

Hope Springs Eternal: Will a Probability Sample of Schools and Principals Respond by Web and Provide Email Addresses?

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Disclaimer

This presentation is intended to promote ideas. The views expressed are part of ongoing research and do not necessarily reflect the position of the U.S. Department of Education.

Web Surveys

- Garner lower response rates per meta-analyses (e.g., Lozar et al., 2008; Shih & Fan, 2008)
- However, also touted as less expensive and faster, with higher quality data than other collection modes (e.g., Frippiate et al., 2010)
- People will respond by Web in household surveys (e.g., Tourangeau, 2013; Tancreto et al., 2011)
- Web may yet become a viable survey mode

Research Questions

- Will school staff provide email addresses for their teachers?
- Will school staff respond by the web?
- Are there differences in the distribution of responding school characteristics by mode?

Methods

- Experiment in the National Teacher and Principal Survey (NTPS)
 - Teacher Listing Form (List) - used to make the frame from which teachers are sampled
 - School Questionnaire - collects characteristics and conditions of public schools
 - Principal Questionnaire - collects characteristics and attitudes of principals

Fully Crossed Two-Factor Experiment

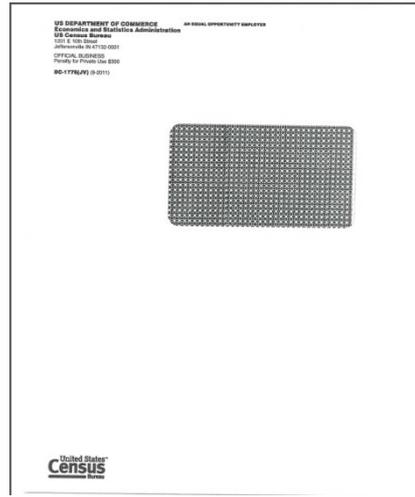
- Mode of data collection
 - Paper versus web data collection
- Requested teachers' email addresses on the Teacher Listing Form
 - Requested email address versus did not request email address

Contact Schedule

Compare	Contacts	Date	Initial Paper	Initial Web
Pushing to paper versus web	1 st	10/01/14	1 large envelope 1 paper letter 3 paper questionnaires	1 small envelope 1 paper letter 3 instruction sheets for accessing 3 web questionnaires
	2 nd	10/14/14	Same as above	Same as above
	3 rd	10/24/14	Same as above	Same as above
Mixed methods	4 th	11/03/14	Same as above	Same as above & 1 large envelope 3 paper questionnaires
	5 th	11/12/14	½ Telephone ½ Clerical Lookup	½ Telephone ½ Clerical Lookup
	Close out	1/30/15		

Envelope and Paper Questionnaires

Questionnaires were mailed in a large (10 x 12) envelope with Census Bureau information on it.



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TEACHER LISTING FORM
NATIONAL TEACHER AND PRINCIPAL SURVEY
2015-16 SCHOOL YEAR

(Please correct any errors in name, address, and ZIP Code.)

SCHOOL

GRADE RANGE

Please return this form within 2 weeks in the enclosed envelope.

NOTICE
This survey is authorized by the Education Sciences Reform Act of 2002, 20 U.S. Code §9541(b) and §9543(a). The results will only be produced as statistical summaries.

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SCHOOL QUESTIONNAIRE
NATIONAL TEACHER AND PRINCIPAL SURVEY
2015-16 SCHOOL YEAR

(Please correct any errors in name, address, and ZIP Code.)

THIS SURVEY HAS BEEN ENDORSED BY:
American Association of School Administrators
American Federation of Teachers
National Association of Elementary School Principals
Association for Middle Level Education (formerly National Middle School Association)
Association of Supervision and Curriculum Development

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FORM NTPS-3
09/2014

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PRINCIPAL QUESTIONNAIRE
NATIONAL TEACHER AND PRINCIPAL SURVEY
2015-16 SCHOOL YEAR

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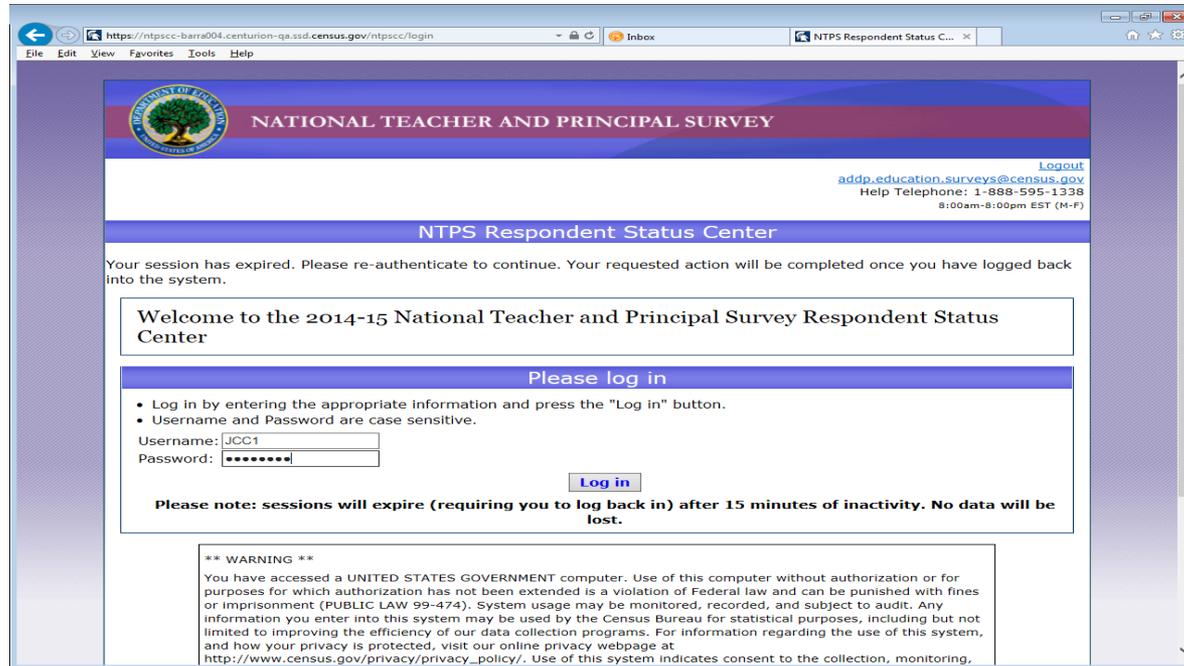
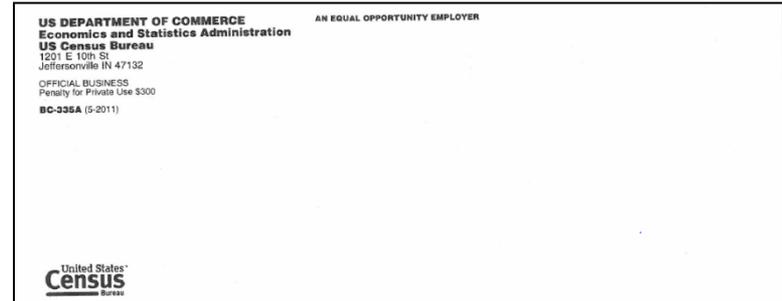
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FORM NTPS-2
09/2014

