

Anthony A. Mangino, PhD, GStat

Assistant Professor, Research Title Series
Biostatistics Consulting and Interdisciplinary Collaboration Lab (Biostat CIRCL)
Department of Biostatistics
University of Kentucky
Multidisciplinary Science Building, Suite 205
725 Rose Street, Lexington, KY 40508
Anthony.Mangino@uky.edu

EDUCATION

PhD in Educational Psychology Ball State University, Muncie, IN Concentration: Statistics and Research Methods Dissertation: <i>Fixed Effects or Mixed Effects?: Predictive Classification in the Presence of Multilevel Data</i>	2021
MS in Quantitative Psychology Ball State University, Muncie, IN	2020
MA in Educational Psychology with Applied Behavior Analysis Graduate Certificate Ball State University, Muncie, IN	2017
BA in Psychology, magna cum laude University of Southern Maine, Portland, ME Minor in Music; Honors Program	2014

ADVANCED COURSEWORK

University of Northern Colorado Graduate coursework in Elementary Education including: Educational technology, Content-area pedagogy, Educational Theory, Reading diagnostics and interventions, and Special education	2015 – 2016
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TECHNICAL SKILLS

Software

Linux Debian-based and RPM-based distributions, Windows OS, Mac OS, Microsoft Office Suite, LibreOffice Suite, Google Suite, Google Analytics, IBM SPSS, Qualtrics, REDCap

Programming Languages

R, Mplus, Python, Bash shell script

Software Packages Maintained

UKBiostatCIRCL R Package Github Repository

CERTIFICATIONS, HONORS, & AWARDS

- Travel Honorarium from the North Carolina State Data Science Consulting Program and the Alfred P. Sloan Foundation for JSM 2024 (G-2023-22331) **2024**
 - Graduate Statistician (GStat) – American Statistical Association **2022 – Present**
 - Nominee – Council of Graduate Schools Distinguished Dissertation Award **2022**
 - Ball State University Foundation Distinguished Dissertation **2021 – 2022**
 - Finalist – Midwest Association of Graduate Schools Excellence in Teaching Award **2021**
 - Ball State University Excellence in Teaching Award – Doctoral Level **2020 – 2021**
 - Graduate Merit Fellowship (BSU) **2018 – 2020**
 - Dean’s Citation for Academic Excellence (BSU) **2017, 2021**
 - Presidential Commendation Scholarship (USM) **2011 – 2014**
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PUBLICATIONS (* Senior or Co-Lead Author)

PENDING MANUSCRIPTS

Mangino, A.A., Finch, W.H., French, B.F., & Demir, C., (under review). *Identification of differential item functioning using machine learning methods: Comparison of traditional techniques to random forest and the GPCM lasso*. Department of Biostatistics, University of Kentucky.

Mangino, A.A., (under review). *Quasi-experimentation and causal inference*. In *Handbook of Research Methods and Methodologies for the Social Sciences*. Department of Biostatistics, University of Kentucky.

PEER REVIEWED ARTICLES

1. Adkins, D., Tyler, H., **Mangino, A.A.**, Phuong, A., Kejner, A., (2024). *Factors Influencing Quality of Life and Functional Status in Head and Neck Cancer Patients*. American Journal of Otolaryngology-Head and Neck Medicine and Surgery. <https://doi.org/10.1016/j.amjoto.2024.104398>
2. Javed, F., **Mangino, A.A.**, & Piranavan P., (2024). Nirmatrelvir plus Ritonavir in patients with underlying rheumatological diseases, in preventing COVID-19 related hospitalization and death. *Advances in Rheumatology*, 64 (50). <https://doi.org/10.1186/s42358-024-00388-6>
3. Ahmed, T., **Mangino, A.A.**, Lodhi, S.H., Gupta, V., Leung, S.W., & Sorrell, V.L. (2024). Simplified echocardiographic assessment of regional left ventricular wall motion pattern in patients with takotsubo and acute coronary syndrome: The Randomized Blinded Two-chamber Apical Kinesis Observation (TAKO) Study. *Current Problems in Cardiology*, 102731. <https://doi.org/10.1016/j.cpcardiol.2024.102731>

