

***Curriculum Vitae***  
**Patrick J. Curran, Ph.D.**

L.L. Thurstone Psychometric Laboratory  
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**Education History**

1994–1996      NRSA-F32 Post-Doctoral Fellow, Applied Statistics, School of Education, University of California, Los Angeles. Dr. Bengt Muthén, Advisor  
1991–1994      Ph.D., Clinical Psychology. Emphasis, Quantitative Methodology. Arizona State University, Tempe.  
1988–1990      M.A., Clinical Psychology, Arizona State University, Tempe.  
1983–1987      B.A., Psychology, Magna Cum Laude, University of Colorado, Boulder.

**Employment History**

2010–present    Director, L.L. Thurstone Psychometric Laboratory, UNC-Chapel Hill  
2006–present    Professor, Department of Psychology, University of North Carolina at Chapel Hill.  
2002–2006      Associate Professor, Department of Psychology, University of North Carolina at Chapel Hill.  
1999– 2002     Assistant Professor, Department of Psychology, University of North Carolina at Chapel Hill.  
1996– 1999     Assistant Professor, Department of Psychology: Social & Health Sciences, Duke University.  
1996–present    Adjunct Faculty, Center for Developmental Science, University of North Carolina at Chapel Hill.  
1994– 1996     Postdoctoral Fellow, Applied Statistics, University of California, Los Angeles

**Awards, Honors & Professional Activities**

2012             Recipient of the 2012 *University Chapman Family Teaching Award* in recognition of distinguished teaching of undergraduate students, University of North Carolina  
2012-present    Expert Advisory Board Member, Science of Research and Technology Branch, National Cancer Institute  
2012-present    Consulting Editor, *Archives of Scientific Psychology*  
2011-present    Consulting Editor, *Journal of Abnormal Psychology*  
2007-present    Fellow, *Association for Psychological Science*  
2007             Chair, NIH Special Emphasis Panel *Behavioral Genetics and Epidemiology*  
2007-present    Editorial Board, *Journal of Educational and Behavioral Statistics*  
2006             Co-Recipient of the Tanaka Award for the most outstanding paper published in *Multivariate Behavioral Research* in 2005, presented by the Society for Multivariate Experimental Psychology.  
2006             Recipient of *James McKeen Cattell Sabbatical Fellowship Award*  
2006             Recipient of University of North Carolina *Reynolds Foundation Sabbatical Award*  
2005-present    Consulting Editor, *Multivariate Behavioral Research*  
2004-2007      Associate Editor, *Psychological Methods*  
1996-present    Editorial Board, *Psychological Methods*

2003-2006	Editorial Advisory Board, <i>Multivariate Behavioral Research</i>
2003-present	Editorial Board, <i>Structural Equation Modeling: An Interdisciplinary Journal</i>
2002-2007	Editorial Board, <i>Multivariate Applications Book Series</i> , Erlbaum Publishing
2002-2004	Editorial Board, <i>Psychological Assessment</i>
1998-2003	Editorial Board, <i>Developmental Psychology</i>
1996-1998	Editorial Board, <i>Health Psychology</i>
2001	<i>Raymond B. Cattell Early Career Award</i> for outstanding contributions to multivariate experimental psychology: Awarded by the Society for Multivariate Experimental Psychology
2003-2006	Elected Member, APA Division 5 Executive Committee
2002-2003	Chair, APA Division 5 (Evaluation, Measurement, & Statistics) Program Committee
2000-present	Nominated Member, Society of Multivariate Experimental Psychology
1999	Featured early career scientist in 1999 <i>Early Career Preventionist Networks</i> Newsletter
1993-1994	Herman E. DeMund Memorial Scholarship, Arizona State University.
1993	Graduate Student Research Award, Society for Research in Child Development.
1992	Graduate Research Award, Southwestern Society for Research in Human Development
1991	Chair, Social Sciences Graduate Research Council, Arizona State University.

### Peer Reviewed Manuscripts in Reverse Chronological Order

† denotes student or post-doctoral fellow at time of publication

McGinley<sup>†</sup>, J.S., **Curran, P.J.**, Hedeker, D. (2015). A novel modeling framework for ordinal data defined by collapsed counts. Early publication online, *Statistics in Medicine*. PMID: in process

Bainter<sup>†</sup>, S.A., & **Curran, P.J.** (2015). Advantages of integrative data analysis for developmental research. *Journal of Cognition and Development*, 16, 1-10. PMID: PMC4309386

**Curran, P.J.** (2014). The critical role of measurement (and space elevators) in the study of child development. *Journal of Pediatric Psychology*, 39, 258-261. PMID: in process

**Curran, P.J.**, McGinley<sup>†</sup>, J.S., Bauer, D.J., Hussong, A.M., Burns<sup>†</sup>, 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. PMID: PMC4423418

McGinley<sup>†</sup>, J.S., & **Curran, P.J.** (2014). Validity concerns with multiplying ordinal items defined by binned counts: An application to a quantity-frequency measure of alcohol use. *Methodology: European Journal of Research Methods for the Behavioral and Social Sciences*, 10, 108-116. PMID: PMC4217492

Bauer, D., Howard<sup>†</sup>, A., Baldasaro<sup>†</sup>, R., **Curran, P.J.**, Hussong, A., Chassin, L., & Zucker, R. (2013). A trifactor model for integrating ratings across multiple informants. *Psychological Methods*, 18, 475-493. PMID: PMC3964937

Chassin, L., Sher, K., Hussong, A.M., & **Curran, P.J.** (2013). The developmental psychopathology of alcohol use and alcohol disorders: Research achievements and future directions. *Development and Psychopathology*, 25, 1567-1584. PMID: PMC4080810

**Curran, P.J.**, Howard<sup>†</sup>, A.L., Bainter<sup>†</sup>, S., Lane<sup>†</sup>, S.T., & McGinley<sup>†</sup>, J.S. (2013). The separation of between-person and within-person components of individual change over time: A latent curve model with structured residuals. *Journal of Consulting and Clinical Psychology*, 82, 879-894. PMID: PMC4067471

- Hussong, A.M., **Curran, P.J.**, & Bauer, D.J. (2013). Clinical applications of integrative data analysis. *Annual Review of Clinical Psychology, 9*, 61-89. PMID: in process
- Lane<sup>†</sup>, S.L., Franklin<sup>†</sup>, J.C., & **Curran, P.J.** (2013). Clarifying the nature of startle habituation using latent curve models. *International Journal of Psychophysiology, 88*, 55-63. PMID: not needed.
- Hussong, A.M., Huang<sup>†</sup>, W., Serrano<sup>†</sup>, D., **Curran, P.J.**, & Chassin, L. (2012). Testing whether and when parent alcoholism uniquely affects various forms of adolescent substance use. *Journal of Abnormal Child Psychology, 40*, 1265-1276. PMID: PMC3473117
- Molina, B., Pelham, W.E., Cheong, J-W., Marshal, M., Gnagy, E., & **Curran, P.J.** (2012). Childhood ADHD and growth in adolescent alcohol use: The roles of functional impairments, ADHD symptom persistence, and parental knowledge. *Journal of Abnormal Psychology, 121*, 922-935. PMID: PMC4128089
- Curran, P.J.**, & Bauer, D.J. (2011). The disaggregation of within-person and between-person effects in longitudinal models of change. *Annual Review of Psychology, 62*, 583-619. PMID: PMC3059070
- Curran, P.J.**, Obeidat<sup>†</sup>, K., & Losardo<sup>†</sup>, D. (2010). Twelve frequently asked questions about growth curve modeling. *Journal of Cognition and Development, 11*, 121-136. PMID: PMC3131138
- Hussong, A.M., Huang<sup>†</sup>, W., **Curran, P.J.**, Chassin, L., & Zucker, R.A. (2010). Parent alcoholism impacts the severity and timing of children's externalizing symptoms. *Journal of Abnormal Child Psychology, 38*, 367-380. PMID: PMC3215275
- Curran, P.J.** (2009). The seemingly quixotic pursuit of a cumulative psychological science: Introduction to the special issue. *Psychological Methods, 14*, 77-80. PMID: PMC2766595
- Curran, P.J.**, & Hussong, A.M. (2009). Integrative data analysis: The simultaneous analysis of multiple data sets. *Psychological Methods, 14*, 81-100. PMID: PMC2777640
- Chassin, L., Presson, C., Seo, D.-C., Sherman, S.J., Macy, J. Wirth<sup>†</sup>, R.J., & **Curran, P.J.** (2008). Multiple trajectories of cigarette smoking and the intergenerational transmission of smoking: A multigenerational longitudinal study of a Midwestern community sample. *Health Psychology, 27*, 819-828. PMID: not needed
- Chen<sup>†</sup>, F., **Curran, P.J.**, Bollen, K.A., Kirby<sup>†</sup>, J., and Paxton<sup>†</sup>, P. (2008). An empirical evaluation of the use of fixed cutoff points in RMSEA test statistic in structural equation models. *Sociological Methods and Research, 36*, 462-494. PMID: PMC2743032
- Coffman, J. L., Ornstein, P. A., McCall, L. E., & **Curran, P. J.** (2008). Linking teachers' memory-relevant language and the development of children's memory skills. *Developmental Psychology, 44*, 1640-1654. PMID: PMC4079074
- Curran, P.J.**, Hussong, A.M., Cai<sup>†</sup>, L., Huang<sup>†</sup>, W., Chassin, L., Sher, K.J., & Zucker, R.A. (2008). Pooling data from multiple longitudinal studies: The role of item response theory in integrative data analysis. *Developmental Psychology, 44*, 365-380. PMID: PMC2773828
- Flora<sup>†</sup>, D.B., **Curran, P.J.**, Hussong, A.M., & Edwards<sup>†</sup>, M.C. (2008). Incorporating measurement non-equivalence in a cross-study latent growth curve analysis. *Structural Equation Modeling, 15*, 676-704. PMID: PMC2772080
- Hussong, A.M., Cai<sup>†</sup>, L., **Curran, P.J.**, Flora<sup>†</sup>, D.B., Chassin, L., & Zucker, R.A. (2008). Disaggregating the distal, proximal, and time-varying effects of parent alcoholism on children's internalizing symptoms. *Journal of Abnormal Child Psychology, 36*, 335-346. PMID: PMC2785434