Envelope and Web Login Screen

Instructions for accessing the website were sent in a 4.25 X 9.5 Census branded envelope



Contact Schedule

Compare	Contacts	Date	Initial Paper	Initial Web
Pushing to paper versus web	1 st	10/01/14	1 large envelope 1 paper letter 3 paper questionnaires	1 small envelope 1 paper letter 3 instruction sheets for accessing 3 web questionnaires
	2 nd	10/14/14	Same as above	Same as above
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Data Collection & Sample

- Collection ran from 10/01/14 to 1/30/15
- 2011-12 Schools and Staffing Survey Public School sampling frame was used
- 8,954 schools selected and assigned to treatments using a randomized block design
- Sample allocated equally between paper and web treatments (4,477 each)
- $\frac{3}{4}$ sample allocated to “request email address” treatment (6,512) and $\frac{1}{4}$ to “did not request email address” treatment (2,442)

Analysis

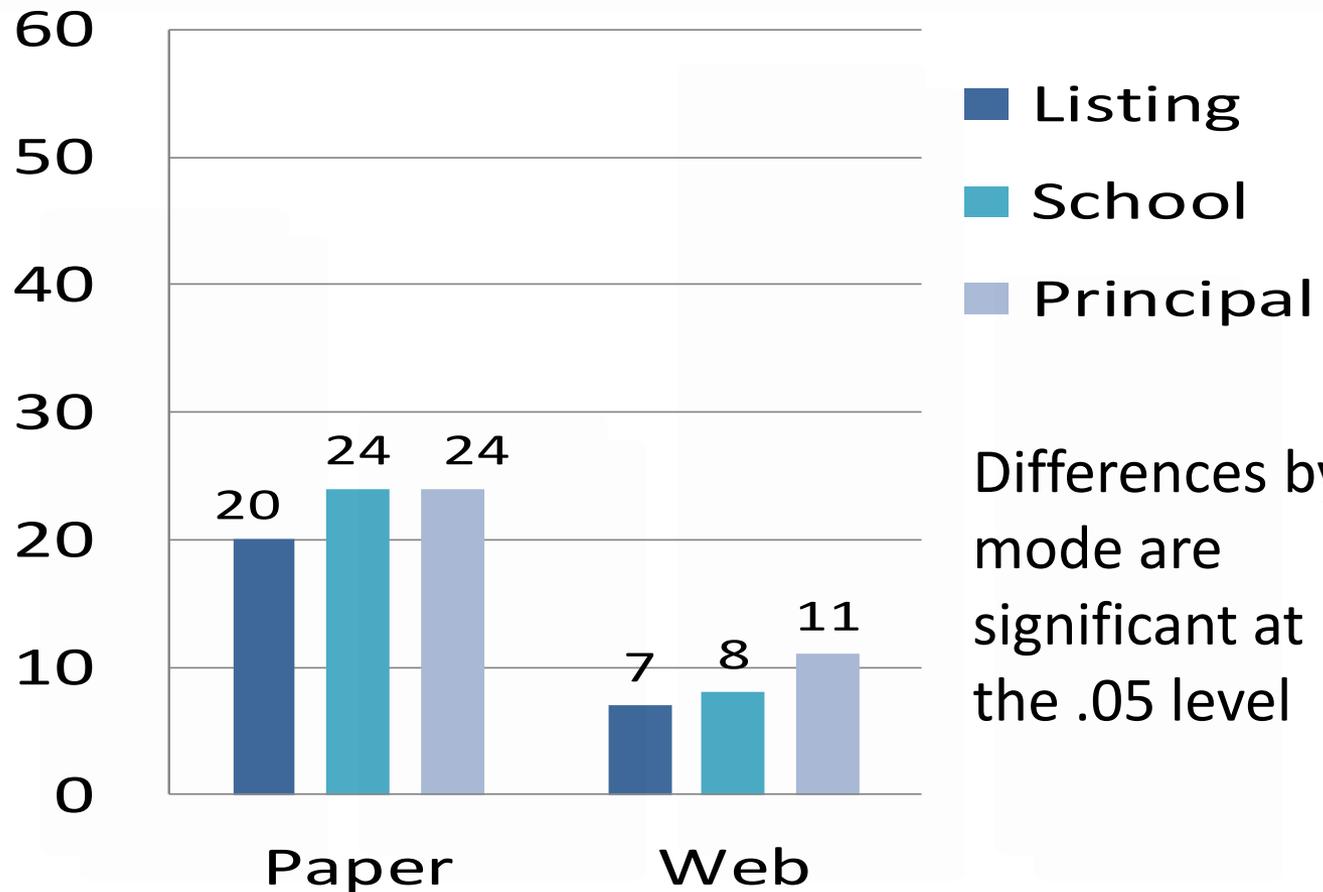
- Varied mode and email address request and examined these factors at two points in time (11/3/14 and 1/30/15)
- Unweighted response rates are the number of complete and partial interviews divided by the number of eligible units (AAPOR RR2)
- Fully saturated two-way logit model fit to the response data using PROC LOGISTIC in SAS

Results

- Interaction effect and main effect for email were not significant for any of the questionnaires at either time period
 - Providing email addresses and responding by mode were entirely independent of one another
 - Providing teachers' email addresses does not appear burdensome
 - Collapsing across email address request condition, and looking at mode...

