

ROY LEVY

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<https://sites.google.com/a/asu.edu/roylevy/>

PROFESSIONAL INFORMATION

Education

<i>Doctor of Philosophy</i> May, 2006	Measurement, Statistics & Evaluation Department of Measurement, Statistics & Evaluation College of Education, University of Maryland
<i>Master of Arts</i> May, 2002	Measurement, Statistics & Evaluation Department of Measurement, Statistics & Evaluation College of Education, University of Maryland
<i>Bachelor of Arts</i> May, 2001	Philosophy <i>Honors, Summa cum Laude, Phi Beta Kappa</i> Department of Philosophy College of Arts & Humanities, University of Maryland

Positions Held

<i>Assistant Professor</i> 2010-present	School of Social and Family Dynamics College of Liberal Arts and Sciences, Arizona State University
<i>Assistant Professor</i> 2009-2010	Division of Advanced Studies in Learning, Technology and Psychology in Education Mary Lou Fulton Institute and Graduate School of Education, Arizona State University
<i>Assistant Professor</i> 2006-2009	Division of Psychology in Education Mary Lou Fulton College of Education, Arizona State University
<i>Harold Gulliksen Psychometric Research Fellow</i> 2005-2006	Educational Testing Service
<i>Research Assistant</i> 2001-2006	Department of Measurement, Statistics & Evaluation College of Education, University of Maryland
<i>Course Instructor</i> 2003-2004	Department of Measurement, Statistics & Evaluation College of Education, University of Maryland

INSTRUCTIONAL & ADVISING ACTIVITY

Course Instruction at Arizona State University 2006-present (all graduate-level courses)

Introduction to Data Analysis
Multiple Regression and Correlation Methods
Structural Equation Modeling in Educational Research
Introduction to Item Response Theory
Advanced Topics in Item Response Theory

Invited Instruction on Additional Topics at Arizona State University (all graduate-level)

Achievement Testing and Evidentiary Reasoning in Assessment

Course Instruction at University of Maryland 2003-2004 (undergraduate courses)

Introduction to Educational Statistics

Advising and Mentoring Activities

Completed Dissertations Chaired

Dubravka Svetina (2011). Assessing dimensionality in complex data structures: A performance comparison of DETECT and NOHARM methods. (co-chair with Dr. Joanna Gorin.)

Completed Theses Chaired

Lisa Mitchell (2009). Examining the structural properties and competing models for the institutional integration scale.

Additional Advising

Currently, I am advising seven doctoral and three masters students. In addition, I have served on seven completed doctoral committees, nine completed masters committees, and am currently serving on four doctoral committees and six masters committees.

SCHOLARLY ACTIVITY

In Refereed Journals (ψ indicates an ASU student co-author)

- Levy, R. (in press). Posterior predictive model checking for conjunctive multidimensionality in item response theory. *Journal of Educational and Behavioral Statistics*.
- Levy, R. (in press). Bayesian data-model fit assessment for structural equation modeling. *Structural Equation Modeling: A Multidisciplinary Journal*.
- Green, S. B., Levy, R., Thompson, M. S., ψ Lu, M., & Lo, W. J. (in press). A proposed solution to the problem with using completely random data to assess the number of factors with parallel analysis. *Educational and Psychological Measurement*.
- Bornovalova, M. A., Tull, M. T., Gratz, K. L., Levy, R., & Lejuez, C. W. (in press). Extending models of self-harm and suicide to inner-city substance users. *Psychological Trauma: Theory, Research, Practice, and Policy*.
- Levy, R., & ψ Svetina, D. (2011). A generalized dimensionality discrepancy measure for dimensionality assessment in multidimensional item response theory. *British Journal of Mathematical and Statistical Psychology*, 64, 208-232.
- Levy, R., & Hancock, G. R. (2011). An extended model comparison framework for covariance and mean structure models, accommodating multiple groups and latent mixtures. *Sociological Methods and Research*, 40, 256-278.
- Okun, M. A., Rios, R., ψ Crawford, A. V., & Levy, R. (2011). Does the relation between volunteering and well-being vary with health and age? *International Journal of Aging and Human Development*, 72, 265-287.
- Wodrich, D. L., Jarrar, R., Buchhalter, J., Levy, R., & ψ Gay, C. (2011). Knowledge about epilepsy and confidence in instructing students with epilepsy: Teachers' responses to a new scale. *Epilepsy & Behavior*, 20, 360-365.
- Levy, R. (2010). SEMModComp: An R package for calculating likelihood ratio tests for mean and covariance structure models. *Applied Psychological Measurement*, 34, 370-371.
- ψ Crawford, A. V., Green, S. B., Levy, R., ψ Lo, W. J., ψ Scott, L., ψ Svetina, D., & Thompson, M. S. (2010). Evaluation of parallel analysis methods for determining the number of factors. *Educational and Psychological Measurement*, 70, 885-901.
- Note:** Authorship listed alphabetically.
- Mislevy, R. J., Behrens, J. T., Bennett, R. E., DeMark, S. F., Frezzo, D. C., Levy, R., Robinson, D. H., Rutstein, D. W., Shute, V. J., Stanley, K., & Winters, F. I. (2010). On the roles of external knowledge representations in assessment design. *Journal of Technology, Learning, and Assessment*, 8(2). Available from <http://www.jtla.org>.

