CURRICULUM VITAE

Kyle Cox, Ph.D.

University of North Carolina at Charlotte

266 Cato College of Education | Department of Educational Leadership

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*kyle.cox@charlotte.edu*

**EDUCATION**

*Ph.D. 2019 University of Cincinnati Educational Studies: Quantitative Research Methods*

*M.A. 2012 University of Cincinnati Educational Studies: Quantitative Research Methods*

*Graduate Certificate Assessment and Evaluation*

*B.S. 2005 Miami University Middle Childhood Education*

**PROFESSIONAL EXPERIENCE**

2019- Assistant Professor of Educational Research, Measurement, and Evaluation and

Program Director, Graduate Certificate in Quantitative Analyses (2024- )

Faculty Affiliate, Center for Educational Measurement and Evaluation (2025- )

University of North Carolina at Charlotte

2015-2019 National Science Foundation Research Assistant

University of Cincinnati

2015-2019 Teaching Assistant

University of Cincinnati

2018-2019 Adjunct Instructor

University of Cincinnati

2007-2015 6th Grade Mathematics Teacher

Mason City School District

**TEACHING/CURRICULUM DEVELOPMENT**

**Courses Taught**

*University of North Carolina at Charlotte (2019-Present)*

RSCH 8890: Special Topics in Research- Data Management and Visualization in Educational Research

RSCH 8150/7150: Structural Equation Modelling

RSCH 8120/6120: Advanced Statistics

RSCH 6101: Research Methods

*University of Cincinnati (2018-2019)*

EDST 7007: Introduction to *R*

*University of Cincinnati (2015)*

EDST 8034: Measurement and Assessment

**Curriculum and Course Development**

*University of North Carolina at Charlotte (2019-Present)*

*Course Development and Redesign*

Assisted in the replacement of common assessment materials for RSCH 6101: Research Methods

Led the development of RSCH 8890: Special Topics in Research: Data Management and Visualization in Educational Research to replace RSCH 8130: Presentation and Computer Analysis of Educational Research Data

Assisted in the development of RSCH 8197: Design and Analysis of Experimental and Quasi-Experimental Evaluations; approved in 2023

*Curriculum Development and Revision*

Updated curriculum for RSCH 8150/7150: Structural Equation Modelling to reflect advances in the field and new statistical software options

Updated curriculum for RSCH 6101: Research Methods to reflect advances in the field

**Teaching Assistant**

*University of Cincinnati (2015-2019)*

EDST 8089: Structural Equation Modeling

EDST 7017: Data Manipulation in *R*

EDST 7019: Data Visualization in *R*

EDST 8088: Item Response Theory

EDST 8086: Quasi- & Experimental Research Design for Causal Inference

EDST 7011: Statistical Data Analysis II

EDST 7010: Statistical Data Analysis I

**Advising/Mentorship**

*Doctoral Dissertation Committees (Completed)*

2024Holl-Cross, C., Curriculum & Instruction

2024 Fichtner, O., Counselor Education and Supervision

2024 Griffith, L., Counselor Education and Supervision

2024 Wang, Y., Educational Leadership-ERME

2024 Stoilovic, I., Counselor Education and Supervision

2023 Luce, H. Educational Leadership-ERME

2023 Rochester, T., Curriculum and Instruction

2022Hancock, C., Curriculum and Instruction

2022 Hujar, J., Educational Leadership-ERME

*Doctoral Dissertation Committees (In Progress)*

Crippen, M., Educational Leadership- Higher Education (Proposal Approved)

Hall, R., Health Psychology

Henderson, S. Curriculum & Instruction

Intravaia, B., Curriculum & Instruction

Lambert, M., (Chair) Educational Leadership-ERME

Caldwell, A., (Chair) Counselor Education and Supervision

*PhD Advisees*

Lambert, M., Educational Leadership-ERME

Deiderich, J., Educational Leadership-ERME

Wright, K. Educational Leadership-ERME

**RESEARCH**

**Publications** (\*=data-based, #=peer reviewed)

*Journal Articles*

**Cox, K.**, Kelcey, B., Luce, H. (2025). Power to detect moderated effects with random slopes in partially nested designs*.* *General Linear Model Journal*, *49*(1), 1-17.\*#

Toraman, S., **Cox, K.**, & Plano Clark, V. L. (2025). Measuring the degree of mixed methods research adoption: An investigation using doctoral dissertation abstracts. *Journal of Mixed Methods Research*, Advanced online publication.\*#

**Cox, K.**, Kelcey, B., Luce, H. (2024). Power to detect moderated effects in three-level partially nested designs*. Journal of Experimental Education.* *92*, 130-153. \*#

Bai, F., Kelcey, B., Xie, Y., & **Cox, K.** (2023). Design and analysis of clustered regression discontinuity designs for probing mediation effects. *Journal of Experimental Education*, Advanced online publication.\*#

**Cox, K.**, Kelcey, B., & Deiderich, J. (2023). Partially nested designs in social work research: Principles and practices. *Special Issue:* *Research on Social Work Practice*, Advanced online publication.\*#

**Cox, K.**, & Deiderich, J. (2023). A primer on investigating treatment effect heterogeneity and causal moderation in psychotherapy research. *Special Issue:* *Psychotherapy Research, 33*(8), 1031–1042.

