

# DATA COLLECTION METHODS IN SURVEY RESEARCH

Fall 2011

Joint Program in Survey Methodology / UMd: Surv 623, sec. 0201  
Odum Institute / UNC: Soci 760  
Tuesdays 3:30 – 6:15 PM

## Instructor:

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in Survey Methodology, University of Maryland  
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## Overview and Goals of Course:

This course will present research work which attempts to understand the effect of data collection decisions on survey errors. This is not a “how –to-do-it” course on data collection, but instead presents materials that examine the effects of survey design decisions on data quality. This course is designed to sensitize students to alternative design decisions and their impact on the data obtained from surveys.

The course will review alternative modes and methods of data collection used in surveys. The materials concentrate on the impact modes of data collection have on the quality of survey data, including coverage error, nonresponse error, and measurement error properties. Methods of data collection will focus on advances in computer assisted methodology and comparisons among various methods (e.g. telephone versus face to face, paper versus computer assisted, interviewer administered versus self-administered). The statistical and social science literature on interviewer effects will also be examined, including literature related to the training and evaluation of interviewers. With respect to nonresponse, we will review current literature on the reduction of nonresponse and the impact of nonresponse on survey estimates.

## Office Hours and Access to the Instructor:

This course will be taught using video technology, allowing two-way interaction between College Park, MD and Chapel Hill, NC. The instructor is based Research Triangle Park, NC. Office hours are available by appointment and students are encouraged to communicate by e-mail and phone as needed. All lectures (PowerPoint slides), exercises, and exercise answers will be posted on the JPSM course website:  
<http://www.jpsm.umd.edu/surv623sect0201>.

## Readings:

The two texts for this course are:

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

Groves, R.M., D.A. Dillman, J.L. Eltinge, and R.J.A. Little (eds.). (2002). *Survey Nonresponse*. New York: Wiley. [ISBN 0-471-39627-3]

Multiple chapters from each of these books will be used. These chapters are marked with an asterisk (\*) in the syllabus below and are not included with the reserved readings made available to the class. Since copyright and other restrictions prevent us from posting all readings to the course website, copies of the additional readings will be placed on reserve and instructions will be provided on how to access the readings on each campus.

## Evaluation

Grading will be based on:

- Participation in class discussion demonstrating understanding of the required readings (10% of grade). The participation portion of the grade will also be evaluated by contributing questions each week. Questions can address any issues covered through the prior week's class and must be submitted to the instructor via e-mail by 1:00 pm each Monday prior to class sessions. The instructor will select some questions each week to discuss during the first few minutes of each class.
- Three short exercises (4-5 pages each) reviewing specific aspects of the materials covered (60% of grade)
- A final open-book, open-note exam (30% of grade)

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

### Week 1 – August 30

Topic:

Overview of course; introduction to errors in surveys

Readings:

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

## **Week 2 – September 6**

Topic:

Major modes of data collection

Readings:

- (1) Chapter 5 in Groves, *et al.* (2009). *Survey Methodology*. Hoboken, NJ: Wiley.\*
- (2) Tucker, C. and J.M. Lepkowski. (2008). “Telephone Survey Methods: Adapting to Change.” Chapter 1 in J.M. Lepkowski, C. Tucker, J.M. Brick, E.D. de Leeuw, L. Japac, P.J. Lavrakas, M.W. Link, R.L. Sangster (eds.), *Advances in Telephone Survey Methodology*. Hoboken, NJ: Wiley.

## **Week 3 – September 13**

Topic:

Other data collection modes; mode comparisons

Readings:

- (1) deLeeuw, E.D. (2005) “To Mix or Not Mix Data Collection Modes in Surveys” *Journal of Official Statistics* 21: 233-255.
- (2) Link, M.W. and A. Mokdad. (2006). “Can Web and Mail Survey Modes Improve Participation in an RDD-based National Health Surveillance?” *Journal of Official Statistics*, 22 (no. 2): 293–312.

## **Week 4 – September 20 (Exercise 1 available)**

Topic:

Mode of data collection and survey errors

Readings

- (1) de Leeuw, E.D. and J. van der Zouwen. (1988). “Data Quality in Telephone and Face to Face Surveys: A Comparative Meta-analysis.” Chapter 18 in R.M. Groves, P.P. Biemer, L.E. Lyberg, J.T. Massey, W.L. Nicholls, and J. Waksberg (eds.), *Telephone Survey Methodology*. New York: Wiley.
- (2) Fricker, S., M. Galesic, R. Tourangeau, and T. Yan. (2005). “An Experimental Comparison of Web and Telephone Surveys.” *Public Opinion Quarterly* 69: 370-392.

## **Week 5 – September 27**

Topic:

Computer-assisted interviewing

Readings:

- (1) Couper, M.P. and W.L. Nicholls. (1998). “The History and Development of Computer Assisted Survey Information Collection.” Chapter 1 in M.P. Couper, *et al.* (eds.), *Computer Assisted Survey Information Collection*. New York: Wiley.

- (2) Nicholls, W.L., R.P. Baker, and J. Martin (1997). "The Effect of New Data Collection Technologies on Survey Data." Chapter 9 in L. Lyberg, P.P. Biemer, M. Collins, E.D. de Leeuw, C. Dippo, N. Schwarz, and D. Trewin (eds.), *Survey Measurement and Process Quality*. New York: Wiley.
- (3) Tourangeau, R. and T.W. Smith. (1996). "Asking Sensitive Questions: The Impact of Data Collection Mode, Question Format, and Question Context." *Public Opinion Quarterly* 60: 275-304.