- Hussong, A.M., Flora<sup>†</sup>, D.B., **Curran, P.J.**, Chassin, L.A., Zucker, R.A. (2008). Defining risk heterogeneity for internalizing symptoms among children of alcoholic parents. *Development and Psychopathology*, *20*, 165-193. PMID: PMC2249558
- Bollen, K.A., Kirby<sup>†</sup>, J.B., **Curran, P.J.**, Paxton<sup>†</sup>, P.M., & Chen<sup>†</sup>, F. (2007). Latent variable models under misspecification: A comparison of Two Stage Least Squares (2SLS) to Full Information Maximum Likelihood estimators (FIML). *Sociological Methods and Research*, *36*, 48-86.
- Hussong, A.M., Wirth<sup>†</sup>, R.J., Edwards<sup>†</sup>, M.C., **Curran, P.J.**, Zucker, R.A., & Chassin, L.A. (2007). Externalizing symptoms among children of alcoholic parents: Entry points for an antisocial pathway to alcoholism. *Journal of Abnormal Psychology*, *116*, 529-542.
- Curran, P.J.**, & Bauer, D.J. (2007). Building path diagrams for multilevel models. *Psychological Methods*, *12*, 283-297.
- Preacher<sup>†</sup>, K.J., **Curran, P.J.**, & Bauer, D.J. (2006). Computational tools for probing interactions in multiple linear regression, multilevel modeling, and latent curve analysis. *Journal of Educational and Behavioral Statistics*, *31*, 437-448.
- Bauer, D.J., & **Curran, P.J.** (2005). Probing interactions in fixed and multilevel regression: Inferential and graphical techniques. *Multivariate Behavioral Research*, *40*, 373-400.  
Reprinted in Gough, B., Miles, J. & Stucky, B. (Eds.), *Quantitative Research in Psychology*, 2015, Sage Benchmarks in Psychology, Los Angeles, CA, Sage Publications.
- Bauer, D.J., & **Curran, P.J.** (2004). The integration of continuous and discrete latent variable models: Potential problems and promising opportunities. *Psychological Methods*, *9*, 3-29.
- Bollen, K.A., & **Curran, P.J.** (2004). Autoregressive latent trajectory (ALT) models: A synthesis of two traditions. *Sociological Methods and Research*, *32*, 336-383.  
Reprinted in Gough, B., Miles, J. & Stucky, B. (Eds.), *Quantitative Research in Psychology*, 2015, Sage Benchmarks in Psychology, Los Angeles, CA, Sage Publications
- Biesanz<sup>†</sup>, J.C., Deeb-Sossa<sup>†</sup>, N., Aubrecht<sup>†</sup>, A.M., Bollen, K.A., & **Curran, P.J.** (2004). The role of coding time in estimating and interpreting growth curve models. *Psychological Methods*, *9*, 30-52.
- Curran, P.J.**, Bauer, D.J., & Willoughby, M.T. (2004). Testing and probing main effects and interactions in latent curve analysis. *Psychological Methods*, *9*, 220-237.
- Curran, P.J.**, & Wirth<sup>†</sup>, R.J. (2004). Inter-individual differences in intra-individual variation: Balancing internal and external validity. *Measurement: Interdisciplinary Research and Perspectives*, *2*, 219-227. PMID: PMC3131143
- Flora<sup>†</sup>, D.B., & **Curran, P.J.** (2004). An empirical evaluation of alternative methods of estimation for confirmatory factor analysis with ordinal data. *Psychological Methods*, *9*, 466-491. PMID: 3153362
- Hipp<sup>†</sup>, J., Bauer, D.J., **Curran, P. J.** & Bollen, K. A. (2004). Crimes of opportunity or crimes of emotion: Testing two explanations of seasonal change in crime. *Social Forces*, *82*, 1333-1372.
- Hussong, A.M., **Curran, P.J.**, Moffitt, T.E., Caspi, A., & Carrig<sup>†</sup>, M.M. (2004). Substance abuse hinders desistance in young adults' antisocial behavior. *Development and Psychopathology*, *16*, 1029-1046.
- Bauer, D.J., & **Curran, P.J.** (2003-a). Distributional assumptions of growth mixture models: Implications for overextraction of latent trajectory classes. *Psychological Methods*, *8*, 338-363.  
Reprinted in Gough, B., Miles, J. & Stucky, B. (Eds.), *Quantitative Research in Psychology*, 2015, Sage Benchmarks in Psychology, Los Angeles, CA, Sage Publications

- Bauer, D.J., & **Curran, P.J.** (2003-*b*). Overextraction of latent trajectory classes: Much ado about nothing? *Psychological Methods*, *8*, 384-393.
- Carrig<sup>†</sup>, M., Wirth<sup>†</sup>, R.J., & **Curran, P.J.** (2004). A SAS macro for estimating and visualizing individual growth curves. *Structural Equation Modeling: An Interdisciplinary Journal*, *11*, 132-149.
- Curran, P.J.** (2003). Have multilevel models been structural equation models all along? *Multivariate Behavioral Research*, *38*, 529-569.
- Curran, P.J.**, Bollen, K.A., Chen<sup>†</sup>, F., Paxton<sup>†</sup>, P., & Kirby<sup>†</sup>, J. (2003). The finite sampling properties of the RMSEA: Point estimates and confidence intervals. *Sociological Methods and Research*, *32*, 208-252.
- Curran, P.J.**, and Hussong, A.M. (2003). The use of latent trajectory models in psychopathology research. *Journal of Abnormal Psychology*, *112*, 526-544.
- Curran, P.J.**, and Willoughby, M.J. (2003). Reconciling theoretical and statistical models of developmental processes. *Development and Psychopathology*, *15*, 581-612.
- Curran, P.J.**, Bollen, K.A., Paxton<sup>†</sup>, P., Kirby<sup>†</sup>, J., & Chen<sup>†</sup>, F. (2002). The noncentral chi-square distribution in misspecified structural equation models: Finite sample results from a Monte Carlo simulation. *Multivariate Behavioral Research*, *37*, 1-36.
- Kaplow<sup>†</sup>, J.B., **Curran, P.J.**, Dodge, K., and the Conduct Problems Prevention Research Group (2002). Child, parent, and peer predictors of early-onset substance use: A multi-site longitudinal study. *Journal of Abnormal Child Psychology*, *30*, 199-216. PMCid: 2758661
- Rodebaugh<sup>†</sup>, T.L., **Curran, P.J.**, & Chambless, D.L. (2002). Expectancy of panic in the maintenance of daily anxiety in panic disorder with agoraphobia: A longitudinal test of competing models. *Behavior Therapy*, *33*, 315-336.
- Chen<sup>†</sup>, F., Bollen, K.A., Paxton<sup>†</sup>, P., **Curran, P.J.**, & Kirby<sup>†</sup>, J. (2001). Improper solutions in structural equation models: Causes, consequences, and strategies. *Sociological Methods and Research*, *29*, 468-508.
- Hussong, A.M., Hicks<sup>†</sup>, R.E., Levy<sup>†</sup>, S.A., & **Curran, P.J.** (2001). Specifying the relations between affect and heavy alcohol use among young adults. *Journal of Abnormal Psychology*, *110*, 449-461.
- Kaplow<sup>†</sup>, J.B., **Curran, P.J.**, & Costello, E.J. (2001). The prospective relation between dimensions of anxiety and the initiation of adolescent alcohol use. *Journal of Clinical Child Psychology*, *30*, 316-326.
- Paxton<sup>†</sup>, P., **Curran, P.J.**, Bollen, K.A., Kirby<sup>†</sup>, J., & Chen<sup>†</sup>, F. (2001). Monte Carlo experiments: Design and implementation. *Structural Equation Modeling*, *8*, 287-312.
- Willoughby<sup>†</sup>, M.T., **Curran, P.J.**, Costello, E.J. & Angold, A. (2000). Implications of early versus late onset of Attention Deficit Hyperactivity Disorder symptomatology. *Journal of the American Academy of Child and Adolescent Psychiatry*, *39*, 1512-1519.
- Curran, P.J.**, & Muthén, B.O. (1999). The application of latent curve analysis to testing developmental theories in intervention research. *American Journal of Community Psychology*, *27*, 567-595.
- Lengua, L. J., Sandler, I. N., West, S. G., Wolchik, S. A. & **Curran, P.J.** (1999). Emotionality and self-regulation, threat appraisal and coping in children of divorce. *Development and Psychopathology*, *11*, 15-37.
- Curran, P.J.**, Muthén, B.O., & Harford, T.C. (1998). The influence of changes in marital status on developmental trajectories of alcohol use in young adults. *Journal of Studies on Alcohol*, *59*, 647-658.