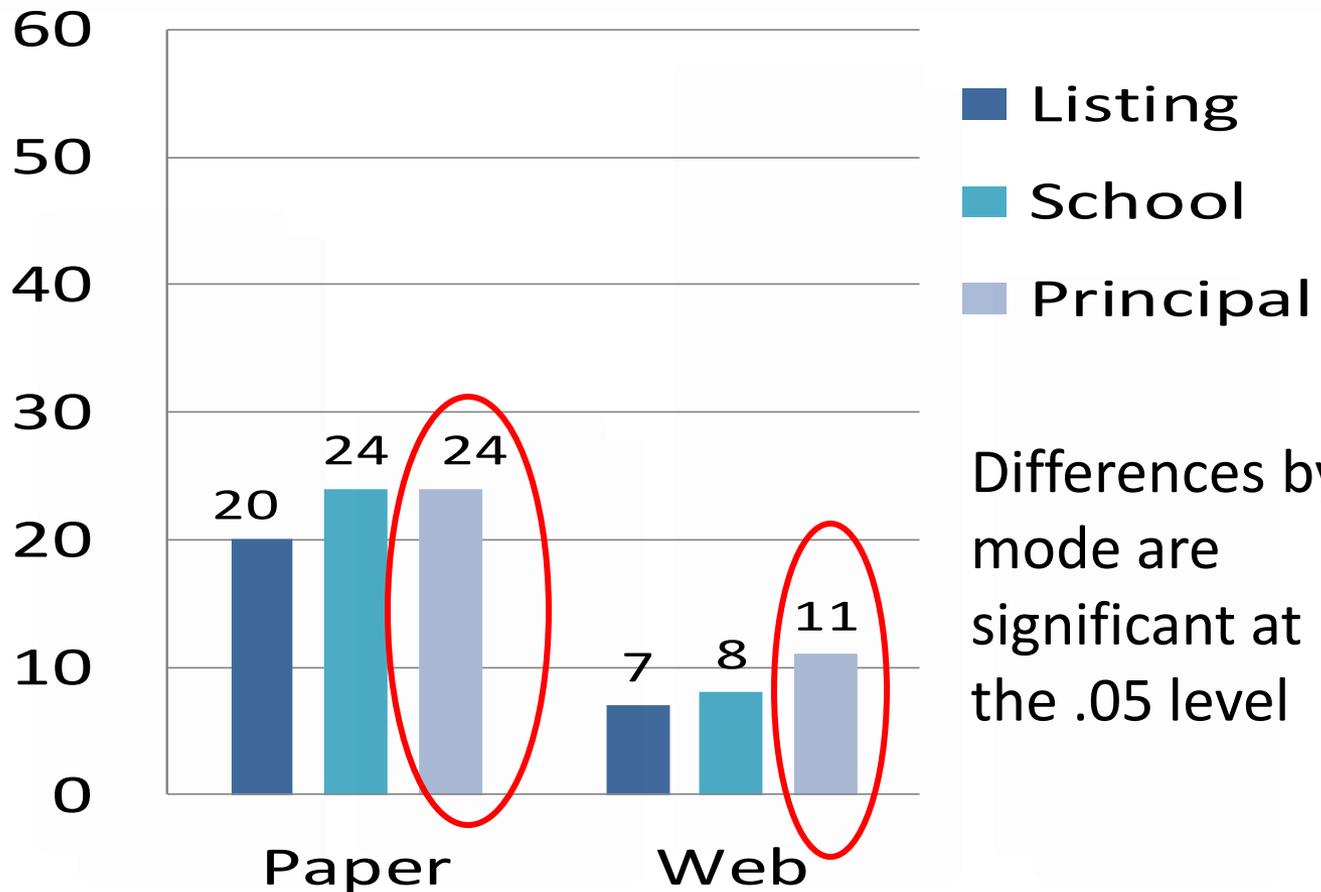
Main Effect for Mode: Response Rates (Unweighted) by Questionnaire and Mode: 11/03/14

