# JENNIFER L. GREEN | Curriculum Vitae

Michigan State University, Department of Statistics and Probability, Program in Mathematics Education, C442 Wells Hall, East Lansing, MI 48824 E-mail: jg@msu.edu Office Phone: (517) 432-9892

## EDUCATION

2010	Ph.D. Statistics, University of Nebraska-Lincoln
	Dissertation: Estimating Teacher Effects using Value-added Models
	Advisor: Dr. Erin E. Blankenship
2006	M.S. Statistics, University of Nebraska-Lincoln
2004	B.S. Secondary Education (Mathematics), Chadron State College, Summa cum laude

#### **PROFESSIONAL EXPERIENCE**

Michigan State University

Department of Statistics and Probability; Program in Mathematics Education 2020 - present Associate Professor

Montana State University Department of Mathematical Sciences

2018 - 2020	Associate Professor
2013 - 2018	Assistant Professor

University of Nebraska-Lincoln

Department of Statistics; Center for Science, Mathematics, and Computer Education

2010 - 2013	Research Assistant Professor
	Research Supervisors: Dr. William (Jim) Lewis, Dr. Walter W. Stroup
2007 - 2010	Graduate Research Assistant
2004 - 2010	Graduate Teaching Assistant

Acton Marketing LLC

2005 - 2006 Statistician

#### HONORS AND AWARDS

#### Major Awards

2020	Distinguished Young Alumna Award, Chadron State College
2019	Ron Wasserstein Award for Best Contributed Paper sponsored by the Statistical Education
	Section at the 2018 Joint Statistical Meetings, American Statistical Association
2017	Outstanding Teaching Award, College of Letters and Science, Montana State University
2014	Excellence Award for Best Paper by an Early Career Author at the 9th International Conference on
	Teaching Statistics, International Association for Statistical Education
2014	Jackie Dietz 2013 Best Journal of Statistics Education Paper Award, American Statistical
	Association

2013 Junior Faculty Holling Family Award for Teaching Excellence, University of Nebraska-Lincoln

#### 2009 Outstanding Graduate Teaching Assistant Award, University of Nebraska-Lincoln

#### **Other Honors and Nominations**

2023	Thank an Educator, #iteachmsu, Michigan State University "Dr. Green truly is my favorite statistics professor. Her passion and love for her subject is clearly shown in her smile every time a student asks a question. Throughout this last semester, her enthusiasm and kindness have impacted me in a very positive manner. I was really intimidated going into her STT442 class as I felt like I would not do well in an advanced stats class but the way she broke down even exponent and was always pager to answer questions quickly changed
	that. Thank you so much for that Dr. Green!!"
2023	Outstanding Faculty Mentor Award (Nominated), The Graduate School, Michigan State University
2022	Faculty Success Program Registration Award, Provost's Office, Michigan State University
2019	Research Enhancement Award, College of Letters & Science, Montana State University
2018	Fox Faculty Award for Outstanding Teaching, Research, Scholarship, Creativity and Mentorship (Nominated), Montana State University
2018	Research Enhancement Award, College of Letters & Science, Montana State University
2017	Fox Faculty Award for Outstanding Teaching, Research, Scholarship, Creativity and Mentorship (Nominated), Montana State University
2016	Travel Award for College Mathematics Instructor Development Source (CoMInDS) Summer Workshop, Mathematical Association of America
2016	Research Enhancement Award, College of Letters & Science, Montana State University
2015	James & Mary Ross Provost's Award for Excellence (Nominated), College of Letters & Science, Montana State University
2015	Certificate of Teaching Enhancement, Montana State University
2014	Center for Faculty Excellence Member, Montana State University
2013	Research Travel Award, University of Nebraska-Lincoln
2012	Research Travel Award, University of Nebraska-Lincoln
2009	United States Conference on Teaching Statistics Graduate Student Registration Grant
2008	Larrick Student Research Travel Award, University of Nebraska-Lincoln
2006	Milton E. Mohr Teaching Fellowship, University of Nebraska-Lincoln

2004 Mary and Charles C. Cooper/Emma I. Sharpless Fellowship, University of Nebraska-Lincoln

## PUBLICATIONS

\*\*Graduate Student, \*Post-doctoral Researcher

#### **Peer-Reviewed Publications**

- \*\*Stratton, C., Hoegh, A., Rodhouse, T. J., Green, J. L., Banner, K. M., & Irvine, K. M. (2024). Clustering and unconstrained ordination with Dirichlet process mixture models. *Methods in Ecology and Evolution*, 15(9), 1720-1732. DOI: 10.1111/2041-210X.14389
- \*\*Meyer, E. S., Green, J. L., Arnold, E. G., & Wickstrom, M. (2024). Understanding how and when graduate student instructors break through challenges with active learning. *International Journal of Research in Undergraduate Mathematics Education*. DOI: 10.1007/s40753-024-00240-8
- \*\*Arnold, E. G., & Green, J. L. (2023). Exploring the use of statistics curricula with annotated lesson notes. *Journal of Statistics and Data Science Education*, 31(2), 162-172. DOI: <u>10.1080/26939169.2022.2099486</u>

- 15. \*\*Stratton, C. A., **Green, J. L.**, & Hoegh, A. (2021). Not just normal: Exploring power with Shiny apps. *Technology Innovations in Statistics Education*, *13*(1), 1-37. DOI: <u>10.5070/T513146468</u>
- Green, J. L., Smith, W. M., Kerby, A. T., Blankenship, E. E., Schmid, K. K., & Carlson, M. A. (2018). Introductory statistics: Preparing in-service middle-level mathematics teachers for classroom research. *Statistics Education Research Journal*, 17(2), 216-238. DOI: 10.52041/serj.v17i2.167
- Broatch, J., Green, J. L., & Karl, A. (2018). RealVAMS: An R package for fitting a multivariate valueadded model (VAM). *The R Journal, 10*(1), 22-30, DOI: <u>10.32614/RJ-2018-033</u>
- \*Kutaka, T. S., \*\*Ren, L., Smith, W. M., Beattie, H. L., Edwards, C. P., Green, J. L., Chernyavskiy, P., Stroup, W., Heaton, R. M., & Lewis, W. J. (2018). Examining change in K-3 teachers' mathematical knowledge, attitudes, and beliefs: The case of Primarily Math. *Journal of Mathematics Teacher Education*, 21(2), 147-177.
- Green, J. L., Stroup, W. W., & \*\*Fellers, P. S. (2017). Defining program effect: A value-added mixed model perspective. *Statistics and Public Policy*, 4(1), 1-10. DOI: <u>10.1080/2330443X.2017.1369914</u>
- Green, J. L., Schmitt-Wilson, S., Versland, T., Kelting-Gibson, L., & \*\*Nollmeyer, G. (2016). Teachers and data literacy: A blueprint for using professional development to foster data driven decision making. *Journal of Continuing Education and Professional Development, 3*(1), 14-32.
- 9. Hildreth, L. A., Green, J. L., & Soll, N. (2016). Expanding your horizons. *Teaching Statistics*, 38(2), 72.
- 8. \*\*Ren, L., **Green, J. L.**, & Smith, W. M. (2016). Using the Fennema-Sherman Mathematics Attitude Scales with lower primary teachers. *Mathematics Education Research Journal*, 28(2), 303-326.
- 7. Hildreth, L. A., & **Green, J. L.** (2016). Using pig die and simulation to explore probability and expected values. *Teaching Statistics*, *38*(2), 67-71.
- 6. **Green, J. L.**, & Blankenship, E. E. (2015). Fostering conceptual understanding in mathematical statistics. *The American Statistician: Special Issue on Undergraduate Programs, 69*(4), 315-325.
- Schmid, K. K., Blankenship, E. E., Kerby, A. T., Green, J. L., & Smith, W. M. (2014). The development and evolution of an introductory statistics course for in-service middle-level mathematics teachers. *Journal of Statistics Education*, 22(3), DOI: <u>10.1080/10691898.2014.11889715</u>
- Green, J. L., & Blankenship, E. E. (2014). Beyond calculations: Fostering conceptual understanding in statistics graduate teaching assistants. *Proceedings of the Ninth International Conference on Teaching Statistics*. [Online: <u>http://icots.info/9/proceedings/pdfs/ICOTS9\_3A3\_GREEN.pdf</u>]
- Green, J. L., & Blankenship, E. E. (2013). Primarily statistics: Developing an introductory statistics course for pre-service elementary teachers. *Journal of Statistics Education*, 21(3), DOI: <u>10.1080/10691898.2013.11889683</u>
- Friedow, A., Blankenship, E. E., Green, J. L., & Stroup, W. W. (2012). Learning interdisciplinary pedagogies. *Pedagogy*, 12(3), 405-424.
- 1. **Green, J. L.** (2010). Teaching highs and lows: Exploring university teaching assistants' experiences. *Statistics Education Research Journal,* 9(2), 108-122. DOI: 10.52041/serj.v9i2.379

