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L.L. Thurstone Psychometric Laboratory
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EDUCATION

12/00-8/02	Post-Doctoral Fellowship in Applied Statistics Odum Institute for Research in Social Science University of North Carolina, Chapel Hill
8/96-12/00	Ph.D., Developmental Psychology University of North Carolina, Chapel Hill
8/91-12/94	B.A., Psychology; Minors: Mathematics and History; Concentration: Computer Science Trinity University, San Antonio

PROFESSIONAL EXPERIENCE

Employment

7/20-present	Director, L.L. Thurstone Psychometric Laboratory and Quantitative Psychology Graduate Program, University of North Carolina at Chapel Hill.
7/13-present	Professor of Quantitative Psychology, L.L. Thurstone Psychometric Laboratory, Department of Psychology and Neuroscience, University of North Carolina at Chapel Hill.
7/17-6/18	Interim Director, L.L. Thurstone Psychometric Laboratory and Quantitative Psychology Graduate Program, University of North Carolina at Chapel Hill.
1/17-6/17	Acting Director, Center for Developmental Science, University of North Carolina at Chapel Hill.
7/08-6/13	Associate Professor of Quantitative Psychology, L.L. Thurstone Psychometric Laboratory, Department of Psychology, University of North Carolina at Chapel Hill.
7/04-6/08	Assistant Professor of Quantitative Psychology, L.L. Thurstone Psychometric Laboratory, Department of Psychology, University of North Carolina at Chapel Hill.
8/02-6/04	Assistant Professor of Quantitative and Developmental Psychology, Department of Psychology, North Carolina State University, Raleigh.
2/95-7/96	Research Coordinator of the Mood Disorders and Psychopharmacology Research Program, Psychiatry Department, Baylor College of Medicine, Houston.

Affiliations

2004-present	Elected Member, Society for Multivariate Experimental Psychology (SMEP)
2003-2020	Member, Mentor Faculty, Center for Developmental Science, Chapel Hill.

| 2004-2005 | Faculty Associate, Statistical and Applied Mathematical Sciences Institute (SAMSI); Leader, Multilevel Latent Variable Models working group. |

HONORS

2018	Jacob Cohen Distinguished Contributions to Teaching and Mentoring Award, American Psychological Association (APA), Division 5 (Quantitative and Qualitative Methods)
2016	Distinguished Teaching Award for Post-Baccalaureate Instruction, University of North Carolina at Chapel Hill
2009	American Psychological Association (APA) Distinguished Scientific Award for Early Career Contributions to Psychology (Area of Individual Differences).
2006	Tanaka Award for most outstanding paper published in *Multivariate Behavioral Research* in 2005. Awarded by the Society for Multivariate Experimental Psychology (SMEP).
2004	SMEP Early Career Award for outstanding early-career contributions to multivariate experimental psychology. Awarded by the Society for Multivariate Experimental Psychology (SMEP).

GRANTS AND FELLOWSHIPS

2021-2026	Co-Investigator: *Sex, gender, and camouflage in autism spectrum disorder: A multimodal, accelerated longitudinal design* NICHD R01 HD103895; $3,984,341 total costs Clare Harrop, PI, University of North Carolina at Chapel Hill
2020-2025	Co-Investigator: *Substance use among biracial adolescents and emerging adults: The double jeopardy hypothesis* NIDA R01 DA051578; $1,773,450 total costs Trenette Goings, PI, University of North Carolina at Chapel Hill.
2020-2025	Co-Investigator: *Neural pathways linking early adversity and preschool psychopathology to adolescent mental health* NIDA R01 DA051127; $3,754,368 total costs Margaret Sheridan, PI, University of North Carolina at Chapel Hill.
2020-2025	Co-Investigator: *Neurobiological susceptibility to peer influence and drug use in adolescence* NIDA R01 DA051127; $3,395,273 total costs Eva Telzer, Kristin Lindquist, Mitchell Prinstein, PIs, University of North Carolina at Chapel Hill.
2020-2025	Co-Investigator: *Adolescent girls' risk for suicide across the menstrual cycle: Examining stress and negative valence systems longitudinally* NIMH R01 MH122446; $3,933,200 total costs Tory Eisenlohr-Moul, Mitchell Prinstein, University of North Carolina at Chapel Hill, and Matthew Nock, Harvard University, PIs.
2019-2023	Subcontract (Co-Investigator): *HEALing communities study: data coordinating center* UM1 DA049394; $25,531,328 total costs Kevin Conway, PI, Research Triangle Institute.

2018-2020	Co-Investigator: *Using growth models to identify how trajectories of infant brain development predict childhood behavior and neural function* NICHD R21 HD096232; $414,185 total costs Margaret Sheridan, PI, University of North Carolina at Chapel Hill
2018-2020	Co-Investigator: *Social processes in RDoC: Function and dysfunction of interpersonal emotion regulation in depression and anxiety.* NIMH R03 MH116455; $155,500 total costs Melanie Fischer, PI, University of North Carolina
2015-2020	Co-Investigator: *Multilevel biomarkers for suicidal behavior: From interpersonal stress to gene expression in a longitudinal study of adolescent girls* NIMH: R01 MH107479; $3,911,935 total costs Mitchell Prinstein, PI, University of North Carolina at Chapel Hill
2016-2019	Co-PI (2016-2019): *Human development: Interdisciplinary research training* NICHD T32 HD007376; $2,934,238 total costs Andrea Hussong, PI, University of North Carolina at Chapel Hill
2013-2019	Principal Investigator: *Harmonizing substance use and disorder measures to facilitate multistudy analyses.* NIDA: R01 DA034636; $2,553,540 total costs. Daniel Bauer, PI, University of North Carolina at Chapel Hill
2014-2018	Principal Investigator: *Harmonizing substance use and disorder measures to facilitate multistudy analyses (Diversity Research Supplement).* NIDA: R01 DA034636-02S1; $184,425.66 total costs. Daniel Bauer, PI, University of North Carolina at Chapel Hill
2014-2018	Principal Investigator: *Harmonizing substance use and disorder measures to facilitate multistudy analyses (Administrative Supplement).* NIDA: R01 DA034636-01A1S1; $148,990.40 total costs. Daniel Bauer, PI, University of North Carolina at Chapel Hill
2016-2018	Co-Investigator: *Teen dating violence: identifying heterogeneity using person-centered approaches* NICHD: R21 HD087781; $374,727 total costs Heathe Luz McNaughton Reyes, PI, University of North Carolina at Chapel Hill
2015-2017	Sponsor: *Mixture modeling of patterns of substance use: Taking into account measurement bias* NIDA: F31 DA040334; $75,148 total costs Veronica Cole, Pre-Doctoral Fellow, University of North Carolina at Chapel Hill.
2012-2013	Co-Investigator: *Substance use and dating aggression: whether, when, and for whom are they related.* NIDA: R03 DA033420; $114,000 total costs. Heathe Luz Reyes, PI, University of North Carolina at Chapel Hill
2010-2014	Co-Investigator/Statistician: *Understanding peer influence of adolescent health risk behaviors* NICHD: R01 HD055342; $3,303,406 total costs Mitchell Prinstein, PI, University of North Carolina at Chapel Hill
2009-2014	Co-Investigator/Statistician: *Stress responses as prospective predictors of girls' suicidality and self-injury* NIMH: R01 MH085505; $2,535,751 total costs Mitchell Prinstein, PI, University of North Carolina at Chapel Hill

