JEFFREY R. HARRING
CURRICULUM VITAE

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Quantitative Methodology: Measurement and Statistics Program
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PERSONAL INFORMATION

Educational Background

2001-2005	Ph.D. in Quantitative Methods in Education University of Minnesota, Minneapolis, MN
2002-2004	M.S. in Statistics University of Minnesota, Minneapolis, MN
1982-1986	B.A. in Mathematics Macalester College, St. Paul, MN

Academic Appointments at UMD

2017-	Professor Measurement, Statistics and Evaluation Department of Human Development and Quantitative Methodology University of Maryland, College Park, MD
2017-	Affiliated Professor Applied Mathematics & Statistics and Scientific Computation Department of Mathematics University of Maryland, College Park, MD
2012-2017	Associate Professor (with tenure) Measurement, Statistics and Evaluation Department of Human Development and Quantitative Methodology University of Maryland, College Park, MD
2006-2012	Assistant Professor Department of Measurement, Statistics, and Evaluation University of Maryland, College Park, MD

Administrative Appointments at UMD

2021-2022	Interim Program Director, Measurement, Statistics and Evaluation Department of Human Development and Quantitative Methodology
2018-2021	Director of Graduate Studies Department of Human Development and Quantitative Methodology
2009-present	Director Psychometric Computation and Simulation Laboratory Department of Human Development and Quantitative Methodology

Other Employment

2005-2006	Post-Doctoral Fellow Quantitative Methods in Education Program University of Minnesota, Minneapolis, MN
2003-2006	Project Statistician Minnesota READ Project: Dr. Gordon Legge (PI) University of Minnesota, Minneapolis, MN
2002-2005	Director Office of Research Consultation, College of Education University of Minnesota, Minneapolis, MN
2002	Teaching Assistant Introduction to Statistical Methods Quantitative Methods in Education Program University of Minnesota, Minneapolis, MN
2001-2003	Data Analyst Office of Educational Accountability Quantitative Methods in Education Program University of Minnesota, Minneapolis, MN
2000-2001	Secondary School Mathematics Teacher Blake School, Minneapolis, MN
1995-2000	Secondary School Mathematics Teacher Northfield Mount Hermon School, Northfield, MA
1991-1995	Secondary School Mathematics Teacher Shattuck Saint Mary's School, Faribault, MN

Professional Certifications and Licenses

1990	Secondary School Certification**,** Mathematics Education State of Minnesota
1989	Secondary School Certification**,** Mathematics Education Western Michigan University, Kalamazoo, MI

RESEARCH, SCHOLARLY AND CREATIVE ACTIVITIES

Note: Listed Chronologically. A # (hash tag) is used to identify co-authors mentored as undergraduate and graduate students, postdoctoral researchers, faculty research assistants, and junior faculty.

2024

1. Dardick, W. A., & Harring, J. R. (accepted). A novel numerical method for solving unknown statistical quantities in multivariate regression models. *Journal of Educational and Behavioral Statistics*.

2. #Maher, Z., Blomquiest, C., Byrd, A., Oppenheimer, K., Shockley, E., Thoesavanh, T., Mazzeri, C., Harring, J., & Edwards, J. (in review). Does a dialect-shifting curriculum help early readers who speak African American English? Results from a randomized controlled study. *Reading Research Quarterly*.

3. #Wang, W., Liu, Y., & Harring, J. R. (in preparation). Statistical inference for the penalized EM algorithm to test differential item functioning.

4. #Strazzeri, M., Harring, J. R., & Ratner, N. B. (in review). Multiphase structured latent curve models for count response data. *Article for Special Issue on Model Identification and Estimation for Longitudinal Data in Practice, Psychometrika*.

5. Blozis, S. A., & Harring, J. R. (in preparation). Integral dimensionality reduction in mixed-effects models that include multiple nonlinear random coefficients.

6. Dardick, W. A., & Harring, J. R. (in preparation). A general strategy and computational algorithm for finding statistical quantities for simulation designs.

2023

1. Man, K., & Harring, J. R. (in press). Detecting pre-knowledge cheating via innovative measures: A mixture hierarchical model for jointly modeling item responses, response times, and visual fixation counts. *Educational and Psychological Measurement*, 1-22. https://doi.org/10.1177/00131644221136142.

2. Harring, J. R. (2023). Statistical inference: Frequentist approaches. In R. J. Tierney, F. Rizvi, & K. Erkican (Eds.), *International encyclopedia of education* (4th ed.), vol. 14. Elsevier.

3. Harring, J. R., & Harring, E. K. (2023). Estimation approaches: Least squares, maximum likelihood, and Bayesian. In R. J. Tierney, F. Rizvi, & K. Erkican (Eds.), *International encyclopedia of education* (4th ed.), vol. 14. Elsevier.

4. Harring, J. R., & #Zou, J. (2023). Nonlinear structural equation models: Advanced methods and applications. In R. H. Hoyle (Ed.), *Handbook of structural equation modeling* (2nd ed.) (pp. 681-700). The Guilford Press.

5. #Lee, D. Y., & Harring, J. R. (2023). Handling missing data in growth mixture models. *Journal of Educational and Behavioral Statistics*. 1-29. http://doi.org/10.3102/10769986221149140.

2022

1. McNeish, D. M., Harring, J. R., & Dumas, D. (2022). A multilevel structured latent curve model for disaggregating student and school contributions to learning. *Statistical Methods and Applications*, 1-31. http://doi.org/10.1007/s10260-022-00667-w.

2. Harring, J. R., & Blozis, S. A. (2022). Modeling nonlinear longitudinal change with mixed effects models. In A. A. O'Connell, D. B. McCoach, & B. A. Bell (Eds.), *Multilevel modeling with introductory and advanced applications* (pp. 355-388). Information Age Publishing.

3. Leite, W., #Shen, W., Marcoulides, K., #Fisk, C., & Harring, J. R. (2022). Using ant colony optimization for sensitivity analysis in structural equation modeling. *Structural Equation Modeling: A Multidisciplinary Journal*, *29*, 47-56. https://doi.org/10.1080/10705511.2021.1881786.

4. McNeish, D. M., Harring, J. R., & Bauer, D. (2022). Nonconvergence, covariance constraints, and class enumeration in growth mixture models. *Psychological Methods*. Advance online publication, http://dx.doi.org/10.1037/met0000456.

5. #Fisk, C., Harring, J. R., Shen, Z., Leite, W., King, Y.-S., Marcoulides, K. (2022). Using simulated annealing to investigate sensitivity to external model misspecification in SEM. *Educational and Psychological Measurement*. https://doi.org/10.1177/00131644211073121.

6. Man, K., Harring, J. R., & Zhan, P. (2022). Bridging models of biometric and psychometric assessment: A three-way joint modeling approach of item responses, response times and gaze fixation counts. *Applied Psychological Measurement*. https://doi.org/10.1177/01466216221089344

2021

1. #Maher, Z. K., Erskine, M. E., Byrd, A. S., Harring, J. R. & Edwards, J. R. (2021). African American English and Early Literacy: A comparison of approaches to quantifying nonmainstream dialect use. *Language, Speech, and Hearing Services in Schools*, *52*, 118-130. https://doi.org/10.1044/2020_LSHSS-19-00115.

2. McNeish, D., & Harring, J. R. (2021). Improving convergence in growth mixture models without covariance structure constraints. *Statistical Methods in Medical Research*, *30*, 994-1012. https://doi.org/10.1177/0962280220981747.

3. #Zheng, X., Yang, J. S., & Harring, J. R. (2021). Latent growth curve analysis with item response data: A methodological investigation of model parameterization, estimation, and attrition. *Structural Equation Modeling: A Multidisciplinary Journal*, *29*, 182-206. https://doi.org/10.1080/10705511.2021.1930543

4. Silverman, R. D., Proctor, C. P, Harring, J. R., Johnson, E. M., Taylor, K. S., Lee, Y., & Jones, R. (2021). The effect of a language and literacy intervention on upper elementary bilingual students' argument writing. *The Elementary School Journal*, *122*, 208-232. https://doi.org/10.1086/716897

2020

1. Panlilio, C. C., Harring, J. R., Jones Harden, B., Morrison, C. I., & Duncan, A. D. (2020). Heterogeneity in the dynamic arousal and modulation of fear in young foster children. *Children and Health Services Review*. https://doi.org/10.1016/j.childyouth.2020.105199.

2. #Cassiday, K., Cho, Y., & Harring, J. R. (2020). A comparison of label switching algorithms for finite mixture models. *Educational and Psychological Measurement*. Retrieved at https://doi.org/10.1177/0013164420970614

3. #Man, K., & Harring, J. R. (2020). Assessing pre-knowledge cheating via innovative measures: A multiple-group analysis of jointly modeling item responses, response times, and visual fixation counts. *Educational and Psychological Measurement*, *81*, 441-465. Retrieved at https://doi.org/10.1177/0013164420968630.

4. McNeish, D. & Harring, J. R. (2020). Covariance pattern mixture models: Eliminating random effects to improve convergence and performance. *Behavior Research Methods*, *52*, 947-979. https://doi.org/10.3758/s13428-019-01292-4.

5. Blozis, S. A., #McTernan, M., Harring, J. R., & #Zheng, Q. (2020). Using PROC NLMIXED to fit joint mixed models with user-defined response distributions. *Behavior Research Methods*. Retrieved at https://doi.org/10.3758/s13428-020-01359-7.

6. Choi, J., #Chen, J., & Harring, J. R. (2020). Logistic growth modeling with Markov chain Monte Carlo estimation. *Journal of Modern Applied Statistical Methods*, *18*, eP2997. doi: 10.22237/jmasm/1556669820. Retrieved at https://digitalcommons.wayne.edu/jmasm/vol18/iss1/22/.

