

## Lane F. Burgette

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### CONTACT INFORMATION

RAND Corporation  
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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 POSITIONS

Senior Statistician and  
Associate Research Department Director  
RAND Corporation  
Previously, Associate Statistician, September 2011 - June 2014 and Statistician, June 2014 - June 2018.

June 2018 to current  
October 2018 to current  
Pittsburgh, PA

### PREVIOUS RESEARCH EXPERIENCE

Postdoctoral Research Associate  
Duke University (Prof. Jerry Reiter)

August 2009 to August 2011  
Durham, NC

Research Assistant  
University of Wisconsin

September 2008 to August 2009  
Madison, WI

NSF-EAPSI Fellow  
University of Tokyo

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

Davis, M.L., B. Neelon, P.J. Nietert, **L.F. Burgette**, K.J. Hunt, A.B. Lawson, L.E. Egede (2021). "Propensity score matching for multilevel spacial data: Accounting for geographic confounding in health disparities studies." *International Journal of Health Geographics*, 20(1): 1–12.

**Burgette, L.F.**, D. Puelz, and P.R. Hahn (2020+). "A symmetric prior for multinomial probit models." *Bayesian Analysis*, in press.

Strully, K.W., R. Bozick, Y. Huang, **L.F. Burgette** (2020). "Employer verification mandates and infant health." *Population Research and Policy Review*, 39(6): 1143–1184.

Griffin, B.A., L. Ayer, J. Pane, B. Vegetable, **L. Burgette**, D. McCaffrey, D.L. Coffman, M. Cefalu, R. Funk, M.D. Godley (2020). *Journal of Substance Abuse Treatment*, 118(10875).

**Burgette, L.F.**, J.J. Escarce, S.M. Paddock, M.S. Ridgely, W.G. Wilder, D. Yanagihara, and C.L. Damberg (2019). "Sample selection in the face of design constraints: Use of clustering to define sample strata for qualitative research." *Health Services Research*, 54(2): 509–517.

Damberg, C.L., M.R. Silverman, L.F. Burgette, M.E. Vaiana, M.S. Ridgely (2019). “Are value-based incentives driving driving behavior change to improve value?” *American Journal of Managed Care*, 25(2): e26-e32.

Davis, M.L., B. Neelon, P.J. Nietert, K.J. Hunt, **L.F. Burgette**, A.B. Lawson, L.E. Egede (2019). “Addressing geographic confounding through spatial propensity scores: A study of racial disparities in diabetes.” *Statistical Methods in Medical Research*, 28(3): 734–748.

Davis, M.L., B. Neelon, P.J. Nietert, L.F. Burgette, K.J. Hunt, A.B. Lawson, L.E. Egede (2019). “Analysis of racial differences in hospital stays in the presence of geographic confounding.” *Spatial and Spatio-temporal Epidemiology*, 30: 100284: 1–8.

Strully, K.W., R. Bozick, Y. Huang, L.F. Burgette (2019). “Employer verification mandates and infant health.” Early view at *Population Research and Policy Review*.

Acosta, J.D., **L. Burgette**, A. Chandra, D.P. Eisenman, I. Gonzales, D. Varda, and L. Xenakis (2018). “How community and public health partnerships contribute to disaster recovery and resilience.” *Disaster Medicine and Public Health Preparedness*, (12)5: 635–643.

Paddock, S.M., C.L. Damberg, D. Yanagihara, J.L. Adams, **L.F. Burgette**, J.J. Escarce (2017). “What role does efficiency play in understanding the relationship between cost and quality in physician organizations?” *Medical Care*, 55(12): 1039–45.

Setodji, C.M., D.F. McCaffrey, **L.F. Burgette**, D. Almirall, B.A. Griffin (2017). “The right tool for the job: choosing between covariate balancing and generalized boosted model propensity scores.” *Epidemiology*, 28(6): 802-811.

**Burgette, L.F.** and S.M. Paddock (2017). “Bayesian two-part models for rolling admission therapy groups.” *Psychological Methods*, 22(4): 725–742.

Griffin, B.A., D. McCaffrey, D. Almirall, **L. Burgette**, C. Setodji (2016+). “Chasing balance and other recommendations for improving nonparametric propensity score models.” *Journal of Causal Inference*, 5(2).

Parast, L., D.F. McCaffrey, **L. Burgette**, F. Hoces de la Guardia, D. Golinelli, J. Miles, B.A. Griffin (2017). “Optimizing the variance-bias trade-off in the TWANG package for estimation of propensity scores.” *Health Services and Outcomes Research Methodology*, 17(3-4): 175–197.

**Burgette, L.F.**, A.W. Mulcahy, A. Mehrotra, T. Ruder, and B.O. Wynn (2017). “Estimating surgical procedure times using anesthesia billing data and operating room records.” *Health Services Research*, 52(1): 74–92.

