

Continuing the Online Panel Discussion

New Methodological Research from
Knowledge Networks



Examination of Panel Conditioning Effects on KnowledgePanel®

Prepared for the 66th Annual
Conference of AAPOR

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What is panel conditioning?

“The experience of repeatedly taking surveys may lead to some respondents experiencing changes in attitudes or even behaviors as a consequence of survey participation. For example, completing a series of surveys about electoral politics might cause a respondent to pay closer attention to news stories on the topic, to become better informed and even to express different attitudes on subsequent surveys.... This type of change in respondent behavior or attitudes due to repeated survey completion is known as *panel conditioning*.”

AAPOR Report on Online Panels, March 2010



Hypothetical of a Panel Effect

A web panel organization conducts over 50 studies over a three year period on foreign policy issues.

Now the research organization does another survey on the topic. 20% of the respondents had completed 4 or more panel foreign policy surveys; another 50% had completed 1 to 3 such surveys before. These are “exposed” panelists that potentially are “conditioned.”

The survey is done and the results are widely reported in the media. A “majority” is reported to oppose the President.

One problem: The “exposed” panelists were much more likely to oppose the President. The results are never re-stated.



Measuring Panel Conditioning

- Not easy to measure conditioning: confounded with attrition
- Best measured by comparing survey estimates from simultaneously fielded longitudinal and cross-sectional samples
 - Compare exposed to non-exposed sample
 - Second best:
 - Post hoc regression of exposure measures on responses
 - Post hoc cross-tabs of exposure measures by response
 - Exposure measures
 - N prior surveys completed on a particular topic or total
 - Panel tenure

A Suspected Panel Effect: 2002 Survey

Table 3a: “In the effort to fight terrorism, do you think that in the future, compared with what it has been doing, the Bush administration:” (n = 802)

	Number of FP Surveys Completed		
	None (n=275)	1 or 2 (n=309)	3 or more (n=219)
Should put more emphasis on military methods	32.0%	21.7%	30.7%
Should put more emphasis on diplomatic and economic methods	63.3%	71.2%	64.2%
Refused	4.7%	7.1%	5.0%

A Panel Effect?



Observations about Conditioning

Conditioning not always found when expected

Two consistent findings:

- Being on an election panel increases chances of voting
- Knowledge questions are more sensitive to conditioning than attitudes and opinions

KnowledgePanel Conditioning Studies

Ref	Data Collection Year	Survey Questions Topic	Exposure Measure	Stat Test	Sample Size	N Stat Tests	N Sig. p<0.05
a	2001	Opinion on selected non-alcoholic drinks; awareness of selected distilled spirits; attitudes towards new products; attitudes and knowledge of HIV	N prior surveys completed on topic; Panel tenure	Chi-square	5,700 or more	44	1
b	2003-2006	Foreign policy attitudes	N prior surveys completed on topic; Panel tenure	Regression of exposures measure on responses	1,057	7	1
c	2004	Health policy attitudes	N prior surveys completed on topic	Chi-square	1,267	5	0

KnowledgePanel Conditioning Studies

Ref	Data Collection Year	Survey Questions Topic	Exposure Measure	Stat Test	Sample Size	N Stat Tests	N Sig. p<0.05
d	2007-2008	Policy attitudes and candidate preferences	Comparison of exposed longitudinal sample and non-exposed cross-sectional sample	Logistic regression comparing responses from each sample	Various: approx 600 to 2000	14	3
e	2009	Online and traditional media behavior	Comparison of exposed longitudinal sample and non-exposed cross-sectional sample	Chi-square	212	41	3
f	2010-2011	Interest in certain popular entertainment and viewing behavior	N prior surveys on topic	Chi-square	10,779	3	0

8 out 114 stat tests positive for panel conditioning (7%)



Conclusion

“Thus, an important practical implication of my analysis is that panel surveys should routinely include parallel fresh cross-section components, to provide a solid basis for assessing and, if necessary, adjusting for biases arising from panel attrition and panel conditioning.”

Larry Bartels, “Panel Effects in the American National Election Studies,” *Political Analysis*, 8:1.

We should remain vigilant, but the available evidence indicates that periodic inclusions of fresh sample are sufficient and that post hoc tests can be done more routinely and cost effectively.



Post-webinar Questions on this Research

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Exploring Health-Related Experiences and Access to Care: Differences between Online and Telephone Survey Administration

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Presenter: Jordon Peugh, Knowledge Networks

Authors: Michelle McEvoy Doty, The Commonwealth Fund
Jordon Peugh, Knowledge Networks
Jeffery Shand-Lubbers, Knowledge Networks






Introduction

- In an era of health reform where decisions concerning health care delivery are changing, researchers and policy makers need to rapidly gauge public opinions and needs.
- Online survey administration using a probability-based panel of respondents offers the possibility of getting results quickly without sacrificing integrity of data.
- This analysis compares results from nationally representative surveys of adults using two different data collection modes: online and telephone.



Research Objectives

- Explore the comparability of data collected online versus by telephone
- Highlight where results from the two modes align well
- Assess where responses do not converge and explore potential reasons for discrepancies
- Explore the impact of cell phone only households and the probability that certain sub-groups may be excluded with RDD samples



Research Methodology

Online Survey

- Knowledge Network's KnowledgePanel®
 - Probability-based panel of approximately 50,000 U.S. residents aged 13 and older
 - Built through Address Based Sampling (ABS) from 2009 to present (RDD sampling from 2000–2009)
 - Non-Internet households provided laptop and Internet access
- Web survey administered May 25 – June 7, 2010
 - 7 minute average survey duration, English only
 - Completed interviews with 1,039 adults (18+)
 - 68% survey cooperation rate (7.3% AAPOR Cumulative Response Rate for Probability-based Online Panels)
 - Data were weighted by age, sex, race, education, region, metropolitan area, and internet access (design effect 1.56)