2011-2013	Co-Sponsor: *Promoting well-being in mid-life adults through positive valuation.* NIA: F31 AG039132; $63,243 total costs Lahnna Catalino, Pre-Doctoral Fellow; Barbara Fredrickson, Sponsor, University of North Carolina
2009-2013	Co-Investigator: *Internalizing pathway to substance use disorders* NIDA: R01 DA015398; $1,323,111 total costs [Administrative Supplement: $125,703 total costs] Andrea Hussong, PI, University of North Carolina at Chapel Hill.
2007-2013	Co-Investigator: *Integrated research activities for developmental science (IRADS)- child development research collaborative* NSF: BCS-0720660; $1,401,664 total costs Martha Cox, PI, University of North Carolina at Chapel Hill
2009-2012	Co-Investigator: *Antisocial behavior, genetics, and the life course* NICHD: R21 HD050261; $404,375 total costs Michael Shanahan, PI, University of North Carolina at Chapel Hill.
2009-2011	Sponsor: *Modeling non-random missingness in experience sampling research on substance use* NIDA: F31 DA026686; $62,942 total costs Nisha C. Gottfredson, Pre-Doctoral Fellow, University of North Carolina at Chapel Hill.
2009-2011	Sponsor: *Evaluating maltreatment effects on adolescent well-being using advanced modeling* NICHD: F32 HD059318; $101,812 total costs (completed early) Sharon Christ, Post-Doctoral Fellow, University of North Carolina at Chapel Hill.
2007-2010	Sponsor: *Longitudinal comorbidity: modeling symptom, syndrome, and impairment change* NIMH: F31 MH080494; $86,814 total costs Sonya Sterba, Pre-Doctoral Fellow, University of North Carolina at Chapel Hill.
2007-2009	Principal Investigator: *Diagnosing and estimating nonlinear effects in latent variable models* NSF: SES-0716555; $140,000 total costs Daniel J. Bauer, PI, University of North Carolina
2007-2009	Co-Investigator: *Integrated Research Activities for Developmental Science (IRADS)- Child Development Research Collaborative* NSF: BCS-0720660; $2,500,000 total costs Martha Cox & Peter Ornstein, PIs, University of North Carolina at Chapel Hill
2002-2008	Co-Investigator: *Stress and children of alcoholic parents* NIDA: R01 DA015398; $1,271,382 total costs Andrea Hussong, PI, University of North Carolina at Chapel Hill
2007	Principal Investigator: *Multilevel latent variable models* UNC IBM Fund Award (Junior Faculty Development Award); $7500 total costs Daniel J. Bauer, PI, University of North Carolina
2002-2007	Subcontract (Co-Investigator): *HIV in young adulthood: Pathways and prevention* NIDA: R01 DA14496; $1,265,620 total costs Denise Hallfors, PI, Pacific Institute for Research and Evaluation

2001-2007   Subcontract (Co-Investigator): *Research to practice: An indicated prevention program*
NIDA: R01 DA13666; $4,012,309 total costs
Denise Hallfors, PI, Pacific Institute for Research and Evaluation

2000-2003   Individual NRSA Post-Doctoral Fellowship: *Extending growth mixture models to the study of drug use*
NIDA: F32 DA06062; $100,848 total costs (completed early)
Kenneth Bollen, Sponsor, University of North Carolina at Chapel Hill

1999-2000   Institutional NRSA Pre-Doctoral Training Fellowship
NICHD: T32 HD07376
Carolina Consortium on Human Development, Sponsor, University of North Carolina at Chapel Hill.

BIBLIOGRAPHY

[*]Indicates a co-author who was a graduate student or post-doctoral fellow at the time the research was initiated.

Refereed Articles

1. [*]Ebrahimi, O.V., **Bauer, D. J.**, Hoffart, A., & Johnson, S.U. (in press). A critical period for pandemic adaptation: The evolution of depressive symptomatology in a representative sample of adults across a 17-month period during COVID-19. *Journal of Psychopathology and Clinical Science*.

2. McNeish, D. & **Bauer, D.J.** (in press). Reducing Incidence of Non-Positive Definite Covariance Matrices in Mixed Effect Models. *Multivariate Behavioral Research.* DOI: 10.1080/00273171.2020.1830019

3. McNeish, D., **Bauer, D.J.**, Dumas, D., Clements, D.H., Cohen, J.R., Lin, W., Sarama, J. & Sheridan, M.A. (in press). Modeling individual differences in the timing of change onset and offset. *Psychological Methods*. DOI: 10.1037/met0000407

4. McNeish, D., Harring, J. & **Bauer, D.J.** (in press). Nonconvergence, covariance constraints, and class enumeration in growth mixture models. *Psychological Methods*. DOI: 10.1037/met0000456

5. [*]Chen, S.M., **Bauer, D.J.**, Belzak W.M. & Brandt H. (2022). Advantages of spike and slab priors for detecting differential item functioning relative to other Bayesian regularizing priors and frequentist lasso. *Structural Equation Modeling: A Multidisciplinary Journal*, *29*, 122-139. DOI: 10.1080/10705511.2021.1948335

6. Hoffart, A., **Bauer, D.J.**, Johnson, S.U., *Ebrahimi, O.V. (2022). Anxiety in the adult population from the onset to termination of social distancing protocols during COVID-19: a 20-month longitudinal study. *Scientific Reports, 12:17846*, 1-13.

7. McGuier, E.A, Kolko, D.J., Pedersen, S.L, Kipp, H.L., Joseph, H.M., Lindstrom, R.A., **Bauer, D.J.**, Subramaniam, G.A., Molina, B.S.G. (2022). Effects of training on use of stimulant diversion prevention strategies by pediatric primary care providers: Results from a cluster-randomized trial. *Prevention Science, 23,* 1299-1307. DOI: 10.1007/s11121-022-01411-2

8. Curran, P.J., *Georgeson, A.R., **Bauer, D.J.**, and Hussong, A.H. (2021). Psychometric models for scoring multiple reporter scales: Applications to integrative data analysis in prevention science and beyond. *International Journal of Behavioral Development, 45*, 40-50. DOI: 10.1177/0165025419896620

9. Hussong, A.M., **Bauer, D.J.**, *Giordano, M.L. & Curran, P.J. (2021). Harmonizing altered measures in integrative data analysis: a methods analogue study. *Behavior Research Methods, 53,* 1031-1045. DOI: 10.3758/s13428-020-01472-7

10. Molina, B.S.G., Joseph, H.M, Kipp, H.L., Lindstrom, R.A., Pedersen, S.L., Kolko, D.J., **Bauer, D.J.** & Subramaniam, G.A. (2021). Adolescents treated for Attention Deficit Hyperactivity Disorder in pediatric primary care: characterizing risk for stimulant diversion. *Journal of Developmental and Behavioral Pediatrics, 42,* 540-552. DOI: 10.1097/DBP.0000000000000923

11. [*]Urban, C.J. & **Bauer, D.J.** (2021). A deep leaning algorithm for high-dimensional exploratory item factor analysis. *Psychometrika*, *86*, 1-29. DOI: 10.1007/s11336-021-09748-3

12. **Bauer, D.J.**, [*]Belzak, W.C.M. & [*]Cole, V.T. (2020). Simplifying the assessment of measurement invariance over multiple background variables: using regularized moderated nonlinear factor analysis to detect differential item functioning, *Structural Equation Modeling: A Multidisciplinary Journal*, *27*, 43-55. DOI: 10.1080/10705511.2019.1642754

13. [*]Belzak, W.C.M. & **Bauer, D.J.** (2020). Improving the assessment of measurement invariance: using regularization to select anchor items and identify differential item functioning. *Psychological Methods, 25,* 673-690. DOI: 10.1037/met0000253

14. Molina, B.S.G., Kipp, H.L., Joseph, H.M., Engster, S.A., Harty, S.C., Dawkins, M., Lindstrom, R.A., **Bauer, D.J.** & Bangalore, S.S. (2020). Stimulant diversion risk among college students treated for ADHD: Primary care provider prevention training. *Academic Pediatrics, 20*, 119-127. DOI: 10.1016/j.acap.2019.06.002

15. [*]Belzak, W.C.M. & **Bauer, D.J.** (2019). Interaction effects may actually be nonlinear effects in disguise: A review of the problem and potential solutions. *Addictive Behaviors, 94,* 99-108. DOI: 10.1016/j.addbeh.2018.09.018

16. [*]Cole, V.T., **Bauer, D.J.** & Hussong, A.M. (2019). Assessing the robustness of mixture models to measurement non-invariance. *Multivariate Behavioral Research, 54,* 882-905. DOI: 10.1080/00273171.2019.1596781

17. Gottfredson N.C., [*]Cole V.T., [*]Giordano M.L., **Bauer D.J.**, Hussong A.M., & Ennett S.T. (2019) Simplifying the implementation of modern scale scoring methods with an automated R package: Automated moderated nonlinear factor analysis (aMNLFA). *Addictive Behaviors, 94,* 65-73. DOI: 10.1016/j.addbeh.2018.10.031

