#### Vita

## Craig Kyle Enders, Ph.D.

#### **Contact Information**

Work: University of California – Los Angeles

Department of Psychology

Pritzker Hall

Los Angeles, CA 90095-1563

310-825-3921

Home: 615 Hampton Drive, B305

Venice, CA 90291 480-251-9793

#### Education

· Ph.D., University of Nebraska, Educational Psychology, Quantitative and Qualitative Methods in Education, 1999

- · M.A., University of Nebraska, Educational Psychology, Quantitative and Qualitative Methods in Education, 1995
- · B.A., University of Nebraska, Psychology, 1991

### **Academic Positions**

- · Professor, Psychology, UCLA, Los Angeles, CA, 2015-current.
- · Professor, Psychology, Arizona State University, Tempe, AZ, 2013-2015.
- · Associate Professor, Psychology, Arizona State University, Tempe, AZ, 2007-2013.
- · Assistant Professor, Psychology, Arizona State University, Tempe, AZ, 2005-2007.
- · Assistant Professor, Educational Psychology, University of Nebraska, Lincoln, NE, 2003-2005
- · Assistant Professor, Department of Educational and Psychological Studies, University of Miami, Coral Gables, FL, 1999-2003

## Work in Progress

Alacam, E., Du, H., & Enders, C.K. (2020). Applying sequential Bayesian estimation to missing questionnaire items. *Manuscript in preparation*.

Du, H., **Enders, C.K.**, Keller, B.T., Bradbury, T., & Karney, B. (2020). A Bayesian latent variable selection model for nonignorable missingness. *Manuscript submitted for publication*.

**Enders, C.K.** (2020). Applied missing data analysis 2.0. New York: Guilford.

Hubbard, A., & **Enders, C.K.** (2020). Examining multiple imputation pooling rules for estimates of correlations, standard deviations, and *R*<sup>2</sup> statistics. *Manuscript in preparation*.

Keller, B.T., & **Enders, C.K.** (2020). Fully conditional specification imputation for three-level data structures. *Manuscript in preparation*.

Keller, B.T., & **Enders, C.K.** (2020). Model-based imputation for multilevel interaction effects. *Manuscript in preparation*.

Levy, R., & Enders, C.K. (2020). Full conditional distributions for Bayesian multilevel models with additive or interactive effects and missing data on covariates. *Manuscript submitted for publication*.

MacDonald, J.J., Jorge, A., **Enders, C.K.**, McCannel, T., Beran, T., & Stanton, A.L. (2020). Perceived and objective visual impairment predicting depressive symptoms across one year in uveal melanoma diagnostic biopsy: Optimism and pessimism as moderators. *Manuscript in preparation*.

Ray, L.A., Green, R., Leventhal, A.M., Grodin, E., **Enders, C.**, Li, G., ..., & Miotto, K. (2020). Efficacy of combining Varenicline and Naltrexone for smoking cessation and drinking reduction: A randomized clinical trial. *Manuscript submitted for publication*.

Vera, J.D., & Enders, C.K. (2020). A multilevel imputation model for questionnaire data with many items. *Manuscript in preparation*.

Vera, J.D., & Enders, C.K. (2020). Is item imputation always better? An investigation of wave-missing data in growth models. *Manuscript submitted for publication*.

## **Computer Software**

**Enders, C.K.**, Keller, B.T., & Du, H. (2020). *Blimp (Version 2.2): Bayesian analysis and multiple imputation application for MacOS, Windows, and Linux*. Available at www.appliedmissingdata.com/multilevel-imputation.html.

Keller, B. T., & Enders, C. K. (2020). *Blimp user's guide* (Version 2.2). Available at www.appliedmissingdata.com/multilevel-imputation.html.

**Enders, C.K.**, Du, H. (2020). *Blimp technical appendix: Bayesian estimation for multilevel path models*. Los Angeles, CA. Available at www.appliedmissingdata.com/multilevelimputation.html.

**Enders, C.K.** (2019). *Blimp technical appendix: Centering covariates in a Bayesian multilevel analysis*. Los Angeles, CA. Available at www.appliedmissingdata.com/multilevelimputation.html.

**Enders, C.K.** (2019). Blimp technical appendix: Variance explained effect sizes for Bayesian multilevel analyses. Los Angeles, CA. Available at www.appliedmissingdata.com/multilevel-imputation.html.

**Enders, C.K.**, Du, H., & Keller, B.T. (2019). *Blimp technical appendix: Fully Bayesian model-based estimation and multiple imputation for multilevel models*. Los Angeles, CA. Available at www.appliedmissingdata.com/multilevel-imputation.html.

#### **Books and Edited Volumes**

**Enders, C.K.** (2010). Applied missing data analysis. New York: Guilford.

Daly, E.J., & **Enders, C. K.** (Eds.). (2010). Special series on statistical analysis. *Journal of School Psychology*, 48(1).

## Journal Articles and Chapters (Refereed)

**Enders, C.K.**, & Hayes, T. (in press). Missing data handling for multilevel data. In A. O'Connell, B. McCoach, & B. Bell (Eds.), *Multilevel modeling methods with introductory and advanced applications*. Information Age: Greenwich, CT.

Baraldi, A., **Enders, C.K.** (2020). Missing data. In A. Wright & M. Hallquist (Eds.), *Cambridge Handbook of Research Methods in Clinical Psychology* (pp. 444-466). Cambridge, UK. Cambridge University Press.

**Enders, C.K.**, Du, H., & Keller, B.T. (2020). A model-based imputation procedure for multilevel regression models with random coefficients, interaction effects, and non-linear terms. *Psychological Methods*, 25, 88-112.

Mansolf, M., Jorgensen, T.D., & Enders, C.K. (2020). A multiple imputation score test for model modification in structural equation models. *Psychological Methods*, 25, 393-411.

Di Giunta, L., Pastorelli, C., Thartori, E., Bombi, A.S., Baumgartner, E., Fabes, R.A., Martin, C.L., **Enders, C.K.** (2018). Trajectories of Italian children's peer rejection: Associations With aggression, prosocial behavior, physical attractiveness, and adolescent adjustment. *Journal of Abnormal Child Psychology*, 46, 1021-1035.

Enders, C.K., Hayes, T., & Du, H. (2018). A comparison of multilevel imputation schemes for random coefficient models: Fully conditional specification and joint model

- imputation with random covariance matrices. *Multivariate Behavioral Research*, 53, 695-713.
- Juvonen, J. Lessard, L., Schacter, H.L., & **Enders, C.** (2018). The effects of middle school weight climate on youth with higher body weight. *Journal of Research on Adolescence*, 29, 466-479.
- **Enders, C.K.**, & Baraldi, A.N. (2018). Missing data handling methods. In P. Irwing, T. Booth, & D. Hughes (Eds.), *The Wiley handbook of psychometric testing: A multidisciplinary approach to survey, scale and test development* (pp. 139-186). Chichester, UK: John Wiley & Sons.
- **Enders, C.K.**, Keller, B.T., & Levy, R. (2018). A fully conditional specification approach to multilevel imputation of categorical and continuous variables. *Psychological Methods*, 23, 298-317.
- **Enders, C.K.**, & Mansolf, M. (2018). Assessing fit of structural equation models with multiply imputed data. *Psychological Methods*, 23, 76-93.
- Smith, D.S., Schacter, H.L., Enders, C., & Juvonen, J. (2018). Gender norm salience across middle schools: Contextual variations in associations between gender typicality and socioemotional distress. *Journal of Youth and Adolescence*, 47, 947-960.
- Cohen, A. B., Mazza, G., Johnson, K. A., **Enders, C. K.**, Warner, C., Pasek, M., & Cook, J. E. (2017). Theorizing and measuring religiosity across cultures. *Personality and Social Psychology Bulletin*, 43,1724-1736.
- Brincks, A.M., **Enders, C.K.**, Llabre, M.M., Bulotsky-Shearer, R.J., Prado, G., & Feaster, D.J. (2017). Centering predictor variables in three-level contextual models. *Multivariate Behavioral Research*, 52, 149-163.
- **Enders, C.K.** (2017). Multiple imputation as a flexible tool for missing data handling in clinical research. *Behaviour Research and Therapy*, *98*, 4-18.
- Hair, E., Bennett, M., Williams, V. Johnson, A., Rather, J., Cantrell, J., Villanti, A., **Enders, C.**, Vallone, D. (2017). Progression to established patterns of cigarette smoking among young adults. *Drug and Alcohol Dependence*, *177*, 77-83.
- Liu, Y., & Enders, C. K. (2017). Evaluation of multi-parameter test statistics for multiple imputation. *Multivariate Behavioral Research*, 52, 371-390.
- Mistler, S. & Enders, C. K. (2017). A comparison of joint model and fully conditional specification imputation for multilevel missing data. *Journal of Educational and Behavioral Statistics*, 42, 432-466.

