

Maria L. Weese

CONTACT INFORMATION	800 E. High Street Farmer School of Business (Office: 2021) Oxford, OH 45056	Voice: (513) 529-0591 Email: weeseaml@miamioh.edu Google Scholar: https://goo.gl/92aQAn Website: https://weeseaml.github.io/
RESEARCH INTERESTS	Analysis based Design, Data Stream Monitoring, Screening Design, Optimal Supersaturated Design	
EDUCATION	University of Tennessee , Knoxville, TN Ph.D., Statistics, May 2010 M.S., Statistics, May 2006 Virginia Tech , Blacksburg, VA B.S., Chemical Engineering, Minor: Chemistry, May, 2001	
ACADEMIC EXPERIENCE	Miami University , Department of Information Systems & Analytics <i>Associate Professor</i> <i>Richard T. Farmer Assistant Professor</i> <i>Assistant Professor</i> <i>Lecturer/Clinical Faculty</i> <i>Visiting Assistant Professor</i> Miami University , Department of Statistics <i>Affiliate Faculty Member</i> Miami University , Center for Analytics and Data Science <i>Faculty Fellow</i> University of Tennessee , Department of Statistics, Operations and Management Science <i>Graduate Teaching Associate</i> University of Tennessee , Statistical Consulting Center <i>Statistical Consultant</i>	Aug. 2020 - present Aug. 2018 - July 2020 Aug. 2014 - July 2018 Aug. 2012 - July 2014 Aug. 2010 - July 2012 May 2019 - present Aug. 2021 - present Aug. 2006 - May 2010 May 2004 - July 2006
PROFESSIONAL EXPERIENCE	Celanese Acetate , Celco Plant, Narrows, VA <i>Process Improvement Engineer II</i> <i>Six Sigma Green Belt Certified</i>	July. 2001 - May 2004

PUBLICATIONS	Lemkus, T., Gotwalt, C., Ramsey, P.R., Weese, M.L., (2021) Self-Validated Ensemble Models for Design of Experiments. <i>Chemometrics and Intelligent Laboratory Systems</i> , 219, 104439
	Lee, L. ¹ , Weese, M.L., Martinez, W.G., Jones-Farmer, L.A., Robustness of the One-Class Peeling method to the Gaussian Kernel Bandwidth. <i>Accepted: Quality and Reliability Engineering International</i>
	Weese, M.L., Stallrich, J.W., Smucker, B.J., Edwards, D.J., Strategies for Supersaturated Screening: Group Orthogonal and $Var(s+)$ Designs. <i>Technometrics.</i> , 1-13, doi:10.1080/00401706.2020.1850529
	Smucker, B.J., Edwards, D.J., Weese, M.L., (2021) Response Surface Models: To Reduce or Not to Reduce?. <i>Journal of Quality Technology.</i> 53(2), 197-216.
	Martinez, M.G., Weese, M.L., Jones-Farmer, L.A., (2020) A One Class Peeling method for multivariate outlier detection with application to Phase I Monitoring. <i>Quality and Reliability Engineering International.</i> 36(4):1272-1295.
	Weese, M.L., Montgomery, D.J., Ramsey, P.J., (2018) Analyzing Definitive Screening Designs: Screening vs. Prediction. <i>Applied Stochastic Models in Business and Industry.</i> 34(2):244-255.
	Ockuly, R. ¹ , A., Weese, M.L., Smucker, B.J., Edwards, D.J., Chang, L. ² , (2017) Response Surface Experiments: A Meta-Analysis. <i>Chemometrics and Intelligent Laboratory Systems.</i> 164:64-75.
	Weese, M.L., Edwards, D.J., Smucker, B.J., (2017) A Criteria for Constructing Powerful Supersaturated Designs when Effect Directions are Known. <i>Journal of Quality Technology.</i> 49(3):265-277.
	Campbell, J.T., Weese, M.L., (2017). Compositional Models and Organizational Research: Application of a Mixture Model to Nonexperimental Data in the Context of CEO Pay. <i>Organizational Research Methods.</i> 20(1):95-120.
	Weese, M.L., Martinez, W.G., and Jones-Farmer, L.A., (2017) On the Selection of the Bandwidth Parameter for the k-Chart. <i>Quality and Reliability Engineering International.</i> 33(7):1527-1547.
OTHER PUBLICATIONS	Weese, M.L., Martinez, W.J., Megahed, F.M., Jones-Farmer, L.A., (2016) Statistical Learning Methods Applied to Process Monitoring: An Overview and Perspective. <i>Journal of Quality Technology.</i> 48(1):4-27.
	Weese, M. L., Smucker, B. J., Edwards, D. J., (2015) Searching for Powerful Supersaturated Designs. <i>Journal of Quality Technology.</i> 47(1):66-84.
	Edwards, D. J., Weese, M. L., Palmer, G. M. ¹ , (2014) Comparing Methods for Design Follow-Up: Revisiting a Metal Cutting Case Study. <i>Journal of Applied Stochastic Models in Business and Industry.</i> 30(4):464-478.
INVITED PRESENTATIONS	Weese, M. L., Leitnaker, M. G., (2012) Sequential Experimentation for Mixtures. <i>International Journal of Design of Experiments and Process Optimisation</i> , 3(1):33-42.
	Weese, M.L. (2020) "Screening with Supersaturated Designs". Statistics Digest, ASQ Statistics Division Newsletter, (39)3:32-34
	Weese, M.L. (2021) Supersaturated Designs: Research Based Best Practices and the Future, Coursera DOE Fireside Chat, October, <i>Virtual.</i>

