

Taylor Hudson Lewis

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EDUCATION

Doctor of Philosophy, Survey Methodology, December 2014

University of Maryland, College Park, MD

Thesis Title: *Testing for Phase Capacity in Surveys with Multiple Waves of Nonrespondent Follow-Up* (available for download at:

http://drum.lib.umd.edu/bitstream/1903/16262/1/Lewis_umd_0117E_15756.pdf)

Thesis Co-Advisors: Frauke Kreuter and Partha Lahiri

Master of Science, Survey Methodology, May 2009

University of Maryland, College Park, MD

Bachelor of Science, Statistics, May 2005

Virginia Tech, Blacksburg, VA

Minors: Mathematics, Professional Writing

WORK EXPERIENCE

Senior Research Statistician, Research Triangle Institute (RTI) International,

Washington, DC

October 2018 –

- Serves as Lead Statistician for the National Center for Health Statistics' National Survey of Family Growth, the Chicago Department of Public Health's Healthy Chicago Survey, the Los Angeles Department of Public Health's Los Angeles County Health Survey
- Conducts research into various survey methodology topics, such as address-based sampling approaches, strategies for reducing nonresponse bias, implementing responsive/adaptive survey designs
- Technical lead for business development and proposals

Senior Data Scientist, U.S. Office of Personnel Management, Washington, DC

July 2016 – October 2018

- Consulted on research and evaluation studies within various divisions of the agency, including Retirement Services, Employee Services, Inspector General, and Planning and Policy Analysis
- Collaborated with external researchers from academia, other government agencies, and private industry on the analysis of restricted federal employee data maintained by OPM
- Served on program planning committee for annual OPM Research Summit

Mathematical Statistician, U.S. Office of Personnel Management, Washington, DC
June 2011 – July 2016

- Designed and managed sample for the Federal Employee Viewpoint Survey (FEVS), an annual survey over 900,000 full- and part-time government employees from over 80 agencies
- Proposed and validated disclosure avoidance techniques utilized to develop public-use data sets derived from the FEVS
- Consulted with the Inspector General's Office on designing statistical samples for audits of questionable health-care insurance claim payments

Survey Statistician, National Center for Health Statistics, Hyattsville, MD

November 2009 – June 2011

- Consulted on sampling, weighting, and variance estimation issues in the National Survey of Family Growth
- Served as part of the management team monitoring data collection, estimates, and inferences pertaining to the National Immunization Survey
- Researched alternative imputation methods to account for missing patient race and ethnicity data in the National Ambulatory Medical Care Survey
- Statistical software liaison and training coordinator

Statistician, U.S. Office of Personnel Management, Washington, DC

June 2005 – November 2009

- Performed sampling for numerous survey projects, including the biennial Federal Human Capital Survey
- Independently verified contractor's methodologies in weighting, significance testing, and overall reporting of survey results
- Developed original course material for internal SAS training
- Initiated and served as lead investigator on independent studies – for instance, comparing survey weighting methods, modeling factors related to federal employee promotions, and analyzing federal employee retirement savings behaviors

Intern, Ernst & Young, LLP, Washington, DC

Summer 2004

- Aided senior staff in developing presentations given at the 2004 Joint Statistical Meetings of the American Statistical Association
- Wrote memoranda to clients documenting methodology of audit sampling work performed by Ernst & Young
- Managed, analyzed, and reported on data from various survey projects

Intern, U.S. Patent and Trademark Office, Arlington, VA

Summer 2003

- Developed and managed patent information data sets used in geographical analysis report of patent grants
- Performed error-checking of patent information data sets and general database management duties

Tutor, Virginia Tech Athletics Department, Blacksburg, VA
Fall 2002 – Spring 2005

- Helped student-athletes enrolled in a broad range of statistics courses comprehend core concepts while completing homework assignments or preparing for examinations

Intern, U.S. Census Bureau, Suitland, MD
Summer 2002

- Conducted study of regional economic differentials in the United States between 1950 and 2000, presenting results to management alongside fellow interns
- Analyzed Hispanic migration patterns within the continental United States between 1990 and 2000