- **Enders, C.K.** (2016). Review of the book *Handbook of Missing Data Methodology*. *Journal of Educational and Behavioral Statistics*, 41, 554-556.
- **Enders, C.K.**, Mistler, S., & Keller, B. (2016). Multilevel multiple imputation: A review and evaluation of joint modeling and chained equations imputation. *Psychological Methods*, 21, 222-240.
- Mazza, G.L., **Enders, C.K.**, & Ruehlman, L. (2015). Addressing item-level missing data: A comparison of proration and full information maximum likelihood estimation. *Multivariate Behavioral Research*, 50, 504-519.
- Corbin, W.R., Scott, C., Menary, K.R., Boyd, S.J., & **Enders, C.K.** (2015). Contextual influences on subjective and behavioral responses to alcohol. *Experimental and Clinical Psychopharmacology*, 23, 59-70.
- Eekhout, I., **Enders, C.K.**, Twisk, J.W.R., de Boer, M.R., de Vet, H.C.W., & Heymans, M.W. (2015). Analyzing incomplete item scores in longitudinal data by including item score information as auxiliary variables. *Structural Equation Modeling: A Multidisciplinary Journal*, 22, 588-602.
- Eekhout, I., **Enders, C.K.**, Twisk, J.W.R., de Boer, M.R., de Vet, H.C.W., & Heymans, M.W. (2015). Including auxiliary item information in longitudinal data analyses improved handling missing questionnaire outcome data. *Journal of Clinical Epidemiology*, 68, 637-645.
- McPherson, S., Barbosa-Leiker, C., Mamey, M.R., McDonell, M., **Enders, C.K.**, Roll, J. (2015). A missing not at random (MNAR) and missing at random' (MAR) growth model comparison with a Buprenorphine/Naloxone clinical trial. *Addiction*, 110, 51-58.
- Okun, M. A., O'Rourke, H. P., Keller, B., Johnson, K. A., & **Enders, C.** (2015). Value-expressive volunteer motivation and volunteering by older adults: Relationships with religiosity and spirituality. *Journal of Gerontology Series B: Psychological Sciences and Social Sciences*, 70, 860-870.
- Wu, W., Jia, F., & Enders, C. K. (2015). A comparison of imputation strategies to ordinal missing data for Likert scale variables. *Multivariate Behavioral Research*, 50, 484-503.
- **Enders, C.K.**, Baraldi, A.N., Cham, H. (2014). Estimating interaction effects with incomplete predictor variables. *Psychological Methods*, 19, 39-55.

- Cavendish, W., Montague, M., Enders, C., & Dietz, S. (2014). Mothers' and adolescents' perceptions of family environment and adolescent social-emotional functioning. *Journal of Child and Family Studies*, 23, 52-66.
- Karoly, P., Okun, M. A., **Enders, C.**, & Tennen, H. (2014). The effects of pain intensity on goal schemas and goal pursuit: A daily diary study. *Health Psychology*, 33, 968-976.
- Mazza, G.L., & **Enders**, C.K. (2014). Missing data analysis. In H.T. Reis & C.M. Judd (Eds.), *Handbook of Research Methods in Social and Personality Psychology* (pp. 627-652). New York: Cambridge University Press.
- Montague, M., Krawec, J., **Enders, C.**, & Dietz, S. (2014). The effects of cognitive strategy instruction on math problem solving of middle school students of varying abilities. *Journal of Educational Psychology*, 106, 469-481.
- Pann, J., Yehl, A., Wood, P., Schoepp, J., Solomon, G., **Enders, C.** (2014). Implementation and evaluation of a multidimensional nutrition and physical activity initiative funded by a community health foundation. *Foundation Review*, *5*, 62-77.
- Talboom, J.S., West, S.G., Engler-Chiurazzi, E.B., **Enders, C.K.**, Crain, I., & Bimonte-Nelson, H.A. (2014). Cognitive training-induced attenuation of age-related memory decline depends on sex and cognitive demand, and can transfer to untrained cognitive systems. *Neurobiology of Aging*, *35*, 2791-2802.
- **Enders, C.K.** (2013). A primer on the use of maximum likelihood algorithms for use with missing data. In S. Babones (Ed.), *Fundamentals of Regression Modeling*. Thousand Oaks, CA: Sage.
- **Enders, C.K.** (2013). Centering predictors and contextual effects. In M.A. Scott, J.S. Simonoff, & B.D. Marx (Eds.), *The Sage Handbook of Multilevel Modeling* (pp. 89-108). Newbury Park, CA: Sage.
- **Enders, C.K.** (2013). Analyzing structural equation models with missing data. In G.R. Hancock & R.O. Mueller (Eds.), *A Second course in structural equation modeling* (2nd Ed.) (pp. 493-520). Information Age: Greenwich, CT.
- **Enders, C.K.** (2013). Dealing with missing data in developmental research. *Child Development Perspectives*, *7*, 27-31.
- **Enders, C.K.**, Fairchild, A.J., & MacKinnon, D.P. (2013). A Bayesian approach for estimating mediation effects with missing data. *Multivariate Behavioral Research*, 48, 340-369.

- Baraldi, A.N., & **Enders, C.K.** (2013). Missing data methods. In T.D. Little (Ed.), *The Oxford Handbook of Quantitative Methods* (pp. 635-664). New York: Oxford University Press.
- Cham, H., Baraldi, A.N., & Enders, C.K. (2013). Abstract. Applying maximum likelihood estimation and multiple imputation to moderated regression models with incomplete predictor variables. *Multivariate Behavioral Research*, 48, 153-154.
- Gress-Smith, J.L., Roubinov, D.S., Tanaka, R. Cirnic, K., Gonzales, N., **Enders, C.**, & Luecken, L.J. (2013). Prenatal expectations in Mexican American women: development of a culturally sensitive measure. *Archives of Women's Mental Health*, 16, 303-314.
- Gottschall, A.C., West, S.G., & Enders, C.K. (2012). A comparison of item-level and scale-level multiple imputation for questionnaire batteries. *Multivariate Behavioral Research*, 47, 1-25.
- Ruehlman, L.S., Karoly, P., & Enders, C. (2012). A randomized controlled evaluation of an online chronic pain management program. *Pain*, *153*, 319-330.
- **Enders, C.K.** (2011). Analyzing longitudinal data with missing values. *Rehabilitation Psychology*, *56*, 267-288.
- **Enders, C.K.** (2011). Missing not at random models for latent growth curve analyses. *Psychological Methods*, 16, 1-16.
- **Enders, C.K.**, & Gottschall, A.C. (2011). The impact of missing data on the ethical quality of a research study. In A.T. Panter & S.K. Sterba (Eds.), *The Ethics of Quantitative Methodology* (pp. 357-382). New York: Routledge.
- **Enders, C.K.**, & Gottschall, A.C. (2011). On the use of multiple imputation with multiple group latent variable models. *Structural Equation Modeling: A Multidisciplinary Journal*, 18, 35-54.
- Henry, G.K., Heilbronner, R.L., Mittenberg, W., **Enders, C.**, Stevens, A., & Dux, M. (2011). Noncredible performance in individuals with external incentives: Empirical derivation and cross-validation of the Psychological Distress Scale (PDS). *Applied Neuropsychology*, *18*, 47-53.
- Mistler, S.A., & Enders, C.K. (2011). An introduction to planned missing data designs for developmental research. In B. Laursen, T. Little & N. Card (Eds.), *Handbook of Developmental Research Methods* (pp. 742-754). New York: Guilford.

