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APPOINTMENTS

Professor, Quantitative Methods & Data Analytics Program, Department of Psychology and Human Development, Vanderbilt University (2022-Present)

> Director, Quantitative Methods & Data Analytics Program, Dept. of Psychology and Human Development, Vanderbilt University (2017-Present)

Associate Professor, Quantitative Methods Program, Department of Psychology and Human Development, Vanderbilt University (2016-2022)

Assistant Professor, Quantitative Methods Program, Department of Psychology and Human Development, Vanderbilt University (2010-2016)

EDUCATION

Ph.D. University of North Carolina at Chapel Hill; Chapel Hill, NC; 2005-2010
> Major: Quantitative Psychology; Advisor: Daniel J. Bauer

M.A. University of North Carolina at Chapel Hill; Chapel Hill, NC; 2003-2005
> Major: Child Clinical Psychology; Advisor: Mitchell J. Prinstein

B.A. Brown University; Providence, RI; 1998-2002
> Major: Psychology (highest honors); Advisor: Susan Dickstein
> Major: Education (concentration: Human Development)

PUBLICATIONS – ARTICLES[1]

Sterba, S.K. & Liang,* A. (Accepted). Parceling to lower indicator-to-sample-size ratio? Instead try correcting your SEM chi-square for high-p and modest-N to obtain nominal Type I error without parcel-allocation variability. *Structural Equation Modeling.*

Liang,* A. & **Sterba**, S.K. (2025). Power analysis to detect misfit in SEMs with many items: Resolving unrecognized problems, relating old and new approaches, and "matching" power analysis approach to data analysis approach. *Psychological Methods.* doi: 10.1037/met0000684.

Liang,* A., Preacher, K.K., Williams, N.J., Allison, P.D., Marcus, S.C. & **Sterba**, S.K. (2025). Determining the power of a 1-sided z-test given only the power of the corresponding 2-sided test. *Journal of Behavioral Medicine,* doi: 10.1007/s10865-025-00595-6

Fuchs, L.S., Seethaler, P.M., **Sterba**, S.K. et al., (2024). Transfer between reading comprehension and word-problem solving among children with learning difficulty in both domains. *Journal of Educational Psychology*, 116, 1093–1111.

Shaw,* M., Rights,* J.D., **Sterba**, S.K. & Flake, J.K. (2023). r2mlm: An R package calculating R-squared

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[1] * indicates current graduate student or former graduate advisee

measures for multilevel models. *Behavior Research Methods, 55,* 1942-1964. [Associated software tools available].

Rights*, J.D., & **Sterba**, S.K. (2023) R-squared measures for multilevel models with three or more levels. *Multivariate Behavioral Research, 58,* 340-367. [Associated software tools and online appendix available.]

Sterba, S.K.,‡ & Rights,* ‡ J.D. (2022). R-squared measures for multilevel mixture models with random effects. *Structural Equation Modeling, 29,* 489-506. [Associated software tools and online appendix available.] ‡ Authors contributed equally.

Zelkowitz,* R.L., Cole, D.A. **Sterba**, S.K., Liu,* Q., Lau, A.S., Ngo, V.K., Trung, L.T. & Weiss, B. (2022). Latent profile analyses of disordered eating behaviors and nonsuicidal self-injury in Vietnamese adolescents. *International Journal of Eating Disorders, 55, 1721-1732.*

Fuchs, L.S., Fuchs, D., **Sterba**, S. K., Barnes, M.A., Seethaler, P.M., & Changas, P. (2022). Building word-problem solving and working memory capacity: A randomized controlled trial comparing three intervention approaches. *Journal of Educational Psychology, 114*, 1633–1653.

Rights,* J.D., & **Sterba**, S.K. (2021). Effect size measures for longitudinal growth analyses: Extending a framework of multilevel model R-squareds to accommodate heteroscedasticity, autocorrelation, nonlinearity, and alternative centering strategies. *New Directions for Child and Adolescent Development* (Special Issue on Developmental Methods), *175*, 65-110. [Associated software tools and online appendix available.]

Fuchs, L., Seethaler, P., **Sterba**, S.K., Craddock, C., Fuchs, D., Compton, D., Geary, D., & Changas, P. (2021). Closing the word-problem achievement gap in first grade: Schema-based word-problem intervention with embedded language comprehension instruction. *Journal of Educational Psychology, 113,* 86-103.

Rights,* J.D., & **Sterba**, S.K. (2020). New recommendations on the use of R-squared differences in multilevel model comparisons. *Multivariate Behavioral Research, 55,* 568-599. [Associated software tools and online appendix available.]

Sterba, S.K. (2019). Problems with rationales for parceling that fail to consider parcel-allocation variability. *Multivariate Behavioral Research, 54,* 264-287.

Rights,* J.D., & **Sterba**, S.K. (2019). Quantifying explained variance in multilevel models: An integrative framework for defining R-squared measures. *Psychological Methods,* 24, 309-338. [Associated software tools and online appendix available.]

Preacher, K.J., & **Sterba**, S.K. (2019). Aptitude × Treatment interactions in research on educational interventions. *Exceptional Children* (Special Issue: On the Importance of Moderator Analyses in Intervention Research)*, 85,* 248-254.

Malone, A.S., Fuchs, L.S., **Sterba**, S.K., Fuchs, D., & Foreman-Murray, L. (2019). Does an integrated focus on fractions and decimals improve at-risk students' rational number magnitude performance? *Contemporary Educational Psychology, 59.*

Rights,* J.D., & **Sterba**, S.K. (2018). A framework of R-squared measures for single-level and multilevel regression mixture models. *Psychological Methods, 23,* 424-437. [Associated software tools and online appendix available.]

Rights,* J.D., **Sterba**, S.K., Cho, S.-J., & Preacher, K.J. (2018). Addressing model uncertainty in item response theory person scores through model averaging. *Behaviormetrika*, *45,* 495-503.

Cox,* R., **Sterba**, S.K., Upender, R., Olatunji, B., & Cole, D.A. (2018). Time of day effects on the relationship between daily sleep and anxiety: An ecological momentary assessment approach. *Behaviour Research and Therapy, 111,* 44-51.