- Bornovalova, M. A., **Levy, R.**, Gratz, K. L., & Lejuez, C. W. (2010). Understanding the heterogeneity of BPD symptoms through latent class analysis: Initial results and clinical correlates among inner-city substance users. *Psychological Assessment, 22*, 233-245.
- ^ψLong, L. A., Wodrich, D. L., **Levy, R.**, Ettl, M. M., & Giesecking, A. T. (2010). Students with brain tumors: Their post-treatment perceptions of teachers, peers, and academics and retrospective views on school during treatment. *Journal of Child Health Care, 14*, 111-125.
- Levy, R.**, Mislevy, R. J., & Sinharay, S. (2009). Posterior predictive model checking for multidimensionality in item response theory. *Applied Psychological Measurement, 33*, 519-537.
- Levy, R.** (2009). The rise of Markov chain Monte Carlo estimation for psychometric modeling. *Journal of Probability and Statistics, vol. 2009*, Article ID 537139, 18 pages.
- Levy, R.** (2009). Evidentiary reasoning in diagnostic classification models. *Measurement: Interdisciplinary Research and Perspectives, 6*, 36-41.
- Levy, R.**, & ^ψCrawford, A. V. (2009). Incorporating substantive knowledge into regression via a Bayesian approach to modeling. *Multiple Linear Regression Viewpoints, 35*, 4-9.
- Okun, M. A., **Levy, R.**, Karoly, P., & Ruhlman, L. (2009). Dispositional happiness and college student GPA: Unpacking a null relation. *Journal of Research in Personality, 43*, 711-715.
- Bornovalova, M. A., Ouimette, P., ^ψCrawford, A. V., & **Levy, R.** (2009). Testing gender effects on the mechanisms explaining the association between post-traumatic stress symptoms and substance use frequency. *Addictive Behaviors, 34*, 685-692.
- Levy, R.**, & Hancock, G. R. (2007). A framework of statistical tests for comparing mean and covariance structure models. *Multivariate Behavioral Research, 42*, 33-66.
- Levy, R.**, & Mislevy, R. J. (2004). Specifying and refining a measurement model for a computer-based interactive assessment. *International Journal of Testing, 4*, 333-369.
- Behrens, J. T., Mislevy, R. J., Bauer, M., Williamson, D. W., & **Levy, R.** (2004). Introduction to evidence centered design and lessons learned from its application in a global e-learning program. *International Journal of Testing, 4*, 295-301.