Montague, M., Enders, C., Cavendish, W., & Castro, M. (2011). Academic and behavioral trajectories for at risk adolescents in urban schools. *Behavioral Disorders*, 36, 141-156.

Montague, M., **Enders, C.**, & Dietz, S. (2011). The effects of cognitive strategy instruction on middle school students' math problem solving. *Learning Disability Quarterly*, 34, 262-272.

Baraldi, A.N., & **Enders, C.K.** (2010). An introduction to modern missing data analyses. *Journal of School Psychology*, 48, 5-37.

Montague, Penfield, R.D., **Enders, C.**, & Huang, J. (2010). Curriculum-based measurement of math problem solving: A methodology and rationale for establishing equivalence of scores. *Journal of School Psychology*, 48, 39-52.

Peugh, J.L., & Enders, C.K. (2010). Specification searches in multilevel structural equation modeling: A Monte Carlo investigation. *Structural Equation Modeling: A Multidisciplinary Journal*, 17, 42-65.

Acosta, J.I., Mayer, L., Talboom, J.S., Tsang, C.W.S., Smith, C.J., **Enders, C.K.**, & Bimonte-Nelson, H.A. (2009). Transitional versus surgical menopause in a rodent model: Etiology of ovarian hormone loss impacts memory and the acetylcholine system. *Endocrinology*, 150, 4248-4259.

Luecken, L.J., Kraft, A., Appelhans, B.M., & **Enders, C.** (2009). Emotional and cardiovascular sensitization to daily stress following childhood parental loss. *Developmental Psychology*, 45, 296-302.

McCullough, M.E., Friedman, H.S., **Enders, C.K.**, Martin, L.R. (2009). Does devoutness delay death? Psychological investment in religion and its association with longevity in the Terman sample. *Journal of Personality and Social Psychology*, 97, 866-882. McMahon, R.C., & **Enders, C.** (2009). Personality disorder factors predict recovery of employment functioning among treated cocaine abusers. *The American Journal of Drug and Alcohol Abuse*, 35, 138-144.

Montague, M., Cavendish, W., **Enders, C.**, Dietz, S. (2009). Interpersonal relationships and the development of behavior problems in adolescents in urban schools: A longitudinal study. *Journal of Youth and Adolescence*, 39, 646-657.

**Enders, C.K.** (2008). A note on the use of missing auxiliary variables in FIML-based structural equation models. *Structural Equation Modeling: A Multidisciplinary Journal*, 15, 434-448.

- **Enders, C.K.,** & Tofighi, D. (2008). The impact of misspecifying class-specific residual variances in growth mixture models. *Structural Equation Modeling: A Multidisciplinary Journal*, *15*, 75-95.
- Henry, G.K., Heilbronner, R.L., Mittenberg, W., **Enders, C.**, & Roberts, D.M. (2008). Empirical derivation of a new MMPI-2 scale for identifying probably malingering in personal injury litigants and disability claimants: The 15-item Malingered Mood Disorder Scale (MMDS). *The Clinical Neuropsychologist*, 22, 158-168.
- Henry, G.K., Heilbronner, R.L., Mittenberg, W., **Enders, C.**, & Stanczak, S.R. (2008). Comparison of the Lees-Haley Fake Bad Scale, Henry-Heilbronner Index, and Restructured Clinical Scale 1 in identifying noncredible symptom reporting. *The Clinical Neuropsychologist*, 22, 919-929.
- Lee, O., Deaktor, R. **Enders, C.**, & Lambert, J. (2008). Impact of a multiyear professional development intervention on science achievement of culturally and linguistically diverse elementary students. *Journal of Research in Science Teaching*, 45, 726-747.
- Montague, M. Enders, C., Dietz, S., Dixon, J., & Cavendish, W. (2008). A longitudinal study of depressive symptomology and self-concept in adolescents. *Journal of Special Education*, 42, 67-78.
- Krampe, H., Bartels, C., Victorson, D., **Enders, C.K.**, Beaumont, J., Cella, D., & Ehrenreich, H. (2008). The influence of personality factors on disease progression and health-related quality of life in people with ALS. *Amyotrophic Lateral Sclerosis*, *9*, 1-10.
- Victorson, D.E., **Enders, C.K.**, Burnett, K.F., Ouellette, E.A. (2008). The Injury Distress Index: Development and validation. *Archives of Physical Medicine and Rehabilitation*, 89, 1893-1902.
- **Enders, C.K.**, & Tofighi, D. (2007). Centering predictor variables in cross-sectional multilevel models: A new look at an old issue. *Psychological Methods*, 12, 121-138. Henry, G.K., & **Enders, C**. (2007). Probable malingering and performance on the Continuous Visual Memory Test. *Applied Nueropsychology*, 14, 267-274.
- Tofighi, D., & Enders, C.K. (2007). Identifying the correct number of classes in growth mixture models. In Hancock, G.R., & Samuelsen, K.M. (Eds.), *Advances in latent variable mixture models* (pp. 317-341). Information Age: Greenwich, CT.
- **Enders, C.K.**, Laurenceau, J-P, & Stuetzle, R. (2006). Using playing cards to demonstrate random assignment. *Teaching of Psychology*, *33*, 239-242.

- **Enders, C.K.** (2006). A primer on the use of modern missing data methods in psychosomatic medicine research. *Psychosomatic Medicine*, *68*, 427-436.
- **Enders, C.**, Dietz, S., Montague, M., & Dixon, J. (2006). Modern alternatives for dealing with missing data in special education research. In T.E. Scruggs & M.A. Mastropieri (Eds.), *Advances in Learning and Behavioral Disorders (Vol. 19)* (pp. 101-130). New York: Elsevier.
- **Enders, C.K.** (2006). Analyzing structural equation models with missing data. In G.R. Hancock & R.O. Mueller (Eds.), *A Second course in structural equation modeling* (pp. 313-344). Information Age: Greenwich, CT.
- Henry, G.K., Heilbronner, R.L., Mittenberg, W., & Enders, C. (2006). The Henry-Heilbronner Index: A 15-Item empirically-derived MMPI-2 subscale for identifying probable malingering in personal injury litigants and disability claimants. *The Clinical Neuropsychologist*, 20, 786-797.
- Nietfeld, J. L., **Enders, C. K.**, & Schraw, G. (2006). A Monte Carlo comparison of measures of relative and absolute monitoring accuracy. *Educational and Psychological Measurement*, 66, 258-271.
- Tofighi, D., & Enders, C. (2006). The harmonic mean. In N.J. Salkind (Ed.), *Encyclopedia of Measurement and Statistics (Vol. 2)* (pp. 425-426). Newbury Park, CA: Sage.
- Doninger, G.L., **Enders, C.K.**, & Burnett, K.F. (2005). Validity evidence for Eating Attitudes Test scores in a sample of female college athletes. *Measurement in Physical Education and Exercise Science*, 9, 35-49.
- **Enders, C.K.** (2005). A SAS macro for implementing the modified Bollen-Stine bootstrap for missing data: Implementing the bootstrap using existing structural equation modeling software. *Structural Equation Modeling: A Multidisciplinary Journal*, 12, 620-641.
- Enders, C.K. (2005). Direct maximum likelihood. In B. Everitt & D.C. Howell (Eds.), *Encyclopedia of Behavioral Statistics* (pp. 492-494). West Sussex, UK: Wiley. Enders, C.K. (2005). Estimation by maximum likelihood. In B. Everitt & D.C. Howell (Eds.), *Encyclopedia of Behavioral Statistics* (pp. 1164-1170). West Sussex, UK: Wiley.
- Lee, O., Deaktor, R.A., Hart, J.E., Cuevas, P., & Enders, C. (2005). An instructional intervention's impact on the science and literacy achievement of culturally and linguistically diverse elementary students. *Journal of Research in Science and Teaching*, 42, 857-887.
- McCullough, M.E., **Enders, C.K.**, Brion, S.L., & Jain, A.R. (2005). The varieties of religious development in adulthood: A longitudinal investigation of religion and rational choice. *Journal of Personality and Social Psychology*, 89, 78-89.