#### Edited Book Chapters

- Green, J. L., \*\*Manski, S. E., \*\*Hanson, T. A., & Broatch, J. E. (2023). Descriptive statistics. In R. J. Tierney, F. Rizvi, & K. Erkican (Eds.), *International Encyclopedia of Education* (4<sup>th</sup> Ed.), Vol. 14, p. 723-733. Elsevier. DOI: <u>10.1016/B978-0-12-818630-5.10083-1</u>
- Broatch, J. E., \*\*Manski, S. E., & Green, J. L. (2023). Statistics: Value-added models. In R. J. Tierney, F. Rizvi, & K. Erkican (Eds.), *International Encyclopedia of Education* (4<sup>th</sup> Ed.), p. 390-396. Elsevier. DOI: <u>10.1016/B978-0-12-818630-5.10048-X</u>

## Conference Proceedings

 Green, J. L., Stroup, W. W., Smith, W. M., & Heaton, R. M. (2011). Connecting the pieces: Methodology for developing student achievement trajectories from different instruments. Proceedings of the 2011 Math Science Partnerships Learning Network Conference. [Online: <u>http://hub.mspnet.org/index.cfm/22684</u>]

#### Software

 Karl, A., Broatch, J., & Green, J. (2023). RealVAMS: Multivariate VAM Fitting (Version 0.4-5) [R package]. [Online: <u>http://cran.r-project.org/web/packages/RealVAMS/index.html</u>]

# **GRANTS**

## Funded – External

7/2023 - 6/2026	Collaborative research: Modules for Statistics graduate teaching assistants learning to teach equitably with authentic data (GTAs-LEAD) National Science Foundation IUSE DUE 2315435 Role: <b>Principal Investigator</b> Total Award: \$124,354 (Michigan State University) Collaborator: Sunghwan Byun (PI, North Carolina State University, lead institution)
10/2020 - 9/2025	Developing validated instruments to measure student/faculty attitudes in under- graduate statistics and data science education PI: Alana Unfried, California State University, Monterey Bay National Science Foundation DUE 20133392 Role: <b>External Evaluator</b> Total Award: \$599,998
10/2020 - 9/2024	Collaborative research: Improving the preparation of college mathematics instructors to implement student-centered, inclusive teaching PI: Sean Yee, South Carolina University National Science Foundation IUSE DUE 2020952 Role: <b>Expert Provider</b> Total Award: \$180,000
9/2017 - 8/2022	NRT-IGE: Fostering effective communication skills for STEM graduate students PI: Shannon Willoughby, Department of Physics, Montana State University National Science Foundation DGE 1735124 Role: <b>Co-Principal Investigator</b> Total Award: \$481,482

9/2014 - 8/2017	Integrating mathematical modeling, experiential learning and research through a sustainable infrastructure and online network for teachers in the elementary grades PI: Elizabeth Burroughs, Dept. of Mathematical Sciences, Montana State University National Science Foundation DRL 1441024 Role: <b>Senior Personnel</b> Total Award: \$425,730 (\$1,348,892 across all sites – George Mason University, lead institution: Montana State University: Harvey Mudd College)
10/2013 - 3/2017	Collaborative research: RealVAMS-Getting real-world value from value-added models PI: Walter Stroup, Department of Statistics, University of Nebraska-Lincoln National Science Foundation DGE 1336265 Role: <b>Co-Principal Investigator / Former Principal Investigator*</b> Total Award: \$89,925 (MSU Subaward: \$35,239) Collaborator: Jennifer Broatch (PI, Arizona State University, lead institution)
	* <u>Note</u> : I was PI while research faculty at UNL. When I joined MSU in 8/2013, UNL chose to keep the grant centered there and funded my portion as a subaward.
1/2015 - 12/2015	Creating data literacy in eastern Montana rural schools PI: Tena Versland, Department of Education, Montana State University Office of the Commissioner of Higher Education, Title II Improving Teacher Quality Role: <b>Co-Principal Investigator</b> Total Award: \$71,106
6/2011 - 4/2015	Data connections: Developing a coherent picture of mathematics teaching and learning PI: Walter Stroup, Department of Statistics, University of Nebraska-Lincoln National Science Foundation DRL 1050667 Role: <b>Co-Principal Investigator</b> Total Award: \$1,213,475 (MSU Subaward: \$10,269**)
	**Note: When I joined MSU in 8/2013, I brought my remaining portion as a subaward.
1/2014 - 12/2014	Creating a culture of data-driven decision making: Training educators in data analysis to improve instruction and academic achievement PI: Tena Versland, Department of Education, Montana State University Office of the Commissioner of Higher Education, Title II Improving Teacher Quality Role: <b>Co-Principal Investigator</b> Total Award: \$99,023
Funded - Internal	
8/2016 - 12/2016	Statistical methodology and software for evaluating educational programs ADVANCE Project TRACS, MSU Faculty Excellence Grants Program Role: <b>Principal Investigator</b> Total Award: \$5,000
8/2014 - 6/2015	Graduate teaching assistant development: Enhancing instruction in gateway and barrier courses in the mathematical sciences Performance Funding Investment, Montana State University Role: <b>Principal Investigator</b> Total Award: \$26,500

7/2014 - 6/2015	Graduate teaching assistant development: Fostering an intellectual teaching community in the Department of Mathematical Sciences MSU Center for Faculty Excellence, Instructional Innovation Grants Program Role: <b>Principal Investigator</b> Total Award: \$1,380
1/2015 - 5/2015	<i>Multi-institutional, interdisciplinary STEM research</i> ADVANCE Project TRACS, MSU Faculty Excellence Grants Program Role: <b>Principal Investigator</b> Total Award: \$5,000

#### PRESENTATIONS

\*Presenting Author(s) for Coauthored Presentations, ++Graduate Student, +Post-doctoral Researcher