In Edited Volumes

- Levy, R.**, Mislevy, R. J., & Behrens, J. T. (2011). MCMC in educational research. In S. Brooks, A. Gelman, G. L. Jones, & X. L. Meng (Eds.), *Handbook of Markov chain Monte Carlo: Methods and applications* (pp. 531-545). London: Chapman & Hall/CRC.
- Shute, V.J., **Levy, R.**, Baker, R., Zapata, D., & Beck, J. (2009). Assessment and learning in intelligent educational systems: A peek into the future. In S. D. Craig & D. Dicheva (Eds.), *Proceedings of*

the Artificial Intelligence and Education (AIED 2009) Workshop on Intelligent Educational Games (pp. 99–108), Brighton, UK.

Mislevy, R. J., **Levy, R.**, Kroopnick, M., & Rutstein, D. (2008). Evidentiary foundations of mixture item response theory models. In G. R. Hancock & K. M. Samuelsen (Eds.), *Advances in latent variable mixture models* (pp. 149-175). Charlotte, NC: Information Age Publishing.

Mislevy, R. J., & **Levy, R.** (2007). Bayesian psychometric modeling from an evidence-centered design perspective. In C. R. Rao and S. Sinharay (Eds.), *Handbook of statistics, Volume 26* (pp. 839-865). North-Holland: Elsevier.

Levy, R., Behrens, J. T., & Mislevy, R. J. (2006). Variations in adaptive testing and their on-line leverage points. In D. D. Williams, S. L. Howell, & M. Hricko (Eds.), *Online assessment, measurement and evaluation: Emerging practices* (pp. 180-202). Hershey, PA: Information Science Publishing.

Williamson, D. M., Almond, R. G., Mislevy, R. J., & **Levy, R.** (2006). An application of Bayesian networks in automated scoring of computerized simulation tasks. In D. M. Williamson, R. J. Mislevy, & I. I. Bejar (Eds.), *Automated scoring of complex tasks in computer-based testing* (pp. 201-257). Mahwah, NJ: Erlbaum Associates.

Manuscripts Under Review (ψ indicates an ASU student co-author)

ψ Sevtina, D., & **Levy, R.** (2011). A framework for dimensionality assessment for multidimensional item response models. Manuscript under review.

Rupp, A. A., DiCerbo, K. E., **Levy, R.**, Benson, M., Sweet, S., ψ Crawford, A. V., ψ Fay, D., ψ Kunze, K. L., Calico, T., & Behrens, J. T. (2011). The interplay of theory and data: Evidence identification and aggregation for products and process data within a digital learning environment. Manuscript under review.

Mislevy, R. J., Behrens, J. T., **Levy, R.**, & DiCerbo, K. E. (2011). The interplay of design and data exploration in an evolving assessment system. Manuscript under review.

Levy, R., & Choi, J. (2011). Bayesian structural equation modeling. Manuscript under review.

Behrens, J. T., DiCerbo, K. E., ψ Yel, N., & **Levy, R.** (2011). Exploratory data analysis. Manuscript under review.

Behrens, J. T., Mislevy, R. J., DiCerbo, K. E., & **Levy, R.** (2011). Evidence centered design for learning and assessment in the digital world. Manuscript under review.

West, P., Rutstein, D. W., Mislevy, R. J., Liu, J., **Levy, R.**, DiCerbo, K. E., ψ Crawford, A. V., Choi, Y., Chapple, K., Behrens, J. T. (2011). A Bayesian network approach to modeling learning progressions. Manuscript under review.

Gratz, K. L., **Levy, R.**, & Tull, M. T. (2011). Emotion regulation as a mechanism of change in acceptance-based emotion regulation therapy for deliberate self-harm among women with borderline personality pathology. Manuscript under review.

Manuscripts Under Revision

^ψMitchell, L., & **Levy, R.** (2011). Examining the structural properties and competing models for the institutional integration scale. Manuscript under revision.

^ψSvetina, D., ^ψCrawford, A. V., **Levy, R.**, Green, S. B., ^ψScott, L., Thompson, M. S., Gorin, J. S., ^ψFay, D., & ^ψPoole, K. L. (2011). Designing small-scale tests: A simulation study of parameter recovery with the 1-PL. Manuscript under revision.

Choi, J., & **Levy, R.** (2009). Recent developments in Markov chain Monte Carlo estimation methods for structural equation modeling: A comparison of subject-level data and moment-level data approaches. Manuscript under revision.