AWARDS

Highly Published Author Award, RTI International, 2021, 2022, 2023
President's Award, RTI International, 2021
Early Career Author Award, RTI International, 2020
Distinguished Service Award for Adjunct Teaching, Department of Statistics, George Mason University, 2018
Joint Statistical Meetings (JSM) Student Paper Competition Winner, Consortium of the Social Statistics, Government Statistics, and Survey Research Methods Sections of the American Statistical Association, 2014
Rensis Likert Fund Travel Grant Award, University of Michigan, 2012
Jacob K. Goldhaber Student Travel Grant Award, University of Maryland, 2011
World Association for Public Opinion Research (WAPOR) Conference Travel Grant, University of Amsterdam, 2011
SAS Student Ambassador, 2010
Director's Award for Excellence, 2007, U.S. Office of Personnel Management
Clyde Y. Kramer Award, Virginia Tech Department of Statistics, 2005
Sherwood Blue Scholarship, Theta Chi National Fraternity, 2004

AFFILIATIONS AND SERVICE

Adjunct Professor, Statistics, George Mason Univ., 2016 –
Adjunct Assistant Professor, Survey Methodology, Univ. of Maryland, 2017 –
Adjunct Assistant Professor, Epidemiology/Biostatistics, Univ. of Maryland, 2018 –
2022
Professorial Lecturer, Biostatistics/Bioinformatics, George Washington Univ., 2022
Adjunct Instructor, Biostatistics, Univ. of North Carolina, 2022
Adjunct Professor, Mathematical Sciences, George Mason Univ., 2020 – 2021
Council of Chapters Representative, Washington Statistical Society, 2022 –
Mentor, Washington Statistical Society Mentorship Program, 2020 –
Member, American Statistical Association Committee on Membership, Retention, and
Recruitment, 2019 – 2021
Reviewer, *Journal of Survey Statistics and Methodology*, 2018, 2020, 2022, 2023,
2024
Reviewer, *Field Methods*, 2018, 2021, 2023, 2024

Reviewer, *Sociological Methodology and Research*, 2024
Reviewer, *Survey Methods: Insights from the Field*, 2023
Reviewer, *Survey Methodology*, 2023, 2024
Reviewer, *American Journal of Public Health*, 2023
Reviewer, *Statistics and Operations Research Transactions*, 2022, 2023
Reviewer, *Journal of Public Health Management & Practice*, 2022
Reviewer, *Journal of Public Health*, 2021
Reviewer, *BMC Public Health*, 2019
Reviewer, *Journal of Modern Applied Statistical Methods*, 2019
Reviewer, *Social Science Computer Review*, 2018
Reviewer, *Journal of Official Statistics*, 2016, 2018
Reviewer, *IEEE Access*, 2017, 2018
Reviewer, *BMC Medical Research Methodology*, 2017
Reviewer, *Statistics in Medicine*, 2016
Member, International Association of Survey Statisticians
Member, American Statistical Association
Member, Washington Statistical Society
Member, Washington, DC Chapter of the American Association for Public Opinion Research (DC-AAPOR)
President, Virginia Tech Statistics Club, 2003 – 2004

BOOK

Lewis, T. (2016). *Complex Survey Data Analysis with SAS®*. Chapman and Hall/CRC Press. <https://www.routledge.com/Complex-Survey-Data-Analysis-with-SAS/Lewis/p/book/9781498776776>.

PEER-REVIEWED PAPERS

Lippert, J., Lewis, T., Bruce, D., Trifunovic, N., Singh, M., and Prachand, N. (*in press*). “Work-Related Factors of Mental Health among Chicago Residents Two Years into the COVID-19 Pandemic.” *Journal of Occupational and Environmental Hygiene*.

Schober, D., Bruce, D., Lewis, T., Keller, A., Lippert, J., Singh, M., Matzke, H., and Prachand, N. (2024). “The Effects of Interpersonal Violence on Sleep Following the COVID-19 Stay-at-Home Order.” *American Journal of Health Promotion*, 38(3), pp. 375 – 383.

Lewis, T., McMichael, J., and Looby, C. (2023). “Mail to One or Mail to All? An Experiment (Sub)Sampling Drop Point Units in a Self-Administered Address-Based Sampling Frame Survey.” *Survey Practice*, 16(1).

Lewis, T., and McMichael, J. (2023). “Using the Census Planning Database to Generate Differential Expected Yield Rates to Self-Administered Mail Surveys.” *Field Methods*, 35(2), pp. 160 – 165.