#### **Invited Conference Presentations**

- Green, J. L. Effectively communicating environmental and ecological statistics to diverse audiences. ENVR Workshop: Environmental and Ecological Statistical Research and Applications with Societal Impacts, Provo, UT, October, 2022.
- \*Green, J. L., & \*Blankenship, E. E. Cutting through the theory: Emphasizing and assessing conceptual understanding in mathematical statistics. Joint Statistical Meetings, Washington, D.C., August, 2022.
- 12. **Green, J. L.** *Expanding opportunities...to listen.* United States Conference on Teaching Statistics (virtual), June, 2021.
- 11. **Green, J. L.** *Learning through assessment: Challenging mathematical statistics students in novel ways.* Joint Statistical Meetings (virtual), July, 2020.
- Green, J. L. Ph.D. programs in statistics education: Department of mathematical sciences perspective. International Conference of the ERCIM Working Group on Computational and Methodological Statistics, London, UK, December, 2019.
- \*Green, J. L., \*Sterman, L., & \*Hughes, B., Willoughby, S., LaMeres, B., & Davis, K. The art of storytelling: Communicating science with the public. Women in Science and Engineering (WiSE) Conference, Bozeman, MT, October, 2019.
- \*Green, J. L., Willoughby, S., LaMeres, B., Hughes, B., Sterman, L., Organ, C., & Davis, K. The Art of storytelling: Engaging audiences with podcasts and curiosity cafes. Joint Statistical Meetings, Denver, CO, July, 2019.
- 7. **Green, J. L.** *Dr.* + *Statistics* = *My journey through the unknown.* Expanding Your Horizons Conference, Bozeman, MT, March, 2019.
- 6. **Green, J. L.** *GAISE-ing into theory: Statistical thinking in mathematical statistics.* The Montana ActiveStatistics Conference, Helena, MT, June, 2018.
- \*Green, J. L., & Blankenship, E. E. Educating educators: Developing teachers of statistical thinking. International Conference of the ERCIM Working Group on Computational and Methodological Statistics, London, UK, December, 2017.

- \*Blankenship, E. E., & Green, J. L. Cutting through the theory: Emphasizing statistical thinking in mathematical statistics. International Conference of the ERCIM Working Group on Computational and Methodological Statistics, London, UK, December, 2017.
- 3. Green, J. L. Value-added modeling: A primer. Joint Statistical Meetings, Seattle, WA, August, 2015.
- 2. \*Green, J. L., & \*Gill, B. Value-added models: An opportunity for local engagement. Roundtable presentation at Council of Chapters Workshop, Joint Statistical Meetings, Boston, MA, August, 2014.
- 1. **\*Green, J. L.**, \*Blankenship, E. E., \*Friedow, A., Stenberg, S., & \*Stroup, W. W. *Fostering statistics TA development as writing instructors*. Joint Statistical Meetings, Washington, D.C., August, 2009.

## **Refereed Conference Presentations**

- \*Byun, S., \*Green, J. L., ++Cruciani, M., Post, J., & ++Ferrell, M. GTAs' problems of practice for teaching introductory statistics courses. Topic-contributed presentation at the Joint Statistical Meetings, Portland, OR, August, 2024.
- 32. ++\*Cruciani, M., Post, J., Green, J. L., & Byun, S. Authentic data explorations: Investigating the Normal distribution through comparative rent data. Poster presentation at the Electronic Conference on Teaching Statistics, June, 2024.
- 31. ++\*Westby, K. R., & \*Green, J. L. Teacher learning about Disability in mathematics, statistics, and mathematics education classrooms. Annual Association of Mathematics Teacher Educators Conference, Orlando, FL, February, 2024.
- \*Hayat, M., Gould, R., \*Green, J. L., \*Kaplan, J., \*Le, L., \*Peters, S., & \*Zieffler A. *Demystifying the publishing process for statistics education journals.* Breakout session at the United States Conference on Teaching Statistics, State College, PA, June, 2023.
- 29. \*Freeman, P., \***Green, J. L.**, & \*Blankenship, E. E. *Performing meaningful assessment in a modernized mathematical statistics course sequence.* Breakout session at the Electronic Conference on Teaching Statistics, May, 2022.
- ++\*Meyer, E. S., Green, J. L., & Arnold, E. G. New perspectives on understanding graduate student instructors' longitudinal experiences with active learning. Poster presentation at the United States Conference on Teaching Statistics (virtual), July, 2021.
- 27. ++\*Stratton, C., & \***Green, J. L.** *Beyond normal: Understanding power with R shiny.* Poster presentation at the United States Conference on Teaching Statistics (virtual), June, 2021.
- 26. \*Green, J. L., \*Broatch, J., \*Dalzell, N., Jiroutek, M., \*Kerby, A., \*Rockoff, D., & \*Ward, J. Fostering connections and conversations between educators: ASA section on statistics and data science education mentoring program. Breakout session at the Electronic Conference on Teaching Statistics, May, 2020.
- \*Arnold, E. G., ++\*Meyer, E. S., & \*Green, J. L. Investigating future secondary mathematics teachers' development in statistics. Breakout session at the United States Conference on Teaching Statistics, State College, PA, May, 2019.

- 24. ++\*Meyer, E. S., **Green, J. L.**, & Arnold, E. G. *A longitudinal study of GTAs' experiences with active learning.* Poster presentation at the United States Conference on Teaching Statistics, State College, PA, May, 2019.
- \*Wickstrom, M., & Green, J. L. Elementary teachers' receptiveness to mathematical modeling: Identifying and exploring beliefs, practices, and classroom structures. Annual Association of Mathematics Teacher Educators Conference, Orlando, FL, February, 2019.
- 22. ++\*Meyer, E. S., & **Green, J. L.** Statistics behind the skill: Cluster analysis and data visualization on disc golf data. The Cascadia Symposium on Statistics in Sports, Vancouver, BC, August, 2018.
- \*Hyatt, M., \*Green, J. L., & \*Justice, N. ASA section on statistical education mentoring program. Birdsof-a-Feather presentation at the Electronic Conference on Teaching Statistics, May, 2018. [Online: https://www.causeweb.org/cause/ecots/ecots18/birds-of-a-feather/6]
- ++\*Meyer, E. S., Green, J. L., & Arnold, E. G. Graduate teaching assistants' evolving conceptualizations of active learning. Poster presentation at the Electronic Conference on Teaching Statistics, May, 2018. [Online: https://www.causeweb.org/cause/ecots/ecots18/posters/2-04]
- ++\*Stratton, C. A., & Green, J. L. The power of technology: A Shiny applet assisted approach to teaching statistical power. Poster presentation at the Electronic Conference on Teaching Statistics, May, 2018.
   [Online: https://www.causeweb.org/cause/ecots/ecots18/posters/2-08]
- ++\*Meyer, E. S., \*Arnold, E. G., & \*Green, J. L. Graduate teaching assistants' evolving conceptualizations of active learning. Poster presentation at the Conference on Research in Undergraduate Mathematics Education, San Diego, CA, February, 2018.
- 17. \*Hildreth, L. A., & \*Green, J. L. Using pig dice to explore probability, simulation, distributions, and informal inference. Poster presentation at the United States Conference on Teaching Statistics, State College, PA, May, 2017.
- \*Green, J. L., & \*Blankenship, E. E. Introductory statistics: Preparing in-service middle-level mathematics teachers for classroom teaching and research. Annual Association of Mathematics Teacher Educators Conference, Orlando, FL, February, 2017.
- \*Green, J. L., & \*Broatch, J. Making changes with technology in mathematical statistics. Poster presentation at the Electronic Conference on Teaching Statistics, May, 2016. [Online: https://www.causeweb.org/cause/ecots/ecots16/posters/c/5]
- 14. \*Broatch, J., **Green, J. L.**, & Karl, A. *RealVAMS: An R package for fitting a multivariate value-added model (VAM).* Conference on Statistical Practice, San Diego, CA, February, 2016.
- \*Green, J. L., Stroup, W. W., ++Fellers, P.S., & Broatch, J. Using value-added models to assess teacher professional development programs. Annual meeting of the National Council on Measurement in Education, Chicago, IL, April, 2015.
- \*Broatch, J., Green, J. L., Karl, A., & Stroup, W. W. Incorporating "real-world outcomes" in value-added models (VAMs). Annual meeting of the National Council on Measurement in Education, Chicago, IL, April, 2015.