Percent



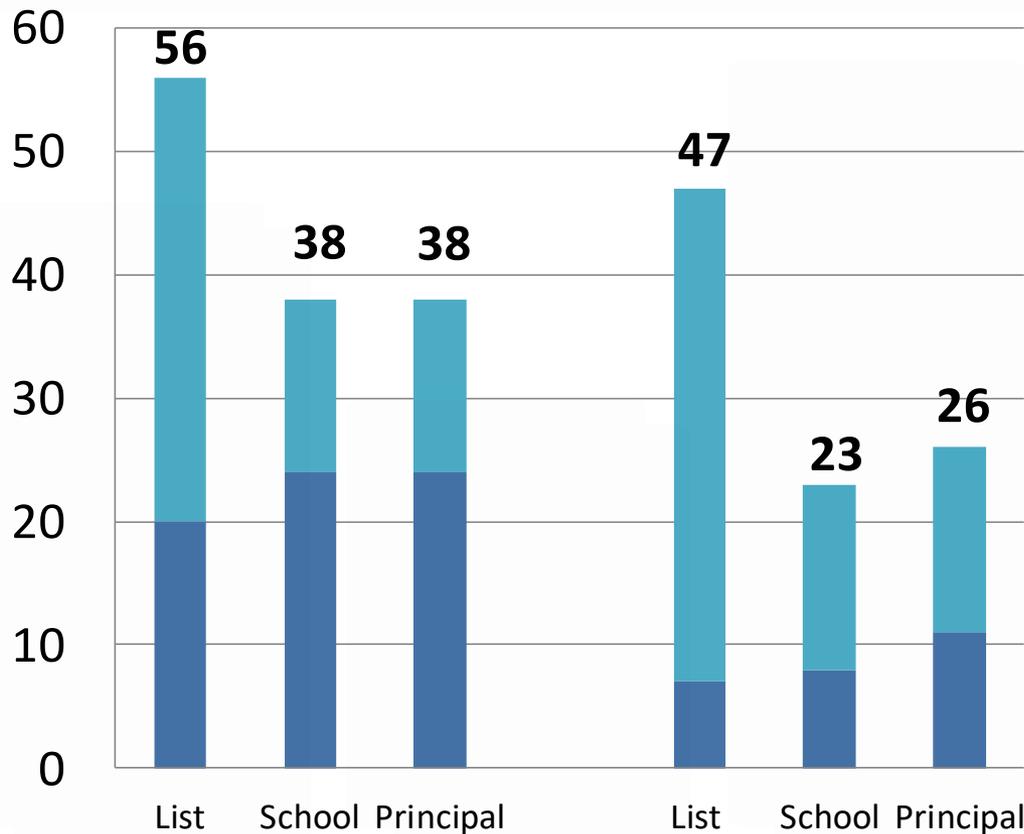
Main Effect for Mode: Response Rates (Unweighted) by Questionnaire and Mode: 11/03/14

Percent



Main Effect for Mode: Response Rates (Unweighted) by Questionnaire and Mode: 11/03/14 and 1/30/15

Percent



■ 1/30/2015
 ■ 11/3/2014

Differences by mode are significant at the .05 level

Paper

Web

Results of Main Effect for Mode

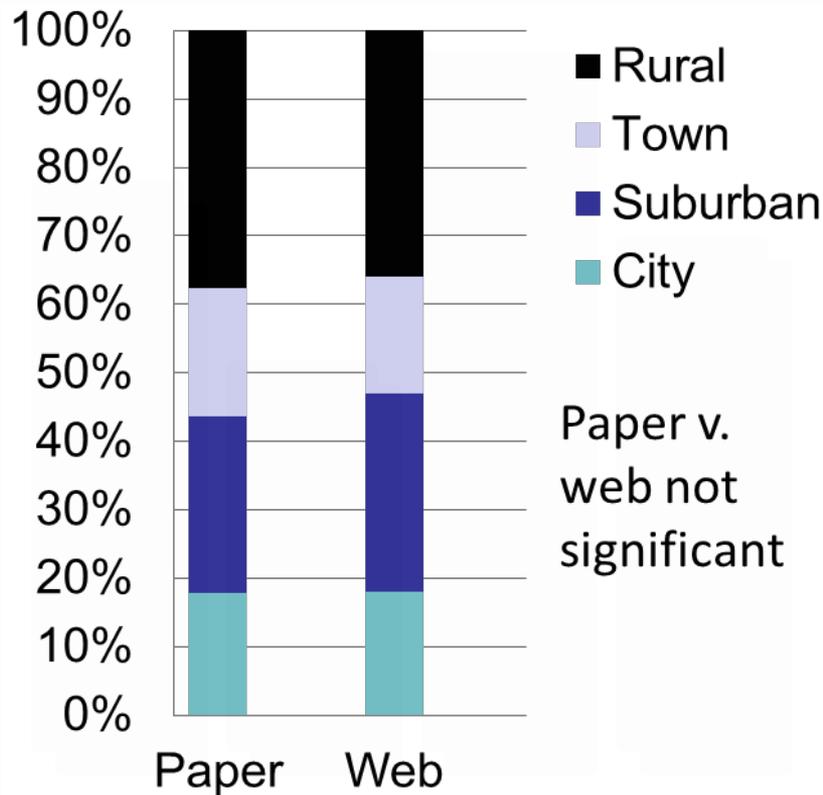
- Pushing schools and principals to the web (11/03/14) was not effective
 - Response rate for web surveys was 13 to 16 percentage points lower than for paper surveys.
 - May have been the result of approach: small envelopes and complicated log in procedures
- Switching from web to paper and adding a telephone intervention (1/30/15) did not correct
 - Response to surveys using web initially remained 9 to 15 percentage points lower than using paper initially

Distribution of Key Sub-groups

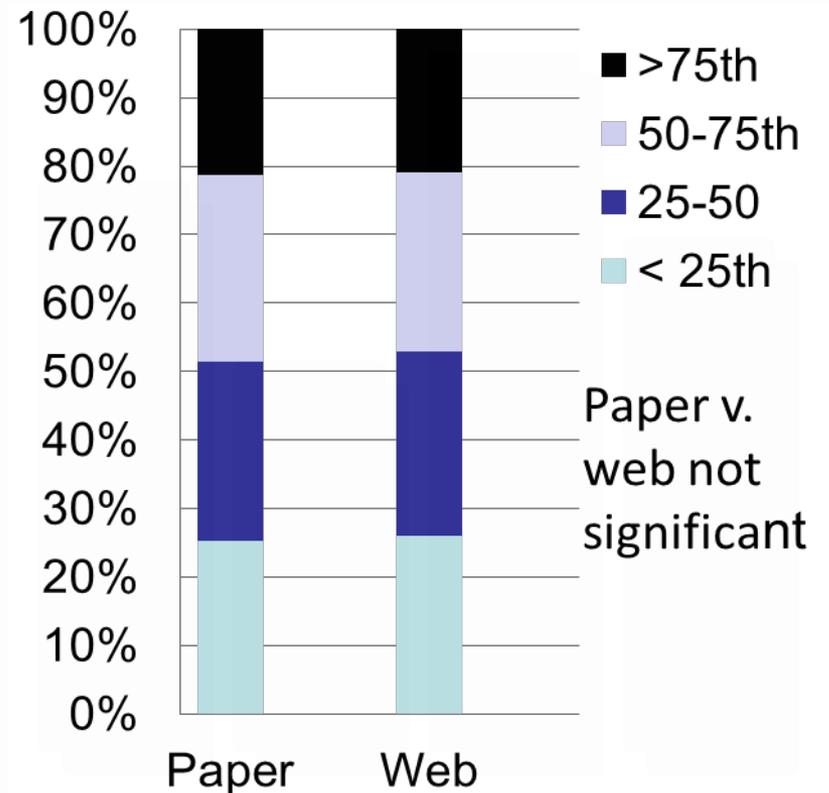
- Lower response rates for web will decrease the precision of the estimates.
- However, does it indicate bias?
- Examined distribution of key sub-groups, as a potential indicator of bias.