4. Gray, A., Hall, A., Chadha, J., Leung, S., Karnik, K., **Mangino, A.A.**, & Ragsdale, J., (2024). Do acting interns need residents? A comparison of acting intern experience on hospital medicine resident versus non-resident teams. *Journal of Hospital Medicine*. <https://doi.org/10.1002/jhm.13417>
5. *Slade, E., Robbins, S.J.K., McQuerry, K.J., & **Mangino, A.A.**, (2024). The value of flexible funding for collaborative biostatistics units in universities and academic medical centers. *Stat*. <https://doi.org/10.1002/sta4.679>
6. Palmer, S., Plymale, M.A., **Mangino, A.A.**, Davenport, D.L., & Roth, J.S., (2024). Prescription Opioid Use Increases Resource Utilization Following Ventral Hernia Repair. *Journal of Gastrointestinal Surgery*, 28(4), 483-487. <https://doi.org/10.1016/j.gassur.2024.01.030>
7. *Roper, K., South, A., Palmer, S., Johnson, J., Sims, L., Hustedde, C., & **Mangino, A.A.**, (2024). Evaluation of a novel equity-focused curriculum for early-stage medical students. *Journal of Medical Education and Curricular Development*. <https://doi.org/10.1177/23821205241230755>
8. Levy, B.E., **Mangino, A.A.**, Castle, J.T., Stephens, W.A., McDonald, H.G., Patel, J.A., Beck, S.J., & Bhakta, A.S., (2024). Effect of Medicaid expansion on inflammatory bowel disease on healthcare utilization. *The American Journal of Surgery*. <https://doi.org/10.1016/j.amjsurg.2024.01.015>
9. Robertson, N.M., **Mangino, A.A.**, South, A.M., & Fanucchi, L.C., (2024). Medications for opioid use disorder associated with reduced readmissions for patients with severe injection-related infections: A matched cohort study. *Journal of Substance Use and Addiction Treatment*. <https://doi.org/10.1016/j.josat.2024.209298>
10. Castle, J.T., Levy, B.E., **Mangino, A.A.**, McDonald, H.G., McAtee, E., Patel, J.A., Evers, B.M., & Bhakta, A.S. (2023). Impact of the Affordable Care Act on providing equitable healthcare access for inflammatory bowel disease in the Kentucky Appalachian region. *Diseases of the Colon & Rectum*. <https://doi.org/10.1097/DCR.0000000000002942>
11. Fritz, M.K., **Mangino, A.A.**, Hunt, T.V., Pitcock, C.T., Dugan, A., Karri, K., & Yarra, P. (2022). Clinical outcomes of oral zinc therapy in hepatic encephalopathy treatment. *Annals of Pharmacotherapy*. <https://doi.org/10.1177/10600280221134283>
12. Slade, E., **Mangino, A.A.**, Daniels, L., Liford, M., & Quesinberry, D., (2022). Modeling overdose case fatality rates over time: The collaborative process. *Stat*. <https://doi.org/10.1002/sta4.510>
13. **Mangino, A.A.**, Bolin, J.E., & Finch, W.H., (2022). Fixed Effects or Mixed Effects Classifiers? Evidence from Simulated and Archival Data. *Educational and Psychological Measurement*, 83(4), 710–739. <https://doi.org/10.1177/00131644221108180>

14. Thomas, K.J., **Mangino, A.A.**, & Walker, S.J., (2022). Translational research on caregiver reading and playing behaviors: Evidence from an in vivo community-based intervention throughout the COVID-19 pandemic. *Journal of Child and Family Studies*. <https://doi.org/10.1007/s10826-022-02334-w>
15. Hoffman, E. & **Mangino, A.A.**, (2022). The digital literacies of early childhood educators: Perceptions of collaborative online learning. *Journal of Early Childhood Teacher Education*. <https://doi.org/10.1080/10901027.2022.2075812>
16. **Mangino, A.A.**, Smith, K.A., Finch, W.H., & Hernández-Finch, M. E., (2021). Improving Predictive Classification Models Using Generative Adversarial Networks in the Prediction of Suicide Attempts. *Measurement and Evaluation in Counseling and Development*, 55(2), 116-135. <https://doi.org/10.1080/07481756.2021.1906156>
17. **Mangino, A.A.**, & Finch, W. H. (2021). Prediction with Mixed Effects Models: A Monte Carlo Simulation Study. *Educational and Psychological Measurement*, 81(6), 1118–1142. <https://doi.org/10.1177/0013164421992818>
18. Bassette, L., Jefferson, R., Stuve, M., & **Mangino, A.A.**, (2021). Short-term fun or long-term outcomes? The effects of authentic pedagogy on the dispositional development of college students learning about the educational needs of children with disabilities. *Journal of the American Academy of Special Education Professionals*.
19. Thomas, K. J., Rodrigues, H., de Oliveira, R. T., & **Mangino, A.A.** (2019). What predicts pre-adolescent compliance with family rules? A longitudinal analysis of parental discipline, procedural justice, and legitimacy evaluations. *Journal of Youth and Adolescence*, 49(4), 936-950. <https://doi.org/10.1007/s10964-019-01158-0>

BOOK CHAPTERS

1. Cassady, J. C., Heath, J. A., Thomas, C. L., **Mangino, A. A.**, & Kornmann, M. A. (2020). Engaging Students in STEM with Non-traditional Educational Programmes: Bridging the Gaps Between Experts and Learners. In MacDonald, A., Danaia, L., Murphy, S. (eds) *STEM Education Across the Learning Continuum* (pp. 213-232). Springer, Singapore. https://doi.org/10.1007/978-981-15-2821-7_12