- Lewis, T., McMichael, J., and Looby, C. (2023). "Evaluating Substitution as a Strategy for Handling U.S. Postal Service Drop Points in Self-Administered Address-Based Sampling Frame Surveys." *Sociological Methodology*, **53**(1), pp. 158 – 175.
- Moore, A., Lewis, T., Abah, T., Celebi, M., and Amey, F. (2023). "Examining Participation Disparities in Cancer Clinical Trials." *Oncology Nursing Forum*, **50**(1), pp. 79 – 89.
- Lewis, T., Freedner, N., and Looby, C. (2022). "An Experiment Comparing Concurrent and Sequential Choice+ Mixed-Mode Data Collection Protocols in a Self-Administered Health Survey." *Survey Methods: Insights from the Field*.
<https://surveyinsights.org/?p=17134>.
- Jiao, K., Wei, R., Li, H., Chow, E., Piqueiras, E., Lewis, T., Xu, Z., Ren, C., and Ma, W. (2022). "HIV Testing Frequency and Associated Factors among Five Key Populations in Ten Cities of China: A Cross-Sectional Study." *BMC Infectious Diseases*, **22**.
- Unangst, J., Lewis, T., Laflamme, E., Prachand, N., and Weaver, K. (2022). "Transitioning the Healthy Chicago Survey from a Telephone Mode to Self-Administered by Mail Mode." *Journal of Public Health Management & Practice*, **28**(3), pp. 309 – 316.
- Levine, B., Lewis, T., Nonnemaker, J., and Farrelly, M. (2021). "Standardized Calibration Adjustment Index (SCAI)—A New Measure of Survey Data Quality." *Statistical Journal of the IAOS*, **37**(2), pp. 603 – 610.
- Li, H., Piqueiras, E., Chow, E.P.F., Jiao, K., Lewis, T., and Ma, W. (2021). "HIV Non-Occupational Post-Exposure Prophylaxis (nPEP) Awareness and Promotion among Five Key Populations in China: A Cross-Sectional Study." *The Lancet Regional Health - Western Pacific*, **7**.
- Li, H., Wei, R., Piqueiras, E., Chow, E.P.F., Jiao, K., Lewis, T., and Ma, W. (2021). "HIV Non-Occupational Postexposure Prophylaxis (nPEP) Usage among Five Key Populations in China." *Sexually Transmitted Infections*, **97**(6), pp. 411 – 413.
- Lewis, T. (2020). "Assessing Nonresponse Bias by Permitting Individuals to Opt Out of a Survey." *Survey Methods: Insights from the Field*.
<https://surveyinsights.org/?p=13357>.
- Lewis, T., Gorsak, M., and Yount, N. (2019). "An Automated Refusal Conversion Strategy for Web Surveys." *Field Methods*, **31**(4), pp. 309 – 327.
- Lewis, T. (2019). "Multivariate Tests for Phase Capacity." *Survey Research Methods*, **13**(2), pp. 153 – 165.

Lewis, T. (2017). “Univariate Tests for Phase Capacity: Tools for Identifying When to Modify a Survey’s Data Collection Protocol.” *Journal of Official Statistics*, **33**(3), pp. 601 – 624.

Lewis, T., and Hess, K. (2017). “The Effect of Alternative Email Contact Timing Strategies on Response Rates in a Self-Administered Web Survey.” *Field Methods*, **29**(4), pp. 351 – 364.

Lewis, T. (2017). “Temporal Perspectives of Nonresponse During a Survey Design Phase.” *methods, data, analyses*, **11**(2), pp. 189 – 206.

Lewis, T., and Latimore, L. (2017). “Are Response Rates to Organizational Climate Surveys Influenced by Informing Respondents about the Sampling Strategy?” *Survey Practice*, **10**(2).

Sigman, R., Lewis, T., Yount Dyer, N., and Lee, K. (2014). “Does the Length of Fielding Period Matter? Examining Response Scores of Early versus Late Responders.” *Journal of Official Statistics*, **30**(4), pp. 651 – 674.

Lewis, T., Goldberg, E., Schenker, N., Beresovsky, V., Schappert, S., Decker, S., Sonnenfeld, N., and Shimizu, I. (2014). “The Relative Impacts of Design Effects and Multiple Imputation on Variance Estimates: A Case Study with the 2008 National Ambulatory Medical Care Survey.” *Journal of Official Statistics*, **30**(1), pp. 147 – 161.

**OTHER
PAPERS/
TALKS**

Zimmer, S., McMichael, J., and Lewis, T. (2024). “Age-Eligibility Oversampling to Reduce Screening Costs in a Multimode Survey.” Presentation to be given at the Joint Statistical Meetings of the American Statistical Association. Portland, Oregon, August 3 – 8.

Forbes, C., Schober, D., Lewis, T., Keller, A., and Bruce, D. (2024). “The Effects of Neighborhood Violence on Physical Activity following the COVID-19 Stay-at-Home Order: A Multilevel Analysis.” Poster presentation to be given at the Institute for Public Health and Medicine (IPHAM) Population Health Forum. Chicago, IL, April 4.

