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github.com/jbryer/CV

Jason M. Bryer, Ph.D.

Professional Interests

Teaching and research within K-12 and higher education. Specific areas of interest include the use of technology (e.g. R and LaTeX) for reproducible research; academic self-regulated learning; formative assessment; issues of social justice and equity in education; and methodological and statistical topics, particularly propensity score analysis and modern graphics.

Education

2014 **Ph.D.**, *University at Albany*, Albany, NY.

Educational Psychology & Methodology

2009 **M.S.**, *University at Albany*, Albany, NY.

Educational Psychology & Methodology

2004–2005 **Coursework Completed**, *The College of Saint Rose Graduate School*, Albany, NY.

Adolescent Education in Mathematics

1999 **B.A.**, *The College of Saint Rose*, Albany, NY.

Mathematics major; Computer Information Systems minor

Dissertation

Title *A National Study Comparing Charter and Traditional Public Schools Using Propensity Score Analysis*

Committee Robert M. Pruzek (chair), Bruce Dudek (co-chair), Heidi Andrade, Kathryn S. Schiller

Website <https://github.com/jbryer/Dissertation>

Professional Experiences

2016–present **Executive Director & Principal Investigator**, *Excelsior College*, Albany, NY.

Manage FIPSE First in the World grant to develop a Diagnostic Assessment and Achievement of College Skills (DAACS; \$2,999,877). DAACS provides incoming students with realtime, actionable feedback about their strengths and weaknesses in critical college skills including self-regulation, math, reading, and writing. Additionally, DAACS provides critical information for predictive analytics at the college.

Website: <http://www.DAACS.net>

- 2015-present **Adjunct Associate Professor**, *CUNY School of Professional Studies*, New York, NY.
Courses taught: IS 606 Statistics & Probability for Data Analytics (Summer 2015, Fall 2015, Spring 2016, Fall 2016)
- 2015-present **Consultant / Learning Analyst**, *NYS PBIS Technical Assistance Center*, Albany, NY.
Developed a data system to support Behavior Specialists work with schools within New York State on their implementation of Positive Behavior Interventions and Supports (PBIS). The goal of this website is to consolidate disparate data sources along with custom data entry so that Behavior Specialists can make data based decisions. I also provided statistical support for analyzing the data at the state level. Website: <http://pbisny.org>
- 2014-2015 **Director of Research & Project Evaluation**, *Excelsior College*, Albany, NY.
Assisted the College in seeking external grants and provide research support for existing grants. Significant activities included:
- **Principal Investigator** for a Gates Foundation funded grant (\$168,572) on the use of adaptive learning technology in Biology and Mathematics.
 - **Lead Evaluator** for New York State Higher Education Services Corporation (HESC) grant (\$449,438) for the expansion of the Online Writing Lab to NYS Community Colleges.
- 2009-2015 **Adjunct Instructor**, *University at Albany, Division of Educational Psychology & Methodology*, Albany, NY.
Courses taught: EPSY 420 Child & Adolescent Development (Fall 2008, Spring 2009), EPSY 530 Statistics I (Fall 2013, Summer 2014, Fall 2014, Summer 2015), EPSY 887 Computational Statistics (Spring 2013), EPSY 887 Data Science Institute (Fall 2014)
- 2008-2014 **Senior Research Analyst**, *Excelsior College, Office of Institutional Research*, Albany, NY.
Conducted research and data analysis related to the College's mission. This includes developing, administering, and analyzing surveys; analyzing data from the college's student information system; and consulting with individual schools to develop specific measures. I also provided substantial support and training for other Research Analysts within the Office covering topics such as methodology, statistics, and reproducible research.
- 2008-2010 **Research Assistant**, *Head Start University Partnership for Classroom Quality*, Albany, NY.
Assisted with data collection, entry, maintenance, and analysis to evaluate the effectiveness of behavioral (Positive Behavior Support [PBS]) and literacy interventions using the Response-to-Intervention (RTI) model.
Principal investigators: Kevin P. Quinn & Frank R. Vellutino
- 2008-2011 **Webmaster**, *University at Albany, School of Education*, Albany, NY.
Developed and maintained all School of Education websites.
- 2006-2007 **Graduate Assistant**, *Teaching Mathematics for Understanding, University at Albany*, Albany, NY.
Developed and led planning sessions with K-8 mathematics teachers in urban school districts on social justice topics in the mathematics curriculum. Assisted in other areas of the project including data collection, conference planning, and development of online professional development courses.
Principal Investigators: Abbe Herzig & Vicky Kouba
- 2006-2008 **Senior Applications Developer**, *Excelsior College*, Albany, NY.
Developed Java applications for distance learning and student management systems.
- 2004-2006 **Senior Software Engineer**, *State University of New York*, Albany, NY.
Developed web based applications in Java and related technologies as part of a state wide financial and human resource systems.

