#### Minutes for Meeting of WERA-1010 February 21-22, 2019 Best Western Tucson Inn Suites

#### • Committee Business

- Steve Swinford is the in-coming chair
- We will be collecting about \$10 from everyone to help pay for the conference room
- Lou Swanson is in Hawaii and can't be here. This is his last year as Administrative Advisor.

## Don Dillman - Towards survey response theories that no longer pass like strangers in the night

- Current theories are not extremely helpful re: data collection
  - These theories tend not to interact/reference each other
    - How to bring them together?
- 7 category table of factors that influence survey response rates
  - Theory will need to address all of these
  - Response mode multi-mode improves response rate. Mix your modes!
    - Breaks down into contact mode and response mode
      - Contact mode is particularly important
  - Sponsorship
    - Want known sponsor increase trust of how survey data will be used
  - Response task
    - Short interesting topic with easy to answer questions is best
  - Incentives
  - Structure of requests to respond
    - Number of contacts, multiple modes of contact, timing, specialized
  - Communication content
    - Written becoming much more common than verbal
    - Multi-step multiple modes may be important, but little researched
  - Attributes of potential respondents
    - Demographics, attitudes, etc.
  - Pre-suasion Theory needs more empirical testing
- Conclusions
  - All theories may be relevant, but most are unconnected to specifics of survey design
  - Should find common ground and interact with each other
  - Need a clear theoretical purpose
  - Need to deal with 21st century influences especially the internet!
  - Develop a comprehensive design and then take things away to see the affect

## • Ginny Lesser - Comparison of Online Opt-in Panels with Address-based Sample Surveys

- Reporting on 2 experiments and 2 research areas she has been working on
- 1 probability based sample versus panel sample purchased from Qualtrics
  - Also smaller experiment on impact of postcard (replaced postcard with an additional copy of the questionnaire)
  - Same sample size half get all mail, half get web/mail approach
  - Postcard experiment
    - 2016 mail got better response rate than web-mail with postcard
    - 2018 mail better than web-mail with postcard, web-mail without postcard best (this was also least expensive about 94% of the cost of just mail)
  - Probability/Non-probability experiment
    - Non-probability used in 2016 and 2018, all Oregon residents 18+
      - 2016 used Qualtrics, sample size about 7,500
        - 57% of panel estimates were outside confidence limits of the probability sample
      - 2018 used SSI, sample size about 65,000
        - 44% of panel estimates were outside the confidence limits of the probability sample
    - In general, panel estimate tends to choose the first option, skewing the data somewhat
    - The probability-based sample had more questions where they did not give a response (makes sense cause the panel is being paid to answer it, the probability sample is not)
    - Within the probability sample, respondents who used the web mode tended to have higher income than other modes
    - Panel had a higher percentage of unemployed respondents
    - Conclusion people in panels are just different than people in probability based samples
- 2 are people who respond in different waves statistically different?
  - 2016 had three mailings with questionnaires (5 contacts total)
    - 37 questions
    - Three questions were significantly different at p<0.05, two at p<0.001
  - o 2018 had two mailings with questionnaires (4 contacts total)
    - 43 questions
    - Two questions were significantly different at p<0.05
- Analysis of response rates for Spanish speaking respondents
  - Mode experiment all mail vs. web+mail
  - Language experiment -
    - Original way English names get English only, Spanish names get separate English and Spanish
    - New way a double-sided letter in English and Spanish to everyone
  - Combined method slightly more expensive
  - No difference in number of Spanish returns across groups
    - No negative public reaction to new combined method

- General population survey vs. specific populations and their behaviors on web versus mail responses (in progress)
  - General population was adults in Oregon
  - o Specific population was owners of registered Oregon marine boats
    - Within this population, significant differences in boat ownership, boat use, and fuel questions between mail and web respondents.
      Fuel question particularly important! Determines where Oregon money goes.