Lewis, T. (2024). “Improving Healthy Chicago Survey Respondent Representativeness with Alternative “Next Birthday” Applications.” Virtual presentation given for the Joint Program in Survey Methodology Survey Design Seminar. January 31.

Schober, D., Keller, A., Bruce, D., Lewis, T., and Forbes, C. (2023). “Examining Perceptions of Neighborhood Safety on Physical Activity following the COVID-19 Pandemic.” Presentation given at the annual conference of the American Public Health Association. Atlanta, GA, November 12 – 15.

Lewis, T., McMichael, J., and Looby, C. (2023). “Evaluating Three Ways to Handle Drop Points in Address-Based Sampling Frame Surveys.” Presentation given at the

Joint Statistical Meetings of the American Statistical Association. Toronto, Ontario, Canada, August 5 – 10.

Zimmer, S., McMichael, J., and Lewis, T. (2023). “Creating Compact Sampling Units Meeting Population Constraints for In-Person Surveys.” Presentation given at the Joint Statistical Meetings of the American Statistical Association. Toronto, Ontario, Canada, August 5 – 10.

Lee, N., Lewis, T., Scott, L., Prachand, N., Singh, M., and Matzke, H. (2023). “The Use of QR Codes to Increase Rate of Survey Participation in a Web Survey.” Presentation given at the annual conference of the American Association for Public Opinion Research. Philadelphia, PA, May 11 – 13.

Schober, D., Bruce, D., McLone, S., Lewis, T., Lippert, J., Singh, M., and Prachand, N. (2022). “The Effects of Violence on Sleep During the COVID-19 Pandemic.” Poster presentation given at the annual research symposium of the University of Chicago’s Center for Chronic Disease Research and Policy. Chicago, IL, October 25.

Lewis, T. (2022). “An Overview of Weighting in the Healthy Chicago Survey.” Virtual presentation given to Chicago Department of Public Health Staff and Research Collaborators. October 4.

Lewis, T., McMichael, J., and Looby, C. (2022). “Evaluating Substitution as a Strategy for Handling Drop Points in Self-Administered Address-Based Sampling Frame Surveys.” Presentation given at the Joint Statistical Meetings of the American Statistical Association. Washington, DC, August 6 – 11.

Lewis, T., Janda, K., Robbins, E., Rhodes, B., Russell, S., Pelczar, M., Birnbaum, M., and Soffronoff, J. (2022). “State Library Administrative Agency Adaptations in the Initial Months of the COVID-19 Pandemic and Ongoing Trends.” Washington, DC: Institute of Museum and Library Services.

Birnbaum, M., Smith, A., Lewis, T., and Russell, S. (2021). “Modernization of IMLS Grant Program Evaluation and Monitoring Capabilities.” Presentation given at the virtual American Library Association Conference, June 26.

Lewis, T., Liao, D., Berzofsky, M., and Cooper, A. (2020). “Combining Probability and Non-Probability Sample Data from Administrative Data to Produce Official Statistics,” Presentation given at the virtual BigSurv20 Conference, November 20.

Amaya, A., Smith, A., Lewis, T., Krotki, K., and Ridenhour, J. (2020). “Recommendations for Improvements to the National Recreational Boating Safety Survey (NRBSS).” Technical report prepared for the United States Coast Guard.

Levine, B., Vaish, A., Lewis, T., and Harter, R. (2019). “Combining Data from a Probability and Nonprobability Sample Using a Composite Estimator.” Presentation

given at the Joint Statistical Meetings of the American Statistical Association. Denver, CO, July 28 – August 2.

Lewis, T. (2019). “Assessing Nonresponse Bias by Permitting Individuals to Opt Out of a Survey.” Presentation given at the International Total Survey Error Workshop. Bergamo, Italy, June 10 – 12.

Frechtel, P., Lewis, T., and Scott, V. (2019). “On the Measurement of Item Response Rates.” Presentation given at the annual conference of the American Association for Public Opinion Research. Toronto, Ontario, Canada, May 16 – 19.

Goda, G., Lee, K., Lewis, T., Levy, M., Manchester, C., Raviele, M., Rogers, K., Sojourner, A., and Tasoff, J. (2018). “Improving Federal Employee Retirement Preparedness with the Ballpark Savings Estimate Tool.” Technical report prepared for the Office of Strategy and Innovation of the U.S. Office of Personnel Management.