- \*Versland, T., Kelting-Gibson, L., \*Wilson, S., & Green, J. L. Creating a culture of data informed decisions: Training educators in data analysis to improve instruction and academic achievement. Rural Education Association Annual Convention and Research Symposium, San Antonio, TX, October, 2014.
- 10. \*Green, J. L., & Blankenship, E. E. *Embracing reform in mathematical statistics*. Roundtable presentation at the Joint Statistical Meetings, Boston, MA, August, 2014.
- 9. **Green, J. L.** *Using value-added models to assess teacher professional development programs.* Topiccontributed presentation at the Joint Statistical Meetings, Boston, MA, August, 2014.
- \*Green, J. L., & Blankenship, E. E. Beyond calculations: Fostering conceptual understanding in statistics graduate teaching assistants. International Conference on Teaching Statistics, Flagstaff, AZ, July, 2014.
- ++\*Ren, L., +Kutaka, T. S., Fleharty, H. L., Smith, W. M., Edwards, C. P., & Green, J. L. Longitudinal changes in K-3 teachers' knowledge for teaching, beliefs about teaching, and attitudes towards mathematics. Annual meeting of the American Educational Research Association, Philadelphia, PA, April, 2014.
- +\*Kutaka, T. S., Fleharty, H. L., ++Ren, L., Smith, W. M., Edwards, C. P., Green, J. L., & Albano, A. Longitudinal changes in students' math achievement scores for an elementary mathematics specialist program. Annual meeting of the American Educational Research Association, Philadelphia, PA, April, 2014.
- 5. **Green, J. L.** *Statistics education research: Future directions and perspectives.* Topic-contributed presentation at the Joint Statistical Meetings, Montreal, Quebec, Canada, August, 2013.
- 4. **\*Green, J. L.**, & \*Blankenship, E. E. *Making change happen in mathematical statistics.* Poster presentation at the United States Conference on Teaching Statistics, Raleigh, NC, May, 2013.
- ++\*Kutaka, T. S., ++Fleharty, H. L., Smith, W. M., & Green, J. L. Connections between teachers' mathematical knowledge for teaching and school-level poverty. Annual meeting of the American Educational Research Association, San Francisco, CA, April, 2013.
- \*Green, J. L., & \*Blankenship, E. E. Developing teachers of statistics: Redefining the introductory statistics classroom. Topic-contributed presentation at the Joint Statistical Meetings, San Diego, CA, August, 2012.
- \*Green, J. L., Smith, W. M., Stroup, W. W., Jiao, S., & Heaton, R. M. Estimating the impact of a professional development program on student learning using a value-added model. Annual meeting of the American Educational Research Association, Denver, CO, May, 2010.

## **Contributed Conference Presentations**

- ++\*Cruciani, M., Post, J., Green, J. L., & Byun, S. Authentic data explorations: Investigating the Normal distribution through comparative rent data. Speed session presentation at the Joint Statistical Meetings, Portland, OR, August, 2024.
- \*Willoughby, S., LaMeres, B., Hughes, B., Organ, C., Green, J. L., & Sterman, L. Quantifying jargon. Poster presentation at the American Association of Physics Teachers Summer Meeting, Provo, UT, July, 2019.

- \*LaMeres, B., Willoughby, S., Hughes, B., Organ, C., Green, J. L., & Sterman, L. Using improvisational acting techniques to improve the oral communication skills of STEM graduate students. Poster presentation at the American Society of Engineering Education Annual Conference, Tampa, FL, June, 2019.
- 23. ++\*Stratton, C., Hoegh, A., & **Green, J. L.** *Unraveling Kershaw's dominance: A case study in dynamic hierarchical multinomial regression.* Poster presentation at the Cascadia Symposium on Statistics in Sports, Vancouver, BC, August, 2018.
- \*Willoughby, S., Hughes, B., Sterman, L., Organ, C., LaMeres, B., & Green, J. L. STEM storytellers: Improving graduate students' oral communication skills. Poster presentation at the American Association of Physics Teachers, Washington, DC, August, 2018.
- \*Green, J. L., Willoughby, S., LaMeres, B., Hughes, B., Sterman, L., Organ, C., & Davis, K. STEM storytellers: Improving graduate students' oral communication skills. Joint Statistical Meetings, Vancouver, BC, July, 2018.
- 20. ++\*Meyer, E. S., & **Green, J. L.** Statistics behind the skill: Cluster analysis and data visualization on disc golf data. Poster presentation at the Joint Statistical Meetings, Vancouver, BC, July, 2018.
- 19. ++\*Stratton, C., Hoegh, A., & **Green, J. L.** *Predicting the PITCHf/X pitch classifier.* Joint Statistical Meetings, Vancouver, BC, July, 2018.
- \*LaMeres, B., Willoughby, S., Hughes, B., Sterman, L., Organ, C., & Green, J. L. STEM storytellers: Improving the oral communication skills of STEM graduate students. Poster presentation at the American Society of Engineering Education Annual Conference, Salt Lake City, UT, June, 2018.
- 17. \*Green, J. L., Arnold, E., & ++Meyer, E. S. *Enhancing instruction: Preparing graduate teaching assistants for active learning.* Joint Statistical Meetings, Baltimore, MD, July, 2017.
- 16. \*Green, J. L., Kerby, A. T., Blankenship, E. E., Schmid, K. K., & Smith, W. M. Introductory statistics: Preparing in-service middle-level mathematics teachers for classroom research. Joint Statistical Meetings, Chicago, IL, August, 2016.
- 15. \*Broatch, J., & **Green, J. L.** *Evaluation transition: Comparing RealVAMS and current value-added models.* Joint Statistical Meetings, Chicago, IL, August, 2016.
- 14. \*Stroup, W. W., \***Green, J. L.**, \*Smith, W. M., Lukin, L., & ++\*Fellers, P. S. *Data Connections: Overview and findings.* Data Connections Dissemination Conference, Lincoln, NE, April, 2014.
- 13. \*Green, J. L., & ++\*Fellers, P. S. *Value-added modeling basics.* Data Connections Dissemination Conference, Lincoln, NE, April, 2014.
- 12. \*Green, J. L., \*Lewis, W., & \*Blankenship, E. E. *Involving STEM faculty.* Data Connections Dissemination Conference, Lincoln, NE, April, 2014.
- 11. \*Green, J. L., \*Smith, W. M., & ++\*Fellers, P. S. *Future uses of VAM.* Breakout discussion at the Data Connections Dissemination Conference, Lincoln, NE, April, 2014.
- ++\*Fellers, P. S., Stroup, W., & Green, J. L. Investigation of the impact of nonrandomization and ceiling effects on estimates of classroom effects from value-added models. Joint Statistical Meetings, Montreal, Quebec, Canada, August, 2013.