INVITED PRESENTATIONS & SESSIONS

1. **Mangino, A.A.**, Robbins, S.J.K., McQuerry, K.J., & Slade, E., (2024, August). *Supporting the team: Flexible funding for collaborative biostatistics units in universities and academic medical centers*. Invited poster presented at the Joint Statistical Meetings; Portland, OR.
2. (Panelist) Taylor, S.L., **Mangino, A.A.**, Rath, M.M., Peskoe, S., & Burdett, K.B., (2024, August). *Strategies for Providing On-going Professional Development for Collaborative Biostatisticians*. Panel session at 2024 ACTStat Annual Meeting; Portland, OR.

3. **Mangino, A.A.**, (2023, May). *With great power comes great responsibility: Data generation and augmentation in public health and clinical research*. Presented at the 2nd Annual Department of Biostatistics Retreat, University of Kentucky; Lexington, KY.
4. **Mangino, A.A.**, (2023, April). *“Tell me what you really think”: Lessons and principles in survey research*. Presented at the April 2023 BERD BITES Learning Series, University of Kentucky; Lexington, KY.

PUBLISHED ABSTRACTS

1. Shaikh, M.B., Naidu, L., Kao, C.T., **Mangino, A.A.**, Rajendran, N., Chikkanna, R., & Montgomery-Yates, A. (2024). Comparing Outcomes Among Pneumonia Prediction Models in Elderly Patients: A Single Center Validation Study. In C67. Science and Bedside Bacterial Pneumonia (pp. A6236-A6236). American Thoracic Society.
2. Harris, E., Rhudy, C., **Mangino, A.A.**, & Leyson, C. (2023). S1317 Impact of pharmacologic treatment for alcohol use disorder on mortality in patients with alcohol-associated liver disease: Analysis from a United States insurance claims database. *Official journal of the American College of Gastroenterology ACG*, 118(10S), S1005-S1006.
3. Palmer, S., Plymale, M.A., **Mangino, A.A.**, Davenport, D.L., & Roth, J.S. (2023). Prescription opioid use increases resource utilization following ventral hernia repair. *Gastroenterology*, 164(6), S-1465. [https://doi.org/10.1016/S0016-5085\(23\)04432-3](https://doi.org/10.1016/S0016-5085(23)04432-3)

CONFERENCE PRESENTATIONS

1. Dedeker, C.S., Johnson, J.D., **Mangino, A.A.**, & Cass, N.D., (2024, September). *The Effect of Rurality on Severity of Chronic Ear Disease: A Retrospective Chart Review*. Presented at the 2024 American Academy of Otolaryngology - Head and Neck Surgery Conference; Miami, FL.
2. Hieneman, S., Karnik, K.N., Lofwall, M., **Mangino, A.A.**, & South A.M., (2024, August). *Health Care for Incarcerated Individuals: Teaching medical students about rights, challenges, and avenues of advocacy*. Presented at the 2024 Heartland Hospital Medicine Conference; Lexington, KY.
3. **Mangino, A.A.**, Ahmed, T., & Sorrell, V., (2024, August). *Generative Models in Practice: Improving a Clinical Model Identifying Takotsubo Syndrome*. Presented at the Joint Statistical Meetings; Portland, OR.
4. Shaikh, M., Naidu, L., Kao, C., **Mangino, A.A.**, Rajendran, N., Chikkanna, R., & Montgomery-Yates, A., (2024, May). *Comparing Outcomes Among Pneumonia Prediction Models in Elderly Patients: A Single Center Validation Study*. Presented at the American Thoracic Society 2024 International Conference; San Diego, CA.