Lewis, T. (2018). “An Introduction to Statistical Methodologies for HR Analytics.” Webinar recorded October 9 for the HRStat Community of Practice. October 9.

Lewis, T. (2018). “Applying Statistical Techniques to Identify Patterns and Emerging Trends.” Presentation given at the Future of Federal Work Workshop Sponsored by HRStat Community of Practice. Washington, DC, April 24.

Lewis, T. (2018). “Univariate Tests for Phase Capacity: Tools for Identifying When to Modify a Survey’s Data Collection Protocol.” Workshop on Responsive and Adaptive Survey Design Cosponsored by the *Journal of Official Statistics* (JOS) and the Washington DC Chapter of the American Association of Public Opinion Research (DC-AAPOR). Washington, DC, March 14.

Lewis, T., Gorsak, M., and Yount, N. (2018). “An Automated Refusal Conversion Strategy for Web Surveys.” Paper presented at the Federal Committee on Statistical Methodology (FCSM) Research and Policy Conference. Washington, DC, March 7 – 9.

Gorsak, M., Lewis, T., and Frank, J. (2018). “Understanding Their Apprehension: A Look into the Federal Employee Viewpoint Survey.” Presentation given at the Federal Committee on Statistical Methodology Research and Policy Conference. Washington, DC, March 7 – 9.

Lewis, T., and Latimore, L. (2017). “Releasing Partially Synthetic Data for Increased Respondent Confidentiality Protection.” Presentation given at the annual conference of the American Evaluation Association. Washington, DC, November 7 – 11.

Lewis, T. (2017). “Multivariate Tests for Phase Capacity.” Presentation given at the 5th BADEN Workshop on Adaptive and Responsive Survey Design. Ann Arbor, MI, November 6 – 7.

Lewis, T., and Krenzke, T. (2017). “Can a Synthetic Data Approach Applied to High Risk Data Result in Usable Data With a Very Low Risk? Application to the Federal Employee Viewpoint Survey.” Presentation given at the FCSM/CDAC Workshop on New Advances in Disclosure Limitation. Washington, DC, September 27.

Lewis, T. (2017). “Synthetic Data: A Primer.” Invited presentation for the Social Security Administration’s Data Science Technology Exchange Seminar. Baltimore, MD, August 8.

Lewis, T., and Latimore, L. (2017). “Synthetic Data: Where Data Disclosure, Privacy, and Dissemination Collide.” Presentation given at the U.S. Office of Personnel Management Research Summit. Washington, DC, June 7.

Lewis, T. (2017). “Estimation Strategies Involving Pooled Survey Data.” Invited paper presented at the SAS Global Forum. Orlando, FL, April 2 – 5.

Lewis, T., Ezoua, S., Lee, K., and Hess, K. (2017). “Where is the Federal Employee Retirement Tsunami? A Look Back at Twenty Years of Retirement Data.” Paper presented at the Federal Employee Health Benefits (FEHB) Program Carrier Conference. Arlington, VA, March 23 – 24.

Lewis, T., and Ezoua, S. (2016). “A Simple SAS® Macro to Perform Blinder-Oaxaca Decomposition.” Paper presented at the Southeast SAS Users Group (SESUG) Conference. Bethesda, MD, October 16 – 18.

Lewis, T. (2016). “Developing a Partially Synthetic Federal Employee Viewpoint Survey Public-Release Data File: Preliminary Results.” Presentation given at the Meeting on Synthetic Data and Implications for the U.S. Office of Personnel Management. Washington, DC, August 31.

Lewis, T. (2016). “A Brief Tutorial on Response Rates to the Federal Employee Viewpoint Survey (FEVS).” Webinar recorded August 4 for audience of FEVS data users.

Lewis, T., Latimore, L., and Graf, N. (2016). “Are There Substantive Differences between Sampling and Censusing Employees in Organizational Climate Surveys?” Presentation given at the FedCASIC Workshops. Suitland, MD, May 3 – 4.

Lewis, T., Johnson, J., and Muha, C. (2016). “The Use of Statistical Sampling in Auditing Health-Care Insurance Claim Payments.” Invited paper presented at the SAS Global Forum. Las Vegas, NV, April 18 – 21.

Lewis, T. (2016). “Adventures Teaching Abroad in Germany.” Presentation given at the U.S. Office of Personnel Management’s Planning and Policy Analysis Division All-Hands Meeting. Washington, DC, March 23.

Marvel, J., and Lewis, T. (2016). “Turnover Intent vs. Actual Turnover: Who Follows Through and Why?” Presentation given at the 2016 U.S. Office of Personnel Management Research Summit. Washington, DC, March 8 – 9.