Manuscripts In Preparation (^ψ indicates an ASU student co-author)

Levy, R. (2011). Distinguishing between indicators and outcomes in structural equation models via Bayesian modeling. Manuscript in preparation.

Levy, R., ^ψYel, N., ^ψXu, Y., & Svetina, D. (2011). A standardized generalized dimensionality discrepancy measure. Manuscript in preparation.

Thomas, M. L., & **Levy, R.** (2011). Comparison of bifactor and oblique simple structure models through simulation and Markov chain Monte Carlo analysis. Manuscript in preparation.

Technical Reports (^ψ indicates an ASU student co-author)

Behrens, J. T., Mislevy, R. J., DiCerbo, K. E., & **Levy, R.** (2010). *An evidence centered design for learning and assessment in the digital world*. (CRESST Report 778). Los Angeles, CA: University of California, National Center for Research on Evaluation, Standards, Student Testing (CRESST). Available online at <http://www.cse.ucla.edu/products/reports/R778.pdf>.

West, P., Rutstein, D. W., Mislevy, R. J., Liu, J., Choi, Y., **Levy, R.**, ^ψCrawford, A. V., DiCerbo, K. E., Chapple, K., & Behrens, J. T. (2010). *A Bayesian network approach to modeling learning progressions and task performance*. (CRESST Report 776). Los Angeles, CA: University of California, National Center for Research on Evaluation, Standards, Student Testing (CRESST). Available online at <http://www.cse.ucla.edu/products/reports/R776.pdf>.

DiCerbo, K., **Levy, R.**, & Rutstein, D. W. (2008). *Item and exam analyses for courses: Guidelines and recommendations*. Cisco Learning Institute Technical Report.

Note: Authorship listed alphabetically.

Mislevy, R. J., Behrens, J. T., Bennett, R. E., DeMark, S. F., Frezzo, D. C., **Levy, R.**, Robinson, D.

H., Rutstein, D. W., Shute, V. J., Stanley, K., & Winters, F. I. (2007). *On the roles of external knowledge representations in assessment design*. (CRESST Report 776). Los Angeles, CA: University of California, National Center for Research on Evaluation, Standards, Student Testing (CRESST). Available online at <http://www.cse.ucla.edu/products/reports/R722.pdf>.

Levy, R., & Mislevy, R. J. (2004). *Specifying and refining a measurement model for a simulation-based assessment*. (CRESST Report 619). Los Angeles, CA: University of California, National Center for Research on Evaluation, Standards, Student Testing (CRESST). Available online at <http://www.cse.ucla.edu/products/reports/R619.pdf>.

Software & Documentation

Levy, R. (2009). SEMModComp: Likelihood ratio tests for mean and covariance structure models. R package version 1.0. URL: <http://cran.r-project.org/web/packages/SEMModComp/index.html>.

Levy, R. (2009). *SEMModComp 1.0 manual*. URL: <https://sites.google.com/a/asu.edu/roylevy/papers-software>.

Refereed Presentations (ψ indicates an ASU student co-author)

Gratz, K. L., Levy, R., & Tull, M. T. (2011). Innovative investigations of emotion regulation as a mechanism of change in treatments for BPD and related pathology. To be presented at the annual convention of the Association for Behavioral and Cognitive Therapies, Toronto, Canada, November, 2011.

Levy, R., ψ Crawford, A. V., ψ Fay, D., & ψ Poole, K. L. (2011). Data-model fit assessment for Bayesian networks for simulation-based assessments. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA, April, 2011.

Green, S. B., Levy, R., Thompson, M. S., ψ Lu, M., Lo, W. J., ψ Svetina, D., ψ Crawford, A. V., & ψ Scott, L. (2011). Use of completely random data to assess the number of factors with parallel analysis: An empirical evaluation of a conceptual flaw and its correction. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA, April, 2011.

Levy, R., & ψ Svetina, D. (2010). A framework for dimensionality assessment for multidimensional item response models. Paper presented at the annual meeting of the National Council on Measurement in Education, Denver, CO, May, 2010.