5. Taormina, B., Thiel, C., **Mangino A.A.**, & Fritz, M., (2024, May). *Safety and Efficacy of Superior Laryngeal Nerve Block for Neurogenic Chronic Cough*. Presented at the Combined Otolaryngology Spring Meetings; Chicago, IL.
6. Gray, A., Ragsdale, J., Karnik K., **Mangino A.A.**, Hall, A., Chadha, J., Leung, S. (2024, April). *A Comparison of Acting Intern Experience on Resident versus Non-Resident Teams*. Presented at the 2024 Academic Internal Medicine Week Annual Meetings; Columbus, OH.
7. **Mangino, A.A.**, Ahmed, T., & Sorrell, V., (2024, March). *Applied Generative Modeling: Improving a Clinical Prediction Model Identifying Takotsubo Syndrome*. Presented at the 2024 University of Kentucky Public Health Showcase; Lexington, KY.
8. Bharadwaj, R., **Mangino, A.A.**, Troy, J., Ruf, K., Bailey, P., Fanucchi, L., & South, A. (2023, December). *The Impact of Buprenorphine Training and X-Waiver Removal on Knowledge, Attitudes, and Prescribing Patterns of Buprenorphine among Hospitalists*. Presented at the 2023 American Academy of Addiction Psychiatry 34th Annual Meeting; San Diego, CA.
9. Javed, F., **Mangino, A.A.**, & Paramarajan, P. (2023, November). *Paxlovid (Nirmatrelvir plus Ritonavir) in Patients with Underlying Rheumatological Diseases, in Preventing COVID-19 Related Hospitalization and Death*. American College of Rheumatology Annual Convergence; San Diego, CA.
10. Nash, J.D., Deshommes, J., Cranford, W., **Mangino, A.A.**, London-Bounds, T.E., & Lee, J.T. (2023, November). *Splenic Measurement as Potential Screening Imaging Biomarker for Infective Endocarditis in Patients with a History of Intravenous Drug Use*. Radiological Society of North America 109th Scientific Assembly and Annual Meeting; Chicago, IL.
11. Yun, D.H., Musalia, J., **Mangino, A.A.**, & Fritz, M. (2023, October). *Comparison of Complications and Mortality Between Rigid and Flexible Esophageal Dilations: National Database Outcomes*. Presented at the 2023 Fall Voice Conference; Washington, D.C.
12. Castle, J.T., **Mangino, A.A.**, Levy, B.E., & Reynolds, J.K. (2023, October). *Disparate Care of Necrotizing Soft Tissue Infections in the Kentucky Appalachian Population*. Presented at the 2023 American College of Surgeons Clinical Congress; Boston, MA.
13. Harris, E., Rhudy, C., **Mangino, A.A.**, & Leyson, C. (2023, October). *Impact of Pharmacologic Treatment for Alcohol Use Disorder on Mortality in Patients with Alcohol-Associated Liver Disease: Analysis from a United States Insurance Claims Database*. Presented at the American College of Gastroenterology Annual Meeting; Vancouver, BC, CA.
14. Kinealy, B.P., **Mangino, A.A.**, Anwar, A., Johnson, J.D., McKinney, J., Anstead, M., & Comer, B. (2023, September). *Triple-Combination Cystic Fibrosis Transmembrane Conductance Regulator Modulator Therapy and Functional Endoscopic Sinus Surgery in Cystic Fibrosis*. Presented at the American Rhinologic Society Annual Meeting; Nashville, TN.

15. Nash, J.D., Deshommes, J., Cranford, W., **Mangino, A.A.**, London-Bounds, T.E., & Lee, J.T. (2023, September). *Splenic Measurement as Potential Screening Imaging Biomarker for Infective Endocarditis in Patients with a History of Intravenous Drug Use*. American Society of Emergency Radiology Annual Meeting; San Diego, CA.
16. **Mangino, A.A.** (2023, August). *Case Studies in Data Emulation and Augmentation Using Generative Adversarial Networks in Psychoeducational Data*. Presented at the 2023 Joint Statistical Meetings; Toronto, ON, CA.
17. Adkins, D., **Mangino A.A.**, Howard, T., Kejner, A., and Gupta, N. (2023, July). *Factors Influencing Quality of Life and Functional Status in Head and Neck Cancer Patients*. Poster presented at: American Head and Neck Society Meeting; Montreal, QC, CA.
18. Roth, J.S., Palmer, S., Plymale, M., **Mangino, A.A.**, Davenport, D., (2023, June) *Prescription Opioid Use Increases Resource Utilization Following Ventral Hernia Repair*. Abdominal Wall Reconstruction Conference; Washington, D.C.
19. Wilt, W.S., Levy, B.E., McDonald, H.G., **Mangino, A.A.**, Davenport, D.L., & Patel, J.A. (2023, June). *Diverting Loop Ileostomies: Consideration of Costs in Operative Decision Making*. Presented at the 2023 American Society of Colon and Rectal Surgeons meeting; Seattle, WA.
20. McDonald, H.G., Wilt, W.S., Levy, B.E., Cranford, W., **Mangino, A.A.**, & Patel, J.A. (2023, June). *The Association Between Comorbidity Indices and Hospital Costs in Patients Undergoing Major Small and Large Bowel Procedures*. Presented at the 2023 American Society of Colon and Rectal Surgeons meeting; Seattle, WA.
21. Levy, B.E., Castle, J.T., **Mangino, A.A.**, Wilt, W.S., McAtee, E.E., Patel, J.A., Evers, M.B., & Bhakta, A.S. (2023, June). *Effect of Medicaid Expansion on Inflammatory Bowel Disease on Healthcare Utilization*. Presented at the 2023 American Society of Colon and Rectal Surgeons meeting; Seattle, WA.
22. Palmer, S., Plymale, M., **Mangino, A.A.**, Davenport, D., & Roth, J.S. (2023, May) *Prescription Opioid Use Increases Resource Utilization Following Ventral Hernia Repair*. Digestive Diseases Week, Chicago, IL.
23. *Robbins, S.J., Roper, K., Kale, N., & **Mangino, A.A.** (2023, April). *Out of the Matrix: Utilizing Data Simulations for Public Health Research*. Presented at the 2023 University of Kentucky College of Public Health Showcase; Lexington, KY.
24. **Mangino, A.A.**, Roper, K., South, A., Palmer, S., Johnson, J., Sims, L., & Hustedde, C. (2023, April). *Less is More: Building a Longitudinal Survey Research Design in Collaboration with a Biostatistician*. Presented at the 2023 University of Kentucky College of Public Health Showcase; Lexington, KY.