Lewis, T., and Hess, K. (2015). “An Experiment Testing Alternative Email Contact Timing Strategies in a Web-Based Survey of Federal Personnel.” Paper presented at the Federal Committee on Statistical Methodology (FCSM) Research Conference. Washington, DC, December 1 – 3.

Lewis, T. (2015). “A Note on Calculating Federal Employee Viewpoint Survey Indices at the Work-Unit Level versus at the Individual Level.” Technical report prepared for the Planning and Policy Analysis Division of the U.S. Office of Personnel Management.

Lewis, T. (2015). “An Introductory Overview of the Features of Complex Survey Data.” Invited paper presented at the SAS Global Forum. Dallas, TX, April 26 – 29.

Lewis, T. (2015). “Replication Techniques for Variance Approximation.” Invited paper presented at the SAS Global Forum. Dallas, TX, April 26 – 29.

Lewis, T. (2015). “Methods for Detecting Survey Estimate Stability during a Fixed Data Collection Protocol.” Brown bag seminar given at the U.S. Government Accountability Office. Washington, DC, March 11.

Lewis, T. (2015). “Multivariate Tests for Phase Capacity.” Presentation given at the FedCASIC Workshops. Suitland, MD, March 4 – 5.

Hess, K., and Lewis, T. (2015). “Does “When” Matter? An Exploration of Timestamp Data on the Federal Employee Viewpoint Survey.” Presentation given at the FedCASIC Workshops. Suitland, MD, March 4 – 5.

Lewis, T. (2014). “Testing for Phase Capacity in Surveys with Multiple Waves of Nonrespondent Follow-Up.” Paper presented at the Joint Statistical Meetings of the American Statistical Association. Boston, MA, August 2 – 7.

Lewis, T., Hess, K., Ezoua, S., and Marcu, M. (2014). “The Challenge in Forecasting Federal Employee Retirements.” Presentation given at the Federal Forecasters Conference. Washington, DC, April 24.

Lewis, T. (2013). “Tools for Imputing Missing Data.” Paper presented at the Western Users of SAS Software (WUSS) Conference. Las Vegas, NV, November 13 – 15.

Lewis, T. (2013). “PROC SURVEYSELECT as a Tool for Drawing Random Samples.” Paper presented at the Southeast SAS Users Group (SESUG) Conference. St. Pete Beach, FL, October 20 – 23.

Lewis, T. (2013). "Analyzing Categorical Variables from Complex Survey Data Using PROC SURVEYFREQ." Paper presented at the Midwest SAS Users Group (MWSUG) Conference. Columbus, OH, September 22 – 24.

Lewis, T. (2013). "Analyzing Continuous Variables from Complex Survey Data Using PROC SURVEYMEANS." Paper presented at the Midwest SAS Users Group (MWSUG) Conference. Columbus, OH, September 22 – 24.

Lewis, T. (2013). "Considerations and Techniques for Analyzing Domains of Complex Survey Data." Invited paper presented at the SAS Global Forum. San Francisco, CA, April 28 – May 1.

Lewis, T. (2012). "Modeling Complex Survey Data." Paper presented at the Midwest SAS Users Group (MWSUG) Conference. Minneapolis, MN, September 16 – 18.

Lewis, T. (2012). "Weighting Adjustment Methods for Nonresponse in Surveys." Invited paper presented at the Western Users of SAS Software (WUSS) Conference. Long Beach, CA, September 5 – 7.

Lewis, T. (2012). "Incorporating the Sampling Variability from an Employee Perception Survey into the Ranking Process of U.S. Government Agencies." Paper presented at the Fourth International Conference on Establishment Surveys (ICES-IV). Montreal, Quebec, Canada, June 11 – 14.

Lewis, T. (2011). "Tailoring Logistic Regression Model Analyses with the ODDSRATIO Statement in PROC LOGISTIC." Paper presented at the Southeast SAS Users Group (SESUG) Conference. Alexandria, VA, October 23 – 25.

Lewis, T. (2011). "A Survey Stopping Rule Based on Weighting for Nonresponse." Paper presented at the annual conference of the World Association for Public Opinion Research (WAPOR). Amsterdam, The Netherlands, September 21 – 23.

Noel, H., Lewis, T., Maitland, A., and Ridolfo, H. (2011). "Approaches for Handling Missing Sexual Identity Data." Paper presented at the Joint Statistical Meetings of the American Statistical Association. Miami, FL, July 30 – August 4.

