

**SOCI 760 / IDS 690-01**  
**DATA COLLECTION METHODS IN SURVEY RESEARCH**  
**FALL 2020**

UNC/Odum Institute and Duke/SSRI  
Online via ZOOM  
Tuesdays 2:00 – 4:45 PM

**Instructor:**

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**Overview and Goals of Course:**

This course reviews research focused on understanding the effect of data collection design features on major sources of survey error and, therefore, the quality of the data. Materials and sessions concentrate on how data collection methods specifically relate to coverage error, nonresponse error, and measurement error. The Total Survey Error paradigm informs the consequences of alternative survey design decisions and the quality of the data collected.

Understanding the consequences of alternate data collection methods requires attention to how basic design features relate to major sources of error. For examples, choices must be made between a probability or non-probability sampling frame, paper versus computer-assisted data collection, and self-administration versus interviewer-administration. Tradeoffs in errors and costs between the most common single mode versus common multiple mode surveys are also considered.

The course includes a review of the literature on interviewer effects, in terms of both potential reduction in survey error and potential contributions to survey error. With respect to nonresponse error, the course includes literature on methods for reducing nonresponse error and methods of assessing nonresponse error in survey estimates. Finally, design considerations for longitudinal household surveys and surveys with organizations as the unit of analysis (as opposed to households or individuals) are also examined.

### **Class Format, Instructor Access, and Course Materials:**

For Fall 2020, this course will be online only. Readings, materials, and recorded presentations will be available for students to review prior to each online class session on the course website. Each class session will be conducted via Zoom for all students enrolled via University of North Carolina or Duke University. The class sessions will focus on discussion of the recorded presentations, questions on the weekly readings, and exercises and demonstrations to illustrate and expand on key concepts.

Instructor office hours are available by Zoom or phone appointments and students are encouraged to communicate with the instructor by email as needed. All recorded presentation, course materials, reserved readings, and student assignments will be posted to the course website on <https://sakai.unc.edu/portal> under SOCI760.001.FA20. ***Please let the instructor know immediately if you experience any difficulties accessing the course website or specific materials on the site.***

### **Evaluation:**

All course assignments function as components of a survey data collection proposal to be completed by each student over the course of the semester.

Grading will be specifically based on:

- Participation in online class discussions that demonstrates reviewing the weekly recorded presentation and the assigned readings will count for 10% of the final grade. The participation portion of the grade will be evaluated by (1) questions students submit prior to each weekly online class and (2) contribution to the online class discussion. Weekly questions can address any topics covered through the current week's presentation or readings. Questions should be submitted to the instructor via email at least 24 hours before each online class session. Each class session will allow time for students to ask questions and discuss answers.
- Three assignments of about 5-6 pages each will be designed to sequentially develop a proposal for a survey data collection project will each count for 20% of the final, for a total of 60% of the final grade.
- A final proposal for a survey data collection project addressing instructor feedback on the three prior assignments and the most important sources of survey error for the proposed data collection will count for 30% of the final grade.

The schedule below indicates dates when the assignments will be available to students and when they will need to be completed and submitted. Assignments should be submitted to the instructor via Sakai or email; the instructor will confirm receipt via email. Late assignments will not be accepted without prior arrangement with the instructor.

### **Text and Readings:**

The only text for this course is:

Groves, R.M., Fowler, F.J., Couper, M.P., Lepkowski, J.M., Singer, E. and Tourangeau, R. (2009). *Survey Methodology*. Hoboken, NJ: John Wiley and Sons. [ISBN 978-0-470-46546-2 (paper)]

Multiple chapters from this book will be assigned as weekly readings. These chapters are marked with an asterisk (\*) in the course schedule below and will not be included with the reserved readings made available to the class. Copies of all other additional readings can be accessed through the course website.

### **Course Schedule, Topics, and Readings:**

#### **Week 1 – August 18**

##### **Topics:**

Overview; Goals, concepts, and challenges

##### **Readings:**

- (1) Chapter 2 in Groves, *et al.* (2009). *Survey Methodology*. Hoboken, NJ: Wiley.\*
- (2) Biemer, P. (2010). Total survey error: Design, implementation, and evaluation. *Public Opinion Quarterly (special issue)* 74: 817-848.

#### **Week 2 – August 25**

##### **Topic:**

Key dimensions of survey modes

##### **Readings:**

- (1) Chapter 5 in Groves, *et al.* (2009). *Survey Methodology*. Hoboken, NJ: Wiley.\*
- (2) Couper, M.P. (2011). The future of modes of data collection. *Public Opinion Quarterly* 75: 889-908.

### **Week 3 – September 1 (Assignment 1 posted)**

#### **Topics:**

Comparing modes, mixing modes, and responsive design

#### **Readings:**

- (1) deLeeuw, E. (2018). Mixed mode: Past, present, and future. *Survey Research Methods*, 12: 75-19.
- (2) Olson, K., Smyth, J., and Wood, H. (2012). Does giving people their preferred survey mode actually increase survey participation rates? An experimental examination. *Public Opinion Quarterly* 76: 611-635.