Levy, R. (2010). Bayesian data-model fit assessment for structural equation modeling. Paper presented at the annual meeting of the American Educational Research Association, Denver, CO, May, 2010.

Shute, V., Levy, R., Baker, R., Zapata, D., & Beck, J. (2009). Assessment and learning in intelligent educational systems: A peek into the future. Paper presented at the 14th International Conference on Artificial Intelligence in Education, Brighton, England, July, 2009.

West, P., Rutstein, D. W., Mislevy, R. J., Liu, J., **Levy, R.**, DiCerbo, K. E., ^ψCrawford, A. V., Choi, Y., Behrens, J. T. (2009). A Bayes net approach to modeling learning progressions and task performances. Paper presented at the Learning Progressions in Science Conference, Iowa City, IA, June, 2009.

Note: Authorship listed in reverse alphabetical order.

Levy, R., & ^ψSevtina, D. (2009). A new statistic and posterior predictive model checking procedure for assessing dimensionality in multidimensional item response theory. Paper presented at the annual meeting of the National Council on Measurement in Education, San Diego, CA, April, 2009.

Levy, R., & ^ψCrawford, A. V. (2009). Bayesian network modeling for student- and domain-level inferences. Paper presented at the annual meeting of the American Educational Research Association, San Diego, CA, April, 2009.

^ψCrawford, A. V., Green, S. B., **Levy, R.**, ^ψLo, W. J., ^ψScott, L., ^ψSvetina, D., & Thompson, M. S. (2009). Evaluation of parallel analysis methods for determining the number of factors. Paper presented at the annual meeting of the American Educational Research Association, San Diego, CA, April, 2009.

Note: Authorship listed alphabetically.

Levy, R. (2008). Factors affecting the dimension of best measurement and connections with unidimensional modeling. Paper presented at the annual meeting of the National Council on Measurement in Education, New York, NY, March, 2008.

Levy, R., & Hancock, G. R. (2008). A generalized model comparison framework for covariance and mean structure models, accommodating multiple groups and latent mixtures. Paper presented at the annual meeting of the American Educational Research Association, New York, NY, March, 2008.

Levy, R., Mislevy, R. J., & Sinharay, S. (2007). Posterior predictive model checking for conjunctive multidimensionality in item response theory. Paper presented at the annual meeting of the National Council on Measurement in Education, Chicago, IL, April, 2007.

Bornovalova, M. A., **Levy, R.**, Daughters, S. B., Gratz, K. L., & Lejuez, C. W. (2006). Understanding symptom clusters of BPD in and their clinical correlates in a sample of inner-city drug users. Presented at the 40th annual convention of the Association for Behavioral and Cognitive Therapies, Chicago, IL, November, 2006.

Bornovalova, M. A., **Levy, R.**, Lejuez, C.W., & Daughters, S. B. (2006). Using latent class analysis in the diagnosis of BPD; initial results and clinical correlates. Presented at the 20th annual meeting for Society for Research in Psychopathology, San Diego, CA, October, 2006.

Levy, R., & Hancock, G. R. (2006). A generalized model comparison framework in structural equation modeling. Paper presented at the annual meeting of the Psychometric Society, Montréal,

Canada, June, 2006.