Key Sub-groups, by Mode

Community Type

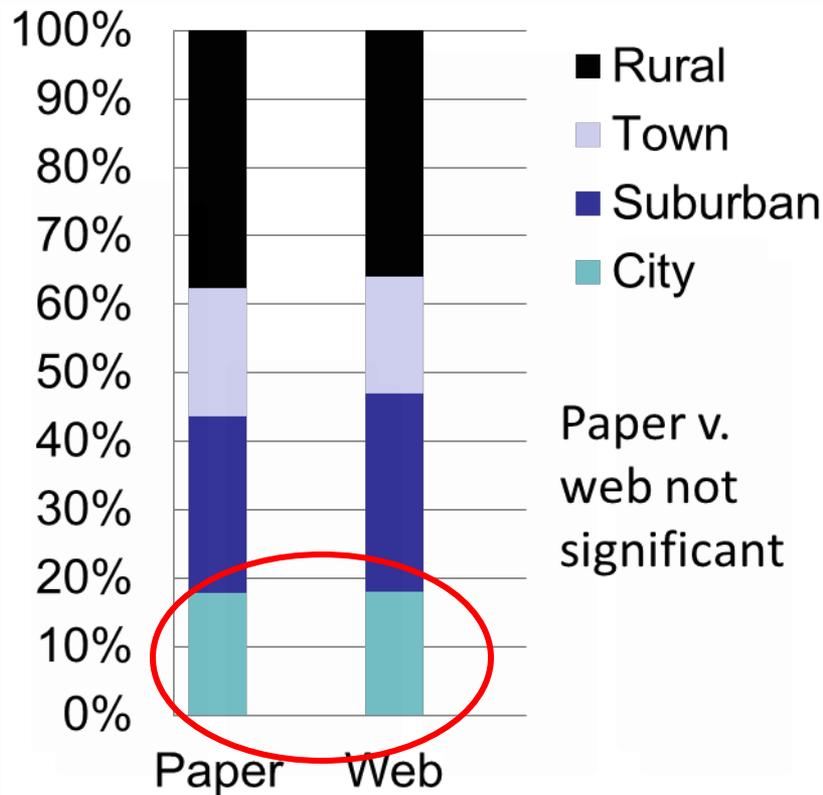


Free & Reduced Price Lunch

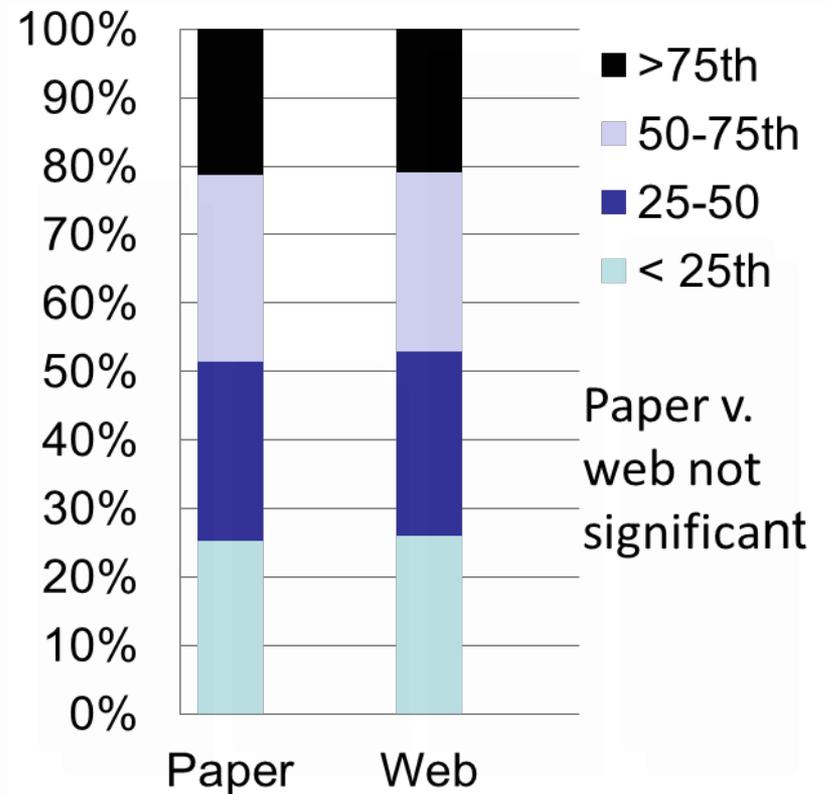


Key Sub-groups, by Mode

Community Type

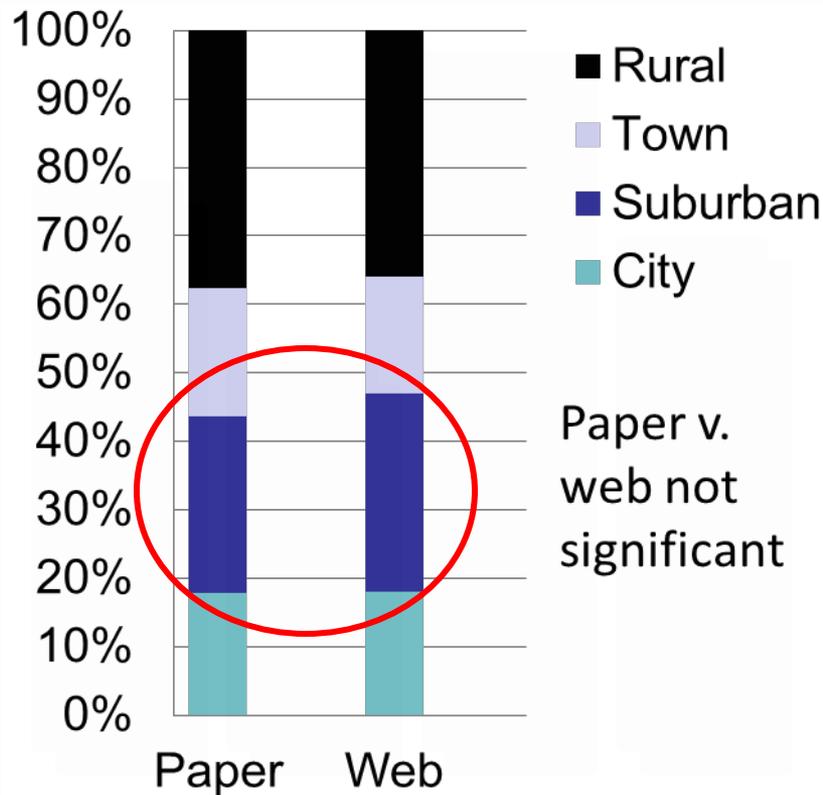


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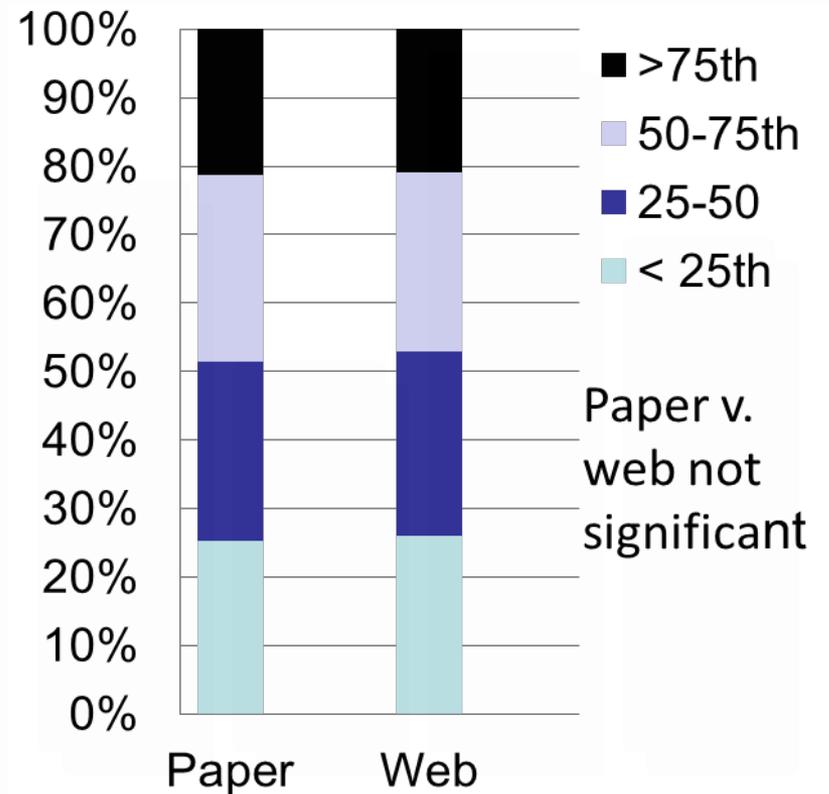