Bettis,* A.H., Forehand, R., **Sterba**, S.K., Preacher, K.J., & Compas, B.E. (2018). Anxiety and depression in children of depressed parents: Dynamics of change in a preventive intervention. *Journal of Clinical Child and Adolescent Psychology, 47,* 581-594.

Lee,* W.-y., Cho, S.-J., & **Sterba**, S.K. (2018). Ignoring a multilevel structure in mixture item response models: Impact on parameter recovery and model selection. *Applied Psychological Measurement*, 42, 136-154.

Sterba, S.K. (2017, a). Pattern mixture models for quantifying missing-data uncertainty in longitudinal invariance testing. *Structural Equation Modeling, 24,* 283-300. [Online appendix and code available].

Sterba, S.K., & Rights,* J.D. (2017). Effects of parceling on model selection: Parcel-allocation variability in model ranking. *Psychological Methods, 22,* 47-68. [Associated software tools and online appendix available.]

Sterba, S.K. (2017, b). Partially nested designs in psychotherapy trials: A review of modeling developments. *Psychotherapy Research, 27,* 425-436. [Online appendix and code available].

Gottfredson, N.C., **Sterba**, S.K. & Jackson, K.A. (2017). Explicating the conditions under which multilevel multiple imputation mitigates bias resulting from random coefficient-dependent missing longitudinal data. *Prevention Science, 18,* 12-19.

Rights,* J.D. & **Sterba**, S.K. (2016). The relationship between multilevel models and nonparametric multilevel mixture models: Discrete approximation of intraclass correlation, random coefficient distributions, and residual heteroscedasticity. *British Journal of Mathematical and Statistical Psychology, 69,* 316-343. [Associated software tools available.]

Sterba, S.K., & Rights,* J.D. (2016). Accounting for parcel-allocation variability in practice: Combining sources of uncertainty and choosing the number of allocations. *Multivariate Behavioral Research, 51,* 296-313. [Associated software tools available].

Sterba, S.K. (2016, a). A latent transition analysis model for latent-state-dependent nonignorable missingness. *Psychometrika, 81,* 506-534. [Online appendix and code available].

Fuchs, L.S., **Sterba**, S.K., Fuchs, D., & Malone, A. (2016). Does evidence-based fractions intervention address the needs of very low performing students? *Journal of Research on Educational Effectiveness*, *9,* 662-677.

Sterba, S.K. (2016, b). Cautions on the use of multiple imputation when selecting between latent categorical versus continuous models for psychological constructs. *Journal of Clinical Child and Adolescent Psychology, 45,* 167-175.

Sterba, S.K. (2016, c). Interpreting and testing interactions in conditional mixture models. *Applied Developmental Science, 20*, 29-43. [Online appendix and code available].

Compas, B., Forehand, R., Thigpen, J., Hardcastle, E., Garai, E., McKee, L., Keller, G., Dunbar,* J., Watson,* K., Rakow, A., Bettis,* A., Reising, M., Cole, D., & **Sterba**, S. (2015). Efficacy and moderators of a family group cognitive behavioral preventive intervention for children of depressed parents. *Journal of Consulting and Clinical Psychology*, *83*, 541-553.

Sterba, S.K., & Gottfredson,* N.C. (2015). Diagnosing global case influence on MAR versus MNAR model comparisons. *Structural Equation Modeling*, *22*, 294-307. [Online appendix and code available].

Lachowicz,* M.J., **Sterba**, S.K., & Preacher, K.J. (2015). Investigating multilevel mediation with fully or partially nested data. *Group Processes & Intergroup Relations*, *18*, 274-289. [Online appendix and code available].

Sterba, S.K. (2014, a). Handling missing covariates in conditional mixture models under missing at random assumptions. *Multivariate Behavioral Research*, *49*, 614-632. [Online appendix and code available].

Sterba, S.K., Preacher, K.J., Forehand, R., Hardcastle, E.J., Cole, D.A., & Compas, B.E. (2014). Structural equation modeling approaches for analyzing partially nested data. *Multivariate Behavioral Research*, *49*, 93-118. [Online appendix and code available.]

Sterba, S.K. (2014, b). Fitting nonlinear latent growth curve models with individually-varying time points. *Structural Equation Modeling*, *21*, 630-647. [Online appendix and code available.]

Cole, D.A., Martin, N.C., **Sterba**, S.K., Sinclair,* K., Roeder,* K., Zelkowitz,* R., & Bilsky, S. (2014). Peer victimization and harsh parenting as developmental correlates of cognitive reactivity, a diathesis for depression. *Journal of Abnormal Psychology*, *123*, 336-349.

Sterba, S.K., & Bauer, D.J. (2014). Predictions of individual change recovered with latent class or random coefficient growth models. *Structural Equation Modeling*, *21*, 342-360. [Online appendix available.]

Fuchs, L.S., Schumacher, R.F., **Sterba**, S.K., Long,* J., Namkung,* J., Malone,* A., Hamlett, C.L., Jordan, N.C., Gersten, R., Siegler, R.S., & Changas, P. (2014). Does working memory moderate the effects of fraction intervention: An aptitude-treatment interaction. *Journal of Educational Psychology*, *106*, 499-514.

Sterba, S.K. (2013). Understanding linkages among mixture models. *Multivariate Behavioral Research*, *48*, 775-815. [Online appendix and code available.]

Sterba, S.K. & Pek, J. (2012). Individual influence on model selection. *Psychological Methods*, *17*, 582-599. [Online appendix and code available.]

Sterba, S.K., Baldasaro,* R.E., & Bauer, D.J. (2012). Factors affecting the adequacy and preferability of semiparametric groups-based approximations of continuous growth trajectories. *Multivariate Behavioral Research*, *40*, 590-634. [Online appendix available.]

Bauer, D.J., & **Sterba**, S.K. (2011). Fitting multilevel models with ordinal outcomes: Performance of alternative specifications and methods of estimation. *Psychological Methods*, *16*, 373-390. [Online appendix available.]

Sterba, S.K. (2011). Implications of parcel-allocation variability for comparing fit of item-solutions and parcel-solutions. *Structural Equation Modeling*, *18*, 554-577.

