

Lane F. Burgette

CONTACT INFORMATION

RAND Corporation
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Arlington, VA 22202-5050

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EDUCATION

University of Wisconsin, Madison, Wisconsin

- Statistics PhD, August 2009
Dissertation committee: Profs. Erik Nordheim (chair), Grace Wahba, Bret Larget, John Logan (Sociology), Jim Walker (Economics)
- Statistics MS, December 2006

Whitman College, Walla Walla, Washington

- BA in Mathematics, Geology minor, May 2003

CURRENT POSITION

Statistician
RAND Corporation
Previously, Associate Statistician, September 2011 - June 2014.

June 2014 to current
Arlington, VA

PREVIOUS RESEARCH EXPERIENCE

Postdoctoral Research Associate
Duke University (Prof. Jerry Reiter)

August 2009 to August 2011
Durham, NC

Research Assistant
University of Wisconsin (Prof. Alberto Palloni)

September 2008 to August 2009
Madison, WI

NSF-EAPSI Fellow
University of Tokyo (Prof. Yasuhiro Omori)

June to August, 2007
Tokyo, Japan

NICHD Predoctoral Trainee Center for
Demography and Ecology
University of Wisconsin

September 2006 to August 2008
Madison, WI

JOURNAL ARTICLES

Hussey, P.S., J.W. Timbie, **L.F. Burgette**, N.S. Wenger, D. Nyweide, K.L. Kahn (2015). "Appropriateness of advanced diagnostic imaging ordering before and after implementation of a clinical decision support system." *Journal of the American Medical Association*, 313(21): 2181-82.

Mulcahy, A.W., B. Wynn, **L. Burgette**, and A. Mehrotra (2015). "Medicare's step back from global periods — Unbundling postoperative care." *New England Journal of Medicine*, 372(15): 1385–1387.

Lee, C.I., D. Khodyakov, B.A. Weidmer, N.S. Wenger, J.W. Timbie, I. Brantley, **L.F. Burgette**, K.J. Leuschner, P.S. Hussey, and K.L. Kahn (2015+). "Radiologists' perceptions of computerized decision support: A focus group study from the Medicare Imaging Demonstration Project." Forthcoming.

Neelon, B., F. Li, **L.F. Burgette**, and S.E. Benjamin Neelon (2015+). "A spatiotemporal quantile regression model for emergency department expenditures." Forthcoming in *Statistics in Medicine*.

Ramchand, R., L. Ayer, L. Geyer, **L. Burgette**, and A. Kofner (2015+). "Army non-commissioned officers' perspectives on identifying, caring for, and referring soldiers at risk for suicide." Forthcoming in *Psychiatric Services*.

Griffin, B.A., R. Ramchand, D. Almirall, M. Slaughter, **L.F. Burgette**, and D.F. McCaffrey. (2014) “Assessing the causal effects of cumulative treatment episodes for adolescents.” *Drug and Alcohol Dependence*, 136: 69–78.

Davis, R.C., C.J. Jensen, **L.F. Burgette**, and K. Burnett (2014). “Working smarter on cold cases: Identifying factors associated with successful cold case investigations.” *Journal of Forensic Sciences*, 59(2): 375–382.

Godin, E.A., S. Sykes, M.J. Halpin, C.A. Weinbaum, **L.F. Burgette**, J.P. Reiter, R.D. Schwartz-Bloom (2014). “Alcohol Pharmacology Education Partnership: Using biology and chemistry concepts to educate high school students about alcohol.” *Journal of Chemical Education*, 91(2): 156–172.

McCaffrey, D.F., B.A. Griffin, D. Almirall, M.E. Slaughter, R. Ramchand, and **L.F. Burgette** (2013). “A tutorial on propensity score estimation for multiple treatments using generalized boosted models.” *Statistics in Medicine*, 32(19): 3388–3414.

Burgette, L.F. and J.P. Reiter (2013). “Multiple-shrinkage multinomial probit models with applications to simulating geographies in public use data.” *Bayesian Analysis*, 8(2): 453–478.

Hom, J.M., **L.F. Burgette**, and J.Y. Lee (2013). “The effect of payor mix on dental-related pediatric emergency room utilization.” *Journal of Public Health Dentistry*, 74(4): 289–296.

Burgette, L.F. and J.P. Reiter (2012). “Nonparametric Bayesian multiple imputation for missing data due to mid-study switching of measurement methods.” *Journal of the American Statistical Association*, 107(498): 439–449.

