

## **Jodi M. Casabianca**

University of Texas - Austin  
Department of Educational Psychology  
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### **Academic Training**

Fordham University	Psychometrics	Ph.D.	2011
Fordham University	Psychometrics	M.A.	2008
Rutgers University	Applied and Mathematical Statistics	M.S.	2004
Rutgers University	Statistics, Psychology	B.A.	2001

Thesis Title: *Loglinear smoothing for the latent trait distribution: A two-tiered evaluation*  
Thesis Advisor: Charles Lewis

### **Experience**

2013-present	Assistant Professor, Department of Educational Psychology Quantitative Methods Program University of Texas at Austin, Austin, TX
2013-present	Associate Director Pearson Center for Applied Psychometric Research University of Texas at Austin, Austin, TX
2011-2013	IES Postdoctoral Fellow, Carnegie Mellon and RAND Traineeships (CMART) in Methodology and Interdisciplinary Research Carnegie Mellon University and RAND Corporation, Pittsburgh, PA Mentors: Brian Junker (CMU), John Pane (RAND Corporation)
2009-2010	Adjunct Lecturer, Department of Urban Public Health City University of New York - Hunter College, New York, NY
2005-2006	SAS Data Analyst, Department of Health Policy Mount Sinai School of Medicine, New York, NY
2004-2005	Senior Business Analyst, Tactical Services Health Products Research, Inc., Whitehouse, NJ
2001-2004	[Senior] Statistical Assistant, Center for Statistical Analysis Educational Testing Service, Princeton, NJ
2000-2001	Research Assistant, Department of Psychiatry University of Medicine and Dentistry of New Jersey, Piscataway, NJ

## Grant Funding

*The Expanded Hierarchical Rater Model: A Framework for the Analysis of Ratings*

Role: Co-Principal Investigator

Principal Investigator: Brian Junker (Carnegie Mellon University)

Dates: September 1, 2013 – August 31, 2016

Grantor: National Science Foundation (1324587): \$350,001 (*Awarded*)

*Psychometric and Statistical Models for the Analysis, Scoring, and Monitoring of Classroom Observation Ratings*

Role: Principal Investigator

Dates: September 1, 2015 – August 31, 2018

Grantor: Institute for Education Sciences: \$898,294.00 (*Under Review*)

## Honors and Awards

- |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2012      | Psychometrics Dissertation Award, Graduate School of Arts and Sciences, Fordham University.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 2010-2011 | Distinguished Teaching Fellowship, Graduate School of Arts and Sciences, Fordham University.<br><br>Kubis Memorial Endowed Teaching Scholarship (\$2000), Graduate School of Arts and Sciences, Fordham University.                                                                                                                                                                                                                                                                                                                                                                                                           |
| 2010      | Student Travel Award (\$275) to present paper at the 2010 meeting of the National Council for Measurement in Education in Denver, CO, Graduate School of Arts and Sciences, Fordham University.<br><br>Student Travel Award (\$100) to present paper at the 2010 meeting of the National Council for Measurement in Education in Denver, CO, Graduate Student Association, Fordham University.<br><br>Student Travel Award (\$900) to present paper at the 2010 Society for Multivariate Experimental Psychology (SMEP) Graduate Student Preconference 2010 in Atlanta, GA, Society for Multivariate Experimental Psychology. |
| 2009-2010 | Harold Gulliksen Dissertation Research Fellowship (\$15,000), Educational Testing Service.<br><br>Distinguished Dissertation Research Fellowship (\$15,000), Graduate School of Arts and Sciences, Fordham University.                                                                                                                                                                                                                                                                                                                                                                                                        |
| 2009      | Full scholarship to attend the <i>Advanced Psychometric Methods Workshop</i> concerning latent variable modeling for neurocognitive                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

decline research on San Juan Islands, WA. (Sponsored by University of California, Davis)

Summer Graduate Research Internship in Statistics and Psychometrics, Educational Testing Service. Project: *Treatment of the Latent Trait Distribution in Marginal Maximum Likelihood Estimation with Nonnormal Ability* (under the supervision of Drs. Xueli Xu and Yue Jia).

Communitas Poster Competition Award, Social Sciences (\$100), Fordham University.

Student Travel Award (\$750) to present paper at the 2009 meeting of the National Council for Measurement in Education in San Diego, CA, Graduate School of Arts and Sciences, Fordham University.

2008 Student Travel Award (\$500) to present paper at the International Meeting of the Psychometric Society in Durham, NH, Educational Testing Service and Psychometric Society.

