send token cash incentives with request to respond**

- The biggest barrier to a web response is getting people from postal letter to the computer.
- Sending token cash incentive with the request improves web response significantly.
- We tested this experimentally in a statewide survey. (Messer and Dillman, 2011)

# 2008 Washington Community Survey (WCS)

- Example of the mail version:

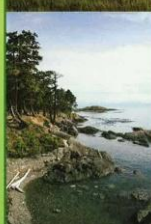
## Washington Community Survey

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



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.

Social and Economic Sciences Research Center  
Washington State University  
PO Box 641801  
Pullman, WA 99164-1801

### Washington Community Survey

Q1. What is the name of the city or town where you receive your postal mail?

WA  
Name of city/town

Q2. For how many years has your postal mailing address been in this city or town?

Years

Q3. Which one of the following best describes where your residence is in relation to this city or town?

- ☐ In or near the downtown area  
☐ Away from the downtown area but within the city or town limits  
☐ Outside the city or town limits

Q4. Some people we have talked to in Washington state depend mostly on their postal mailing address city or town for services while others tend to rely on another city or town. Where do you go most of the time to do each of the following? (Please choose one answer for each item)

	Your postal address city or town	Another city or town close by (less than 30 miles away)	A distant city or town (more than 30 miles away)	Does not apply to me
A. Buy groceries	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
B. Buy other household items	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
C. Buy gasoline for vehicles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
D. Work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
E. Get medical care	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
F. Outdoor recreational activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
G. Attend religious services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
H. Participate in clubs or other organizations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I. To eat out	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
J. Entertainment (movies, sports, bowling, etc)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
K. Visit with friends	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
L. Visit with relatives	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

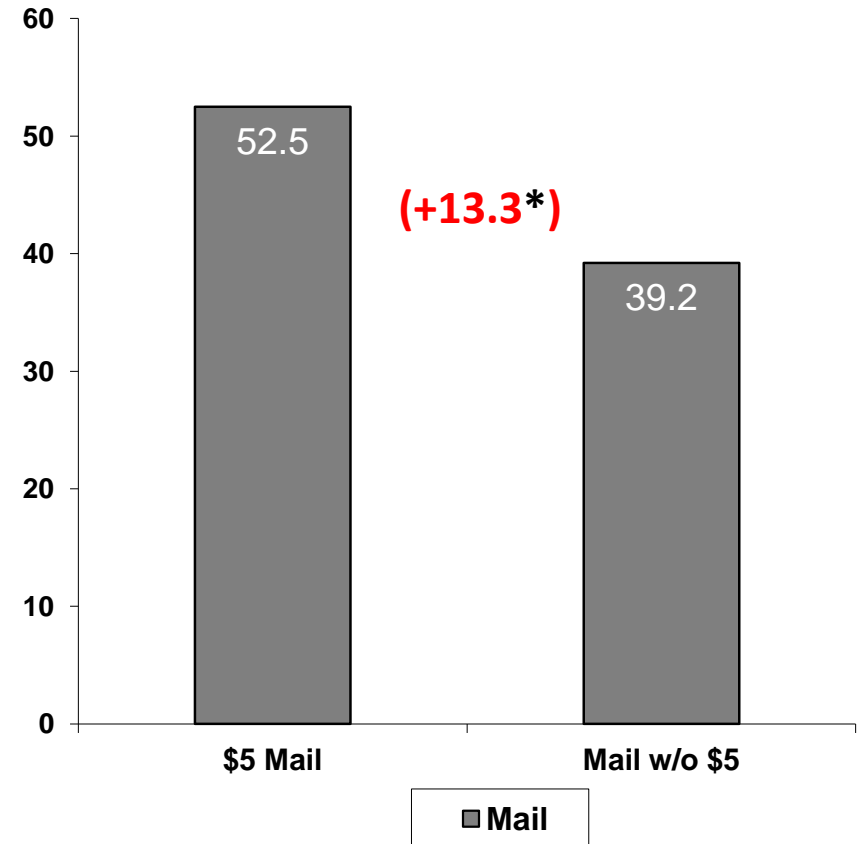
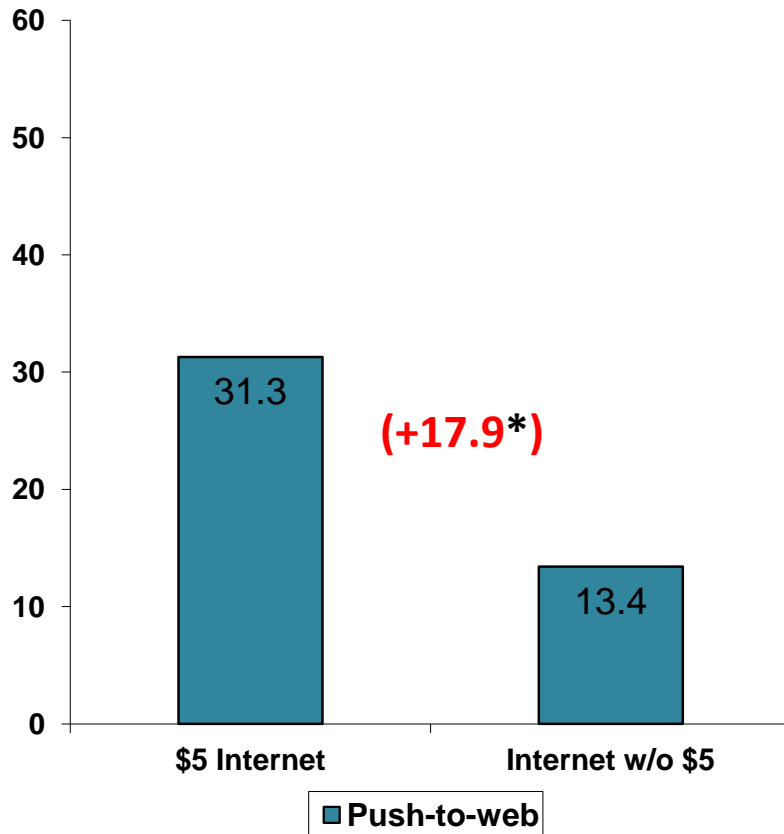
Q5. Do you consider the community where you live to be the city or town where you receive your postal mail or a different city, town, suburb, or location?

- ☐ The community where you live is the city or town where you receive your postal mail → Skip to Q6  
☐ The community where you live is a different city, town, suburb, or location

Q5a. (If a different city, town, suburb, or location) what name best describes the community where you live?

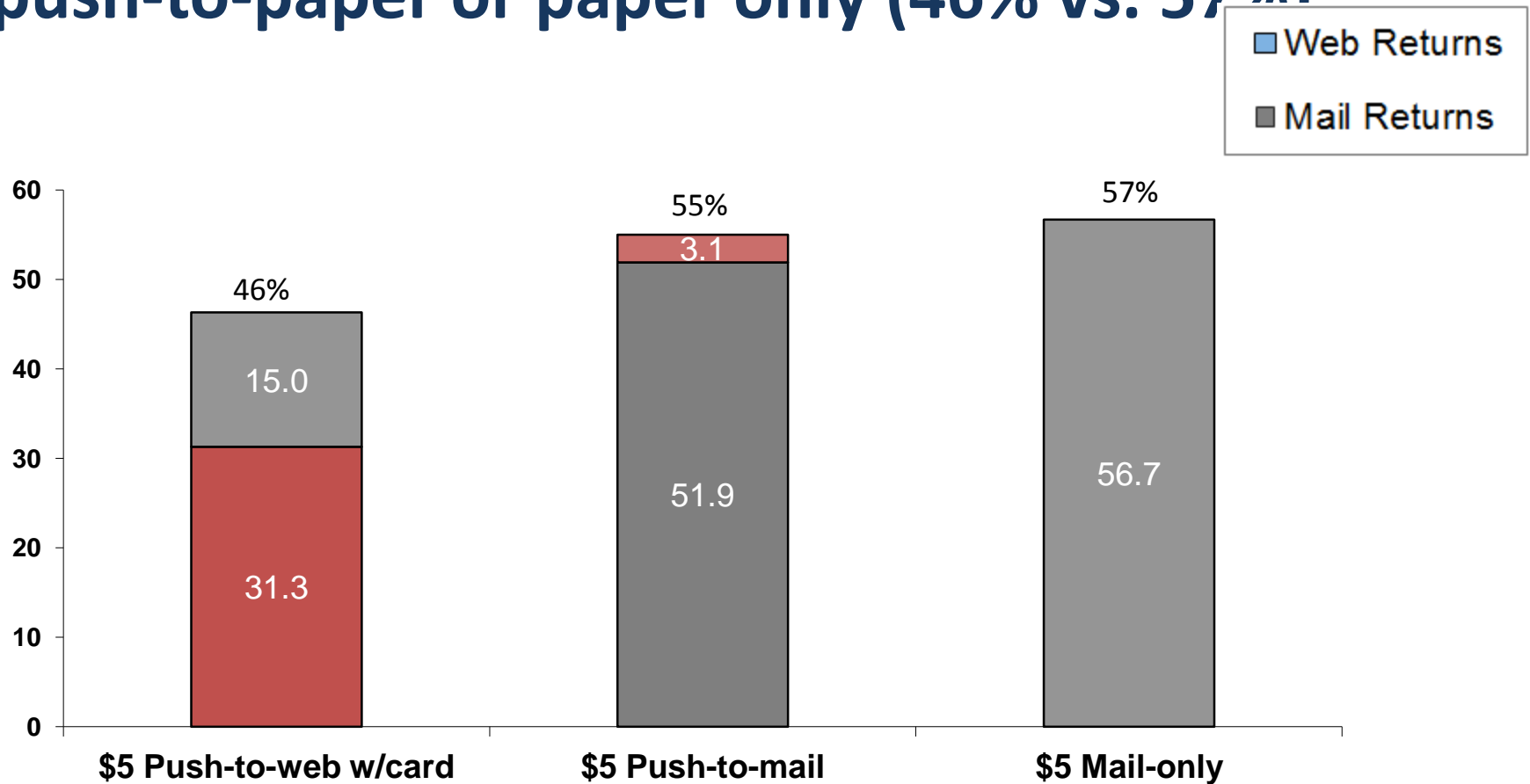
Name of city, town, suburb, or location that best describes the community where you live.