Uscher-Pines, L., R. Malsberger, **L. Burgette**, A. Mulcahy, and A. Mehrotra (2016). “Impact of telemedicine on access to dermatology care among Medicaid enrollees.” *JAMA Dermatology*, 152(8): 905–912.

Ayer, L., M. Woldetsadik, R. Malsberger, **L.F. Burgette**, and P.L. Kohl (2016). “Who are the men caring for maltreated youth? Male caregivers in the child welfare system.” *Child Maltreatment*, 21(4): 278–287.

Ayer, L., P. Kohl, R. Masberger, and **L. Burgette**. (2016) “The impact of fathers on maltreated youths’ mental health.” *Children and Youth Services Review*, 63: 16–20.

Ayer, L., R. Ramchand, L. Geyer, **L. Burgette**, A. Kofner (2016). “The influence of training,

reluctance, efficacy, and stigma on suicide intervention behavior among NCOs in the Army and Marine Corps.” *Journal of Primary Prevention*, 37(3): 287–302.

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.” *American Journal of Roentgenology*, 205: 947–955.  
- Selected for AJR Journal Club

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.” *Psychiatric Services*, 66(10): 1057–63.

Neelon, B., F. Li, **L.F. Burgette**, and S.E. Benjamin Neelon (2015). “A spatiotemporal quantile regression model for emergency department expenditures.” *Statistics in Medicine*, 34(17): 3081–3103.

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

**Burgette, L.F.**, C.C. Cohen, ..., P.S. Hussey (2020). “Practice Expense Methodology and Data Collection Research and Analysis: Interim Phase II Report.”

Burgette, L.F., J. Liu, ..., and P.S. Hussey (2018). “Practice expense methodology and data collection research and analysis.”

Acosta, J.D., E.K. Chen, ..., L.F. Burgette, and A. Chandra (2017). “Building older adults’ resilience by bridging public health and aging-in-place efforts.”

Jackson, B.A., L.F. Burgette, et al. (2017). “Knowing more but accomplishing what? Developing approaches to measure the effects of information sharing on criminal justice outcomes.”

Burgette, L.F., B.A. Griffin, and D.F. McCaffrey (2017). “Propensity scores for repeated treatments: A tutorial for the iptw function in the TWANG package.”

Samaras, C., R. Costello, ..., and L.F. Burgette (2016). “Improvements to Air Force strategic basing decisions.”

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”.

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”.

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”.

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.”

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

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

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.

PROJECT LEADERSHIP “Practice Expense Methodology and Data Collection Research, Phase II” for CMS, Principal Investigator. Total funding: \$4.4 million over 3 years.

“Evaluation of the 2020 Census in California” for State of California. PIs: Burgette and Shih (previously Bozick. Total funding \$5.1 million.

“Practice Expense Methodology and Data Collection Research” for CMS. PI: Hussey, Co-PI: Burgette. Total funding: \$1.4 million.

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

Instructor June to July 2010  
Duke University Durham, NC

ORAL PRESENTATIONS *Bayesian models for semicontinuous outcomes in rolling admission therapy groups*. International Conference on Health Policy Statistics, Charleston, SC, January 12, 2018.

*Propensity scores with multiple treatment levels*. AcademyHealth Annual Research Meeting, Boston, MA, June 27, 2016.

*Guidelines for Using State-of-the-Art Methods to Estimate Propensity Score and Inverse Probability of Treatment Weights When Drawing Causal Inferences* Albuquerque Chapter of the American Statistical Association, April 22, 2016.

*Partially ordered models of value in health care*. University of Virginia Department of Statistics, November 11, 2015.

*Estimating the causal effects of time-varying treatments using state-of-the-art methods*. International Conference on Health Policy Statistics, Providence, RI, October 7, 2015.

*Nonparametric Bayesian Multiple Imputation for Missing Data Due to Mid-Study Switching of Measurement Methods*. JSM, Seattle, August 11, 2015.

*Guidelines for Using State-of-the-Art Methods to Estimate Propensity Score and Inverse Probability of Treatment Weights When Drawing Causal Inferences* (with D. McCaffrey). JSM, Seattle, August 10, 2015.

*Estimating non-parametric propensity score and inverse probability of treatment weights when drawing causal inferences with observational data* (with R. Ramchand). Society for Epidemiologic Research, Denver, June 16, 2015.

*Estimating Discount Factors for Medicare’s Multiple Procedure Payment Policy*. AcademyHealth, Minneapolis, June 15, 2015.

*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 (2012–2017). `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 Biosciences*, *Statistics in Medicine*, and *Technometrics*. Program committee for AISTATS 2013. Ad-hoc reviewer for Medical Research Council grants. Special Awards Judge, Intel Science and Engineering Fair, May 2018.

RAND Statistics Group Recruiting Committee, 2012 – present.

RAND Human Subjects Protection Committee, 2015 – 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 L<sup>A</sup>T<sub>E</sub>X in a Linux environment. Experience with BUGS, SAS, Stata and C++.