Sterba, S.K., & Bauer, D.J. (2010). Statistically evaluating person-oriented principles revisited: Reply to Molenaar (2010), von Eye (2010), Ialongo (2010) and Mun, Bates and Vaschillo (2010). *Development & Psychopathology*, *22*, 287-294.

Sterba, S.K., & Bauer, D.J. (2010). Matching method with theory in person-oriented developmental psychopathology research. *Development & Psychopathology*, *22*, 239-254. [Online appendix available.]

Sterba, S.K., & MacCallum, R.C. (2010). Variability in parameter estimates and model fit across repeated allocations of items to parcels. *Multivariate Behavioral Research*, *45*, 322-358. [Associated software tools and online appendix available.]

Sterba, S.K., Copeland, W., Egger, H., Costello, J., Erkanli, A., & Angold, A. (2010). Longitudinal dimensionality of adolescent psychopathology: Testing the differentiation hypothesis. *Journal of Child Psychology and Psychiatry*, *51*, 871-884. [Online appendix available.]

Sterba, S.K. (2009). Alternative model-based and design-based frameworks for inference from samples to populations: From polarization to integration. *Multivariate Behavioral Research*, *44*, 711-740. [Online appendix and code available.]

Pek, J., **Sterba**, S.K., Kok, B., & Bauer, D.J. (2009). Estimating and visualizing nonlinear relations among latent variables: A semi-parametric approach. *Multivariate Behavioral Research*, *44*, 407-436. [Associated software tools available.]

Compas, B.E., Forehand, R.E., Keller, G., Champion, J.E., Rakow, A., Reeslund, K.L., McKee, L., Fear, J.M., Colletti, C., Hardcastle, E., Merchant, M., Roberts, L., Potts, J., Garai, E., Coffelt, N., Roland, E., **Sterba**, S., & Cole, D.A. (2009). Randomized controlled trial of a family cognitive-behavioral preventive intervention for children of depressed parents. *Journal of Consulting and Clinical Psychology*, *77*, 1007-1020.

Nock, M., Prinstein, M.J., & **Sterba**, S.K. (2009). Revealing the form and function of self-injurious thoughts and behaviors: A real-time ecological assessment study. *Journal of Abnormal Psychology*, *118*, 816-827.

Bauer, D.J., **Sterba**, S.K., & Hallfors, D. (2008). Evaluating group-based interventions when control participants are ungrouped. *Multivariate Behavioral Research*, *43*, 210-246. [Online appendix and code available].

Sterba, S.K., Egger, H.L., & Angold, A. (2007). Diagnostic specificity and non-specificity in the dimensions of preschool psychopathology. *Journal of Child Psychology and Psychiatry*, *48*, 1005-1013.

Sterba, S.K., Prinstein, M.J., & Cox, M.J. (2007). Trajectories of internalizing problems across childhood: Heterogeneity, external validity, and gender differences. *Development and Psychopathology*, *19*, 345-366.

Sterba, S.K. (2006). Misconduct in the analysis and reporting of data: Bridging methodological and ethical agendas for change. *Ethics & Behavior*, *16,* 305-318.

PUBLICATIONS – BOOKS

Panter, A.T., & **Sterba**, S.K. (Eds.) (2011). *Handbook of ethics in quantitative methodology.* Multivariate Applications Series. New York: Taylor & Francis/Routledge.

PUBLICATIONS – CHAPTERS & ENTRIES

Sterba, S.K. & Rights,* J.D. (2022). Item parceling in SEM: A researcher degree-of-freedom ripe for opportunistic use. In R. Hoyle (Ed.), *Handbook of Structural Equation Modeling, 2nd Edition,* (pp. 296-316). New York: Guilford.

Sterba, S.K. (2014, c). Modeling strategies in developmental psychopathology research: Prediction of individual change. In M. Lewis & K.D. Rudolph (Eds.), *Handbook of developmental psychopathology research* (pp. 109-124). New York: Springer.

Sterba, S.K., Christ, S.L., Prinstein, M.J., & Nock, M.K. (2011). Beyond treating complex sampling designs as simple random samples: Data analysis and reporting. In A.T. Panter & S.K. Sterba (Eds.), *Handbook of ethics in quantitative methodology* (pp. 267-291). New York: Taylor & Francis/Routledge.

Sterba, S.K., & Foster, M. (2008). Self-selected samples. In P. Lavrakas (Ed.), *Encyclopedia of survey research methods.* Thousand Oaks, CA: Sage.

Sterba, S.K., Mathiowetz, R., & Bauer, D.J. (2008). Adequacy of semiparametric approximations for growth models with nonnormal random effects (Abstract). *Multivariate Behavioral Research*, *43*, 258-259.

HONORS

Quantitative Methods Research Award, 2021. "This annual award recognizes excellence in a research study focusing on quantitative methods for psychology." Awarded by the Canadian Psychological Association (CPA) for Rights* & Sterba (2020). *New recommendations on the use of R-squared differences in multilevel model comparisons.*

Tanaka Award for Annual Best Article, 2021. For the "most outstanding paper published in *Multivariate Behavioral Research*." Awarded for Rights* & Sterba (2020). *New recommendations on the use of R-squared differences in multilevel model comparisons.*"

Fellow of the Association for Psychological Science, 2021.

Fellow of the American Psychological Association, 2020. (Div. 5: Quantitative & Qualitative Methods).

Anne Anastasi Distinguished Early Career Contributions Award (APA), 2018. "Recognizes outstanding contributions to quantitative research methods." Awarded by the American Psychological Association (APA), Division 5 (Quantitative & Qualitative Methods).

Early Career Impact Award (FABBS), 2018. "Recognizes scientists who have made major contributions to the sciences of mind, brain, and behavior." Awarded by the Federation of Associations in Behavioral and Brain Sciences (FABBS).

Chancellor's Faculty Fellowship, 2017-2019. One of 12 given university-wide for "innovation for new basic discoveries, path breaking scholarship and creative expression" ($80,000).

Early Career Research Award (SMEP), 2015. For "outstanding early-career contributions to multivariate experimental psychology." Awarded by the Society of Multivariate Experimental Psychology (SMEP).

Rising Star Award (APS), 2015. "Recognizes researchers whose innovative work has already advanced the field and signals great potential for their continued contributions." Awarded by the Association for Psychological Science (APS).