25. Slade, E., **Mangino, A.A.**, & Quesinberry, D. (2023, March). *Team Science as a Guide for Methodological Decision-Making to Quantify Trends in the Drug Overdose Case Fatality Rate*. Presented at the 2023 East North American Region Spring Meeting; Nashville, TN.
26. Slade, E., **Mangino, A.A.**, & Quesinberry, D. (2023, March). *Collaboration Drives Impact: Utilizing Team Science to Inform Methodological Approaches for Studying Trends in Drug Overdose Rates*. Presented at the 2023 University of Kentucky Center for Clinical and Translational Science Spring Conference; Lexington, KY.
27. Palmer, S., Johnson, J., Roper, K., **Mangino, A.A.**, South, A., Sims, L., & Hustedde, C. (2023, March). *Evaluation of a Novel Equity-focused Curriculum for Early-Stage Medical Students*. Poster Presentation. University of Kentucky Center for Clinical and Translational Science Spring Conference; Lexington, KY.
28. Palmer, S., Plymale, M., **Mangino, A.A.**, Davenport, D., Roth, S. (2023, March) *Prescription Opioid Use Increases Resource Utilization Following Ventral Hernia Repair*. Poster Presentation. University of Kentucky Center for Clinical and Translational Science Spring Conference; Lexington, KY.
29. **Mangino, A.A.**, Finch, W.H., French, B., & Demir, C. (2023, April). *Identification of Differential Item Functioning Using Machine Learning*. Presented at the 2023 National Council on Measurement in Education Annual Meeting; Chicago, IL.
30. Robertson, N., **Mangino, A.A.**, South, A.M., & Fanucchi, L. (2023, April). *Oral Antibiotic Prescription for Persons Who Use Drugs Pursuing Patient-Directed Discharge.*, Presented at the 2023 American Society of Addiction Medicine Annual Meeting; Washington, D.C.
31. Levy, B.E., **Mangino, A.A.**, Davenport, D.L., Castle, J.T., & Inabnet, W.B. (2023, February). *Hospital Process Changes and the Effect on Quality, Efficiency, and Cost of Surgical Care*. Presented at the 2023 Academic Surgical Congress; Houston, TX.
32. LeBedis, C.A., Sullivan, P., Dreizin, D., **Mangino, A.A.**, Slade, E., ... Lee., J. (2022, November). *American Society of Emergency Radiology Multicenter Blunt Splenic Trauma Study: Preliminary Results*. Presented at the 2022 Radiological Society of North American Annual Meeting; Chicago, IL.
33. **Mangino, A.A.**, Slade, E., & Quesinberry, D. (2022, August). *Unconventional Outcomes Require Unconventional Methods: A Case Study in Collaborative Biostatistics*. Presented at the 2022 Joint Statistical Meetings; Washington, D.C.
34. Slade, E., **Mangino, A.A.**, & Quesinberry, D. (2022, August). *Methodological Benefits of Beta Regression for Modeling Trends in Overdose Fatality Rates*. Presented at the 2022 Joint Statistical Meetings; Washington, D.C.