- Levy, R., Mislavy, R. J., & Sinharay, S. (2006).** Posterior predictive model checking for multidimensionality in item response theory. Paper presented at the annual meeting of the National Council on Measurement in Education, San Francisco, CA, April, 2006.
- Levy, R., & Hancock, G. R. (2006).** Alternative approaches to validity in a modeling framework. Paper presented at the annual meeting of the American Educational Research Association, San Francisco, CA, April, 2006.
- Choi, J., Levy, R., & Hancock G. R. (2006).** Markov chain Monte Carlo estimation method with covariance data for structural equation modeling. Paper presented at the annual meeting of the American Educational Research Association, San Francisco, CA, April, 2006.
- Kroopnick, M., & Levy, R. (2006).** Comparing fully Bayesian and marginal maximum likelihood estimation of multidimensional item response models for polytomous items. Paper presented at the annual meeting of the National Council on Measurement in Education, San Francisco, CA, April, 2006.
- Levy, R. (2005).** Posterior predictive model checking for cognitively-based psychometric models. Paper presented at the annual meeting of the Psychometric Society, Tilburg, The Netherlands, July, 2005.
- Levy, R., & Hancock, G. R. (2005).** A framework of statistical tests for comparing mean and covariance structure models. Paper presented at the annual meeting of the American Educational Research Association, Montréal, Canada, April, 2005.
- Mislavy, R. J., & Levy, R. (2005).** On the roles of knowledge representations in assessment. Paper presented at the annual meeting of the American Educational Research Association, Montréal, Canada, April, 2005.
- Frezzo, D. C., Levy, R., & Kroopnick, M. (2005).** Knowledge representations in curricular and psychometric design. Paper presented at the annual meeting of the American Educational Research Association, Montreal, Canada, April, 2005.
- Levy, R., & Hancock, G. R. (2004).** A framework of statistical tests for comparing covariance structure models. Paper presented at the annual meeting of the American Educational Research Association, San Diego, CA, April, 2004.
- Levy, R., & Hancock, G. R. (2003).** A statistical test for nonnested covariance models. Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL, April, 2003.
- Levy, R., & Mislavy, R. J. (2003).** Specifying and refining a complex measurement model. Paper presented at the annual meeting of the National Council on Measurement in Education, Chicago, IL, April, 2003.

Invited Presentations

- Levy, R.** (2011). Rules for communicating technical material and working with lay audiences. Presented at the annual meeting of the National Council on Measurement in Education, New Orleans, LA, April, 2011.
- Levy, R.** (2011). An introduction to Bayesian statistical modeling, or, a short list of reasons I am a Bayesian and you might be too. Presented at Center for Population Dynamics, Arizona State University, Tempe, AZ, February, 2011.
- Levy, R.** (2011). Challenges to evidentiary reasoning and measurement modeling in game- and simulation-based assessment systems. Presented at Center for Advanced Technology in Schools (CATS) Workshop for Research on Games and Learning, the National Center for Research on Evaluation, Standards, & Student Testing (CRESST), University of California, Los Angeles, CA, January, 2011.
- Levy, R.** (2010). Providing diagnostic feedback using Bayesian networks in the Cisco Networking Academy. Presented at the annual meeting of the American Educational Research Association, Denver, CO, May 2010.
- Levy, R.** (2010). Psychometrics of simulations and games. Presented at the National Center for Research on Evaluation, Standards, & Student Testing (CRESST), University of California, Los Angeles, CA, February, 2010.
- Levy, R.** (2009). Posterior predictive model checking for diagnostic classification models. Presented at the Statistical and Applied Mathematical Summer Institute, Research Triangle Park, NC, July 2009.
- Levy, R.** (2009). Markov chain Monte Carlo (MCMC) estimation for diagnostic classification models. Presented at the Statistical and Applied Mathematical Summer Institute, Research Triangle Park, NC, July 2009.
- Levy, R.** (2007). A model comparison framework for structural equation modeling. Presented at the Department of Management, Arizona State University, Tempe, AZ, March 2007.
- Levy, R.** (2006). Introduction to evidence-centered design with an emphasis on evidence. Presented at the Applied Learning Technologies Institute, Arizona State University, Tempe, AZ, October 2006.
- Mislevy, R. J., **Levy, R.**, Kroopnick, M., & Wise, D. (2006). Evidentiary foundations of mixture item response theory models. Paper presented at the 2006 Center for Integrated Latent Variable Research conference, College Park, MD, May 2006.
- Levy, R.** (2005). Posterior predictive model checking for within-item multidimensionality. Presented at the Department of Mathematics and Statistics, Wright State University, Dayton, OH,

November 2005.