¹ Graduate Student

² Undergraduate Student

Weese, M.L., Edwards, D.J., Stallrich, J.W., Smucker, B.J. (2021) “Strategies for Supersaturated Screening: Group Orthogonal and $Var(s+)$ Designs”. Technometrics, JQT, and QE Invited Session, European Network for Business and Industrial Statistics, *Virtual*

Weese, M.L., Smucker, B.J., Edwards, D.J., (2020) “Response Surface Experiments: To Reduce or Not to Reduce?”. JQT Invited Session, INFORMS 2020, *Virtual*.

Weese, M.L., Smucker, B.J., Edwards, D.J., Stallrich, J.W., Ansong, E. ¹, (2019) “Supersaturated Designs: Research-Based Best Practices and the Future”. European Network for Business and Industrial Statistics, Budapest, Hungary.

Weese, M.L., Smucker, B.J., Edwards, D.J., Stallrich, J.W., Ansong, E. ¹, (2019) “Supersaturated Designs: Research-Based Best Practices and the Future”. Spring Research Conference, Blacksburg, VA.

Weese, M.L. (2018) Invited Attendee, Stu Hunter Research Conference, March 5-8, Roanoke, VA

Weese, M.L., Smucker, B.J., Edwards, D.J., (2017) “Analyzing Supersaturated Designs”, Section on Physical and Engineering Sciences, Fall Technical Conference, October, Philadelphia, PA.

Weese, M.L., Smucker, B.J., Edwards, D.J., (2017) “Analyzing Supersaturated Designs”, Invited Talk Section on Physical and Engineering Sciences, Joint Statistical Meetings, August, Baltimore, MD.

Weese, M.L., Martinez, W.G., Megahed, F.M., Jones-Farmer, L.A., (2017) “Statistical Learning methods and Process Monitoring”, JQT Invited Session, Fall Technical Conference, October, Philadelphia, PA. *Presenter: Allison Jones-Farmer*

Weese, M.L. (2016) Invited Attendee, Stu Hunter Research Conference, March 6-9, Waterloo, CA

Weese, M.L., Smucker, B.J., Edwards, D.J., Ockuly, R. ¹, Chang, L. ², (2016) “A Meta-analysis quantifying effect sparsity, heredity and hierarchy in second-order designs”, Spring Research Conference, May, Chicago, IL.

Weese, M.L., Martinez, W.G., Megahed, F.M., Jones-Farmer, L.A., (2015), “Statistical Learning Methods Applied to Process Monitoring: An Overview and Perspective”, 32nd Annual Quality & Productivity Research Conference, June, Raleigh, NC.