35. Ozen M., Myers, C.B., Gabriel, G., Galuppo Monticelli, R., Diab, C., **Mangino, A.A.**, Raissi, D. (2022, June). *Comparison of Right and Left Portal Vein Access in Transjugular Intrahepatic Portosystemic Shunt*. Presented at 2022 Society of Interventional Radiology Conference; Boston, MA.
36. Thomas, K.J., **Mangino, A.A.**, & Walker, S. (2022, April). *Translational Research on How a Community-Based Intervention can Increase Parental Play and Reading*. Presented at 2022 Society for Research in Child Development Learning through Play and Imagination Special Topic Meeting; St. Louis, MO.
37. Mullen, M.B., Nesta, T., **Mangino, A.A.**, McLouth, C.J., & Fritz, M.A. (2022, April). *Impact of Vocal Fold Augmentation Procedures on Pneumonia Rates*. Presented at the Combined Otolaryngology Spring Meetings; Dallas, TX.
38. Johnson, J., Dugan, A., Hansen, E., Hustedde, C., **Mangino, A.A.**, Roper, K., Sims, L., South, A., Pope-Tarrence, J. (2022, February). *Evaluation of a Health Equity and Advocacy Based Medical School Curriculum Reform*. National Collaborative for Education to Address the Social Determinants of Health. Northwestern University.
39. **Mangino, A. A.**, Smith, K. A., & Finch, W. H. (2021, November). *Modeling Responsibly: Toward a Fair, Interpretable, and Ethical Machine Learning for the Social Sciences*. Paper presented at the American Psychological Association Technology, Mind, and Society Conference, Virtual. <https://doi.org/10.1037/tms0000089>
40. Smith, K. A., **Mangino, A. A.**, & Finch, W. H. (2021, August). *Prediction of Psychological Phenomena using Autoencoders*. Paper presented at American Psychological Association Annual Convention, Virtual.
41. Cassady, J.C., **Mangino, A.A.**, Thomas, J., McKee, K., Sriver, S. (2021, April). *Accreditation through coalescence: Campus-wide alignment to demonstrate common outcomes*. Ball State University Assurance of Learning Day: Improvement matters!
42. Finch, W. H., Smith, K. A., **Mangino, A. A.**, & Hernandez-Finch, M. E. (2020, August). *Using Generative Adversarial Models to Improve Identification of Those At-Risk for Suicide*. Symposium presented at American Psychological Association Annual Convention, Washington, D.C.
43. **Mangino, A. A.** & Finch, W. H. (2020, June). *A Methodological Comparison of Supervised Classifiers for Nested Data*. Paper presented at Modern Modeling Methods Conference, Storrs, Connecticut.
44. Heath, J. A. & **Mangino, A. A.** (2020, May). The Mediating Effects of Academic Anxiety on Perceived Stress and Student Achievement. Poster session presented at the annual meeting of the Association for Psychological Science, Chicago, IL.

45. **Mangino, A. A.** & Bolin, J. H. (2020, April). *Comparing supervised classification methods on small-group recovery: A Monte-Carlo simulation study*. Paper presented at American Educational Research Association Annual Convention, San Francisco, California.
46. **Mangino, A. A.**, Finch, W. H., Bolin, J. H., & Pierson, E. E. (2019, August). *Applied Supervised Classification of Highly Unequal Group Sizes in Suicide Data*. Poster presented at American Psychological Association Annual Convention, Chicago, Illinois.
47. Thomas, J. M., Shim, S. S., Heath, J. A., & **Mangino, A. A.** (2019, August). *Teachers' Goals for Teaching, Classroom Goal Structures, and Job Satisfaction*. Poster presented at the Annual Convention of the American Psychological Association, Chicago, Illinois.
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PROFESSIONAL EXPERIENCE

Assistant Professor, Research Title Series **2024 – Present**

Biostatistics Consulting and Interdisciplinary Research Collaboration Lab
 Department of Biostatistics, University of Kentucky
 Lab Director: Dr. Emily Slade

Current and Previous Collaborative Unit Affiliations:

Kentucky Injury Prevention and Research Center; Overdose Data to Action (OD2A)
 Division of Hospital Medicine
 Department of Surgery
 Division of Surgical Oncology
 Department of Otolaryngology – Head & Neck Surgery
 College of Social Work

Biomedical Data Scientist **2021 – 2024**

Biostatistics Consulting and Interdisciplinary Research Collaboration Lab
 Department of Biostatistics, University of Kentucky
 Lab Director: Dr. Emily Slade

Doctoral Graduate Assistant **2018 – 2021**

Department of Educational Psychology, Ball State University
 Supervisors: Dr. Matthew Stuve; Dr. Jocelyn Bolin; Dr. Jerrell Cassady

Residential Counselor **2015**

Intensive Residential Treatment
 Volunteers of America, Northern New England

Laborer/Installation Technician **2010 – 2018**

Creative Concept Builders; American Builders & Contractors; Kitchen Tune-Up

CONSULTATION EXPERIENCE

Research Design & Statistics Consultant (Independent) **2018 – 2024**

Contracted and hourly work on academic faculty projects, theses, and dissertations

Research Design Studio Consultant**2018 – 2021**

Ball State University

Supervisors: Dr. Jerrell Cassady; Dr. Matthew Stuve

Dissertations	19 Consultations
Theses	5 Consultations
Honors Projects	3 Consultations
Faculty Projects	5 Consultations
Student Projects	6 Consultations
Program Evaluations	12 Consultations

GRANTS AND CONTRACT WORKNIH R01; PI: Dongfang Wang; Role: Collaborator (Statistician) **2024 – Present****Development of a Percutaneous Double Lumen Cannula-Based Cavopulmonary Assist**

System Toward Clinical Application. The standard palliative surgery for a single ventricle defect is a total cavopulmonary connection (TCPC), which separates the pulmonary and systemic circulations. This Fontan circulation eventually fails with severe end-organ dysfunction and high long-term mortality. A failing Fontan includes cavopulmonary failure (CPF) and/or ventricular failure. Unfortunately, no cavopulmonary assist (CPA) device is available for CPF. Our ultimate goal is to develop a percutaneous CPA system for total ambulatory support of CPF patients. Our enabling technology is a CPA dual lumen cannula (DLC) with paired membrane umbrellas.