Lambert, R., Moore, M., Schwanzer, A., & **Cox, K.** (2023). Examining the factor structure of the perceived stress scale using a correlated traits correlated methods framework. *Journal of Stress, Trauma, Anxiety, and Resilience*, Advanced online publication.\*#

**Cox, K.**, & Kelcey, B. (2023). A Bayesian partial posterior predictive distribution test for multilevel mediation. *Statistica Neerlandica.* 77, 408–428.\*#

**Cox, K.**, & Kelcey, B. (2023). Croon’s bias corrected estimation for multilevel structural equation models with non-normal indicators and model misspecifications*. Educational and Psychological Measurement*. *83*, 48-72. \*#

**Cox, K.**, & Kelcey, B. (2023). Statistical power for detecting moderation in partially nested designs. *American Journal of Evaluation*, 44(1), 133–152.\*#

**Cox, K.**, Kelcey, B., Bai, F. (2023). Croon’s bias-corrected estimation for multilevel structural equation models with latent interactions*. Structural Equation Modeling: A Multidisciplinary Journal*. *30*, 467-480.\*#

Younis, M. C. Z., Kudlats, J., **Cox, K.**, La Serna, J., Shore, R. A., Watson, J. R. (2022). Teachers’ perspectives of principals’ invitational leadership behaviors, teacher job satisfaction and principal effectiveness in high-poverty rural elementary schools. *Journal of Applied Educational and Policy Research*, *7*, 1-23.\*#

**Cox, K.**, & Kelcey, B. (2021). Croon’s bias corrected estimation of latent interactions. *Structural Equation Modeling: A Multidisciplinary Journal*, *28*, 863-874. \*#

Kelcey, B., **Cox, K.**, & Dong, N. (2021). Croon’s bias-corrected factor score path analysis for small- to moderate-sample multilevel structural equation models. *Organizational Research Methods*, *24*, 55-77. \*#

Kelcey, B., Bai, F., Xie, Y., & **Cox, K.** (2020). Micro-macro and macro-micro effect estimation in small scale latent variable models with Croon’s method. *Testing, Psychometrics, Methodology in Applied Psychology*, *27*, 477-499. \*#

Toraman, S., **Cox, K.**, Plano Clark, V. L., & Dariotis, J. K. (2020). Graduate students’ current practices for writing a mixed methods research study abstract: An examination of doctoral dissertation and master’s thesis abstracts in the ProQuest Dissertations and Theses GlobalTM database. *International Journal of Multiple Research Approaches, 12*, 110-128. \*#

**Cox, K.,** & Kelcey, B. (2019). Optimal design of cluster- and multisite-randomized studies using fallible outcome measures. *Evaluation Review*, *43*, 189-225. \*#

**Cox, K.**, & Kelcey, B. (2019). Robustness of statistical power in group-randomized studies of mediation under an optimal sampling framework. *Methodology, 15*, 106-118. \*#

**Cox, K.**, & Kelcey, B. (2019). Optimal sample allocation in group-randomized mediation studies with a group-level mediator. *The Journal of Experimental Education, 87,* 661-640. \*#

Kelcey, B., Dong, N., Spybrook, J., & **Cox, K.** (2017). Statistical power for causally-defined indirect effects in group-randomized trials with individual-level mediators. *Journal of Educational and Behavioral Statistics, 42,* 499-530. \*#

*Book Chapters*

**Cox, K.**, Lambert, R., & Hitchcock, J.H. (2021). Multiple linear regression analysis with qualitative data that have been quantitized. In T. Onwuegbuzie & B. Johnson (Eds.), *The reviewer’s guide to mixed methods research analysis*. Routledge.

*Policy Briefs and Technical Reports*

Cash, A., & **Cox, K.** (2023). *Mitigating educator workforce impacts of the COVID-19 pandemic through coaching: Annual Report 2023*.

Benson, T., **Cox, K.** (2021). *Racial Equity Audit for San Marcos CISD*. Mooresville, NC: Tracey A. Benson Consulting.\*

Wodruff, S. B., Li, Y. & **Cox, K.** (2014). *Evaluation of University at Buffalo/Buffalo Public Schools (UB/BPS) Interdisciplinary Science and Engineering Partnership: Annual report 2014-2015*. Oxford, OH: Ohio’s Evaluation & Assessment Center for Mathematics and Science Education.\*

Wodruff, S. B., Li, Y. & **Cox, K.** (2013). *Evaluation of University at Buffalo/Buffalo Public Schools (UB/BPS) Interdisciplinary Science and Engineering Partnership: Annual report 2012-2013*. Oxford, OH: Ohio’s Evaluation & Assessment Center for Mathematics and Science Education.\*

*Works in progress*

**Cox, K.**, & Kelcey, B., (revise and resubmit). A structural after measurement approach for partially nested structural equation models with latent interactions. *Behavioral Research Methods*.\*#

Wang, Y., Dika, S., D'Amico, M., Cox, K., & Bohlig, E. M. (revise and resubmit). Intersections of engagement and student characteristics: Assessing predictors of success in community college. *Community College Review*.\*#

Bai, F., Kelcey, B., Ataneka, A., Xie, Y., **Cox, K.,** & Dong, N. (revise and resubmit). Designing multisite Randomized trials to detect (Conditional) mediation effects. *American Journal of Evaluation*.\*#

Fichtner, O., Foxx, S., & **Cox, K. (**under review). Exploring how self-efficacy, workload, and parent engagement predict burnout among child therapists. *Journal of Child and Adolescent Counseling* \*#