- Hussong, A. M., **Curran, P.J.**, & Chassin, L. (1998). Pathways of risk for children of alcoholics' accelerated heavy alcohol use. *Journal of Abnormal Child Psychology*, *26*, 453-466.
- Colder, C. R., Chassin, L., Stice, E. M., & Curran, P.J. (1997). Alcohol expectancies as potential mediators of parent alcoholism effects on the development of adolescent heavy drinking. *Journal of Research on Adolescence*, *7*, 349-374.
- Curran, P.J.**, Stice, E. & Chassin, L. (1997). The relation between adolescent and peer alcohol use: A longitudinal random coefficients model. *Journal of Consulting and Clinical Psychology*, *65*, 130-140.
- Mueser, K., **Curran, P.J.**, and McHugo, G. (1997). Factor structure of the Brief Psychiatric Rating Scale in schizophrenia. *Psychological Assessment*, *9*, 196-204.
- Muthén, B.O., & **Curran, P.J.** (1997). General longitudinal modeling of individual differences in experimental designs: A latent variable framework for analysis and power estimation. *Psychological Methods*, *2*, 371-402.
- Chassin, L., **Curran, P.J.**, Hussong, A.M., & Colder, C.R. (1996). The relation of parent alcoholism to adolescent substance use: A longitudinal follow-up study. *Journal of Abnormal Psychology*, *105*, 70-80.
- Curran, P.J.**, & Chassin, L. (1996). A longitudinal study of parenting as a protective factor for children of alcoholics. *Journal of Studies on Alcohol*, *57*, 305-313.
- Curran, P.J.**, Harford, T.C., & Muthén, B.O. (1996). The relation between heavy alcohol use and bar patronage: A latent growth model. *Journal of Studies on Alcohol*, *57*, 410-418.
- Curran, P.J.**, West, S.G., & Finch, J. (1996). The robustness of test statistics to non-normality and specification error in confirmatory factor analysis. *Psychological Methods*, *1*, 16-29.  
Reprinted in Gough, B., Miles, J. & Stucky, B. (Eds.), *Quantitative Research in Psychology*, 2015, Sage Benchmarks in Psychology, Los Angeles, CA, Sage Publications
- Sayers, S., **Curran, P.J.**, & Mueser, K. (1996). Factor structure and construct validity of the Scale for the Assessment of Negative Symptoms. *Psychological Assessment*, *8*, 269-280.
- Molina, B., Chassin, L., & **Curran, P.J.** (1994). A comparison of mechanisms underlying substance use for early adolescent children of alcoholics and controls. *Journal of Studies on Alcohol*, *55*, 269-275.
- Chassin, L., Pillow, D.R., **Curran, P.J.**, Molina, B.G., & Barrera, M. (1993). The relation of parent alcoholism to adolescent substance use: A test of three mediating mechanisms. *Journal of Abnormal Psychology*, *102*, 3-19.
- Timmons, L.A., Lanyon, R.I., Almer, E.R., & **Curran, P.J.** (1993). Development and validation of a sentence completion test indices of malingering during examination for disability. *American Journal of Forensic Psychology*, *11*, 23-38.
- Lanyon, R.I., Almer, E., & **Curran, P.J.** (1993). Use of biographical and case history data in the assessment of malingering during examination for disability. *Bulletin of the American Academy of Psychiatry and the Law*, *21*, 495-503.
- Thomas, D.R., & **Curran, P.J.** (1988). The role of response directedness in discriminative and conditional stimulus control. *Bulletin of the Psychonomic Society*, *26*, 378-380.
- Thomas, D., **Curran, P.J.**, & Russell, R. (1988). Factors affecting conditional discrimination learning by pigeons: Physical and temporal characteristics of stimuli. *Animal Learning & Behavior*, *16*, 468-476.

## Books

Bollen, K.A., & **Curran, P.J.** (2006). *Latent curve models: A structural equation approach*. Hoboken, NJ: John Wiley & Sons.

## Book Chapters, Book Reviews and Published Abstracts in Reverse Chronological Order

<sup>†</sup> denotes student or post-doctoral fellow at time of publication

Bauer, D.J., & **Curran, P.J.** (in press). The disjoint between measurement and modeling in longitudinal research. To appear in J. Harring & L. Stapleton (Eds.), *Advances in Multilevel Modeling for Educational Research: Addressing Practical Issues Found in Real-World Applications*. Charlotte, NC: Information Age Publishing.

Howard<sup>†</sup>, A.L., & **Curran, P.J.** (2014). Latent growth curve modeling. In A. C. Michalos (Ed.). *Encyclopedia of Quality of Life and Well-Being Research* (pp. 3515-3517). Dordrecht, Netherlands: Springer.

McGinley<sup>†</sup>, J.S., & **Curran, P.J.** (2013). An innovative modeling framework for ordinal adolescent alcohol use data. *Alcoholism: Clinical and Experimental Research*, *37*, 133A-133A.

**Curran, P.J.**, Lee<sup>†</sup>, T.H., Howard<sup>†</sup>, A.L., Lane<sup>†</sup>, S.T., & MacCallum, R.C. (2012). Disaggregating within-person and between-person effects in multilevel and structural equation growth models. In J. Harring & G. Hancock (Eds.) *Advances in Longitudinal Methods in the Social and Behavioral Sciences* (pp. 217-253). Charlotte, NC: Information Age Publishing.

**Curran, P.J.**, McGinley<sup>†</sup>, J.S., Serrano<sup>†</sup>, D., & Burfeind<sup>†</sup>, C. (2012). A multivariate growth curve model for three-level data. In H. Cooper (Ed.) *APA Handbook of Research Methods in Psychology, Volume 3* (pp.335-358). Washington, DC: American Psychological Association.

McGinley, J.S., & **Curran, P.J.** (2010). Concerns about the use of ordinal quantity-frequency measures to estimate individual alcohol consumption. *Alcoholism: Clinical and Experimental Research*, *34*, 67A.

Chassin, L., **Curran, P.J.**, Presson, C.C., Sherman, S.J., & Wirth<sup>†</sup>, R.J. (2009). Developmental trajectories of cigarette smoking from adolescence to adulthood: An overview and relations to indicators of tobacco dependence. In *Phenotypes and Endophenotypes: Foundations for Genetic Studies of Nicotine Use and Dependence* (pp.189-244). Tobacco Control Monograph No. 20. Bethesda, MD: U.S. Department of Health and Human Services, National Institutes of Health, National Cancer Institute. NIH Publication No. 09-6366, August, 2009.

Hussong, A. M., Bauer, D., Serrano<sup>†</sup>, 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.