7. Harring, J. R., #Strazzeri, M., & Blozis, S. A. (2020). Piecewise latent growth models: Beyond modeling linear-linear processes. *Behavior Research Methods*, *53*, 593-608. Retrieved at https://doi.org/10.3758/s13428-020-01420-5.

8. #Feng, Y., & Harring, J. R. (2020). [Review of the book Structural equation modeling: Applications using Mplus, by J. Wang & X. Wang]. *Psychometrika*, *85*, 526-530. https://doi.org/10.1007/s11336-020-09706-5.

9. Harring, J. R., & #Johnson, T. L. (2020). Longitudinal data analysis (ITEMS Digital Module 16). *Educational Measurement: Issues and Practice*, *39*, 137–138. It has been published in final form at https://onlinelibrary.wiley.com/journal/17453992.

2019

1. #Man, K., & Harring, J. R. (2019). Negative binomial models for visual fixation counts on test items. *Educational and Psychological Measurement*, *79*, 617-635. https://doi.org/10.1177/0013164418824148

2. Rieger, S., Göllner, R., Spengler, M., Trautwein, U., Nagengast, B., Harring, J. R., & Roberts, B. W. (2019). The effects of getting a new teacher on the consistency of personality. *Journal of Personality*, *87*, 485-500. https://onlinelibrary.wiley.com/doi/pdf/10.1111/jopy.12410.

3. #Feng, Y., Hancock, G. R., & Harring, J. R. (2019). Latent growth models with floors, ceilings, and random knots. *Multivariate Behavioral Research*. (Tanaka Award Winning Paper) (Tanaka https://doi.org/10.1080/00273171.2019.1580556.

4. #Prendez, J., & Harring, J. R. (2019). Measuring parameter uncertainty by identifying fungible estimates in SEM. *Structural Equation Modeling: An Interdisciplinary Journal*, *26*, 893-904. https://doi.org/10.1080/10705511.2019.1608550.

5. #Man, K., Harring, J. R., & Sinharay, S. (2019). Use of data mining methods to detect test fraud. *Journal of Educational Measurement*. https://doi.org/10.1111/jedm.12208.

6. #Man, K., Harring, J. R., Jiao, H., & Zahn, P. (2019). Joint modeling of compensatory multidimensional item responses and response times. *Applied Psychological Measurement*. https://doi.org/10.1177/0146621618824853.

7. Hancock, G. R., Harring, J. R., & Macready, G. B. (Eds.) (2019). *Advances in latent class analysis: A festschrift for Chan Dayton*. Charlotte, NC: Information Age Publishing, Inc. ISBN: 9781641135610.

8. #Liu, J., & Harring, J. R. (2019). A systematic investigation of within-subject and between-subject covariance structures in growth mixture models. In G. R. Hancock, J. R. Harring & G. B. Macready (Eds.). *Advance in latent class analysis: A festschrift for Chan Dayton* (pp. 317-356). Charlotte, NC: Information Age Publishing, Inc. ISBN: 9781641135610.

9. #Lee, D. Y., Harring, J. R., & Stapleton, L. M. (2019). Accounting for respondent attrition in the longitudinal modeling of panel data. *The Journal of Experimental Education*, *87*, 596-615. https://doi.org/10.1080/00220973.2018.1520683.

10. Proctor, C. P., Silverman, R. D., Harring, J. R., Jones, R. L., & Hartranft, A. M. (2019). Teaching bilingual learners: Effects of a language-based reading intervention on academic language and reading comprehension in grades 4 and 5. *Reading Research Quarterly*, *55*, 95-122. https://doi.org/10.1002/rrq.258.

2018

1. #Stegmann, G., Jacobucci, R., Harring, J. R., & Grimm, K. J. (2018). Nonlinear mixed-effects modeling programs in R. *Structural Equation Modeling: A Multidisciplinary Journal*, *25*, 160-165. https://doi.org/10.1080/10705511.2017.1396187.

2. #Man, K., Harring. J. R., Ouyang, U., & Thomas, S. L. (2018). Response time based nonparametric Kullback-Leibler divergence measure for detecting aberrant test-taking behavior. *International Journal of Testing*, *18*, 155-177. https://doi.org/10.1080/15305058.2018.1429446.

3. Harring, J. R., & #Johnson, T. (2018). Two-way analysis of variance. In B. Frey (Ed.), *The SAGE encyclopedia of educational research, measurement and evaluation*. Thousand Oaks, CA: SAGE Publications. http://dx.doi.org/10.4135/9781506326139.

4. Blozis, S. A., & Harring, J. R. (2018). Fitting nonlinear mixed-effects models with alternative residual covariance structures. *Sociological Research & Methods*. https://doi.org/10.1177/0049124118789718.

5. #Leech, K., Wei, R., Harring, J. R., & Rowe, M. L. (2018). A brief parent-focused intervention to improve preschoolers' conversational skills and school readiness. *Developmental Psychology*, *54*, 15-28. http://dx.doi.org/10.1037/dev0000411.

2017

1. #McNeish, D. M. & Harring, J. R. (2017). Clustered data with small sample sizes: Comparing the performance of model-based and design-based approaches. *Communications in Statistics - Simulation and Computation*, *46*, 855-869. http://dx.doi.org/10.1080/03610918.2014.983648.

2. #Panlilio, C., Jones Harden, B., & Harring, J. R. (2017). School readiness of maltreated preschoolers and later school achievement: The role of emotion regulation, language, and context. *Child Abuse & Neglect.* Available online: http://dx.doi.org/10.1016/j.chiabu.2017.06.004.

3. #Park, J., & Moser, D. K., Griffith, K., Harring, J. R., & Johantgen, M. (2017). Exploring symptom clusters in people with heart failure. *Clinical Nursing Research*, *28*, 165-181. http://dx.doi.org/10.1177/1054773817729606.

4. Liu, M., Harbaugh, A. G., Harring, J. R., & Hancock, G. R. (2017). The effect of extreme response and non-extreme response styles on testing measurement invariance. *Frontiers of Psychology*, *8*, 1-15. http://dx.doi.org/10.3389/fpsyg.2017.00726.

5. Proctor, C. P., Harring, J. R., & Silverman, R. D. (2017). Linguistic interdependence between Spanish language and English language and reading: A longitudinal exploration from second through fifth grade. *Bilingual Research Journal*, *40*, 372-391. https://doi.org/10.1080/15235882.2017.1383949.

6. #McNeish, D., & Harring, J. R. (2017). The effect of model misspecification on growth mixture model class enumeration. *Journal of Classification*, *34*, 223-248. http://dx.doi.org/10.1007/s00357-017-9233-y.

7. #Amaya, A., & Harring, J. R. (2017). Assessing the effect of social integration on unit nonresponse in household surveys. *Journal of Survey Statistics and Methodology*, *5*, 480-508. http://dx.doi.org/10.1093/jssam/smx001.

8. Harring, J. R., McNeish, D., & Hancock, G. R. (2017). Using phantom variables in structural equation modeling to assess model sensitivity to external misspecification. *Psychological Methods*, *22*, 616-631. http://dx.doi.org/10.1037/met0000103.

2016

1. Harring, J. R., & #Houser, A. (2016). Longitudinal models for continuous repeated measures data. In A. A. Rupp, & J. Leighton (Eds.), *Handbook of cognition and assessment: Frameworks, methodologies, and applications* (pp. 267-296). New York, NY: Wiley. ISBN: 9781118956571.

2. Harring, J. R., & Blozis, S. A. (2016). A note on recurring misconceptions when fitting nonlinear mixed models. *Multivariate Behavioral Research*, *51*, 805-817. http://dx.doi.org/10.1080/00273171.2016.1239522.

3. Blozis, S. A., & Harring, J. R. (2016). On the estimation of nonlinear mixed-effects models and latent curve models for longitudinal data. *Structural Equation Modeling: A Multidisciplinary Journal*, *23*, 904-920. http://dx.doi.org/10.1080/10705511.2016.1190932.

4. Haring, J. R., & Hodis, F. A. (2016). Applications of mixture modeling in educational psychology. *Educational Psychologist*, *51*, 354-367. https://doi.org/10.1080/00461520.2016.1207176.

5. #McNeish, D., & Harring, J. R. (2016). Correcting model fit criteria for small sample latent growth models with incomplete data. *Educational and Psychological Measurement*, *77*, 990-1018. http://dx.doi.org/10.1177/0013164416661824.

6. #Li, M., & Harring, J. R. (2016). Investigating methods of incorporating covariates in growth mixture modeling: A simulation study. *Educational and Psychological Measurement*, *77*, 766-791. http://dx.doi.org/10.1177/0013164416653789.

7. Kohli, N., Harring, J. R., & #Zopluoglu, C. (2016). Estimation of the finite mixture of nonlinear random coefficient models. *Psychometrika*, *81*, 851-880. https://doi.org/10.1007/s11336-015-9462-0.

2015

1. Harring, J. R., & Stapleton, L. M., & Beretvas, S. N. (Eds.) (2015). *Advances in multilevel modeling for educational research: Addressing practical issues found in real-world applications*. Charlotte, NC: Information Age Publishing, Inc. ISBN: 9781681233277.

2. Harring, J. R., Beretvas, S. N., & #Israni, A. (2015). A model for cross-classified nested repeated measures data. In J. R. Harring, L. M. Stapleton, & S. N. Beretvas (Eds.), *Advances in multilevel modeling for educational research: Addressing practical issues found in real-world applications* (pp. 217-246). Charlotte, NC: Information Age Publishing, Inc. ISBN: 9781681233277.

3. Stapleton, L. M., Harring, J. R., & #Lee, D. (2015). Sampling weight considerations for multilevel modeling of panel data. In J. R. Harring, L. M. Stapleton, & S. N. Beretvas (Eds.), *Advances in multilevel modeling for educational research: Addressing practical issues found in real-world applications* (pp. 59-91). Charlotte, NC: Information Age Publishing, Inc. ISBN: 9781681233277.