Cash, A. H., **Cox K**., Deiderich, J., Birkett, J., Huggins, E., & Hodge, E. (in preparation). Examining heterogeneity in the effects of instructional coaching on teacher retention.\*#

Zhang, S., **Cox, K.,** Thodiyil, O. V.(in preparation). Differences in measuring school academic emphasis and school disciplinary climate across principals, teachers, and geographic regions.\*#

**Cox, K.,** Kelcey, B., Bai, F., Ataneka, A., & Xie, Y. (in preparation). Structural after measurement estimation of structural equation models with latent interactions and missing data.\*#

Cash, A. H., Lim, J., Lambert, M.,Deiderich, J., **Cox K**., Davis, R., Hodge, E. & Miller, J. (in preparation). Little wins, large impact: Impactful coaching practices to support new teachers.\*#

**Conference Presentations** (\*=data-based, #=peer reviewed)

*National/International*

**Cox, K.,** Kelcey, B., & Thodiyil, O. V. (2025, April). *A Structural After Measurement Approach for Structural Equation Models with Latent Interactions and Missing Data.* Paper to be presented at the American Educational Research Association Annual Meeting, Denver, CO. \*#

**Cox, K.,** & Kelcey, B. (2025, April). *Comparing Bayesian and Structural After Measurement Estimation for Multilevel Structural Equation Models with Latent Interactions.* Paper to be presented at the American Educational Research Association Annual Meeting, Denver, CO. \*#

Bai, F., Kelcey, B., Ataneka, A., Xie, Y., & **Cox, K.** (2025, April). *Design and Analysis of Multisite Cluster-Randomized Trials Targeting (Conditional) Mediation Effects*. Paper to be presented at the American Educational Research Association Annual Meeting, Denver, CO. \*#

Deiderich, J., **Cox K**., Cash, A. H., Lambert, M.,Birkett, J., Hodge, E. & Miller, J. (2025, April). *Differential Effects of Instructional Coaching on Teacher Retention: Keeping Teachers in State, in District, and in School*. Roundtable to be presented at the American Educational Research Association Annual Meeting, Denver, CO. \*#

Cash, A. H., Lim, J., Lambert, M.,Deiderich, J., **Cox K**., Davis, R., Hodge, E. & Miller, J. (2025, April). *Little Wins, Large Impact: Impactful Coaching Practices to Support New Teachers*. Roundtable to be presented at the American Educational Research Association Annual Meeting, Denver, CO. \*#

Wang, Y., **Cox, K.,** Dika, S., & Bohlig, M. (2025, April). *Assessing Equity in Engagement: Measurement Invariance in the National Community College Student Engagement Survey*. Poster to be presented at the American Educational Research Association Annual Meeting, Denver, CO. \*#

**Cox, K.,** & Kelcey, B. (2024, October). *Estimating Mediation Effects in Experimental Evaluations with Partially Nested Data.* Presented at Evaluation 2024, Portland OR. \*#

Bai, F., Ataneka, A., Xie, Y., **Cox, K.,** & Kelcey, B. (2024, October). *Experimental Design and Analysis of Multiple Group Individually-Randomized Group Trials.* Presented at Evaluation 2024, Portland OR. \*#

Bai, F., Ataneka, A., Xie, Y., **Cox, K.,** & Kelcey, B. (2024, October). *Structural After Measurement Estimation With Missing Data in Structural Equation Models.* Presented at Evaluation 2024, Portland OR. \*#

**Cox, K.** & Kelcey. (2024, September). *Comparing Estimation Approaches for Interactions in Partially Nested Data When Variables Are Measured with Error*. Paper presented at the meeting of The Society for Research on Educational Effectiveness, Baltimore, MD \*#

Lambert, M., **Cox, K.,** Cash, A., Birkett, J., Huggins, E., & Hodge, E. (2024, September). *Examining Heterogeneity in the Effects of Coaching on Three Types of Teacher Retention*. Paper presented at the meeting of The Society for Research on Educational Effectiveness, Baltimore, MD \*#

Kelcey, B., Bai, F., Ataneka, A., Xie, Y., & **Cox, K.** (2024, September). *Experimental Design and Analysis of Multiple-Group Individually-Randomized Group Trials*. Paper presented at the meeting of The Society for Research on Educational Effectiveness, Baltimore, MD \*#

Bai, F., Kelcey, B., Ataneka, A., Xie, Y., **Cox, K.**, & Dong, N. (2024, September). *Designing Multisite Randomized Trials to Detect (Moderated) Mediation Effects*. Paper presented at the meeting of The Society for Research on Educational Effectiveness, Baltimore, MD \*#

Xie, Y., Kelcey, B., Bai, F., **Cox, K.**, & Ataneka, A. (2024, September). *Estimation, Statistical Power, and Optimal Sample Size Allocation in Partially Nested Multisite Clustered-Randomized Trials*. Poster presented at the meeting of The Society for Research on Educational Effectiveness, Baltimore, MD \*#

**Cox, K.,** Cash, A., Lambert, M., Deiderich, J.,Hodge, E.,Birkett, J., & Huggins, E. (2024, July). *Examining the Relationship Between Teacher Coaching and Teacher Retention*. Paper presented at The 45th International Conference of the Stress, Trauma, Anxiety, and Resilience Society, Charlotte, NC. \*#

