

CURRICULUM VITAE

Lee S McDaniel

Current Title: Assistant Professor

Business Address:

2020 Gravier Street, 3rd Floor
New Orleans, LA 70112

Business Telephone and Fax:

Phone: 504-568-5771
Fax: 504-568-5701

Business email Address: lmcda4@lsuhsc.edu

Citizenship: United States

Education:

Undergraduate

B.S., Rose-Hulman Institute of Technology, 2006.

Majors: Mathematics and Economics

Graduate

M.S., College of William and Mary, 2008.

Major: Computational Operations Research

Ph.D., University of Wisconsin – Madison, 2014.

Major: Statistics

Academic, Professional, and Research Appointments:

Biostatistics Trainee, University of Wisconsin – Madison, Department of Statistics, 2008-2012

Research Assistant, University of Wisconsin – Madison, Department of Statistics, 2012-2014

Assistant Professor, Louisiana State University Health Sciences Center, School of Public Health, New Orleans, Louisiana (2014-Present)

Membership in Professional Organizations:

American Statistical Association (2012-Present)

Society for Clinical Trials (2012-Present)

Louisiana Chapter of the ASA (2015-Present)

Awards and Honors:

Finalist, Society for Clinical Trials Thomas Chalmers Student Paper Award, 2014.
Awarded for Sample Size Under the Additive Hazards Model.

Third Place, ASA Biopharmaceutical Student Paper Award, 2014. Awarded for Sample Size Under the Additive Hazards Model.

Travel Award, ASA Biometrics Section, 2015. Awarded for Generalized Linear Models for Longitudinal Data with Biased Sampling Designs: A Sequential Offsetted Regressions Approach.

TEACHING EXPERIENCE AND RESPONSIBILITIES

Course/Clerkship/Residency or Fellowship/CME Directorships

2015-Present: BIOS 6212: Survival Analysis

Course director for 3 credit hour required class for Biostatistics students. This course provides students with statistical methodology for the analysis of time-to-event data and trains students in the appropriate analysis of survival data, by both parametric and nonparametric methods.

Responsibilities: Deliver course including syllabus, lectures, and student evaluations.

2015-Present: BIOS 6314: Clinical Trials Methodology

Introduction to the conduct of clinical trials and clinical trials methodology. This course discusses clinical trials issues include selection of primary and secondary research questions and hypotheses, use of surrogate variables, basic study design, the randomization process, blinding, sample size estimation, participant adherence, survival analysis, and interim monitoring.

Responsibilities: Deliver course including syllabus, lectures, and student evaluations.

2016-Present: BIOS 6304: Design and Analysis of Experiments

Course director for 3 credit hour elective. This course focuses on principles of experimentation. Topics include completely randomized designs, randomized complete block designs, factorial designs, Latin squares, crossover designs, blocking, and response surface designs.

Responsibilities: Deliver course including syllabus, lectures, and student evaluations.

2016-2018: BIOS 6300: Statistical Computing

Course director for 3 credit hour elective. An introductory programming course oriented toward statistical applications using SAS and R. Topics include data types, assignment statements, operators, sequential control, conditional control, iteration, subprograms, arrays, character manipulation, Gibbs sampler, and Markov Chain Monte-Carlo methods.

Responsibilities: Deliver course including syllabus, lectures, and student evaluations.

2019-Present: **BIOS 3115: Basic Statistics**

Course director for 3 credit hour required class for nursing undergraduate students. The course is a study of scientific methodology and the use of statistics in design and analysis of studies in the health sciences.

Consideration is given to fundamentals of sample selection, measures of central tendency, measures of variation, correlation coefficients, and tests of hypotheses.

Responsibilities: Deliver course including syllabus, lectures, and student evaluations.

2018-Present: **BIOS 6301: Data Visualization**

Developed a 3 credit hour graduate elective course covering data visualization design and fundamentals of R. Students learn theoretical elements of visualization design and gain experience with tools such as R, Shiny, ggplot, and tidyverse tools.

Responsibilities: Developed course format and syllabus, designed course content, prepare course materials, provide lectures, and evaluate student performance.

Formal Course Responsibilities

- Guest Lecture, LSUHSC-NO, School of Public Health, EPID 7200 Advanced Epidemiologic Methods (4 hours, 2015).
- Guest Lecture, LSUHSC-NO, School of Public Health, EPID 6226 Epidemiologic Design and Analysis (2 hours, 2015).
- Guest Lecture, LSUHSC-NO, School of Public Health, EPID 7201 Advanced Epidemiologic Methods II (2 hours, 2016).