Research Methodology

Telephone Survey

- The Commonwealth Fund 2010 International Health Policy Survey
 - Conducted from March to June 2010
 - A national landline RDD sample of 2,501 U.S. adults, ages 18 and older
 - Stratified sampling-representative sample of telephone households in continental US. Households selected through computerized RDD provided by Survey Sampling International
 - Respondent selection within household based on the “most recent birthday” method
 - CATI, English and Spanish interviews
 - 26% response rate
 - All sample records called 8 times or more
 - Data were weighted by age, sex, race, education, region, household size (using March 2009 CPS)



Measures

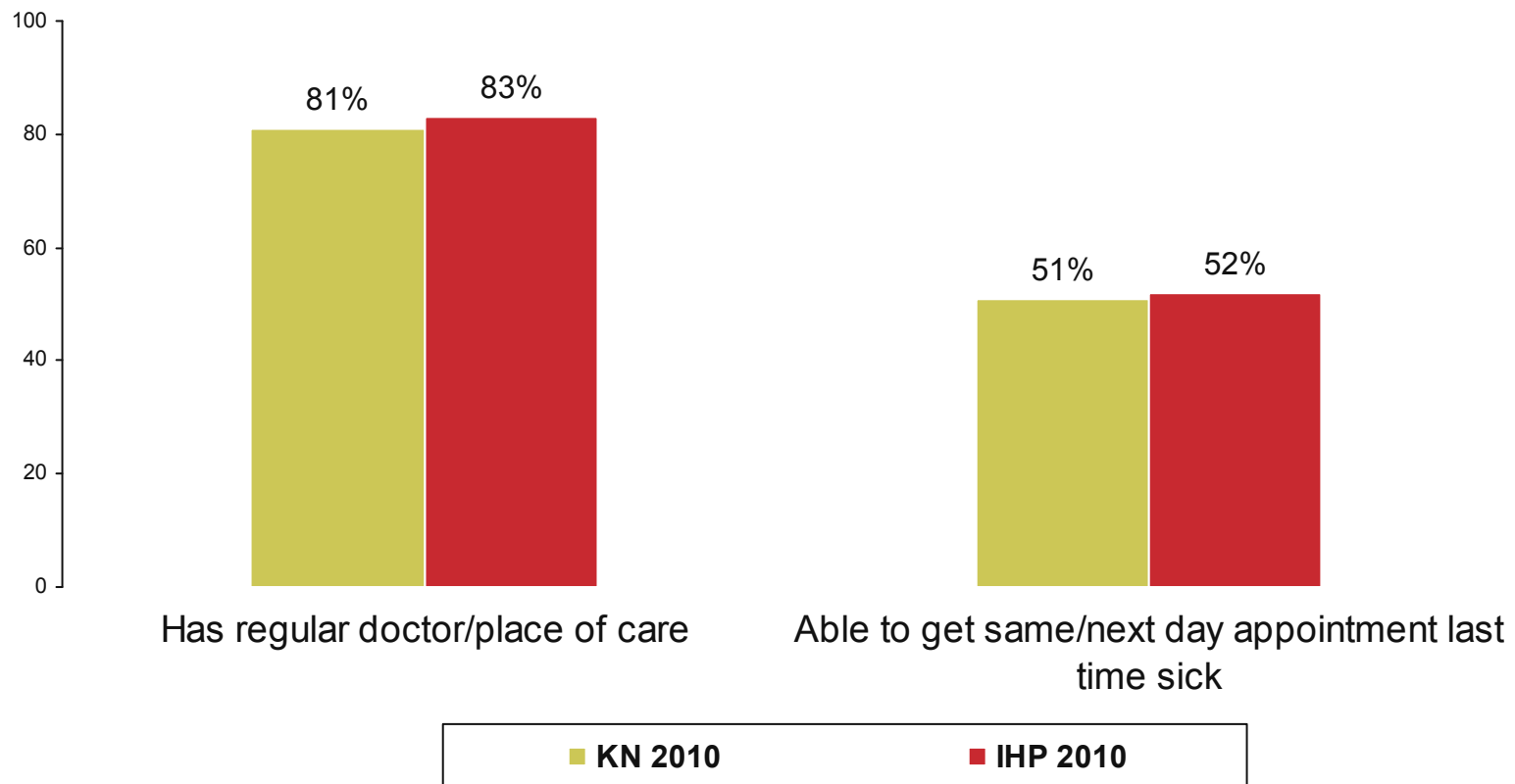
- Identical questions on access to care, experiences with health care delivery, and demographics were fielded to both the online and telephone samples.
- Outcome variables:
 - Access to care including after-hours care (3 items)
 - Cost-related access problems, including forgoing care and delaying preventive screening (3 items)
 - Care coordination problems (4 items)
- Demographic and health characteristics:
 - Gender, age, race/ethnicity, education
 - Health status, insurance status



Comparing Outcomes: Access to Care and Health Care Experiences

Access to care: Online and RDD Data Align Well on Having Regular Doctor and Ability to Get Timely Care