**A \$5 cash incentive with WCS request was very effective for increasing web-only response rates (web 31% +paper 15% = 46%)**



\*  $p \leq .05$

**We pushed 2/3 of responses to web, but obtained a lower response rate than either push-to-paper or paper only (46% vs. 57%)**



# Guideline 2. Conclusion

- Token cash incentives sent with the survey request, create a reciprocal obligation (social exchange).
- It is the most powerful response technique we have.
- Some major voluntary government surveys are beginning to use this approach; the culture of whether to do or not do this is changing.
- \$2 - \$5 is more a token (e.g. a cup of Starbucks) than payment for time, and it conveys seriousness of the sponsor's request.
- A second incentive when mode switches will also improve response rates ~5-10%.



# Guideline 3. Provide multiple response modes sequentially instead of all at once.

- It's clear that offering choice with initial contact does not improve response rates and may lower them. (See Medway and Fulton, POQ 2012; Messer and Dillman, 2011).
- If choice between mail and web is offered by postal first contact, most people will answer by mail (~70%).
- Offering mail after web increases response significantly.
- Offering web after mail does not improve response rates

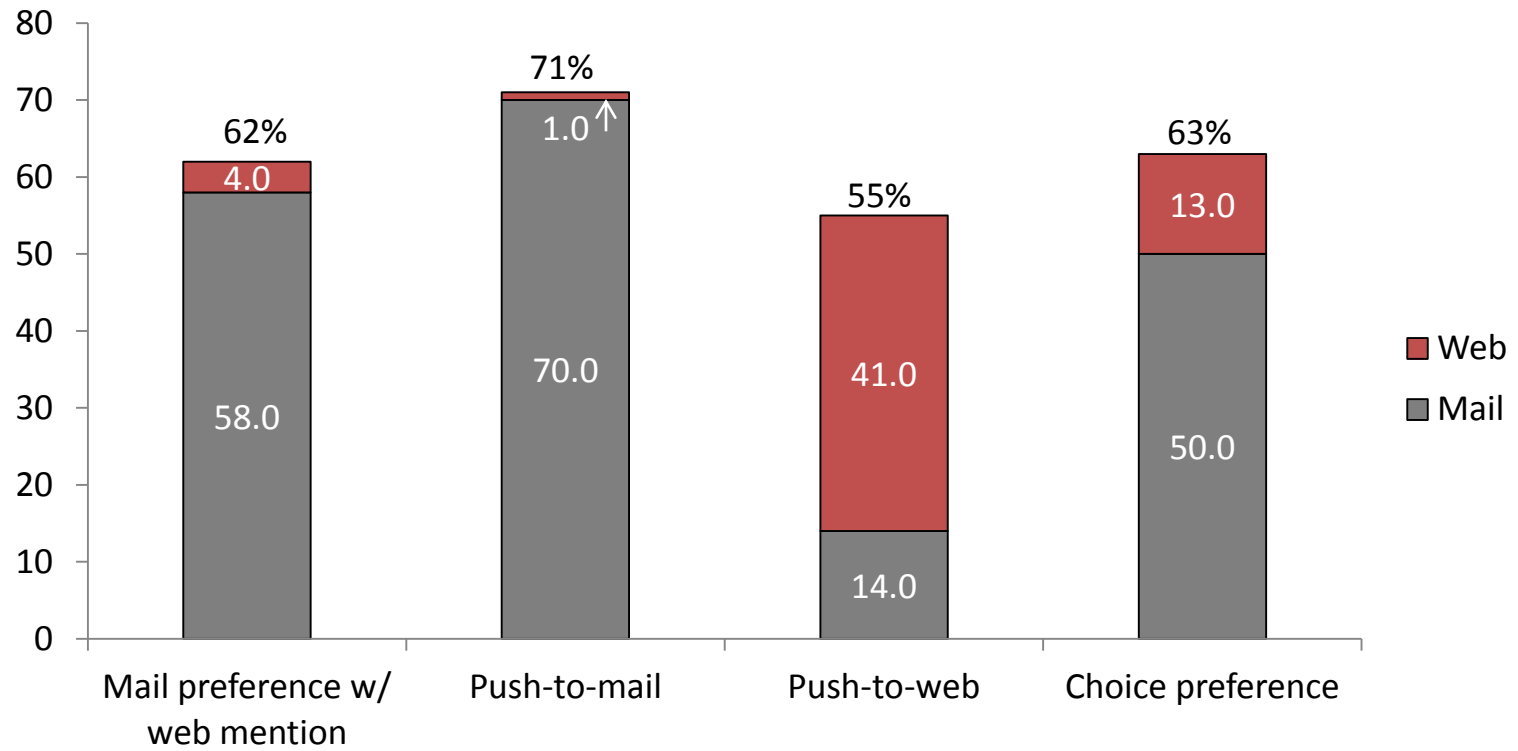
## Some evidence: we compared four treatments in our first experiment (Lewiston and Clarkston study)

1. Mail preference with web mention: Send mail questionnaire and mention web with initial request
2. Push-to-mail: Send mail questionnaire but withhold mention of web for about two weeks
3. Push-to-web: Web invitation with no mail questionnaire, but explain that mail questionnaire will be sent in about two weeks
4. Equal preference: It is your choice!

# Push-to-mail had highest response.

## Push-to-web had lowest response rate

- When given the initial choice of web or mail in the **mail preference with web mention** and **choice preference** groups, few respondents chose web