Undergraduate, Medical, or Graduate Students Trained:

Patton Osborn, MS, 2017-2018. Thesis: *Developing a Predictive Link between Adverse Childhood Experiences and Developmental Delays.*

DNP Students Mentored

- Brittany Santa Marina, Identifying Patient Feeding Prior to Anesthesia.
- Laura Blanda, Side Effects of Tracheal Surgical Procedures
- Rosie Brown, Normalizing the Conversation Surrounding HIV and PrEP: Implementation of a HIV Risk Screening to Increase PrEP Prescription
- Katherine Rossi, HIV Screening and PrEP Prescriptions
- Caroline Blanchard, Increasing Melanoma Screening Rates
- Jason Green, Implementation of a Revised Algorithm for PTSD Screening

- Caitlyn Blanchard, Increasing HIV Testing Rates
- Sara Gaspard, Screening for Postpartum Depression
- Allison Caillouet, Educational Intervention for Osteoarthritis
- Sabrina Willis, Educational Intervention for Fall Prevention in Hospitals
- Tyler Murry, Increasing HIV/HCV Screening Rates
- Gabrielle Weyer, Education to Reduce Improper NSAID Use
- Nicole Roberts, Predicting Difficulty of Intubation with the Upper Lip Bite Test

Thesis and Dissertation Committees:

PhD

- Yi Zhai, 2015-201
- Omar Aldibasi, 2016-2018
- Christie Watters, 2017-Present
- Lin Zhu, 2017-Present
- Xinnan Wang, 2018-Present
- Heng-Yuan Tung, 2019-Present

DNS

- Jolie Harris, 2015
- Deidra Dudley, 2015
- Randy Rosamond, 2018-Present

MS

- Jacob Maronge, 2015-2016
- Patton Osborn, 2017-2018

RESEARCH AND SCHOLARSHIP

Grants and Contracts:

Biostatistician, LDH Center for Health Transformation, 7.4% effort, 2016-2017

Biostatistician, LSU Health Care Services Division, up to 50% effort, 2015-2017

Biostatistician, LSU School of Nursing, 12.2% effort, 2015-2018

Biostatistician, LSU School of Nursing, 5% effort, 2018-Present

Biostatistics Instructor, LSU School of Nursing, 12.5% effort, 2018-Present

Funded

4U01AA021995-05 (Molina) 12/10/2018 – Present, 25%
NIH/NIAAA
HIV/AIDS & Alcohol-Related Outcomes: Translational Evidence-Based
Interventions
Role: Biostatistician

Non-funded applications (last three years)

1R21DK12288-01 (Kim) \$300,000 total costs
NIH
Defining prognostic biomarkers for necrotizing enterocolitis
Role: Biostatistician

Journal Publications:

Refereed

L. S. McDaniel, N. C. Henderson, and P. J. Rathouz. Fast Pure R
Implementation of GEE: Application of the Matrix Package. *The R Journal*,
5(1):181-188, June 2013.

L. S. McDaniel, M. Yu, and R. Chappell. Sample Size under the Additive
Hazards Model. *Clinical Trials*, 13(2):188-198, November 2015.

R. Gertz, Y. Nikiforov, W. Rehrauer, **L. S. McDaniel**, R. Lloyd. Mutation in
BRAF and other members of the MAPK pathway in papillary thyroid carcinoma
in the pediatric population. *Archives of Pathology & Laboratory Medicine*,
140(2):134-139, February 2016.

M. D. LaFontaine, **L. S. McDaniel**, L. N. Kubicek, R. Chappell, L. J. Forrest, R.
Jeraj. Fixed Effects Influencing the Variability of Distributed Parameter Based
Models in DCE-CT Kinetic Analysis. *Veterinary and Comparative Oncology*,
15(1): 105-117, March 2017.

L. S. McDaniel, W. J. Poynot, K. A. Gonthier, M. E. Dunham, T. W. Crosby.
Image-Based 3-Dimensional Characterization of Laryngotracheal Stenosis in
Children. *OTO Open*, 2(1), January 2018.

A. G. Chapple, J. J. Wocjik, and **L. S. McDaniel**. A Regression Based Phase I
Clinical Trial for Late-Onset Toxicities Without Clinician Elicitation. *Contemporary
Clinical Trials Communications*, 14, June 2019.

L. Hetzler, S. MacDowell, J. Trahan, M. Arriaga, and **L. S. McDaniel**. Facial
Nerve Translocation for Low Tension Masseteric Motor Branch Neurotomy for
Facial Reanimation. *Otology and Neurotology*, 40(5):e562–e565, June 2019.

L. S. McDaniel, M. Yu, and R. Chappell. Analysis and Design of Clinical Trials Using Additive Hazards Survival Endpoints. *Statistics in Biopharmaceutical Research*, 2019. E-published ahead of print.