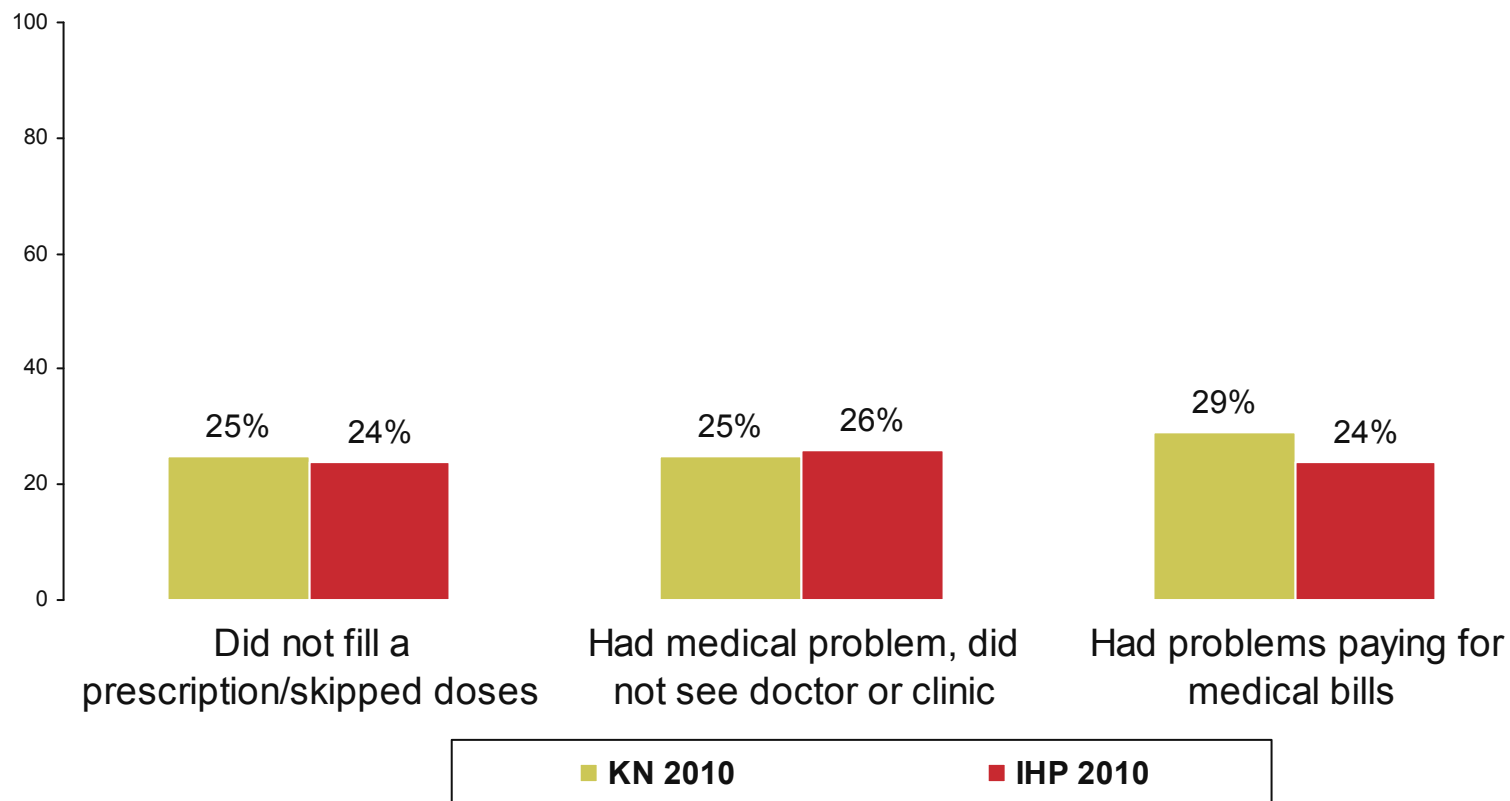
Percent of adults (age 18-64) in the past year reporting the following:



Base: Age 18-64 KN (N=880); IHP (N=1,690)

Problems with Medical Bills and Affording Needed Care: Online and RDD Data Align Well

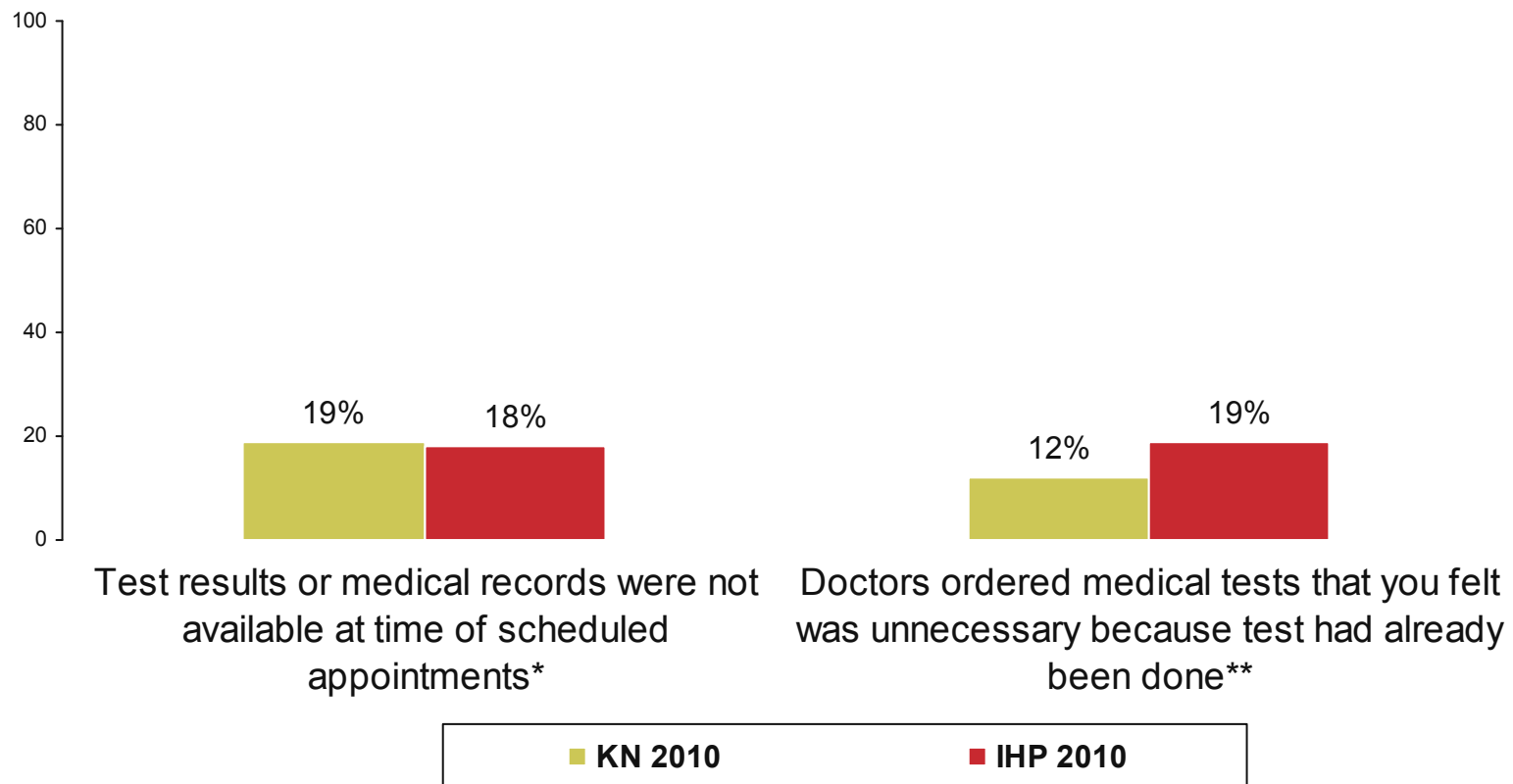
Percent of adults (age 18-64) in the past year reporting the following:



Base: Age 18-64 KN (N=880); IHP (N=1,690)

Coordination Problems: Online and RDD Agreement in Availability of Test Results at Appointment

Percent of adults (age 18-64) in the past year reporting the following:

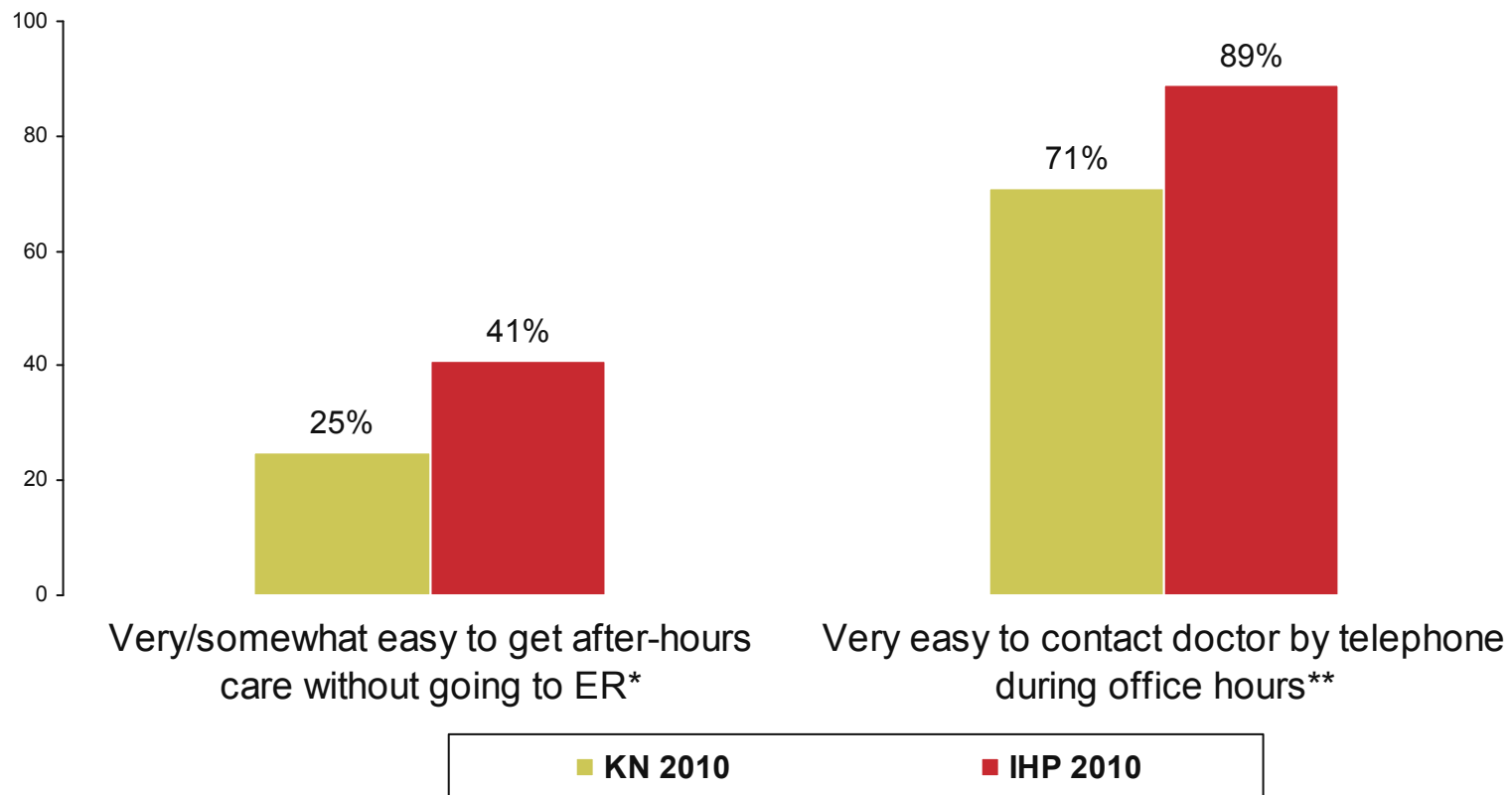


*Base: Age 18-64 KN (N=727); IHP (N=1,639). Excludes those who did not receive care in past year.