2007-2009 Teaching Assistantship, Graduate School of Arts and Sciences, Fordham University.

2007 Distinguished Summer Research Fellowship, Graduate School of Arts and Sciences, Fordham University.

2006-2007 Graduate Assistantship, Graduate School of Arts and Sciences, Fordham University.

2006-2011 Presidential Tuition Scholarship, Graduate School of Arts and Sciences, Fordham University.

## Published or Submitted Papers

**Casabianca, J. M., & Lewis, C.** *Frequentist and Bayesian Approaches for Statistical Equivalence Testing to Detect DIF with the Mantel-Haenszel DIF Statistic.* Under revision pursuant to referee comments.

**Casabianca, J. M., & Lewis, C.** *Loglinear smoothing models for the latent trait distribution in the marginal maximum likelihood estimation of 3PL item parameters.* Under revision pursuant to referee comments.

**Casabianca, J. M., Lockwood, J. R., & McCaffrey, D. F.** (in press). Trends in Classroom Observation Scores. *Educational and Psychological Measurement.*

**Casabianca, J. M.**, McCaffrey, D. F., Gitomer, D., Bell, C., Hamre, B. K., & Pianta, R. C. (2013). Effect of observation mode on measures of secondary mathematics teaching. *Educational and Psychological Measurement*, 73, 757-783.

Hebert, P. L., Sisk, J. E., Tuzzio, L., **Casabianca, J. M.**, Pogue, V. A., Wang, J. J., ..., McLaughlin, M. (2012). Nurse-led disease management for hypertension control in a diverse urban community: a randomized trial. *Journal of General Internal Medicine*, 27, 630-636

**Casabianca, J. M.**, Budescu, D. V., Fyffe, D., & Lewis, C. (2010). A comparison of classification techniques for diagnosis in an Alzheimer's study. *Multivariate Behavioral Research*, 45, 1021. (Abstract).

Hebert, P. L., Sisk, J. E., Wang, J. J., Tuzzio, L., **Casabianca, J. M.**, Chassin, M. R., Horowitz, C., & McLaughlin, M. A. (2008). Cost-effectiveness of nurse-led disease management for heart failure in an ethnically diverse urban community. *Annals of Internal Medicine*, 149, 540-548.

Bischof, D. L., Baum, D., **Casabianca, J. M.**, Morgan, R., Rabiteau, K., & Tateneni K. (2004). Validating AP modern foreign language examinations through college comparability studies. *Foreign Language Annals*, 37, 616-622.

## Book Chapters

**Casabianca, J. M.**, & Junker, B. W. (2014). Estimating latent distributions with loglinear smoothing models. Chapter for R. Millsap (Ed.), *New Developments in Quantitative Psychology*. New York, NY: Springer Verlag.

**Casabianca, J. M.**, & Junker, B. W. (in press). Discrete distributions relevant to item response theory. Invited chapter for W. J. van der Linden & R. K. Hambleton (Eds.), *Handbook of modern item response theory*. Boca Raton, FL: Chapman & Hall/CRC.

**Casabianca, J. M.**, & Junker, B. W. (in press). Multivariate normal distributions. Invited chapter for W. J. van der Linden & R. K. Hambleton (Eds.), *Handbook of modern item response theory*. Boca Raton, FL: Chapman & Hall/CRC.

**Casabianca, J. M.**, Junker, B. W., & Patz, R. (in press). The hierarchical rater model. Invited chapter for W. J. van der Linden & R. K. Hambleton (Eds.), *Handbook of modern item response theory*. Boca Raton, FL: Chapman & Hall/CRC.

## Peer-reviewed Research Reports

**Casabianca, J. M.**, & Engberg, J. (2013). *The impact of professional development reforms on teacher performance in the Intensive Partnership Sites: A conceptual framework and a review of data availability*. (PR-757-BMGF), Pittsburgh, PA: RAND Corporation (Education).

von Davier, A. A., Holland, P. W., Livingston, S. A., **Casabianca, J. M.**, Grant, M. C., & Martin, K. (2006). *An evaluation of the kernel equating method: A special study with pseudotests constructed from real test data*. (Research Report 06-02), Princeton, NJ: Educational Testing Service.

Moses, T., von Davier, A. A., & **Casabianca, J. M.** (2004). *Loglinear smoothing: An alternative numerical approach using SAS*. (Research Report 04-27), Princeton, NJ: Educational Testing Service.