- 2013 W.J. Youden Award winner

Burgette, L.F. and E.V. Nordheim (2012). “The trace restriction: An alternative identification strategy for the Bayesian multinomial probit model.” *Journal of Business and Economic Statistics*, 30(3): 404–410.

Burgette, L.F. and J.P. Reiter (2012). “Modeling adverse birth outcomes via confirmatory factor quantile regression.” *Biometrics*, 68(1): 92–100.

Neelon, B., G.K. Swamy, **L.F. Burgette**, and M.L. Miranda (2011). “A Bayesian growth mixture model to examine gestational hypertension and birth outcomes.” *Statistics in Medicine*, 30(22): 2721–2735.

Burgette, L.F., J.P. Reiter and M.L. Miranda (2011). “Exploratory quantile regression with many covariates: An application to adverse birth outcomes.” *Epidemiology*, 22(6): 859–856.

Burgette, L.F. and J.P. Reiter (2010). “Multiple imputation for missing data via sequential regression trees.” *American Journal of Epidemiology*, 172(9): 1070–1076.

Burgette, L.F. and R.A. Gordon (2004). “On determining the non-circularity of a plane curve.” *College Mathematics Journal*, 35(2): 74–83.

RAND REPORTS

Wynn, B.O., L.F. Burgette, A. Mulcahy, E.N. Okeke, I. Brantley, N. Iyer, T. Ruder, A. Mehrotra (2015). “Development of a model for the validation of work relative value units for the Medicare physician fee schedule”. RAND/RR-662-CMS.

Timbie, J.W., P.S. Hussey, L.F. Burgette, N.S. Wenger, A. Rastegar, I. Brantley, D. Khodyakov, K. Leuschner, B.A. Weidmer, K.L. Kahn (2014). “Medicare Imaging Demonstration final evaluation:

Report to Congress”. RAND/PR-706-CMS.

Samaras, C., R. Costello, P. DeLuca, A. Narayan, N. Sweeney, J.V. Veseley, and L.F. Burgette (2014). “Improvements of Air Force strategic basing decisions”. RAND/PR-1052-AF.

Keller, K., S. Robson, K. O’Neill, P. Emslie, L.F. Burgette, L. Harrington, and D. Curran (2013). “Promoting airmen with the potential to lead: A study of the Air Force Master Sergeant Promotion System.” RAND/RR-581-AF.

Chandra, A., L.T. Martin, L.F. Burgette, and S. Ball (2013). “Designing an evaluation of military nonmedical counseling programs.” RAND/PR-265-OSD.

Boito, M., T. Light, and L.F. Burgette (2013). “The relationship between aircraft age and maintenance and readiness outcomes.” RAND/PR-188-AF.

Egel, D., C. Ries, N.E. Burger, L.F. Burgette, T. Nichols, E. Rachman, S. Seabrook (2012). “Assessing the Commander’s Emergency Response Program”. RAND/DRR-5678-OSD.

BOOK CHAPTER **Burgette, L.F.**, D.F. McCaffrey, and B.A. Griffin (In press). “Propensity score estimation with boosted regression.” In W. Pan and H. Bai (Eds) *Propensity Score Analysis: Fundamentals, Developments, and Extensions*. New York, Guilford Publications, Inc.

SUBMITTED PAPERS Burgette, L.F. and P.R. Hahn. “A symmetric prior for multinomial probit models.” Under revision for *Bayesian Analysis*.

Burgette, L.F., A.W. Mulcahy, A. Mehrotra, T. Ruder, and B.O. Wynn. “Estimating surgical procedure times using anesthesia billing data and operating room records.” Under revision for *Health Services Research*.

Timbie, J.W., P.S. Hussey, N.S. Wenger, L.F. Burgette, I. Brantley, K.L. Kahn. “Optimizing the development and use of appropriate use criteria in quality improvement: Evidence from the Medicare Imaging Demonstration.”

Griffin, B.A., D. McCaffrey, D. Almirall, L. Burgette, C. Setodji. “Chasing balance and other recommendations for improving nonparametric propensity score models.”

Hahn, P.R. and L.F. Burgette. “An approximate likelihood for simultaneous nonlinear quantile regression.”

Ayer, L., M. Woldetsadik, R. Malsberger, L.F. Burgette, and P.L. Kohl. “Who are the men caring for maltreated youth? Male caregivers in the child welfare system.”

WORKS IN PROGRESS Burgette, L.F. and S.M. Paddock. “Two-part models for rolling admission group therapy data.” In progress.

Burgette, L.F. and E.V. Nordheim. “A full Gibbs sampler for the Bayesian multinomial probit switching model.” Working paper available from personal website.