18. Hussong, A.M., Gottfredson, N.C., **Bauer, D.J.**, Curran, P.J., [*]Haroon, M., Chandler, R., Kahana, S.Y., Delaney, J.A.C., Altice, F.L, Beckwith, C.G., Feaster, D.J., Flynn, P.M., Gordon, M.S., Knight, K., Kuo, I., Ouellet, L.J., Quan, V.M., Seal, D.W., Springer, S.A. (2019). Approaches for creating comparable measures of alcohol use symptoms: Harmonization with eight studies of criminal justice populations. *Drug & Alcohol Dependence, 194,* 59-68. DOI: 10.1016/j.drugalcdep.2018.10.003

19. [*]Reese, E.D., Conway, C.C., [*]Anand, D., **Bauer, D. J.**, & Daughters, S.B. (2019). Distress tolerance trajectories following substance use treatment. *Journal of Consulting and Clinical Psychology, 87*, 645-656. DOI: 10.1037/ccp0000403

20. Curran, P.J., [*]Cole, V.T., **Bauer, D.J.**, [*]Rothenberg, A.W., & Hussong, A.M. (2018). Recovering predictor-criterion relations using covariate-informed factor score estimation. *Structural Equation Modeling: A Multidisciplinary Journal, 25,* 860-875. DOI: 10.1080/10705511.2018.1473773

21. Curran, P.J., [*]Cole, V.T., [*]Giordano, M., [*]Georgeson, A.R., Hussong, A.M., & **Bauer, D.J.** (2018). Advancing the study of adolescent substance use through the use of integrative data analysis. *Evaluation and the Health Professions, 41*, 216-245.

22. **Bauer, D.J.** (2017). A more general model for testing measurement invariance and differential item functioning. *Psychological Methods, 22*, 507-526. DOI: 10.1037/met0000077

23. [*]Burns, A.R., Hussong, A.M., [*]Solis, J.M., Curran, P.J., [*]McGinley, J.S., **Bauer, D.J.**, Chassin, L., & Zucker, R.A. (2017). Examining cohort effects in developmental trajectories of substance use. *International Journal of Behavioral Development*, 41, 621-631. DOI:10.1177/0165025416651734

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27. *Giletta, M., Hastings, P.D., Rudolph, K.D., **Bauer, D.J.**, Nock, M.K., & Prinstein, M.J. (2017). Suicide ideation among high-risk adolescent females: Examining the interplay between parasympathetic regulation and friendship support. *Development and Psychopathology, 29,* 1161-1175. DOI: 10.1017/S0954579416001218

28. *Cole, V & **Bauer, D.J.** (2016). A note on the use of mixture models for individual prediction. *Structural Equation Modeling: A Multidisciplinary Journal, 23,* 615-631, DOI: 10.1080/10705511.2016.1168266.

29. Curran, P.J., *Cole, V., **Bauer, D.J.**, Hussong, A.M., & Gottfredson, N. (2016). Improving factor score estimation through the use of observed background characteristics. *Structural Equation Modeling: A Multidisciplinary Journal*, 23, 827-844. DOI: 10.1080/10705511.2016.1220839

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31. *Dean, D.O., *Cole, V., & **Bauer, D.J.** (2015). Delineating prototypical patterns of substance use initiations over time. *Addiction, 110*, 585-594, DOI:10.1111/add.12816.

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33. Curran, P.J., *McGinley, J.S., **Bauer, D.J.**, Hussong, A.M., *Burns, A., Chassin, L., Sher, K., Zucker, R. (2014). A moderated nonlinear factor model for the development of commensurate measures in integrative data analysis. *Multivariate Behavioral Research, 49*, 214-231, DOI: 10.1080/00273171.2014.889594.

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37. Reyes, H. L. M., Foshee, V. A., **Bauer, D. J.**, & Ennett, S. T. (2014). Proximal and time-varying effects of cigarette, alcohol, marijuana and other hard drug use on adolescent dating aggression. *Journal of Adolescence, 37*, 281-289. DOI: 10.1016/j.adolescence.2014.02.002

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47. Baldwin, S.A., **Bauer, D.J.**, Stice, E. & Rohde, P. (2011). Evaluating models for partially clustered designs. *Psychological Methods*, *16*, 149-165. DOI: 10.1037/a0023464. Selected for [Research Methods Resources: National Institutes of Health](#), topic of [Individually Randomized Group-Treatment Trials](#).

48. **Bauer, D.J.** (2011). Evaluating individual differences in psychological processes. *Current Directions in Psychological Science, 20,* 115-118. DOI: 10.1177/0963721411402670

49. **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. DOI: 10.1037/a0025813 PMCID: PMC3252624

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51. *Pek, J., *Losardo, D. & **Bauer, D.J.** (2011). Confidence intervals for a semiparametric approach to modeling nonlinear relations among latent variables. *Structural Equation Modeling: A Multidisciplinary Journal, 18*, 537-553. DOI: 10.1080/10705511.2011.607072

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54. Richman, L.S., *Pek, J., Pascoe, E., & **Bauer, D.J.** (2010). The effects of perceived discrimination on ambulatory blood pressure and affective responses to interpersonal stress modeled over 24 hours. *Health Psychology, 29*, 403-411. DOI: 10.1037/a0019045

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56. *Sterba, S.K. & **Bauer, D.J.** (2010b). Statistically evaluating person-oriented principles revisited [Response to Commentaries]. *Development and Psychopathology, 22,* 287–294. DOI: 10.1017/S0954579410000064

57. **Bauer, D.J.** (2009). A note on comparing the estimates of models for cluster-correlated or longitudinal data with binary or ordinal outcomes. *Psychometrika, 74*, 97-105. DOI:10.1007/s11336-008-9080-1

58. **Bauer, D.J.** & *Cai, L. (2009). Consequences of unmodeled nonlinear effects in multilevel models. *Journal of Educational and Behavioral Statistics, 34,* 97-114. DOI: 10.3102/1076998607310504

59. **Bauer, D.J.** & Hussong, A.M (2009). Psychometric approaches for developing commensurate measures across independent studies: traditional and new models. *Psychological Methods, 14*, 101-125. DOI: 10.1037/a0015583 PMCID: PMC2780030

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Book Chapters

1. Hussong, A.M., Cole, V.T., Curran, P.J., **Bauer, D.J.** & Gottfredson, N.C. (2020). Integrative data analysis and the study of global health. In X. Chen (Eds.), *Statistics for Global Health and Epidemiology: Principles, Methods and Application* (pp. 121-158). New York, NY: Springer

2. **Bauer, D.J.**, McNeish, D., Baldwin, S.A., & Curran, P.J. (2020). Analyzing nested data: multilevel modeling and alternative approaches. In A. Wright & M. Hallquist (Eds.), *The Cambridge Handbook of Research Methods in Clinical Psychology* (pp. 426-443). Cambridge University Press.

3. **Bauer, D.J.** & Curran, P.J. (2016). The discrepancy between measurement and modeling in longitudinal data analysis. In J.R. Harring, L.M. Stapleton & S.N. Beretvas (Eds.), *Advances in Multilevel Modeling for Educational Research* (pp. 3-38). Charlotte, NC: Information Age Publishing.

4. Bollen, K. A., **Bauer, D. J.**, Christ, S. L., & Edwards, M. C. (2010). Overview of structural equations models and recent extensions. In S. Kolenikov, D. Steinley & L. Thombs (Eds.), *Statistics in the Social Sciences: Current Methodological Developments* (pp. 37-80)*.* New York: Wiley. DOI: 10.1002/9780470583333.ch2

5. Kamata, A., **Bauer, D.J.** & Miyazaki, Y. (2008). Multilevel measurement models. In A. O'Connell & B. McCoach (Eds.) *Multilevel Analysis of Educational Data* (pp. 345-388). Charlotte, NC: Information Age Publishing.

6. **Bauer, D.J.** & Shanahan, M.J. (2007). Modeling complex interactions: Person-centered and variable-centered approaches. Little, T.D., Bovaird, J.A. & Card, N.A. (Eds.). *Modeling ecological and contextual effects in longitudinal studies of human development* (pp. 255-283). Mahwah, NJ: LEA.