Hussong, A.M., & **Curran, P.J.** (2008). An introduction to growth modeling in alcohol research. *Alcoholism: Clinical and Experimental Research*, *32*, 237A.

Hussong, A.M., **Curran, P.J.**, Moffitt, T.E., & Caspi, A. (2008). Testing turning points using latent growth curve models: Competing models of substance abuse and desistance in young adulthood. In P. Cohen (Ed.), *Applied data analytic techniques for turning points research* (pp. 81-104). New York: Routledge.

Molina, B.S.G., Pelham, W.E., Cheong, J.W., Marshal, M.P., **Curran, P.J.**, & Gnagy, E.M. (2008). Growth in drinking frequency, associated AUD symptoms, and mediating pathways in adolescents with and without childhood ADHD. *Alcoholism: Clinical and Experimental Research*, *32*, 290A-290A.

- Curran, P.J.**, Edwards<sup>†</sup>, M.C., Wirth<sup>†</sup>, R.J., Hussong, A.M., & Chassin, L. (2007). The incorporation of categorical measurement models in the analysis of individual growth. In T. Little, J. Bovaird, & N. Card (Eds.), *Modeling Ecological and Contextual Effects in Longitudinal Studies of Human Development* (p.89-120). Mahwah, NJ: LEA.
- Molina, B.S.G., Pelham, W.E., Marshal, M.R., **Curran, P.J.**, Gnagy, E.M., Thompson, A. L., & Cheong, J. W. (2007, June). Developmental influences on the associations among childhood ADHD, antisocial behaviors, and alcohol use. *Alcoholism: Clinical and Experimental Research*, *31*, 285A-285A.
- 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.
- Curran, P.J.**, & Hussong, A.M. (2002). Structural equation modeling of repeated measures data. In D. Moskowitz & S. Hershberger (Eds.), *Modeling Intraindividual Variability with Repeated Measures Data: Methods and Applications*, (pp. 59-86). New York: Erlbaum Associates.
- Curran, P.J.**, & Bollen, K.A. (2001). The best of both worlds: Combining autoregressive and latent curve models. In Collins, L. M. & Sayer, A. G. (Eds.), *New Methods for the Analysis of Change*, (pp. 105-136). Washington, DC: American Psychological Association.
- Curran, P.J.** (2000-a). Factor Analysis. In A. Kazdin (Ed.), *Encyclopedia of Psychology*, (pp. 313-315). Washington, DC: American Psychological Association.
- Curran, P.J.** (2000-b). A latent curve framework for studying developmental trajectories of adolescent substance use. In J. Rose, L. Chassin, C. Presson, & J. Sherman (Eds.), *Multivariate Applications in Substance Use Research*, (pp. 1-42). Hillsdale, NJ: Erlbaum.
- Curran, P.J.** (2000-c). Latent growth curve modeling. [Review of the book *An Introduction to Latent Variable Growth Curve Modeling: Concepts, Issues, and Applications*]. *Applied Psychological Measurement*, *24*, 181-183.
- Chassin, L., **Curran, P.J.**, Hussong, A. M., & Colder, C. R. (1997). The relation of parent alcoholism to adolescent substance use: A longitudinal follow-up study. In Marlatt & VandenBos (Eds.), *Addictive behaviors: Readings on etiology, prevention, and treatment*. (pp. 509-533). Washington, DC: APA.
- West, S.G., Finch, J.F., & **Curran, P.J.** (1995). Structural equation models with non-normal variables: Problems and remedies. In R. Hoyle (Ed.), *Structural Equation Modeling: Concepts, Issues and Applications*, (pp. 56-75). Newbury Park, CA: Sage.
- Curran, P.J.** (1994). The resilient child. [Review of the book *The Resilient Child: Preparing Today's Youth for Tomorrow's World*]. *Clinical Psychology Review*, *14*, 609-610.
- Muthen, B.O., & **Curran, P.J.** (1997). General growth modeling in experimental designs: A latent variable framework for analysis and power estimation. CSE Technical Report 443. National Center for Research on Evaluation, Standards, and Student Testing, Graduate School of Education & Information Studies, University of California, Los Angeles.
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### Selected Invited Colloquia

- 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.
- 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.
- 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.
- Curran, P.J.,** Bauer, D.J. & Hussong, A.M. (October, 2014). A Moderated Nonlinear Factor Model for the Development of Commensurate Measures in Integrative Data Analysis. Invited webinar presentation for the Prevention Science Methodology Group, University of South Florida.
- Curran, P.J.** (February, 2014). Separating Person-Specific & Time-Specific Components of Developmental Change. Invited presentation for the Center for Developmental Science, University of North Carolina at Chapel Hill.
- 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.
- Curran, P.J.,** Hussong, A.M., & Bauer, D.J. (April, 2012). The Application of Integrative Data Analysis to the Study of Adolescent Substance Use. Invited presentation for Center of Alcohol and Addiction Studies, Brown University.
- Curran, P.J.,** Bauer, D.J., & Hussong, A.M. (February, 2012). Integrative Data Analysis: The Simultaneous Analysis of Multiple Data Sets. Invited presentation for the National Cancer Institute, Division of Cancer Control and Population Sciences.
- 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. Montreal, Canada.
- Hussong, A. M., & **Curran, P.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.
- Bauer, D.J., **Curran, P.J.,** & Hussong A.M. (March, 2010). Toward a Cumulative Psychological Science: Integrative Data Analysis. Invited presentation for the Department of Psychology, Brigham Young University.
- Curran, P.J.,** & Hussong, A.M. (2009, October). The Application of Integrative Data Analysis to the Study of Developmental Processes. Colloquium presented to the Center for the Analysis of Pathways from Childhood to Adulthood, Institute for Social Research, University of Michigan.
- Curran, P.J.** (June, 2006). Growth Models with Time-Varying and Time-Invariant Covariates. Colloquium presented to the Center for the Analyses of Pathways from Childhood to Adulthood, University of Michigan, June 5, 2006.

- Curran, P.J.** (2005). Alternative methods for evaluating subgroup heterogeneity in developmental trajectories. Colloquium presented to the LIFE Academy, University of Michigan, October 17, 2005.
- Curran, P.J.** (2004). Recent advances in the analysis of individual growth curves. Colloquium presented to the Department of Psychology, Yale University, February 11, 2004.
- Curran, P.J.** (2004). Modeling individual and group differences in adolescent development. Colloquium presented to the School of Social Work Methodology Seminar, University of North Carolina at Chapel Hill, January 13, 2004.
- Curran, P.J.** (2003). The simultaneous analysis of multiple data sets: The challenge of meaning and metric. Colloquium presented to the Applied Statistics Working Group, Odum Institute, University of North Carolina at Chapel Hill.
- Curran, P.J.** (2003). Matching statistical and theoretical models of change. Colloquium presented to The College Board, New York City, August 22, 2003.
- Curran, P.J.** (2002). Testing and probing interactions in hierarchical linear growth models. Colloquium presented at the First Annual Notre Dame Series on Quantitative Methodology, May 30, 2002.
- Curran, P.J.** (2001). Modeling stability and change in developmental psychopathology. Colloquium presented to the Center for the Advancement of Research Methods and Analysis, Virginia Commonwealth University, November 16, 2001.
- Curran, P.J.** (2000). Modeling intergenerational transmission: The case of parental alcoholism. Colloquium presented to the Center for Developmental Science, University of North Carolina, November 27, 2000.
- Curran, P.J.** (2000). A proposed path diagramming framework for multilevel models. Colloquium presented to the Odum Institute's Applied Statistics Working Group, University of North Carolina, November 10, 2000.
- Curran, P.J.** (2000). The top 10 reasons graduate students hate to take statistics. Colloquium presented to the Clinical Program in the Department of Psychology at the University of North Carolina, September 1, 2000.
- Curran, P.J.** (2000). An empirical examination of the RMSEA for assessing fit in structural equation modeling: Sampling properties and statistical power. Colloquium presented to the Quantitative Program in the Department of Psychology at the University of North Carolina, January 21, 2000.
- Curran, P.J.** (1999). The conceptualization and testing of interactions in growth curve modeling. Colloquium presented to the Developmental and Quantitative Programs in the Department of Psychology at the University of North Carolina, November 12, 1999.
- Curran, P.J., & Bollen, K.A.** (1999). Latent variable models of individual change over time. Workshop presented at the Second International Institute on Developmental Science hosted by Stockholm University, Stockholm, Sweden, May 24-27, 1999.
- Curran, P.J.** (1998). Separating stable and unstable components of growth: Applications in developmental psychopathology. Colloquium presented to the Department of Psychology, Duke University, October 15, 1998.
- Curran, P.J.** (1998). Introduction to hierarchical linear models of individual growth: An applied example. Workshop presented at the First International Institute on Developmental Science hosted by the University of North Carolina, May 23-28, 1998.