**Cox, K., &** Kelcey, B. (2024, April). *A Structural After Measurement Approach for Partially Nested Structural Equation Models with Latent Moderated Mediation*. Roundtable presented at the American Educational Research Association Annual Meeting, Philadelphia, PA. \*#

Deiderich, J., **Cox, K.,** Cash, A., Birkett, J., Huggins, E., & Conetta, P. (2024, April). *Examining Heterogeneity in the Effects of Coaching on Teacher Retention*. Poster presented at the American Educational Research Association Annual Meeting, Philadelphia, PA. \*#

Kelcey, B., Bai, F., Ataneka, A., Xie, Y., & **Cox, K.** (2024, April). *Experimental Design and Analysis of Multiple Group Individually-Randomized Group Trials*. Paper presented at the American Educational Research Association Annual Meeting, Philadelphia, PA. \*#

Kelcey, B., Bai, F., **Cox, K.**, Xie, Y., & Ataneka, A. (2024, April). *Structural After Measurement Estimation With Missing Data in Structural Equation Models*. Paper presented at the American Educational Research Association Annual Meeting, Philadelphia, PA. \*#

**Cox, K.** & Kelcey. (2023, September). *Investigating Mediation and Moderation Effects in Partially Nested Data When Variables are Measured with Error*. Paper presented as part of a Symposium on Addressing Measurement Challenges in Educational Evaluation Contexts at the meeting of The Society for Research on Educational Effectiveness, Washington D.C. \*#

**Cox, K.** & Kelcey. (2023, May). *Structure after Measurement Estimation of Latent Interactions in Partially Nested Structural Equation Models*. Paper presented at the 2023 Modern Modeling Methods Conference, Storrs, CT. \*#

Bai, F., Kelcey, B., Xie, Y., & **Cox, K.**, (2023, May). *Structural After Measurement Estimation of Disparately Nested Structures*. Paper presented at the 2023 Modern Modeling Methods Conference, Storrs, CT. \*#

Xie, Y., Kelcey, B., & **Cox, K.**, (2023, May). *Partially Nested Multisite Cluster-Randomized Trials: Estimation, Inference and Design*. Paper presented at the 2023 Modern Modeling Methods Conference, Storrs, CT. \*#

**Cox, K.**, Kelcey, & B., Bai, F.(2023, April). *Croon's Estimation of Multilevel Structural Equation Models With Partially Nested Data*. Paper presented at the American Educational Research Association Annual Meeting, Chicago, IL. \*#

Kelcey, B., **Cox, K.**, & Bai, F.(2023, April). *Latent Interactions in Cross-Classified SEM With Small to Moderate Samples*. Paper presented at the American Educational Research Association Annual Meeting, Chicago, IL. \*#

Kelcey, B., Xie, Y., **Cox, K.**, & Bai, F.(2023, April). *Moderation in Partially Nested Multisite Experiments: Estimation, Inference and Design Randomized Trials*. Paper presented at the American Educational Research Association Annual Meeting, Chicago, IL. \*#

Xie, Y., Kelcey, B., **Cox, K.**, & Bai, F.(2023, April). *Partially Nested Multisite Experiments with Repeated Measures: Estimation, Inference, and Design*. Paper presented at the American Educational Research Association Annual Meeting, Chicago, IL. \*#

Bai, F., Kelcey, B., Xie, Y., & **Cox, K.**, (2023, April). *Design and Analysis of Clustered Regression Discontinuity Studies Probing Mediation Effects*. Roundtable presentation at the American Educational Research Association Annual Meeting, Chicago, IL. \*#

Hujar, J., Lambert, R., Matthews, M., **Cox, K.,** & Kim, S. Y. (2023, April). *Combatting ceiling effects: Modeling high-ability student growth using multilevel Tobit regression*. Paper presented at the American Educational Research Association Annual Meeting, Chicago, IL. \*#

**Cox, K.,** Kelcey, B., & Luce, H. (2022, November). *Comparing Power to Detect Upper- and Lower-level Moderated Effects in Partially Nested Designs.* Paper presented as part of a Panel on Partially Nested Studies: Designs, Estimators, Inference and Statistical Power at the meeting of the Association for Public Policy & Management, Washington D.C. \*#

Zuchao, S., Curran, C., Leite, W., Splett, J., Kelcey, K., & **Cox, K.** (2022, November). *Design Parameters for Student Science Outcomes Including Teachers As a Level of Nesting.* Poster presented at the meeting of the Association for Public Policy & Management, Washington D.C. \*#

**Cox, K.,** Kelcey, B., & Luce, H. (2022, November). *Power to Detect Moderated Effects in Cluster Randomized Trials with Partially Nested Data.* Paper presented as part of a Symposium on Principles and Strategies for Estimation, Inference and Study Design With Partially Nested Structures at Evaluation 2022, New Orleans, LA. \*#

**Cox, K.** & Kelcey, B.(2022, September). *Analyzing Partially Nested Data When Variables Are Measured With Error.* Paper presented as part of a Symposium on Estimation and Inference in the Presence of Complex Sources of Measurement Error at the meeting of The Society for Research on Educational Effectiveness, Washington D.C. \*#

**Cox, K.,** Kelcey, B., & Luce, H. (2022, September). *Power to Detect Moderated Effects in Three-level Partially Nested Designs.* Paper presented as part of a Symposium on Partially Nested Studies: Designs, Models, Estimators, Inference and Statistical Power at the meeting of The Society for Research on Educational Effectiveness, Washington D.C. \*#