- Montague, M., Enders, C., Castro, M. (2005). Academic and behavioral outcomes for students at risk for emotional and behavioral disorders. *Behavioral Disorders*, 31, 87-96.
- Peugh, J.L., & Enders, C.K. (2005). Using the SPSS Mixed procedure to fit hierarchical linear and growth trajectory models. *Educational and Psychological Measurement*, 65, 811-835.
- **Enders, C.K.** (2004). Review of the book *Introducing multilevel modeling*. *Journal of Educational* Measurement, 41, 79-81.
- **Enders, C.K.** (2004). The impact of missing data on sample reliability estimates: Implications for reliability reporting practices. *Educational and Psychological Measurement*, 64, 419-436.
- **Enders, C.K.**, Peugh, J.L. (2004). Using an EM covariance matrix to estimate structural equation models with missing data: Choosing an adjusted sample size to improve the accuracy of inferences. *Structural Equation Modeling: A Multidisciplinary Journal*, 11, 1-19.
- Lee, O., Hart, J.E., Cuevas, P., & **Enders, C.** (2004). Professional development in inquiry-based science for elementary teachers of diverse student groups. *Journal of Research in Science Teaching*, 41, 1021-1043.
- Peugh, J.L. & **Enders**, **C.K.** (2004). Missing data in educational research: A review of reporting practices and suggestions for improvement. *Review of Educational Research*, 74, 525-556.
- **Enders, C.K.** (2003). Performing multivariate group comparisons following a statistically significant MANOVA. *Measurement and Evaluation in Counseling and Development*, 36, 40-56.
- **Enders, C.K.** (2003). Using the EM algorithm to estimate coefficient alpha for scales with item level missing data. *Psychological Methods, 8,* 322-337.
- Nietfeld, J. L., & Enders, C. K. (2003, March 17). An examination of student teacher beliefs: Interrelationships between hope, self-efficacy, goal orientations, and beliefs about learning. Current Issues in Education [On-line], 6(5). Available: http://cie.ed.asu.edu/volume6/number5.
- **Enders, C.K.** (2002). Applying the Bollen-Stine bootstrap for goodness-of-fit measures to structural equation models with missing data. *Multivariate Behavioral Research*, *37*, 359-377.

- Okleshen-Peters, C. & Enders, C.K. (2002). A primer for the estimation of structural equation models in the presence of missing data: Maximum likelihood algorithms. *Journal of Targeting, Measurement, and Analysis for Marketing, 11,* 81-95.
- **Enders, C.K.** (2001). A primer on maximum likelihood algorithms for use with missing data. *Structural Equation Modeling: A Multidisciplinary Journal, 8,* 128-141.
- **Enders, C.K.** (2001). The impact of nonnormality on full information maximum likelihood estimation for structural equation models with missing data. *Psychological Methods*, *6*, 352-370.
- **Enders, C.K.** (2001). The performance of the full information maximum likelihood estimator in multiple regression models with missing data. *Educational and Psychological Measurement*, 61, 713-740.
- **Enders, C.K.**, & Bandalos, D.L. (2001). The relative performance of full information maximum likelihood estimation for missing data in structural equation models. *Structural Equation Modeling: A Multidisciplinary Journal*, *8*, 430-457.
- Enders, C.K., & Bandalos, D.L. (1999). The effects of heterogeneous item distributions on reliability. *Applied Measurement in Education*, 12, 133-150. Wise, S.L., Finney, S.J., Enders, C.K., Freeman, S.A. & Severance, D.D. (1999). Examinee judgments of changes in item difficulty: Implications for item review in computerized adaptive testing. *Applied Measurement in Education*, 12, 185-198.
- Bandalos, D.L. & **Enders, C.K.** (1996). The effects of non-normality and number of response categories on reliability. *Applied Measurement in Education*, *9*, 151-160.
- Impara, J.C., **Enders, C.K.**, & Beecham, B. (1996). Impact on instructional time on student participation in school-sponsored activities: A Nebraska study. *The High School Journal*, 79, 305-314.
- Impara, J.C., Beecham, B, & Enders, C. (1996). Survey of Nebraska high schools: Relationship between participation in activities and school size. *Leadership Nebraska*, 5, 42-45.

## Workshops and Colloquia

**Enders, C.K.** (2020, June). *Analyzing PATH study data: Addressing challenges of longitudinal epidemiologic studies given study design complexities and missing data.* Webinar presented to the Center for Coordination of Analytics, Science, Enhancement, and Logistics in Tobacco Regulatory Science.

- **Enders, C.K.** (2020, June). *Latent growth models in structural equation modeling*. APA Advanced Training Institute: Structural Equation Modeling in Longitudinal Research, Tempe, AZ (held online over Zoom).
- **Enders, C.K.** (2020, June). *Approaches to handling incomplete data*. APA Advanced Training Institute: Structural Equation Modeling in Longitudinal Research, Tempe, AZ (held online over Zoom)
- **Enders, C.K.** (2020, March). *Missing data analysis*. Three-day workshop presented at the Sanford School of Social and Family Dynamics, Arizona State University, Tempe, AZ.
- **Enders, C.K.** (2019, December). *Challenges, options, and solutions to handling missing data when conducting analyses*. Webinar presented to the Center for Coordination of Analytics, Science, Enhancement, and Logistics in Tobacco Regulatory Science.
- **Enders, C.K.** (2019, November). *Missing data handling for regression models with interactions, random coefficients, and non-linear terms*. Colloquium presented to the Department of Psychology, Notre Dame, IN.
- **Enders, C.K.** (2019, October). *Missing data analysis*. Three-day workshop presented at the StatsCamp.org Summer Camp, UCLA, Los Angeles, CA.
- **Enders, C.K.** (2019, June). *Missing data analyses*. Two-day workshop presented at the Pickering Centre for Research in Human Development, Carleton University, Ottawa, Canada.
- **Enders, C.K.** (2019, June). *Introduction to missing data*. Diversity Program Consortium Workshop, University of Texas El Paso, El Paso, TX.
- **Enders, C.K.** (2019, May). Latent growth models in structural equation modeling. APA Advanced Training Institute: Structural Equation Modeling in Longitudinal Research, Tempe, AZ.
- **Enders, C.K.** (2019, May). *Approaches to handling incomplete data*. APA Advanced Training Institute: Structural Equation Modeling in Longitudinal Research, Tempe, AZ.
- **Enders, C.K.** (2019, May). *Multiple imputation for multilevel data structures*. Colloquium presented to the Department of Biostatistics, UCLA, Los Angeles, CA.
- **Enders, C.K.** (2019, April). *Multiple imputation for complex organizational data structures*. Colloquium presented to the Consortium for the Advancement of Research Methods and Analysis, University of Nebraska, Lincoln, NE.