Elected member, 2015, Society of Multivariate Experimental Psychology (SMEP).

State-of-the-Art Speaker, 2014, Psychometric Society.

Tanaka Award for Annual Best Article, 2011. For the "most outstanding paper published in *Multivariate Behavioral Research*." Awarded for Sterba & MacCallum (2010) "Variability in parameter estimates and model fit across repeated allocations of items to parcels."

Lyle V. Jones Award, 2007. For "outstanding scholarship & citizenship as a student in the L.L. Thurstone Psychometric Laboratory." UNC-CH.

APA Student Ethics Writing Prize Special Section, selected for publication, 2005.

Travel Awards (Society of Multivariate Experimental Psychology Conference, 2008; Penn State Institute on Longitudinal Methods Workshop, 2005; Growth Mixture and Multilevel Modeling Workshop at Johns Hopkins, 2005; Society for Research in Child Development Conference, 2005).

Magna Cum Laude, 2002, highest honors at Brown University Commencement.

Edmund Delabarre Memorial Award, 2002, For "outstanding thesis research and scholarship in psychology." Brown University.

Phi Beta Kappa, inducted 2002.

Karen T. Romer Research Fellowship, 2001, Brown University.

Solsberry Endowed Research Fellowship, 2000, Brown University.

PRESENTATIONS — TALKS & SYMPOSIA

Rodgers, J., Bauer, D., Pek, J., Preacher, K. & **Sterba**, S.K. (October, 2025, Invited). *Symposium to Honor the Life & Work of Robert C. MacCallum*. Society of Multivariate Experimental Psychology, South Bend, IN.

Sterba, S.K., (February, 2023, Invited). Overview of multilevel model R-squared measures and partial nesting. University of Arkansas, Dept. of Education Reform (Virtual).

Rights,* J.D., & **Sterba**, S.K., & Liu,* Q. (October, 2021). *Partitioning and quantifying variance in regression models*

combining discrete latent classes and continuous random effects. Society of Multivariate Experimental Psychology (Virtual) Conference.

Rights,* J.D., & **Sterba**, S.K. (March, 2021, Invited). *Quantifying explained variance in cross-sectional and longitudinal multilevel models with any number of levels.* Ohio State University, Quantitative Psychology Colloquium Series.

Sterba, S.K., & Rights,* J.D. (September, 2020, Invited). *An integrative framework of R-squared measures for multilevel models.* University of Southern California, Department of Psychology, Quantitative Methods Colloquium Series.

Rights,* J.D., & **Sterba**, S.K. (September, 2020, Invited). *New methods for R-squared computation in multilevel models.* University of Connecticut, Quantitative Methods Talk Series.

Rights,* J.D., & **Sterba**, S.K. (May, 2020, Invited). *Computing R-squared differences in multilevel model comparisons with simultaneous vs. hierarchical model-building approaches.* Association for Psychological Science Annual Convention. (In-person conference cancelled).

Rights,* J.D., & **Sterba**, S.K. (October, 2019). *On the common but problematic specification of conflated random slopes in multilevel models.* Society of Multivariate Experimental Psychology Conference, Baltimore, MD.

Preacher, K.J., & **Sterba**, S.K. (October, 2019). Aptitude × Treatment interactions in research on educational interventions. Society of Multivariate Experimental Psychology Conference, Baltimore, MD.

Sterba, S.K., & Rights,* J.D. (November, 2018, Invited). *Advances in R-squared measures for quantifying explained variance in multilevel models.* University of North Carolina at Chapel Hill, Psychology Department Quantitative Forum.

Sterba, S.K., & Rights,* J.D. (October, 2018). *New recommendations on the use of R-squared differences in multilevel model comparisons.* Society of Multivariate Experimental Psychology Conference, Albuquerque, NM.

Sterba, S.K., & Rights,* J.D. (August, 2018, Invited). *Relating multilevel model and mixture model results using new measures of explained variance.* In D. Bandalos (Chair) Division 5 Awards Symposium. American Psychological Association Convention (Division 5), San Francisco, CA.

Rights,* J.D., & **Sterba, S.K.** (July, 2018). *Quantifying explained variance in multilevel models: An integrative framework for defining R-squared measures.* International Meeting of the Psychometric Society, NY, NY.

Rights,* J.D., & **Sterba**, S.K. (May, 2017*). A framework of R-squared measures for single-level and multilevel regression mixture models*. Modern Modeling Methods Conference, University of Connecticut.

Sterba, S.K. (October, 2016, Invited). *Problems with rationales for parceling without considering parcel allocation variability.* Society of Multivariate Experimental Psychology Conference, Richmond, VA.

Rights,* J.D., & **Sterba**, S.K. (August, 2016). *The relationship between multilevel models and nonparametric multilevel mixture models.* In symposium *Advances in Mixture Modeling*. American Psychological Association Convention (Division 5), Denver, CO.

Sterba, S.K., & Rights,* J.D. (August, 2016, Invited). *Quantifying hidden costs of parceling in latent variable modeling.* American Psychological Association Convention (Division 5), Denver, CO.

Sterba, S.K. (August, 2016). *Advances in mixture modeling.* Chaired Symposium. American Psychological Association Convention (Division 5). Denver, CO. Presenters: Steinley, D.; Grimm, K.; Rights, J.; Harring, J.

Rights,* J.D., & **Sterba**, S.K. (July, 2016). *Approximating level-1 and level-2 heteroscedasticity with nonparametric multilevel mixture models*. International Meeting of the Psychometric Society, Asheville, NC.

Sterba, S.K., & Rights,* J.D. (November, 2015, Invited). *Quantifying hidden costs of parceling in latent variable modeling*. University of Notre Dame, Psychology Department Colloquia.

Sterba, S.K., & Rights,* J.D. (October, 2015). *Effects of parceling on model selection: Parcel-allocation variability in model ranking.* Society of Multivariate Experimental Psychology Conference, Redondo Beach, CA.

Gottfredson, N.C., **Sterba**, S.K., & Jackson, K. (May, 2015). *Relaxing assumptions about missing predictors in longitudinal mixed models.* Society for Prevention Research Conference. Washington, D.C.