Bai, F., & Kelcey, B., Xie, Y. & **Cox, K.** (2022, September). *Designing Regression Discontinuity Studies to Detect Multilevel Mediation Effects.* Paper presented at the meeting of The Society for Research on Educational Effectiveness, Washington D.C. \*#

Zuchao, S., Curran, C., Leite, W., Splett, J., **Cox, K.**, & Kelcey, K. (2022, September). *Intraclass Correlations for Student Science Outcomes Including Teachers as a Level of Nesting.* Paper presented at the meeting of The Society for Research on Educational Effectiveness, Washington D.C. \*#

**Cox, K.**, Kelcey, B., Bai, F., & Luce, H. (2022, April). *Power to Detect Lower-level Moderation Effects in Three-level Partially Nested Designs*. Paper presented at the American Educational Research Association Annual Meeting, San Diego, CA. \*#

**Cox, K.**, Kelcey, B., & Bai, F. (2022, April). *Croon’s Estimation of Multilevel Structural Equation Models with Latent Interactions*. Poster presented at the American Educational Research Association Annual Meeting, San Diego, CA. \*#

Kelcey, B., **Cox, K.,** & Bai, F., (2022, April). *Approximate Measurement Invariance Methods for Harmonizing Classroom Observation Scores Across Disparate Conditions.* Paper presented as part of a Symposium on The Affordances and Limitations of Different Analytic Models for Data from Classroom Observation Systems at the American Educational Research Association Annual Meeting, San Diego, CA. \*#

Kelcey, B., Bai, F., & **Cox, K.** (2022, April). *n-Level SEM with Small to Moderate Samples.* Poster presented at the American Educational Research Association Annual Meeting, San Diego, CA. \*#

Kelcey, B., **Cox, K.,** & Bai, F., (2022, April). *Structural After Measurement Estimation of Three-Level Structural Equation Models.* Paper presented at the American Educational Research Association Annual Meeting, San Diego, CA. \*#

**Cox, K.**, & Kelcey, B.(2021, September). *Power to Detect Moderated Effects in Partially Nested Designs Involving Random Slopes*. Paper presented at the meeting of The Society for Research on Educational Effectiveness, Virtual/online. \*#

**Cox, K.**, & Kelcey, B.(2021, September). *Moderation and Mediation When Variables Are Measured With Error*. Paper presented at the meeting of The Society for Research on Educational Effectiveness, Virtual/online. \*#

**Cox, K.** & Kelcey, B. (2021, April). *Comparing* *Statistical Power for Detecting Moderation Effects in Partially Nested Designs When Moderators Vary Within or Within and Between Groups*. Paper presented at the American Educational Research Association Annual Meeting, Virtual/online. \*#

**Cox, K.** (2021, April). *Croon’s Corrections for Estimating Single-Level Latent Interactions*. Poster presented at the American Educational Research Association Annual Meeting, Virtual/online. \*#

Kelcey, B., Bai, F., & **Cox, K.** (2021, April). *Flexible Bias-Corrected Multilevel Factor Score Path Analysis*. Poster presented at the American Educational Research Association Annual Meeting, Virtual/online. \*#

Toraman, S., **Cox, K.**, & Plano Clark, V. (2021, April). *Can Adoption of Mixed Methods Research Be Measured? A Mixed Methods Study of Dissertation Abstracts.* Paper presented at the American Educational Research Association Annual Meeting, Virtual/online. \*#

**Cox, K.** & Kelcey, B. (2020, October). *Adequate Sample Sizes for Detecting Moderation Effects in Partially Nested Designs*. Paper presented at the American Evaluation Association: Eval20 Virtual Conference. \*#

Bai, F., & Kelcey, B., & **Cox, K.** (2020, October). *Moderation With Latent Variables: A Comparative Analysis of Estimators*. Paper presented at the American Evaluation Association: Eval20 Virtual Conference. \*#

**Cox, K.** & Kelcey, B. (2020, April). *Robustness of a Limited Information Estimator to Misspecified Multilevel Structural Equation Models and Small Samples*. Paper was to be presented at the American Educational Research Association Annual Meeting, San Francisco, CA. \*#

Kelcey, B. & **Cox, K.** (2020, April). *Croon's Bias-Corrected Estimator Small to Moderate Scale Multilevel Structural Equation Models*. Paper was to be presented at the American Educational Research Association Annual Meeting, San Francisco, CA. \*#

Toraman, S., **Cox, K.**, Plano Clark, V., & Dariotis, J. K. (2020, April). *The Current Status of Graduate Students’ Mixed Methods Research Practices in Dissertation and Thesis Abstracts.* Paper was to be presented at the American Educational Research Association Annual Meeting, San Francisco, CA. \*#

**Cox, K.**, & Kelcey, B. (2020, March). *Evaluating the Performance of Croon’s Method of Moments Corrected Maximum Likelihood Estimator with Cluster-randomized Studies Probing Mediation*. Paper was to be presented at the meeting of The Society for Research on Educational Effectiveness, Washington D.C. \*#

**Cox, K.**, Kelcey, B., Xie, Y., & Bai, F. (2020, March). *Experimental Power for Three-Level School-Randomized Studies Probing Mediation*. Paper was to be presented at the meeting of The Society for Research on Educational Effectiveness, Washington D.C. \*#