- **Enders, C.K.** (2019, April). *An introduction to multiple imputation for educational research*. Professional development workshop presented at the annual meeting of the American Educational Research Association, Toronto, CA.
- **Enders, C.K.** (2019, April). A model-based imputation procedure for regression models with interactions, random coefficients, and non-linear terms. Colloquium presented to the Psychology Department, University of Southern California, Los Angeles, CA.
- **Enders, C.K.** (2019, January). *Multiple imputation with longitudinal data*. Research Workshop of the Israel Science Foundation, Tel Aviv, Israel.
- **Enders, C.K.** (2018, August). *Introduction to multiple imputation for psychological research*. Continuing education workshop presented at the annual meeting of the American Psychological Association, San Francisco, CA.
- **Enders, C.K.** (2018, August). *An introduction to longitudinal growth models*. Colloquium presented at the University of California Consortium on the Developmental Science of Adolescence, Los Angeles, CA.
- **Enders, C.K.** (2018, June). *Missing data analysis*. Workshop presented to the Virginia Education Science Training (VEST) Fellowship Program, University of Virginia.
- **Enders, C.K.** (2018, May). *Latent growth models in structural equation modeling*. APA Advanced Training Institute: Structural Equation Modeling in Longitudinal Research, Tempe, AZ.
- **Enders, C.K.** (2018, May). *Approaches to handling incomplete data*. APA Advanced Training Institute: Structural Equation Modeling in Longitudinal Research, Tempe, AZ.
- **Enders, C.K.** (2017, November). *Applied missing data*. Advanced methodology workshop presented at the annual meeting of the Association for Cognitive and Behavioral Therapies, San Diego, CA.
- **Enders, C.K.** (2017, September). *Missing data analysis*. Workshop presented at the StatsCamp.org Summer Camp, Brea, CA.
- **Enders, C.K.** (2017, May). *Latent growth models in structural equation modeling*. APA Advanced Training Institute: Structural Equation Modeling in Longitudinal Research, Tempe, AZ.
- **Enders, C.K.** (2017, May). *Approaches to handling incomplete data*. APA Advanced Training Institute: Structural Equation Modeling in Longitudinal Research, Tempe, AZ.

**Enders, C.K.** (2017, May). *Multiple imputation for multilevel data*. Workshop presented at the Modern Modeling Methods conference, Storrs, CT.

**Enders, C.K.** (2017, February). *An introduction to multiple imputation and its application.* Workshop presented at the University of California Riverside, Riverside, CA.

**Enders, C.K.** (2017, February). *A gentle introduction to multiple imputation*. Colloquium presented to the Center for Assessment and Research Studies, James Madison University, Harrisonburg, VA.

**Enders, C.K.** (2016, December). At the cutting edge: Demonstrations of statistical software developed through the stats & methods program. Software demonstration presented at the 2016 NCER/NCSER Principal Investigators Meeting, Washington, D.C.

**Enders, C.K.** (2016, November). *An introduction to multiple imputation and its application.* Workshop presented at the Ohio State University, Columbus, OH.

**Enders, C.K.** (2016, October). *An introduction to modern missing data methods*. Workshop presented at the Francis McClelland Institute, University of Arizona, Tucson, AZ.

**Enders, C.K.** (2016, September). *Missing data analysis*. Workshop presented at the StatsCamp.org Summer Camp, Brea, CA.

**Enders, C.K.** (2016, May). *An introduction to modern missing data methods*. Workshop presented at the University of California Santa Barbara, Santa Barbara, CA.

**Enders, C.K.** (2016, May). *Applied missing data analysis*. Statistics workshop presented at the annual meeting of the Western Psychological Association, Los Angeles, CA.

**Enders, C.K.** (2016, May). *Latent growth models in structural equation modeling*. APA Advanced Training Institute: Structural Equation Modeling in Longitudinal Research, Tempe, AZ.

**Enders, C.K.** (2016, May). *Approaches to handling incomplete data*. APA Advanced Training Institute: Structural Equation Modeling in Longitudinal Research, Tempe, AZ.

**Enders, C.K.** (2015, November). *Missing data analysis*. Workshop presented at the University of Miami, Coral Gables, FL.

**Enders, C.K.** (2015, October). *An introduction to missing data analysis*. Workshop presented at the University of Nebraska, Lincoln, NE.

**Enders, C.K.** (2015, September). *An introduction to missing data analysis*. Workshop presented at the University of California-Merced, Merced, CA.

- **Enders, C.K.** (2015, August). *An introduction to missing data analyses*. Workshop presented to the Intercampus Consortium on Health Psychology, Irvine, CA.
- **Enders, C.K.** (2015, June). *Applied missing data analysis*. Workshop presented at the Portland State University Summer Quantitative Methods Series, Portland, OR.
- **Enders, C.K.** (2015, May). *Latent growth models in structural equation modeling.* APA Advanced Training Institute: Structural Equation Modeling in Longitudinal Research, Tempe, AZ.
- **Enders, C.K.** (2015, May). *Approaches to handling incomplete data*. APA Advanced Training Institute: Structural Equation Modeling in Longitudinal Research, Tempe, AZ.
- **Enders, C.K.** (2015, April). *Modern missing data handling*. Colloquium presented to the Quantitative Psychology Program, University of Southern California, Los Angeles, CA.
- **Enders, C.K.** (2014, November). *Missing data analyses*. Colloquium presented to the Secondary Analysis of Strengthening Families Datasets Grantees Meeting, Washington, DC.
- **Enders, C.K.** (2014, June). *Missing data analyses*. Workshop presented to the Virginia Education Science Training (VEST) Fellowship Program, University of Virginia.
- **Enders, C.K.** (2014, June). *Missing data analyses*. Workshop presented to the American Legacy Foundation, Washington, D.C.
- **Enders, C.K.** (2014, March). *Multiple imputation for multilevel models*. Colloquium presented to the Center for Assessment and Research Studies, James Madison University.
- **Enders, C.K.** (2012, September). A gentle introduction to Bayesian statistics. Colloquium presented to the Department of Psychology, Utah State University.
- **Enders, C.K.** (2012, September). *An introduction to modern missing data techniques.* Workshop presented at the Utah State University.
- **Enders, C.K.** (2012, June). *An introduction to modern missing data techniques*. Workshop presented at the Texas A&M University Summer Statistics Workshop, College Station, TX.
- **Enders, C.K.** (2012, May). A gentle introduction to Bayesian statistics. Colloquium presented to the Center for Assessment and Research Studies, James Madison University.

- **Enders, C.K.** (2012, February). *An introduction to modern missing data techniques.* Workshop presented at Case Western Reserve University.
- **Enders, C.K.** (2011, May). *Analysis of missing data*. Statistics workshop presented at the annual meeting of the Western Psychological Association, Los Angeles, CA.
- **Enders, C.K.** (2011, June). *An introduction to modern missing data techniques*. Workshop presented at Brigham Young University, Provo, UT.
- **Enders, C.K.** (2011, June). *An introduction to modern missing data techniques*. Workshop presented at the Portland State University Summer Quantitative Methods Series, Portland, OR.
- **Enders, C.K.** (2011, September). *An introduction to modern missing data techniques*. Workshop presented at the Texas A&M University Summer Statistics Workshop, College Station, TX.
- **Enders, C.K.** (2011, October). How to deal with missing data: An overview of maximum likelihood missing data handling. Pre-conference workshop presented at the third Dutch Mplus User's Group meeting, Utrecht, Netherlands.
- **Enders, C.K.** (2011, November). *An introduction to modern missing data techniques*. Advanced methodology workshop presented at the annual meeting of the Association for Cognitive and Behavioral Therapies, Toronto, Canada.
- **Enders, C.K.** (2011, December). *Missing data analyses with multiple imputation*. Workshop presented to the School of Education, University of Miami.
- **Enders, C.K.** (2010, March). *Analysis of missing data*. Colloquium presented to the Department of Psychology, University of South Carolina.
- **Enders, C.K.** (2010, April). *Analysis of missing data*. Professional development workshop presented at the annual meeting of the American Educational Research Association, Denver, CO.
- **Enders, C.K.** (2010, June). *Missing data analyses*. Colloquium presented to the Secondary Analysis of Data for Childcare Grantees Meeting, Washington, DC.
- **Enders, C.K.** (2010, June). *Analysis of missing data*. Workshop presented to the Hispanic Health Disparities Research Center, University of Texas El Paso, El Paso, TX.