**Base: Age 18-64 KN (N=735); IHP (N=1,650). Excludes those who did not receive care in past year.

Access to care: RDD Respondents More Likely to Find it Easy to Contact Doctor and Get After-hours Care

Percent of adults (age 18-64) in the past year reporting the following:

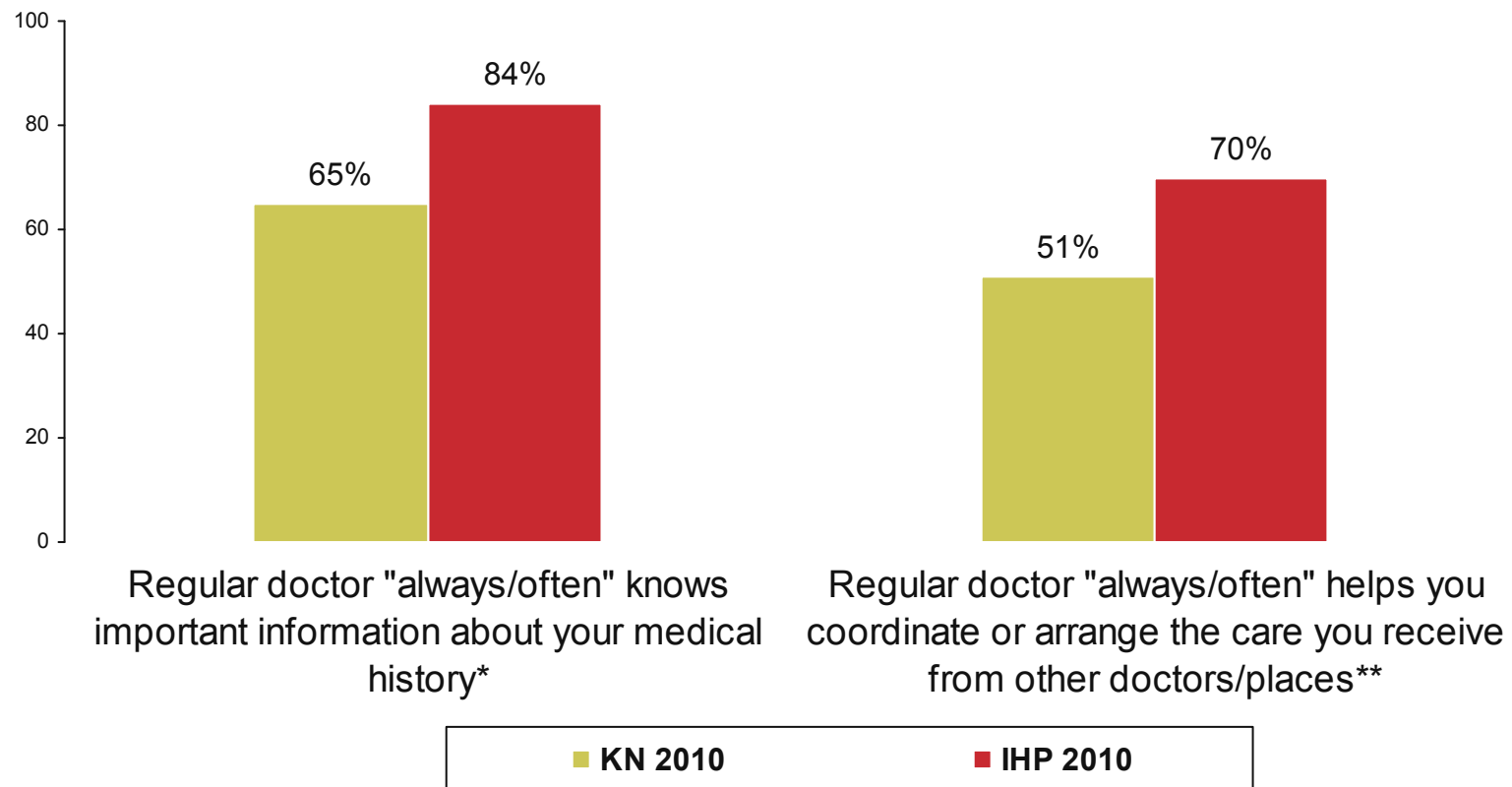


*Base: Age 18-64 KN (N=714); IHP (N=1,560). Excludes those who never tried to get after-hours care.

**Base: Age 18-64 & Has Regular Doctor KN (N=663; IHP (N=1,422). Excludes those who never tried to contact doctor.

Coordination of Care: RDD Respondents More Positive About Care and Coordination Received at Regular Doctor

Percent of adults (age 18-64) in the past year reporting the following:



*Base: Age 18-64 and has regular doctor KN (N=713); IHP (N=1,448).

**Base: Age 18-64 and has regular doctor KN (N=602); IHP (N=1,384). Excludes those who never see other doctors.

Inclusion of cell phones makes a difference

	KN		IHP
	Cell Only Mostly	Landline Only/Mostly	
Regular doctor/place (% yes)	81%	85%	85%
Able to get medical attention same/next day	54%	53%	55%
Finds it very easy to contact your doctor by phone during practice hours	24%	33%	41%
Regular doctor always knows important information about medical history	26%	39%	62%
Regular doctor always helps coordinate or arrange the care from other doctors/places	19%	36%	52%
In the past year, had a medical problem but did not visit doctor because of cost	33%	26%	22%



Summary

- RDD sample more demographically skewed than panel data.
- Mode has an impact on data collected, particularly for attitudinal variables.
 - Social desirability bias might result in telephone respondents overstating positive experiences with their doctors and their own health.
- RDD sample excludes cell phone-only/mostly; among online panel data cell-phone only/mostly are different.



Policy Implications

- With the growing challenges for RDD due to shrinking response rates, difficulty in obtaining demographic representation, and exclusion of cell phone only/mostly households, a probability-based online sample presents an appealing alternative.
- An online survey using a probability-based sample can provide a demographically representative sample that is as good or better than RDD.
- However, cannot make direct comparisons between telephone and online data, particularly on attitudinal items, due to mode effects.
 - Need further exploration to know which data are closer to the “truth”
- The speed of data collection and relative cost saving associated with online data collection make this mode a positive addition to the arsenal of policy researchers.