Sterba, S.K. (October, 2014, Invited). *Structural equation modeling approaches for analyzing partially nested data.* York University, Quantitative Program Colloquia.

Sterba, S.K. (July, 2014, Invited). *Structural equation modeling approaches for analyzing partially nested data.* Psychometric Society Meeting, Madison, WI.

Sterba, S.K. (November, 2013, Invited). *Fitting nonlinear latent growth models with individually-varying time points.* University of Notre Dame, Quantitative Program Colloquia.

Sterba, S.K. (May, 2013). *Fitting nonlinear latent growth models with individually-varying time points.* Modern Modeling Methods Conference, University of Connecticut.

Sterba, S.K. (August, 2011). *New perspectives on old measurement issues.* Chaired Symposium. American Psychological Association Convention (Division 5), Washington D.C. Presenters: Hofer, S.; Kelley, K.; Edwards, M.; Wirth. R.; Sterba, S.

Sterba, S.K. (August, 2011). *Parcel-allocation variability: Implications for interpreting parcel-solutions and item-parcel fit differences.* In symposium *New perspectives on old measurement issues.* American Psychological Association Convention (Division 5), Washington D.C.

Sterba, S.K. (May, 2011). *Parcel-allocation variability in structural equation modeling: Implications for interpreting parcel solutions and item-parcel fit differences.* Modern Modeling Methods Conference, University of Connecticut.

Sterba, S.K. (February, 2009). *Evaluating models of individual heterogeneity in developmental course.* Arizona State.

Sterba, S.K. (February, 2009). *Evaluating models of individual heterogeneity in developmental course.* Vanderbilt.

Sterba, S.K. (February, 2009). *Evaluating models of individual heterogeneity in developmental course.* Harvard.

Sterba, S.K., Mathiowetz, R., & Bauer, D.J. (September, 2008). *Adequacy of semiparametric approximations for growth models with nonnormal random effects.* Society of Multivariate Experimental Psychology Conference. Montreal, Canada.

Bauer, D.J., Pek, J., **Sterba**, S.K., & Kok, B.E. (September, 2008). *Visualizing nonlinear relationships among latent variables using mixtures.* Society of Multivariate Experimental Psychology Conference. Montreal, Canada.

Sterba, S.K., Prinstein, M.J., & Nock, M. (August, 2008). *Beyond pretending complex nonrandom samples are simple and random.* In symposium *Quantitative methodology viewed through an ethical lens.* American Psychological Association Convention (Division 5). Boston, MA.

Panter, A.T., & **Sterba**, S.K. (August, 2008). *Quantitative methodology viewed through an ethical lens.* Chaired Symposium. American Psychological Association Convention (Division 5). Boston, MA. Presenters: Edwards, M.; Cumming, G.; Fidler, F.; Leviton, L.; Mark, M.; McArdle, J.; Sterba, S.

Sterba, S.K. (March, 2008, Invited). *Modeling the homotypic or heterotypic course of psychopathology.* Developmental Psychology Program Forum. Chapel Hill, NC.

Bauer, D.J., & **Sterba**, S.K. (October, 2007). *When bias and RMSE don't agree.* Society of Multivariate Experimental Psychology Conference. Chapel Hill, NC.

Bauer, D.J., & **Sterba**, S.K. (August, 2007). *Multilevel models for ordinal outcomes in longitudinal or clustered data.* American Psychological Association (Division 5). San Francisco, CA.

Angold, A., Egger, H., & **Sterba**, S.K. (July, 2006). *Can we distinguish between depression and oppositional defiant disorder in preschoolers?* 10th World Congress for Infant Mental Health. Paris, France.

Sterba, S.K., Prinstein, M.J., & Cox, M.J. (June, 2005). Gender differences in children's externalizing and internalizing symptom trajectories ages 2-11. In symposium *Course and predictors of youths' internalizing and externalizing symptom trajectories.* Meeting of the International Society for Research in Child & Adolescent Psychopathology (ISRCAP). New York, NY.

Prinstein, M. J., & **Sterba**, S.K. (June, 2005). *Course and predictors of youths' internalizing and externalizing symptom trajectories.* Chaired Symposium: Meeting of the International Society for Research on Child and Adolescent Psychopathology (ISRCAP). New York. Presenters: M. Gilliom & D. Shaw; P. Kane & J. Garber; S. Jones; & A. Carter; Discussant: A. Angold.

Sterba, S.K. (March, 2005, Invited). *Unpacking heterotypic continuity: Factors differentiating latent trajectories of homotypic versus heterotypic symptoms from 2-11 years.* Johns Hopkins School of Public Health, NIDA Center for Prevention and Early Intervention. Baltimore, MD.

PRESENTATIONS — POSTERS

Rights,* J.D., & **Sterba**, S.K. (October, 2018). *Quantifying explained variance in multilevel models: An integrative framework for defining R-squared measures.* Society of Multivariate Experimental Psychology Conference, Albuquerque, NM.

Rights,* J.D. & **Sterba**, S.K. (July, 2016). *Algorithm for choosing the number of random item-to-parcel-allocations in SEM.* Psychometric Society Meeting, Asheville, NC.

Lee,* W.-y., Cho, S.-J., & **Sterba**, S.K. (April, 2016). *The impact of ignoring a multilevel structure in mixture item response models.* Annual Meeting of the National Council on Measurement in Education. Washington, DC.

Hennessy,* E.A., & **Sterba,** S.K. (November, 2015). *A latent class analysis of adolescent recovery capital.* American Public Health Association Convention. Chicago, IL.

Sterba, S.K., & Angold, A. (February, 2008). *Is successive comorbidity the result of developmental changes in the dimensionality of psychopathology?* Duke-UNC Conference on Developmental Psychopathology. Chapel Hill, NC.

Sterba, S.K., Egger, H.L., & Angold, A. (June, 2007). *Parallel dimensions of psychopathology in preschool and school-aged children.* Meeting of the International Society for Research on Child and Adolescent Psychopathology (ISRCAP). London, England.

Sterba, S.K., Bauer, D.J., & Cox, M.J. (August, 2005). *Comparing growth mixture and correlative methods for identifying symptom covariation.* American Psychological Association Convention (Division 5). Washington, DC.