## Technical Reports and Working Papers

**Casabianca, J. M.** (2011). *Loglinear smoothing for the latent trait distribution: A two-tiered evaluation*. (Doctoral dissertation). ProQuest Dissertations and Theses. (Accession Order No. AAT 3474125).

**Casabianca, J. M.** (2008). *Equivalence testing for differential item functioning detection*. (Master's thesis). Fordham University, Bronx, NY.

**Casabianca, J. M.**, Yang, W. L., & Cohen, C. (2004). *The 2002-2003 Advanced Placement Program college comparability study in Spanish Literature exam* (Statistical Report 04-09), Princeton, NJ: Educational Testing Service.

**Casabianca, J. M.**, & Tateneni, K. (2003). *The 2000-2002 Advanced Placement Program college comparability studies in the French, German and Spanish Language exams* (Statistical Report 03-31), Princeton, NJ: Educational Testing Service.

Yang, W. L., & **Casabianca, J. M.** (2003). *Thematic core scoring (reader reliability) study in European History* (Statistical Report 03-04), Princeton, NJ: Educational Testing Service.

## Presentations

**Casabianca, J. M.** (2015, April). *Combining Measures of Teaching Effectiveness with the Hierarchical Rater Model*. Annual Meeting of the National Council for Measurement in Education. Chicago, Illinois. *Submitted*.

Stafford, R., **Casabianca, J. M.**, Song, T., & Wolfe, E. (2015, April). *The Detection of Severity and Centrality in Raters under Various Levels of Double-Scoring*. Annual Meeting of the American Educational Research Association, Division D. Chicago, Illinois. *Submitted*.

**Casabianca, J. M.**, & Junker, B. (2014, August). *The Hierarchical Rater Model for Evaluating Changes in Traits over Time*. 122<sup>nd</sup> Annual Convention of the American Psychological Association, Division 5: Evaluation, Measurement and Statistics, Washington D.C.

**Casabianca, J. M.**, & Junker, B. (2014, July). *The Hierarchical Rater Model for Evaluating Changes in Traits*. International Meeting of the Psychometric Society. Madison, Wisconsin.

**Casabianca, J. M.**, Lockwood, J. R., & McCaffrey, D. F. (2014, April). *Augmented Generalizability Study Models for Analyzing Rater Drift*. Annual Meeting of the National Council for Measurement in Education. Philadelphia, Pennsylvania.

**Casabianca, J. M.**, Lockwood, J. R., & McCaffrey, D. F. (2014, April). *Rater Drift in Classroom Observation Scores*. Annual Meeting of the American Educational Research Association, Division H. Philadelphia, Pennsylvania.

**Casabianca, J. M.**, & Junker, B. (2013, April). *Hierarchical Rater Models for Longitudinal Assessments*. Annual Meeting of the National Council for Measurement in Education. San Francisco, California.

**Casabianca, J. M.**, Lockwood, J. R., & McCaffrey, D. F. (2013, March). *Rater Drift and Time Trends in Classroom Observations*. Meeting of the Society for Research on Educational Effectiveness. Washington, District of Columbia.

McCaffrey, D. F., & **Casabianca, J. M.** (2013, March). *Effect of Observation Mode on Measures of Teaching*. Meeting of the Society for Research on Educational Effectiveness. Washington, District of Columbia.

**Casabianca, J. M.**, & Junker, B. (2012, July). *Estimating Latent Distributions with Loglinear Smoothing Models*. International Meeting of the Psychometric Society. Lincoln, Nebraska.

**Casabianca, J. M.**, & Lewis, C. (2012, April). *Loglinear Smoothing Models for the Latent Trait Distribution in 3PL IRT MML Estimation: Impact on Item Parameter Recovery*. Annual Meeting of the National Council for Measurement in Education. Vancouver, British Columbia, Canada.

**Casabianca, J. M.**, & Lewis, C. (2011, April). *The Impact of IRT Item Parameter Estimation Error on IRT True Score Equating Functions and CSEMs: A Robustness Study*. Annual Meeting of the National Council for Measurement in Education. New Orleans, Louisiana.

Dowling, N. M., **Casabianca, J. M.**, Mukherjee, S., & LaBrish, C. (2011, August). *Derivation of Subtypes of Mild Cognitive Impairment Using Memory Test Performance: A Finite Mixture Modeling Approach*. 119<sup>th</sup> Annual Convention of the American Psychological Association, Division 5: Evaluation, Measurement and Statistics, Washington D.C.