7. Curran, P.J., **Bauer, D.J.**, & Willoughby, M.T. (2006). Testing and probing interactions in hierarchical linear growth models. In C.S. Bergeman & S.M. Boker (Eds.), *The Notre Dame Series on Quantitative Methodology, Volume 1: Methodological Issues in Aging Research*, (pp. 99-129). Mahwah, NJ: Lawrence Erlbaum Associates.

8. Pungello, E.P. & **Bauer, D.J.** (2002). Day Care. In N.J. Salkind (Ed.), *Macmillan Psychology Reference Series: Vol 1. Child Development* (pp. 110-113). New York: Macmillan Reference, USA.

Conference Papers and Presentations

1. Chen, S., **Bauer, D.J.** (July, 2022). *Cross-validation indices for factor model scoring.* Oral presentation at the International Meeting of the Psychometric Society, Bologna, Italy

2. **Bauer, D.J.** (June, 2022). *A person-oriented approach to research on pain and pain management.* Invited virtual presentation at the 17th annual NIH Pain Consortium Symposium, Bethesda, MD. Video available at https://videocast.nih.gov/watch=45260, 3:38:13 to 3:55:35.

3. **Bauer, D.J.** (November, 2021). *Strategies for improving the quality of applications of latent class analysis and other forms of finite mixture models.* Invited virtual presentation at Clark-Hill Institute, Virginia Commonwealth University, Richmond, VA.

4. **Bauer, D.J.** (September, 2021). *A person-oriented approach to the analysis of interconnected, multicomponent systems: using latent class/profile analysis to identify prototypical profiles of risk*. Invited virtual presentation at Trans-NIH Workshop on Methodological Approaches for Whole Person Research. Bethesda, MD.

5. **Bauer, D.J.** (November, 2020). *Developmental methodology: A tale of three analyses*. Invited virtual presentation at the University of Notre Dame, Department of Psychology

6. **Bauer, D.J.** (October, 2020). *New ways of evaluating measurement invariance and differential item functioning*. Invited virtual presentation at I-O Learning Series at George Mason University.

7. Molina, B.S.G., Lindstrom, R.A., Pedersen, S.L., Joseph, H.M., Kipp, H.L., Kolko, D.J., Bauer, D.J., Liu, D., Subramaniam, G.A. (2020, June). *Alcohol use by adolescents prescribed stimulants for ADHD increases risk of diversion*. Poster presented at the Annual Meeting of the Research Society on Alcoholism, Virtual Meeting.

8. [*]Chen, S., [*]Belzak, W.M., Brandt, H. & **Bauer, D.J.** (July, 2020). *Bayesian regularization methods in measurement invariance evaluation*. Presentation at the International Meeting of the Psychometric Society, Virtual Meeting.

9. **Bauer, D.J.** (February, 2020). *New ways of evaluating measurement invariance and differential item functioning*. Invited presentation for Quantitative Psychology program colloquium, Arizona State University.

10. **Bauer, D.J.** (February, 2020). *Preliminary analyses conducted on the DPRP data*. Presentation within Catalyst InGEAR DPP Study Design and Activation Workshop conducted for the Centers for Disease Control and Prevention by Catalyst Behavioral Sciences, Atlanta, GA.

11. [*]Haley, D.F., Williams, M., Beane, S., Kaur, M., Pankowska, M., Cooper, H.L.F., Linton, S., Edmonds, A., Go, V., Kim, D., Beletsky, L., Ross, Z., Adimora, A., **Bauer, D.**, Sabrick, J., McGuire, J. & Cummings, J. (November, 2019) *Association between census block group poverty and geographic accessibility of drug and alcohol treatment facilities accepting Medicaid*. APHA 2019 Annual Meeting and Expo. Philadelphia, Pennsylvania.

12. **Bauer, D.J.**, [*]Belzak, W.C.M. & [*]Cole, V.T. (October, 2019). *Simplifying the assessment of measurement invariance over multiple background variables: using regularized moderated nonlinear factor analysis to detect differential item functioning*. Presentation at the meeting of the Society for Multivariate Experimental Psychology, Baltimore, MD.

13. Curran, P.J., Hussong, A.M., & **Bauer, D.J.** (October, 2019). *Integrative data analysis: where we've been and where we need to go*. Presentation at the meeting of the Society for Multivariate Experimental Psychology, Baltimore, MD.

14. Curran, P.J., Hussong, A.M., & **Bauer, D.J.** (September, 2019). *Integrative data analysis: promises, challenges, and recommendations*. Invited Keynote Address to the Wellcome-Genome Conference on Optimising Multistudy Integrative Research, Cambridge, United Kingdom.

15. [*]Bricken, C., Cohen, J., **Bauer, D.**, [*]Woodburn, M., Lin, W., and Sheridan, M. (August, 2019). *Longitudinal trajectories of cortical thickness from birth to 6 years predict cognitive outcomes at 9 years*. Poster presented at Flux: The Society for Developmental Cognitive Neuroscience Congress, New York, N.Y.

16. [*]Fischer, M. S., Baucom, B. R. W., Baucom D. H., [*]Weber, D. M., Munion, A. K., **Bauer, D. J.** (July, 2019). *Yours, mine, and ours: Depression and moment-by-moment emotion dysregulation in couples*. Paper presentation at the 9th World Congress of Behavioural and Cognitive Therapies, Berlin, Germany.

17. **Bauer, D.J.** & Curran, P.J. (March, 2019). *Conducting Longitudinal Data Analysis: Knowing What to Do and Learning How to Do It*. Professional development workshop conducted at the biennial meeting of the Society for Research in Child Development (SRCD), Baltimore, MD.

18. Hussong, A.M. & **Bauer, D.J.** (December, 2018). *Integrative Data Analysis*. Workshop presented at the T. Denny Sanford School of Social and Family Dynamics, Arizona State University, Tempe, AZ.

19. Molina, B., Pedersen, S.L., Kipp, H.L., Joseph, H.L., Kolko, D.H., Lindstrom, R.A., **Bauer, D.J.**, Engster, S., Subramaniam, G.A. & Liu, D. (October, 2018). *Adolescent ADHD in pediatric primary care: clinical characteristics and stimulant diversion risk*. Presentation at the meeting of the American Academy of Child and Adolescent Psychiatry (AACAP), Seattle, WA.

20. Hussong, A.M., Curran, P.J. & **Bauer, D.J.** (October, 2018). *Integrative data analysis and the study of adolescent substance use*. Presentation at the Oregon Social Learning Center.

21. **Bauer, D.J.**, Curran, P.J. (May 6, 2018). *Longitudinal Modeling of Developmental Data*. Presentation at Flux Satellite Conference 2018, University of North Carolina at Chapel Hill.

22. **Bauer, D.J.**, Sheridan, M.A., & Cohen, J.R. (October, 2017). *Growth modeling: An overview and a developmental neuroscience application*. Presentation at Developmental Seminar in the Department of Psychology and Neuroscience, University of North Carolina at Chapel Hill.

23. Curran, P., [*]Cole, V., **Bauer, D.**, [*]Rothenberg, A., Hussong, A. (October, 2017). *Recovering predictor-criterion relations using covariate-informed factor score estimates*. Presentation at the meeting of the Society for Multivariate Experimental Psychology, Minneapolis, MN.

24. Masyn, K., *Cole, V. & **Bauer, D.** (October, 2017). *Measurement invariance in multi-group and longitudinal mixture models.* Presentation at the meeting of the Society for Multivariate Experimental Psychology, Minneapolis, MN.

25. Masyn, K.E., *Cole, V.T., & **Bauer, D.J.** (May, 2017). *Mixture models are measurement models, too! Measurement invariance and differential item functioning in latent class analysis.* Symposium presentation at the Modern Modeling Methods Conference, Storrs, CT.

26. **Bauer, D.J.**, Hussong, A.M., Curran, P.J. (April, 2017). *How integrative data analysis can advance the study of child development.* Paper presented at the biennial meeting of the Society for Research in Child Development, Austin, TX.

27. **Bauer, D.J.** (October, 2016). *A more general model for testing measurement invariance and differential item functioning.* Paper presented at the meeting of the Society for Multivariate Experimental Psychology, Richmond, VA.

28. **Bauer, D.J.** (July, 2016). *A more general model for testing measurement invariance and differential item functioning.* Paper presented at the International Meeting of the Psychometric Society, Asheville, NC.