Burgette, L.F., E. Meijer and M.D. Hurd. “Asset smoothing in the Health and Retirement Study – A Bayesian nonparametric approach.” In progress.

PREVIOUS TEACHING EXPERIENCE Professional Instructor
Johns Hopkins Carey Business School
2012
Washington, DC

Instructor
Duke University

June to July 2010
Durham, NC

ORAL
PRESENTATIONS

Two-part models for rolling admission group therapy data. ENAR, Miami, March 18, 2015.

Propensity score weighting for inference in observational studies. George Mason University, January 29, 2014.

A symmetric prior for multinomial models. Conference on Bayesian Methods in Microeconomic Modeling. Caltech, September 6, 2013.

Bayesian inference for complex survey designs. Joint Statistical Meetings, Montréal, Québec, August 6, 2013.

Identification and regularization of Bayesian multinomial probit models. International Workshop on Bayesian Econometrics and Statistics, Kobe University, February 1, 2013.

Identification and regularization of Bayesian multinomial probit models. University of Tokyo, January 30, 2013.

Simulating geography for microdata disclosure via multiple shrinkage multinomial probit models. Joint Statistical Meetings, Miami, FL, August 2011.

Symmetric Bayesian multinomial probit models. Seminar on Bayesian Inference in Econometrics and Statistics, Washington University in St. Louis, April 2011.

Symmetric identification of multinomial probit models. Purdue University Department of Statistics, February 2011.

Symmetric identification of multinomial probit models. RAND Corp. Statistics Group, Santa Monica, CA, February 2011.

Symmetric identification of multinomial probit models. Harvard Medical School Department of Health Care Policy, February 2011.

Modeling adverse birth outcomes via latent factor quantile regression. University of Southern California Biostatistics Seminar, October 2010.

Modeling adverse birth outcomes via latent factor quantile regression. Joint Statistical Meetings, Vancouver, BC, August 2010.

An alternative identification strategy for the Bayesian multinomial probit model. Meeting of New Researchers in Statistics and Probability, University of British Columbia, July 2010.

A full Gibbs sampler for the Bayesian multinomial switching model. Joint Statistical Meetings, Washington, DC, August 2009.

Various measures of aberrancy. Pacific Northwest Section MAA Meeting, June 2003.

SELECTED POSTER
PRESENTATIONS

Burgette, L.F., E. Meijer, and M.D. Hurd. "Asset smoothing in the Health and Retirement Study." International Society for Bayesian Analysis World Meeting, June 2012, Kyoto, Japan.

M. Abir (presenter), H.C. Choi, L.F. Burgette, and M.M. Davis. “Comparison of charges incurred for emergently vs. electively admitted inpatients — United States, 2009.” Society for Academic Emergency Medicine Annual Meeting, May 2012, Chicago, IL.

R PACKAGES

Ridgeway, G., D. McCaffrey, A. Morral, B.A. Griffin, and L.F. Burgette (2012–2015). `twang`: Toolkit for weighting and analysis of nonequivalent groups.

Burgette, L.F. (2010). `factorQR`: R package to fit Bayesian quantile regression factor models.

Burgette, L.F. (2009). `endogMNP`: R package for fitting Bayesian multinomial probit models with endogeneity.

SERVICE

Associate Editor for *Annals of Applied Statistics*, 2013–current.

Referee for *American Journal of Epidemiology*, *American Journal of Mathematical and Management Sciences*, *Annals of Applied Statistics*, *Annals of Epidemiology*, *Biometrics*, *BMC Emergency Medicine*, *British Journal of Mathematical and Statistical Psychology*, *Computational Statistics and Data Analysis*, *Epidemiology*, *European Journal of Operational Research*, *Healthcare*, *Journal of the American Statistical Association*, *Journal of Causal Inference*, *Journal of Econometrics*, *Journal of Education and Behavioral Statistics*, *Journal of Multivariate Analysis*, *JRSS-C*, *PLoS ONE*, *Sociological Methods and Research*, *Statistical Methods in Medical Research*, *Statistics in Medicine*, and *Technometrics*. Program committee for AISTATS 2013.

RAND Statistics Group Recruiting Committee, 2012 – present.

Graduate Admissions Committee, Department of Statistics, University of Wisconsin, Madison. 2005/2006 and 2008/2009 academic years.

SKILLS

Computer skills: extensive use of R, Matlab, C, and \LaTeX in a Linux environment. Experience with BUGS, SAS, Stata and C++.