

Anthony A. Mangino, PhD, GStat

Biomedical Data Scientist
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 **2021**
Ball State University, Muncie, IN
Concentration: Statistics and Research Methods
Dissertation: *Fixed Effects or Mixed Effects?: Predictive Classification in the Presence of Multilevel Data*

MS in Quantitative Psychology **2020**
Ball State University, Muncie, IN

MA in Educational Psychology with Applied Behavior Analysis Graduate Certificate **2017**
Ball State University, Muncie, IN

BA in Psychology, magna cum laude **2014**
University of Southern Maine, Portland, ME
Minor in Music; Honors Program

ADVANCED COURSEWORK

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

TECHNICAL SKILLS

Software

Linux Debian-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

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

PUBLICATIONS**PENDING MANUSCRIPTS**

Slade, E., **Mangino, A.A.**, Daniels, L., Liford, M., & Quesinberry, D., (2022). *Modeling overdose case fatality rates over time: The collaborative process*. [Manuscript under review]. College of Public Health, University of Kentucky.

Quesinberry, D., **Mangino, A.A.**, & Slade, E, (2022). *Trends in the Opioid Overdose Case Fatality Rate in Kentucky*. [Manuscript in preparation]. College of Public Health, University of Kentucky.

Mangino, A.A. & Finch, W.H., (2022). *Same Source, Different Data: Comparing Model Parameter Estimates of Source and GAN-Generated Data*. [Manuscript in preparation]. Department of Biostatistics, University of Kentucky.

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*. [Manuscript in preparation]. Department of Internal Medicine, University of Kentucky.

PEER REVIEWED ARTICLES

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*. <https://doi.org/10.1177/00131644221108180>

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>

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>

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*, <https://doi.org/10.1080/07481756.2021.1906156>

Mangino, A.A. & Finch, W.H. (2021). Prediction with mixed effects models: A Monte Carlo simulation study. *Educational and Psychological Measurement*. <https://doi.org/10.1177/0013164421992818>

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*.

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

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

CONFERENCE PRESENTATIONS

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 Meeting; Washington, D.C.

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 Meeting; Washington, D.C.

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.

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.

- 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.
- 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>
- 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.
- 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!
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.

PROFESSIONAL EXPERIENCE**Biomedical Data Scientist** **2021 – Present**

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

CONTRACTED WORK

Mangino, A.A. Longitudinal Structural Equation Modeling in R and Mplus. Funded by University of Indianapolis. \$1,500. *Completed June 2019.*

CONSULTATION EXPERIENCE**Biomedical Data Scientist** **2021 – Present**

Biostatistics Consulting and Interdisciplinary Research Collaboration Lab
 Department of Biostatistics
 University of Kentucky

Collaborative Unit Lead Biostatistician for:

Division of Hospital Medicine
 KIPRC Overdose Data to Action (OD2A)
 Department of Surgery
 Department of Otolaryngology – Head & Neck Surgery

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

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

FUNDED PROJECTS**Evaluation Subcontract****2019 – 2021**

George and Frances Ball Foundation grant funding to support Muncie Community Schools. Data Management and evaluation of Project Lead the Way implementation.

PI: Jerrell C. Cassady, Ph.D.

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.

Evaluation Consultation**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).

PI: Jerrell C. Cassady, Ph.D.

FUNDED GRANTS

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

UNFUNDED GRANTS

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**

University of Virginia

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

Ball State University

EDPS 390 Educational Psychology **2019 – 2021****Co-Instructor**

University of Virginia

EDLF 8360 Multilevel Modeling in Education Research **2022****Temporary Instructor**

Ball State University

EDPS 641 Statistical Methods **2019****Guest Lectures**

University of Kentucky

Introduction to Clinical Research (Topic: Journal Club Statistical Primer) **2022**Introduction to Clinical Research (Topic: Manuscript Review) **2022****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** **2016**

University of Northern Colorado

Beattie Elementary School; Fort Collins, CO

Practicum Student **2015**

University of Northern Colorado

Beattie Elementary School; Fort Collins, CO

Odyssey of the Mind Coach **2015 – 2016**

Beattie Elementary School; Fort Collins, Colorado

Academic Peer Adviser
University of Southern Maine

2014

STUDENTS MENTORED

Student: Jessica Beaver, Department of Counseling Psychology, Social Psychology, and Counseling, Ball State University

Status: Graduated July 2022, MA in Clinical Mental Health Counseling

Service: Master's Thesis Methodological Consultant – Independent

Student: Ariana Gleckman, Department of Counseling Psychology, Social Psychology, and Counseling, Ball State University

Status: Graduated July 2022, MA in Clinical Mental Health Counseling

Service: Master's Thesis Methodological Consultant – Independent

Student: Tauralee Tenn, Department of Educational Psychology, Ball State University

Status: Graduated July 2022, PhD in School Psychology

Service: Doctoral Dissertation Methodological Consultant – Independent

Student: Olivia Grenier, Department of English, Ball State University

Status: Graduated May 2022, BS in English Education, *Summa Cum Laude*

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

MEMBERSHIPS & SERVICE

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

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

American Statistical Association (ASA) **2021 – Present**
Section of Statistical Programmers & Analysts
Statistical Computing Section
Statistical Consulting Section
Section on Statistics in Epidemiology
Central Indiana Chapter; Kentucky Chapter

University of Kentucky **2021 – Present**
Center for Clinical and Translational Science (CCTS)

American Educational Research Association (AERA) **2018 – 2021**
Division D: Measurement and Research Methodologies
Multiple Linear Regression: General Linear Model SIG

American Psychological Association (APA) **2019 – 2021**
Division 15: Educational Psychology

PROFESSIONAL SERVICE**Guest Editor**

Methods in Psychology, Volume 6, *Innovations in Inclusive Methodology* **2022**

Reviewer

Psychological Methods **3 Reviews**

Journal of Anxiety, Stress, & Coping **5 Reviews**

Perspectives on Early Childhood Psychology and Education **1 Review**

AERA, 2020 Conference **7 Reviews**

AERA, 2021 Division D In-Progress Research Gala **1 Review**

Graduate Student Ambassador**2019 – 2021**

American Psychological Association, Division 15 (Educational Psychology)

Grant Proposal Management & Review

AERA Division C Equity Grant **2021**

INSTITUTIONAL SERVICE**Grade Appeals Committee Graduate Student Representative****2019 – 2021**

Ball State University

Institutional Review Board Member**2020 – 2021**

Ball State University