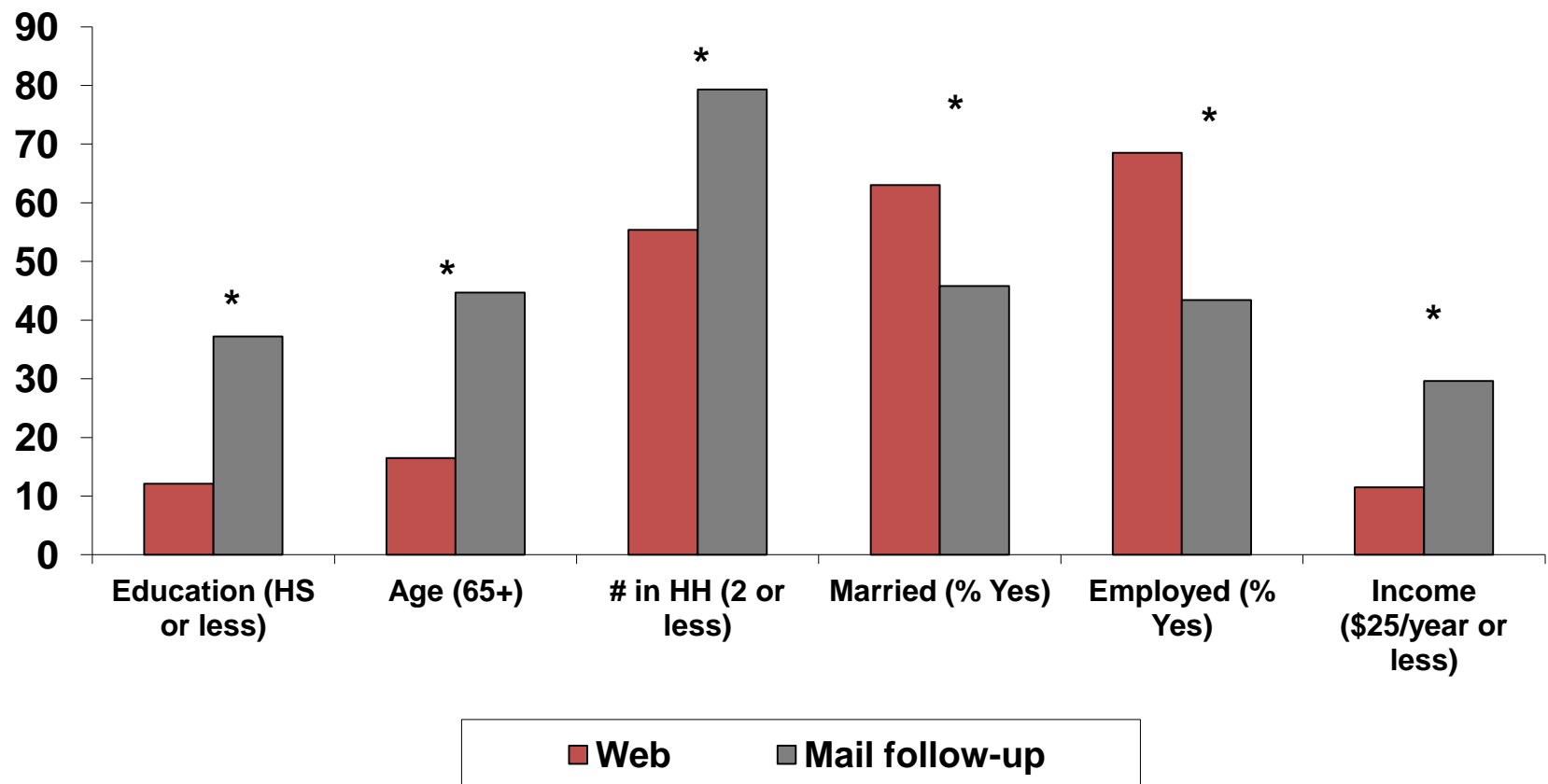
## Guideline 3. Conclusion

- Choice when only mail contact is being used is not a good idea (More later on this).
- Mail after web has a significant positive effective on response rates.
- Studies have shown that offering “web” after we have pushed to mail produces only a trivial improvement in response rates.
- If we start with mail in hopes of getting higher response rates, it’s not yet worth the cost to design a web follow-up.

# **Guideline 4. Use mail response follow-up to reduce non-response error in push-to-web surveys**

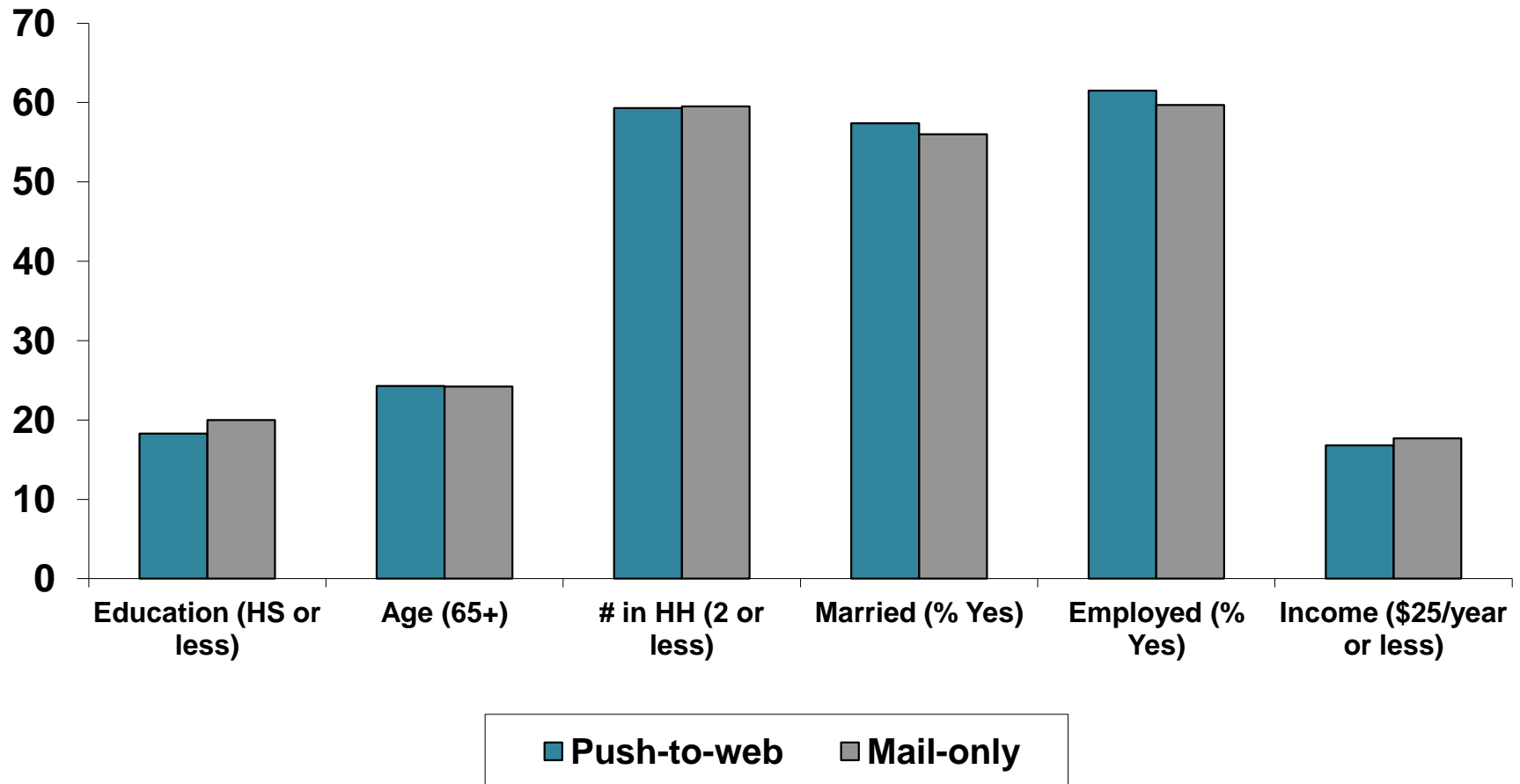
- Web respondents have quite different demographics than the entire general population, e.g. more education and income.
- This has occurred in all studies we have conducted (See Smyth et al, 2010; Messer and Dillman, 2010).
- For example, mail respondents had less education, were older, in smaller households, not married or employed and had lower incomes.

