

**SURVEY ANALYSIS**  
**Professor Martin Gilens**

POL503, Fall 2013 -- Wednesday 1:30-4:20 -- Robertson 008

office hours: Tuesdays 10:30-11:50 and Fridays 2:00-3:40  
sign up at <http://wass.princeton.edu>

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**SYLLABUS (revised 10-9-2013)**

This course is both a reading course on survey design and analysis and a practicum on collecting and analyzing survey data. The class will design and conduct a web survey over the course of the semester. Students in the course can contribute questions to this survey, and use these data as the basis for their course papers. (Alternatively, you can base your course paper on other data you collect or have already collected, or on secondary analysis of existing data collected by others.)

An important part of the course will be discussing the class survey and individual students' contributions to it.

Written assignments include a 3 to 5 page summary of previous survey work on your topic and a research paper on your survey project due at the end of the course. Over the course of the semester you should plan to distribute a variety of written work to the class. This material may include descriptions of research questions, concepts, and measures; descriptions or analyses of existing data; summaries of published findings; drafts of survey questions; analytic strategies; preliminary findings; and interpretations of your results in light of your theories and hypotheses.

The "formal curriculum" for the course will cover four major areas. (1) The nature of the survey response, including the psychology of political attitude expressions, issues of question wording and context, interviewer effects, and social desirability pressures. (2) General issues of quantitative research, including model specification, random and systematic measurement error, the logic of causal analysis, and the alternative meanings of statistical "importance." (3) Practical considerations in survey analysis, including questionnaire construction, sampling and data collection, variable coding and transformations, missing values. (4) Applied statistics, including alternative measures of association, dummy variables, interaction terms, reliability assessment, scaling techniques, and the presentation and interpretation of statistical results.

Three books you are encouraged to purchase online:

Czaja, Ronald and Johnny Blair. 2005. *Designing Surveys*, 2nd ed. Pine Forge Press.  
Carmines, Edward and Richard Zeller. 1979. *Reliability and Validity Assessment*. Sage Publications.  
Mutz, Diana C. 2011. *Population-Based Survey Experiments*. Princeton University Press.

In the syllabus below, "p" (for purchased) refers to the three books above, "e" readings are available on e-reserves, and "m" readings are in the "course materials" section of Blackboard.

## 9/11 Intro

### 9/18 The survey interview and the nature of the survey response

- m [ Review: Converse, Philip E. 1964. "The Nature of Belief Systems in Mass Publics." In *Ideology and Discontent*, ed. David E. Apter. New York: Free Press.
- m Sudman, Seymour, Norman Bradburn and Norbert Schwarz. 1996. *Thinking about Answers*, ch. 3.
- e Zaller, John and Stanley Feldman. 1992. "A Simple Theory of the Survey Response: Answering Questions versus Revealing Preferences." *AJPS* 36:579-616
- e Bishop, George, Alfred Tuchfarber, and Robert Oldendick. 1986. "Opinions on Fictitious Issues: The Pressures to Answer Survey Questions." *Public Opinion Quarterly* 50:240-250.
- m Bartels, Larry. 2003. "Democracy with Attitudes."
- m Gilens, Martin. 2011. "Two-thirds full? Citizen Competence and Democratic Governance."

### 9/25 Randomized survey experiments

- m Gilens, Martin. 2002. "Random Assignments: An Anatomy of Survey-Based Experiments." *Navigating Public Opinion: Polls, Policy, and the Future of American Democracy*, Jeff Manza, Fay Lomax Cook, and Benjamin Page, eds.
- m Gaines, Brian J., James H. Kuklinski, and Paul J. Quirk. 2007. The logic of the survey experiment reexamined. *Political Analysis* 15 (1): 1-20.
- p Mutz, Diana Carole. 2011. *Population-Based Survey Experiments*, ch's 1-4.

### 10/2 Question wording; Question context; Question format

- m/e Sudman, Seymour, Norman M. Bradburn and Norbert Schwarz. 1996. *Thinking about Answers*, ch. 4-6.
- p Czaja, Ronald and Johnny Blair. 2005. *Designing Surveys*, 2nd ed., ch 4-6
- e Babbie, Earl. 1989. *The Practice of Social Research*, 10th ed., pp. 242-256.
- m Krosnick, Jon A., and Stanley Presser. 2009. "Question and Questionnaire Design."

### 10/9 Web surveys; Social desirability

- m Christian, L. M., N. L. Parsons, and D. A. Dillman. 2009. Designing Scalar Questions for Web Surveys. *Sociological Methods & Research* 37(3): 393-425.
- m Schaeffer, Nora Cate, and Stanley Presser. 2003. The Science of Asking Questions. *Annual Review of Sociology* 29:65-88.
- e Tourangeau, Roger, and Ting Yan. 2007. "Sensitive questions in surveys." *Psychological Bulletin* 133 (5):859-83.

### 10/16 Amazon Mechanical Turk;

- m Berinsky, Adam J., Gregory A. Huber, and Gabriel S. Lenz. 2011. Using Mechanical Turk as a Subject Recruitment Tool for Experimental Research.
- m Berinsky, Adam J., Michele F. Margolis, and Michael W. Sances. 2013. "Separating the Shirkers From the Workers? Making Sure Respondents Pay Attention on Self-Administered Surveys." *American Journal of Political Science*.
- m Mason, Winter, and Siddharth Suri. 2010. "Conducting Behavioral Research on Amazon's Mechanical Turk."
- m Schaffner, Brian. 2011. "Polling: Innovations in Survey Research." In *New Directions in Campaigns and Elections*, Stephen K. Medvic, ed.

