Colin Lewis-Beck

CONTACT INFORMATION	256 Schaeffer Hall Department of Statistics University of Iowa Iowa City, Iowa USA 52246	*Phone:* 617.784.3596 *E-mail:* colin-lewis-beck@uiowa.edu

RESEARCH INTERESTS

Agricultural statistics, hierarchical modeling, spatial statistics, and public policy

EDUCATION

PhD, Statistics
Iowa State University, 2018

Dual MPP/MA, Public Policy and Applied Statistics
University of Michigan, 2010

BA, French
Middlebury College, 2005

PUBLICATIONS

Mittman E., Lewis-Beck C., Meeker W.Q., "A Hierarchical Model for Heterogenous Reliability Field Data." *Technometrics*. Forthcoming.

A. Alhasan, A. Ali, D. Offenbacker, O. Smadi, Lewis-Beck C., "Incorporating Spatial Variability of Pavement Foundation Layers Stiffness in Reliability-Based Mechanistic-Empirical Pavement Performance Prediction.", *Transportation Geotechnics* 17 (2018) 1-13.

Lewis-Beck C., Lewis-Beck M. Applied Regression: An Introduction, Second Edition, Sage Publications, 2015

Lewis-Beck C., Abouzaid S., Xie L., Baser O., Kim E. "Analysis of relationship between psoriasis severity and quality of life, work productivity, and activity impairment among patients with moderate to severe psoriasis using structural equation modeling." *Preference and Adherence*. 2013:7 1-7

Wang, L., Lewis-Beck, C., Baser, E., Fritschel, E. and Baser, O. "Applied comparison of meta-analysis techniques." *Value in Health*. 2013 Nov 1; 16(7):A701

ACADEMIC POSITIONS

Visiting Assistant Professor, University of Iowa
Department of Statistics & Actuarial Science   **Fall 2018-present**

WORK EXPERIENCE

Software Developer, NIMBLE, Berkeley, CA   **Summer 2017**
Interned as part of the Google Summer of Code program
- Wrote and tested an R package to fit ecological statistical models
- Collaborated with other programmers using GitHub
- Wrote code that went into the main nimble R package

Statistical Analyst, STATinMED Research, Ann Arbor, MI   **2011-2012**
Research Department
- Analyzed large claim databases using advanced statistical techniques (e.g., GLMs, SEMs, propensity score matching, and meta-analysis)

- Drafted statistical protocols and wrote final manuscripts analyzing and interpreting study results for client, as well as academic, publication
- Worked directly with clients, senior researchers, and programmers to ensure projects were completed correctly and on schedule

TEACHING EXPERIENCE

Instructor, University of Iowa   **2018-present**
- *Statistical Inference I* (Fall 2018)
- *Statistical Inference II* (Spring 2019)
- *Statistics & Society* (Fall 2018, Spring 2019)

Instructor, University of Michigan   **July 2018**
Taught a two-week introductory short course on meta-analysis at the Interuniversity Consortium for Political and Social Research (ICPSR) Summer Program

Instructor, Iowa State University   **2017-2018**
- *Statistical Methods for Research Workers (Graduate Course)* (Summer 2018)
- *Probability and Statistical Inference for Engineers* (Spring 2018)
- *Engineering Statistics* (Spring 2017, Fall 2017)

Teaching Assistant, Iowa State University   **2014-2015**
- *Applied Statistical Modeling (Graduate Course)* (Fall 2015)
- *Introduction to Statistics* (Fall 2014, Spring 2015)

Graduate Student Instructor, University of Michigan   **2007-2010**
- *Introduction to Statistical Reasoning* (Fall 2009, Spring 2010)
- *Introduction to Statistics and Data Analysis* (Spring 2009)
- *Statistics for Public Policy (Graduate Course)* (Spring 2008, Fall 2008)
- *Introduction to Microeconomics for Public Policy* (Fall 2007)

PRESENTATIONS AND WORKSHOPS

"A Parametric Unmixing Model for Satellite Data." Presentation, Joint Statistical Meetings (JSM), Vancouver, BC (August 2018)

"A Nonlinear Hierarchical Approach for Modeling Crop Growth in the US Corn Belt." Presentation, Kansas State University Conference on Applied Statistics in Agriculture, Manhattan, KS (May 2018)

"A Hierarchical Model for Heterogenous Reliability Field Data." Poster, Joint Statistical Meetings (JSM), Baltimore, MD (August 2017)

Graduate Workshop on Environmental Data Analytics, National Center for Atmospheric Research (NCAR), Boulder, CO (June 2017)

Speaker (with Hal Stern), Center for Statistics and Applications in Forensic Evidence (CSAFE), "An Introduction to Statistical Thinking for Forensic Practitioners." Palm Beach County Sheriffs Office, Palm Beach, FL (March 2016)

Invited Blalock Lecturer (with Michael Lewis-Beck), Interuniversity Consortium for Political and Social Research (ICPSR), University of Michigan, "Regression Questions You Always Wanted to Ask." (July 2015)

"Analysis of relationship between psoriasis severity and quality of life, work productivity, and activity impairment among patients with moderate to severe psoriasis using structural

equation modeling." Poster, International Society for Pharmacoeconomics and Outcomes Research (ISPOR), Washington, DC (June 2012)

AWARDS   Teaching Excellence Award, Iowa State University, Dept. of Statistics (2018)

SAGE Cornerstone Author Award for publication (with Michael Lewis-Beck) of Applied Regression: An Introduction, Second Edition (2015)

Outstanding Teaching Award, University of Michigan, Dept. of Statistics (2010)

OTHER
EXPERIENCE
Summer Program Computing Consultant   **Summer (2006, 2013, 2014)**
ICPSR, University of Michigan
- Assisted program participants and faculty with a wide range of statistical and programming backgrounds with questions in R, Stata, SPSS, and SAS
- Promoted to Team Leader (2013, 2014). Responsible for supervising a staff of 8 Computer Consultants.

COMPUTER
SKILLS
Mathematical Computing: R, Rcpp, Rstan, Stata, and JMP
Other: LaTeX, GitHub, Microsoft Office

PROFESSIONAL
MEMBERSHIPS
American Statistical Association