- Curran, P.J.** (1998). A comprehensive statistical model for examining continuity and change. Colloquium presented to the Center for Developmental Science, University of North Carolina, March 2, 1998.
- Curran, P.J.** (1997). Matching statistical models to theoretical models in developmental psychology. Colloquium presented to the Developmental Area Seminar, Department of Psychology, University of North Carolina, September 5, 1997.
- Curran, P.J.** (1997). The next generation of longitudinal statistical models: Applications to adolescent alcohol use. Colloquium presented to the Department of Psychology, University of North Carolina, Wilmington, February 14, 1997.

#### **Selected Chaired Symposia**

- Hussong, A.M., McGinley, J.S., **Curran, P.J.**, Bauer, D.J., Chassin, L., & Zucker, R. (October, 2012). Disentangling levels and rates of externalizing symptoms as predictors of alcohol use patterns in emerging adulthood. Paper to be presented at the 2012 annual meeting of the Society for Research on Child Development themed meeting on Transitions from Adolescence to Adulthood, Tampa FL.
- Curran, P.J.**, & Hussong, A.M. (2007). The utility of integrative analysis with multiple samples in the study of emerging adulthood. Co-Chaired symposium presented at the 2007 meeting of the Conference on Emerging Adulthood, Tucson, AZ.
- Curran, P.J.** (2002). Recent advances in structural equation modeling. Chaired symposium conducted at the 2002 meeting of the Psychometric Society, Chapel Hill, NC.
- Curran, P.J.** (2001). Recent advances in modeling developmental trajectories. Chaired symposium conducted at the 2001 meeting of the Society for Research on Child Development, Minneapolis, MN.
- Curran, P.J.** (1997). Comparing three modern approaches to longitudinal data analysis: An examination of a single developmental sample. Chaired symposium conducted at the 1997 meeting of the Society for Research on Child Development, Washington, D.C.

#### **Selected Conference Papers & Presentations**

- Lane, S.T., & **Curran, P.J.** (2015, May). Evaluating the interaction of growth factors in the univariate latent curve model. Poster presented at the annual meeting of the Association for Psychological Science, New York, NY.
- 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.
- 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.
- 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.
- 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. Paper presented at the 2013 meeting of the Society of Multivariate Experimental Psychology, Orlando FL.

- Curran, P.J.**, Bainter, S., Hussong, A.M., Bauer, D.J., & Howard, A. (October, 2013). A non-linear bifactor model of polysubstance use. Paper presented at the 2013 meeting of the Society of Multivariate Experimental Psychology, Orlando FL.
- McGinley, J.S., & **Curran, P.J.** (June, 2013). An innovative modeling framework for ordinal adolescent alcohol use data. Paper presented at the Research Society on Alcoholism Conference, Orlando, Florida.
- Lane, S.T., & **Curran, P.J.** (May, 2013). Evaluating the prediction of growth factors under misspecification of functional form. Paper presented at the Modern Modeling Methods Conference, University of Connecticut.
- Burns, A., Hussong, A. M., Solis, J. M., **Curran, P.J.**, Chassin, L., & Zucker, R. A. (2013, April). Cohort effects in developmental trajectories of substance use over ages 10-40. A poster presented at the biannual meeting for the Society for Research on Child Development in Seattle, WA.
- Curran, P.J.**, & McGinley, J.S. (2012, October). A Psychometric Evaluation of Quantity-Frequency Measures of Substance Use. Paper presented at the 2012 meeting of the Society of Multivariate Experimental Psychology. Vancouver, BC.
- Hussong, A.M., McGinley, J.S., **Curran, P.J.**, Bauer, D.J., Chassin, L., & Zucker, R.A. (October, 2012). Disentangling Levels and Rates of Externalizing Symptoms as Predictors of Alcohol Use Patterns in Emerging Adulthood. Paper presented at the biennial meeting of the Society for Research on Child Development: Transitions from Adolescence to Adulthood. Tampa, FL.
- Burns, A.R., Hussong, A.M, Solis, J.M., **Curran, P.J.**, Chassin, L., & Zucker, R.A. (June 2012). Cohort effects in developmental trajectories of substance use over ages 10-40. Paper presented at the annual meeting of the Society for Prevention Research, Washington, DC.
- Bauer, D.J., Bainter, S.A., Hussong, A.M., & **Curran, P.J.** (2012, May). Harmonizing classification variables in integrative data analysis. Paper presented at the annual meeting of the Association for Psychological Science, Chicago, IL.
- 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.
- 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.
- Bauer, D.J., **Curran, P.J.** & Hussong, A.M. (2012, February). Integrative Data Analysis. Society for Research in Child Development, Developmental Methodology Conference, Tampa.
- Bauer, D.J., **Curran, P.J.** & Hussong, A.M. (2011, June). Integrative Data Analysis. Florida Mental Health Institute, University of South Florida, Tampa.
- 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.
- McGinley, J.S., Mathiowitz, R., Bauer, D.J. **Curran, P.J.**, & Hussong, A.M. (June, 2011). Using longitudinal integrative data analysis to score internalizing symptomatology from three independent data sets. Paper presented at the 19th annual meeting of the Society for Prevention Research in Washington, DC.

- 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.
- Hussong, A.M., & **Curran, P.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.
- Sweeney, P.J., Dirks, K.T., & **Curran, P.J.** (2010, January). The trajectory of trust: How does trust develop and why? A paper presented at the 5th EIASM Workshop on Trust within and between Organization in Madrid, Spain.
- 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.
- McGinley, J. S. and **Curran, P.J.** (2010, June). Concerns about the use of ordinal quantity-frequency measures to estimate individual alcohol consumption. Poster presented at the 2010 Annual Scientific Meeting of the Research Society on Alcoholism, San Antonio, TX.
- Hussong, A.M., **Curran, P.J.**, & Bauer, D.J. (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.
- Bauer, D.J., **Curran, P.J.**, & Hussong, A.M. (2010, March). Toward a Cumulative Psychological Science: Integrative Data Analysis. Invited presentation for Department of Psychology, Brigham Young University.
- Curran, P.J.**, & Hussong, A.M. (2009, October). The Application of Integrative Data Analysis to the Study of Developmental Processes. Colloquium presented to the Center for the Analysis of Pathways from Childhood to Adulthood, Institute for Social Research, University of Michigan.
- Hussong, A.M., Bauer, D., Serrano, D., **Curran, P.J.**, Chassin, L., Sher, K.J., & Zucker, R.A. (2008, July). Externalizing, not internalizing, symptoms identifies periods and persons at risk for alcohol use in high-risk family contexts: A cross-study analysis. A poster presented at the annual meeting for the Research Society on Alcoholism in Washington, DC.
- Hussong, A.M., **Curran, P.J.**, Lee, T., Wirth, R.J., Chassin, L.A., Sher, K.J., & Zucker, R.A. (2008, May). Symptomatology Identifies Periods and Persons at Risk for Illicit Drug Use in High-Risk Family Contexts: A Cross-Study Analysis. A poster presented at the annual meeting for the Society for Prevention Research in San Francisco, CA.
- Chassin, L., Presson, C., Seo, D-C., Sherman, S.J., Macy, J.T., Wirth, R.J., & **Curran, P.J.** (2008, February). Multiple trajectories of cigarette smoking and the intergenerational transmission of smoking: A multi-generational longitudinal study. Presented at the 2008 meeting of the Society for Research on Nicotine and Tobacco, Portland, OR.
- Curran, P.J.** (2008, February). The Developmental Trajectory of Developmental Trajectory Analysis: Don't Take a Ride on the Dog Train. Invited address presented at the 2008 UNC-Duke Conference on Developmental Psychopathology, Chapel Hill, NC.