Dowling, N. M., Mukherjee, S., **Casabianca, J. M.**, & LaBrish, C. (2011, July). *Empirically-derived Amnesic Mild Cognitively Impaired Subtypes based on Performance on Memory Tests Predict Conversion to Alzheimer's Disease*. International Conference on Alzheimer's Disease, Paris, France.

**Casabianca, J. M.**, Budescu, D., Fyffe, D., & Lewis, C. (2010, October). *A Comparison of Classification Techniques to Examine Diagnosis in an Alzheimer's Study*. Annual Graduate Student Preconference to the Society for Multivariate Experimental Psychology. Atlanta, Georgia.

**Casabianca, J. M.**, Xu, X., Jia, Y., & Lewis, C. (2010, May). *Estimation of Item Parameters when the Underlying Latent Trait Distribution of Test Takers is Nonnormal*. Annual Meeting of the National Council for Measurement in Education. Denver, Colorado.

**Casabianca, J. M.**, & Lewis, C. (2009, April). *Equivalent Item Functioning Detection with Empirical Bayes Estimates*. Annual Meeting of the National Council for Measurement in Education. San Diego, California.

**Casabianca, J. M.**, & Lewis, C. (2008, July). *Equivalence Testing for Differential Item Functioning*. International Meeting of the Psychometric Society. Durham, New Hampshire.

**Casabianca, J. M.**, & Kim, S-K. (2008, April). *Profile Analysis via Multidimensional Scaling (PAMS) as an Exploratory Tool: A Comparison of PAMS to Cluster Analysis using the Woodcock-Johnson Psychoeducational Battery*. Annual Meeting of the National Council for Measurement in Education. New York, New York.

Hebert, P., McLaughlin, M., Lala, A., & **Casabianca, J. M.** (2007, July). *Matching and Extending the Results of Randomized Trials using Observational Data and Causal Models: An Application to the HOPE trial*. International Health Economics Association 6<sup>th</sup> World Congress. Copenhagen, Denmark.

McLaughlin, M., Hebert, P., Sisk, J., Tuzzio, L., **Casabianca, J. M.**, Horowitz, C., Pogue, V., & Chassin, M. (2007, May). *Improving Hypertension Control in East and Central Harlem*. 22<sup>nd</sup> Annual Scientific Meeting and Exposition of the American Society of Hypertension, Inc. Chicago, IL.

Hebert, P., McLaughlin, M., Lala, A., & **Casabianca, J. M.** (2007, May). *High Risk Cardiovascular Patients: Investigating the Class Effect of ACE Inhibitors*. 22<sup>nd</sup> Annual Scientific Meeting and Exposition of the American Society of Hypertension, Inc. Chicago, IL.

Hebert, P., **Casabianca, J. M.**, Tuzzio, L., McLaughlin, M., Brown, C., & Sisk, J. (2006, June). *Effects of Medical Mistrust and Perceived Discrimination in the Medical Community on Self-management Practices for African American and Hispanic Patients with Uncontrolled Hypertension*. Academy Health Annual Research Meeting. Seattle, WA.

Hebert, P., Sisk, J., McLaughlin, M., Wang, J., & **Casabianca, J. M.** (2006, June). *Cost and Cost Effectiveness of Nurse Management for Congestive Heart Failure*. Academy Health Annual Research Meeting. Seattle, WA.

Pogue, V., Tuzzio, L., Hebert, P., McLaughlin, M., & **Casabianca, J. M.** (2005, July). *Awareness and Intentions Regarding Obesity-related Health Behaviors in Uncontrolled Hypertensive African Americans*. 20th International Interdisciplinary Conference on Hypertension and Related Cardiovascular Risk Factors in Ethnic Minority Populations. San Juan, PR.

## Invited Talks and Panels

**Casabianca, J. M.** (2012). *Academic Versus Private Sector Careers---The Pros and Cons*. 120<sup>th</sup> Annual Convention of the American Psychological Association, Division 5: Evaluation, Measurement and Statistics, Orlando, FL.

**Casabianca, J. M.** (2012). *Are You a Next Generation Methodologist? Transitioning From Graduate Student to Professional in a Next Generation Research & Assessment World*. Annual Meeting of the American Educational Research Association. Vancouver, British Columbia, Canada.

**Casabianca, J. M.** (2011). *Psychometrics: Origins, Evolution, and Current Topics*. Carnegie Mellon University, Department of Statistics, Student Seminar Series. Pittsburgh, PA.