Lewis, T., Khare, M., and Singleton, J. (2011). "On the Utility of Record-of-Call Paradata in the National Immunization Survey." Presentation given at the Statistical Methods Symposium of the Centers for Disease Control and Prevention, Decatur, GA, May 24 – 25.

Lewis, T., Khare, M., and Singleton, J. (2011). "Exploring Record-of-Call Paradata in an RDD Survey." Poster presented at the annual conference of the American Association for Public Opinion Research. Phoenix, AZ, May 12 – 15.

Lewis, T, and Khare, M. (2010). “A Comparison of Conventional Weighted Estimates of Vaccination Coverage with Estimates from Imputed Data Using Available Software.” Presentation given at the National Conference on Health Statistics. Washington, DC, August 16 – 18.

Lewis, T, and Khare, M. (2010). “Evaluating Imputation Methods and Software for Missing Vaccine Dose Information in the National Immunization Survey.” Paper presented at the Joint Statistical Meetings of the American Statistical Association. Vancouver, British Columbia, Canada, July 31 – August 5.

Lewis, T. (2010). “Principles of Proper Inferences from Complex Survey Data.” Paper presented at the SAS Global Forum. Seattle, WA, April 11 – 14.

Lewis, T., Turner, M.C., Heim, R., and Moore, E. (2009). “Assessing Survey Estimates of Intent to Leave with Personnel Data.” Poster presented at the Joint Statistical Meetings of the American Statistical Association. Washington, DC, August 1 – 6.

Lewis, T. (2008). “Complex Survey Data Analysis in SAS® and the Link between PROC SURVEYFREQ and SURVEYMEANS.” Paper presented at the Southeast SAS Users Group (SESUG) Conference. Tampa, FL, October 19 – 22.

Lewis, T., Joseph, K., and Moore, E. (2008). “Analyzing Weighting Methods in the Federal Human Capital Survey.” Presentation given at the Joint Statistical Meetings of the American Statistical Association. Denver, CO, August 3 – 7.

Lewis, T. (2007). “PROC LOGISTIC: The Logistics Behind Interpreting Categorical Variable Effects.” Paper presented at the Northeast SAS Users Group (NESUG) Conference. Baltimore, MD, November 11 – 14.

Joseph, K., and Lewis, T. (2007). “Performing Iterative Processes with the Macro Facility.” Paper presented at the Northeast SAS Users Group (NESUG) Conference. Baltimore, MD, November 11 – 14.

TEACHING EXPERIENCE

Semester Courses

- **Survey Sampling I** (STAT574) – discussion of common survey sampling designs such as simple random, systematic, stratified, clustered, and probability proportional to size, as well as sample allocation strategies and ratio and regression estimators. George Mason University, Fall 2017, Fall 2018, Fall 2019, Fall 2020, Fall 2021, Fall 2022, Fall 2023.
- **Survey Sampling II** (STAT674) – analysis of complex survey data, domain estimation, replication techniques for variance estimation, weighting and imputation. George Mason University, Spring 2017, Spring 2018, Spring 2020, Spring 2023, Spring 2024.

- **Introduction to Survey Sampling** (STAT474) – undergraduate-level course on common survey sampling designs such as simple random, systematic, stratified, or clustered, as well as sample allocation strategies and ratio and regression estimators. George Mason University, Fall 2019, Fall 2020, Fall 2021, Fall 2022, Fall 2023.
- **Survey Sampling** (SOC1754) – graduate-level course for the Odum Institute’s Certificate in Survey Science (CSS), covering topics in applied sampling such as simple random, systematic, stratified, or clustered sample designs, sample size determination and allocation. University of North Carolina, Fall 2024.
- **Sample Survey Methodology** (BIOS664) – hybrid undergraduate- and graduate-level course covering topics in applied sampling such as simple random, systematic, stratified, or clustered sample designs, sample size determination and allocation, sources of survey error, and analysis of complex survey data with SAS and SUDAAN. University of North Carolina, Spring 2022.
- **Analysis of National Health Survey Data** (EPIB660) – online course focusing on the analysis of complex survey data produced from nationally representative public health surveys. University of Maryland, Summer 2018, Summer 2020, Summer 2021, Summer 2022.
- **Analysis of Complex Survey Data** (SURV701) – graduate-level course discussing how to account for weights, stratification, clustering, missing data in survey data, with an emphasis on alternative variance estimation methods and regression modeling. University of Maryland, Spring 2023, Spring 2024.
- **Biostatistical Applications for Public Health** (PUBH6002) – graduate-level course on the application of biostatistical principles to the critical analysis of retrospective studies, prospective studies, controlled clinical trials, and studies in the health services literature. George Washington University, Spring 2022.
- **Probability and Statistics for Engineers and Scientists I** (STAT344) – intermediate statistics course with applications to computer science, engineering, operations research, and information technology. George Mason University, Spring 2021, Spring 2023.
- **Statistical Modeling I** (SURV615) – a graduate-level statistical methods course covering linear regression, ANOVA, experimental design, random and mixed effects regression models. Joint Program in Survey Methodology, University of Maryland, Fall 2017, Fall 2018, Fall 2019.
- **Statistical Modeling II** (SURV616) – second part of a two-semester graduate-level statistical methods course covering multivariate statistics, modeling strategies for longitudinal data, and an introduction to survival analysis and time series methods.