- **Enders, C.K.** (2009, May). *Multilevel modeling*. Pre-conference workshop presented at the annual meeting of the Society for Prevention Research pre-conference workshop, Washington, DC.
- **Enders, C.K.** (2008, April). *Analyzing missing data using maximum likelihood estimation*. Colloquium presented to the College of Education, University of Georgia, Athens, GA.
- **Enders, C.K.** (2008, April). *Analysis of missing data*. Professional development workshop presented at the annual meeting of the American Educational Research Association, New York, NY.
- **Enders, C.K.** (2008, August). *Introduction to modern missing data techniques*. Professional development workshop presented at the annual meeting of the American Psychological Association, Boston, MA.
- **Enders, C.K.** (2008, November). *Planned missing data designs*. Colloquium presented to the Department of Psychology, University of Kansas.
- **Enders, C.K.** (2007, April). *Analysis of missing data*. Professional development workshop presented at the annual meeting of the American Educational Research Association, Chicago, IL.
- **Enders, C.K.** (2007, May). *Analysis of missing data*. Statistics workshop presented at the annual meeting of the Western Psychological Association, Vancouver, Canada.
- **Enders, C.K.** (2006, May). *Analyzing missing data using maximum likelihood estimation*. Colloquium presented to the Center for Assessment and Research Studies, James Madison University.
- **Enders, C.K.** (2006, April). *Analyzing structural equation models with missing data*. Training session presented as a part of the AERA extended course, Structural Equation Modeling: A Second Course, annual meeting of the American Educational Research Association, San Francisco, CA.
- **Enders, C.K.** (2005, January). *The use of hierarchical linear modeling in behavioral and social science research*. Colloquium presented to the Nebraska Center for Research on Children, Youth, Families, and Schools, University of Nebraska.
- **Enders, C.K.** (2002, April). *Structural equation modeling: An overview of path analysis, confirmatory factor analysis, and full structural models.* Colloquium presented to the faculty of the School of Business, Miami University (Ohio).
- **Enders, C.K.** (2002, September). *Hierarchical linear modeling: The analysis of student-level and school-level influences on educational outcomes*. Colloquium presented to the Center for Research, University of Miami.

**Enders, C.K.** (2002, November). *Hierarchical linear modeling: Analyzing repeated measures data using growth curve analyses*. Colloquium presented to the Center for Research, University of Miami.

#### **Conference Presentations**

- Alacam, E., Du, H., & **Enders, C. K.** (2020, July). *Novel Bayesian model-based imputation method for missing items in questionnaires*. Talk to be presented at the 85th annual Meeting of the Psychometric Society (virtual).
- Du, H., & Enders, C.K. (2019, July). A latent variable approach for handing non-ignorable missingness. Paper presented at the 2019 Meeting of the International Society for Data Science and Analytics, Nanjing, China.
- **Enders, C.K.** (2019, April). *Multiple imputation for complex data structures*. Keynote address presented to the Joint Special Interest Group Business Meeting at the annual meeting of the American Educational Research Association, Toronto, CA.
- **Enders, C.K.**, Du, H., & Keller, B. (2019, April). *Model-based multiple imputation for multilevel analyses*. Paper presented at the annual meeting of the American Educational Research Association, Toronto, CA.
- Vera, J.D., & Enders, C.K. (2019, April). *Is item-level imputation always better? An investigation of wave-missing data in growth* models. Paper presented at the annual meeting of the American Educational Research Association, Toronto, CA.
- **Enders, C.K.** (2019, March). *Multiple imputation for moderated regression analyses*. Paper presented at the American Psychological Association Division 5 Mini-Conference: Blending Psychology and Methods: A Conference in Honor of Professor Leona Aiken, Tempe, AZ.
- Keller, B.T., Du, H., & **Enders, C.K.** (2017, October). *A fully conditional specification approach to multilevel multiple imputation with latent cluster means*. Poster presented at the annual meeting of the Society for Multivariate Experimental Psychology, Albuquerque, NM.
- **Enders, C.**, Du, H., & Keller, B. (2017, October). *A fully Bayesian imputation procedure for random coefficient models (and other pesky product terms)*. Paper presented at the annual meeting of the Society for Multivariate Experimental Psychology, Minneapolis, MN.
- **Enders, C.K.** (2015, October). Assessing the fit of structural equation models with multiply imputed data. Paper presented at the annual meeting of the Society for Multivariate Experimental Psychology, Los Angeles, CA.

- Keller, B.T., & **Enders, C.K.** (2014, May). A latent variable chained equations approach for multilevel multiple imputation. Paper presented at the Modern Modeling Methods Conference, Storrs, CN.
- **Enders, C.K.** (2013, April). *Multiple imputation for multilevel models*. Invited paper presented at the annual meeting of the American Educational Research Association, San Francisco, CA.
- Cham, H., Baraldi, A. N., & Enders, C. K. (2012, October). Applying maximum likelihood estimation and multiple imputation to moderated regression models with incomplete predictor variables. Poster presented at 2012 Society of Multivariate Experimental Psychology Student Pre-Conference, Vancouver, British Columbia, Canada.
- **Enders, C.K.** (2012, October). A chained equations multiple imputation approach for multilevel data with incomplete categorical and continuous variables. Paper presented at the annual meeting of the Society for Multivariate Experimental Psychology.
- Baraldi, A. N., Cham, H. C., & **Enders, C. K.** (2012, May). *Estimating moderated regression models with incomplete predictor variables*. Paper presented at the Modern Modeling Methods Conference, Storrs, CT.
- **Enders, C.K.** (2011, November). *An introduction to non-ignorable missing data analyses in Mplus*. Keynote presentation at the third Dutch Mplus User's Group meeting, Utrecht, Netherlands.
- Mistler, S.A., & **Enders, C.K.** (2011, August). *Applying multiple imputation to multilevel data sets: A practical guide*. Paper presented at the annual meeting of the American Psychological Association, Washington, D.C.
- Henry, G. K., Heilbronner, R. L., Mittenberg, W., **Enders, C.**, Stevens, A. & Dux, M. (2009, November). *Noncredible performance in individuals with external incentives: Empirical derivation of the Psychosocial Distress Scale*. Paper presented at the annual meeting of the National Academy of Neuropsychology, New Orleans, LA.
- Henry, G. K., Heilbronner, R. L., Mittenberg, W., **Enders, C.**, & Myers, A. (2009, November). *The MMPI-2 and cognitive response validity: Development of the Cognitive Complaints Scale*. Paper presented at the annual meeting of the National Academy of Neuropsychology, New Orleans, LA.
- **Enders, C.K.** (2008, April). On the use of multiple imputation with multiple group latent variable models. Paper presented at the annual meeting of the American Educational Research Association, New York, NY.

- **Enders, C.K.**, & Thoemmes, F. (2007, April). A structural equation model for testing whether data are missing completely at random. Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL.
- **Enders, C.K.**, & Tofighi, D. (2007, April). *Centering predictor variables in cross-sectional multilevel models: A new look at an old issue*. Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL.
- **Enders, C.K.**, & Tofighi, D. (2006, May). *Determining the number of classes in a growth mixture model analysis*. Paper presented at the annual conference of the Center for Integrated Latent Variable Research, College Park, MD.
- **Enders, C.K.**, & Tofighi, D. (2006, April). *Determining the number of classes in a growth mixture model analysis*. Paper presented at the annual meeting of the American Educational Research Association, San Francisco, CA.
- **Enders, C.K.,** & Tofighi, D. (2005, April). *The impact of misspecifying class-specific residual variances in growth mixture models.* Paper presented at the annual meeting of the American Educational Research Association, Montreal, Canada.
- Montague, M., Enders, C., & Castro, M. (2005, April). *A longitudinal student of students at risk for learning, behavioral, and emotional disorders*. Paper presented at the annual meeting of the American Educational Research Association, Montreal, Canada.
- Victorson, D., **Enders, C.**, Burnett, K., Farmer, L., Barocas, J., & Lauzon, J. (2004, November). *Assessing peritraumatic responses following traumatic physical injury: Development of the injury evaluation index (IEI)*. Poster presented at the annual meeting of the International Society for Traumatic Stress Studies, New Orleans, LA.
- **Enders, C.K.**, Peugh, J.L. (2004, April). *Missing data in educational research: A review of reporting practices and suggestions for improvement*. Paper presented at the annual meeting of the American Educational Research Association, San Diego, CA.
- **Enders, C.K.**, Peugh, J.L. (2004, April). *Using an EM covariance matrix to estimate structural equation models with missing data: Choosing an adjusted sample size to improve the accuracy of inferences*. Paper presented at the annual meeting of the American Educational Research Association, San Diego, CA.
- **Enders, C.K.**, & Finney, S.J. (2003, April). *Examining the sensitivity of fit indices to model misspecification and complexity when modeling Likert data: An examination of recommended cutoffs*. Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL.