### **Week 4 – September 8**

#### **Topic:**

Survey modes and survey errors, case study

#### **Readings:**

- (1) Link, M. and Mokdad, A. (2006). Can web and mail survey modes improve participation in an RDD-based national health surveillance? *Journal of Official Statistics* 22: 293–312.
- (2) Voogt, R. and Saris, W. (2005). Mixed mode designs: Finding the balance between nonresponse bias and mode effects. *Journal of Official Statistics* 21: 367–387.

### **Week 5 – September 15 (Assignment 1 due)**

#### **Topic:**

Computer-assisted survey methods, self-interviewing

#### **Readings:**

- (1) Turner C.F., Ku L., Rogers S.M., Lindberg L.D., Pleck J.H., Sonenstein F.L. (1998) Adolescent sexual behavior, drug use, and violence: increased reporting with computer survey technology. *Science* 280: 867–73.
- (2) Lind, L., Schober, M., Conrad, F., and Reichert, H. (2013). Why do survey respondents disclose more when computers ask the questions? *Public Opinion Quarterly* 77: 888-935.

### **Week 6 – September 22 (Assignment 2 posted)**

#### **Topic:**

Web surveys, future of survey technologies

#### **Readings:**

- (1) Galesic, M. and Bosnjak, M. (2009). Effects of questionnaire length on participation and indicators of response quality in a web survey. *Public Opinion Quarterly* 72: 349–360.
- (2) Tourangeau, R., Maitland, A. Rivero, G., Sun, H., Williams, D. & Yan, Ting. (2017). Web surveys by smartphone and tablets: Effects on survey responses. *Public Opinion Quarterly* 81: 892-929.

## Week 7 – September 29

### **Topics:**

Respondent selection procedures, proxy reporters

### **Readings:**

- (1) Gaziano, C. (2005). Comparative analysis of within-household respondent selection techniques. *Public Opinion Quarterly* 69: 124-157.
- (2) Thomsen, I. and Villand, O. (2011). Using register data to evaluate the effects of proxy interviews in the Norwegian Labour Force Survey. *Journal of Official Statistics* 27: 87-98.

## Week 8 – October 6 (Assignment 2 due)

### **Topics:**

Interviewer effects, interviewer training

### **Readings:**

- (1) Chapter 9 in Groves, *et al.* (2009). *Survey Methodology*. Hoboken, NJ: Wiley.\*
- (2) West, B. and Blom, A. (2017). Explaining interviewer effects: A research synthesis. *Journal of Survey Statistics and Methodology* 5: 175–211.

## Week 9 – October 13

### **Topics:**

Interviewer quality control, interviewing techniques

### **Readings:**

- (1) Li, J., Brick, M., Tran, B., and Singer, P. (2011) Using statistical models for sample design of a reinterview program. *Journal of Official Statistics* 27: 433-450.
- (2) Conrad, F., and Schober, M. (2000). Clarifying question meaning in a household telephone survey." *Public Opinion Quarterly* 64: 1-28.

## Week 10 – October 20 (Assignment 3 posted)

### **Topics:**

Nonresponse definition, trends, and consequences

### **Readings:**

- (1) Chapter 6 in Groves, *et al.* (2009). *Survey Methodology*. Hoboken, NJ: Wiley.\*
- (2) Peytchev, A. (2013). Consequences of Survey Nonresponse. *The ANNALS of the American Academy of Political and Social Science* 2013 645: 88-111.

## Week 11 – October 27

### **Topics:**

Nonresponse theories, actions, and assessment

### **Readings:**

- (1) Groves, R. (2006). Nonresponse rates and nonresponse bias in household surveys. *Public Opinion Quarterly* 70: 646–675 (special issue).
- (2) Brick, J.M. and Tourangeau, R. (2017). Responsive survey designs for reducing nonresponse bias. *Journal of Official Statistics*, 33: 735–752

### **Week 12 – November 3 (Assignment 3 due)**

#### **Topic:**

Longitudinal surveys

#### **Readings:**

- (1) Lynn, P. (2013). Alternative sequential mixed-mode designs: Effects on attrition rates, attrition bias, and costs. *Journal of Survey Statistics and Methodology* 1: 183–205.
- (2) Halpern-Manners, A., Warren, J., and Torche, F. (2014). Panel conditioning in a longitudinal survey of illicit behaviors. *Public Opinion Quarterly* 78: 565–590.

### **Week 13 – November 10 (Final Assignment posted)**

#### **Topic:**

Surveys of organizations

#### **Readings:**

- (1) Hedlin, D., Lindkvist, H., Bäckström, H., and Erikson, J. (2008). An experiment on perceived survey response burden among businesses. *Journal of Official Statistics* 24: 301-318.
- (2) Earp, M., Mitchell, M., McCarthy, J. and Kreuter, F. (2014). Modeling nonresponse in establishment surveys: Using an ensemble tree model to create nonresponse propensity scores and detect potential bias in an agricultural survey. *Journal of Official Statistics* 30: 701-719.

### **Friday, November 20 – Final proposals due by midnight**