# Introducing a paper questionnaire in third contact brought in different kinds of respondents than did the initial push-to-web effort. (Messer and Dillman, 2011)

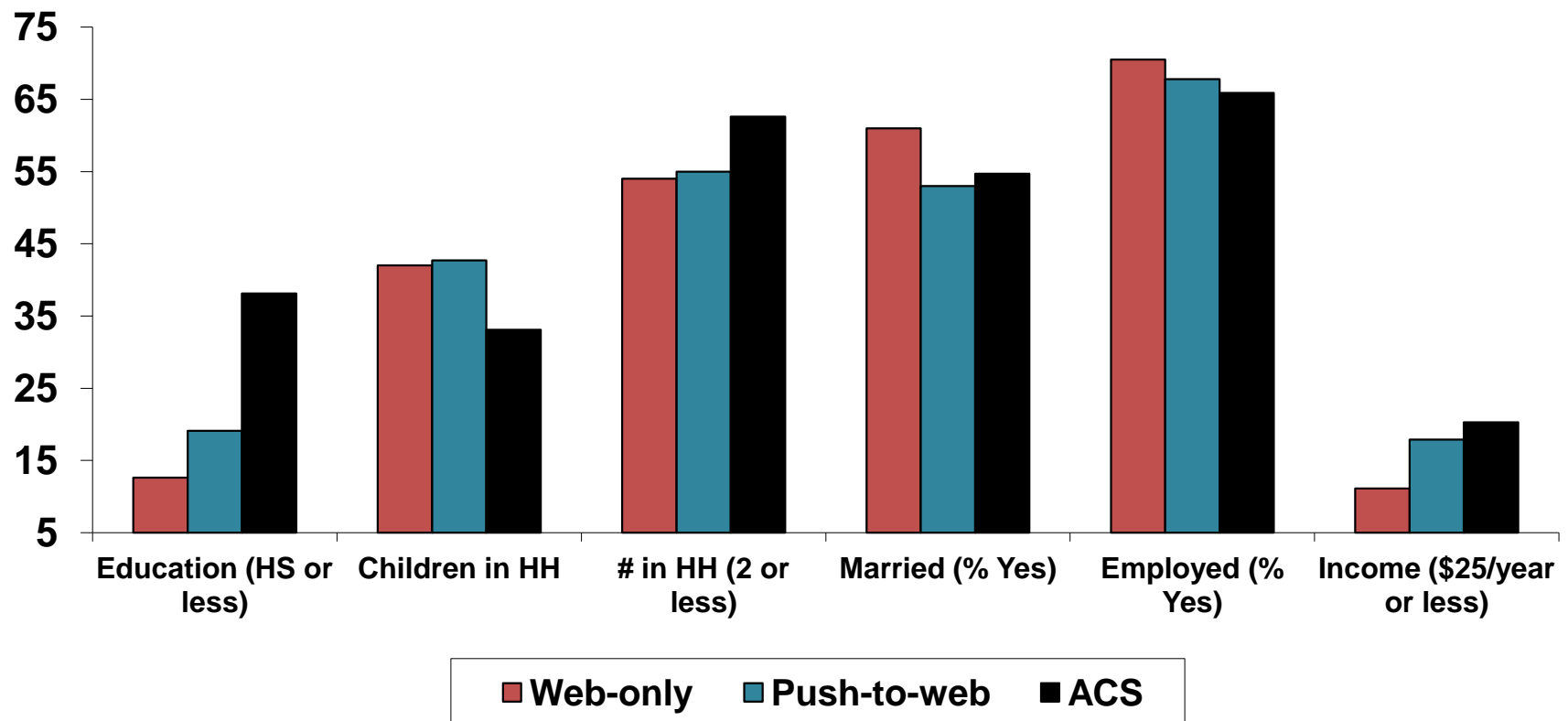


\*  $p \leq .05$

# The combined push-to-web group (web plus mail respondents) was demographically similar to the mail-only treatment



# Complete push-to-web group was more representative than the web-only respondents (comparison to U.S. Census Bureau's American Community Survey)