C. Gary, R. Barry, **L. S. McDaniel**, L. Son, L. Hetzler. Calcium Hydroxylapatite Injection Pharyngoplasty for Velopharyngeal Insufficiency in Adults. *Submitted to The Laryngoscope*, 2019.

P. Shrestha, **L. S. McDaniel**, M. KC, E. Trapido, M. Sothern, E. Oral. Knowledge Related to Type-2 Diabetes in People of Parbat District of Nepal. *Submitted to BMC Endocrine Disorders*, 2019.

Book Chapters:

L. S. McDaniel, A. G. Glen, and L. M. Leemis. "Linear Approximations of Probability Density Functions." In *Computational Probability Applications*, Springer 2017. Editors: A. G. Glen and L. M. Leemis.

Scientific Exhibits:

L. S. McDaniel, M. Yu, and R. Chappell. Testing the Proportional versus Additive Hazards Assumptions. Meeting of the Society for Clinical Trials, May 2015.

L. S. McDaniel. Generating Survival Times to Simulate Additive Hazards Models. Meeting of the Society for Clinical Trials, May 2016.

Published Abstracts:

E. S. Ellent, T. V. Joshi, **L. S. McDaniel**, B. C. Boulmay. Improved hepatocellular carcinoma (HCC) outcomes in a public hospital setting with increased access to procedural-based therapy. *ASCO 2019*.

Scientific Presentations:

International Meetings

Sample Size under the Additive Hazards Model. The Annual Meeting of the Society for Clinical Trials, May 2014.

Sample Size under the Additive Hazards Model. Joint Statistical Meetings, August 2014.

Sparse Matrix Computation in R with an Application to GEEs. Conference on Statistical Practice, February 2015.

Generalized Linear Models for Longitudinal Data with Biased Sampling Designs: A Sequential Offsetted Regression Approach. Joint Statistical Meetings, August 2015.

Local Meetings

Sample Size under the Additive Hazards Model. Meeting of the Louisiana Chapter of the ASA, May 2015.

Baseline Hazard Weighting in the Additive Hazards Model. Department Seminar. April, 2018

Invited Presentations:

The Additive Hazards Model in Clinical Trials. Lifetime Data Analysis, May 2017.

Editorial Posts and Activities:

Reviewer status

- Reviewer, Journal Article, *Statistical Modelling*.
- Reviewer, Journal Article, *PLOS One*.
- Reviewer, Journal Article, *The R Journal*.
- Reviewer, Journal Article, *Biometrics*.
- Reviewer, Journal Article, *Contemporary Clinical Trials Communications*.
- Reviewer, Journal Article, *American Journal of Veterinary Research*.
- Reviewer, Journal Article, *Applied Stochastic Models in Business and Industry*.
- Reviewer, Journal Article, *Statistics in Medicine*.
- Reviewer, Journal Article, *Journal of Statistical Computation and Simulation*.

SERVICE ACTIVITIES

University/Institutional Service:

Departmental committees

- Seminar organizer, 2015-2016
- Admissions committee, 2015-Present
- Qualifying exam committee, 2015-Present

School committees

- E-learning committee, 2014-2016
- Faculty Assembly Secretary, 2016-2018
- BSPH Steering Committee, 2016-2017
- CEPH Renewal Committee, 2016-2017
- Diversity committee, 2018-Present

LSUHSC (campus) committees

- 3-MT Judge for LSUHSC Research Day, 2016-Present

Professional society committees

- Member, Student Paper Committee, Society for Clinical Trials, 2017-Present
- Vice President, Louisiana Chapter of the ASA, 2017-2018
- President, Louisiana Chapter of the ASA, 2018-Present
- Co-chair, Student Paper Committee, Society for Clinical Trials, 2019-Present

Special assignments – ad hoc task forces/working groups, projects, etc

- DSMB member, Randomized Multicentre Comparative Trial to Evaluate the Long Term Effectiveness of the use of Carbaglu in Patients with Propionic Acidemia or Methylmalonic Acidemia, 2018-2019.
- DSMB Chair, Evaluation of a Novel Communication Tool for Patients with End-Stage Renal Disease, 2019-Present.

Unpublished Collaborative/Consulting Work in the Past Year

- Grant Butterbaugh, An Educational Intervention in Asthma Patients
- Eileen Lugo, Azithromycin for Antroduodenal Motility Studies in Children
- Ivonne Iglesias, Mirtazapine in Children with Functional Dyspepsia and Nausea
- Carlos Busso, Proteomic Analysis of Tonsilloliths
- Tejas Joshi, Effects of HCV Eradication on Glycemic Control
- Amanda Hammack, Effect of Behavioral Intervention on Repeat Gun Violence
- Dayana Rojas, Hospital Acquired Infections in HIV Positive Patients in Louisiana