- ++\*Fleharty, H. L., ++\*Kutaka, T. S., Smith, W. M., Green, J. L., & Edwards, C. P. Primary teachers' mathematical knowledge and student achievement gains: A longitudinal study. Poster presentation at the Society for Research in Child Development Biennial Meeting, Seattle, WA, April, 2013.
- ++\*Fellers, P. S., \*Stroup, W. W., \*Lukin, L., Green, J. L., \*Smith, W. M., \*Sutton, J. T., & Wang, X. An investigation of the behavior of value-added models for estimating MSP impact. Math Science Partnerships Learning Network Conference, Washington, D.C., January, 2013.
- 7. \*Blankenship, E. E., & **Green, J. L.** *Teaching a CATALST course for pre-service elementary teachers.* Joint Statistical Meetings, San Diego, CA, July, 2012.
- \*Green, J. L., ++\*Fellers, P. S., \*Stroup, W. W., Lukin, L., & Smith, W. M. Data connections: Methodology for developing student achievement trajectories to estimate teaching effectiveness. Math Science Partnerships Learning Network Conference, Washington, D.C., January, 2012.
- 5. **\*Green, J. L.**, & \*Blankenship, E. E. *Cutting through the theory: Emphasizing statistical thinking in mathematical statistics.* Joint Mathematics Meetings, Boston, MA, January, 2012.
- ++\*Fleharty, H. L., Green, J. L., ++Kutaka, T. S., & Smith, W. M. Investigating middle-level teachers' mathematical knowledge for teaching. Poster presentation at the Psychology of Mathematics Education Conference, Reno, NV, October, 2011.
- \*Green, J. L., & \*Smith, W. M. Connecting the pieces: Methodology for developing student achievement trajectories from different instruments. Math Science Partnerships Learning Network Conference, Washington, D.C., January, 2011.
- Green, J. L. Assessing pre-service teachers' growth on the Survey of Mathematical Knowledge for Teaching and the Praxis II test. University of Nebraska College of Education and Human Sciences Student Research Conference, Lincoln, NE, November, 2008.
- 1. **Green, J. L.** *Introductory statistics: Perspectives of departments, instructors and students.* Joint Statistical Meetings, Denver, CO, August, 2008.

#### Webinars

- \*Arnold, E. G., & \*Green, J. L. Exploring the use of statistics curricula with annotated lesson notes. Consortium for the Advancement of Undergraduate Statistics Education (CAUSE) / Journal of Statistics and Data Science Education (JSDSE) webinar presentation, February, 2023.
- \*Green, J. L., Willoughby, S., Sterman, L., Hughes, B., LaMeres, B., & Davis, K. The art of storytelling: Enhancing graduate students' oral communication skills. Consortium for the Advancement of Undergraduate Statistics Education (CAUSE) webinar presentation, February, 2020.
- 2. \*Broatch, J., & \***Green, J. L.** *RealVAMS: Getting real-world value from value added models.* Technical Evaluation Assistance in Mathematics and Science webinar presentation, November, 2015.
- \*Green, J. L., & \*Blankenship, E. E. Primarily statistics: Developing an introductory statistics course for pre-service elementary teachers. Consortium for the Advancement of Undergraduate Statistics Education (CAUSE) webinar presentation, Journal of Statistics Education Series, January, 2014. [Online: https://www.causeweb.org/webinar/jse/2014-01/]

#### Seminars and Colloquia

- \*Green, J. L., \*Keane, J., & \*Melfi, V. Fostering a culture of instructional development in the Department of Statistics and Probability: Our journey with first-year graduate teaching assistants. Co-Integrate Mathematics Education Series, Michigan State University, East Lansing, MI, January, 2023.
- 11. **Green, J. L.** *Current statistics education projects.* Co-Integrate Mathematics Education Series, Michigan State University, East Lansing, MI, December, 2020.
- 10. \*Eitle, T., \***Green, J. L.**, \*Regan, M., & \*Adams, D. *CORE re-invigoration.* Faculty Symposium: Inspiring Excellence in Teaching and Learning, Montana State University, Bozeman, MT, September, 2019.
- Green, J. L. Improving statistics education: Teacher development, curricular design, and program assessment. Program in Mathematics Education, Michigan State University, Lansing, MI, December, 2018.
- 8. **Green, J. L.** *Enhancing STEM education: An overview of my research program.* Department of Mathematical Sciences Statistics Seminar, Montana State University, November, 2017.
- 7. **Green, J. L.** *Developing teachers of statistics: Graduate teaching assistant preparation.* Department of Mathematical Sciences, Montana State University, April, 2013.
- 6. **Green, J. L.** *Primarily statistics: An introductory course for pre-service elementary teachers.* Department of Mathematical Sciences, SUNY Fredonia, Fredonia, NY, December, 2012.
- 5. **Green, J. L.** *Estimating teaching effectiveness using value-added models.* Department of Mathematics & Statistics, Villanova University, Villanova, PA, December, 2012.
- \*Green, J. L., & Blankenship, E. E. Primarily statistics: Developing an introductory statistics course for pre-service elementary teachers. Discipline-Based Education Research Seminar Series, University of Nebraska-Lincoln, October, 2012.
- \*Green, J. L., & \*Blankenship, E. E. Change agents for teaching and learning statistics (CATALST): Radically redefining the introductory statistics classroom. Department of Statistics, University of Nebraska-Lincoln, November, 2011.
- 2. **Green, J. L.** *Estimating the impact of a professional development program on student learning.* Department of Statistics, North Carolina State University, Raleigh, NC, March, 2010.
- \*Green, J. L., & \*Jiao, S. Estimating teacher effects with student achievement data. National Science Foundation NebraskaMath National Advisory Board Meeting, University of Nebraska-Lincoln, October, 2009.

#### EDITORIAL ACTIVITIES

Co-Editor 2023 - present	Statistics Teacher (co-editor with Dr. Trena L. Wilkerson)
Section Editor 2019 - present	Journal of Statistics and Data Science Education (formerly Journal of Statistics

Education). Research in K-12 Education

Journal of Statistics Education
Teaching Statistics
International Association for Statistical Education Satellite
Mathematical Thinking and Learning
Studies in Educational Evaluation
Exploring the Nature of Mathematical Modeling in the Early Grades
Educational Researcher
Technology Innovations in Statistics Education
The American Statistician
Journal of Educational and Behavioral Statistics
Education Policy Analysis Archives
Statistics Education Research Journal
Journal of Statistics Education

# PROFESSIONAL ACTIVITIES

#### International Association of Statistics Education (IASE)

2019 - 2022 Member/Poster Session Organizer, International Program Committee for the Eleventh International Conference On Teaching Statistics (ICOTS11)

#### American Statistical Association (ASA)

2021	Member, Journal of Statistics and Data Science Education Editor Search Committee
2019 - 2020	Chair, Section on Statistics and Data Science Education Mentoring Committee
2019	Lead Developer, Training Graduate Students in Statistics How to Teach Statistics
	Handout
2018 - 2020	Member, Section on Statistics and Data Science Education Mentoring Committee
2017 - 2021	Mentor, Section on Statistics and Data Science Education
2016 - 2018	Member, Council of Chapters Nomination Committee

## American Statistical Association (ASA) – Montana Chapter

2016	President
2015	Vice President
2015	Organizer, Montana Chapter of the ASA Annual Meeting
2013	Council of Chapters Representative

## Consortium for the Advancement of Undergraduate Statistics Education (CAUSE)

2023	Mentor, United States Conference on Teaching Statistics (USCOTS) Speed
	Mentoring Session
2022, 24	Mentor, Electronic Conference on Teaching Statistics (eCOTS) Speed Mentoring Session

#### Mathematical Association of America (MAA)

2015	Coauthor, MAA Committee on the Undergraduate Program in Mathematics
	Mathematical Statistics Course Report

#### Joint Statistical Meetings (JSM)

2023	Program Chair, Section on Statistics and Data Science Education
2022	Program Chair Elect, Section on Statistics and Data Science Education
2019	Invited session organizer, Communicating to the Masses: Sharing Statistics and
	Data Science in a World of Sound Bites, Social Media, and Popular Press
2018, 19, 23, 24	Judge, Section on Statistics and Data Science Education SPEED Session
2015, 16, 17	Docent
2015	Session Chair
2012, 13, 24	Topic-contributed session organizer