4. Blozis, S. A., & Harring, J. R. (2015). Understanding individual-level change through the basis functions of a latent curve model. *Sociological Research Methods*, *46*, 793-826. https://doi.org/10.1177/0049124115605341.

5. Harring, J. R., & #Liu, J. (2015). A comparison of estimation methods for nonlinear mixed-effects models under model misspecification and data sparseness: A simulation study. *Journal of Modern Applied Statistical Methods*, *1*, 1-28. doi:10.22237/jmasm/1462076760. Available at: http://digitalcommons.wayne.edu/jmasm/vol15/iss1/27.

6. Harring, J. R., Weiss, B. A., & #Li, M. (2015). Assessing spurious interaction effects in structural equation modeling: A cautionary note. *Educational and Psychological Measurement*, *75*, 721-738. https://doi.org/10.1177/0013164414565007.

7. Silverman, R. D., Proctor, C. P., Harring, J. R., Hartranft, A. M., Doyle, B., & Zelinke, S. B. (2015). Language skills and reading comprehension in English monolingual and Spanish–English bilingual children in grades 2–5. *Reading and Writing*: *An Interdisciplinary Journal*, *28*, 1381-1405. https://doi.org/10.1007/s11145-015-9575-y.

8. #Musu-Gillette, L. E., Wigfield, A., Harring, J. R., & Eccles, J. S. (2015). Trajectories of change in students' self-concepts of ability and values in math and college major choice. *Educational Research and Evaluation*: *An International Journal on Theory and Practice*, *21*, 343-370. https://doi.org/10.1080/13803611.2015.1057161.

9. Proctor, C. P., Harring, J. R.., & Silverman, R. D. (2015). Comparing reading profiles of biliterate Latino children in elementary school: Evidence from the simple view of reading. *Miríada Hispánica*, *10*, 59-82.

10. Silverman, R. D., Coker, D., Proctor, C. P., Harring, J. R., Piantedosi, K. W., & #Meyer, A. G. (2015). The relationship between language skills and writing outcomes for linguistically diverse students in upper elementary school. *Elementary School Journal*, *116*, 103-125. https://doi.org/10.1086/683135.

2014

1. #Mao, X., Harring, J. R., & Hancock, G. R. (2014). A note on the specification of error structures in latent interaction models. *Educational and Psychological Measurement*, *75*, 5-21. https://doi.org/10.1177/0013164414537491.

2. #Kang, Y., & Harring, J. R., & #Li, M. (2014). Reexamining the impact of non-normality in two-group comparison procedures. *The Journal of Experimental Education*, *83*, 147-174. https://doi.org/10.1080/00220973.2013.876605.

3. #Li, M., Harring, J. R., & Macready, G. B. (2014). Investigating the feasibility of using Mplus in the estimation of growth mixture models. *Journal of Modern Applied Statistical Methods*, *13*, *484-513.* doi:10.22237/jmasm/1398918600. Available at: http://digitalcommons.wayne.edu/jmasm/vol13/iss1/31.

4. Harring, J. R. (2014). A spline model for latent variables. *Educational and Psychological Measurement*, *74*, 197-213. https://doi.org/10.1177/0013164413504295.

5. Harring, J. R., & Blozis, S. A. (2014). Fitting correlated residual error structures in nonlinear mixed-effects models using SAS PROC NLMIXED. *Behavior Research Methods*, *46*, 472-484. https://doi.org/10.3758/s13428-013-0397-z.

6. Leitschuh, C. A., Harring, J. R., & Dunn, W. (2014). A monitoring tool of infant toddler movement skills. *Journal of Early Intervention*, *36*, 18-36. https://doi.org/10.1177/1053815114555574.

7. Silverman, R. D., Proctor, C. P., Harring, J. R., Doyle, B., Mitchell, M. A., & Meyer, A. G. (2014) Teachers' instruction and students' vocabulary and comprehension: An exploratory study with English monolingual and Spanish-English bilingual students in grades 3-5. *Reading Research Quarterly*, *49*, 31-60. https://doi.org/10.1002/rrq.63.

8. #Zopluoglu, C., Harring, J. R., & #Kohli, N. (2014). FitPMM: An R routine to fit finite mixture of piecewise mixed-effect models with unknown random knots [Computer Program Exchanges]. *Applied Psychological Measurement*, *38*, 583-584. https://doi.org/10.1177/0013164413496812.

2013

1. Hancock, G. R., Harring, J. R., & Lawrence, F. R. (2013). Using latent growth models to evaluate longitudinal change. In G. R. Hancock & R. O. Mueller (Eds.), *Structural equation modeling: A second course* (2nd ed.) (pp. 309-341). Greenwood, CT: Information Age Publishing, Inc. ISBN: 9781623962449.

2. #Kohli, N., Harring, J. R., & Hancock, G. R. (2013). Estimating unknown knots in piecewise linear-linear latent growth mixture models. *Educational and Psychological Measurement*, *73*, 935-955. https://doi.org/10.1177/0013164413496812.

3. #Kohli, N., & Harring, J. R. (2013). Modeling growth in latent variables using a piecewise function. *Multivariate Behavioral Research*, *48*, 370-397. https://doi.org/10.1080/00273171.2013.778191.

4. #Leider, C. M., Proctor, C. P., & Silverman, R. D., Harring, J. R. (2013). Examining the role of vocabulary depth, cross-linguistic transfer, and types of reading measures on the reading comprehension of Latino bilinguals in elementary school. *Reading and Writing: An Interdisciplinary Journal*, *9*, 1459-1485. https://doi.org/10.1007/s11145-013-9427-6.

5. Silverman R. D., Speece, D. L., Harring, J. R., & Ritchey, K. (2013). Fluency has a role in the Simple View of Reading. *Scientific Studies of Reading*, *17*, 108-133. https://doi.org/10.1080/10888438.2011.618153.

2012

1. Harring, J. R., & Hancock, G. R. (Eds.) (2012). *Advances in longitudinal methods in education and the social and behavioral sciences*, Charlotte, NC: Information Age Publishing, Inc. ISBN: 9781617358913.

2. Cudeck, R., & Harring, J. R. (2012). Estimating the correlation between two variables when individuals are measured repeatedly. In M. C. Edwards & R. C. MacCallum (Eds.), *Current topics in the theory and application of latent variable models* (pp. 11-23). New York, NY: Routledge/Taylor & Francis. ISBN: 9780415637787.

3. Harring, J. R. (2012). Finite mixtures of nonlinear mixed effects models. In J. R. Harring & G. R. Hancock (Eds.), *Advances in longitudinal methods in the social and behavioral sciences* (pp. 159-192). Charlotte, NC: Information Age Publishing, Inc. ISBN: 9781617358913.

4. #Dardick, W. A., & Harring, J. R. (2012). Automated path tracing for general linear models. *Multiple Linear Regression Viewpoints*, *38*, 38-50.

5. #Mislevy, J. L., Rupp, A. A., & Harring, J. R. (2012). Detecting local item dependence in polytomous adaptive data. *Journal of Educational Measurement*, *49*, 127-147. https://doi.org/10.1111/j.1745-3984.2012.00165.x.

6. #Liu, M., Hancock, G. R., & Harring, J. R. (2012). Using finite mixture modeling to deal with systematic measurement error: A case study. *Journal of Modern Applied Statistical Methods*, *10*, 249-261. https://doi.org/10.22237/jmasm/1304223660.

7. Harring, J. R., #Weiss, B. A., & #Hsu, J. C. (2012). A comparison of methods for estimating quadratic effects in structural equation models. *Psychological Methods*, *17*, 193-214. https://doi.org/10.1037/a0027539.

8. Harring, J. R., Kohli, N., Silverman, R. D., & Speece, D. L. (2012). Fitting a second-order conditionally linear mixed effects model as an SEM in Mplus. *Structural Equation Modeling: A Multidisciplinary Journal*, *19*, 118-136. https://doi.org/10.1080/10705511.2012.634729.

9. Proctor, C. P., Silverman, R. D., Harring, J. R., & Monticello, C. (2012). The role of vocabulary depth in predicting reading comprehension among English monolingual and Spanish-English bilingual children in elementary school. *Reading and Writing: An Interdisciplinary Journal*, *25*, 1635-1664. https://doi.org/10.1007/S11145-011-9336-5.

2011

1. Zieffler, A. S., Harring, J. R., & Long, J. D. (2011). *Comparing groups: Randomization and bootstrap methods using R*. New York, NY: Wiley. ISBN: 9780470621691.

2. Harring, J. R., & #Wasko, J. A. (2011). Probabilistic inferences for the sample Pearson product moment correlation in the social sciences. *Journal of Modern Applied Statistical Methods*, *10*, 476-493. https://doi.org/10.22237/jmasm/1320120420.

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2010

1. Cudeck, R., & Harring, J. R. (2010). Developing a random coefficient model for nonlinear repeated measures data. In S.-M. Chow, E. Ferrer, & F. Hsieh (Eds.), *Statistical methods for modeling human dynamics: An interdisciplinary dialogue*. New York, NY: Routledge. ISBN: 9781848728257.

2. Harring, J. R. (2010). Concomitant variables. In N. J. Salkind (Ed.), *Encyclopedia of research design*. New York, NY: Sage Publications. ISBN: 9781412961271.

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2009

1. Choi, J., Harring, J. R., & Hancock, G. R. (2009). Latent growth modeling for logistic response functions. *Multivariate Behavioral Research*, *44*, 620-645. https://doi.org/10.1080/00273170903187657.

2. Harring, J. R. (2009). A nonlinear mixed effects model for latent variables. *Journal of Educational and Behavioral Statistics*, *34*, 293-318. https://doi.org/10.3102/1076998609332750.

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2008

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2007

1. Long, J. D., Harring, J. R., Brekke, J. S., Test, M. A., & Greenberg, J. (2007). Longitudinal construct validity of brief symptom inventory subscales in schizophrenia. *Psychological Assessment*, *19*, 298-308. https://doi.org/10.1037/1040-3590.19.3.298.