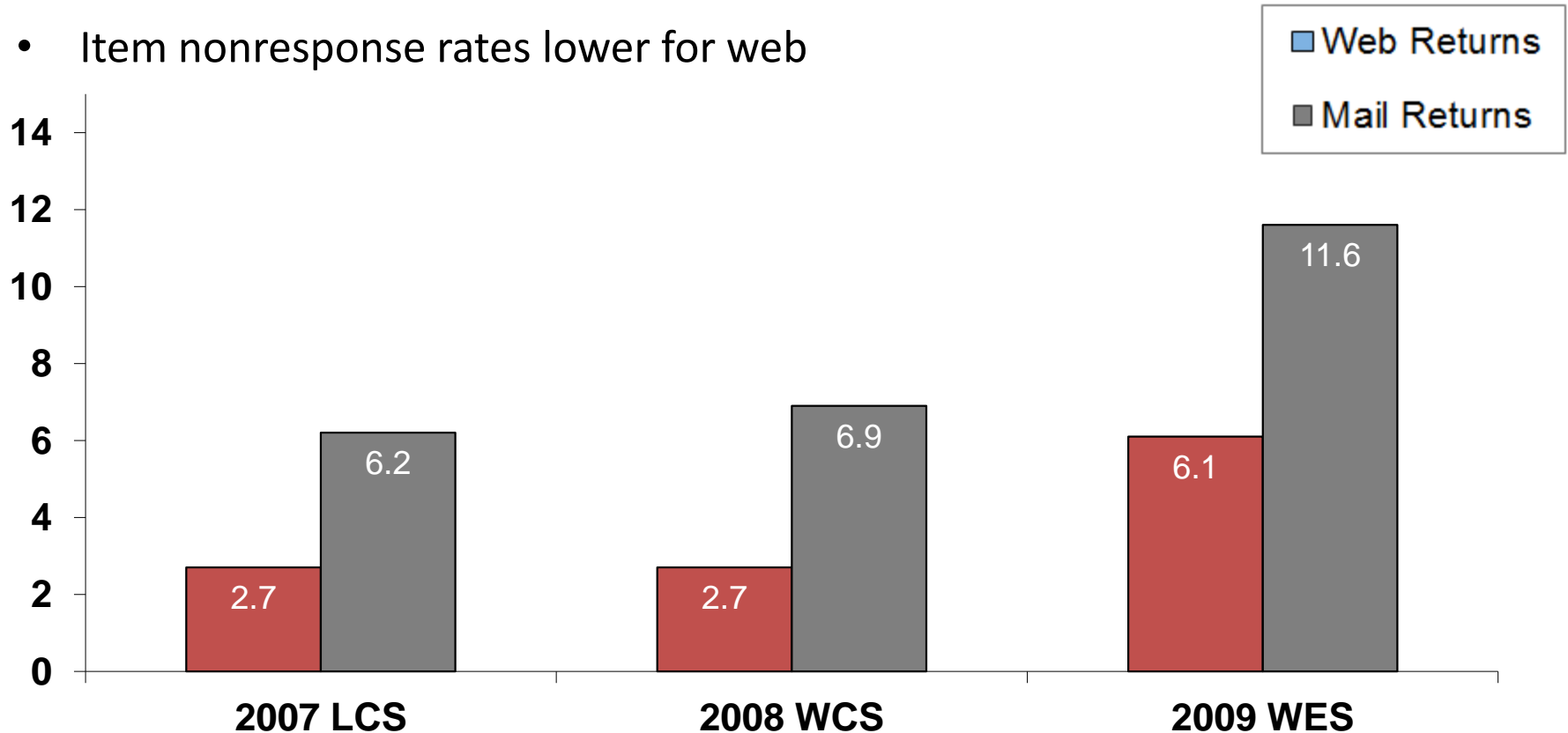


# Does mail item non-response negate gains in response rates?

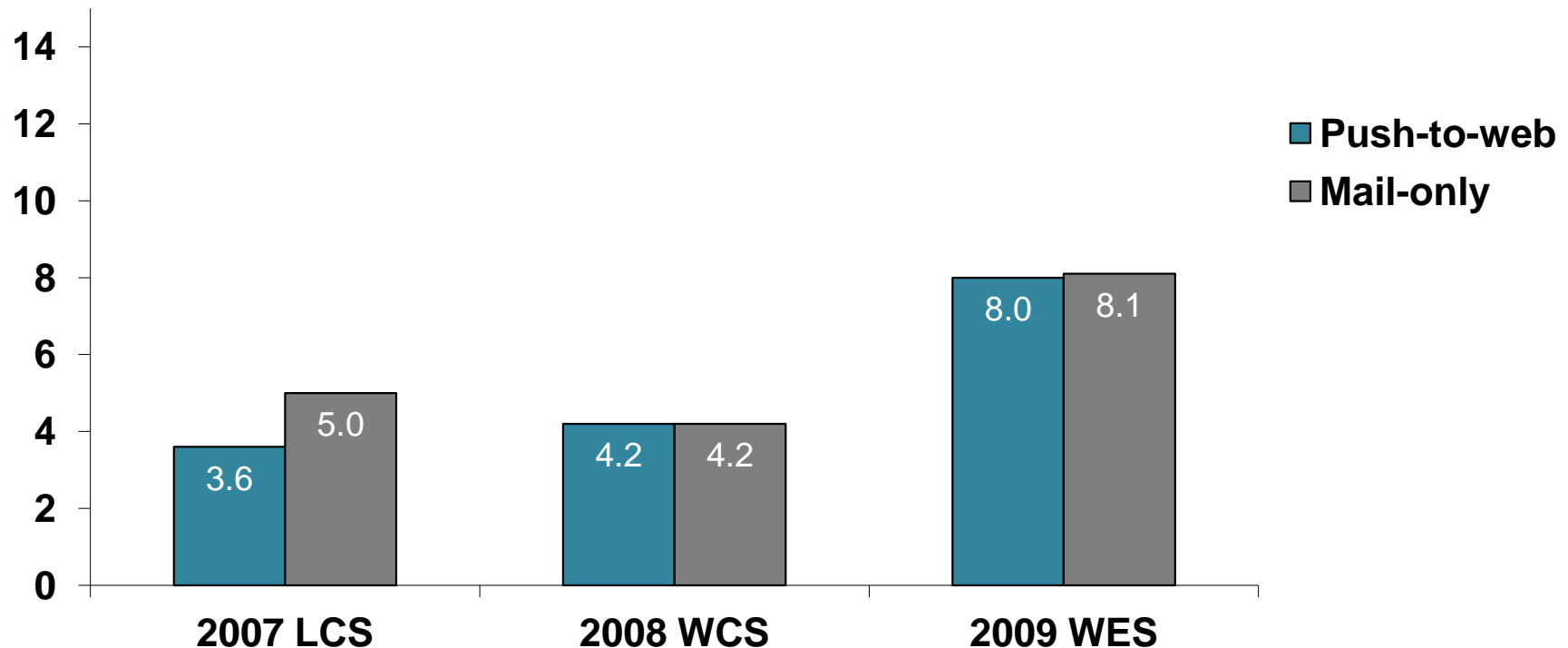
- If mail higher item non-response rates then perhaps that cancels out the benefits of gaining the additional responses in web-push designs.
- Thus, it was important to evaluate this. (See Messer, Edwards and Dillman, Survey Practice, 2012).

## Web vs. mail item non-response in the push-to-web groups for LCS, WCS, and WES

- Item nonresponse rates lower for web



**BUT, push-to-web and mail-only groups have similar overall item nonresponse rates; Late mail respondents in push-to-web groups were less able to respond (older with less education).**



## Guideline 4. Conclusion

- I am not yet comfortable in the U.S. using a push-to-web approach with the general public without sending a paper questionnaire follow-up. The demographics are quite different.
- Many of these “different” paper respondents have the web, but are uncomfortable using it.
- Overall item non-response differences are minor because late responders are poorer respondents.




































## Guideline 5. If you can get email addresses, use email augmentation of the postal contact

- Emails often cannot be obtained for general public surveys, but may be available for clients, students, employees, and organization members.
- Student surveys provide us a test opportunity.
- At my university it's optional to provide address updates—multiple modes of contact increases the likelihood of reaching people. Most students provide telephone, mail and email contact information.
- An initial experiment showed that with mail contact only, paper response with \$2 incentive was highest (52%), offering web-only lowest (42%) and offering choice was intermediate (48%). (Millar and Dillman, 2011)
- Results were not surprising.
- But what if we add a quick email following a postal request to “make it easier for you to respond” ? The idea for this comes from social exchange—promote trust, reciprocal obligation.

# Email augmentation should ease the response task, greatly

- Some URLs are impossible to remember, and flicking eyes back and forth from paper to screen produces errors.
- More than 4-5 characters are difficult to remember and transfer.
- Few touch typists deal well with all four types of characters—CAPS, small case, numbers, and symbols—that survey sponsors often require.

# Treatment groups: Tests of email plus postal contacts on response rates (with and without \$2)

Requested Mode of response	Nov 9/10 Invitation	Nov 12/13 Invite prompt	Nov 18/19 Thank you/ reminder	Dec 7/8 Replacement	Dec 10/14 Replacement prompt
1. Choice	\$ 				
2. Choice	\$ 				
3. Mail	\$ 				
4. Web	\$ 				
5. Web	\$ 				
6. Web					
7. Web					