- 1999-2004 **Software Engineer**, *MapInfo*, Troy, NY.
Contributed key features as part of a geographic information system (GIS) server application (MapX-treme Java) including API for reading and writing binary GIS data, framework for web based applications, and data binding.
- 1997-1999 **Web Developer**, *Office of the Attorney General*, Albany, NY.
Software developer and website designer for the New York State Attorney General's Website.

Teaching Experiences

- Spring 2017 **DATA 606 Statistics and Probability for Data Analytics** (CUNY School of Professional Studies)
Fall 2016
Spring 2016
Fall 2015
Summer 2015
This course covers basic techniques in probability and statistics that are important in the field of data analytics. Discrete probability models, sampling from infinite and finite populations, statistical distributions, basic Bayesian statistics, and non-parametric statistical techniques for categorical data are covered in this course. Each of these statistical concepts will be applied in a variety of real-world scenarios through the use of case studies and customized data sets.
Course page: <http://DATA606.net>
- Summer 2015 **EPSY 530 Statistics I** (University at Albany)
Fall 2014
Summer 2014
Fall 2013
Descriptive statistics including measures of central tendency and variability, correlation and regression. Introduction to statistical inference, including sampling distributions, significance tests, confidence intervals, and power of tests of significance.
Course website: <http://epsy530.bryer.org>
- Fall 2014 **EPSY 887 Data Science Institute** (University at Albany)
Data Science is the intersection of statistics, computer science, and research. This seminar will introduce the key concepts of data science with an emphasis on data science in education. We will cover the important statistical and programming concepts necessary for conducting reproducible research on large datasets. The open source program R will be used throughout the course. No programming experience is required but at least two semesters of graduate statistics is highly recommended.
Course website: <https://github.com/jbryer/EPSY887DataScience>
- April/May 2014 **Applied Propensity Score Analysis with R** (Workshop given at the University at Albany)
This two day workshop provided an introduction to propensity score methods using R as well as more advanced topics including multilevel PSA, non-binary treatment matching, and bootstrapping.
Workshop website: <http://psa.bryer.org>
- Spring 2013 **EPSY 887 Institute in Education: Computational Statistics** (University at Albany)
This seminar will provide an introduction to statistical programming for data analysis with an emphasis on the analysis of large datasets. With the increased availability of large national and international datasets (e.g. PISA, TIMMS, NAEP, ECLS) there is a great opportunity and potential for researchers to address important questions. However, the analysis of large datasets requires special analytical procedures not found in commercial statistics software. Utilizing the open source statistical software R, students will be introduced to the tools and procedures for analyzing large datasets with an emphasis on conducting transparent and reproducible research.
Course website: <https://github.com/jbryer/CompStats>

- July 2013 **Introduction to Propensity Score Methods with R** (useR! 2013 Pre-Conference Workshop)
This workshop will provide participants with a theoretical overview of propensity score methods as well as illustrations and discussion of PSA applications using R.
- Fall 2016 **Introduction to R and LaTeX for Institutional Research** (Workshop given at the
Fall 2015 Northeast Association for Institutional Research)
Fall 2013 This workshop provides an overview as well as hands-on exercises for using R and LaTeX to perform
Fall 2012 data analysis and report generation. Participants learn to perform basic statistical analyses in R
Fall 2011 and to generate reports with LaTeX in spreadsheet, presentation, and document formats.
- Spring 2009 **EPSY 420 Child & Adolescent Development** (University at Albany)
Fall 2008 This course covers theory and research in social, emotional, physical, and intellectual development and its application to instruction with an emphasis on late childhood through middle adolescence.
- 2007-2012 Assisted in teaching the online section of Statistics I (EPSY 530) including the installation
Fall Semesters and management of the Moodle Content Management System (moodle.bryer.org).