UK Engage Project; PI: Melody Ryan; Role: Collaborator (Statistician) **2024 – Present**

Assessing Access to Care. This project uses transdisciplinary participatory research to develop, test, and administer a survey addressing the refugee community's need for access to quality care. Analysis of the data will be used to provide tools to Cooperative Extension and Kentucky Refugee Ministries to improve access to care for this community.

R24 NIH/NIEHS; PI: Erin Haynes; Role: Collaborator (Statistician) **2023 – Present****Retention, Maintenance and Enhancement of the Communities Actively Researching**

Exposure Study (CARES) CARES has been supported by multiple NIEHS-funded grants and has been instrumental in the training of next generation community-engaged environmental health scientists for over a decade. The cohort has been instrumental in the development of a lab-on-a-chip sensor for blood metals assessment and is currently exploring the impact of Mn on neuroanatomy, function, chemistry, and physiology through magnetic resonance imaging. The goal of this study is to retain, maintain and enhance the ongoing CARES cohort.

Ball State Lifetime Learning Contract; Role: Contractor**2022 – 2024**

Development of materials for Data Analysis microcredential course module on Descriptive Statistics. Funded by Ball State University. \$1,000.

Learning Recovery Grant; PI: Kendra Lowery; Role: Graduate Assistant **2021**
 Research Design Studio as role of Evaluator. Identify and plan for modes of academic improvement in areas of greatest needs in Muncie Community Schools. Funded by the Indiana Department of Education. Total Award: \$2,899,257.

Evaluation Subcontract; PI: Jerrell C. Cassady; Role: Graduate Assistant **2019 – 2021**
 George and Frances Ball Foundation grant funding to support Muncie Community Schools. Data management and evaluation of Project Lead the Way implementation. Total Award: \$330,000.

Instructional Design; Role: Contractor **2019**
 Longitudinal Structural Equation Modeling in R and Mplus. Funded by University of Indianapolis. \$1,500.

Indiana Department of Education Authorizer Innovation Grant **2018 – 2020**
 Statistical and technical support to the Ball State Office of Charter Schools

Educational Opportunity Study: A study to determine areas of educational need across the state of Indiana. Quality of school performance was measured by growth and proficiency for all district, charter, and private schools in Indiana. Mapping was produced to illustrate the concentration, or lack of, quality schooling options in counties and cities across Indiana.

Virtual School Performance Case Study: A statistical examination of a Ball State Authorized charter school to assess academic proficiency and growth among students based on stability of attendance.

ASPiRE Student Travel Grant. Ball State University, Muncie, IN. Travel support to 2020 American Educational Research Association Conference, San Francisco, CA. \$500

Evaluation Consultation; PI: Jerrell C. Cassady; Role: Graduate Assistant **2018 – 2019**
 Smithsonian Institution National Museum of the American Indian Evaluation support for Native Knowledge 360° educational initiative. Project funded by the Cargill Foundation (\$150,000).

UNFUNDED PROPOSALS

Mangino, A.A. (2019). Classification and regression models with generative adversarial networks for psychoeducational data. *Proposal submitted to the National Science Foundation Graduate Research Fellowship Program.*

Mangino, A.A. (2020). Fixed Effects or Mixed Effects?: Predictive Classification in the Presence of Multilevel Data. *Proposal submitted to the Institute for Humane Studies at George Mason University.*

TEACHING EXPERIENCE**Instructor of Record**

University of Kentucky **2023 – Present**
 BST 600 Introduction to Biostatistical Methods

University of Virginia **2021 – 2022**
 EDLF 8385 Survey Inquiry for Practitioners with Data Management & Analysis
 EDLF 8386 Lab of Practice of Survey Inquiry

Ball State University **2019 – 2021**
 EDPS 390 Educational Psychology

Co-Instructor

University of Virginia **2022**
 EDLF 8360 Multilevel Modeling in Education Research

Temporary Instructor

Ball State University **2019**
 EDPS 641 Statistical Methods

Guest Lectures

University of Kentucky
 Introduction to Team Science for Biostatisticians (Topic: Case Studies) **2023**
 Introduction to Clinical Research (Topic: Journal Club Statistical Primer) **2022 – 2024**
 Introduction to Clinical Research (Topic: Manuscript Review) **2022 – 2024**