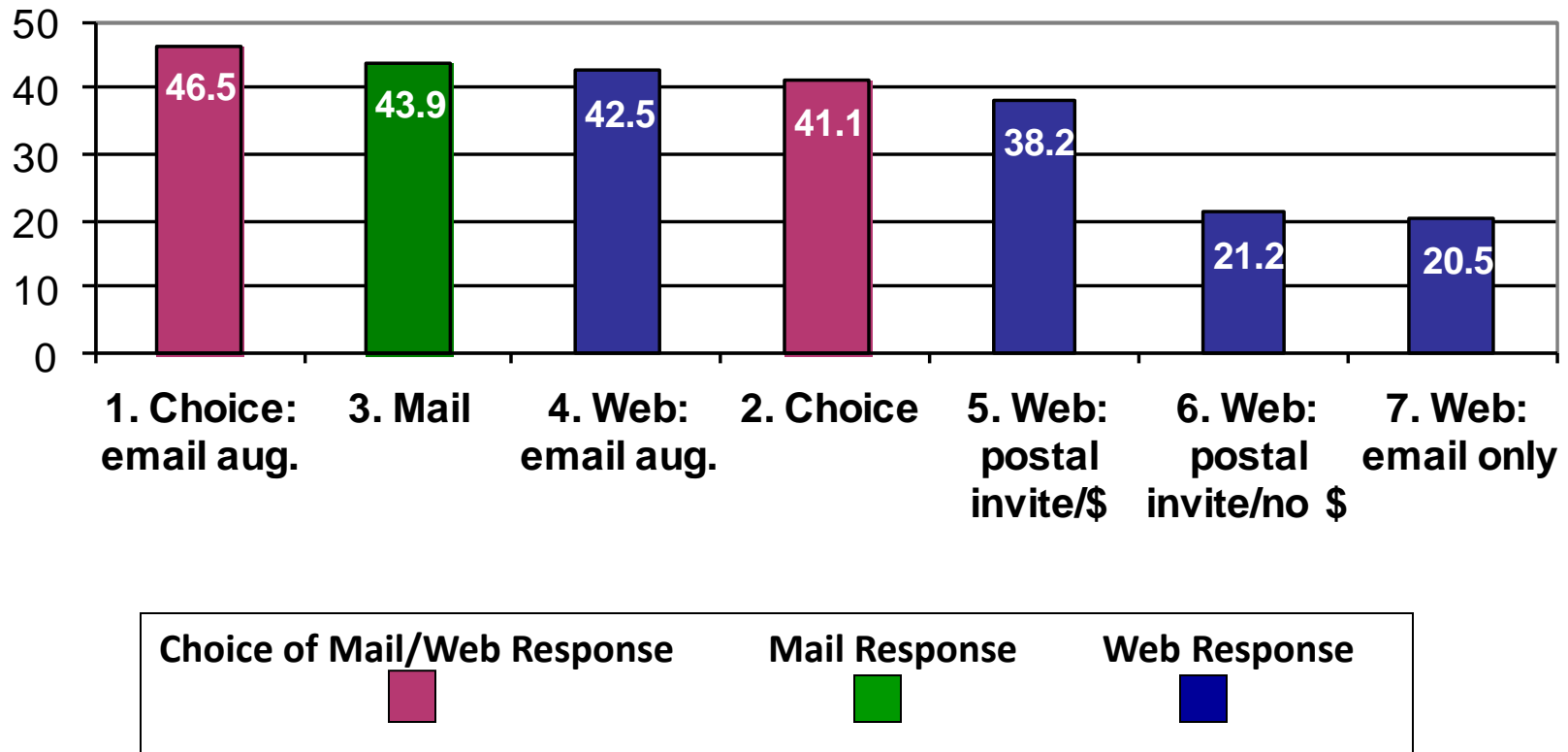
Contact sent via MAIL



Contact sent via EMAIL

\$2 Incentive included

# Response Rates from a large student test (Millar and Dillman (2011))



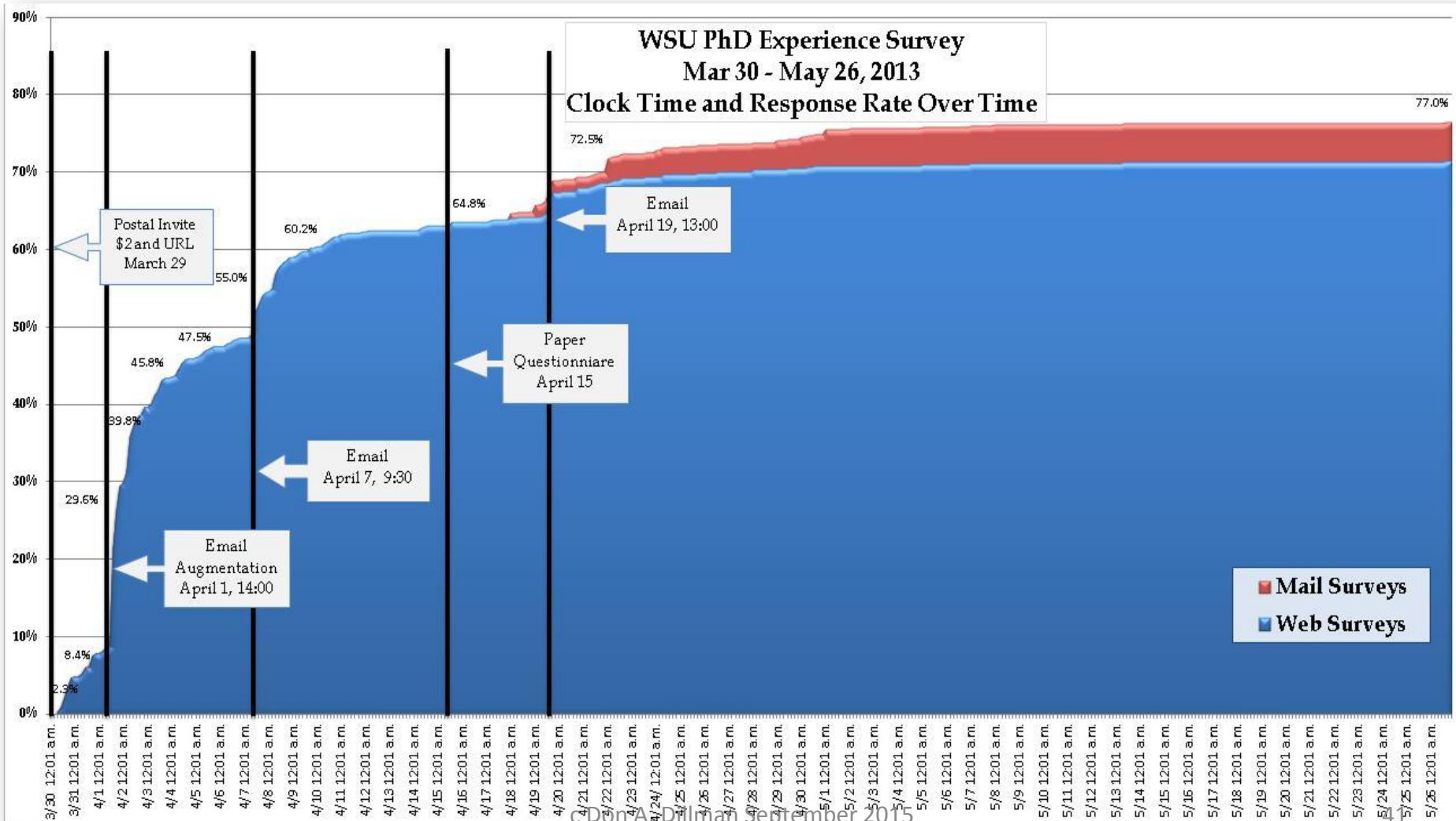


# A slightly different test: Graduate Students Working on Dissertations


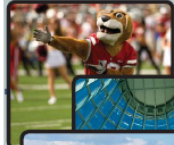
- Day 1- Postal request to respond over the Internet
- Day 4- Email Augmentation
- Day 8- Email followup
- Day 16- Postal Follow-up with mail questionnaire
- Day 21- Final Email follow-up

(Millar, Morgan. July 2013. Determining Whether Research is Interdisciplinary: An Analysis of New Indicators. Technical Report #13-049. The Washington State University Social and Economic Sciences Research Center: Pullman)

# Email Augmentation of letter+\$2 pushed response rates up 21 percentage points in 10 hours, and 40 points in five days!



# The paper questionnaire mailed on April 14<sup>th</sup>



## Understanding the Doctoral Experience at WSU

Thank you for completing this questionnaire. This study will help us better understand the process students go through during the final stages of their doctoral education. As doctoral training in the United States continues to evolve, it is important that we learn more about students' perspectives and identify any obstacles that may stand in the way of successfully completing one's dissertation.

Your participation is voluntary and your responses will be kept confidential. No personally identifiable information will be associated with your responses in any reports of the data. If you have any questions please feel free to contact Thom Allen, the study director, by email at [ted@wsu.edu](mailto:ted@wsu.edu) or by phone at (509) 335-1722.

Q1. In what year did you officially complete your preliminary examinations?

YYYY

Q2. Have you already selected a specific dissertation topic?

☐ No → Skip to Q21 on page 5  
☐ Yes

Q3. If yes, which of the following best describes your current status in the dissertation process?

☐ Have not yet begun any research or writing for your dissertation → Skip to Q21 on page 5  
☐ Working on a dissertation proposal  
☐ Have completed a dissertation proposal  
☐ Are in the early stages of research/writing for your dissertation  
☐ Are about halfway completed with the research/writing for your dissertation  
☐ Are mostly completed with the research/writing for your dissertation  
☐ Have fully completed your dissertation

Q4a. Please write the name of the primary field of your dissertation research.

Name of primary field

Now, choose the code from the list on pages 10-11 that best describes the primary field of your dissertation research.

Number of primary field

1

# Two inside pages of the paper questionnaire

**Q15. Do the theories, concepts, and/or perspectives you use to shape your dissertation research questions:**

- ☐ <sub>1</sub> All come from one field of study  
☐ <sub>2</sub> Mostly come from one field, but a few are from other field(s)  
☐ <sub>3</sub> Come extensively from more than one field

**Q16. Do the methods, tools, techniques, and/or data used in your dissertation research:**

- ☐ <sub>1</sub> All come from one field of study  
☐ <sub>2</sub> Mostly come from one field, but a few are from other field(s)  
☐ <sub>3</sub> Come extensively from more than one field

**Q17. Will the implications of your dissertation research be relevant or applicable to one field or multiple fields?**

- ☐ <sub>1</sub> One field  
☐ <sub>2</sub> Multiple fields

**Q18. Have you either presented, or plan to present, your dissertation research at conferences that are designed to bring together researchers from multiple fields?**

- ☐ <sub>1</sub> No  
☐ <sub>2</sub> Yes

**Q19. Have you either published, or think you might publish, your dissertation research in a journal (or other outlet) that speaks to multiple fields?**

- ☐ <sub>1</sub> No  
☐ <sub>2</sub> Yes

**Q20. Would you say that your dissertation research modifies (alters) elements of multiple fields in order to create common ground between them?**

- ☐ <sub>1</sub> No  
☐ <sub>2</sub> Yes

Please explain your answer to the above question.

4

*Next, we'd like to ask a few questions about your impressions and experiences in your doctoral program.*

**Q21. What is the name of the WSU department, program, center, or committee that supervises your doctoral studies?**

Department/center/committee/program

**Q22. How much training would you say your doctoral program has provided you in each of the following?**

	None	A Little	Some	A Great Deal	Not Sure
Formulating original research questions	<input type="radio"/> <sub>1</sub>	<input type="radio"/> <sub>2</sub>	<input type="radio"/> <sub>3</sub>	<input type="radio"/> <sub>4</sub>	<input type="radio"/> <sub>5</sub>
Designing and conducting data analysis	<input type="radio"/> <sub>1</sub>	<input type="radio"/> <sub>2</sub>	<input type="radio"/> <sub>3</sub>	<input type="radio"/> <sub>4</sub>	<input type="radio"/> <sub>5</sub>
Designing and teaching your own classes	<input type="radio"/> <sub>1</sub>	<input type="radio"/> <sub>2</sub>	<input type="radio"/> <sub>3</sub>	<input type="radio"/> <sub>4</sub>	<input type="radio"/> <sub>5</sub>
Preparing and delivering presentations at conferences or meetings	<input type="radio"/> <sub>1</sub>	<input type="radio"/> <sub>2</sub>	<input type="radio"/> <sub>3</sub>	<input type="radio"/> <sub>4</sub>	<input type="radio"/> <sub>5</sub>
Preparing and submitting research manuscripts for publication	<input type="radio"/> <sub>1</sub>	<input type="radio"/> <sub>2</sub>	<input type="radio"/> <sub>3</sub>	<input type="radio"/> <sub>4</sub>	<input type="radio"/> <sub>5</sub>
Preparing and submitting grant proposals	<input type="radio"/> <sub>1</sub>	<input type="radio"/> <sub>2</sub>	<input type="radio"/> <sub>3</sub>	<input type="radio"/> <sub>4</sub>	<input type="radio"/> <sub>5</sub>
Preparing job application materials	<input type="radio"/> <sub>1</sub>	<input type="radio"/> <sub>2</sub>	<input type="radio"/> <sub>3</sub>	<input type="radio"/> <sub>4</sub>	<input type="radio"/> <sub>5</sub>
Interviewing for jobs	<input type="radio"/> <sub>1</sub>	<input type="radio"/> <sub>2</sub>	<input type="radio"/> <sub>3</sub>	<input type="radio"/> <sub>4</sub>	<input type="radio"/> <sub>5</sub>