**Week 6 – October 4 (*Exercise 1 due*)**

Topic:

Computer assisted self-interviewing

Readings:

- (1) Couper, M. (2000). "Web Surveys: A Review of Issues and Approaches." *Public Opinion Quarterly* 64: 464-494.
- (2) Couper, M. (2008). "Technology and the Survey Interview/Questionnaire." Chapter 3 in F.G. Conrad and M.F. Schober (eds.), *Envisioning the Survey Interview of the Future*. New York: Wiley.

**Week 7 – October 11**

Topic:

Respondent selection; the role of the interviewer in survey data collection

Readings:

- (1) Gaziano, C. (2005). "Comparative Analysis of Within-household Respondent Selection Techniques." *Public Opinion Quarterly* 69: 124-157.
- (2) Moore, J.C. (1988). "Self/proxy Response Status and Survey Response Quality: A Review of the Literature." *Journal of Official Statistics* 4: 155-172.

**Week 8 – October 18 (*Exercise 2 available*)**

Topic:

Interviewer effects; interviewer training

Readings:

- (1) Chapter 9 in Groves, *et al.* (2009). *Survey Methodology*. Hoboken, NJ: Wiley.\*
- (2) Durrant, G.B., R.M. Groves, L. Staetsky, and F. Steele. (2010). "Effects of Interviewer Attitudes and Behaviors on Refusal in Household Surveys." *Public Opinion Quarterly* 74: 1-36.

**Week 9 – October 25**

Topic:

Interviewer evaluation; interviewing style

Readings:

- (1) Tarnai, J. and D.L. Moore. (2008). "Measuring and Improving Telephone Interviewer Performance and Productivity." Chapter 17 in J.M. Lepkowski, C. Tucker, J.M. Brick, E.D. de Leeuw, L. Japac, P.J. Lavrakas, M.W. Link, R.L. Sangster (eds.), *Advances in Telephone Survey Methodology*. Hoboken, NJ: Wiley.
- (2) Schaefer, N.C. and D.W. Maynard. (2008). "The Contemporary Standardized Survey Interview for Social Research." Chapter 2 in F.G. Conrad and M.F. Schober (eds.), *Envisioning the Survey Interview of the Future*. New York: Wiley.
- (3) Conrad, F.G. and M.F. Schober. (2000). "Clarifying Question Meaning in a Household Telephone Survey." *Public Opinion Quarterly* 64: 1-28.

**Week 10 – November 1**

**NO CLASS**

**Week 11 – November 8 (Exercise 2 due)**

Topic:

Nonresponse error; response rates

Readings:

- (1) Chapter 6 in Groves, *et al.* (2009). *Survey Methodology*. Hoboken, NJ: Wiley.\*
- (2) de Leeuw, E.D., and W. de Heer. (2002). "Trends in Household Survey Nonresponse: A Longitudinal and International Perspective." Chapter 3 in R.M. Groves, *et al.* (eds.), *Survey Nonresponse*, New York: Wiley, pp. 41-54.\*
- (3) Keeter, S., C. Kennedy, M. Dimock, J. Best, and P. Craighill. (2006). "Gauging the Impact of Growing Nonresponse on Estimates from a National RDD Telephone Survey." *Public Opinion Quarterly* 70: 759–779 (special issue).

**Week 12 – November 15 (Exercise 3 available)**

Topic:

Nonresponse error; nonresponse reduction

Readings:

- (1) Groves, R.M. (2006). "Nonresponse Rates and Nonresponse Bias in Household Surveys." *Public Opinion Quarterly* 70: 646–675 (special issue).
- (2) Peytchev, A., R.K. Baxter, and L.R. Carley-Baxter. (2009). "Not All Survey Effort Is Equal: Reduction of Nonresponse Bias and Nonresponse Error." *Public Opinion Quarterly* 73: 785–806.
- (3) Redline, C. and D. Dillman. (2002). "The Influence of Alternative Visual Designs on Respondents' Performance with Branching Instructions in Self-Administered Questionnaires." Chapter 12 in R.M. Groves, *et al.* (eds.), *Survey Nonresponse*, New York: Wiley, pp. 179-195.\*

**Week 13 – November 22**

Topic:

Surveys in Organizations

Readings:

- (1) Willimack, D., Nichols, E., and Sudman, S. (2002). “Understanding Unit and Item Nonresponse in Business Surveys.” Chapter 14 in R.M. Groves, *et al.* (eds.), *Survey Nonresponse*, New York: Wiley, pp. 213-228.\*
- (2) Willimack, D.K. and E. Nicholas. (2010). “A Hybrid Response Process Model for Business Surveys.” *Journal of Official Statistics* 26: 3–24.

**Week 14 – November 29 (Exercise 3 due)**

Topic:

Longitudinal surveys

Readings

- (1) Kalton, G. and C. Citro. (1993). “Panel Surveys: Adding the Fourth Dimension” *Survey Methodology* 19: 205-215.
- (2) Lepkowski, J. and M.P. Couper. (2002). “Nonresponse in the Second Wave of Longitudinal Household Surveys.” Chapter 17 in R.M. Groves, *et al.* (eds.), *Survey Nonresponse*, New York: Wiley, pp. 259-273.\*

**Week 15 – December 6**

Course review

**Week 16 – December 13**

Final exam (open book and notes)