- **Enders, C.K.**, & Laurenceau, J.P. (2003, April). *The impact of early attrition on latent growth model estimation*. Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL.
- Deaktor, R.A., Lee, O., & Enders, C.K. (2003, April). The impact of an instructional intervention on science and literacy achievement among linguistically diverse elementary students. Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL.
- Doninger, G., **Enders C.**, & Burnett, K. (2003, August). *The relationship between feminist identity and eating disorders among athletes*. Poster presented at the annual meeting of the American Psychological Association, Toronto, Canada.
- Hart, J.E., Lee, O., & Enders, C.K. (2003, April). Promoting science and literacy among linguistically diverse students: Impact of instructional intervention on teacher knowledge, beliefs, and practices. Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL.
- Victorson, D., Salinas-Farmer, L., St. John, D., Burnett, K., **Enders, C.**, Ouellette, E.A. (2003, August). *Coping processes and PTSD symptomatology following traumatic physical injury*. Poster presented at the annual meeting of the American Psychological Association, Toronto, Canada.
- **Enders, C.K.** (2002, April). Opportunities for applied educational research using structural equation modeling. Invited presentation to Division D Graduate Student Seminar, American Educational Research Association, New Orleans, LA.
- **Enders, C.K.** (2002, April). A comparison of rescaled statistics and bootstrap methods for use with structural equation models with nonnormal missing data. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.
- **Enders, C.K.** (2002, April). *Using a maximum likelihood missing data algorithm to estimate coefficient alpha for scales with item-level missing data.* Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.
- Enders, C., McMahon, R., & Vaughan, E. (2002, August). *Predictors of change in employment problem severity*. Paper presented at the Annual Meeting of the American Psychological Association, Chicago.
- Rangel, A., **Enders, C.K.**, & Delgado, R. (2002, April). *The development of the Stereotype Threat Scale: Measuring and testing the theoretical construct of stereotype threat*. Poster session presented at the annual meeting of the American Educational Research Association, New Orleans, LA.

- **Enders, C.K.** (2001, April). Applying the Bollen-Stine bootstrap for goodness-of-fit measures to structural equation models with missing data. Paper presented at the annual meeting of the American Educational Research Association, Seattle, WA.
- **Enders, C.K.** (2000, April). The relative performance of missing data algorithms in structural equation models with nonnormal data. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.
- **Enders, C.K.** (2000, April). The performance of maximum likelihood missing data algorithms for multiple regression. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.
- **Enders, C.K.**, & Bandalos, D.L. (1999, April). *The relative efficacy of full information maximum likelihood estimation for missing data in structural equation models*. Paper presented at the annual meeting of the American Educational Research Association, Montreal, Canada.
- **Enders, C.K.** (1999, April). *Teaching statistical power: Providing a conceptual overview using an analogy.* Paper presented at the annual meeting of the American Educational Research Association, Montreal, Canada.
- Giraud, G. & **Enders**, C.K. (1998, April). *The effects of cooperative testing in an introductory statistics course*. Paper presented at the annual meeting of the National Council on Measurement in Education, San Diego, CA.
- Wise, S.L., Freeman, S.A., Finney, S.J., **Enders, C.K.**, & Severance, D.D. (1997, April). *The accuracy of examinee judgments of relative item difficulty: Implications for computerized adaptive testing*. Paper presented at the annual meeting of the National Council on Measurement in Education, Chicago, IL.
- Bandalos, D.L. & **Enders, C.K.** (1996, April). The effects of non-normality of the underlying and observed distributions on dimensionality inferred from confirmatory factor analyses. Paper presented at the annual meeting of the National Council on Measurement in Education, New York, NY.
- Bandalos, D.L. & **Enders, C.K.** (1995, April). *The effects of number of response categories and non-normality on reliability*. Paper presented at the annual meeting of the National Council on Measurement in Education, San Francisco, CA.

## **Work on Funded Projects**

Investigators: Craig Enders (Principal Investigator), Han Du, Brian Keller (Co-PIs) Title: Model-based multiple imputation for multilevel data: Methodological extensions

and software enhancements

Dates: 2019-2022 Amount: \$868,046.00 Annual Effort: 19.67%

Investigators: Craig Enders (Principal Investigator) and Roy Levy

Title: Multiple imputation procedures for multilevel data

Funding Source: Institute of Educational Sciences

Dates: 2016-2018 Amount: \$872,032 Recognition: 95%

Investigators: Linda Luecken, Keith Crnic, Nancy Gonzales, Kathy Lemery, Dave

MacKinnon, and Craig Enders (Co-investigator)

Title: Emerging Regulatory Capacity in Low-income Mexican American Children

Funding Source: NICDH

Dates: 2014-2019 Amount: \$2,785,548 Recognition: 5%

Investigators: Kathy Johnson, Adam Cohen, Morris Okun, and Craig Enders (Co-

investigator)

Title: Motivational antecedents to beliefs about God, moral concerns, and values

Funding Source: John Templeton

Dates: 2014-2017 Amount: \$376,174 Recognition: 5%

Investigators: Art Glenberg, Maria Restrepo, and Craig Enders (Co-investigator)

Title: EMBRACEing English Language Learners with Technology

Funding Source: NSF Dates: 2014-2017

Amount: \$1,599,999 (requested)

Recognition: 0%

Investigators: Keith Crnic, Linda Luecken, Nancy Gonzalez, and Craig Enders (Co-

investigator)

Title: Coregulatory Processes and Postpartum Depression in Mexican Americans

Funding Source: NIH Dates: 2010-2013 Amount: \$2,019,416 Recognition: 10%

Investigators: David MacKinnon, Laurie Chassin, Craig Enders (Co-investigator), Irwin

Sandler, Jenn-Yun Tein, and Steve West

Title: Estimating Mediation Effects in Prevention Studies

Funding Source: NIH-NIDA

Dates: 2009-2014 Amount: \$1,406,854 Recognition: 8%

Investigators: Adam Cohen and Craig Enders (Co-investigator)

Title: Ethnic and Religious Influences On Forgiveness For Mass Atrocities

Funding Source: NSF Dates: 2010-2013 Amount: \$40,000 Recognition: 10%

Investigators: Paul Karoly, Morris Okin, and Craig Enders (Co-investigator)

Title: Chronic pain and the Enterprise of Living: Self-Regulatory and Goal Mechanisms

Funding Source: NIH Dates: 2008-2010 Amount: \$417,913 Recognition: 10%

Investigators: Heather Bimonte-Nelson and Craig Enders (Co-investigator)

Title: Variations in Hormone Therapy: Effects on Cognition and Markers of Brain Aging

Agency: National Institute on Aging

Dates: September 2007-2010

Amount: \$1.8 million Recognition: 0%

Investigator: Craig Enders (Principal Investigator)

Title: The Performance of Maximum Likelihood Estimation for Multiple-Item Scales

with Missing Data

Funding Source: University of Miami, James W. McLamore Summer Awards

Dates: 2000 Amount: \$9700 Recognition: 100% Investigators: Susan Sheridan, Todd Glover, and Craig Enders (Consultant\*) Title: Evaluation of the Efficacy of CBC for Addressing Disruptive Behaviors of

Children

At-Risk for Academic Failure

Agency: Institute of Education Sciences

Dates: June 2005-2007 Amount: \$1.4 million

Investigator: Susan Sheridan and Craig Enders (Consultant\*) Title: Parent Engagement and Child Learning Birth to Five

Agency: NIH/NICHD Dates: January 2005-2008

Amount: \$5 million

Investigator: Jordan Green and Craig Enders (Consultant\*)

Title: Early Speech Motor Development

Agency: NIH/NIDCD Dates: September 2004-2009

Amount: \$1.8 million

\* The college norm at the University of Nebraska was to list methodologists as consultants rather than as co-investigators. The consultant role on these projects is equivalent to co-investigator in every respect (e.g., duties included conceptualizing the design and analyses, conducting power analyses, drafting sections of the grant, overseeing ongoing methodological issues, contributing to manuscripts, etc.).