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4. Rodriguez, M. C., & Harring, J. R. (2007). MI-Access functional independence: Michigan's Alternate Assessment Program Technical Manual. Lansing, MI: Office of Educational Assessment and Accountability, Michigan Department of Education.

2006

1. Harring, J. R., Cudeck, R., & du Toit, S. H. C. (2006). Fitting partially nonlinear random coefficient models as SEMs. *Multivariate Behavioral Research*, *41*, 579-596. https://doi.org/10.1207/s15327906mbr4104_7.

Conferences, Workshops and Talks

2023

1. Leite, W. L., Shen, Z., Fisk, C. L., Wright, E., Harring, J. R., & Marcoulides, K. (2023, June). A tutorial on methods for sensitivity analysis to omitted confounders in structural equation modeling. Presented at the Modern Methods Modeling Conference, Storrs, CT.

2022

1. Wang, W., Liu, Y., & Harring, J. R. (2022, April). Statistical inference for regularized differential item functioning. Paper presented at NCME Annual Meeting, San Diego, CA (online meeting).

2. Man, K., & Harring, J. R. (2022, April). Using mixture models to identify aberrant test takers in large scale assessments. Paper presented at NCME Annual Meeting, San Diego, CA (online meeting).

2021

1. Harring, J. R. (2021, April). A multilevel structured latent curve model for disaggregating student and school contributions to learning. Invited keynote address: Multilevel Modeling Special Interest Group presented at AERA Annual Meeting, Orlando, FL (online meeting).

2. Fisk, C. L., & Harring, J. R. (2021, April). On conducting a sensitivity analysis in SEM using simulated annealing. In W. Leite (Chair), Sensitivity Analysis in Structural Equation Modeling [symposium]. Paper presented at AERA Annual Meeting, Orlando, FL (online meeting).

3. Man, K., Harring, J. R., & Choi, Y.-J. (2021, June). Detecting pre-knowledge cheating via innovative measures: a joint structural mixture modeling of item responses, response times, and visual fixation counts. In. J. Wollack (Chair), Innovations in Detection of Test Collusion [Paper Session/Symposium]. NCME Annual Meeting, Baltimore, MD (online meeting).

2020

1. Harring, J. R. & Man, K. (2020, October). On the joint modeling of multi-modal data. Society of Multivariate Experimental Psychology (SMEP) annual meeting. Online presentation. Iowa City, IA.

2. Meyer, A., Silverman, R., Harring, J. R. & Taboada Barber, A. (2020, April). The Contribution of Executive Functioning to Reading Comprehension for Bilingual Learners in Fourth Grade [Paper Session]. AERA Annual Meeting San Francisco, CA http://tinyurl.com/wxbdjbw (Conference Canceled)

3. Man, K., Harring, J. R., & Zopluoglu, C. (2020, April). Assessing pre-knowledge cheating via innovative measures: a multiple-group analysis of jointly modeling the item responses, response times, and visual fixation counts. In. J. Wollack (Chair), Innovations in Detection of Test Collusion [Paper Session/Symposium]. NCME Annual Meeting San Francisco, CA (Conference Canceled).

2019

1. Man, K., Harring, J. R., & Zopluoglu, C. (2019, October). *Application of a new method for multiple-group analysis of jointly modeling item responses, response times and visual fixation counts*. Presented at the annual Conference on Test Security (COTS). Miami, FL.

2. Harring, J. R. (2019, September). *Can residuals be used to understand covariance structures in longitudinal mixture models?* Presented at the Innovations of Latent Variable and Random Effects Models Conference, Colorado Springs, CO.

3. Harring, J. R. (2019, April). *Advances in latent growth modeling: Applications to eye fixation counts and marginal mixture models*. Keynote address at the Penn State University/University of Maryland Graduate Student Mini-Conference. State College, PA.

4. Dardick, W. & Harring, J. R. (2019, April). *Generating multivariate data: Investigating solutions using path tracing concepts*. Presented at the National Council of Measurement in Education Conference, Toronto, Ontario, CN.

5. Proctor, C. P., Silverman, R. D., Harring, J. R., Jones, R. L., & Hartranft, A. M. (2019, April). *Evaluation of a supplemental, language-based reading intervention for bilingual learners in fourth and fifth grades*. Paper presented at the American Educational Research Association Annual Meeting, Toronto, Ontario, CN.

2018

1. Silverman, R. D., Hartranft, A., Proctor, C. P., & Harring, J. R. (2018, March). *The promise of supplemental instruction to support academic language for upper elementary ELs*. Presented at SREE Conference, Washington, D. C.

2. Cassiday, K., & Harring, J. R. (2018, April). *A comparison of label switching algorithms.* Paper presented at the American Educational Research Association Conference, New York, NY.

3. Proctor, C. P., Silverman, R. D., & Harring, J. R. (2018, April). *Contributions of vocabulary, syntax, and morphology, and academic language to reading among bilingual children*. Paper presented at the American Educational Research Association Conference, New York, NY.

4. Man, K., Harring, J. R., Sinharay, S., & Jiao, H. (2018, April). *Investigating the use of data mining methods in the detection of aberrant testing behavior.* Paper presented at the National Council of Measurement in Education Conference, New York, NY.

5. Proctor, C. P., Silverman, R. D., Harring, J. R., Hartranft, A., Love-Jones, R. (2018, April). *Evaluating a reading curriculum for emergent bilingual learners in 4th and 5th grade*. Paper presented at the American Educational Research Association Conference, New York, NY.

6. Harring, J. R. (2018, April). *How to get published: Guidance from emerging and established scholars*. Invited presentation at the American Educational Research Association Conference, New York, NY.

7. Hancock, G. R., Feng, Y., Harring, J. R., & Kher, H. (2018, April). *Latent growth models with fixed floor and ceilings*. Paper presented at the American Educational Research Association Conference, New York, NY.

8. Zou, J., Harring, J. R., Brandt, H., & Kelava, A. (2018, April). *A multilevel IRT model with nonlinear effects*. Paper presented at the National Council on Measurement in Education, New York, NY.

9. Guzman, N., Hartranft, A., Lee, Y., Silverman, R. D., Proctor, C. P., & Harring, J. R. (2018, April). *The effects of family language policy and code-switching on English proficiency in emergent bilingual learners.* Paper presented at the American Educational Research Association Conference, New York, NY.

10. Prendez, J., & Harring, J. R. (2018, May). *Exploring fungible parameter estimates in SEM*. Presented at the Modern Modeling Methods Conference, University of Connecticut, Storrs, CT.

2017

1. Ye, A., Harring, J. R., & Rinne, L. (2017, July). Latent transition analysis: methods and applications. Paper presented at the International Meeting of the Psychometric Society, Zurich, Switzerland.

2. Ye, A., Harring, J. R., & Rinne, L. (2017, May). *An empirical demonstration of adding covariates in latent transition analysis*. Presented at the Modern Modeling Methods Conference, University of Connecticut, Storrs, CT.

3. Leech, K., Wei, R., Harring, J. R., & Rowe, M. L. (2017, April). *Ready for kindergarten: A training program designed to encourage parent-child conversation during the preschool years*. In L. Devya (Chair), Turning everyday family practices into effective language and literacy interventions for preschool and kindergarten children. Paper presented at symposium, Society for Research in Child Development, Austin, TX.

4. Harring, J. R., Zou, J., Brandt, H., & Kelava, A. (2017, April). *Nonlinear structural equation mixture models in a multilevel framework: An empirical study*. Paper presented at the American Educational Research Association Conference, San Antonio, TX.

5. Harring, J. R. (2017, April). *Estimation in nonlinear multilevel structural equation mixture models*. In the International session on societal challenges and educational research at the American Educational Research Association Conference, San Antonio, TX.

6. Lee, D. Y., Stapleton, L. M., & Harring, J. R. (2017, April). *Respondent attrition in longitudinal analysis of panel data*. Paper presented at the American Educational Research Association Conference, San Antonio, TX.

7. Ye, A., Harring, J. R., & Rinne, L. (2017, April). *Methods of covariate inclusion in latent transition analysis: A Monte Carlo simulation study*. Paper presented at the American Educational Research Association Conference, San Antonio, TX.

8. Choi, J., Ryoo, J. H., & Harring, J. R. (2017, April). *General logistic latent growth models: An inherently nonlinear growth modeling framework*. Paper presented at the National Council on Measurement in Education, San Antonio, TX.

9. Man, K., & Harring, J. R. (2017, April). *Robust Bayesian estimation of item response model parameters accounting for aberrant testing behavior*. Poster presented at the National Council on Measurement in Education, San Antonio, TX.

2016

1. Harring, J. R. (2016, August). *Exploring model-based covariance structures in finite mixture models*. In S. K. Sterba (Chair), Advances in mixture modeling methods. Invited symposium at American Psychological Association conference. Denver, CO.

2. Panlilio, C., Jones-Harden, B., Harring, J. R., & Morrison, C. (2016, July). *Fear regulation profiles of young children in foster care: An exploratory person-centered approach*. Poster to be presented at The National Research Conference on Early Childhood, Washington, D.C.

3. Man, K., & Harring, J. R. (2016, May). *Aberrant behavior detection based on a multivariate mixture modeling approach*. Presented at the Modern Modeling Methods Conference, University of Connecticut, Storrs, CT.

4. Lee, D., Stapleton, L. M., & Harring, J. R. (2016, April). *Choice of sampling weight for longitudinal modeling of panel data*. In D. W. Swan (Symposium Organizer), Leveraging

Federal Data in Education Research: Engaging with Administrative and Complex Sample Data. Paper presented at the American Educational Research Conference, Washington, D.C.

5. Calico, T., Rupp, A. A., & Harring, J. R. (2016, April). *Aligning process, product and survey data: Bayes nets for a simulation-based assessment*. Paper presented at the National Council of Measurement in Education Conference, Washington, D.C.