- Levy, R.** (2005). Introduction to item response theory. Presented at the Basic Process in Addictive Behaviors Laboratory, University of Maryland, College Park, MD, September 2005.
- Levy, R.** (2005). Introduction to structural equation modeling. Presented at the Basic Process in Addictive Behaviors Laboratory, University of Maryland, College Park, MD, September 2005.
- Levy, R.** (2005). Introduction to factor analysis. Presented at the Basic Process in Addictive Behaviors Laboratory, University of Maryland, College Park, MD, September 2005.
- Levy, R.** (2003). Bayesian inference networks. Presented at Educational Testing Service, Princeton, NJ, January 2003.
- Levy, R.** (2003). Markov chain Monte Carlo methods. Presented at Educational Testing Service, Princeton, NJ, January 2003.
- Levy, R.** (2003). WinBUGS software training. Presented at Educational Testing Service, Princeton, NJ, January 2003.
- Levy, R.** (2002). Markov chain Monte Carlo estimation for assessment: Procedures and practices. Presented at Educational Testing Service, Princeton, NJ, June 2002.

RESEARCH PROJECTS

Principal Investigator

<i>Psychometrics for Gaming and Simulation-Based Assessment</i>	National Center for Research on Evaluation, Standards, Student Testing 2011-present
<i>Generalized Dimensionality Assessment for Multidimensional Psychometric Models</i>	Institute of Education Sciences 2010-present
<i>Hierarchical and Bayesian Analyses for Large Scale Complex Data</i>	Cisco 2009-present
<i>Complex Models for Innovative Educational Assessment</i>	Cisco Learning Institute 2008-2009
<i>Posterior Predictive Model Checking for Multidimensional Item Response Theory</i>	Arizona State University 2007-2008

Co-Principal Investigator

Developing Guidelines for Optimizing Levels of Students' Overt Engagement Activities

PI: Dr. Michelene Chi, Arizona State University

Institute of Education Sciences
To commence 2011

Posterior Predictive Model Checking for Within-Item Multidimensionality in IRT

PI: Dr. Robert J. Mislevy, University of Maryland

Educational Testing Service
2005-2006

Co-Investigator

National Research and Development Center on Assessment and Accountability for Special Education

Co-PIs: Gerald Tindal (Project Director), University of Oregon,
Ann Schulte, North Carolina State University,
Stephen N. Elliott, Arizona State University,
Joseph Stevens, University of Oregon

Institute of Education Sciences
To commence 2011

Key Personnel & Consulting

Multilevel Assessments of Science Standards

PI: Edys Quellmalz, WestED

National Science Foundation
2008-Present

Developing an Emotion Regulation Group Therapy for Self-Harm Among Women with BPD

PI: Kim Gratz, University of Mississippi Medical Center

National Institutes of Health
2008-Present

Calipers II

PI: Edys Quellmalz, WestED

National Science Foundation
2007-Present

VentureMap

PI: Douglas Weihnacht, MW Productions, Inc.

US Department of Education
2006

Research Group Affiliations (in addition to those above, not being supported)

Promoting Knowledgeable and Confident Teachers of Youth with Epilepsy

PI: David Wodrich, Arizona State University

Epilepsy Foundation of America
2009-Present

21st Century Assessment

PI: James Gee, Arizona State University

John D. & Catherine T.
MacArthur Foundation
2008-2010

Global Resources for Online Education

2009

PI: Beverly P. Woolf, University of Massachusetts

Cognitive Diagnosis Models Working Group
Statistical and Applied Mathematical Summer Institute
PI: Jimmy de la Torre, Rutgers University