Post-webinar Questions on this Research

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Choice of Content Presentation Mode in Web-Based Survey Administration

Prepared for the 66th Annual Conference of
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May 14, 2011

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Introduction

- Surveys often require provision of information for respondents to consider
- Web-based survey administration allows for provision of information in multiple modes
- Data on the optimal mode(s) of presentation would be useful for researchers
- Recent KnowledgePanelSM project conducted for the U.S. Government Accountability Office provided an opportunity to examine multiple modes of information provision



Methods

- Survey Topic: Knowledge and opinions on global climate change
- Sample: U.S. residents aged 18+ (n=1,006)
- Survey included presentation of content outlining specific examples of climate engineering technology
- Climate engineering information available in choice of text, video, and audio format, with ability to review in any/all modes
- Text was two paragraphs of ~100-150 words each. Video and audio modes used same text in 2-minute presentation.



Analysis Questions

- Are there respondent characteristics related to initial mode preference and/or switching to other modes?
- Are there respondent characteristics related to single mode choice versus multiple mode choices?
- Are there presentation modes that appear to be more or less effective based on analysis of initial and subsequent content review?



General Overview of Mode Choice

- Of the 1,006 respondents:
 - 83% selected a single review mode
 - 13% selected two review modes
 - 4% selected all three review modes
- Of the 1,226 reviews:
 - 61% were in text mode
 - 30% were in video mode
 - 9% were in audio mode

General Overview of Mode Choice

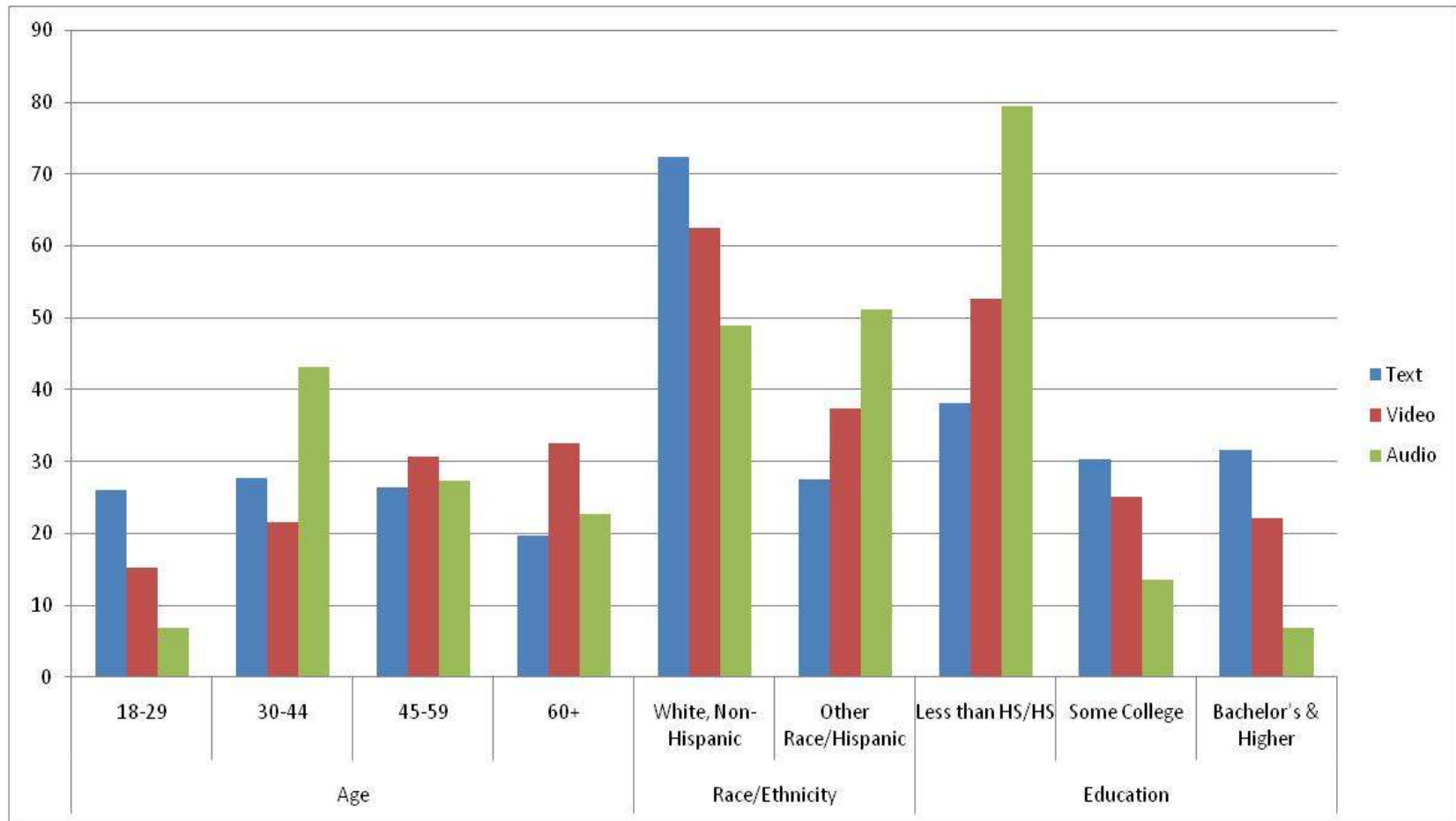
	Chosen as 1 st Mode		Chosen as 2 nd Mode		Chosen as 3 rd Mode	
	N	%	N	%	N	%
Text	645	64%	67	39%	30	65%
Video	321	32%	45	26%	4	9%
Audio	40	4%	62	35%	12	26%
Total	1,006	100%	174	100%	46	100%