## **Other Professional Activity**

Invited Session Organizer, Communicating Statistics and Data Science to the
Masses, International Conference of the ERCIM Working Group on
Computational and Methodological Statistics, London, UK
Enhancing Statistics Teacher Education with E-Modules (ESTEEM) Implementer,
Friday Institute HI-RiSE
Smarter Balanced Assessment System Online Panel for Achievement Level Setting
Member, Statistics Education Common Core Curriculum Committee
Change Agents for Teaching and Learning Statistics (CATALST) Implementer, University of Minnesota

# COURSES TAUGHT

2019

2017, 18, 19, 20

2016, 17, 18, 19

## Michigan State University

Department of	Statistics and Probability
2023	STT 990: Topics on Universal Design and Introducing Undergraduate Students to
	Statistical Software (Independent Study)
2023	STT 442: Probability and Statistics II (In-person)
2022	STT 442: Probability and Statistics II (Online/In-person)
2020	STT 442: Probability and Statistics II (Online)
<u>Program in Ma</u>	thematics Education
2024	MTHE 997: Critical Content of School Mathematics: Data Science and Statistics
	Education (Special Topics)
2023	MTHE 954: Design and Methods in Mathematics Education Research (In-person)
2022	MTHE 990: Equity-Oriented and Disability-Informed Mathematical Knowledge for
	Teaching in Secondary and Post-Secondary Mathematical Sciences Teaching
	Professional Development (Independent Study)
2022, 24	MTHE 879: Teaching College Mathematics (In-person)
2020	MTHE 879: Teaching College Mathematics (Online)
Montana State	University
2020	STAT 591: Becoming a Teacher of Statistics
2019, 20	M 518: Statistics for Teachers (Online Course)
2019	STAT 411/511: Methods for Data Analysis I
2019	STAT 689: Doctoral Reading and Research

STAT 437: Introduction to Applied Multivariate Analysis

STAT 502: Intermediate Mathematical Statistics

STAT 501: Intermediate Probability and Statistics

2014, 15, 16, 18	STAT 422: Mathematical Statistics
2014, 15	STAT 401: Applied Methods in Statistics
2013, 14, 15, 17	STAT 421: Probability Theory

#### University of Nebraska-Lincoln

2011, 12, 13	STAT 463: Introduction to Mathematical Statistics II: Statistica	al Inference
2010, 11, 12	STAT 462: Introduction to Mathematical Statistics I: Distribution	on Theory
2004 - 2009	STAT 218: Introduction to Statistics	,

## COURSES AND PROFESSIONAL DEVELOPMENT TEAM-TAUGHT AND DEVELOPED

#### Michigan State University

- 2022 2025 *Instructional Mentoring Program*, Department of Statistics and Probability Co-designed and co-coordinated this graduate student mentoring program, week-long orientation, and weekly 90-minute instructional development workshops for new graduate teaching assistants during the 2022-23 academic year. Also co-designed and cocoordinated graduate student mentor development workshops twice each month during the 2022-23 academic year. Continued these efforts in 2023-24 and 2024-25 academic years with new cohorts of graduate teaching assistants.
- 2022 **Facilitating Accessible & Inclusive Mathematics Learning Environments**, Center for Instructional Mentoring, Department of Mathematics, Program in Mathematics Education Collaboratively designed and helped facilitate this 10-week workshop for mathematics graduate students in Spring 2022. Extended and offered the workshop to graduate students in mathematics, statistics, and mathematics education in Fall 2022.

#### Montana State University

- 2014 2019 **Excellence in Teaching Symposium**, Department of Mathematical Sciences Co-designed and co-led this graduate student mentoring program and weekly one-hour long training seminar for new graduate teaching assistants each fall. In Spring 2017, extended training seminar to be year-long.
- 2014 2018 **Graduate Teaching Assistant Training Workshop**, Department of Mathematical Sciences Co-developed and co-led this five-day orientation and teaching workshop for incoming graduate students and teaching assistants each August.
- 2015 *Mathematics Modeling Workshop*, NSF *IMMERSION* Project Co-developed and team-taught a five-day mathematics modeling workshop for grades K-5 in-service teachers. Focused on developing an understanding of mathematics modeling and how it can be used in an elementary classroom.

#### 2014 **EDU 588:** *Data Literacy for Teachers* Co-developed and team-taught this week-long summer course about how to use student data to inform instruction for grades K-12 in-service teachers.

#### University of Nebraska-Lincoln

2009, 2012	<b>STAT 892: Statistics for High School Teachers</b> Co-developed and team-taught this graduate-level statistics course for high school teachers. Focused on developing teachers' statistical knowledge for teaching AP Statistics courses.
2008 - 2012	<b>STAT 892: Graduate Teaching Assistant Seminar</b> Co-developed and team-taught a 1-credit hour fall seminar to help prepare graduate teaching assistants to teach statistics courses.
2007 - 2012	<b>Graduate Teaching Assistant Training Workshop</b> , Department of Statistics Co-developed and co-led a five-day teaching workshop for incoming graduate teaching assistants.
2011	<b>STAT 218: Introductory Statistics for Pre-Service Elementary Educators</b> Co-developed and team-taught a 3-credit hour statistics course for pre-service elementary teachers. Focused on how to help students develop statistical reasoning, thinking and literacy skills in an elementary classroom.
2005 - 2011	<b>STAT 892: Statistics for Middle-Level Teachers</b> , NSF Math in the Middle Institute Co-developed and team-taught this graduate-level statistics course for several cohorts of middle-level teachers from Summer 2005-2011. Focused on developing teachers' statistical knowledge for teaching.

# LOCAL SCHOOL PARTNERSHIPS & COLLABORATIONS

From Fall 2020 to Spring 2022, I partnered with Oakland Schools, a regional resource center supporting math programs in 28 diverse K-12 school districts in Michigan. I participated in their monthly Math Equity Learning Network workshops aimed at supporting K-12 mathematics in identifying inequities and developing change actions in instructional practice.

## ADVISING AND MENTORING

## ASA Section on Statistics and Data Science Education

## **Statistics Education Career Mentor**

2020 - 2022	Julie Deeke, Ph.D. (Lecturer, University of Michigan)
2017 - 2019	Julie Garai, Ph.D. (Assistant Professor, The University of the South)

#### Michigan State University

#### Early Career Mentor

2022 - 2023 Banan Al-Tayeb, Graduate Student, Statistics and Probability

## Chair

Current	Maria Cruciani, Ph.D. PriME & Statistics and Probability
	- <u>Awards</u> : National Science Foundation (NSF) Graduate Research Fellowship, 2024
	Future Academic Scholars in Teaching (FAST) Fellowship, 2024-25
Current	Michael Quail, Ph.D. PriME & CMSE (co-chair with Dr. Kristen Bieda)
Current	Tim Hansen, Ph.D. PriME (co-chair with Dr. Vincent Melfi)