Weese, M.L., (2015), “Together We can Do So Much: Fostering Successful Collaboration among Academia, Government and Industry”, Panel Discussant, Spring Research Conference May, Cincinnati, OH.

Weese, M.L., Smucker, B.J., Edwards, D.J., (2015), “Supersaturated Designs, Definitive Screening Designs and the Dantzig Selector”, March, Colloquia, Department of Statistics and Operations Management, Virginia Commonwealth University, Richmond, Virginia.

CONTRIBUTED PRESENTATIONS

Weese, M.L., Stallrich, J.W., Edwards, D.J., Smucker, B.J., (2020) “Stop Treating Supersaturated Designs like Other Screening Designs”, Joint Statistical Meetings, August, Virtual.

Weese, M.L., Martinez, W.G., Jones-Farmer, L.A., (2018) “One Class Peeling for Outlier Detection in High Dimensions”, Joint Research Conference, June, Santa Fe, NM.

Weese, M.L., Martinez, W.G., Jones-Farmer, L.A., (2016), “Recommendations on the Application of the k-chart”, Fall Technical Conference, October, Minneapolis, MN.

Weese, M.L., Ramsey, P.J., Montgomery, D.J., (2015), “Analysis Strategies for Definitive Screening

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² Undergraduate Student

	Design”, Fall Technical Conference, October, Houston TX.
	Weese, M.L., (2014), “Customer Behavior Outside 4 Walls: A Business Analytics Practicum Project using JMP”, 2014, Poster Presentation, JMP Discovery Conference, September, Cary, NC.
	Weese, M.L., Smucker, B.J., Edwards, D.J., (2014), “Searching for Powerful Supersaturated Designs”, Fall Technical Conference, October, Richmond, VA.
FUNDING	Farmer School of Business Summer Research Grant 2020-2021, \$10,000.
TEACHING	<p>Miami University</p> <p>ISA 633 Prescriptive Analytics in Business</p> <p>ISA 491/591 Introduction to Data Mining in Business</p> <p>ISA 496 Business Analytics Practicum</p> <p>ISA/STA 365 Design of Experiments and Process Monitoring</p> <p>ISA 291 Regression Analysis in Business</p> <p>ISA 205 Introduction to Business Statistics</p> <p>Online ISA 205 Introduction to Business Statistics</p> <p>ISA 203 Supplementary Business Statistics</p> <p>Online ISA 203 Supplementary Business Statistics</p> <p>University of Tennessee</p> <p>STAT 201 Introduction to Business Statistics</p> <p>STAT 365 Statistical Process Control</p>
ADVISING	<p>Na Sun (advisor), (expected May 2022) Topic: The One-Class Peeling Method for multi-modal data <i>Masters Project</i></p> <p>Jie Yin (advisor), (2021) Topic: Investigating extensions of the One-Class Peeling method. <i>Masters Project</i></p> <p>Lina Lu (advisor), (2020) Title: Optimizing s for <i>OCP</i> outlier detection. <i>Masters Project</i></p> <p>Eric Ansong (committee member) (2019) Title: SIC optimal supersaturated design. <i>Masters Project</i></p> <p>Mengdi Fu (co-advised with Byran Smucker) (2017) Title Using the Dantzig selector to analyze supersaturated experiments. <i>Masters Project</i></p> <p>Becky Ockuly (co-advised with Byran Smucker) (2016). Title: Response Surface Experiments: A Meta-Analysis. <i>Master’s Project</i></p>
HONORS AND AWARDS	<p><i>Outstanding Professor Award Nominee</i> for the Miami University Associated Student Government, 2017 and 2014 (this is a campus-wide nomination for a faculty member who made significant difference in students’ lives and careers).</p> <p><i>Smucker Teaching Award Nominee</i> for Farmer School of Business, 2015-2018.</p> <p><i>Best Presentation Honorable Mention</i> from the Section for Physical and Engineering Sciences of the American Statistical Association, Joint Statistical Meetings, Boston, MA 2014</p> <p><i>Outstanding Poster Presentation Award</i> from the Section for Physical and Engineering Sciences of the American Statistical Association, Joint Statistical Meetings, Washington DC, 2009</p>
SERVICE	<p>To Miami University:</p> <p>Committees:</p> <p>University Graduate Council, Farmer School of Business Representative, <i>Elected</i> (2021-2024)</p>