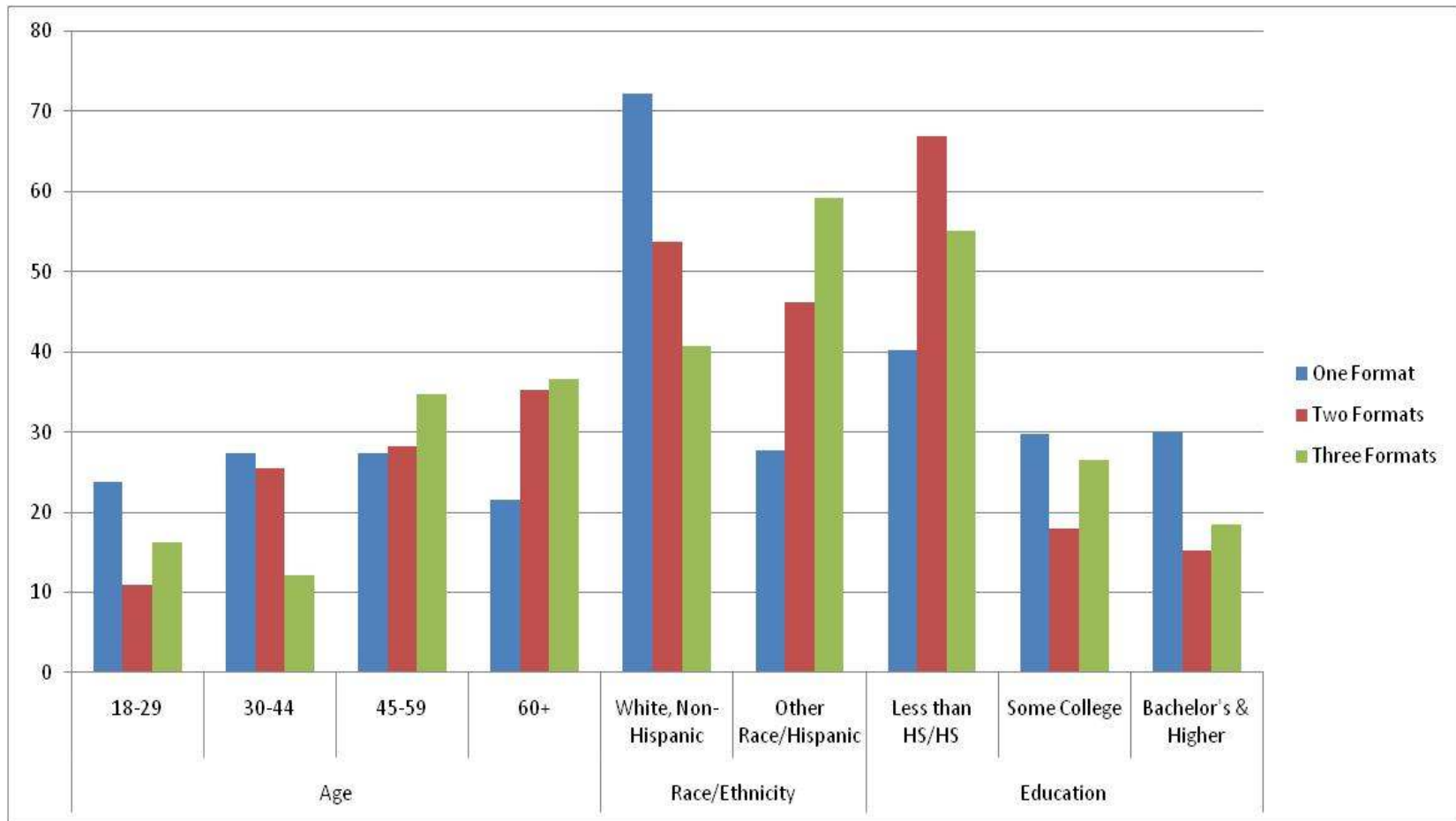
General Overview of Mode Choice

- For those choosing only one mode of presentation, text was most popular
- For those choosing two modes of presentation, the combination of text and video accounts for two-thirds
- The final mode choice was text for 68% of respondents, with video the final choice in 25% of cases and audio the final choice in only 7% of cases