Sterba, S.K., Prinstein, M.J., Bauer, D.J., & Cox, M.J. (November, 2005). *Heterogeneity in latent trajectories of internalizing problems across early childhood: Gender divergence over time.* Association for the Advancement of Cognitive and Behavioral Therapy Convention. New Orleans, LA.

Sterba, S.K., Prinstein, M.J., Bauer, D.J., & Cox, M.J. (November, 2005). *Unpacking heterotypic continuity: Gender and developmental factors differentiating latent trajectories of homotypic versus heterotypic symptoms from 2-11 years.* Association for the Advancement of Cognitive and Behavioral Therapy Convention. New Orleans, LA.

Judge, A., **Sterba**, S.K., Prinstein, M.J. Simon, V., & Spirito, A. (November, 2005). *Self-mutilation as a longitudinal predictor of suicidal ideation and attempts among clinically-referred adolescents.* Association for the Advancement of Cognitive and Behavioral Therapy Convention. New Orleans, LA.

Sterba, S.K., & Cox, M.J. (April, 2005). *Joint trajectories of internalizing and externalizing problems in early childhood: Testing theories of symptom covariation.* Society for Research in Child Development Convention. Atlanta, GA.

Sterba, S.K., Dickstein, S., McHale, J., & Seifer, R. (April, 2005). *Three dimensions of co-parenting in early infancy differentially related to family variables.* Society for Research in Child Development Convention. Atlanta, GA.

Sterba, S.K. (August, 2002). *Development of the coparenting rating scales: Relations among co-parenting, marital satisfaction, and family functioning.* Brown University UTRA Research Symposium; Providence, RI.

GRANTS

PI: Individual Ruth L. Kirschstein National Research Service Award. NIMH F31 MH080484-01. 5/07-5/10. *Longitudinal Comorbidity: Modeling Symptom, Syndrome, and Impairment Change.* Sponsor: Daniel Bauer. Co-Sponsor: Adrian Angold.

Subcontract: *Research to Practice: An Indicated Prevention Program.* NIH R01 DA13666. 8/05 - 8/06. PI: Denise Hallfors. Pacific Institute for Research and Evaluation. [partially-nested multilevel modeling]

Consultant: *Improving Contraceptive Counseling in the United States.* FPRPA006057-01. 3/13-6/13. PI: James Jaccard. Department of Health and Human Services. [partially-nested multilevel modeling]

Investigator: *Embedding Working Memory Training within Math Problem Solving Intervention.* IES. R305A150200. $3,496,125. 9/15-8/20 PI: Lynn Fuchs. Department of Special Education. 12.5% effort per year.

Investigator: *Investigating Social Competence in Youth with Autism: A Multisite RCT.* NIH/NIMH R01MH114906. $784,741 12/17-11/22. PI: Blythe Corbett. Departments of Psychology & Psychiatry. 25% effort in final year (planned)

Investigator: *Understanding Word-Reading & Calculations Comorbid Learning Disabilities.* NIH/NICHD. R01 HD097772 $3,588,797. 9/19-8/24. PI: Doug Fuchs. Department of Special Education. 12.5% effort per year

Faculty Mentor, Training Grant: *Development of Psychopathology: From Brain and Behavioral Science to Intervention.* NIHM T32 MH018921-21A1 7/20-6/25. PI: David Cole. Dept of Psych & Human Devlpt.

Investigator: *Implementing Fraction Intervention Classwide to Address Mathematics Learning Disabilities in Inclusive Classrooms.* $3,589,062. IES NCSER R324R200003. 9/21-8/26. PI: Lynn Fuchs. Dept. of Special Education. 12.5% effort per year

Co-Sponsor, NIH-F31 FP00003031 Predoctoral NRSA for Clinical Science Ph.D. student Taylor Stevens

Investigator, *Understanding Cognitive-Academic Bidirectionality in Math Learning Disabilities.* $3,976,483. NICHD 1R01HD115592-01A1. 6/01/2025-5/31/2030. PI Marcia Barnes, Dept. of Special Education. 12.5% effort per year

STATISTICAL SOFTWARE TOOLS

R function "chi_absfit_power_approach4". Contributor. https://doi.org/10.1037/met0000684.supp

R function "rmsea_absfit_power_approach4". Contributor. https://doi.org/10.1037/met0000684.supp

R function "r2MLM3". Contributor. https://my.vanderbilt.edu/sonyasterba/software-tools/

R function "reRegMixR2". Contributor. https://my.vanderbilt.edu/sonyasterba/software-tools/

R function "r2MLMlong". Contributor.
       https://my.vanderbilt.edu/sonyasterba/software-tools/

R function "r2MLMcomp". Contributor.
       https://my.vanderbilt.edu/sonyasterba/software-tools/
       https://cran.r-project.org/web/packages/r2mlm/index.html,

R package "r2mlm: R-Squared Measures for Multilevel Models." Contributor.
       https://cran.r-project.org/web/packages/r2mlm/index.html
       https://psyarxiv.com/xc4sv/

R function "regMixR2". Contributor.
       https://my.vanderbilt.edu/sonyasterba/software-tools/

R function "modelavgIRT". Contributor.
       https://my.vanderbilt.edu/sonyasterba/software-tools/

R function. "npmmApproximation" Contributor.
       https://my.vanderbilt.edu/sonyasterba/software-tools/

R function "PAVrank" within "semTools" R package. Contributor.
       https://www.rdocumentation.org/packages/semTools/versions/0.5-1/topics/PAVranking

R function "parcelAllocation" in "semTools" R package (Contributor) implements SAS macro ParcelAlloc (Author)
       https://www.rdocumentation.org/packages/semTools/versions/0.5-4/topics/parcelAllocation
       https://my.vanderbilt.edu/sonyasterba/software-tools/

R function "poolMAlloc" within "semTools" R package. Contributor.
       https://www.rdocumentation.org/packages/semTools/versions/0.4-12/topics/poolMAlloc

R package "plotSEMM." Contributor.
       https://cran.r-project.org/web/packages/plotSEMM/index.html