## • Zhengyuan Zhu - Machine Learning Methods and Remote Sensing Data

- Desire for smaller, quicker, cheaper surveys for ag and natural resources
- National Resource Inventory Survey
  - Assessing land cover and agro-environmental conditions
  - Serves as the sampling frame for many other land surveys
- Aerial photographs are taken and interpreted (1mile by 1 mile squares)
  - Taken year after year so changes can be interpreted as well
- There will be gaps between years some areas will not have images for each year, or not equivalently quality images.
- Potential to combine NRI survey data with other administrative data such as FSA, state DNR, other imagery sources, etc to fill gaps
- Have developed a statistical package to help impute missing images/images contaminated by cloud cover
- GIS imaging to map and determine land type, changes in land use
  - o Particularly good at looking at water

#### • Todd Rockwood and Melissa Constantine - Bladder Health Study

- Nation wide general population study of English speaking women
- Will randomly assign participants to one of two groups
  - Paper and pencil OR
  - o Push-to-web
- Group discussion about pre-notice: should we send a small cash incentive?
- Group Discussion: In the web primary iteration, send a couple email invites, then send a paper survey, and then another one or two email reminders.

#### • Katie Dentzman - Asking Questions about Sensitive and Illegal Behaviors

- Biodegradable mulch films and horse carcass disposal
- What to do when we ask these things
- With poaching, use indirect measures and avoid wording that is accusatory
- RRT randomized response technique...seeking feedback on use of technique. Hard to explain to people and hard to analyze the data.
- Nominative technique report on friend's behavior
- Bean method
- Biodegradable Plastic Mulch Films disposal
- Herbicide Resistant Weeds didn't ask about illegal spraying.

- Have them admit to talking to their neighbors first and then asking more specific items.
- Horse carcass composting limited number of legal ways to kill and dispose of horse. Very specific laws around this. Animal abuse is an issue closely related to this.

#### • Ashley Yopp - Resurrecting Researcher Engagement

- Create gamification of students going to the fair and doing research
- Data collection as a zombie apocalypse
  - o Zombies people wearing cowboy hats, etc.
  - Survival determined by how many contacts made and/or surveys completed prior to 'rescue'
  - o Ground Zero barns, places you don't want to go
  - Safe Zones more general public areas since this is their population of interest
  - Report zombie infected friends

#### Friday, February 22nd

#### • Glenn Israel - Instruction Influence on Response to Numerical Open-ended Questions in Self-Administered Surveys

- Customer satisfaction survey
- Asking about using extension services
  - Non-response around 10-15%
  - o 2015 Add instructions to indicate format for responding
    - Worked a bit
    - (Additional instructions are in italics and parentheses after the question, suggest a numeric response)
  - 2016 Tried something else
    - Referenced name of the workshop
    - Worked less (instructions were wordier was this maybe a cause?)
    - Overall item response smaller than 2015 or 2016
    - One item had significant increase in item response when instructions were included
  - Went back to trying the first way again
- LOTS of lit on visual design's impact on item response, but not that much on the impact of verbal design
- 2018 Survey
  - Email and mail, mail only, and email only
  - o 32.1% responded from a mobile device increasing
  - Same additional instructions as the 2015 survey, slightly reformatted the layout of questions
  - Break-off and uncoded responses were both very low (for 2018 and 2015)
  - Item non-response was relatively low lower than in the 2015 survey

- Including instructions increased item response significantly for several variables in both the 2015 and 2018 versions
- By mode
  - o For mail questionnaire
    - Mixed sometimes instructions made a significant difference and sometimes did not
  - For Web and Mobile
    - Verbal instructions always had significant impact on item nonresponse
    - Confounding issue slightly different format/boxes for writing in answers than was in the paper survey

#### Conclusions

- Verbal instructions indicating desired format does prompt more people to respond to the question.
  - They don't have to think about what the answer format needs to be easier to answer
  - Seems to help more on mobile