Demographic Characteristics by Initial Mode Choice



Demographic Characteristics by Mode Switching





Data Quality by Mode Selection

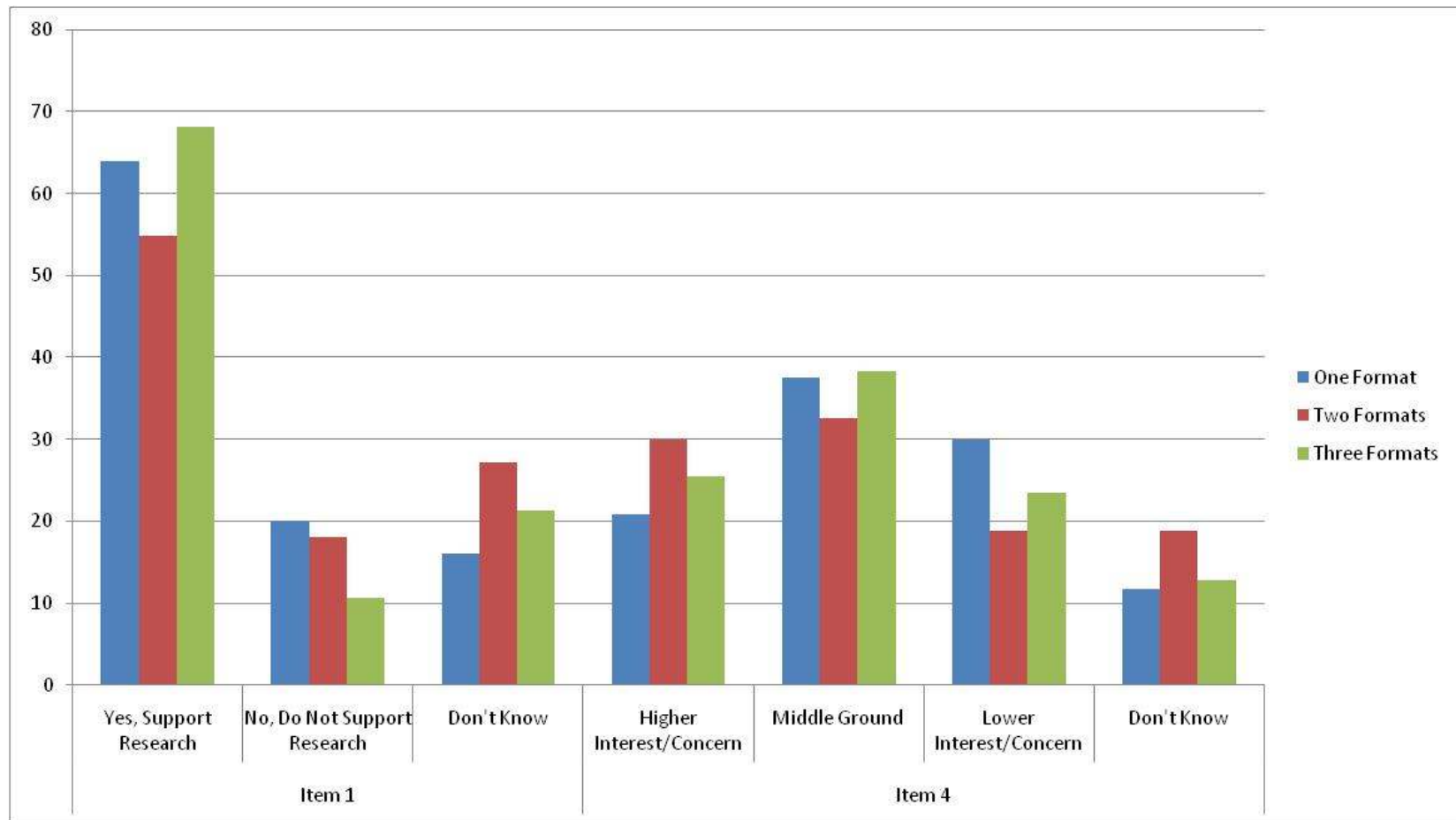
- Examined effect of mode in three areas
 - Survey length
 - Item nonresponse
 - Potential satisficing behavior
- Focused on items administered post-treatment
- Important to note that respondents were randomized to receive one of two content treatments, regardless of mode of review



Data Quality by Mode Selection

- No significant difference in survey length for those reviewing in one, two, or three formats
- No significant difference in item nonresponse for those reviewing in one, two, or three formats
- Distributions of four key survey items assessing concerns/actions related to global warming examined for potential straight-lining of responses or excessive use of an offered “don’t know” response option

Selected Survey Items by Mode Selection





Summary

- While it may be tempting to provide multi-media content in web-based surveys, these results suggest that traditional on-screen text may be best to convey detailed information
- While different groups of people preferred different modes for initial content review, the video and audio modes alone seemed not to be sufficiently explanatory
- Given the preference of some demographic groups for alternative modes, it may be useful to consider their inclusion when survey length and context allow



Recommendations for Future Study

- Further experimentation in which treatment content is static would provide a better examination of mode effects alone
- It would be of interest to conduct a similar cross-mode comparison for studies requiring less intensive cogitation of treatment content
- We would like to further explore the relation between mode choice and response rate to see whether offering the multiple modes for review has any effect on overall response



Post Webinar Questions on this Research

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www.knowledgenetworks.com/ganp/2011aapor.html



The screenshot shows the Knowledge Networks website interface. At the top left is the Knowledge Networks logo. To the right is a Google Custom Search box. Below the logo is a navigation menu with links for ABOUT KN, BUSINESS SOLUTIONS, GOVERNMENT & ACADEMIC RESEARCH, and RESOURCES. A large banner features the text "[government & academic research]" over a background image of a brick wall and a building. Below the banner, the page is titled "HOME" and "Government & Academic Research >". The main content area is titled "2011 AAPOR PRESENTATIONS" and features the AAPOR logo (American Association for Public Opinion Research). Below the logo, it states that Knowledge Networks adheres to the AAPOR Code of Professional Ethics and Practices. The featured presentation is "EXAMINATION OF PANEL CONDITIONING EFFECTS IN A WEB-BASED 2007-2008 ELECTION STUDY" by J. Michael Dennis, Yelena Kruse, and Trevor Tompson. The text describes survey panels and panel conditioning. On the right side, there are contact details for Joe Garrett and Wendy Mansfield, including phone numbers and email links. At the bottom right, contact information for Mike Lawrence is also provided.

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EXAMINATION OF PANEL CONDITIONING EFFECTS IN A WEB-BASED 2007-2008 ELECTION STUDY
J. Michael Dennis; Knowledge Networks; [Email](#)
Yelena Kruse; Knowledge Networks; [Email](#)
Trevor Tompson; Associated Press

Survey panels provide a useful mechanism for longitudinal measurement of within-person change and also can be cost effective compared to conducting another cross-sectional survey.

However, because of sample losses that predictably occur, the panel sample can deteriorate in terms of representativeness or else the respondents themselves might change in their self-reports to survey questions as a direct consequence of their participation in the panel. This latter set of consequences constitutes panel conditioning.

On matters related to survey solutions and pricing for new projects contact:

For DC area orgs, universities, and federal agencies (except public affairs/PR):
Joe Garrett
703 830-0613
[Email](#)

For universities, foundations, and non-profits:
Wendy Mansfield
202 686-0933
[Email](#)

For research firms:
Mike Lawrence
202 370-6345
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