29. *Giordano, M.L., **Bauer, D.J.**, Hussong, A.M., Curran, P.J. (July, 2016). *An evaluation of IRT scores using a within-subjects design with a young adult sample.* Poster presented at the International Meeting of the Psychometric Society, Asheville, NC.

30. *Markiewitz, N., **Bauer, D.J.** (July, 2016). *A novel method for the modeling of ordinal count items.* Poster presented at the International Meeting of the Psychometric Society, Asheville, NC.

31. Curran, P.J. & **Bauer, D.J.** (April, 2016). *Introduction to growth curve modeling: an overview and recommendations for practice.* Invited workshop presentation, Society for Research on Adolescence, Baltimore, MD.

32. Curran, P.J., **Bauer, D.J.**, & Hussong, A.M. (March, 2016). *Promises and challenges in the psychometric assessment of low base-rate behaviors using integrative data analysis.* Invited presentation, Pathways to Prevention Workshop: Advancing Research to Prevent Youth Suicide, National Institutes of Health Office of Disease Prevention, Rockville, MD.

33. **Bauer, D.J.**, Curran, P.J. & Hussong, A.M. (October, 2015). *Progress in validating scoring methods for integrative data analysis.* Paper presented at the meeting of the Society for Multivariate Experimental Psychology, Los Angeles, CA.

34. Curran, P.J., **Bauer, D.J.**, & Hussong, A.M. (September, 2015). *The Application of Integrative Data Analysis in Substance Use Research.* Invited Webinar Colloquium, Society for Research on Nicotine and Tobacco, Disparities and Treatment Networks.

35. Curran, P.J., Hussong, A.M., & **Bauer, D.J.** (March, 2015). *Advances in Integrative Data Analysis with Applications to the Study of Child and Adolescent Substance Use.* Invited Colloquium, Department of Psychology and Neurosciences and the Center for Study of Adolescent Risk and Resilience, Duke University, Durham, NC.

36. *Giletta, M., Hastings, P., Rudolph, K., **Bauer, D.**, Nock, M. & Prinstein, M. (March, 2015). *Suicide ideation among high-risk adolescent females: The interplay between parasympathetic regulation and friendship support.* Paper presented at the 2015 Biennial Meeting of the Society for Research on Child Development, Philadelphia, PA.

37. Curran, P.J., **Bauer, D.J.**, & Hussong, A.M. (February, 2014). *Separating Person-Specific & Time-Specific Components of Developmental Change.* Invited Workshop for the Center for Developmental Science, University of North Carolina at Chapel Hill.

38. Curran, P.J., Hussong, A.M., & **Bauer, D.J.** (December, 2014). *Integrative data analysis: A novel methodological framework for data harmonization and pooling*. Invited colloquium, Department of Psychology, University of North Carolina at Wilmington.

39. **Bauer, D.J.** & Curran, P.J. (November, 2014). *The disjoint between measurement and modeling in longitudinal research.* Invited presentation at Advances in Multilevel Modeling for Educational Research: Addressing Practical Issues Found in Real-World Applications, University of Maryland, College Park, MD.

40. **Bauer, D.J.**, *Cole, V.T., Gottfredson, N.C., Curran, P.J., & Hussong, A.M. (October, 2014). *Constructing common measures for integrative data analysis: score performance.* Paper presented at the meeting of the Society for Multivariate Experimental Psychology, Nashville, TN.

41. Curran, P.J., Gottfredson, N.C., *Cole, V.T., **Bauer, D.J.**, & Hussong, A.M. (October, 2014). *Constructing common measures for integrative data analysis: model performance.* Paper presented at the meeting of the Society for Multivariate Experimental Psychology, Nashville, TN.

42. Hussong, A.M., Gottfredson, N., Haroon, M., **Bauer, D.B.**, & Curran, P.J. (October, 2014). *Integrative Data Analysis for the NIDA STTR Projects.* Invited Presentation at the National Institute on Drug Abuse STTR-HIV 2014 Status Update Meeting, Rockville, MD.

43. Curran, P.J., Hussong, A.M., & **Bauer, D.J.** (August, 2014). *Integrative data analysis: A novel methodological framework for data harmonization and pooling.* Invited paper presented at the 2014 meeting of the American Psychological Association, Washington, DC.

44. *Howard, A.L., *Bainter, S., Hussong, A.M., Curran, P.J., **Bauer, D.J.**, Chassin, L. & Sher, K. (March, 2014). *Testing a developmental cascade hypothesis in integrative data analysis*. Paper presented at the 15th Biennial Meeting of the Society for Research on Adolescence, Austin, TX.

45. Hussong, A.M., Curran, P.J. & **Bauer, D.J.** (March, 2014). *An overview of integrative data analysis*. Paper presented at the 15th Biennial Meeting of the Society for Research on Adolescence, Austin, TX.

46. *Cole, V. & **Bauer, D.J.** (July, 2014). *Adapting latent profile analysis to semiparametrically capture individual differences in change over time.* Psychometric Society Meeting, Madison, WI.

47. *Cole, V.T. & **Bauer, D.J.** (May, 2014). *Recovery of Individual Trajectories in Heterogeneous Samples Using Longitudinal Latent Profile Analysis (LLPA).* Modern Modeling Methods Conference (M^3), Neag School of Education, University of Connecticut, Storrs, CT.

48. Jackson, K. & **Bauer, D.J.** (May, 2014). *Characterizing the developmental course and turning points for alcohol consumption, heavy drinking, and marijuana use*. Modern Modeling Methods Conference (M^3), Neag School of Education, University of Connecticut, Storrs, CT.

49. **Bauer, D.J.**, Curran, P.J., & Hussong, A.M. (October, 2013). *Evaluating approaches for synthesizing a common measure from different instruments to facilitate multi-study integrative data analyses of substance use and disorder.* Meeting of the Society for Multivariate Experimental Psychology, St. Petersburg, FL.

50. Curran, P.J., *Bainter, S., Hussong, A.M., **Bauer, D.J.**, & *Howard, A. (October, 2013). *A nonlinear bifactor model of polysubstance use*. Meeting of the Society for Multivariate Experimental Psychology, St. Petersburg, FL.

51. **Bauer, D.J.** (August, 2013). *Longitudinal Data Analysis.* Workshop presented at the Young Researcher's Meeting sponsored by The Jacob's Foundation, Marbach Castle, Öhningen, Germany.

52. **Bauer, D.J.** (August, 2013). *Missing Data Analysis.* Workshop presented at the Young Researcher's Meeting sponsored by The Jacob's Foundation, Marbach Castle, Öhningen, Germany.

53. **Bauer, D.J.** (August, 2013). *Principles of Measurement.* Workshop presented at the Young Researcher's Meeting sponsored by The Jacob's Foundation, Marbach Castle, Öhningen, Germany.

54. Curran, P.J., Hussong, A.M., & **Bauer, D.J.** (May, 2013). *Integrative Data Analysis: Past, Present, and Future.* Invited presentation sponsored by the National Cancer Institute, Behavioral Research Program, Science of Research and Technology Branch, Bethesda, MD.

55. **Bauer, D.J.**, *Cole, V. & MacCallum, R.C. (2012, October). *Modeling individual change over time with minimal assumptions*. Meeting of the Society for Multivariate Experimental Psychology. Vancouver, Canada.

56. Hussong, A. M., *McGinely, J., Curran, P. J., **Bauer, D. J**., Chassin, L., & Zucker, R. A. (2012, October). *Disentangling levels and rates of externalizing symptoms as predictors of alcohol use patterns in emerging adulthood*. A paper presented at the SRCD Themed Meeting, Transition to Adulthood in Tampa, FL.

57. MacCallum, R.C. & **Bauer, D.J.** (2012, October). *Uncertainty and functional form in modeling change*. Meeting of the Society for Multivariate Experimental Psychology, Vancouver, Canada.

58. *Dean, D., **Bauer, D.J.** & Shanahan, M.J. (2012, October). *Viewing the multidimensional nature of the life course with a multiple event process survival mixture model*. 2012 SRCD Themed Meeting: Transitions from Adolescence to Adulthood. Tampa, FL.

59. **Bauer, D.J.**, & *Bainter, S.A. (2012, May). *Harmonizing Classification Variables in Integrative Data Analysis*. Invited workshop at the annual meeting of the Association for Psychological Science, Chicago, IL.