#### • Comparing an Online Opt-in Panel and a Mail Address-based Sample

- Probability Survey mail and web/mail mixed mode
  - Took several months (17% response rate)
    - High item response rate (95%)
    - Nonresponse to open-ended question was higher, BUT longer and more substantively relevant comments
    - Got a higher percentage of true/false questions correct
    - Different relationship between climate change knowledge and concern compared to Qualtrics sample
      - Additional differences in other variable relationships, too
- Non-probability Survey through Qualtrics
  - Took about a week (6% response rate)
  - Very high item response rate (99%)
    - Likely due to panel incentives
  - Higher response to open-ended question, BUT much shorter and less relevant comments
  - Had a bias towards more positive responses
  - Cheap and quick, but sizeable limitations
  - Evident that respondents were taking the survey very quickly
- Different conclusions were obtained with different data sets
- Don suggests that Glenn and Ginny collaborate on an article they have similar experiments comparing probability and non-probability samples.
  Could do a comparison of Ginny's results in Oregon and Glenn's results in Florida.

## Steve Swinford - Improvements During MSU Football Games - Substance Abuse Study

- Montana State University
- Review of tailgate policies at MSU and peer schools

- Policies vary no cross-school consensus
- Observations at 2016 home football games
  - Mostly safe event
- Interviews
  - Certain stakeholders support more alcohol sales at a variety of events
    - Facilities directors would like to offer more variety, etc.
- Surveys (design based on group)
  - Students (only group with incentives offered possibility to win gift card), alumni, season ticket holders, and rodeo boosters (web only, emailed)
  - Community members (paper only, mailed)
  - Findings
    - Most people at tailgates drink alcohol, about half drink at other events too (i.e. concerts)
    - Most people have seen someone drunk and unruly, but tend not to say it's a big problem
    - People who don't go to events overestimate alcohol consumption/problems
    - People said they will go to an event regardless of alcohol availability
    - People generally were unaware of alcohol policies on campus
    - Most people except students disapproved of underage drinking
    - Majority of underage students said they did drink at tailgates
- Bunny Willits and Kenny Wallen Effects of Follow-Up Contacts on Sample Characteristics and Substantive Research Findings in Surveys: An Exploratory Analysis
  - Three surveys 2 mail, 1 online
    - o 1 in Pennsylvania (mail), 2 in Texas (1 mail, 1 online)
  - RQ 1 what are the effects of follow-up contacts on the numbers of survey responses received?
    - Follow-ups help!
    - Mode of data collection makes a difference get more return on multiple contacts when the survey is online
  - RQ2 how socio-demographics are different between different waves?
    - PA Study
      - No significant differences in gender, age, marital status, years lived in area, income, and political beliefs
      - Years lived in the area, gender, and political beliefs were nearing significance at the p<0.1 level
      - Significant differences (at p<0.1) include education and employment status, but for such a large sample this might mean it doesn't matter
        - Education level is lower in subsequent waves (0.07)
        - Percentage employed is higher in subsequent waves (0.09)

- Doesn't seem like we're getting very different people to reply in subsequent waves
- Not getting different people just getting more of the same
- Texas Community Survey
  - Age (0.07) more younger people in subsequent waves
  - Gender (0.1) more women in subsequent waves
  - Education (0.016) Education level lower in subsequent waves
  - None of this is highly significant
- Texas Boating Survey
  - Gender (0.06) more women in subsequent waves
  - Boat usage past year (0.03) more people who used their boat less in subsequent waves
- RQ3 do relationships between characteristics and reported knowledge differ between different waves?
  - PA Study
    - Bivariate correlations knowledge of gas drilling and support for gas drilling with sociodemographic characteristics
    - Best predictors of gas drilling knowledge were gender, education, and income
      - In all three waves these were the strongest predictors
    - Each wave is picking up the same pattern of relationships
    - Each wave does increase our confidence at least...but is that worth it?
    - But...should we just put more money into a larger initial sample with no follow-up contacts?