2015

1. Harring, J. R. (2015, September). *Continuity corrections in multiphase random coefficient models*. Invited presentation at the Innovations in Latent Variable and Random Effects Modeling Conference, Minneapolis, MN.

2. McNeish, D., & Harring, J. R. (2015, May). *Small sample robust model fit criteria in latent growth models with non-informative dropout*. Presented at the Modern Modeling Methods Conference, University of Connecticut, Storrs, CT.

3. Harring, J. R., & Liu, J. (2015, May). *Simulating data for mixture model studies: Considering measures of data overlap.* Presented at the Modern Modeling Methods Conference, University of Connecticut, Storrs, CT.

2014

1. Beretvas, S. N., Harring, J. R., & Israni, A. (2014, November). *A cross-classified model for nested repeated measures data*. Invited presentation at the Advances in Multilevel Modeling for Educational Research Conference, University of Maryland, College Park, MD.

2. Stapleton, L. S., Harring, J. R., & Lee, D. (2014, November). *Sampling weight considerations for multilevel modeling of panel data*. Invited presentation at the Advances in Multilevel Modeling for Educational Research Conference, University of Maryland, College Park, MD.

3. Harring, J. R. (2014, September). *Advances in longitudinal methods*. Invited presentation at the Innovations in Latent Variable and Random Effects Modeling Conference, Colorado Springs, CO.

4. Kohli, N., Harring, J. R., Zopluoglu, C. (2014, July). *A finite mixture of nonlinear random coefficient models for continuous repeated measures data*. Paper presented at the International Meeting of the Psychometric Society, Madison, WI.

5. Proctor, C. P., Silverman, R. D., & Harring, J. R. (2014, July). *The simple view, linguistic comprehension, and modeling across languages*. Presentation at the conference of the Society for the Scientific Study of Reading, Santa Fe, NM.

6. Silverman, R. D., Proctor, C. P., Harring, J. R., Mitchell, M. M., Meyer, A. G., Guthrie, S. J., & Parra, M. O. (2014, July). *The role of instruction in vocabulary and reading comprehension among English monolingual and English-Spanish bilingual intermediate grade students*. Presentation at the conference of the Society for the Scientific Study of Reading, Santa Fe, NM.

7. Silverman, R. D., Proctor, C. P., & Harring J. R. (2014, July). *Growth in language skills and reading comprehension in linguistically diverse students in grades 2-5*. Presentation at the conference of the Society for the Scientific Study of Reading, Santa Fe, NM.

8. Coker, D. L., Silverman, R. D., Proctor, C. P., Harring J. R., & Meyer, A. G. (2014, July). *The relationship between oral language and writing outcomes for English only and English learner students in upper elementary school*. Presentation at the conference of the Society for the Scientific Study of Reading, Santa Fe, NM.

9. Li, M., Harring, J. R., & Stapleton, L. M. (2014, May). *Issues in latent growth modeling with longitudinal public-release data*. Presented at the Modern Modeling Methods Conference, University of Connecticut, Storrs, CT.

10. Silverman, R. D., Proctor, C. P., & Harring, J. R. (2014, February). *Language and literacy skills among Spanish-speaking English learners in early elementary.* Paper presented at the annual Pacific Coast Research Conference, San Diego, CA.

2013

1. Blozis, S. A., & Harring, J. R. (2013, November). *Using PROC NLMIXED to fit correlated residual error structures in nonlinear mixed models*. Presented at the annual meeting of the Western Users of SAS Software Conference. Las Vegas, NV. (**Best Paper Award for the Analysis and Statistics Section**)

2. Harring, J. R. (2013, September). *Structured latent curve models and nonlinear mixed effects models are not the same*. Invited presentation at the Innovations in Latent Variable and Random Effects Modeling Conference, San Antonio, TX.

3. McNeish, D., & Harring, J. R. (2013, May). *Clustered data with a small number of clusters: Comparing the performance of model-based and design-based approaches*. Presented at the Modern Modeling Methods Conference, University of Connecticut, Storrs, CT.

4. Silverman, R. D., Proctor, C. P., & Harring, J. R. (2013, April). *The contribution of linguistic awareness to reading comprehension for English monolingual and Spanish English bilingual children in second through fifth grade*. Paper presented at the American Educational Research Association conference, San Francisco, CA.

5. Mao, X., Harring, J. R., & Hancock, G. R. (2013, April). *On the specification error structures in latent interaction models*. Paper presented at the American Educational Research Conference, San Francisco, CA.

6. Choi, J., & Harring, J. R. (2013, April). *Markov Chain Monte Carlo practice for logistic growth curve models*. Paper presented at the American Educational Research Conference, San Francisco, CA.

7. Kohli, N., Harring, J. R., & Hancock, G. R. (2013, April). *Two-class linear-linear piecewise growth mixture models*. Paper presented at the American Educational Research Association Conference, San Francisco, CA.

8. Harring, J. R., Hsu, J.-C., & Hancock, G. R. (2013, April). *Estimation and model selection for the finite mixture of latent interaction models*. Paper presented at the American Educational Research Association Conference, San Francisco, CA.

9. Zhu, X., Harring, J. R., & Luo, Y. (2013, April). *On the adequacy of SEM model fit indices to detect cohort effects in accelerated longitudinal designs*. Paper presented at the American Educational Research Association Conference, San Francisco, CA.

10. Liu, M., Harring, J. R., & Macready, G. B. (2013, April). *Investigating the feasibility of using Mplus in the estimation of growth mixture models*. Paper presented at the American Educational Research Association Conference, San Francisco, CA.

11. Liu, J., & Harring, J. R. (2013, April). *A systematic investigation of within-subject and between-subject covariance structures in growth mixture models*. Paper presented at the American Educational Research Conference, San Francisco, CA.

12. Proctor, C. P., Silverman, R. D., & Harring, J. R. (2013, February). *Growth of language and literacy skills among Spanish-speaking English learners in grades 2-5*. Paper presented at the Pacific Coast Research Conference, San Diego, CA.

2012

1. Proctor, C. P., Silverman, R. D., Harring, J. R., & Nagahara, P. (2012, February). *What's in a Name? School district effects on English language learner identification*. Paper presented at the annual meeting of the Literacy Research Association, San Diego, CA.

2. Proctor, C. P., Silverman, R. D., Harring, J. R., & Nagahara, P. (2012, February). *Vocabulary and comprehension instruction in grade 3-5 classrooms with linguistically diverse learners.* Paper presented at the annual meeting of the Literacy Research Association, San Diego, CA.

3. Silverman, R. D., Proctor, C. P., Harring, J. R., Doyle, B., Meyer, A., & Mitchell, M. (2102, February). *Comprehension and vocabulary instruction in linguistically diverse grade 3-5 classrooms*. Paper presented at the annual meeting of the Literacy Research Association, San Diego, CA.

4. Kang, Y., & Harring, J. R. (2012, May). *Investigating the impact of non-normality, effect size, and sample size on two-group comparison procedures: An empirical study*. Presented at the annual meeting of the American Educational Research Association (AERA), SIG: Educational Statisticians, Vancouver, BC. (**Student Paper Award Winner**)

2011

1. Silverman, R. D., Proctor, C. P., & Harring, J. R. (2011, April). *Vocabulary breadth and depth and comprehension in English monolingual and Spanish-English bilingual students in grades two to four*. Paper presented at the American Educational Research Association Conference, New Orleans, LA.
2. Silverman, R. D., Proctor, C. P., & Harring, J. R. (2011, February). *Vocabulary and comprehension instruction and reading comprehension for monolingual and bilingual children in 3rd through 5th grade*. Paper presented at the annual conference of the Society for the Scientific Study of Reading, St. Petersburg, FL.

3. Hancock, G. R., & Harring, J. R. (2011, May). *Using phantom variables in structural equation modeling to assess model sensitivity to external misspecification*. Presented at the Modern Modeling Methods Conference, University of Connecticut, Storrs, CT.

4. Kohli, N., & Harring, J. R. (2011, April). *Modeling growth in latent variables using a piecewise function*. Presented at the annual meeting of the American Educational Research Association (AERA), SIG: Educational Statisticians, New Orleans, LA. (**Student Paper Award Winner**).

5. Harring, J. R. (2011, April). *A piecewise regression model for latent variables*. Presented at the annual meeting of the American Educational Research Association (AERA), SIG: Structural Equation Modeling, New Orleans, LA.

6. Harring, J. R., & Liu, J. (2011, April). *A comparison of estimation methods for nonlinear mixed effects models under model misspecification and data sparseness: A simulation study*. Presented at the annual meeting of the American Educational Research Association (AERA), Division D – Section 2: Statistical Theory and Methods, New Orleans, LA.

2010

1. Proctor, C. P., Silverman, R. D., Harring, J. R., & Monticello, C. (2010, September). *Comprehension, linguistic acquisition, and vocabulary in English and Spanish (CLAVES): Results from the first year of a 2-year longitudinal study*. Paper presented at the National Reading Conference Annual Meeting, Fort Worth, TX.

2. Cudeck, R., & Harring, J. R. (2010, September). *On computing the correlation of repeated measures data*. Invited presentation at Current Topics in the Theory and Application of Latent Variable Models: A Conference Honoring the Scientific Contributions of Michael W. Browne, The Ohio State University, Columbus, OH.

3. Harring, J. R., & Schumacker, R. E. (2010, April). *Investigating the use of normal scores to lessen the impact of non-normality in latent variable interaction models*. Paper presented at the annual meeting of the American Educational Research Association, Denver, CO.

4. Liu, M., Hancock, G. R., & Harring, J. R. (2010, April). *Using finite mixture modeling to deal with systematic measurement error: A case study*. Paper presented at the annual meeting of the American Educational Research Association, Denver, CO.

5. Dardick, W., & Harring, J. R. (2010, April). *Automated path tracing for general linear models*. Paper presented at the annual meeting of the American Educational Research Association, Denver, CO.