Key Sub-groups, by Mode

Community Type

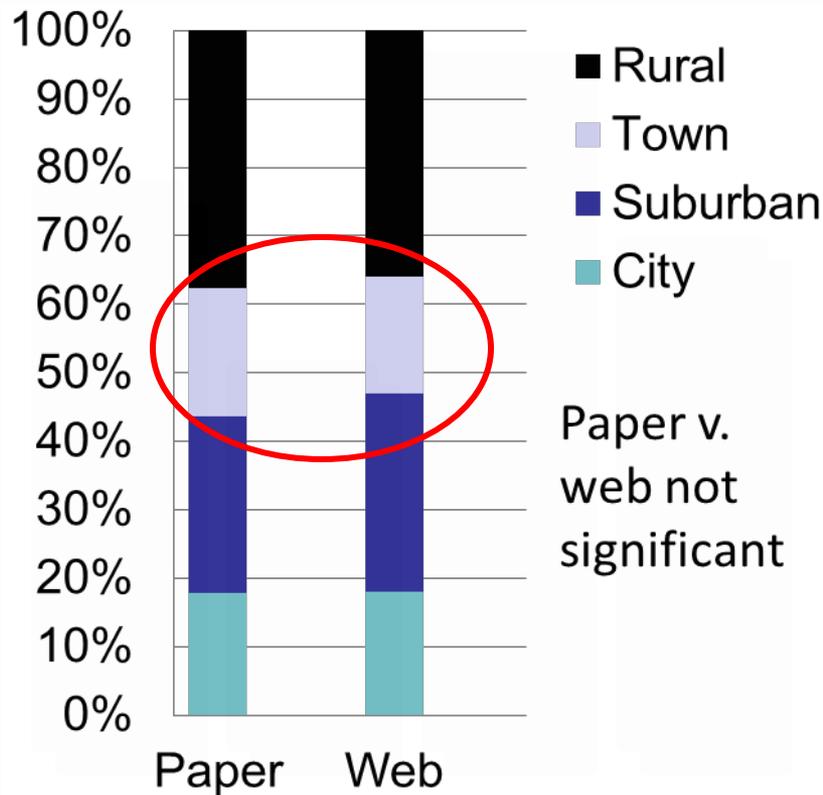


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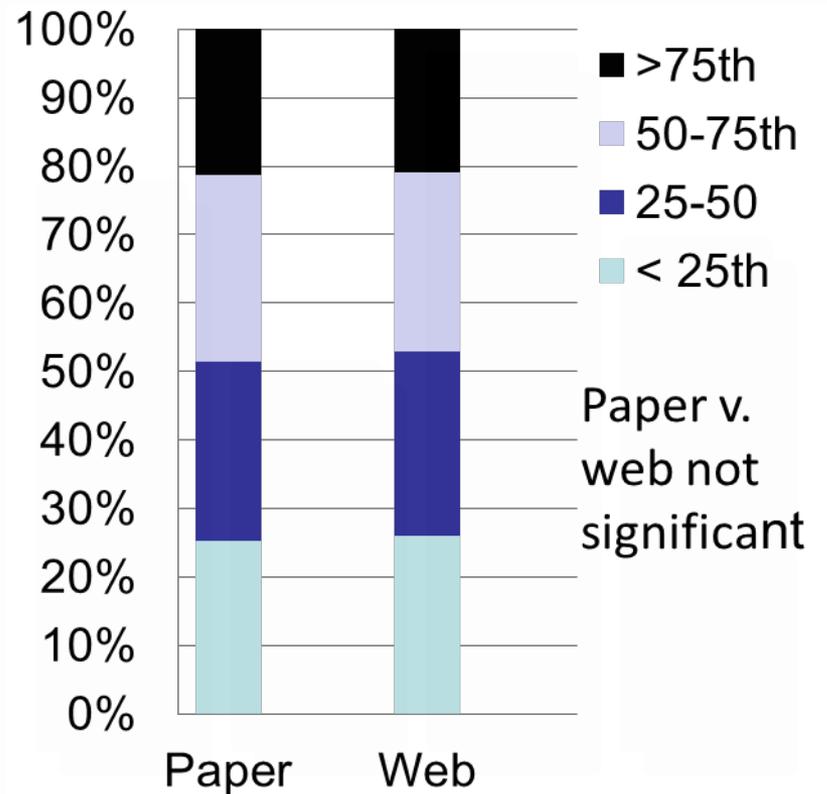