**Q23. How would you rate the guidance your program provides to its doctoral students for each of the following issues?**

	Poor	Fair	Good	Excellent
Finding an advisor	<input type="radio"/> <sub>1</sub>	<input type="radio"/> <sub>2</sub>	<input type="radio"/> <sub>3</sub>	<input type="radio"/> <sub>4</sub>
Forming a committee	<input type="radio"/> <sub>1</sub>	<input type="radio"/> <sub>2</sub>	<input type="radio"/> <sub>3</sub>	<input type="radio"/> <sub>4</sub>
Overcoming obstacles to successful degree completion	<input type="radio"/> <sub>1</sub>	<input type="radio"/> <sub>2</sub>	<input type="radio"/> <sub>3</sub>	<input type="radio"/> <sub>4</sub>
Finding appropriate balance between work/school and personal/family life	<input type="radio"/> <sub>1</sub>	<input type="radio"/> <sub>2</sub>	<input type="radio"/> <sub>3</sub>	<input type="radio"/> <sub>4</sub>

**Q24. To what extent does each of the following statements describe the students in your doctoral program?**

	Not at all	A little	Some what	A great deal
The students are supportive of one another	<input type="radio"/> <sub>1</sub>	<input type="radio"/> <sub>2</sub>	<input type="radio"/> <sub>3</sub>	<input type="radio"/> <sub>4</sub>
There is high morale amongst students	<input type="radio"/> <sub>1</sub>	<input type="radio"/> <sub>2</sub>	<input type="radio"/> <sub>3</sub>	<input type="radio"/> <sub>4</sub>
Students are confident about their future job prospects	<input type="radio"/> <sub>1</sub>	<input type="radio"/> <sub>2</sub>	<input type="radio"/> <sub>3</sub>	<input type="radio"/> <sub>4</sub>

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# Elaboration

- Final response was 77%
- Response rate increased an additional 12 percentage points after postal questionnaire sent; ½ respondent by paper and ½ by web.
- The paper questionnaire went to 200 individuals, 32% responded.
- The mixed-mode approach with email augmentation was quite effective.

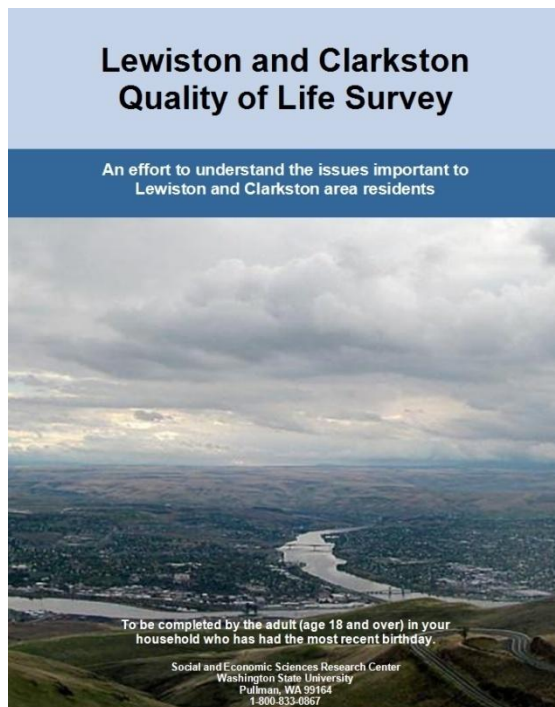
# Guideline 5. Conclusion

- Email augmentation can overcome the problem of “offering choice”.
- OR, it can be used successfully to “push” respondents in a more powerful way to the web, when web is the only response mode.

# Guideline 6. Use Unified Mode Construction for Asking Survey Questions

- Questions tended to be structured differently for different modes.
  - e.g. (Telephone) What is your marital status ? (telephone)
  - (Web) Which of these categories best describes your marital status: never married, now married, widowed, separated or divorced?
- In addition aural and visual communication use different parts of the brain;
- Answers to visual questions are influenced by use of numbers, symbols, and graphical layout in addition to words.
- We can eliminate differences in answers for most questions by using:
  - The same question structure
  - The same wording
  - The same visual layout
- A great deal of research now shows that these effects are real and often substantial (See Dillman, Smyth and Christian, 2014).

# For example, consider the cover and back page of the mail questionnaire



Q1. Approximately how many years have you lived in the Lewiston-Clarkston area?

Years

Q2. Overall, how satisfied are you with living in this area?

☐ Very satisfied  
☐ Somewhat satisfied  
☐ Neutral  
☐ Somewhat dissatisfied  
☐ Very dissatisfied  
☐ Not sure

Q3. How attached do you feel to the Lewiston-Clarkston area?

☐ Very attached  
☐ Somewhat attached  
☐ Slightly attached  
☐ Not at all attached  
☐ Not sure

Q4. During the past five years, how much better or worse do you think Lewiston-Clarkston has become as a place to live?

☐ A lot better  
☐ Somewhat better  
☐ No change  
☐ Somewhat worse  
☐ A lot worse  
☐ Not sure

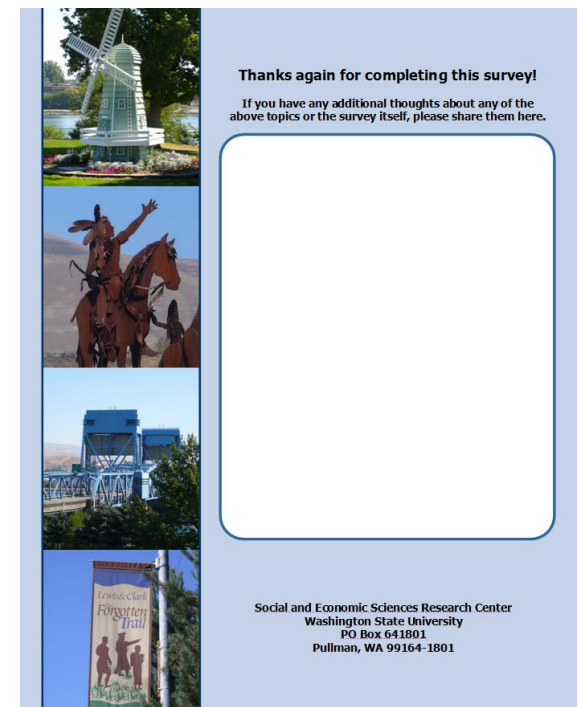
Q5. How much better or worse do you think the local economy has become in the past five years?

☐ A lot better  
☐ Somewhat better  
☐ No change  
☐ Somewhat worse  
☐ A lot worse  
☐ Not sure

Q6. How much better or worse do you think the area's natural environment has become in the past five years?