**Cox, K.** & Kelcey, B. (2019, November). *Statistical Power in Partially Nested Designs Probing Multilevel Moderation*. Paper presented at the American Evaluation Association: Evaluation 2019, Minneapolis, MN. \*#

Kelcey, B. & **Cox, K.** (2019, November). *Analysis of Moderator Effects in Small Scale Multilevel Studies with Latent Variables*. Paper presented at the American Evaluation Association: Evaluation 2019, Minneapolis, MN. \*#

Kelcey, B., **Cox, K.**, & Xie, Y. (2019, May). *Experimental Design for Studies Probing Multilevel Mediation*. Paper presented at the Society for Prevention Research Conference, San Francisco, CA. \* (invited presentation)

**Cox, K.** & Kelcey, B. (2019, April). *Assessing Multilevel Mediation with the Partial Posterior p Value*. Paper presented at the American Educational Research Association Annual Meeting, Toronto, Canada. \*#

**Cox, K.**, & Kelcey, B. (2019, April). *Statistical Power and Optimal Design for Multisite Randomized Studies When the Outcome is not Fully Reliable*. Paper presented at the American Educational Research Association Annual Meeting, Toronto, Canada. \*#

Kelcey, B. & **Cox, K.** (2019, April). *Power and Design in Clustered Regression Discontinuity Designs Probing Mediation*. Paper presented at the American Educational Research Association Annual Meeting, Toronto, Canada. \*#

**Cox, K.**, & Kelcey, B. (2019, March). *Statistical Power and Optimal Design for Cluster-Randomized Studies When the Outcome is not Fully Reliable*. Paper presented at the meeting of The Society for Research on Educational Effectiveness, Washington D.C. \*#

Kelcey, B., & **Cox, K.** (2019, March). *Statistical Power for Mediation Effects in Three-Level Group Randomized Trials*. Paper presented at the meeting of The Society for Research on Educational Effectiveness, Washington D.C. \*#

Kelcey, B., **Cox, K.**, & Dong, N. (2018, November). *Apportioned Multilevel Structural*

*Equation Modeling: An Unbiased and Efficient Alternative to Multilevel Structural*

*Equation Modeling in Small to Moderate Samples*. Paper to be presented at the 40th Annual

Association for Public Policy Analysis and Management (APPAM) Research Conference,

Washington, DC. \*#

Kelcey, B., **Cox, K.**, & Dong, N. (2018, November). *Experimental Design and Analysis of Multilevel Mediation When Measures Are Subject to Measurement Error*. Paper presented at American Evaluation Association: Evaluation 2018, Cleveland, OH. \*#

**Cox, K.**, & Kelcey, B. (2018, April). *The Robustness of Statistical Power to Parameter Value Misspecifications in Group-Randomized Studies of Mediation*. Paper presented at the 2018 American Educational Research Association Annual Meeting, New York, NY. \*#

Kelcey, B., **Cox, K.**, & Dong, N. (2018, April). *Correcting for Unreliability in Power Analyses of Cluster-randomized Trials of Mediation*. Paper presented at the 2018 American Educational Research Association Annual Meeting, New York, NY. \*#

**Cox, K.**, Kelcey, B., & Shen, Z. (2017, April). *Power and Optimal Sample Allocation in Cluster-randomized Trials of Upper-level Mediation*. Paper presented at the 2017 American Educational Research Association Annual Meeting, San Antonio, TX. \*#

Kelcey, B., Dong, N., Spybrook, J., & **Cox, K.** (2017, April). *Statistical Power for Individual and Contextual Mediation in Cluster-randomized Designs*. Paper presented at the 2017 American Educational Research Association Annual Meeting, San Antonio, TX. \*#

Kelcey, B., & **Cox, K.** (2017, March). *Statistical Power for Indirect Effects in Clustered Regression Discontinuity Designs*. Paper presented at the meeting of The Society for Research on Educational Effectiveness, Washington D.C. \*#

Kelcey, B., **Cox, K.**, Dong, N., and Spybrook, J. (2016, October). *Designing multilevel mediation studies using the PowerUp! software*. Paper presented at the American Evaluation Association: Evaluation 2016, Atlanta, GA. \*#

Zhang, J., Shen, Z., **Cox, K.**, Hart, J.R., and Swoboda, C. (2016, May). *Examining the effects of including differently correlated auxiliary variables in multiple imputation models*. Poster presented at the 2016 Modern Modeling Methods Conference, Storrs, CT. \*#

**Cox, K.**, Hart, J.R., Zhang, J., Shen, Z., and Swoboda, C. (2016, April). *Effect of auxiliary variables with complex correlations on multiple imputation: Initial results*. Poster presented at the 2016 American Educational Research Association Annual Meeting: Division D In-Progress Research Gala, Washington D.C. \*#

Kelcey, B., Wang, S., & **Cox, K.** (2016, March). *High-dimensional explanatory random item effects models for rater-mediated assessments*. Paper presented at the meeting of The Society for Research on Educational Effectiveness, Washington D.C. \*#

*State/Regional Presentations*

Lambert, M., **Cox, K.**, & Cash, A. (2024, April). *Supporting and retaining teachers: Understanding the impact of the COVID-19 pandemic for new teachers*. Poster presented at the Cato College of Education Research Symposium, Charlottee, NC.\*#

Connors, T., Dash, L., Kingsberry, C., Washburn, E., **Cox, K.**, & Gesel, S. (2024, April). *Exploring the impact of a clinically enhanced field experience on teacher candidate self-efficacy to teach reading.* Poster presented at the Cato College of Education Research Symposium, Charlottee, NC.\*#

Wright, K., & **Cox, K.** (2023, November). *Investigating the Relationship Between Band Director Gender and Festival Ratings.* Poster presented at the 2023 North Carolina Music Educators Association Conference, Winston-Salem, NC. \*#

Cash, A. H., **Cox, K.,** Lim, J. H., & Conetta, P (2023, October). *Teacher workforce stability*. Paper presented at the AIM Conference 2023 for North Carolina Department of Public Instruction, Raleigh, NC.