Search Committee Chair, Information Systems & Analytics, Analytics Positions (2021-2022)
 Farmer School of Business Faculty Composition Task Force member (2020-2021)
 Search Committee, Information Systems & Analytics, Analytics TCPL Position (2020-2021)
 Search Committee, Information Systems & Analytics, Analytics Position (2019-2020)
 Search Committee, Information Systems & Analytics, Analytics Position (2018-2019)
 Search Committee, Information Systems & Analytics, Information Systems and Analytics Positions (2017-2018)
 DataFest Judging committee (2016-2019)
 ISA Technology service committee (2016-2017)
 Farmer School of Business Commencement and Anderson Speaker Series committee (2017-2019)
 Search Committee, Farmer School of Business, Associate Dean Position (Summer 2015)
 Farmer School of Business e-Learning committee (2013-2014, 2014-2015, 2015-2016)
 ISA STAR Seminar Series committee chair (2013-2014, 2014-2015)

Center for Analytics and Data Science:

Faculty Project Lead *Using Machine Learning in the search for antibiotic inhibitors: Miami University Chemistry Department* (Spring 2020-ongoing)
 Faculty Project Lead *Subscription payment modeling: Local Payment Processing Corporation* (Fall 2020)
 Faculty Project Lead *Data Exploration: Large Local Grocery Chain* (Spring 2019)
 Faculty Project Lead *Market Segmentation: Large Local Bank* (Fall 2018)
 Faculty Project Lead *Modeling: Butler County Landbank Round 2* (Spring 2016)

Other:

Advisor to Business Analytics minors, co-majors and ISA majors (approximately 60-80 students per semester)
 Careers in Quantitative Skills Day (2015-2020): Prepared and lead session for high school girls
 Proctored SAS Professional Predictive Analytics Certification Exam for ISA 491 students (86% pass rate) (2016-2018)
 Lean-In Group (2014-2016): Informal group for graduating female analytic students
 SAS Data Mining Certificate Coordinator (2013-2017): Coordination of awards to students
 ISA 205 Course Coordinator (2013-2104): Coordinated all instructors of ISA 205
 CELTUA Top 25 Coordinator for ISA 205 (2013-2014): Managed the Miami University Top 25 course requirements for ISA 205

To the Profession:

Editorial Review Board Member, *Quality Engineering*

Editorial Review Board Member, *Quality and Reliability Engineering International*

Journal Reviewer: *Applied Stochastic Models in Business and Industry, Chemometrics and Intelligent Laboratory Systems, Computational Statistics and Data Analysis, Inform Transactions on Education, International Journal of Production Research, Laboratory Animals, Journal of Statistical Planning and Inference, Journal of Quality Technology, Technometrics, Quality Engineering*

Invited Session Organizer, “The Future of Designed Experiments in the Era of Big Data”, JSM 2020

Invited Session Organizer, “Analysis Based Design”, ICODOE 2019

Chair and member, Youden and Wilcoxon Award Committee, (2018-2021)

Sponsorship Chair, Joint Research Conference (2018)

Fall Technical Conference Publicity Chair, Quality & Progress, American Statistical Association (2016-2019)

FTC Short Course Rep, Chemical Industries & Process Division, American Society for Quality

(2014-2017)

Secretary, Chemical Industries & Process Division, American Society for Quality (2012-2014)

Fall Technical Conference Assistant Program Chair, Chemical Industries and Process Division, American Society for Quality (2012)

Membership Chair, Section on Physical & Engineering Sciences, American Statistical Association (2011-2013)

Quality & Progress Research Conference Session Chair (2015, 2017)

Fall Technical Conference Session Chair (2015, 2016, 2017)

Session Chair, Joint Statistical Meetings (2011, 2014, 2017)

PROFESSIONAL
ACTIVITIES

Member American Statistical Association

Member American Society for Quality

Member INFORMS