6. Harring, J. R., & Choi, J. (2010, April). *Nonlinear latent growth modeling using Markov chain Monte Carlo estimation*. Paper presented at the annual meeting of the American Educational Research Association, Denver, CO.

7. Harring, J. R., Weiss, B. A., & Hsu, J. C. (2010, April). *A comparison of methods for estimating quadratic effects in nonlinear structural equation models*. Paper presented at the annual meeting of the American Educational Research Association, Denver, CO.

8. Harring, J. R., Kohli, N., Silverman, R., & Speece, D. A. (2010, April). *Fitting a second-order conditionally linear mixed-effects model as an SEM using Mplus*. Paper presented at the annual meeting of the American Educational Research Association, Denver, CO.

2009

1. Cudeck, R., Harring, J. R., & du Toit, S. H. C. (2009, July). *Marginal maximum likelihood estimation of a model for latent variable interaction.* Invited presentation at the Department of Statistics, University of Minnesota, Minneapolis, MN.

2. Harring, J. R. (2009, April). *Modern methods for the study of longitudinal change.* Invited presentation at the Developmental Coordination Disorder International Conference, Baltimore, MD.

3. Harring, J. R. (2009, April). *Mean centering exogenous predictors in latent variable interaction models*. Paper presented at the annual meeting of the American Educational Research Association, San Diego, CA.

4. Harring, J. R. & Wasko, J. A. (2009, April). *Probabilistic inferences for the sample Pearson product moment correlation in the social sciences*. Paper presented at the annual meeting of the American Educational Research Association, San Diego, CA.

2008

1. Harring, J. R. (2008, July). Measuring nonlinear change in latent variables. In S. A. Blozis (Chair), *Models for longitudinal data*. Paper presented at the International Meeting of the Psychometric Society, Durham, NH.

2. Harring, J. R. (2008, April). *A nonlinear mixed effects model for latent variables*. Paper presented at the annual meeting of the American Educational Research Association, New York, NY.

2007

1. Harring, J. R. (2007, October). *Modeling nonlinear longitudinal change: Model selection in nonlinear random coefficient models*. Invited presentation at the Department of Measurement, Statistics & Evaluation Monday Symposia, University of Maryland, College Park, MD.

2006

1. Cudeck, R., Harring, J. R., & du Toit, S. H. C. (2006, September). *(Yet another) method for estimating latent variable interactions*. Invited presentation at the Society of Multivariate Experimental Psychology Annual Conference, Lawrence, KS.

2005

1. Harring, J. R. (2005, September). *Nonlinear mixed effects mixture model: A model for clustering nonlinear longitudinal profiles*. Invited presentation at the Third Annual Society of Multivariate Experimental Psychology Graduate Preconference, Lake Tahoe, CA.

2. Harring, J. R. (2005, July). *Fitting partially nonlinear random coefficient regression models as structural equation models*. Paper presented at the International Meeting of the Psychometric Society, Tilburg University, Tilburg, The Netherlands.

3. Peterson, K., Davison, M. L., Harring, J. R., & Holleque, K. (2005, April). *A comparison of educational outcomes for low-income students participating in school breakfast programs.* Paper presented at the annual meeting of the American Educational Research Association, Montreal, Canada.

2004

1. Harring, J. R. (2004, July). Statistical methods in the analysis of repeated measures data. In R. C. MacCallum (chair), *Models for longitudinal data.* Paper presented at the International Meeting of the Psychometric Society, Pacific Grove, CA.

2. Harring, J. R. (2004, January). *Transition models for two-phase straight-line data*. Presentation at Graduate Student Day, Department of Educational Psychology, University of Minnesota, Minneapolis, MN.

2002

1. Davison, M. L., Harring, J. R., & Irish, M. (2002, April). *Return on investment indicators in education*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.

Centers for Research, Scholarship and Creative Activities

Conference Organized (through center)

1. Conference Co-Organizer, Advances in Multilevel Modeling for Educational Researchers: Addressing Practical Issues in Real-World Applications (2014). Center for Integrated Latent Variable Research (CILVR), University of Maryland, College Park, MD.

2. Conference Co-Organizer, Advances in Longitudinal Methods in the Social and Behavioral Sciences (2010). Center for Integrated Latent Variable Research (CILVR), University of Maryland, College Park, MD.

Other Conferences Organized

1. Conference Organizer, Society of Multivariate Experimental Psychology (SMEP, 2019). Baltimore, MD.

2. Conference Co-Organizer, Innovations of Latent Variable and Random Effects Models (2019). Colorado Springs, CO.

3. Conference Co-Organizer, Innovations of Latent Variable and Random Effects Models (2018). Colorado Springs, CO.

4. Conference Co-Organizer, Innovations of Latent Variable and Random Effects Models (2015). Minneapolis, MN.

5. Conference Co-Organizer, Innovations of Latent Variable and Random Effects Models (2014). Colorado Springs, CO.

6. Conference Co-Organizer, Innovations of Latent Variable and Random Effects Models (2013). San Antonio, TX.

Professional and Extension Education

Workshops

1. Harring, J. R. (2021, April). *Introduction to finite mixture models*. Three-day workshop presented at the University of Maryland, College Park, MD (online).

2. Harring, J. R. (2021, March). *Modern longitudinal data analysis: Mixed effects models using R*. Three-day workshop presented at the University of Maryland, College Park, MD (online).

3. Harring, J. R. (2020, June). *Applied longitudinal mixture modeling*. Invited three-day workshop at Stats Camp, Albuquerque, NM (online).

4. Harring, J. R. (2019, June). *Mixed-effects models for longitudinal data analysis using R.* Invited two-day workshop presented at the National Center for Educational Statistics (NCES), Washington D.C.

5. Harring, J. R. (2019, June). *Applied longitudinal mixture modeling*. Invited five-day workshop presented at Stats Camp, Albuquerque, NM.

6. Harring, J. R. (2019, May). *Statistical analysis using R: A primer.* Invited half-day workshop presented at the Association for Psychological Sciences annual convention, Washington, D.C.

7. Harring, J. R. (2019, May). *Finite mixture modeling*. Invited two-day workshop presented for Statistical Horizons, Temple University City Center, Philadelphia, PA.

8. Harring, J. R. (2019, February). *Modern longitudinal methods: Linear and nonlinear mixed effects models using R*. Three-day workshop presented at the University of Maryland, College Park, MD.

9. Harring, J. R. (2018, April). *Introduction to Finite Mixture Modeling*. Three-day workshop presented at the University of Maryland, College Park, MD.

10. Harring, J. R. (2016, September). *Longitudinal Data Analysis: A Latent Variable Perspective*. Three-day workshop presented at the University of Maryland, College Park, MD.

11. Harring, J. R. (2016, May). *Finite Mixture Modeling: Statistical Methods for Correlated Data*. Invited one-day post-conference workshop presented at the Modern Methods Modeling Conference. University of Connecticut, Storrs, CT.

12. Harring, J. R. (2015, February). *Applied Longitudinal Data Analysis*. Invited three-day workshop presented at the University of Miami, Coral Gables, FL.

13. Harring, J. R. (2014, August). *Applied Data Analysis Using R.* Three-day workshop presented at the University of Maryland, College Park, MD.

14. Harring, J. R. (2014, April). *Growth Mixture Modeling for Educational Researchers*. Invited one-day workshop presented at the American Educational Research Association annual conference, Philadelphia, PA.

15. Harring, J. R. (2013, December). *An Introduction to Finite Mixture Modeling*. Three-day workshop presented at the University of Maryland, College Park, MD.

16. Zieffler, A. S., & Harring, J. R. (2011, January). *Comparing groups: Randomization and bootstrap tests using R*. Invited one-day workshop presented at the 67th Annual Deming Conference. American Statistical Association, Atlantic City, NJ.

Sponsored Research (Funded)
Grants

1. National Institute of Mental Health: R01 MH125370-01
   Duration: 2020-2025
   Role: Co-Investigator
   Title: A Prospective-Longitudinal Investigation of the Biopsychosocial Predictors of Loneliness Across Adolescence in Autism and Typical Development
   Funding: $3,803,189
   PIs: Elizabeth Redcay (University of Maryland)

2. Institutes of Educational Sciences (Goal 3)
   Duration: 2020-2025
   Role: Co-Investigator
   Title: Evaluating the Efficacy of the CLAVES Intervention: An Intervention Focused on Comprehension, Language Awareness, and Vocabulary for EL Students
   Funding: $3,200,000
   PIs: Rebecca Silverman (Stanford University) and Patrick Proctor (Boston College)

3. National Science Foundation
   Duration: 2019-2021; 2023-2024
   Role: Statistical Consultant
   Title: Quantitative Research Methods for STEM Education Scholars Program
   Funding: $999,653
   PIs: Laura Stapleton and Gregory Hancock, University of Maryland, College Park

4. Institutes of Educational Sciences (Goal 3)
   Duration: 2017-2020
   Role: Co-Investigator
   Title: A Randomized Control Trial of Toggle Talk
   Funding: $3,247,480
   PIs: Jan Edwards (University of Maryland)

5. National Institute of Mental Health
   Duration: 2016-2021
   Role: Co-Investigator
   Title: Trajectories of Behavioral Inhibition and Risk for Anxiety
   Funding: $3,551,633
   PIs: Nathan Fox (University of Maryland)

6. Institute of Educational Sciences (Early Career Award)
   Duration: 2019-2021
   Role: Co-Investigator, Mentor
   Title: Addressing Small Sample and Computational Issued in Mixture Models of Repeated Measures Data with Covariance Pattern Mixture Models
   Funding: $225,000
   PI: Daniel McNeish (Arizona State University)

7. Institute of Educational Sciences (Early Career Award)
   Duration: 2015-2017
   Role: Technical Advisory Board Member
   Title: Multilevel Item Bifactor Models with Semi-Nonparametric Latent Densities
   Funding: $200,000
   PI: Ji Seung Yang (University of Maryland)