- Huang, W., **Curran, P.J.**, and Hussong, A.M. (2008, February). Disaggregating Time-varying, Proximal, and Distal Effects of Parent Alcoholism on Externalizing Symptoms: A Time-Varying Covariate Model. Presented at the 2008 UNC-Duke Conference on Developmental Psychopathology, Chapel Hill, NC.
- Hussong, A.M., & **Curran, P.J.** (2008, July). An introduction to latent growth modeling in alcohol research. Paper to be presented at the annual meeting of the Research Society on Alcoholism, Washington, DC.
- Molina, B.S.G., Pelham, W.E., Cheong, J.W., Marshal, M.P., **Curran, P.J.**, Gnagy, E.M. (2008, July). Growth in drinking frequency, associated alcohol use disorder symptoms, and mediating pathways in adolescents with and without childhood ADHD. Paper to be presented at the Annual Meeting of the Research Society on Alcoholism, Washington, DC.
- Hussong, A.M., **Curran, P.J.**, Flora, D., Wirth, R.J., Edwards, M., Chassin, L., and Zucker, R.A. (March, 2008). Heterogeneity in risk for symptomatology among children of alcoholics over the early life course: A multiple study analysis. Presented at the 2008 meeting of the Society for Research on Adolescence, Chicago, IL.
- Lee, T.-H, **Curran, P.J.**, and Losardo, D. (2008, February). Nonlinear multilevel growth models for binary outcomes: Estimating trajectories of adolescent drug use. Paper presented at the 2008 UNC-Duke Conference on Developmental Psychopathology, Chapel Hill, NC.
- Obeidat, K., and **Curran, P.J.** (2008, February). A multilevel model for predicting individual growth from within-person developmental variability. Paper presented at the 2008 UNC-Duke Conference on Developmental Psychopathology, Chapel Hill, NC.
- Serrano, D., Bauer, D.J., **Curran, P.J.**, & Hussong, A.M. (2008, February). Prediction of alcohol use trajectories by internalizing and externalizing behavior: Simultaneous analysis of three longitudinal studies via the generalized linear mixed model. Paper presented at the 2008 UNC-Duke Conference on Developmental Psychopathology, Chapel Hill, NC.
- Curran, P.J.**, Lee, T-H., MacCallum, R.A. (2007). Disaggregating within-person and between-person effects in latent curve models. Paper presented at the 2007 meeting of the Society of Multivariate Experimental Psychology, Chapel Hill, NC.
- Curran, P.J.**, Hussong, A.M., Cai, L., & Huang, W. (2007, February). The integrative analysis of three data sets: Internalizing symptomatology from ages 10 to 33. Presented at the 2007 meeting of the Conference on Emerging Adulthood, Tucson, AZ.
- Hussong, A.M., & **Curran, P.J.** (2007, February). The benefits and challenges of integrative analysis using multiple data sets. Presented at the 2007 meeting of the Conference on Emerging Adulthood, Tucson, AZ.
- Molina, B.S.G., Pelham, W.E., Marshal, M.P., **Curran, P.J.**, Gnagy, E.M., Thompson, A.L., Cheong, J.W. (2007, July). Developmental influences on the associations among childhood ADHD, antisocial behaviors, and alcohol use. Presented at the Annual Meeting of the Research Society on Alcoholism, Chicago, IL.
- Curran, P.J.**, and Peterman, M. (2005, October). A Curious Discrepancy between Multilevel and Structural Equation Growth Curve Models with Time-Varying Covariates. Paper presented at the 2005 meeting of the Society of Multivariate Experimental Psychology, Lake Tahoe, NV

- Curran, P.J.**, Flora, D., & Hussong, A.M. (2005, August). Incorporating differential item functioning in longitudinal studies of growth. Paper presented at the 113th annual meeting of the American Psychological Association, Washington, D.C.
- Edwards, M.C., Wirth, R.J., & **Curran, P.J.** (2004, July). Measurement issues in multilevel models. Paper presented at the 112th annual meeting of the American Psychological Association, Honolulu, HI.
- Wirth, R. J., Edwards, M.C., & **Curran, P. J.** (2004, July). Latent growth modeling with multiple dichotomous indicators: Testing measurement invariance. Paper presented at the 112th annual meeting of the American Psychological Association, Honolulu, HI.
- Wirth, R.J., Edwards, M.C., **Curran, P.J.**, & Hussong, A.M. (2004, June). Categorical measurement models for the analysis of individual growth: Comparing three analytic approaches. Paper presented at the 7th International Summer Institute on Developmental Science, Jyväskylä, Finland.
- Curran, P.J.**, Wirth, R.J., Edwards, M.C., Hussong, A.M., and Chassin, L. (2004, March). Alternative Categorical Measurement Models for the Analysis of Individual Growth. Paper presented at Modeling Developmental Processes in Ecological Context, Tempe, AZ.
- Wirth, R.J., & **Curran, P.J.** (2003, September). The application of hybrid latent growth models to approximate complex nonlinear functions. Paper presented at the annual meeting of the Society of Multivariate Experimental Psychology, Keystone, CO.
- Vandergrift, N.A., **Curran, P.J.** & Bauer (2002, August). Methods for modeling nonlinearity in latent curve models. Paper presented at the annual meeting of the American Psychological Association, Chicago IL.
- Bauer, D.J., & **Curran, P.J.** (2002, June). Estimating Multilevel Linear Models as Structural Equation Models. Paper presented at the 2002 meeting of the Psychometric Society, Chapel Hill, NC.
- Curran, P.J.**, Chen, F., Bollen, K.A., Paxton, P., & Kirby, J.B. (2002, June). An Evaluation of RMSEA Tests of "Close Fit" and "Not Close Fit" in Structural Equation Models. Paper presented at the 2002 meeting of the Psychometric Society, Chapel Hill, NC.
- Vandergrift, N. A., & **Curran, P.J.** (2002, June). Structural Equation Modeling of Nonlinear Growth Trajectories. Paper presented at the 2002 meeting of the Psychometric Society, Chapel Hill, NC.
- Curran, P.J.** (2001, October). A proposed path diagramming strategy for multilevel models. Paper presented at the 2001 meeting of the Society for Multivariate Experimental Psychology, Monterey, CA.
- 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 2001 meeting of the Psychometric Society, King of Prussia, PA.
- Bauer, D., & **Curran, P.J.** (2001, April). The impact of model misspecification in clustered and continuous growth modeling. Paper presented at the 2001 meeting of the Society for Research in Child Development, Minneapolis, MN.
- Curran, P.J.**, & Bollen, K.A. (2001, April). The conceptualization and testing of interactions in growth curve modeling. Paper presented at the 2001 meeting of the Society for Research on Child Development, Minneapolis, MN.
- Curran, P.J.**, Bollen, K.A., Paxton, P., Kirby, J., & Chen, F. (2000, October). Use of the RMSEA to evaluate the fit of structural equation models: Statistical power & Type I error. Paper presented at the 2000 meeting of the Society of Multivariate Experimental Research, Saratoga Springs, NY.

- Bollen, K.A., Kirby, J., **Curran, P.J.**, Paxton, P., & Chen, F. (2000, June). 2SLS and FIML estimators in structural equation models with and without specification errors. Paper presented at the 2000 meeting of the Psychometric Society, Vancouver, BC.
- Curran, P.J.**, Bollen, K.A., Paxton, P., Kirby, J., & Chen, F. (2000, June). Point estimates and confidence intervals of the RMSEA: Results from a Monte Carlo simulation. Paper presented at the 2000 meeting of the Psychometric Society, Vancouver, BC.
- Curran, P.J.**, Kaplow, J.B., & Dodge, K. (2000, May). Individual, family, and school risk factors for early initiation of substance use. Paper presented at the 2000 meeting of the Society for Research on Adolescence, Chicago, IL.
- Kaplow, J., **Curran, P.J.**, & Costello, E.J. (1999, June). The relation between subdimensions of anxiety and the development of adolescent alcohol use. Paper presented at the 1999 meeting of the Society for Prevention Research. New Orleans, LA.
- Bollen, K.A., & **Curran, P.J.** (1999, April). An autoregressive latent trajectory (ALT) model: A synthesis of two traditions. Paper presented at the 1999 meeting of the Methodology Section of the American Sociological Association. Duke University, Durham, NC.
- Curran, P.J.** (1999, April). A hybrid latent trajectory model of stability and change: Applications in developmental psychopathology. Paper presented at the 1999 Biennial meeting of the Society for Research in Child Development, Albuquerque, NM.
- Curran, P.J.** (1999, April). Challenges in the pursuit of advanced training in quantitative methodology. In Y. Van Horn (Chair), Perspectives on Postdoctoral Training in Prevention Research. Symposium conducted at the 1999 meeting of the Society for Prevention Research, New Orleans, LA.
- Curran, P.J.**, & Bollen, K.A. (1999, April). Extensions of the autoregressive latent trajectory model: Explanatory variables and multiple group analysis. Paper presented at the 1999 meeting of the Society for Prevention Research. New Orleans, LA.
- Willoughby, M.T., & **Curran, P.J.** (1999, April). Alternative methods for assessing the fit of structural equation models in developmental research. Paper presented at the 1999 Biennial SRCD meeting, Albuquerque, NM.
- Curran, P.J.**, Bollen, K.A., Paxton, P., Kirby, J., & Chen, F. (1999, March). An empirical examination of the RMSEA for assessing fit in structural equation modeling: Finite sampling properties and statistical power. Paper presented at the 1999 meeting of the Methodology Section of the American Sociological Association. Duke University, Durham, NC.
- Curran, P.J.**, & Bollen, K.A. (1998, October). Toward synthesizing autoregressive and latent trajectory models. Paper presented at the 1998 APA sponsored New Methods for the Analysis of Change conference hosted by The Methodology Center, The Pennsylvania State University, University Park, PA.
- Curran, P.J.**, & Hussong, A.M. (1998, June). Statistical models of stability and change. In Analytic Methods for Studying Change Over Time. Symposium conducted at the 1998 meeting of the Society for Prevention Research, Park City, Utah.
- West, S.G., & **Curran, P.J.** (1998, June). Some ideas about fit in confirmatory factor analysis. Paper presented at the Nags Head Conference on Personality and Social Behavior, Highland Beach, FL, June, 1998.