Graduate Teaching Assistant

Ball State University
 EDPS 345 Tests and Measurement **2018 – 2019**
 EDPS 393 Educational Psychology for Elementary Teachers **2018 – 2019**
 EDPS 641 Statistical Methods **2019 – 2020**
 EDPS 642 Analysis of Variance **2019 – 2020**
 EDPS 741 Applied Regression Analysis **2019 – 2020**

Academic Tutor

Ball State University
 Introductory, Intermediate, and Advanced Quantitative Methods **2018 – 2021**

Student Teacher

University of Northern Colorado; Beattie Elementary School; Fort Collins, CO **2016**

Practicum Student

University of Northern Colorado; Beattie Elementary School; Fort Collins, CO **2015**

Odyssey of the Mind Coach

Beattie Elementary School; Fort Collins, Colorado **2015 – 2016**

Academic Peer Adviser
University of Southern Maine

2014

STUDENTS MENTORED

Student: Adrianna Caballero, PhD in School Psychology, Ball State University

Status: Graduated July 2024

Service: Doctoral Dissertation Methodological Consultant & Data Analyst – Independent

Student: Justin Studler, PhD in Counseling Psychology, Ball State University

Status: Graduated December 2023

Service: Doctoral Dissertation Methodological Consultant & Data Analyst – Independent

Student: Katie Allsop, PhD in Counseling Psychology, Ball State University

Status: Graduated July 2023

Service: Doctoral Dissertation Methodological Consultant & Data Analyst – Independent

Student: Jessica Beaver, MA in Clinical Mental Health Counseling, Ball State University

Status: Graduated July 2022

Service: Master's Thesis Methodological Consultant – Independent

Student: Ariana Gleckman, MA in Clinical Mental Health Counseling, Ball State University

Status: Graduated July 2022

Service: Master's Thesis Methodological Consultant – Independent

Student: Tauralee Tenn, PhD in School Psychology, Ball State University

Status: Graduated July 2022

Service: Doctoral Dissertation Methodological Consultant – Independent

Student: Olivia Grenier, BS in English Education, *Summa Cum Laude*, Ball State University

Status: Graduated May 2022

Service: Undergraduate Teaching Assistant Mentor – EDPS 390; Spring 2021

MEMBERSHIPS & SERVICE

Quantitative Staff Network (QSN) **2023 – Present**

Association for Clinical and Translational Science (ACTS)
Biostatistics, Epidemiology, and Research Design (BERD) SIG **2022 – Present**

Association for Clinical and Translational Statisticians (ACTStat) **2022 – Present**

American Statistical Association (ASA) Section of Statistical Programmers & Analysts Statistical Computing Section Statistical Consulting Section Section on Statistics in Epidemiology Central Indiana Chapter; Kentucky Chapter	2021 – Present
University of Kentucky Center for Clinical and Translational Science (CCTS)	2021 – Present
American Educational Research Association (AERA) Division D: Measurement and Research Methodologies Multiple Linear Regression: General Linear Model SIG	2018 – 2021
American Psychological Association (APA) Division 15: Educational Psychology	2019 – 2021

PROFESSIONAL SERVICE

Mentorship Subcommittee; Core Planning Committee Quantitative Scientific Staff National Network	2023 – Present
Editorial Board Perspectives on Early Childhood Psychology and Education	2023 – Present
Guest Editor Perspectives on Early Childhood Psychology and Education, Volume 8.2, <i>Research Methods in Early Childhood</i> Methods in Psychology, Volume 6, <i>Innovations in Inclusive Methodology</i>	2023 – 2024 2022 – 2024
Reviewer, ad hoc BMJ Public Health BMJ Open Journal of Educational Measurement Communications in Statistics – Simulation and Computation Psychological Methods Journal of Anxiety, Stress, & Coping Perspectives on Early Childhood Psychology and Education AERA, 2020 Conference AERA, 2021 Division D In-Progress Research Gala	1 Review 1 Review 3 Reviews 1 Review 3 Reviews 5 Reviews 2 Reviews 7 Reviews 1 Review
Graduate Student Ambassador American Psychological Association, Division 15 (Educational Psychology)	2019 – 2021
Grant Proposal Management & Review AERA Division C Equity Grant	2021

Session Chair

Joint Statistical Meetings

2024**INSTITUTIONAL SERVICE**

University of Kentucky

Faculty & Staff Hiring Committee, Biostat CIRCL – Member

2022 – Present

Ad Hoc Faculty Search Committee, College of Public Health – Member

2024 – Present

College of Public Health Staff Council – Vice Chair

2023 – 2024

College of Public Health Staff Council – Member

2022 – 2024**Ball State University**

Grade Appeals Committee Graduate Student Representative

2019 – 2021

Institutional Review Board Member

2020 – 2021