8. University of Maryland and University of Tübingen International Collaboration of Research and Training in the Natural and Social Sciences
   Duration: 2015-2017
   Role: Co-Investigator
   Title: Understanding Differences in Motivation across Cultures: Substantive and Methodological Advances in Measuring Motivation
   Funding: $25,000
   Co-PIs: Allan Wigfield, Laura Stapleton, Benjamin Nagengast, Ulrich Trautwein

9. Institute of Educational Sciences (Early Career Award)
   Duration: 2015-2017
   Role: Technical Advisory Board Member
   Title: A Finite Mixture IRT Model for Continuous Response Outcomes
   Funding: $225,000
   PI: Cengiz Zopluoglu (University of Miami, Coral Gables)

10. Institute of Educational Sciences (Goal 2); NCER for English Learners
    Duration: 2014-2017
    Role: Co-Principal Investigator
    Title: The CLAVES Intervention Project: Developing a Supplemental Intervention for Comprehension, Linguistic Awareness, and Vocabulary in English for Spanish Speakers
    Funding: $1,500,000
    Co-PIs: Patrick Proctor (Boston College) and Rebecca Silverman (University of Maryland)

11. Society of Multivariate Experimental Psychology
    Duration: 2014
    Role: Co-Principal Investigator
    Title: Advances in Multilevel Modeling for Educational Research: Addressing Practical Issues Found in Real World Applications Conference
    Funding: $10,000
    Co-PIs: Laura Stapleton (University of Maryland) and S. Natasha Beretvas (University of Texas at Austin)

12. Institute of Educational Sciences (Goal 1); NCER for Reading and Writing
    Duration: 2009-2013
    Role: Co-Principal Investigator
    Title: Investigating Vocabulary Breadth and Depth and Comprehension in English Monolingual and Spanish-English Bilingual Students in Grades 2-5.
    Funding: $1,500,000
    Co-PIs: Rebecca Silverman (University of Maryland) and Patrick Proctor (Boston College)

13. Society of Multivariate Experimental Psychology
    Duration: 2010
    Role: Co-Principal Investigator
    Title: Advances in Longitudinal Methods in the Social and Behavioral Sciences.
    Funding: $8,200
    Co-PIs: Greg Hancock

14. University of Maryland: Graduate Research Board Summer Research
    Duration: 2007
    Role: Principal Investigator
    Title: Developing Statistical Software for the Estimation of Finite Mixture Models for Classifying Nonlinear Longitudinal Profiles
    Funding: $4,375

Sponsored Research (Pending and In-Progress)

Current Grant Applications

1. National Science Foundation (NSF): Discovery Research PreK-12 (DRK-12)
    Duration: 2022-2026
    Role: Advisory Board
    Title: Mini-cases as opportunities to support preservice teacher development of mathematical knowledge for teaching
    Funding: $3,000,000
    PIs: Heather Howell and Leslie Nabors Olah (Educational Testing Service)

TEACHING, MENTORING AND ADVISING

Courses Taught

1. EDMS 645: Quantitative Methods I (2006-2009, 2011, 2013, 2017, 2018—approx. 30 students/class)

2. EDMS 646: General Linear Models I (2007-2009, 2019, 2022, 2023, 2024—approx. 30 student/class)

3. EDMS 651: General Linear Models II (2008-2017, 2019, 2020, 2021, 2023—approx. 30 students/class)

4. EDMS 769L: Statistical Analysis of Longitudinal Data (2009, 2010, 2012, 2014, 2016, 2018, 2024—approx. 12 students/class)

5. EDMS 769M: Finite Mixture Models in Statistics and Measurement (2011, 2013, 2015, 2020—approx. 10 students/class)

6. EDMS 769N: Nonparametric Structural Equation Modeling (2017—approx. 7 students)
7. EDMS 771: Multivariate Data Analysis (2013-2014—approx. 20 students/class)

8. EDMS 779: Mathematical Foundations and Simulation Techniques (2009-2016, 2018, 2020—approx. 10 students/class)

Course or Curriculum Development

1. EDMS 651: Applied Multiple Regression Analysis (2008-2015—approx. 30 students/class)

2. EDMS 769L: Statistical Analysis of Longitudinal Data (2009, 2010, 2012, 2014, 2016—approx. 12 students/class)

3. EDMS 769M: Finite Mixture Models in Statistics and Measurement (2011, 2013, 2015, 2020—approx. 10 students/class)

4. EDMS 769N: Nonparametric Structural Equation Modeling (2017—approx. 7 students)

5. EDMS 771: Multivariate Data Analysis (2013, 2014—approx. 20 students/class)

6. EDMS 779: Mathematical Foundations and Simulation Techniques (2009-2015, 2018, 2020—approx. 10 students/class)

Advising: Research or Clinical

This refers to students whose projects the faculty has supervised as adviser, committee chair, or committee member (indicate role). The name of student, academic year(s) involved, and the name of institution if other than UMD should be indicated, as well as placement of the student(s), if the project is completed. List completed work first.

Master's

Completed degrees

1. Frank Rojas — UMCP 2021 (Advisor)
2. Ibidun Layi-Ojo — UMCP 2021 (Advisor)
3. Jonas Ventimiglia — UMCP 2020 (Advisor)
4. Patrick Sheehan — UMCP 2020 (Advisor)
5. Alison Robey — UMCP 2019 (Directed Paper)
6. Devon Blumenthal — UMCP 2018 (Advisor)
7. Lauren Musu-Gillette — UMCP 2013 (Advisor)
8. Kristi Maslak — UMCP 2011 (Member)
9. Min Pan — UMCP 2011 (Advisor)
10. Phil Stablein — UMCP 2010 (Advisor)
11. Jenny Kirkbride — UMCP 2010 (Advisor)
12. William Fossey — UMCP 2010 (Advisor)
13. Ying Zhang — UMCP 2010 (Advisor)
14. Courtenay Barrett — UMCP 2009 (Member)

Doctoral

Completed dissertations chaired or co-directed* (with current position of student)

1.	Ari Houser	UMCP 2023	Senior Statistical Analyst, AARP
2.	Jinwang Zou	UMCP 2023	Senior Statistical Researcher, FDA
3.	Weimeng Wang	UMCP 2022	Mathematical Statistician, FDA
4.	Kaiwen Man	UMCP 2020	Assistant Professor, University of Alabama
5.	Jordan Prendez	UMCP 2020	Research Scientist, HumRRO
6.	Qiwen Zheng*	UMCP 2019	Data Scientist, C.H. Robinson
7.	Tiago Calico	UMCP 2019	Psychometrician, American Institutes of Research
8.	Daniel Lee	UMCP 2019	Psychometrician, The College Board
9.	Shauna Sweet*	UMCP 2018	Technical Supervisor, Northrup Grumman
10.	Xiaying Zheng*	UMCP 2017	Psychometrician, American Institutes of Research
11.	Ming Li	UMCP 2015	Senior Statistical Analyst, Georgetown University
12.	Youngmi Cho	UMCP 2013	Psychometrician, American Institutes of Research
13.	Junhui Liu	UMCP 2012	Psychometrician, Educational Testing Service
14.	Jui-Chen Hsu*	UMCP 2011	Associate Professor, Chia Nan University, Taiwan
15.	Nidhi Kohli*	UMCP 2011	Associate Professor, University of Minnesota
16.	Jessica Mislevy	UMCP 2011	Senior Assessment Specialist, SRI
17.	Brandi Weiss*	UMCP 2010	Associate Professor, George Washington University

Current doctoral research being chaired (with dissertation working title)

1. Charlie Fisk UMCP

Completed dissertations advised as member

1.	Sabrina Callahan	UMCP	2023
2.	Yi Feng	UMCP	2023
3.	Chengbin Yin	UMCP	2022
4.	Zhongzheng Wu	UMCP	2022
5.	Xu Han	UMCP	2022
6.	Natalia Guzman	UMCP	2020
7.	Madeline Craft	UC Davis	2020
8.	Ji An	UMCP	2020
9.	Anna Lissitz	UMCP	2020
10.	Manqian Liao	UMCP	2020
11.	Molly Kim	UMCP	2019
12.	Alyson Burnett	UMCP	2019
13.	Darius Singpurwalla	UMCP	2019
14.	Anna Hartranft	UMCP	2018
15.	Matthew Barstead	UMCP	2018
16.	Xiulin Mao	UMCP	2018
17.	Huili Liu	UMCP	2018
18.	Ashley Amaya	UMCP	2017
19.	Austin Fossey	UMCP	2017
20.	Kari Hansen	UMCP	2017
21.	David Williamson	UMCP	2017
22.	Melissa McTernan	UC Davis	2017
23.	Rosalyn Bryant	UMCP	2016
24.	Steven Sharp	UMCP	2016
25.	Kathy Stepien	UMCP	2016
26.	Denis Dumas	UMCP	2016
27.	Katie Leech	UMCP	2016
28.	Yue Du	UMCP	2016
29.	Matt Griffin	UMCP	2016
30.	Yoonjoo Lee	UMCP	2016
31.	Megan Vaganek	UMCP	2015
32.	Shikha Prashad	UMCP	2015
33.	Daniel McNeish	UMCP	2015
34.	Supreet Anand	UMCP	2015
35.	Kristi Maslak	UMCP	2015
36.	Carlo Panlilio	UMCP	2015
37.	Jumin Park	UMB	2015
38.	Yoonjeong Kang	UMCP	2014
39.	Tongyun Li	UMCP	2014
40.	Lauren Musu-Gillette	UMCP	2014
41.	LeeAnn Annoti	UMCP	2014
42.	Chao Xie	UMCP	2014