**10/23 Probability vs. non-probability samples; Sample size and treatment effects**

- m Chang, L., and J. A. Krosnick. 2009. National Surveys Via Rdd Telephone Interviewing Versus the Internet. *Public Opinion Quarterly* 73 (4): 641-678.
- m Newton, Rae R. and Kjell E. Rudestam. 1999. Your Statistical Consultant. pp.68-72 (power analysis)
- p Mutz, Diana Carole. 2011. *Population-Based Survey Experiments*, pp.83-99.

**10/30 No class - fall break****11/6 No class - professor out of town****11/13 Random and systematic measurement error; Reliability; Validity,**

- p Carmines, Edward and Richard Zeller. 1979. *Reliability and Validity Assessment*, pp. 9-51.
- e Alwin, Duane F., and Jon A. Krosnick. 1991. "The Reliability of Survey Attitude Measurement: The Influence of Question and Respondent Attributes." *Sociological Methods & Research* 20 (1):139-81.

**11/20 Importance; Weighting; Dummy variables**

- e Achen, Christopher. 1982. *Interpreting and Using Regression*, pp. 68-77.
- m DeBell, Matthew, and Jon A. Krosnick. 2009. "Computing Weights for American National Election Study Survey Data." ANES Technical Report Series, No. nes012427.
- e Newton, Rae R. and Kjell E. Rudestam. 1999. Your Statistical Consultant. pp.187-192.

**11/27 No class - Thanksgiving break****12/4 Scaling and index construction; Factor analysis; Missing data; Interactions**

- e Babbie, Earl. 2004. *The Practice of Social Research, 10th ed.*, pp. 151-167  
(note: the selection on e-reserves is titled "Indexes, Scales, and Typologies" and includes additional pages that you are free to ignore).
- m Mertler, Craig A., and Rachel A. Vannatta. 2005. *Advanced and Multivariate Statistical Methods*. Pyczak Publishing, Ch. 9 (factor analysis).
- e Cole, Jason C. 2008. "How to Deal With Missing Data." In *Best Practices in Quantitative Methods*, ed. J. W. Osborne.
- e Newton, Rae R. and Kjell E. Rudestam. 1999. Your Statistical Consultant. pp. 271-275.

**12/11 Variable selection and model building**

- e King, Gary, Robert Keohane, and Sidney Verba. 1994. *Designing Social Inquiry*, ch. 5: "Understanding What to Avoid."
- e Bartels, Larry M. 1990. "Five Approaches to Model Specification." *The Political Methodologist* 3(2):2-6.
- e Green, Donald P. 1990. "On the Value of Not Teaching Students to Be Dangerous." *The Political Methodologist* 3(2):7-9.

**1/6 - 1/17 Make up class: presentation of student project results**

## Additional Resources

### *Missing values*

Allison, Paul D. 2002. *Missing Data*. Vol. 136, *Sage Quantitative Applications in the Social Sciences*. Thousand Oaks, CA: Sage.

King, G., J. Honaker, A. Joseph, and K. Scheve. 2001. Analyzing incomplete political science data: An alternative algorithm for multiple imputation. *American Political Science Review* 95 (1):49-69.

Gary King's program Amelia implements the multiple imputation procedure for missing data described in the above article. Various versions of Amelia and documentation are available at:

<http://gking.harvard.edu/stats.shtml>

### *Survey design and administration*

Salant, Priscilla, and Don A. Dillman. 1994. *How to conduct your own survey*. New York: Wiley. (Fairly basic but very practical nuts and bolts type text.)

Groves, Robert M. 2004. *Survey methodology*, *Wiley series in survey methodology*. Hoboken, NJ: J. Wiley. (A detailed treatment of survey design and data collection; more theoretically oriented than the others.)

Presser, Stanley, and Johnny Blair. 1994. Survey Pretesting - Do Different Methods Produce Different Results. *Sociological Methodology 1994*, Vol. 24 24:73-104. (Exactly what it sounds like.)

<http://experimentalturk.wordpress.com/> (A useful resource for discussion and links concerning experimental research on the web and subject recruiting through Mechanical Turk.)

### *Analyzing list experiments*

Corstange, Daniel. "Sensitive Questions, Truthful Answers? Modeling the List Experiment with Listit." *Political Analysis* 17, no. 1 (December 21, 2009 2009): 45-63.

Glynn, Adam N. "What Can We Learn with Statistical Truth Serum?: Design and Analysis of the List Experiment." *Public Opinion Quarterly* 77, no. S1 (January 1, 2013 2013): 159-72.

Imai, Kosuke. "Multivariate Regression Analysis for the Item Count Technique." *Journal of the American Statistical Association* 106, no. 494 (2011/06/01 2011): 407-16.

Streb, Matthew J., Barbara Burrell, Brian Frederick, and Michael A. Genovese. "Social Desirability Effects and Support for a Female American President." *Public Opin Q* 72, no. 1 (March 1, 2008 2008): 76-89.