#### Melissa Constantine - Bladder Health Study Part 2

- Community based recruitment at 7 sites with eligibility screening
- Complex, multi-method sampling and enrollment process
  - They will be committing to the full study
- Need to decide on mailing all materials at once or one at a time
  - General consensus is to send it all in one box
    - We are going through this process and we're sending you everything you need.
    - Because this is so important we are giving you this \$ incentive

# • Zhengyuan Zhu - 'Science Under President Trump' and 'Pet Ownership and Survey Demographics'

- Pet Ownership Survey Number of pets and how much you spend on them
  - National Panel Survey
  - Estimates of pet ownership much higher than previous estimates
    - Questions of accuracy are panel respondents over reporting?
    - To try and weed these out, looked at accuracy of spending estimates. If you do own a dog, you should know about how much their food costs
    - Looked at how quickly each question was answered

- Google one question survey to calibrate
  - Just asks about whether you have a pet
    - Likely to be unbiased compared to other questions
  - Based on this percentage removed suspicious cases from panel study
- Weighted important variables
- Horse ownership was much much lower than previous estimates
  - Might be because they were measuring pet horse ownership, not other types of horse ownership
- Sent the next survey to new respondents and to previous respondents
  - About half of previous respondents responded again to the new survey
  - Those who responded twice answered the same way reliable
  - In the new survey they also asked about rural/urban to help address the horse ownership issue
- Science Under President Trump
  - o Survey of federal scientists across 16 federal agencies
    - This survey has been happening for years, not just because of Trump. But in 2018 they did up the number of agencies.
  - Union of Concerned Scientists website has the report available
  - Very low response rate was an issue
  - o Ouestionnaire
    - Very similar to what was used in previous years
    - About 50 questions total
    - Only 2 questions required answers
  - Tried to send survey to employees directly involved in science
    - Might not have been super accurate contributing to low response rate
    - Want to have people self-identified as scientists
  - Multi-mode approach
    - Web, paper downloadable pdf, or phone interview
    - Most used web version
  - Used an informational website to add greater credibility
    - Included detailed FAQ about the survey
  - Could not use a government computer to answer the survey
    - But the survey request was sent to a government email
  - o 5 times contacted

#### • Hua Qin - Survey Methods Review in Ag and Enviro Social Sciences

- Agricultural social science, Environment and natural resource social science, and community-based studies
- Bibliometric analysis of...
  - Published studies found using search terms:
    - Survey/questionnaire AND response rate AND agriculture/environment/community

- Search terms were actually more detailed than this but you get the idea
- Also searched journals of particular interest
- Analysis
  - Descriptive and bibliometric/network
- So far has found 120 articles about half way through collection process
  - Many have had medicine as a main category
  - Social science second most frequent category
  - A limited number of institutions and countries represented all authors
  - Three main clustering areas of journal coupling networks that all overlap and cite each other
    - Medical
    - Interdisciplinary
    - Ag Econ
  - Lots of really interesting networks of coauthorship, keyword occurrence, etc.

#### • Ashley Yopp - SOGI Question Inclusion and the Impact on Survey Responses

- Sexual orientation and gender identity were removed from national aging survey
- They did a randomized survey blocks in two surveys (one about beef, one about public media consumption)
  - One with two gender options
  - One with multiple gender options that expanded into more options
  - The public media one had even more gender options
  - Got the categories from the Human Rights Campaign
- Prelim results
  - 13 people took advantage of the expanded gender item out of 882 respondents
    - 1.5% about 6% of U.S. population id as transgender, non-binary, etc.
  - 3 people put stupid stuff in for 'other'
    - But it was also an intercept survey where the surveyor was present
- Interested in looking at difference between rural and urban respondents in the beef survey
- We should consider adding these options to our surveys so we have more data that we can compare