☐ A lot better  
☐ Somewhat better  
☐ No change  
☐ Somewhat worse  
☐ A lot worse  
☐ Not sure

1

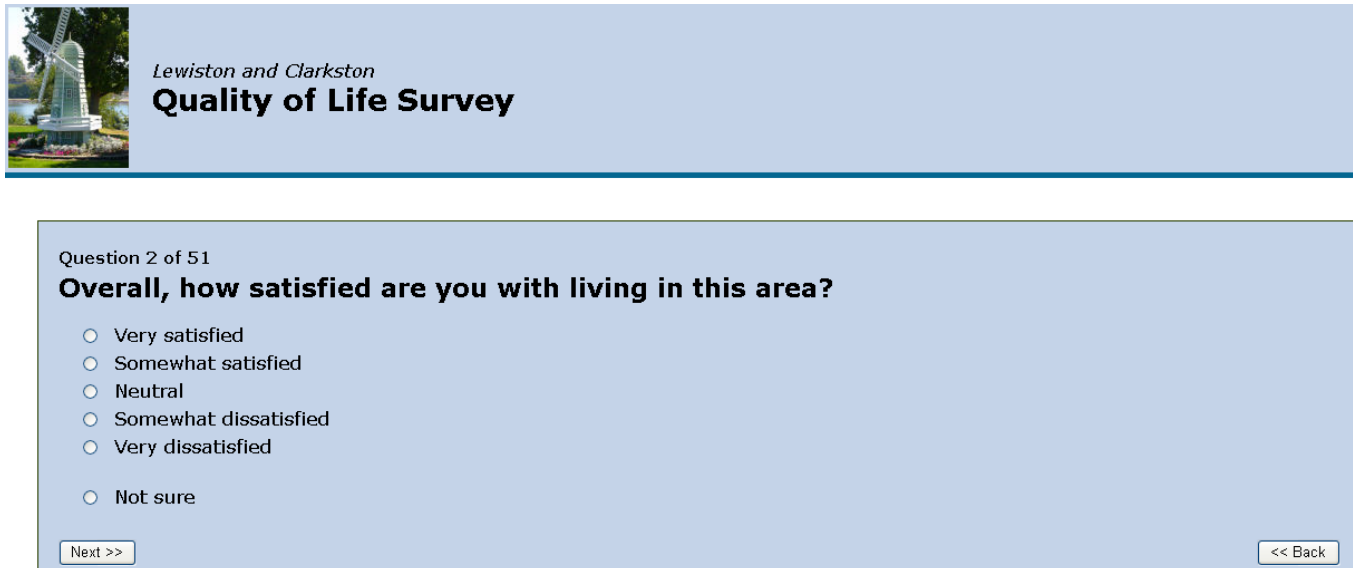




# Design of the web survey—focus on population not sponsor

## Example: Question 2

- Similar design format to paper survey, and use of familiar image in upper left-hand corner of the screen.



*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

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# We used a unified design between mail (on left) and web (on right)

**Q1. Approximately how many years have you lived in the Lewiston-Clarkston area?**

 Years

**Q2. Overall, how satisfied are you with living in this area?**

- ☐ <sub>1</sub> Very satisfied
- ☐ <sub>2</sub> Somewhat satisfied
- ☐ <sub>3</sub> Neutral
- ☐ <sub>4</sub> Somewhat dissatisfied
- ☐ <sub>5</sub> Very dissatisfied
- ☐ <sub>6</sub> Not sure

**Q3. How attached do you feel to the Lewiston-Clarkston area?**

- ☐ <sub>1</sub> Very attached
- ☐ <sub>2</sub> Somewhat attached
- ☐ <sub>3</sub> Slightly attached
- ☐ <sub>4</sub> Not at all attached
- ☐ <sub>5</sub> Not sure

**Q4. During the past five years, how much better or worse do you think Lewiston-Clarkston has become as a place to live?**

- ☐ <sub>1</sub> A lot better
- ☐ <sub>2</sub> Somewhat better
- ☐ <sub>3</sub> No change
- ☐ <sub>4</sub> Somewhat worse
- ☐ <sub>5</sub> A lot worse
- ☐ <sub>6</sub> Not sure

**Q5. How much better or worse do you think the local economy has become in the past five years?**

- ☐ <sub>1</sub> A lot better
- ☐ <sub>2</sub> Somewhat better
- ☐ <sub>3</sub> No change
- ☐ <sub>4</sub> Somewhat worse
- ☐ <sub>5</sub> A lot worse
- ☐ <sub>6</sub> Not sure

**Q6. How much better or worse do you think the area's natural environment has become in the past five years?**

- ☐ <sub>1</sub> A lot better
- ☐ <sub>2</sub> Somewhat better
- ☐ <sub>3</sub> No change
- ☐ <sub>4</sub> Somewhat worse
- ☐ <sub>5</sub> A lot worse
- ☐ <sub>6</sub> Not sure

Question 1 of 51

**Approximately how many years have you lived in the Lewiston-Clarkston area?**

Years

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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

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Question 3 of 51

**How attached do you feel to the Lewiston-Clarkston area?**

- ☐ Very attached
- ☐ Somewhat attached
- ☐ Slightly attached
- ☐ Not at all attached
- ☐ Not sure

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Question 4 of 51

**During the past five years, how much better or worse do you think Lewiston-Clarkston has become as a place to live?**

- ☐ A lot better
- ☐ Somewhat better
- ☐ No change
- ☐ Somewhat worse
- ☐ A lot worse
- ☐ Not sure

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Question 5 of 51

**How much better or worse do you think the local economy has become in the past five years?**

- ☐ A lot better
- ☐ Somewhat better
- ☐ No change
- ☐ Somewhat worse
- ☐ A lot worse
- ☐ Not sure

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Question 6 of 51

**How much better or worse do you think the area's natural environment has become in the past five years?**

- ☐ A lot better
- ☐ Somewhat better
- ☐ No change
- ☐ Somewhat worse
- ☐ A lot worse
- ☐ Not sure

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# Consider the opening page of the web questionnaire

*Lewiston and Clarkston*

## **Quality of Life Survey**

***An effort to understand the issues important to Lewiston and Clarkston area residents***



Hello,

Welcome to the 2007 Lewiston and Clarkston Quality of Life Survey. Your household is part of a sample of Lewiston and Clarkston residential addresses randomly selected to participate in the study. The purpose of the survey is to discover more about how residents are being affected by a variety of things from the availability of jobs and healthcare to the use of cell phones.

Please take just a few minutes to complete this survey by entering in the box below the Personal Access Code we mailed to you .

This study has been reviewed and approved by the WSU Institutional Review Board for human subject participation. If you have questions about the study please contact Thom Allen at [ted@wsu.edu](mailto:ted@wsu.edu). If you have questions about your rights as a participant please contact the WSU IRB at 509-335-3668 or [irb@wsu.edu](mailto:irb@wsu.edu).

Please, enter your Access Code listed in the letter we sent to you:

Submit Personal Access Code

Special thanks to Will Simpson and PalousePhotography.org for the photo used above.

# The Device Problem makes unified mode construction more difficult

- Earlier this year at AAPOR (American Association for Public Opinion Research) conference there was a huge number of papers on devices.
- Observations:
  - People more willing to respond by devices than in the past –a student only survey in 2009 got 4%, now getting 27% of responses by “smart devices”
  - Many changes in question structures are showing optimistic results for getting by with less visual space.

## **Guideline 7. Use Multiple contact modes to get greater attention to the response request**

- The idea of using multiple contact modes: by limiting ourselves to only one mode we decrease dramatically being able to explain our survey request;
  - Telephone calls get only one “small” chance.
  - Emails have similar limitations.
  - Multiple modes gives us our best chances of reaching potential respondents effectively because we can present ourselves in different ways at different times.

# **Some survey sponsors find the power of multiple contact modes difficult to grasp and use**

- Some people think of mixing-modes as simply giving people a mode preference. That's not true.
- The “response power” comes more from making multiple contacts that develop synergy as in email augmentation.

# **In summary, the Seven Guidelines**

- **Guideline 1. Contact sample members by mail but “push-to-web” by initially withholding a paper questionnaire**
- **Guideline 2. Send token cash incentives with request to respond**
- **Guideline 3. Provide multiple response modes sequentially.**
- **Guideline 4. Use mail response follow-up to reduce non-response error in push-to-web surveys**

# In summary, the Seven Guidelines

- **Guideline 5. Guideline 5. If you can get email addresses, use email augmentation of the postal contact**
- **Guideline 6. Use Unified Mode Construction for Asking Survey Questions**
- **Guideline 7. Use multiple contact modes to get greater attention to the response request**



# Concluding Thoughts

- The **people problem** we face with web surveys is to make sure when we design our methods that we are neither, “ too far ahead nor too far behind where people are.”
- We are also having to deal with a lot of survey design issues simultaneously. That’s why I think of this as a time of Climbing Stairs Many Steps at a Time that is the normal in survey methodology.
- I hope some of these ideas are helpful to you in your work, I welcome your questions or comments on the ideas presented here.

# Acknowledgements

- I wish to express my thanks to these former graduate students all of whom contributed significantly to this line of research while at Washington State University: Michael Stern, Leah M. Christian, Jolene D. Smyth, Bryan Rookey, Allison O'Neill, Benjamin L. Messer, Morgan Millar and Michelle L. Edwards.
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