**Curran, P.J.** (1997, August). Structural equation modeling of repeated measures data. In Deborah S. Moskowitz (Chair), A Cornucopia of Riches: Choices when Analyzing Repeated Measures Data. Symposium conducted at the 1997 meeting of the American Psychological Association, Chicago, IL.

**Curran, P.J.** (1997, April). The bridging of quantitative methodology and applied developmental research. In Patrick J. Curran (Chair), Comparing Three Modern Approaches to Longitudinal Data Analysis. Symposium conducted at the 1997 meeting of the Society for Research on Child Development, Washington, D.C.

### University Teaching

**Spring, 2015:** PSYC845: Latent Curve Modeling (graduate)  
**Spring, 2014:** PSYC844: Structural Equation Modeling (graduate)  
**Fall, 2013:** PSYC532H: Honors Quantitative Psychology (undergraduate)  
**Fall, 2012:** PSYC781: Consortium On Human Development (graduate)  
**Spring, 2012:** PSYC845: Structural Equation Modeling (graduate)  
**Fall, 2010:** PSYC532H: Honors Quantitative Psychology (undergraduate)  
**Spring, 2010:** PSYC845: Latent Curve Modeling (graduate)  
**Fall, 2009:** PSYC499: Quantitative Psychology (undergraduate)  
**Fall, 2008:** PSYC210: Statistical Principles in Psychological Research (undergraduate)  
**Spring 2008:** PSYC845: Latent Growth Curve Modeling (graduate)  
**Fall 2007:** PSYC210: Statistical Principles in Psychological Research (undergraduate)  
**Fall 2005:** PSYC283: Multivariate Statistics (graduate)  
**Spring 2005:** PSYC330: Multilevel Modeling (graduate)  
**Fall 2003:** PSYC030: Statistical Principles in Psychological Research (undergraduate)  
**Spring 2003:** PSYC283: Multivariate Statistics (graduate); PSYC282: Multiple Regression (graduate)  
**Fall 2002:** PSYC030: Statistical Principles in Psychological Research (undergraduate)  
**Spring 2002:** PSYC283: Multivariate Statistics (graduate)  
**Fall 2001:** PSYC030: Statistical Principles in Psychological Research (undergraduate)  
**Spring 2001:** PSYC282: Multiple Regression (graduate)  
**Fall 2000:** PSYC030: Statistical Principles in Psychological Research (undergraduate)  
**Spring 2000:** PSYC283: Multivariate Statistics (graduate)  
**Fall 1999:** PSYC208: Longitudinal Data Analysis (graduate)

### Workshops & Short Courses

Summer 2014, 2015: **Latent Curve Modeling**. Three-day course on introductory to advanced latent curve modeling in the social sciences. Co-taught with Daniel Bauer, Chapel Hill, North Carolina.

Summer 2010, 2011, 2012, 2013, 2014, 2015: **Structural Equation Modeling**. Five-day course on introductory to advanced linear and nonlinear structural equation modeling in the social sciences. Co-taught with Daniel Bauer, Chapel Hill, North Carolina.

Summer 2009, 2010, 2011, 2012, 2013, 2014, 2015: **Multilevel Modeling**. Five-day course on introductory to advanced linear and nonlinear multilevel modeling in the social sciences. Co-taught with Daniel Bauer, Chapel Hill, North Carolina.

Summer 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008: **An Introduction to Hierarchical Linear Model Using SAS PROC MIXED**. Five-day course on using hierarchical linear models in applied social science research. Sponsored by ICPSR at the University of Michigan, taught at University of North Carolina at Chapel Hill.

Summer, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006: **Latent Trajectory/Growth Curve Analysis: A Structural Equation Modeling Approach**. Five-day course on theory and application of Latent Trajectory Analysis co-taught with Ken Bollen. Sponsored by ICPSR at the University of Michigan, taught at University of North Carolina at Chapel Hill.

Winter, 2007: **Introductory and Advanced Multilevel Modeling**. Five-day workshop taught at Yonsei University, Seoul, South Korea.

Summer, 2003: **Multilevel Modeling for the Behavioral Sciences**. Five-day workshop taught at Universidade do Porto, Porto, Portugal.

Fall, 1999 **Recent Advances in Growth Curve Modeling: Applications in Developmental Science**. Invited workshop on latent variable based growth modeling presented at the Inaugural meeting of the Cognitive Development Society, University of North Carolina at Chapel Hill.

Summer, 1997 **Longitudinal Statistical Models for Developmental Psychology**. Ten-week longitudinal methods course presented to the Center for Developmental Science, University of North Carolina at Chapel Hill.

Spring, 1997 **Using Hierarchical Linear Growth Models to Evaluate Intervention Effects**. Eight-week course on statistically evaluating intervention efficacy presented to the FAST Track research project, Duke University.

#### **Supervised Pre-Doctoral & Post-Doctoral NIH Fellowships**

Bauer, D. (2000-2002). Extending Growth Mixture Models to the Study of Drug Use. Post-doctoral Individual National Research Service Award. National Institute of Drug Abuse.

Biesanz, J. (1999-2001). Center for Developmental Science, Post-doctoral Institutional National Research Service Award, NICHD, University of North Carolina at Chapel Hill.

Houts, R. (1999-2000). Center for Developmental Science, Post-doctoral Institutional National Research Service Award, NICHD, University of North Carolina at Chapel Hill.

Howard, Andrea (2010-2013). Post-doctoral Research Fellow and Research Assistant Professor, Developmental and Quantitative Psychology, University of North Carolina at Chapel Hill.

McGinley, J. (2012-2014) Evaluating existing and innovative models for adolescent substance use data. Pre-doctoral Individual National Research Service Award (F31). National Institute of Drug Abuse.

Preacher, K. (2003-2006). Longitudinal Factorial Invariance. Post-doctoral Individual National Research Service Award. National Institute of Drug Abuse.

Schaper, Andrew (2014-present). Center for Developmental Science, Post-doctoral Institutional National Research Service Award, NICHD, University of North Carolina at Chapel Hill (co-advised with Daniel Bauer).

Vandergrift, N. (2002-2004). Modeling nonlinear trajectories: A review and simulation. Pre-doctoral Individual National Research Service Award, National Institute of Drug Abuse.

Willoughby, M. (1999-2002). Sex and age differences in ADHD. Pre-doctoral Individual National Research Service Award, National Institute of Mental Health.

Wirth, R. J. (2003-2006). Measurement invariance in growth models of substance use. Pre-doctoral Ruth L. Kirchstein National Research Service Award. National Institute on Drug Abuse.

**Current and Past Funding:**

1R01DA034636-01A1 (Bauer, PI) National Institute on Drug Abuse	9/1/13-5/31/18 \$2,553,540	21% academic 33% summer
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Title: Harmonizing Substance Use and disorder measures to facility multi-study analysis.  
Role: Investigator  
Goals: The goal of this study is to use both computer simulation and primary data collection to develop, evaluate, and apply novel statistical and design methodologies for harmonizing measures of substance use for integrative data analysis within multi-study settings.

2R01DA015398 (Curran & Hussong, co-PI) National Institute on Drug Abuse [minority supplement R01DA015398-06S1] [administrative supplement \$125,703]	2/1/09-11/30/13 \$1,323,111	21% academic 33% summer
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Title: Internalizing pathways to drug use: A multi-sample analysis  
Role: co-Principal Investigator  
Goals: The goals of this study are to use methods of integrative data analysis to combine data from three existing longitudinal studies to study developmental trajectories of internalizing symptomatology and substance use across the first three decades of life in a high-risk sample of children of alcoholic parents.