Joint Program in Survey Methodology, University of Maryland, Spring 2018, Spring 2019, Spring 2020.

- **Introductory Statistics I** (STAT250) – an elementary introduction to statistics, covering topics such as descriptive statistics, measures of dispersion, fundamentals of probability, and basics of estimation and hypothesis testing. George Mason University, Spring 2016, Fall 2016, Spring 2017.
- **Quantitative Reasoning** (MATH106) – an elementary mathematics course covering topics such as logic, strategies for graphing and tabulating data, fundamentals of probability and statistics, and financial mathematics. George Mason University, Fall 2020, Spring 2021.
- **Handling Nonresponse in Surveys** – a seminar exploring the causes and consequences of missing data in applied survey research, methods for quantifying the potentially detrimental effect it poses, and techniques to compensate for it. University of Mannheim, Fall 2015.

Short Courses

- **SUDAAN Modeling Procedures** – a two-day course demonstrating how to fit and interpret linear regression, logistic regression, Poisson regression, and Cox proportional hazards regression models to complex survey data via the REGRESS, RLOGIST, MULTLOG, LOGLINK, and SURVIVAL procedures in SAS-callable SUDAAN. Given at the following venues:
 - (1) Virtual course offered to Centers for Disease Control and Prevention (CDC) personnel, September 20 – 23, 2022
- **Fundamentals of Sampling** – a primer on designing and analyzing a sample to make population inferences, considerations that go into determining the necessary sample size to meet a preset precision threshold, and extensions to stratified sampling and cluster sampling. Given at the following venues:
 - (1) U.S. Office of Personnel Management, Washington, DC, March 2, 2016
 - (2) SAS Global Forum, Las Vegas, NV, April 21, 2016
- **Complex Survey Data Analysis with SAS** – a course discussing the four features of complex surveys—stratification, clustering, unequal weights, and finite population corrections—and concepts of domain estimation, replication variance approximation methods, and nuances associated with fitting regression models to survey data. Given at the following venues:
 - (1) Northeast SAS Users Group Conference, Portland, ME, September 11, 2011
 - (2) Southeast SAS Users Group Conference, Alexandria, VA, October 25, 2011
 - (3) Western Users of SAS Software Conference, Long Beach, CA, September 8, 2012
 - (4) Midwest SAS Users Group Conference, Minneapolis, MN, September 15, 2012
 - (5) SAS Global Forum, Orlando, FL, April 2, 2017

- **Imputation Methods** – an introductory course discussing tools within SAS to perform a variety of imputation methods, including a comprehensive discussion of multiple imputation. Given at the following venues:
 - (1) Pharmaceutical Industry SAS Users Group Conference, Chicago, IL, May 12, 2013

- **Handy SAS Functions** – a course highlighting useful SAS functions, such as those to manipulate and extract information from character variables, transform and calculate descriptive statistics about numeric variables, and date and time functions. Given at the following venues:
 - (1) Northeast SAS Users Group Conference, Burlington, VT, September 7, 2013
 - (2) Midwest SAS Users Group Conference, Columbus, OH, September 20, 2013
 - (3) Southeast SAS Users Group Conference, St. Pete Beach, FL, October 20, 2013
 - (4) Southeast SAS Users Group Conference, Bethesda, MD, October 16, 2016

- **Data Visualization with Minimal Coding: An Introduction to the Statistical Graphics Procedures** – an introductory course demonstrating the suite of SG (Statistical Graphics) procedures with examples of common data summarizations such as scatterplots, time series plots, histograms, and bar charts. Given at the following venues:
 - (1) Midwest SAS Users Group Conference, Columbus, OH, September 20, 2013
 - (2) Western Users of SAS Software Conference, Las Vegas, NV, November 15, 2013