**Cox, K.**, & Kelcey, B. (2018, October). *Consequences of Parameter Values Misspecification When Planning Group-randomized Mediation Studies with an Individual-Level Mediator.* Paper presented at the 2018 Mid-Western Educational Research Association Annual Meeting, Cincinnati, OH. \*#

**Cox, K.**, (2018, April). *The Robustness of Statistical Power to Parameter Value Misspecifications in Group-Randomized Studies of Mediation*. Paper presented at University of Cincinnati Research Week 2018, Cincinnati, OH. \* (invited presentation)

**Cox K.**, (2016, March). *Empirically estimated design parameters for cluster randomized trials with educational outcomes: A review of the current collection*. Poster presented at the Graduate Student Expo and Poster Forum 2016, University of Cincinnati. \*

*Invited Presentations*

**Cox, K.**, (2024, November). “Guest Speaker: EDST 9089 Seminar in Advancing Quantitative and Mixed Methods Research Methodology”, University of Cincinnati. Educational Studies Program, Cincinnati, OH.

Cash, A. H., & **Cox, K.**, (2024, April). *Impacts of the North Carolina New Teacher Support Program on beginning teacher retention*. Presentation for the North Carolina State Board of Education, Boone, NC.

Cash, A. H., **Cox, K.**, Hodge, E., Lambert, M., & Lim, J. H. (2024, January). *Mitigating educator workforce impacts of the COVID-19 pandemic through the North Carolina New Teacher Support Program*. Presentation for the North Carolina Department of Public Instruction and Collaboratory, Raleigh, NC.

Cash, A. H., **Cox, K.,** & Lambert, M. (2024, January). *Coaching supports provided by the North Carolina New Teacher Support Program*. Presentation for three zonal meetings for the North Carolina New Teacher Support Program, Various locations across North Carolina.

Cash, A. H. & **Cox, K.** (2023, August). *UNC Charlotte - North Carolina New Teacher Support Program Partnership Introduction*. Presentation for three zonal meetings for the North Carolina New Teacher Support Program , Various locations across North Carolina.

Cash, A. H. & **Cox, K.** (2023, March). *Partnering with the North Carolina New Teacher Support Program*. 2023 North Carolina New Teacher Support Program Data Summit, Online/Virtual.

**Cox, K.**, (2020, February). “Navigating the Job Market Panel”, University of Cincinnati. CECH Educational Studies Program Panel, Cincinnati, OH.

**Cox, K.**, (2018, November). “CADRE Fellows Orientation Panel”, Education Development Center, Waltham, MA.

**Cox, K.**, (2018, February). “Applications of Latent Variable Modeling Across Disciplines Panel”, University of Cincinnati. CECH Data Community Presentation, Cincinnati, OH.

**Grants and Contracts**

*National Grants*

Wang, C., & **Cox, K.** (2024-2028). *Collaborative Research: CyberTraining: Implementation: Medium: AI4EDU: Cloud Infrastructure-Enabled Training for AI in Educational Research and Assessment*. Funded by National Science Foundation for $212,005. [In collaboration with Northeastern University, Temple University, and George Maxon University for a total of $1million].

*State/Local Grants*

Morris, D. S. [Principal Investigator], D’Amico, M. M., Hart, W., Shore, R., Greene, T., Watson, J., **Cox, K.**, Zhang, S., & Kudlats, J. [Co-Principal Investigators]. (2026-2032). *NC principal fellows program: UNC Charlotte, Southwest Regional Education Service Alliance, and Anson and Montgomery School Districts’ collaborative project.*North Carolina Principal Fellows Commission, North Carolina State Education Assistance Authority, and the University of North Carolina General Administration. Funded: $4,580,479.

Cash, A., H. (2024-2026). *Promoting Literacy Proficiency in Cabarrus County*. The North Carolina Collaboratory and Department of Public Instruction, Funded: $50,000. [Methodologist/Statistical Consultant].

Cash, A. H., **Cox K.**[Co- Principal Investigators]. (2022-2024).*Investigating Teacher Coaching, Retention, and Resilience Across Phases of the COVID-19 Pandemic;* The North Carolina Collaboratory: COVID-19 Learning Impact Program 2022, Funded: $249,624.

*University Development Grants*

**Cox K.**(2023).*Mplus 8.10;* University of North Carolina at Charlotte‘Just in Time Funding’, Funded: $895.

**Cox K.**(2020).*Investigating Estimators of Multilevel Structural Equation Models with Small Sample Sizes;* University of North Carolina at CharlotteFaculty Research Grant, Funded: $5,900.