60. Curran, P.J., **Bauer, D.J.**, & Hussong, A.M. (2012, May). *Longitudinal measurement modeling in integrative data analysis*. Paper presented at the annual meeting of the Association for Psychological Science, Chicago, IL.

61. Curran, P.J., Hussong, A.M., & **Bauer, D.J.** (2012, May). *Integrative data analysis: The simultaneous analysis of multiple independent data sets*. Paper presented at the annual meeting of the Association for Psychological Science, Chicago, IL.

62. Curran, P.J., Hussong, A.M., & **Bauer, D.J.** (2012, April). *The application of integrative data analysis to the study of adolescent substance use*. Invited presentation for Center of Alcohol and Addiction Studies, Brown University.

63. *Howard, A.L., **Bauer, D.J.**, *Baldasaro, R., Curran, P.J., & Hussong, A.M. (2012, March). *Combining mother and father reports of children's negative affect using integrative data analysis*. Paper presented at the 14th Biennial Meeting of the Society for Research on Adolescence, Vancouver, B.C.

64. **Bauer, D.J.** (2012, February). *Groups change too: analyzing repeated measures on individuals embedded within dynamic groups*. Invited presentation for the Department of Psychology, Northwestern University.

65. **Bauer, D.J.**, Curran, P.J., & Hussong, A.H. (2012, February). *Integrative Data Analysis.* Society for Research in Child Delopment, Developmental Methodology Conference, Tampa.

66. Curran, P.J., **Bauer, D.J.**, & Hussong, A.M. (2012, February). *Integrative data analysis: The simultaneous analysis of multiple data sets*. Invited presentation for the National Cancer Institute, Division of Cancer Control and Population Sciences.

67. **Bauer, D.J.** (2012, January). *Approaches for statistically evaluating individual differences in psychological processes*. Invited presentation at the Center for Cognitive Neuroscience, Duke University, Durham, North Carolina.

68. **Bauer, D.J.** (2012, January). *How mixture models can and cannot further developmental science*. Invited presentation at the Center for Developmental Science, University of North Carolina at Chapel Hill.

69. **Bauer, D.J.**, Curran, P.J., & Hussong, A.H. (2011, June). *Integrative Data Analysis.* Florida Mental Health Institute, University of South Florida, Tampa.

70. **Bauer, D.J.** (2011, December). *Uses of structural equation mixture models in psychological research*. Invited presentation to the Department of Psychology, Ohio State University.

71. *McGinley, J.S., *Mathiowitz, R., **Bauer, D.J.**, Curran, P.J., & Hussong A.M. (2011, June). *Using longitudinal integrative data analysis to score internalizing symptomatology from three independent data sets*. Presented at the Society for Prevention Research's 19th Annual Meeting, Washington DC.

72. Hussong, A.M., Curran, P.J., & **Bauer, D.J.** (2011, April). *Using integrative data analysis to study child development*. An invited paper presented at biennial meeting of the Society for Research on Child Development in Methodological Issues in Developmental Science (Antonio Morgan-Lopez, Chair). Montreal, Canada.

73. Hussong, A.M., Curran, P.J., **Bauer, D.J.** (2011, February). *Studying the development of drug abuse through integrative data analysis*. An invited presentation to the National Institute on Drug Abuse, Bethesda, MD.

74. Coovert, M.D., Walvoord, A.A.G., **Bauer, D.J.**, White, M., & Mottern, J. (2010, October). *The prediction of first term attrition and reenlistment.* Meeting of the Society for Multivariate Experimental Psychology, Atlanta, Georgia.

75. Woods, C. & **Bauer, D.J.** (2010, October). *Comparison of Ramsay curve IRT and factor mixture models*. Meeting of the Society for Multivariate Experimental Psychology, Atlanta, Georgia.

76. **Bauer, D.J.**, Curran, P.J., & Hussong, A.M. (2010, September). *Measurement in heterogeneous populations: beyond multiple groups*. Meeting of the Society for Multivariate Experimental Psychology, Atlanta, Georgia.

77. *Gottfredson, N. & **Bauer, D.J.** (2010, June). *Evaluating latent pattern mixture model performance with non-randomly missing longitudinal data*. Meeting of the Psychometric Society, Athens, Georgia.

78. Hussong, A.M., Curran, P.J., **Bauer, D.**, Price, L.N. (2010, June). *Implications of Research on Parental Alcoholism for Earlier Prevention Efforts*. In L. Price (Chair), Parent Psychopathology and Risk for Child Mental Health and Substance Use Disorders: Opportunities for Prevention and Intervention. A paper presented at the annual meeting for the Society for Prevention Research in Denver, CO.

79. *Mathiowetz, R., Shanahan, M. & **Bauer, D.J.** (2010, June). *Comparing direct and indirect approaches for identifying classes of personality traits.* Meeting of the Psychometric Society, Athens, Georgia. Winner of the Best Poster Award.

80. **Bauer, D.J.**, Curran, P.J. & Hussong, A.M. (2010, March). *Toward a cumulative psychological science: integrative data analysis.* Colloquium given at Brigham-Young University, Utah.

81. **Bauer, D.J.**, *Mathiowetz, R., *Gottfredson, N., *Pek, J. & *Losardo, D. (2009, July). *Modeling nonlinear relationships among latent variables via mixtures of linear structural equations*. Meeting of the Psychometric Society, Cambridge, England.

82. *Gottfredson, N. & **Bauer, D.J.** (2009, July). *Exploring the efficacy of latent class pattern mixture models for handling non-randomly missing data*. Meeting of the Psychometric Society, Cambridge, England.

83. **Bauer, D.J.,** [*]Pek, J.J., [*]Sterba, S.K. & [*]Kok, B.E. (2008, September). *Visualizing nonlinear relationships among latent variables using mixtures: an R package and online utility*. Meeting of the Society for Multivariate Experimental Psychology in Montreal, Quebec.

84. [*]Sterba, S.K., [*]Mathiowetz, R.E. & **Bauer, D.J.** (2008, September). *Adequacy of semiparametric approximations for growth models with nonnormal random effects*. Meeting of the Society for Multivariate Experimental Psychology in Montreal, Quebec.

85. Hussong, A.M., **Bauer, D.**, [*]Serrano, D., Curran, P.J., Chassin, L., Sher, K.J., & Zucker, R.A. (2008, July). *Externalizing, not internalizing, symptoms identify periods and persons at risk for alcohol use in high-risk family contexts: A cross-study analysis*. Meeting for the Research Society on Alcoholism in Washington, DC.

86. [*]Serrano, D., **Bauer, D.J.**, Hussong, A.M. & Curran, P.J. (2008, February). *Prediction of alcohol use trajectories by internalizing and externalizing behavior:Simultaneous analysis of three longitudinal studies via the generalized linear mixed model.* Developmental Psychopathology Conference. Chapel Hill, NC.

87. **Bauer, D.J.** & [*]Sterba, S. (2007, October). *When bias and RMSE don't agree.* Meeting of the Society for Multivariate Experimental Psychology, Chapel Hill, NC.

88. **Bauer, D.J.** & [*]Sterba, S. (2007, August). *Multilevel models for ordinal outcomes in longitudinal and clustered data*. Meeting of the American Psychological Association, San Francisco, CA.

89. **Bauer, D.J.** & [*]McNaughton, L. (2007, May). *An evaluative comparison of random coefficient growth models for individual development.* Invited presentation at the meeting of the Association for Psychological Science, Washington DC.

90. **Bauer, D.J.** (2007, February). *Developing commensurate measures for cross-study analyses via a moderated nonlinear factor analysis model*. 3rd Conference on Emerging Adulthood, Tuscon, AZ.

91. **Bauer, D.J.** (2006, October). *Comparing the estimates of mixed models for binary or ordinal data*. Meeting of the Society for Multivariate Experimental Psychology, Lawrence, KS.

92. **Bauer, D.J.** (2005, November). *Multilevel linear models with latent variables*. Invited presentation at the Statistical and Applied Mathematical Sciences Institute (SAMSI) closing workshop on Latent Variable Models in the Social Sciences, Research Triangle Park, NC.

93. [*]Sterba, S., Prinstein, M.J., **Bauer, D.J.**, & Cox, M.J. (2005, November). *Heterogeneity in latent trajectories of internalizing problems across early childhood: gender divergence over time*. Meeting of the Association for the Advancement of Cognitive and Behavioral Therapy, Washington, D.C.