TEACHING — INSTRUCTOR

Graduate, Applied Latent Class and Mixture Modeling (PSY-GS 8885/3730), Vanderbilt
Graduate, Latent Growth Curve Modeling (PSY-GS 8888/3732), Vanderbilt
Graduate, Quantitative Methods Forum (PSY-GS 8855), Vanderbilt
Undergraduate, Statistical Analysis (Correlation & Regression) (PSY-PC 2120), Vanderbilt

ADVISING

Graduate Advising:

Jason Rights [primary advisee 2014-2019]
Amy Liang [primary advisee 2022-present]

Dissertation Chair:

Jason Rights:

- Awarded the 2022 Anne Anastasi Dissertation Award from APA Division 5
- Awarded Vanderbilt's 2019 Harvey Culver Wilcoxon Dissertation Award for "the most distinguished doctoral dissertation in any area of psychological inquiry"
- Awarded Vanderbilt's 2018 Susan Gray Award for the student "first author on the most distinguished scholarly publication"
- Current position: Associate Professor of Quantitative Psychology,

University of British Columbia (UBC)

Dissertation Committees:

Eunsoo Cho [SPED; Chair=Compton]   Derek Smith [BIOSTAT; Chair=Blume]
Cori Perkins [PSYC; Chair=Cole]   Laura Steacy [SPED; Chair=Compton]
Laurel Lunn [HOD; Chair=Heflinger]   Adam Voight [HOD; Chair=Nation]
Holly Wegman [HOD; Chair=Nation]   Tim Drake [LPO; Chair=Goldring]
Lauren Hampton [SPED; Chair=Kaiser]   Andrew Greer [HOD; Chair=Shinn]
Allison Gilmour [SPED; Chair=Wehby]   Mark Lachowicz [PSYC; Chair=Preacher]
Woo-yeol Lee [PSYC; Chair=Sterba]   Jason Rights [PSYC; Chair=Sterba]
Alexandria Hadd [PSYC; Chair=Rodgers]   Scott Brown [HOD; Chair=Shinn]
Brian Bernstein [PSYC; Chair=Lubinski]   Matthew Naveiras [PSYC; Chair=Cho]
Qimin Liu [PSYC; Chair=Cole]   Haley Yaremych [PSYC; Chair=Preacher]
Madison Hooper [PSYC; Chair=Tomarken]   Wooliya Kim [SPED; Chair=Logan]
Taylor Stevens [PSYC; Chair=Mehari]   Gabriella Noreen [PSYC; Chair=Lubinski]

Masters Thesis Chair:

Jason Rights
Amy Liang

Masters Thesis Committees:

Adrienne Arrindell [PSYC; Chair=Schlundt]   Evan Sommer [PSYC; Chair=Tomarken]
Mark Lachowicz [PSYC; Chair=Preacher]   Jason Rights [PSYC; Chair=Sterba]
Woo-yeol Lee [PSYC; Chair=Cho]   Amy Liang [PSYC; Chair=Sterba]
Annie Belloeil [PSYC; Chair=Preacher]

M.Ed. in Quantitative Methods Defense Committees:

Yue Gao (PSYC; Chair=Hutton)   Jack Reiter (PSYC; Chair=Hutton)
Shiyuan Yang (PSYC; Chair=Hutton)   Yuan Fang (PSYC; Chair=Hutton)
Shuti Wang (PSYC; Chair=Hutton)   Jordan Henderson (PSYC; Chair=Hutton)
Alex Nikolaidis-Konstas (PSYC; Chair=Hutton)

Comprehensive Exam Committees:

Laurel Lunn [HOD; Chair=Heflinger]   Adam Voight [HOD; Chair=Nation]
Eunsoo Cho [SPED; Chair=Compton]   Laura Steacy [SPED; Chair=Compton]
Andrew Greer [HOD; Chair=Shinn]   Holly Wegman [HOD; Chair=Nation]
Derek Smith [BIOSTAT; Chair=Blume]   Lauren Hampton [SPED; Chair=Kaiser]
Scott Brown [HOD; Chair=Shinn]   Mark Lachowicz [PSYC; Chair=Preacher]
Woo-yeol Lee [PSYC; Chair=Cho]   Alexandria Hadd [PSYC; Chair=Rodgers]
Jason Rights [PSYC; Chair=Sterba]   Qimin Liu [PSYC; Chair=Cole]
Madison Hooper [PSYC; Chair=Tomarken]   Matthew Naveiras [PSYC; Chair=Cho]
Haley Yaremych [PSYCH; Chair=Preacher]   Madison Hopper [PSYC; Chair=Tomarken]
Wooliya Kim [SPED; Chair=Logan]   Taylor Stevens [PSYC; Chair=Mehari]
Amy Liang [PSYC; Chair=Sterba]   Annie Belloeil [PSYC; Chair=Preacher]

Undergraduate Honors Thesis Chair:
Lydia Fuller

Undergraduate Immersion Project Mentor:
Lara Russell-Lasalandra   Victoria Zhang
Travis Ho   Jasmine Divinity

Undergraduate Honors Thesis Committees:

Kristie Chang [PSYC; Chair=Schlundt]   Lydia Fuller [PSYC; Chair=Sterba]
Nathan Markiewitz [PSYC; Chair=Steiger]   Tom Qian [PSYC; Chair=Smith]
Keli Hodges [PSYC; Chair=Compas]

OTHER EMPLOYMENT

Research Assistant: 2002-2003 *Durham Child Health and Development Study*. NSF BCS-0126475.
          PI: Martha J. Cox. Center for Developmental Science, UNC-CH.