R01-DA13148A2 (Curran, PI) National Institute on Drug Abuse	7/15/05-4/30/12 \$1,148,297	21% academic 66% summer
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Title: Measurement Models in Latent Curve Analysis  
Role: Principal Investigator  
Goals: The goals of this project are to design, evaluate, and disseminate longitudinal measurement models to be used in latent curve models. Analytical emphasis is on the inclusion of categorical and continuous measurement scales, particularly as applied to longitudinal studies of adolescent drug and alcohol use.

R01-DA13459 (Ennett, PI) National Institute of Drug Abuse	08/00 to 05/05 \$1,349,056	5% academic
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Title: The Context of Adolescent Substance Use  
Role: Co-Investigator  
Goals: The purpose of this study is to examine the interrelated influences of individual and contextual factors on adolescent alcohol, tobacco, and other drug use.

R01-DA015398 (Hussong, PI) National Institute on Drug Abuse	7/1/02-4/30/06 \$1.2 million	18% academic 33% summer
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Title: Stress and Substance Use in Children of Alcoholics  
Role: Co-Investigator  
Goals: This project conducted secondary data analysis of three existing longitudinal data sets to test questions about risk and protective factors for substance use in children with an alcohol parent across the lifespan.

R01DA13148A (Curran, PI) 7/1/99-6/31/04 32% academic  
 National Institute on Drug Abuse \$718,361 66% summer

Title: Innovative Latent Curve Models of Adolescent Drug Use

Role: Principal Investigator

Goals: The goals of this project are to (1) develop new quantitative methods for studying individual differences in developmental trajectories over time; and (2) apply these new methods to an existing longitudinal data set to study the developmental relation between conduct problems and substance use in adolescents.

Title: Applied Multilevel Models for the Behavioral and Social Sciences

Agency: University Research Council, University of North Carolina at Chapel Hill

Principal Investigator: Patrick Curran

Total Budget: \$2000

Project Goals: Funding was granted to support the creation of advanced graphical analysis to be included in my text book *Applied Multilevel Models for the Behavioral and Social Sciences* that is currently under contract with Guilford Press.

Title: Growth Components as Predictors in Latent Curve Models

Agency: James McKeen Cattell Sabbatical Fund, 07/01/2006–06/30/2007

Principal Investigator: Patrick Curran

Total Budget: \$32,000

Project Goals: To evaluate the performance of alternative available methods for estimating interactions among growth components within latent curve models and to apply these methods to the empirical study of individual differences in developmental trajectories of adolescent substance use.

#### **Current and Prior Funded Projects: Co-Investigator & Consultant**

**Co-Investigator.** Developmental Pathways to Skilled Remembering. Peter A. Ornstein, Principal Investigator. Department of Psychology, University of North Carolina at Chapel Hill.

**Co-Investigator.** The University of North Carolina Child Research Collaborative. Martha Cox, Principal Investigator. Center for Developmental Science, University of North Carolina at Chapel Hill.

**Co-Investigator.** The Context of Adolescent Substance Use. Susan Ennett, Principal Investigator. School of Public Health, University of North Carolina at Chapel Hill.

**Consultant,** Development of Drug Use and Abuse in ADHD Adolescents. William Pelham and Brooke Molina, co-Principal Investigators. Western Psychiatric Institute & Clinic.

**Consultant,** Antisocial Behavior from Childhood to Adulthood. Terrie Moffitt, Principal Investigator. Kings College, London.

**Consultant,** Substance Use Among Young Adult Children of Alcoholics. Laurie Chassin, Principal Investigator. Department of Psychology, Arizona State University.

#### **Departmental, University & National Service**

Departmental Committees and Service:

**Member,** review committee for Stephenson Award Applications, Fall 2014

**Chair,** Promotion committee for Dr. Charlotte Boettiger, Fall 2014

**Member,** Baughman Dissertation Award Review Committee, Spring 2014

**Co-Chair,** Departmental Committee on Diversity, 2014-present

**Member,** Departmental Search Committee for Grants Manager, Spring 2014

**Member,** Departmental Search Committee for Accounting Manager, Spring 2014

**Author**, Departmental Faculty Research Interest Survey and Report, Fall, 2013  
**Member**, Promotion review committee for Dr. Eleanor Seaton, Fall 2013  
**Chair**, Promotion review committee for Dr. Daniel Bauer, Fall 2012  
**Chair**, Center for Developmental Science Consortium Organizer, Fall 2012  
**Author**, Department annual SACS Accreditation Report, Fall 2011  
**Director, Quantitative Program**: July 2010-present  
**Member**: Third year review committee for Dr. Enrique Neblett, 2010  
**Acting Director, Quantitative Program**: Fall, 2008  
**Director of Research Services, Department of Psychology**, 2003-2006  
**Chair, Department of Psychology Colloquium Committee**: 2000- 2003  
**Chair, Quantitative Colloquium Committee**: 1999-2004  
**Co-Chair: Departmental Research Retreat Planning Committee**: Fall, 1999  
**Member: Search Committee to replace Brigid Poole, Grants Administrator**: Spring 2009  
**Member: Developmental Area Faculty Search Committee**: Spring, 2008  
**Member: Promotion review committee for Dr. Rita Fuchs-Lokensgard**: Fall, 2007  
**Member: Promotion review committee for Dr. Abigail Panter**: Fall, 2007  
**Member: Promotion review committee for Dr. Eric Youngstrom**: Fall, 2007  
**Member: Faculty mentoring committee for Dr. Sy-Miin Chow**: 2007-present  
**Member: Departmental Internal Review Board Committee**: 2007-2010  
**Member: Departmental Faculty Merit Review Committee**: Spring, 2008  
**Member: Departmental Space Committee**: 2001-2006  
**Member: Chair Advisory Committee**: 2003-2004  
**Member: Curriculum Revision Committee**: 2002-2004  
**Member: Chair Search Committee**: Spring, 2004  
**Participant: Minority Recruitment Day**: Fall, 1999-present

#### University Committees and Service:

**Departmental Representative**, Sole Departmental Representative to the College of Arts and Sciences  
**Committee on Diversity Faculty Initiatives**, Spring 2014-present  
**Co-Chair, Working Committee on Minority Faculty Hiring and Retention**, Spring 2014-present  
**Invited Presenter, Workshop on Inquiry-Based Teaching**, Sponsored by the Office of Undergraduate Research, April 4, 2014.  
**Member: University Teaching Awards Committee**: 2013-present  
**Chair: Committee on the Status of Women in Science**: 2011-2013  
**Member: Committee on the Status of Women in Science**: July 2010-2013  
**Member: The Chancellor's Child Care Advisory Committee**: November 2010-2012  
**Member: Girls in Science Task Force**, 2009-2010  
**Chair: Social Sciences Review Committee, University Research Council**: Fall, 2000-2003  
**Chair: Applied Statistics Working Group** sponsored by The Odum Institute, 2000 to 2004  
**Member: UNC Girls in Science Task Force**, Fall 2009 to present  
**Member: Advisory Committee for Academic Affairs & Cancer Center Research**: Spring, 2000  
**Member: Odum Institute Research Scientist Search Committee**: Fall, 2000  
**Member: Odum Institute Faculty Summer Research Stipend Review Committee**: Fall, 2000

National Service:

**Member:** Expert Advisory Board Member, Science of Research and Technology Branch, National Cancer Institute (2012-present).

**Guest Editor:** Special issue of *Psychological Methods* published in 2009.

**Associate Editor:** *Psychological Methods*: 2004 to 2007

**Editorial Board Membership:** *Multivariate Behavioral Research* (2005-present); *Structural Equation Modeling: An Interdisciplinary Journal* (2003-present); *Taylor & Francis Multivariate Applications Book Series* (2002-present); *Psychological Assessment* (2002-2004); *Developmental Psychology* (1998-2003); *Psychological Methods* (1996-2004; 2007-present); *Health Psychology* (1996-1998); *Journal of Educational and Behavioral Statistics* (2007-present).

**Elected Member-at-Large:** Executive Committee of American Psychological Association Division 5 (Evaluation, Measurement, & Statistics): 2003-2006

**Chair,** APA Division 5 Awards Committee: 2005-2006

**Chair:** APA Division 5 Program Committee: 2002-2003

**Member:** APA Task Force Committee on Cluster Programming: 2003