94. [*]Sterba, S., Prinstein, M.J., **Bauer, D.J.**, & Cox, M.J. (2005, November). *Unpacking heterotypic continuity: gender and developmental factors differentiating latent trajectories of homotypic versus heterotypic symptoms from 2-11 years*. Meeting of the Association for the Advancement of Cognitive and Behavioral Therapy, Washington, D.C.

95. **Bauer, D.J.** (2005, October). *Incongruence between the statistical theory and substantive application of growth mixture models in psychological research.* Cattell Award address presented at the annual meeting of the Society for Multivariate Experimental Psychology, Lake Tahoe, CA.

96. Hallfors, D., Iritani, B., **Bauer, D.**, Miller, W.C. (2005, October). Do sex and drug behavior patterns account for HIV/STD racial disparities? Bridging science & culture to improve drug abuse research in minority communities (Sponsored by the National Institute on Drug Abuse), Atlanta, GA.

97. Hallfors, D., Iritani, B., **Bauer, D.**, Miller, W.C. (2005, October). *Racial disparities in STDs and HIV*. Meeting of the minds conference at the Pacific Institute for Research and Evaluation; Dallas, TX.

98. *Sterba, S.K., **Bauer, D.J.** & Cox, M.J. (2005, August). *Comparing growth mixture and correlative methods for identifying symptom covariation.* Poster presented at the annual meeting of the American Psychological Association, Washington, DC.

99. **Bauer, D.J.** (2005, February). *The intersection of quantitative methodology and developmental science.* Invited presentation at the Center for Developmental Science, Chapel Hill, NC.

100. **Bauer, D.J.** (2004, September). *Multilevel models with latent variables.* Invited presentation at the Statistical and Applied Mathematical Sciences Institute (SAMSI) opening workshop on Latent Variable Models in the Social Sciences, Research Triangle Park, NC.

101. **Bauer, D.J.** (2004, October). *Nonlinear Latent Variable Models: A Finite Mixture Approach.* Paper presented at the annual meeting of the Society for Multivariate Experimental Psychology, Fort Meyers, FL.

102. Bollen, K.A. & **Bauer, D.J.** (2004, August). *Dissecting chi-squares in testing structural equation models.* Paper presented at the Amsterdam Workshop on Model Selection, Amsterdam, The Netherlands.

103. **Bauer, D.J.** & Shanahan, M.J. (2004, March). *A person-centered approach to modeling complex interactions.* Paper presented at the Merrill Center Conference, Modeling Developmental Processes in Ecological Context, Tempe, AZ.

104. Shanahan, M.J. & **Bauer, D.J.** (2004, March). *Life-events and mastery from adolescence to young adulthood: A growth curve analysis of selection and causation.* Paper presented at the Biennial Meeting of the Society for Research in Adolescence, Baltimore, MD.

105. *Waller, M.W., Iritani, B., Hallfors, D., Halpern, C.T. & **Bauer, D.J.** (2004, March). *Risk behavior patterns associated with experiencing and perpetrating forced sex.* Poster presented at the biennial meeting of the Society for Research in Adolescence, Baltimore, MD.

106. **Bauer, D.J.** (2003, October). *Finite mixture growth models: problems and opportunities.* Invited presentation at the Statistics Seminar of the University of Michigan, Ann Arbor, MI.

107. **Bauer, D.J.** (2003, April). *Using growth mixture models to examine developmental heterogeneity in reading achievement from 1st to 7th grade.* Paper presented at the biennial meeting of the Society for Research in Child Development, Tampa, FL.

108. *Vandergrift, N.A., Curran, P.J. & **Bauer, D.J.** (2002, August). *Methods for modeling nonlinearity in latent curve models.* Poster presented at the annual meeting of the American Psychological Association, Chicago IL.

109. **Bauer, D.J.** & Curran, P.J. (2002, June). *Estimating multilevel linear models as structural equation models.* Paper presented at the meeting of the Psychometric Society, Chapel Hill, NC.

110. **Bauer, D.J.** (2002, May). *Growth modeling in heterogeneous populations.* Invited presentation at the 5th Annual International Developmental Science Institute, The Penn State University, State College, PA.

111. **Bauer, D.J.** (2001, October). *Identifying discrete clusters of growth trajectories (even when none actually exist).* Invited colloquium presentation to the Applied Statistics Working Group at the Odum Institute for Research in Social Science, University of North Carolina at Chapel Hill.

112. **Bauer, D.J.**, Curran, P.J. & Bollen, K.A. (2001, June). *On the use of confidence bands in latent trajectory models.* Paper presented at the meeting of the Psychometric Society, King of Prussia, PA.

113. **Bauer, D.J.** & Curran, P.J. (2001, April). *The impact of model misspecification in clustered and continuous growth modeling.* Poster presented at the biennial meeting of the Society for Research in Child Development, Minneapolis, MN.

114. Carrig, M. & **Bauer, D.J.** (2001, April). *A comparison of cluster analysis and growth mixture modeling in the recovery of developmental trajectory classes*. Poster presented at the biennial meeting of the Society for Research in Child Development, Minneapolis, MN.

115. **Bauer, D.J.** & Pelphrey, K.A. (1999, August). *On Memory Traces and Developmental Trends*. Poster presented at the Annual Convention of the American Psychological Association, Boston, MA.

116. **Bauer, D.J.** & Rodriguiz, R.M. (1999, April). *Self-regulation of reactivity and the organization of social interactions*. Poster presented at the biennial meeting of the Society for Research in Child Development, Albuquerque, NM.

117. Pelphrey, K.A., Staneck, C.H., **Bauer, D.J.**, Gramzow, E.F, Agosto, C.D., Baker-Ward, L. & Ornstein, P.A. (1999, February). *On knowledge and long-term retention: Examining relations among knowledge, trace strength, and recall features of a pediatric examination over a six-month delay*. Poster presented to the North Carolina Cognition Group, Raleigh, NC.

118. Estell, D.B. & **Bauer, D.J.** (1998, October). *Cluster analysis of developmental profiles: Relationships between trajectories of aggression and popularity over adolescence*. Poster presented at New Methods for the Analysis of Change, State College, PA.

119. **Bauer, D.J.** (1998, June). *Freezing as a behavioral regulator of social stress in mice*. Poster presented at the First International Institute for Developmental Science, Chapel Hill, NC.

Published Research Abstracts

1. *Baldasaro, R.E. & **Bauer, D.J.** (2011). Comparing semiparametric and parametric methods for modeling interactions among latent variables. *Multivariate Behavioral Research, 46*, 1007-1008. DOI: 10.1080/00273171.2011.636691

2. Hussong, A.M., **Bauer, D.**, Serrano, D., Curran, P.J., Chassin, L., Sher, K.J., & Zucker, R.A. (2008). Externalizing, not internalizing, symptoms identifies periods and persons at risk for alcohol use in high-risk family contexts: A cross-study analysis. *Alcoholism: Clinical and Experimental Research, 32*, 237. DOI: 10.1037/a0024519. PMCID: PMC3178003

3. *Sterba, S.K, *Mathiowetz, R.E. & **Bauer, D.J.** (2008). Adequacy of semiparametric approximations for growth models with nonnormal random effects. *Multivariate Behavioral Research, 43*, 658-659. DOI: 10.1080/00273170802640509

4. **Bauer, D.J.** & Estell, D.B. (2001). Cluster analysis of developmental profiles: Relationships between trajectories of aggression and popularity over adolescence. In L.M. Collins & A.G. Sayer (Eds.), *New Methods for the Analysis of Change* (pp. 385-387). Washington, D.C: American Psychological Association. DOI**:**10.1080/00273170802640509

5. Mills-Koonce, R. & **Bauer, D.J.** (2001). Experiential modification of phenotypes produced by selective breeding. *Developmental Psychobiology, 37*, 208.

6. Nehrenberg, D.L., Gariépy, J.-L. & **Bauer, D.J.** (2001). Selective breeding for behavioral traits: Relationships between stabilizing and directional effects. *Developmental Psychobiology, 37*, 209.