2009

SERVICE

Professional Service

Editorial Board, <i>Educational Assessment</i>	2011-present
Editorial Board, <i>Journal of Applied School Psychology</i>	2009-present
Editorial Board, <i>Journal of School Psychology</i>	2008-present
Member, National Council on Measurement in Education Bradley Hanson Award for Contributions to Educational Measurement Awards Committee	2009-present
Member, American Educational Research Association Division D Quantitative Dissertation Award Committee	2009-present
Chair, American Educational Research Association Structural Equation Modeling Special Interest Group	2008-2009
Co-Chair, American Educational Research Association Structural Equation Modeling Special Interest Group	2007-2008
Ad hoc Reviewer (Journals, Funding Agencies, Professional Organizations, Publishers)	2003-present
National Science Foundation	
<i>Psychometrika</i>	
<i>Applied Psychological Measurement</i>	
<i>Journal of Educational and Behavioral Statistics</i> (Outstanding Reviewer, 2010)	
<i>Journal of Educational Measurement</i>	
<i>Structural Equation Modeling: A Multidisciplinary Journal</i>	
<i>Multivariate Behavioral Research</i>	
<i>Measurement: Interdisciplinary Research and Perspectives</i>	
<i>Educational Measurement: Issues and Practice</i>	
<i>Educational Assessment</i>	
<i>Educational Researcher</i>	
<i>Frontiers in Quantitative Psychology and Measurement</i>	
<i>Journal of School Psychology</i>	
<i>Journal of Applied School Psychology</i>	

IERI Monograph Series
American Educational Research Association
National Council on Measurement in Education
Structural Equation Modeling Special Interest Group
Educational Statisticians Special Interest Group
Cognition and Assessment Special Interest Group
Elsevier

Editorial Assistant for Hancock, G. R., & Mueller, R. O. (Eds.) (2006). *Structural equation modeling: A second course*. Greenwich, CT: Information Age Publishing. 2003-2005

Institutional Service at Arizona State University

Member, Family and Human Development Graduate Committee 2011-present
 School of Social and Family Dynamics

Member, Quantitative Methods in the Social Sciences Committee 2010-present
 School of Social and Family Dynamics

Member, Executive Dean Search Committee 2009
 Mary Lou Fulton Graduate School of Education

Member, Engineering Education Search Committee 2009
 Mary Lou Fulton Graduate School of Education

Member, Awards Committee 2008-2009
 Division of Psychology in Education

Member, Curriculum Committee 2008-2009
 Division of Psychology in Education

Institutional Service at University of Maryland

Member, Department Chair Search Committee 2004-2005
 Department of Measurement, Statistics & Evaluation

Mentor, 5th Year B.A./M.A. Program 2002-2006
 Department of Measurement, Statistics & Evaluation

HONORS AND MEMBERSHIPS

Professional and Academic Honors and Awards

Outstanding Reviewer *Journal of Educational and Behavioral Statistics* 2010

Outstanding New Scholar	College of Education University of Maryland	2010
Brenda H. Loyd Outstanding Dissertation Award	National Council on Measurement in Education	2008
Harold Gulliksen Psychometric Research Fellow	Educational Testing Service	2005-2006
Outstanding Doctoral Student Award	College of Education, University of Maryland	2005
Distinguished Teaching Assistant	Center for Teaching Excellence, University of Maryland	2003
W.E. Schlaretzki Prize in Philosophy	Department of Philosophy, University of Maryland	2001

Professional Memberships (current and past)

Psychometric Society
National Council on Measurement in Education
American Educational Research Association
AERA Structural Equation Modeling Special Interest Group
AERA Educational Statisticians Special Interest Group
AERA Cognition and Assessment Special Interest Group
American Psychological Association
International Society for Bayesian Analysis
American Statistical Association

PROFESSIONAL DEVELOPMENT

Workshops Attended

<i>National Science Foundation Regional Grants Conference</i> Presenters: National Science Foundation	Tempe, AZ March, 2009
<i>Special Workshop on Grant Writing and Grant Makers: The Washington Context</i>	Tempe, AZ January-May, 2008

Instructor: Bianca L. Bernstein

Teaching Educational Measurement

Instructors: Deborah Bandalos & Amanda Ferster

Chicago, IL

April, 2007

A Nonlinear Mixed Models Approach to IRT

Instructors: Paul de Boeck, Mark Wilson,
Frank Rijmen, & Francis Tuerlinckx

Montréal, CA

April, 2005

Multilevel Modeling in Mplus

Instructor: Bengt Muthén

Baltimore, MD

March, 2005

Intermediate/Advanced Bayesian Hierarchical Modeling

Instructor: David Draper

Washington D.C.

March, 2004

Introduction to Structural Equation Modeling

Instructors: Gregory R. Hancock & Ralph O. Mueller

College Park, MD

November, 2002