Key Sub-groups, by Mode

Community Type

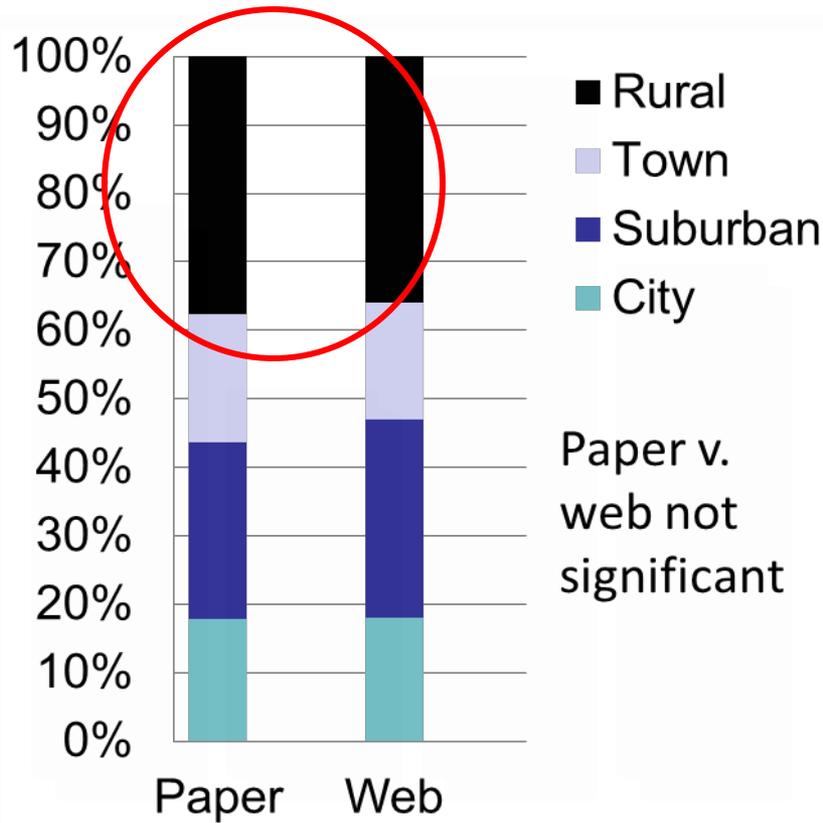


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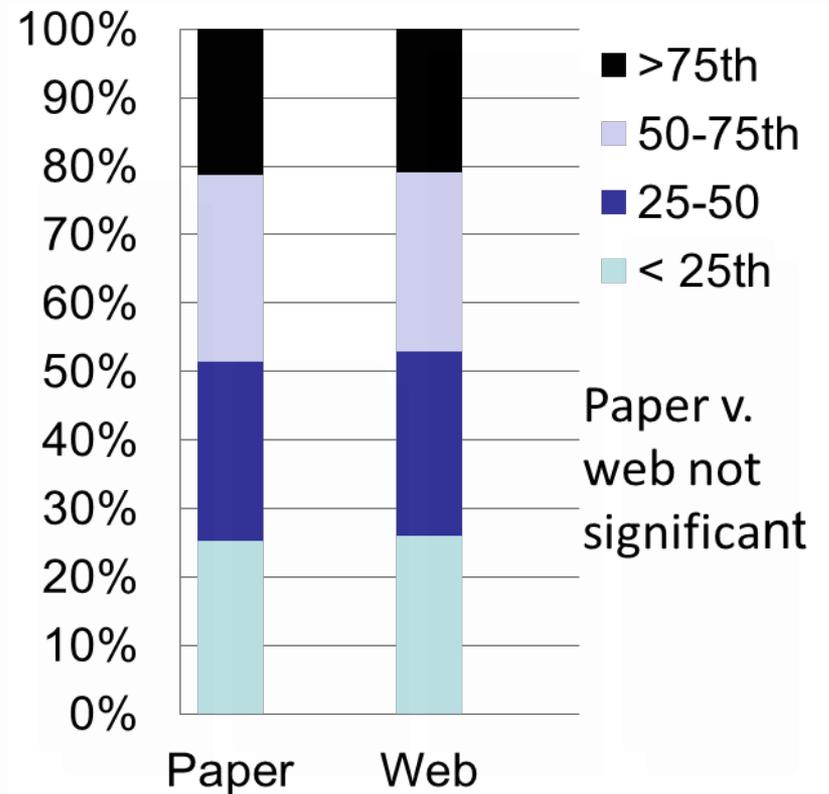