Current 2023	<ul> <li>Katie Westby, Ph.D. PriME (co-chair with Dr. Tonya Bartell)</li> <li><u>Awards</u>: King-Chavez-Parks Future Faculty Fellowship, 2023-24 MSU Excellence in Diversity, Equity and Inclusion Award, 2024 Karen King Future Leader Award of the Special Interest Group for Research in Mathematics Education, 2024</li> <li>Sam (Sarah) Manski, Ph.D. Statistics and Probability (co-chair with Dr. Frederi Viens)</li> <li><u>Dissertation</u>: Bayesian statistical methods: Advancing field-level risk assessment, accessible statistical training, and inclusive global education</li> <li><u>Awards</u>: Future Academic Scholars in Teaching (FAST) Fellowship, 2022-23 NatSci Great IDEA (Inclusion, Diversity, Equity, &amp; Accessibility) Fellowship, 2022-23 NatSci Excellence in Teaching Citation (\$1,000), 2023</li> </ul>	
Current	Grayson White, M.S. Statistics and Probability (co-chair with Dr. Andrew Finley)	
First-Year Advis	<b>or</b> Maria Cruciani, Ph.D. PriME	
Committee Mem Current Current Current Current Current 2024 2023	<ul> <li>ber Rachel Roca, Ph.D., Computational Mathematics, Science and Engineering (CMSE) Emily Bolger, Ph.D., CMSE Claire Lambert, Ph.D. PriME John Keane, Ph.D. Educational Psychology and Educational Technology Alicia Matthews-Johnson, Ph.D. PriME Rileigh Luczak, Ph.D., PriME Brady Tyburski, Ph.D. PriME - <u>Dissertation</u>: Change the story, change the curriculum: The curriculum-as-story metaphor as a flexible lens for interpreting curricular (in)coherence from students' perspectives and beyond. Sarah Castle, Ph.D. PriME - <u>Dissertation</u>: Coding for creativity: Exploring the effects of computing enacted through coding on students' mathematical creativity in linear algebra</li></ul>	
Research Project Mentor, Graduate Students		
2023 - current	<ul> <li>Maria Cruciani (Ph.D. PriME)</li> <li>National Science Foundation Graduate Research Fellowship (Submitted Oct 2023; Awarded April 2024)</li> <li>Title: Exploring changes in introductory statistics students' motivational attitudes when using social justice-based lessons</li> <li>Description: In this research project, Maria plans to explore the impacts of a social justice- based unit in introductory statistics on students' attitudes and motivation towards learning statistics.</li> </ul>	
2023 - 2025	Maria Cruciani (Ph.D. PriME) <b>PriME Research Assistantship</b> : Developed, wrote, and submitted NSF GRF proposal; developed and gave conference presentations; designed, piloted, and administered a survey and collecting interview data to explore the teaching and learning of statistics in secondary intermediate algebra courses; collecting and analyzing interview and video data to explore GTAs' problems of practice for teaching statistics; collaboratively designing introductory statistics lessons for students to explore authentic data.	

2023	Anthony Dickson (Ph.D. PriME; co-mentor with Dr. Vince Melfi) <b>PriME Research Assistantship:</b> Began developing and researching an arts-based statistics project to engage undergraduate statistics students with data storytelling and ethics.
2022 - 2023	<ul> <li>Sam (Sarah) Manski (Ph.D. Statistics and Probability; co-mentor with Dr. Frederi Viens)</li> <li>Future Academic Scholars in Teaching (FAST) Fellowship, MSU</li> <li>NatSci Great IDEA (Inclusion, Diversity, Equity, and Accessibility) Fellowship, MSU</li> <li>Title: An accessible and inclusive intervention: A seminar, e-portfolio, and global learning network to teach research professionals how to learn R</li> <li>Description: Using Universal Design for Learning principles, developed, implemented, and researched a workshop and electronic resources to teach graduate students at Michigan State University and early-career researchers in Africa how to learn R.</li> </ul>
2022 - 2023	<ul> <li>Katie Westby (Ph.D. PriME; co-mentor with Rachel Lund)</li> <li>Marianne Amarel Fellowship, College of Education, MSU</li> <li>Title: Studying Teacher Learning about Disabled Students in Mathematics, Statistics, and Mathematics Education Classrooms: A Professional Development for Math, Stats, and Math Education Graduate Teaching Assistants</li> <li>Description: Revised, implemented, and researched outcomes of a multi-week professional development workshop for graduate students in mathematics, statistics, and mathematics education about models of disability, building communities in learning across disciplinary boundaries, antideficit teaching, and Universal Design for Learning-Math.</li> </ul>
2021 - 2022	<ul> <li>Katie Westby (Ph.D. PriME; co-mentor with Dr. Andrew Krause)</li> <li>Leadership Development Fellowship, Graduate School, MSU</li> <li>Title: Facilitating Accessible &amp; Inclusive Mathematics Learning Environments: A Professional Development for Mathematics Graduate Teaching Assistants</li> <li>Description: Developed, implemented, and researched outcomes of a 10-week professional development workshop for graduate students in mathematics on how to facilitate accessible and inclusive mathematics learning environments.</li> </ul>
2020 - 2022	Tim Hansen (Ph.D. PriME) <b>PriME Research Assistantship:</b> Wrote and edited manuscripts, wrote and submitted grant proposals, prepared conference presentations.
Montana State University	
<b>Early Career Fa</b> 2018 - 2020	iculty Mentor Katharine Banner, Ph.D. (Assistant Professor, Statistics)

2018 - 2020	Katharine Banner, Ph.D. (Assistant Professor, Statistics)
2018	Loribeth Evertz, Ph.D. (Assistant Professor of Teaching, Mechanical and Industrial
	Engineering)
Chair	
2022	Elijah Meyer, Ph.D. Statistics, Statistics Education specialization (co-chair with Dr. Stacey Hancock)
	<ul> <li><u>Dissertation</u>: Investigating newer statistics instructors' breakthroughs with and motivations for using active learning: A longitudinal case-study and a multiple-phase approach towards instrument development</li> </ul>
	<ul> <li><u>Awards</u>: College of Letters and Science's Outstanding Graduate Teaching Assistant Award, 2021</li> </ul>

2022	Christian Stratton, Ph.D. Statistics (co-chair with Dr. Andrew Hoegh) <ul> <li><u>Dissertation</u>: Bayesian hierarchical latent variable models for ecological data types</li> </ul>
2020	Kehinde Ajayi, M.S. Statistics (co-chair with Dr. Stacey Hancock) — Writing Project: Dimensionality reduction and clustering techniques for text mining
2019	Caitlin Rowan, M.S. Statistics (co-chair with Dr. Megan Wickstrom) – Writing Project: Understanding college students' intuition of compound events
2019	Noah Benedict, M.S. Statistics - Writing Project: Text mining
2018	Elijah Meyer, M.S. Statistics – <u>Writing Project</u> : Statistics behind the skill: Cluster analysis and data visualization on disc golf data
2018	Julia Platt, M.S. Statistics (co-chair with Dr. Andrew Hoegh) – <u>Writing Project</u> : A Bayesian mixture distribution model for Olympic weightlifting scores
2018	Christian Stratton, M.S. Statistics (co-chair with Dr. Andrew Hoegh) – <u>Writing Project</u> : Predicting the PITCHf/x pitch classifier
2018	David Lartey, M.S. Statistics
2018	Priscilla Omari-Baah, M.S. Statistics
2017	Kara Johnson, M.S. Statistics <ul> <li><u>Writing Project</u>: (Why) were the polls wrong?</li> </ul>
2016	KelsiAnne Espinoza, M.S. Statistics <ul> <li><u>Writing Project</u>: Exploring qualitative research</li> </ul>
2016	<ul> <li>Elizabeth Arnold, M.S. Statistics</li> <li><u>Writing Project</u>: Graduate teaching assistant development: Fostering an intellectual teaching community in the Department of Mathematical Sciences</li> </ul>
2016	Claire Rasmussen. M.S. Statistics
2016	Wilson Wright, M.S. Statistics
Committee Mem	ber
2020	Allison Theobold, Ph.D. Statistics Education
	<ul> <li><u>Dissertation</u>: Supporting data-intensive research in the environmental sciences: Data science skills for scientific practitioners of statistics</li> </ul>
2016	<ul> <li>Katharine Banner, Ph.D. Statistics</li> <li><u>Dissertation</u>: Is model averaging the solution for addressing model uncertainty?: Methodological insights, tools for assessment, and considerations for practical use</li> </ul>
2016	Danielle Pettry, Ph.D. Mathematics Education – <u>Dissertation</u> : The development of specialized content knowledge in beginning algebra
2016	<ul> <li>among secondary mathematics pre-service teachers</li> <li>Elizabeth Arnold, Ph.D. Mathematics Education</li> <li><u>Dissertation</u>: Investigating the teaching of statistics with technology at the high school level through the use of annotated lesson plans</li> </ul>
2015	<ul> <li>Shari Samuels, Ph.D. Mathematics Education</li> <li><u>Dissertation</u>: The evolution of prospective elementary teachers' competencies: Procedural knowledge, mathematical knowledge for teaching, attitudes, and enactment of mathematical practices</li> </ul>