### **National Service Activities**

- · Associate Editor, Journal of School Psychology, 2007-2011
- · Editorial Board, Educational and Psychological Measurement, 2001-present
- · Editorial Board, Multivariate Behavioral Research, 2019-present
- · Editorial Board, Psychological Methods, 2003-2004, 2007-present
- · Editorial Board, Measurement in Physical Education and Exercise Science, 2004-2011
- · Grant panel reviewer for Institute of Educational Sciences, 2016-present
- · Ad Hoc Reviewer: Applied Measurement in Education, American Educational Research Journal, Behavior Research Methods, British Journal of Mathematical and Statistical Psychology, Child Development Perspectives, Drug and Alcohol Dependence, Educational Psychology Review, International Journal of Behavioral Development, Journal of Abnormal Psychology, Journal of Adolescence, Journal of Consulting and Clinical Psychology, Journal of Educational and Behavioral Statistics, Journal of Educational Measurement, Journal of Family Issues, Journal of Mixed Methods Research, Journal of Modern Statistical Methods, Journal of Research on Adolescence, Multivariate Behavioral Research, Prevention Science, Psychology of Addictive Behaviors, Psychometrika, School Psychology Review, Sociological Methods and

- Research, Structural Equation Modeling: An Interdisciplinary Journal, Behavioral Research Methods, BMC Medical Research Methodology
- · Secretary-Treasurer, Structural Equation Modeling Special Interest Group, American Educational Research Association, 1998-2003
- Co-chair, Structural Equation Modeling Special Interest Group, American Educational Research Association, 2006-2008

# University and Departmental Service

- · Teaching Points Committee (2020)
- · Quantitative Area Chair, Psychology Department, UCLA, 2019-current
- · College of Life Sciences Excellences Awards Committee, UCLA, 2018-current
- · Executive Committee, Psychology Department, UCLA, 2018-current
- · Faculty Awards Committee, Psychology Department, UCLA, 2015-current
- · Merit Review Committee (alternate), Psychology Department, UCLA, 2017-current
- · Co-organized quantitative recruitment, Psychology Department, UCLA, 2015-current
- · Lecturer search committee, Psychology Department, UCLA, 2016
- · Quantitative search committee, Psychology Department, UCLA, 2016-2017
- · Ad hoc promotion committee, Psychology Department, UCLA, 2016
- · Area head, Quantitative Psychology Program, Arizona State University, Spring 2011
- Psychology Department Technology Committee, Arizona State University, 2008present
- · Psychology Department Faculty Evaluation Committee (FEC), Arizona State University, 2006-2008
- · Psychology Department Planning and Advisory Committee (PAC), Arizona State University, 2006-2007
- Faculty Search Committee, Educational Psychology, University of Nebraska, 2004-2005.
- · Faculty supervisor, Nebraska Evaluation and Research (NEAR) Center, University of Nebraska, 2003-2005.
- · Faculty Search Committee, School of Education, University of Miami, 2002, 2003.
- · School Council Committee, School of Education, University of Miami, 2002-2003
- · Technology Committee, School of Education, University of Miami, 2000-2003

# **Professional Organizations**

- · American Educational Research Association
- · American Psychological Association, Division 5
- · Association for Psychological Science
- · Society for Multivariate Experimental Psychology

#### **Professional Honors**

- Listed as 10<sup>th</sup> highest ranking among researchers in the Social Sciences Methods category in "A Standardized Citation Metrics Author Database Annotated for Scientific Field" (Ioannidis, Baas, Klavans, & Boyack, 2019)
- · Elected as Fellow of the American Psychological Association (Division 5), 2019
- · Awarded the James McKeen Cattell Fund Fellowship, 2011
- · Elected to the Society for Multivariate Experimental Psychology, 2011
- · Nominated for the Excellence in Teaching Award, University of Miami, 2002
- Selected as a finalist for the AERA Mary Catherine Ellwein Outstanding Dissertation Award, 2001

# Teaching

- · Attended day-long CEILS Annual Faculty Workshop on Best Practices in Teaching (September 17, 2015)
- · Attended UCLA Department of Psychology Teaching Improvement Program colloquium presentation by Danny Oppenheimer (May 11, 2017)
- · Attended two-day HHMI Institute for Inclusive Education workshop (May 10-11, 2018)

PSYCH100A Psychological Statistics, UCLA		
PSYCH142H Advanced Statistical Methods in Psychology, UCLA		
PSYCH256A Introduction to Multilevel Modeling, UCLA		
PSYCH258	Missing Data Analysis, UCLA	
PSYCH258	Longitudinal Data Analysis, UCLA	
PSY230	Introductory Statistics, Arizona State University	
PSY330	Intermediate Statistics, Arizona State University	
PSY530	Analysis of Variance, Arizona State University	
PSY537	Longitudinal Growth Modeling, Arizona State University	
PSY591	Missing Data, Arizona State University	
PSY591	Multilevel Modeling, Arizona State University	
PSY591	Quantitative Seminar	
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EDPS459	Introductory Statistics, University of Nebraska	
EDPS870	Introduction to Educational Measurement, University of Nebraska	
EDPS941	Intermediate Statistics, University of Nebraska	
EDPS945	Computer Data Analysis, University of Nebraska	
EDPS971	Structural Equation Modeling, University of Nebraska	
EDPS972	Multivariate Analysis, University of Nebraska	
EDPS987L	Longitudinal Data Analysis, University of Nebraska	
EPS553	Introductory Statistics, University of Miami	

EPS568	Computer Applications for Research, University of Miami
EPS661	Advanced Tests and Measurements, University of Miami
EPS670	Introduction to Research, University of Miami
EPS671	Intermediate Statistics: ANOVA Methods, University of Miami
EPS672	Intermediate Statistics: Regression Methods, University of Miami
EPS673	Advanced Multivariate Statistics, University of Miami

#### **Current Ph.D. Advisees**

Egamaria Alacam, Ph.D., UCLA (co-mentor with Han Du) Anna Hubbard, Ph.D., UCLA Juan Diego Vera, Ph.D., UCLA Xiaohuan Xue, Ph.D., UCLA

### **Former Advisees**

Amanda Baraldi, Ph.D., Arizona State University Amanda Gottschall, M.A., Arizona State University Brian Keller, Ph.D., UCLA Gina Mazza, M.A., Arizona State University Stephen Mistler, Ph.D., Arizona State University James Peugh, Ph.D., University of Nebraska Davood Tofighi, M.A., University of Nebraska Davood Tofighi, Ph.D., Arizona State University

#### **UCLA Student Committees**

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Shuai Li (Education, PhD)
Dale Kim (Quantitative, PhD)
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Leah Lessard (Developmental, PhD)
Wendy Christiansen (Quantitative, PhD)
Emily Escovar (Clinical, PhD).
Hannah Schacter (Clinical, PhD)
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Andrew Moskowitz (Quantitative, PhD)
Erin Arruda (Quantitative, PhD)