Key Sub-groups, by Mode

Community Type

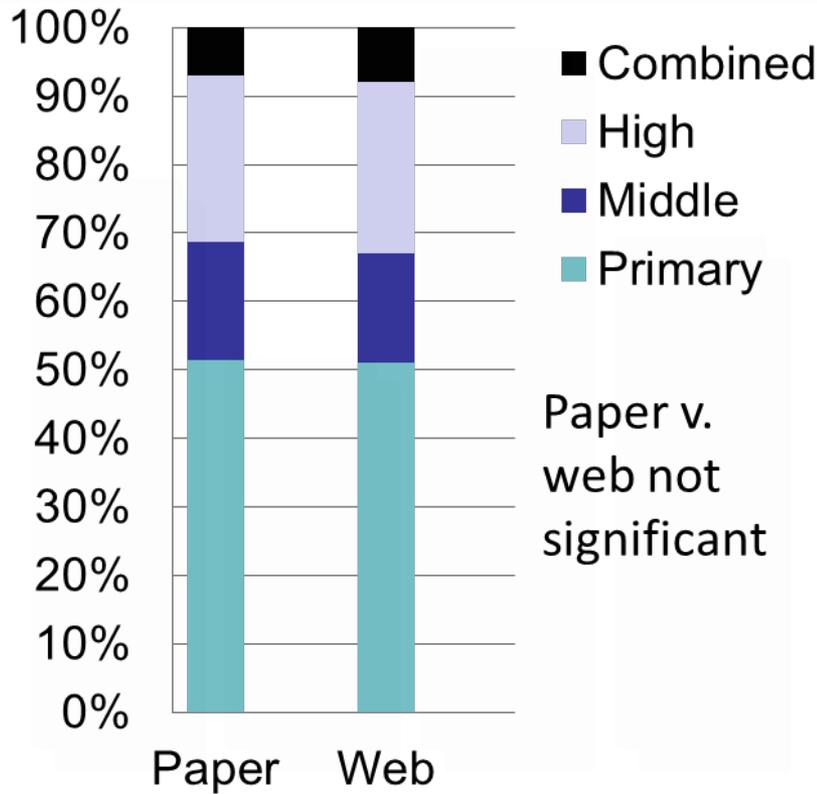


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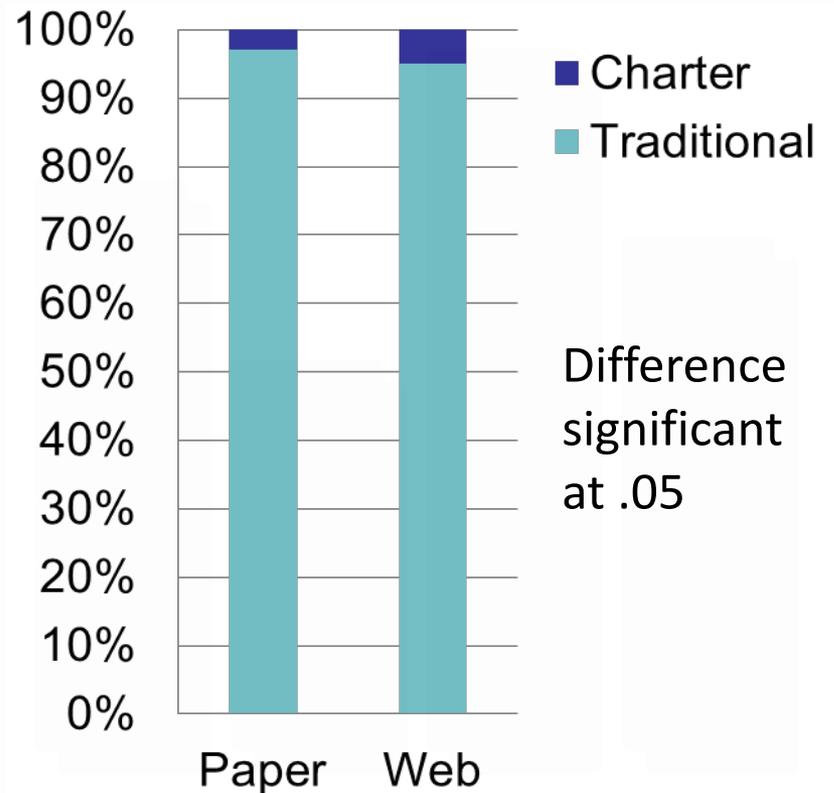


Key Sub-groups, by Mode

School Level



School Classification



Results of Key Sub-groups, by Mode

- The distribution of sub-groups was similar by mode
 - Suggesting that lower response rates in web will not necessarily lead to biased estimates compared to paper
- Only school classification was significantly different, and this difference was in the direction of more charter schools responding by web than paper

Conclusions and Future Research

- Conduct a weighted and more detailed analysis
- Compare paper invitations to combined paper and email invitations in the Teacher Survey
- Improve response to the web by improving visibility and access
 - Mail letters in larger, more prevalent envelopes
 - Make it easier for respondents to log onto the web survey

Thank you

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