M.S. Statistics Committees (2016-2021): 19 M.S. Mathematics Committees (2016): 1 M.S. Mathematics Education Committees (2014): 1

#### **Research Project Mentor, Undergraduate Students**

2016 Charlie Carpenter (B.S. Mathematics-Statistics option; co-mentor with Dr. Mark Greenwood) Title: *Modeling Techniques for Assessing Outcomes from Various Introductory Statistics Curricula in a Second Statistics Course Honorable Mention in Applied Research*, 2016 Undergraduate Statistics Research Project Competition from the Consortium for the Advancement of Undergraduate Statistics Education and the American Statistical Association

#### **Research Project Mentor, Graduate Students**

2017 - 2019	Elijah Meyer (M.S. Statistics / Ph.D. Statistics Education) Revised and implemented a training program for GTAs in the Department of Mathematical Sciences. Researched GTAs' evolving conceptualizations and uses of active learning.
2017	Christian Stratton (M.S. Statistics) Developed an R Shiny App for mathematical statistics students to visualize power curves.
2014 - 2015	Elizabeth Arnold (M.S. Statistics / Ph.D. Mathematics Education) Developed, implemented and researched the impact of a training and mentoring program for GTAs in the Department of Mathematical Sciences.

#### University of Nebraska-Lincoln

#### **Committee Member**

2014

Pamela Fellers, Ph.D. Statistics

<u>Dissertation</u>: Value-added methodology for estimating professional development program effects

M.S. Statistics Committees (2012-2013): 2

## SERVICE

Community	
2014 - 2019	Presenter, Expanding Your Horizons Conference
2017	Panelist, Conference on Undergraduate Women in Physics (CUWIP)
2013	Panelist, Women in Science and Engineering (WISE) Fall Retreat
Michigan State Unive	ersity – Service to the University
2021, 22, 23	College of Natural Science Awards Committee
2021 - 2022	College of Natural Science Faculty Annual Evaluation Committee
Michigan State Unive	ersity – Service to the Department of Statistics and Probability
2022, 23, 24	Reappointment and Promotion Committee for Academic Specialists and Fixed Term Faculty
2022	1855 Professor Search Committee
2021 - 2023	Advisory Committee
2021, 22	Reappointment, Promotion and Tenure Committee
2021-22, 2023-25	DEI Committee (Chair, 2021)
Michigan State Unive	ersity – Service to Program in Mathematics Education (PriME)

Juli State	
2023 - 2024	Chair, PriME Open Rank Professor Search Committee

- 2022 Comprehensive Exam Committee
- 2022 2024 Executive Committee

## Montana State University – Service to the University

2018 - 2020	University Core Curriculum Committee
2018	Mentor, Center for Faculty Excellence Faculty Mentoring Program
2015	Speaker, Center for Faculty Excellence Celebration
2015	Panelist, Faculty Excellence Grants Program Information Session
2014, 15	Presenter, New Faculty Orientation
2014	Panelist, ADVANCE Project TRACS National Science Foundation Site Visit

#### Montana State University – Service to the Department of Mathematical Sciences

	-
2018 - 2020	New Faculty Mentor
2019	Executive Committee
2019	Course Supervisor, STAT 332
2018	Promotion and Tenure Committee
2017 - 2019	Statistics Group Leader
2017, 18, 19	MS Statistics Comprehensive Exams Writing Team
2015, 16, 19	Statistics Search Committee
2015 - 2016	Undergraduate Advisory Council
2015	M121 Student Success Coordinator Search Committee
2014, 15, 16	Organizer, Department of Mathematical Sciences Fall Orientation
2014, 15	Advisor, GTA Mentoring Program
2013	Mathematics Education Search Committee

#### University of Nebraska-Lincoln

2011 - 2013	Chair, Department of Statistics Statistical Culture Faculty Committee
2010 - 2013	Department of Statistics Curriculum Committee
2010 - 2013	Department of Statistics Instructional Improvement Committee
2006 - 2013	Teaching Assistant Resource Administrator, Department of Statistics
2011, 12	Co-Coordinator, Department of Statistics New Student Orientation
2011, 12	Session Leader, Annual Campus-wide Workshop for Graduate Teaching Assistants
2010	Discussant, NebraskaMATH Graduate Student Seminar
2009, 10	Session Leader, National Conference for Undergraduate Women in Mathematics
2009	Invited Panelist, How to Survive Graduate School: Graduate Students' Perspectives

# SELECTED PROFESSIONAL DEVELOPMENT & WORKSHOPS

Promoting inclusion, diversity, equity, and accessibility (IDEA) in STEM at MSU and within the broader statistics and statistics education community is an integral aspect of my research, teaching, and service. Throughout all my work, I am committed to centering equity in STEM teaching and learning, and to creating inclusive and accessible learning opportunities and environments for supporting diverse audiences. As part of this commitment, I invest in my continual learning and development by participating in several professional development opportunities each year and then integrating what I have learned in my research, teaching, and service activities. Learning is a lifelong journey, and workshops such as the following have helped me grow both professionally and personally, especially as I seek to continue promoting inclusion, diversity, equity, and accessibility throughout all areas of my work and practice.

2023 Bystander Intervention Workshop, Prevention, Outreach, and Education Department, Michigan State University

2023	Challenging Classroom Conversations: Navigating Potentially Polarizing Discussions with Skill and Sensitivity, Center for Teaching and Learning Innovation (CTLI) and Office for Institutional Diversity and Inclusion (IDI), Michigan State University
2023	The Risk and the Resistance: Dismantling the Toxicity in the STEM Ecosystem, Speaker: Dr. Ebony O. McGee
2023	Confident Women Series, Facilitator: Shelley Davis Boyd, MBA, CAE * Emotional Intelligence as a Foundation to DEI Work, * Self Awareness: Who Am I & How Do
2023	Reflect and Connect: A Framework for Processing and Self-Care, Facilitator: Lisa Laughman, Coordinator, Spartan Resilience Training Program
2023	Rebuilding Hope: Teaching in the Aftermath, Michigan State University
2022	Faculty Success Program, National Center for Faculty Development and Diversity
2021	College of Natural Science Cultural Competency Skills Development, Michigan State University
2021	INCLUDED Summer Studio, www.inclusivefaculty.com, Facilitator: Dr. Sara Schley
2021	Crucial Conversations, Michigan State University
2021	College of Natural Science Cultural Competency Workshop Series, Michigan State University
2021	Broader Impact of Research: Strategies, Resources, and Partners Conference, Michigan State University

# PROFESSIONAL MEMBERSHIPS & LICENSES

International Association for Statistical Education (IASE) Michigan Association of Mathematics Teacher Educators (MI-AMTE) Association of Mathematics Teacher Educators (AMTE) American Statistical Association (ASA) Statistics and Data Science Education Section of the American Statistical Association Mu Sigma Rho, National Statistics Honor Society Certified, Collaborative Institutional Training Initiative (CITI) Program, Social & Behavioral Research Nebraska Teaching Certificate, 7-12 Mathematics (2004 - 2014)