SERVICE — DEPARTMENTAL

Director, Quantitative Methods Program, Vanderbilt, 2017-Present
Executive Committee, Dept. of Psychology & Human Development, Vanderbilt, 2017-Preseent
Primary faculty mentor for two junior faculty, Vanderbilt, 2021-Present
Faculty Review Committee (FRC), Vanderbilt, 2025
Admissions Committee, Quantitative Methods M.Ed. Program, Vanderbilt, 2015-Present
Website Committee, Vanderbilt, 2011-Present
Faculty-Postdoc Liaison, Vanderbilt, 2013-Present
Panelist, Honors Program, Vanderbilt, 2025
Clinical Psychology Internship Interviewer, Vanderbilt, 2011-2024 (yearly)
Chair of Search Committee, Quantitative Methods Senior Lecturer, Vanderbilt, 2021-2022
Chair of Search Committee, Quantitative Methods Target-of-Opportunity-Hire, Vanderbilt , 2017-18
Search Committee, Quantitative Methods, Tenure-track position, Vanderbilt , 2015-2016
Search Committee, Quantitative Methods, Senior Lecturer position, Vanderbilt, 2014-2015
Search Committee, Quantitative Methods, Dunn (Endowed) Chair, Vanderbilt, 2014-2016
Graduate Interview Weekend Coordinator, Vanderbilt, 2012
Workshops/Lectures/Panels
          Kennedy Center Statistics and Methodology Core Training Seminar, Vanderbilt (2011)
          Clinical Psychology Brownbag Lecture, Vanderbilt (2011)
          Panelist on obtaining psychology jobs, Vanderbilt (2010, 2011)
          Speaker on Quantitative Psychology, Vanderbilt (PSY-1690, 2013)
          Quantitative Methods Colloquium Lectures, Vanderbilt ('13, '14, '15a,b, '16, '17, '18, '19, '21. '23)
          Mixture Modeling Workshop, Vanderbilt (2021)
IRB Board Member, UNC-CH, 2007-2008
Quantitative Research Forum, Student Coordinator, UNC-CH, 2006-2007
Quantitative Program Faculty Search, Student Liaison, UNC-CH, 2007
Quantitative Program Curriculum Review, Student Liaison, UNC-CH, 2006
Graduate/Professional Student Federation, Psychology Representative, UNC-CH, 2004-2006
Women in Science and Engineering (WiSE) Psychology Group Coordinator, Brown University, 2001-02

SERVICE — UNIVERSITY

Member, Provost's Follow-On Computing Committee, Vanderbilt, 2025-present
Reviewer, Innovation Catalyst Fund Grants, Vanderbilt, 2025-Present

Co-Chair, Vice Provost's Computing Catalyst Committee, Vanderbilt, 2024-Present
Advisory Board, AI Training Days, Vanderbilt, 2024-Present
Advisory Board, Initiative on the Future of Learning and Generative AI, Vanderbilt, 2023-Present
Faculty Advisory Board for ACCRE (Computing Cluster), Vanderbilt, 2023-Present
Faculty Advisor for the Data Science Institute (DSI), Vanderbilt, 2022-2025
Executive Committee, Data Science Institute (DSI), Vanderbilt, 2018-Present
Steering Committee, Undergraduate Data Science Minor, Vanderbilt, 2021-Present
Curriculum Committee, Data Science Master's Program, Vanderbilt, 2023-Present
Reviewer, Vice Provost's Generative AI Seed Grants, Vanderbilt, 2024
Chair of Search Committee: Joint Peabody & Data Science Institute (DSI) open-rank faculty
      search in "*Quantitative Methods***,"** 2021-2022
Search Committee member: Joint Peabody & Data Science Institute (DSI) open-rank faculty
      search in "*Applied Data Science in Education***"** 2021-2022
Discovery Vanderbilt Faculty Focus Groups with Huron Consulting, 2022
Chancellor Faculty Fellow Nomination Review Committee, 2021
Vice Provost's Data Science Next Generation Committee, 2020-2021
Undergraduate Data Science Minor Working Group, 2020-2021
Search Committee, Data Science Faculty (DSI/ Political Science joint hire), 2018-2019
Data Science Institute Faculty Fellow, 2018-present
Faculty Panel on the "Academic Interview: What do Search Committees Want?" 2018
Steering Committee, Quantitative Social Science (QSS) Major, 2017-2018
Quantitative Social Science (QSS) Major, Peabody Organizer, 2017, 2018
Provost's Data Science Visions Workgroup, 2017, 2018
Masters in Data Science, **Provost's Taskforce**, 2017, 2018
Faculty Insight Panel on "Navigating the Path to Tenure" 2017

SERVICE — NATIONAL

Associate Editor
Psychological Methods, 2021-2025
Multivariate Behavioral Research 2026-present

Editorial Boards:
Structural Equation Modeling, 2021-present
Multivariate Behavioral Research, 2014-present
Development & Psychopathology 2025-present
Psychological Methods, 2013-2025
Journal of Clinical Child and Adolescent Psychology, 2011-2013

Program Chair, APA Division 5 (Quantitative & Qualitative Methods). 2016

Program Committee, APA Division 5 Quantitative & Qualitative Methods). 2015, 2016, 2017

Membership Committee, APA Division 5 (Quantitative & Qualitative Methods). 2008, 2009

Conference/Grant/Award/Book Reviews:

Selection committee – APA Dissertation Research Awards, 2018, 2019, 2020, 2021
Selection committee – IMPS Travel award, Psychometric Society Conference, 2015, 2017

Selection committee – IMPS Poster award, Psychometric Society Conference, 2014
Selection committee – SMEP Travel award, Society of Multivariate Experimental Psychology Conference, 2009
Submissions reviewer – Society for Research in Child Development (SRCD) Conference, 2012
Submissions reviewer – American Psychological Association (Div. 5) Conference, 2016, 2017, 2018, 2019
Grant reviewer – NSF Methodology, Measurement, and Statistics (MMS), 2015
Grant reviewer – Consortium Cineca, 2010
Book Reviewer – Routledge, Methodology series, 2015
Book Reviewer – Guilford, Methodology in the Social Sciences series, 2019, 2020

Ad Hoc Journal Review:

Journal of Consulting and Clinical Psychology; *Journal of Abnormal Child Psychology; Journal of Child Psychology and Psychiatry*; *Developmental Psychology*; *Child Development Perspectives*; *Development & Psychopathology*; *American Journal of Community Psychology*; *Journal of Abnormal Psychology; Journal of Clinical Child and Adolescent Psychology; Behavior Research Methods; Psychological Methods*; *Multivariate Behavioral Research; Assessment; Structural Equation Modeling; British Journal of Mathematical and Statistical Psychology; Psychometrika; Journal of Educational and Behavioral Statistics; Journal of Quantitative Criminology; Personality and Social Psychology Bulletin; Journal of the Royal Statistical Society; Methodology*