43. Chin-Feng Wang	UMCP	2013
44. Ying-Fang Chen	UMCP	2013
45. Sarah Parsons	UMCP	2013
46. Mingyi Cho	UMCP	2012
47. Xiaoshu Zhu	UMCP	2012
48. Arden Sotomeyor	UMCP	2012
49. Shannon Russell	UMCP	2011
50. Emily Gustafson	UMCP	2011
51. Kate Shanahan	UMCP	2011
52. Min Liu	UMCP	2011
53. Younyoung Choi	UMCP	2011
54. Ying Li	UMCP	2011
55. Chong Min Na	UMCP	2011
56. Dawn Jacobs	UMCP	2011
57. Katryna Andrusik	UMCP	2011
58. William Dardick	UMCP	2010
59. Ru Lu	UMCP	2010
60. Marc Kroopnick	UMCP	2010
61. John Wasko	UMCP	2009
62. Heather Mann	UMCP	2009
63. Jennifer Koran	UMCP	2009
64. Fei-Fei Li	UMCP	2009
65. Yi Cao	UMCP	2008
66. Kristin Ruedel	UMCP	2008
67. Wei Hua	UMCP	2008
68. Peng Lin	UMCP	2007
69. Kristen Braaten	UMCP	2007

Current service on dissertations as committee member

1.	Marian Strazzeri	UMCP
2.	Yating Zheng	UMCP
3.	Sol Baik	UMB

Mentorship

1. Mentor to Assistant Professor Ji Seung Yang, UMCP, 2013-current

Advising: Other than Research Direction

Doctoral

Current advisees

1. Charlie Fisk UMCP

Master's

Current advisees

1. Hongyu Wang UMCP

SERVICE AND OUTREACH

Editorships, Editorial Boards and Reviewing Activities

Editorships

1. Series Editor, Quantitative Methods in Education and the Behavioral Sciences: Issues, Research, and Teaching. Sponsored by the American Educational Research Association's Special Interest Group: Educational Statisticians (2022-2024)
2. Editor-in-Chief, Multivariate Behavioral Research (2021)
3. Book Review Editor, Psychometrika (2016-2020)

Associate Editor

1. Psychometrika (2019-2020)

Editorial Boards

1. Psychological Methods (2017-present)
2. Contemporary Educational Psychology (2015-2018)
3. Multivariate Behavioral Research (2014-2020)
4. Structural Equation Modeling: A Multidisciplinary Journal (2014-present)

Reviewing Activities for Journals and Presses

1. Nature (2020-present)
2. Psychological Methods (2005-present)
3. Multivariate Behavioral Research (2005-present)
4. Journal of Educational and Behavioral Statistics (2007-present)
5. Developmental Psychology (2006-present)
6. Educational Research (2007-present)
7. Educational Research and Evaluation (2006-present)
8. Journal of Educational Psychology (2006-present)
9. Statistics in Medicine (2008-present)
10. Communications in Statistics (2008-present)
11. Journal of Applied Statistics (2009-present)
12. Structural Equation Modeling (2007-present)
13. Nursing Research (2009-present)
14. Frontiers in Psychology (2010-present)
15. Psychometrika (2010-present)
16. Educational and Psychological Measurement (2012-present)
17. Journal of Educational Measurement (2010-present)

18. Learning and Individual Differences (2011-present)
19. Contemporary Educational Psychology (2014-present)
20. Educational Research Journal (2013-present)
21. British Journal of Mathematical and Statistical Psychology (2012-present)
22. Journal of Experimental Education (2012-present)
23. Journal of Child Development (2011-present)
24. Applied Psychological Measurement (2015-present)
25. Behavior Research Methods (2015-present)
26. Journal of Applied Modern Statistical Methods (2015-present)
27. Journal of Classification (2015-present)
28. Studies in Second Language Acquisition (2020-present)

Reviewing Activities for Agencies and Foundations

1. Growth Curve Modeling (book review), Guilford Press (2014)
2. Introduction to Statistics (book review), Oxford University Press (2004, 2005)
3. Introductory Statistics: A Guided Tour (book review), Routledge (2010)
4. National Institutes of Child and Human Development; Principal Member of the Review Panel for Bio-behavioral and Behavioral Sciences (2013-present)
5. U.S. Department of Education, Institute for Education Sciences; Principal Member of the Review Panel for Mathematics and Science Education (2009-2019)
6. National Science Foundation; Review Panel for REESE (2009 -2010)
7. National Science Foundation; Ad Hoc Review Panel for Measurement and Statistics (2010-present)
8. External Advisory Board (2008) – NSF grant proposal entitled: "Identification of initiatives that enhance post-secondary retention for students at-risk for non-persistence: The mediating role of students' achievement, social and interest goals."

Reviewing Activities for Conferences

1. American Educational Research Association: Division D: Statistics; Structural Equation Modeling Special Interest Group; Educational Statisticians Special Interest Group, (2005-present)

<u>Committees, Professional & Campus Service</u>
Campus Service - Department

1. APT Sub-Committee (2018-2019, 2019-2020, 2020-2022)
2. Co-Chair, EDMS Faculty Search Committee (2018-2019)
3. Director, Psychometric Computation and Simulation (PCS) Laboratory (2009-present)
4. Mentor, EDMS 451 Undergraduate Statistics Instructors (2013)
5. Member, HDQM Fellowships and Awards Committee (2013-present)
6. Chair, EDMS Faculty Search Committee (2013-2015)
7. Chair, HDQM Merit Award Committee (2013, 2015, 2017)
8. Member, EDMS Faculty Search Committee (2012-2013)
9. Member, EDMS Faculty Search Committee (2011-2012)

10. Member and Chair, EDMS Examination Committee (2013-2015)
11. Chair, Measurement and Statistics Monday Symposia Series (2012)
12. Member, APT Committee, Dr. Jiao (2012)
13. Member and Chair, EDMS Admissions Committee (2010-2012, 2016-2019)
14. Member and Chair, EDMS Examination Committee (2006-2009, 2023-2024)
15. Member, EDMS Faculty Search Committee (2007-2008)

Campus Service – College

1. Chair, APT Committee (2018-2019, 2019-2020)
2. Member, HDQM Chair Search Committee (2014-2016)
3. Member, College of Education APT Policy Committee (2015-2016)
4. Member, College of Education Space Committee (2014-2015)
5. Member, College of Education Website Steering Committee (2014-2015)
6. Senator for EDMS, College of Education Senate (2010-2012)
7. Member, Executive Planning Committee on the Doctorate (2006-2007)

Campus Service - University

1. Member, Campus PCC Committee (2021-2022)
2. Member, Graduate Council (2020-2021)
3. Member, Endowed Awards Selection Committee (2018-2019, 2019-2020)
4. Member, Supercomputing Sub-Committee (2018-present)
5. Member, Research, Technology Working Group (2018-present)
6. Member, University Introductory Statistics Redesign Collaboration (2014)
7. Member, University Online Course Evaluation Advisory Committee (2006-2018)
8. Senator for EDMS, University of Maryland Campus Senate (2009-2013)
9. Member, Faculty Search Committee for Assistant Professor in Department of Epidemiology and Biostatistics, School of Public Health (2007-2008)

Campus Service - Special Administrative Assignment

1. Statistical Consultant – Special Assignment by the Provost (2014-2015)

Leadership Roles in Meetings and Conferences

1. At-Large Member, Educational Statisticians SIG (2016-2018, 2019-present), American Educational Research Association (AERA).
2. Program Chair, SEM SIG (2013-2014), American Educational Research Association (AERA).
3. Program Chair, Division D, Section 2 – Statistical Theory and Methods, (2009-2010), American Educational Research Association (AERA).
4. Discussant and Chair, Division D, Section 2 – Statistical Theory and Methods, Structural Equation Modeling SIG, Educational Statisticians SIG (2006-present). American Educational Research Association (AERA).

External Service and Consulting

Consultancies ***(to local, state and federal agencies; companies; organizations)***

1. External Reviewer (2024), onsite program evaluation team.

2. Evaluator, i3 Innovation Grant, Institute of Education Sciences (IES), U.S. Department of Education (2011-2015). Evaluation of the effectiveness of AppleTree Institute (ATI) new curriculum—Every Child Ready (ECR), a full-day preschool program for at-risk students.

AWARDS, HONORS AND RECOGNITION

Research Fellowships, Prizes and Awards

1. College of Education Excellence in Scholarship and Research (Tenured Faculty) (2023). University of Maryland.
2. Brenda Loyd Outstanding Dissertation Award to Dr. Kaiwen Man, National Council for Measurement in Education (NCME, 2022).
3. Society of Multivariate Experimental Psychology. Elected Member (2017).
4. University of Maryland Graduate Faculty Mentor of the Year Award (2015). University of Maryland.
5. College of Education Excellence in Graduate Mentoring Award (2015). University of Maryland.
6. College of Education Excellence in Teaching Award (2010). University of Maryland.
7. Travel Award Recipient for the Third Annual Society of Multivariate Experimental Psychology Graduate Preconference (2005). Lake Tahoe, CA.
8. Society of Multivariate Experimental Psychology Dissertation Award Recipient (2005).
9. Graduate Student Leadership Award Recipient (2005). Department of Educational Psychology University of Minnesota.
10. Graduate Student Travel Award Recipient for the Factor Analysis at 100 Conference (2004). University of North Carolina, Chapel Hill.
11. Margaret Barto Scholarship for Academic Excellence (2003). College of Education and Human Development, University of Minnesota.
12. Hauge Fellowship for Outstanding Scholarship (2002). College of Education and Human Development, University of Minnesota.
13. Theodore C. Carpenter Fellowship for Excellence in the Teaching of Mathematics (1998-2000). Northfield Mt. Hermon School, Northfield, MA.

Other Special Recognition

1. Recognized at the 9th Annual University-Wide Celebration of Scholarship and Research (2016). University of Maryland.
2. College of Education & Human Development (CEHD) Rising Alumni Award (2016). University of Minnesota.
3. University of Maryland Graduate Student Mentor of the Year Award Nominee (2013-2014). University of Maryland.