7. **Bauer, D.J.** & Gariépy, J.-L. (2000). The regulation of social dominance in high and low aggressive mouse lines. *Developmental Psychobiology, 36*, 236.

TEACHING AND DISSEMINATION ACTIVITIES

Courses Taught at the University of North Carolina at Chapel Hill

Fall 2021   Psyc 533H: The General Linear Model in Psychology (Honors), 23 students

Spring 2020   Psyc 831: Statistical Methods in Psychology II, 25 students

Fall 2019	Psyc 533H: The General Linear Model in Psychology (Honors), 12 students
	Psyc 846: Multilevel Modeling, 33 students (+ 3 postdoctoral fellows + 1 faculty)
Spring 2019	Psyc 831: Statistical Methods in Psychology II, 27 students
Fall 2017	Psyc 846: Multilevel Modeling, 32 students
Spring 2017	Psyc 781: Carolina Consortium on Human Development (*Modeling heterogeneous patterns and pathways in development: what have we learned?*), 16 students (+ 5 postdoctoral fellows)
	Psyc 395: Independent Research in Psychology, 2 students
Spring 2016	Psyc 831: Statistical Methods in Psychology II, 29 students
Fall 2015	Psyc 846: Multilevel Modeling, 34 students (+ 2 postdoctoral fellows)
Spring 2015	Psyc 831: Statistical Methods in Psychology II, 30 students
Spring 2014	Psyc 831: Statistical Methods in Psychology II, 35 students
Fall 2013	Psyc 846: Multilevel Modeling, 35 students
Fall 2011	Psyc 533: The General Linear Model in Psychology, 32 students
Spring 2011	Psyc 846: Multilevel Modeling, 29 students
Fall 2009	Psyc 846: Multilevel Modeling, 35 students
Spring 2009	Psyc 215: Statistical Principles in Psychological Research, 32 students
Fall 2008	Psyc 215: Statistical Principles in Psychological Research, 30 students
	Psyc 859: Seminar in Quantitative Psychology (*Cluster Analysis and Mixture Modeling*), 10 students
Fall 2007	Psyc 215: Statistical Principles in Psychological Research, 25 students
	Psyc 846: Multilevel Modeling, 30 students
Fall 2006	Psych 215: Statistical Principles in Psychological Research, 26 students
Spring 2006	Psyc 330: Seminar in Quantitative Psychology (*Multilevel Modeling*), 18 students
Fall 2005	Psyc 281: Statistical Methods in Psychology I, 21 students
Spring 2005	Psych 30c: Statistical Principles in Psychological Research, 32 students
Fall 2004	Psyc 281: Statistical Methods in Psychology I, 12 students

Courses Taught at North Carolina State University

Spring 2004	Psy 710: Special Topics in Psychology: Quantitative Methods in Psychology, 15 students
Fall 2003	Psy 710: Special Topics in Psychology: Multivariate Methods in Psychology, 20 students
Spring 2003	Psy 710: Special Topics in Psychology: Quantitative Methods in Psychology, 11 students
Fall 2002	Psy 710: Special Topics in Psychology: Multivariate Methods in Psychology, 8 students

"Office Hours" Videos

Patrick Curran and I have produced a series of 10-30 minute free online videos addressing commonly asked questions concerning quantitative methods in the behavioral, health, and social sciences. As of 5/1/2021, these have 212K views, with nearly 4K subscribers.

Available at: https://www.youtube.com/channel/UC7kcXN1Xoj4PzMIKPHJ5m7Q

Videos produced by me include (posting date; views as of 5/1/21):
- *What's the difference between mixture modeling and cluster analysis* (Feb 23, 2017; 13.K views)
- *Why use a structural equation model?* (March 21, 2017; 27.0K views)
- *How many clusters do I need to fit a multilevel model?* (March 28, 2017; 3.2K views)
- *Introduction to latent class/profile analysis* (April 14, 2017; 19.5K views)
- *Regression Episode 1: Introduction to Linear Regression* (August 1, 2017, 3.4K views)
- *Regression Episode 2: Ordinary Least Squares Explained* (August 1, 2017, 4.2K views)
- *Regression Episode 3: Testing the Model* (August 1, 2017, 1.6K views)
- *Regression Episode 4: Inferences About Specific Parameters* (August 1, 2017, 880 views)
- *Regression Episode 5: Multiple Regression* (August 25, 2017, 970 views)
- *Regression Episode 6: Categorical Predictors* (January 11, 2020, 496 views)
- *Regression Episode 7: Interactions of Categorical with Continuous Predictors* (January 21, 2020, 665 views)
- *Regression Episode 8: Interactions Between Continuous Predictors* (February 20, 2020, 963 views)

PROFESSIONAL SERVICE

Service to Discipline

2006-present	Consulting Editor, *Multivariate Behavioral Research*
2005-present	Editorial Board Member, *Psychological Methods*
2010-2021	Editorial Board Member, *Journal of Educational and Behavioral Statistics*
2018-	Adolescent Brain and Cognitive Development (ABCD) Study Integrative Diagnosis Working Group Member
2017-2018	Editor Search Committee, *Psychological Methods*, American Psychological Association
2010-2017	Dissertation Grant Committee Chair, Society for Multivariate Experimental Psychology
2004-2017	Editorial Board Member, *Psychological Assessment*
2007-2010	Dissertation Award Committee Member, Society for Multivariate Experimental Psychology
2011-2012	Panel chair and reviewer for SRCD Conference on Developmental Methodology
2010-2013	Associate Editor, *Psychological Methods*

Grant Review:

- March, 2020: Secondary Data Analysis of Preventive Interventions; NIH Meeting 2020/05 ZMH1 ERB-B (05) S

- March, 2018: Accelerating the Pace of Drug Abuse Research Using Existing Data; NIH Meetings ZRG1 PSE-A (90) S and ZRG1 PSE-W (55) R

- September, 2009: Institute of Education Sciences, Department of Education

Ad-hoc Reviewer: *Addiction; British Journal of Mathematical and Statistical Psychology; Clinical Psychological Science; Development and Psychopathology; Developmental Psychology; JAMA Psychiatry; Journal of Abnormal Psychology; Journal of Classification; Journal of Consulting and Clinical Psychology; Journal of Marriage and Family*; *Journal of Personality; Journal of Research on Adolescence; Journal of the American Statistical Association; Merrill-Palmer Quarterly; Neuropsychopharmacology; Psychopathology and Behavioral Assessment; Prevention Science;* Sage Publications; *Sociological Methodology; Sociological Methods & Research; Statistics in Medicine; Structural Equation Modeling*.

Service to Department

2021-present	Co-Chair, Justice, Equity, Diversity, and Inclusion (JEDI) committee
2020-present	Director, Quantitative Psychology graduate program
2009-present	Member, faculty and lecturer reappointment and promotion committees
2008-present	Member, Personnel Committee
2017-2018	Interim Director, Quantitative Psychology graduate program
2016-2017	Member, Neuroscience Major Exploration Committee
2009-2017	Co-Chair, Colloquium Committee / Distinguished Alumnus Committee
2015-2016	Chair, Developmental Faculty Search Committee
2015-2016	Member, Architectural Review Committee
2010-2016	Member, Undergraduate Studies Committee
2015	Member, Merit Review Committee
2013-2014	Member, BA/BS Curriculum Review Committee
2007-2009	Faculty Coordinator, Quantitative Forum (weekly seminar series)
2005-2007	Faculty Adviser, Zetas (quantitative psychology graduate student group)
2007	Member, Local Organizing Committee, Society for Multivariate Experimental Psychology Conference in Chapel Hill
2005	Member, Smith Grant Selection Committee
2004-2005	Member, Advisory Committee

Service to University

2021-2022	Diversity Liaison, College of Arts and Sciences
2019 (fall)	Data Science @ Carolina, Undergraduate Curriculum Subcommittee member, coordinator of major subgroup, generating recommendations for the Steering Committee to present to the Provost regarding Data Science major(s) at UNC.
2019 (fall)	Teaching Awards Committee Member, Chapman Award
2017 (spring)	Acting Director, Center for Developmental Science, University of North Carolina.
2000-2002	Chair of the Board, Victory Village Day Care, managing organization of the University Child Care Center, Chapel Hill, NC
1999-2002	Board Member, Victory Village Day Care, managing organization of the University Child Care Center, Chapel Hill, NC