## Software and Macros

**Casabianca, J. M., & Lewis, C.** (2011). LLSEM: LogLinear Smoothing in an Expectation Maximization algorithm. IRT calibration software to implement the Expectation-Maximization algorithm with loglinear smoothing.

**Casabianca, J. M., & Huo, Y.** (2010). CCDA SAS Macro. Macro to implement Canonical Correlation Dominance Analysis (CCDA).

## Professional/Editorial Service

Editorial Board Member: *International Journal of Behavioral Development* (Methods and Measures section)

Journal Reviewer: *Applied Psychological Measurement*; *IERI (IEA-ETS Research Institute) Monograph Series*; *Journal of Educational Measurement*; *Psychometrika*

Conference Proposal Reviewer: Annual Meeting of the National Council on Measurement in Education, 2011, 2013; Society for Multivariate Experiment Psychology (SMEP) Student Preconference, 2011

Conference Session Chair/Organizer: American Psychological Association (APA) - Division 5, Organized and chaired the *Graduate Student and Early Career Professional Symposium on Higher Education*, 2011; American Psychological Association (APA) -



Divisions 5 and 32, Co-chaired the *Qualitative-Quantitative Debate*, 2011; National Council on Measurement in Education (NCME), Session Chair, 2010, 2011; Psychometric Society, Session Chair, 2008

## **Professional Organizations (memberships & positions):**

American Educational Research Association (AERA)

American Psychological Association (APA)

Division 5 (Evaluation, Measurement, and Statistics) Treasurer, 2011-2014

Division 5 Renaming Taskforce, 2010-2011

Division 5 Representative to the American Psychological Association of Graduate Students (APAGS), 2008-2011

American Statistical Association (ASA)

National Council on Measurement in Education (NCME)

Training and Professional Development Committee, 2008

Psychometric Society

Society for Research on Educational Effectiveness

## **Department and University Service**

- |             |                                                                                                                                                                                                                                                                                                                                                |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2013-2014   | Member of the Educational Psychology Department's Standing Committee on Student Evaluations (The University of Texas at Austin, Austin, TX).                                                                                                                                                                                                   |
| 2011-2013   | Co-organizer of <i>Statistics in Education Research Group</i> (SERG). Coordinate biweekly meetings and speakers from within the Department of Statistics. With Julia Kaufman and Sarah Ryan (Carnegie Mellon University, Pittsburgh, PA).                                                                                                      |
| 2011-2013   | Co-organizer of CMART Lecture and Workshop Series. Organized five invited lectures and workshops for the Carnegie Mellon and RAND Traineeships (CMART). Lecture Series (invitees: Henry Braun, Cynthia Coburn, Klaas Sijtsma, Jim Spillane, Alina von Davier). With Julia Kaufman and Sarah Ryan (Carnegie Mellon University, Pittsburgh, PA). |
| 2006 – 2008 | President, Fordham Council on Applied Psychometrics (FCAP). President of graduate student organization. Organized brown bag lecture series, regular meetings, and a national conference with four keynote speakers and over 100 attendees (FCAP Conference, 2008).                                                                             |

## Computer and Programming Skills

Productivity Software: Access, Excel, LaTeX, Outlook, PowerPoint, Word

Statistical/IRT Software: BILOG-MG 3, HLM 6, Jags, LISREL, mdlm, Mplus, Parscale 4, SAS (BASE, GRAPH, MACRO, ODS; Proc IML, LCA, LTA), SPSS, STATA, R, WinBUGS, WinLTA

## Statistical Consulting Activities

2009-2011	The Coalition for Asian American Children and Families (CACF) - Project DATA (Documenting Achievement to Transform Accountability)
2007-2009	Educational Testing Service, K-12 Assessments
2007	Mount Sinai School of Medicine, Department of Health Policy

## Teaching Experience

Fall 2014	Measurement and Evaluation (Graduate) Correlation and Regression (Graduate) University of Texas – Austin
Spring 2014	Psychometrics: Theory and Methods (Graduate) University of Texas – Austin
Fall 2013	Measurement and Evaluation (Graduate) University of Texas – Austin
Spring 2011	Introduction to SAS (Professional development workshop) Introduction to Statistics (Undergraduate) Psychological Testing (Undergraduate) Fordham University
Fall 2010	Biostatistics (Graduate) City University of New York, Hunter College  Introduction to Statistics (Undergraduate) Fordham University
Spring 2010	Biostatistics (Graduate) City University of New York, Hunter College
Fall 2009	Biostatistics (Graduate) City University of New York, Hunter College