**Cox K.**(Summer 2019).*Optimal Design of Cluster-Randomized and Multisite Studies Using Fallible Outcome Measures;* University of Cincinnati Research Council Graduate Student Stipend and Research Cost Award for Faculty-Student Collaboration, Funded: $5,000.

**SERVICE/ OUTREACH/ ENGAGEMENT**

**Service to the University**

*University/Institution Level*

2024-2026 Member Graduate Council

2023*-* Faculty Judge UNCC Graduate Research Symposium

2023-2024 University Faculty Council, College of Education: Department of Educational Leadership Representative

2023-2025 Member (alternative), Data and Research Oversight Committee

2022-2024 Member (alternative), Competitive Grants Committee

*College Level*

2024-2026 Member Graduate Curriculum Committee

2021-2022 Member, Cato College of Education Faculty Research Award Committee

*Department and Program Level*

2023 Member, Business Services Coordinator Search Committee

2022 Chair, Educational Research, Measurement, and Evaluation Program Portfolio Committee

2020- Co-organizer, Educational Research, Measurement, and Evaluation Program Colloquium

2019-2023 Member, Educational Research, Measurement, and Evaluation Program Admission Committee

2021 Race and Equity Priority Working Group: Workload Committee

2020-2022 Chair (2022) and Member, Department of Educational Leadership Legacy (Dissertation of the Year) Award Committee

**Service to the Profession**

*Editorial Service*

2023- Editorial Advisory Board, American Journal of Evaluation

*Occasional Manuscript Reviewer*

AERA Open

American Journal of Evaluation

Asia Pacific Education Review

Behavior Research Methods

Frontiers in Education

Journal of Applied Educational and Policy Research

Journal of Research on Educational Effectiveness

Psych

Statistics in Medicine

Structural Equation Modeling: A Multidisciplinary Journal

*Textbook Reviewer*

2024 *Multilevel Structural Equation Models* (select chapters)

2023 *Cause and Correlation in Biology: A User's Guide to Path Analysis, Structural Equations and Causal Inference with R*

2023 *Psychological Research Methods and Statistics*

2022 5th Edition of *Principles and Practice of Structural Equation Modeling* (select chapters)

*Conference Proposal Reviewer*

2017-2024 American Educational Research Association Annual Conference

2020-2024 American Evaluation Association Conference

2019-2024 Society for Research on Educational Effectiveness Annual Conference

*Grant Proposal Reviewer*

2025 Institute of Educational Sciences grant review panel

2024 Department of Education grant review panel

2024 National Science Foundation grant review panel

2022 Department of Education grant review panel

2017 National Science Foundation grant review panel

*Professional Leadership Positions*

2024-2026 Chair, American Educational Research Association Division D Membership Committee

2022-2024 Co-Chair, American Educational Research Association Division D Membership Committee

*Professional Consultation and Other Service*

2023 Reviewer, 2024 NSF Community for Advancing Discovery Research in Education (CADRE) Fellows Program Applications

**Service to the Community and Practitioners**

*Community workshops and presentations*

Kelcey, B. & **Cox, K.** (2024, April). *Introduction to the Design and Analysis of Studies With Partially Nested Structures*. Workshop presented at the 2024 American Educational Research Association Annual Meeting, Philadelphia, PA.

Spybrook, J., Kelcey, B., Dong, N., & **Cox, K.** (2019, April). *Designing Adequately Powered Cluster Randomized Trials to Detect Main Effects, Moderation, and Mediation*. Workshop presented at the 2019 American Educational Research Association Annual Meeting, Toronto, Canada.

**Cox, K.**, Shen, Z., & Kelcey, B. (2018, October). *Asking ‘Why?’ in Educational Research: Understanding and Planning Cluster-randomized Studies Aimed at Detecting Mediation*. Workshop presented at the 2018 Mid-Western Educational Research Association Annual Meeting, Cincinnati, OH.

Spybrook, J., Kelcey, B., Dong, N., & **Cox, K.** (2018, April). *Designing Adequately Powered*

*Cluster Randomized Trials to Detect Main Effects, Moderation, and Mediation*. Workshop

presented at the 2018 American Educational Research Association Annual Meeting, New York, NY.

**HONORS AND AWARDS**

2017Unpacking Teacher Effectiveness in the Context of IES Funded Proposals: Virginia Education Science Training Program

*One of 20 participants invited to attend 2-day conference addressing contemporary issues in teacher effectiveness research at the University of Virginia.*

2016 American Educational Research Association Institute on Statistical Analysis for Education Policy on Using Large-Scale Data to Study Mathematics Education and Outcomes

*Competitive, invitation only workshop organized by American Educational Research Association and supported by the National Science Foundation*

2016 Finalist for Top Proposal to the 2016 American Educational Research Association Annual Meeting: Division D In-Progress Research Gala

2016 Exemplary Poster Presentation in the category of Social and Behavioral Sciences

University of Cincinnati, Graduate Student Expo and Poster Forum

2015 Project Excellence Award for Teaching, *2015*

Area Progress Council of Warren County Ohio

**PROFESSIONAL MEMBERSHIPS**

American Educational Research Association

American Evaluation Association

Society for Research on Educational Effectiveness

**MEDIA INTERVIEWS AND MENTIONS**

*Named or Quoted*

McClellan, H., V. (2024, May 9). What benefits and supports do teachers have in North Carolina?. *EdNC.* Retrieved from https://www.ednc.org/05-09-2024-what-benefits-supports-do-teachers-have-in-north-carolina/