Service Positions

- 2014-present Founding Organizer of the Albany R Users Group
Website: <http://www.meetup.com/Albany-R-Users-Group>

Dissertation Committees

- 2016 Kimberly Speersneider - The Differentiated Impact Of Early Entry Into Head Start On Social Competence And Literacy: An Applied Propensity Score Analysis
- 2015 Chrisopher Valle - Effects Of Criteria-Referenced Formative Assessment On Achievement In Music
- 2015 Fei Chen - The Impact of Criteria-Referenced Formative Assessment On Fifth Grade Students' Theater Arts And English Language Arts Achievement

Excelsior College

- 2015-present Chair, Diagnostic Assessment & Achievement of College Skills Advisory Committee
- 2014-present Chair, Technology Advisory Subcommittee
- 2014-present Committee Member, Information Technology Committee
- 2013-2014 Committee Member, Persistence Measure Task Force
- 2010-2014 Committee Member, Student Learning Support Services Committee
- 2010-2014 Committee Member, Data Definitions & Quality
- 2010-2013 Committee Member, Information Technology Operations & Security Committee
- 2011-2012 Committee Member, Search Committee for Assistant Provost
- 2009-2010 Committee Member, Early Alert System for Identifying Non-Persistent Students
- 2009 Chair, Task Force on a Library of Model Courses
- 2009-2010 Committee Member, System for Storing Information at Excelsior College

City School District of Albany

- 2011-2012 Committee Member, Grade Configuration Committee; Chair of the Accountability Subcommittee

American Educational Research Association

- 2009-2011 Treasurer, Studying and Self-Regulated Learning Special Interest Group
- 2009-2010 Committee Member, Division D Membership Committee

University at Albany, Division of Educational Psychology & Methodology

- 2007-2008 Treasurer, Graduate Student Organization

Professional Memberships

- AERA American Educational Research Association
- AIR Association for Institutional Research
- ASA American Statistical Association
- NEAIR North East Association for Institutional Research
- NCME National Council on Measurement in Education

Awards & Grants

- 2015-2019 **Principal Investigator** FIPSE First in the World grant (\$2,999,877, P116F150077), *Diagnostic Assessment & Achievement of College Skills: Personalized Feedback & Targeted Student Supports*.
- 2013-2015 **Principal Investigator** Bill & Melinda Gates Foundation grant (\$168,572) on the use of adaptive learning technology in introductory Biology and Mathematics courses.
- 2014-2016 **Lead Evaluator** for a New York State Higher Education Services Corporation (HESC) grant (\$449,438) for the expansion of the Online Writing Lab to NYS Community Colleges.
- 2013 North East Association for Institutional Research (NEAIR) Ambassador Grant (\$800)
- 2013 Excelsior College, Employee Recognition Award for Excellence in Innovation
- 2011, 2012 The Society of Multivariate Experimental Psychology (SMEP), Workshop Travel Award (three separate awards of \$1,000 each)
- 2011 National Center for Educational Statistics Workshop Travel Award (~\$800)
- 2009 Association for Institutional Research (AIR) & National Center for Educational Statistics (NCES), Travel Grant (\$330)
- 2009 National Science Foundation, Travel/Research Grant (\$1,000)
- 2009 University at Albany Graduate Student Organization, Travel/Research Grant (\$320.00)
- 2001 Award for Outstanding Performance, MapInfo.
- 1999 Sister Noel Marie Cronin Award for excellence in Mathematics, College of Saint Rose.
- 1999 Outstanding Senior Award for Mathematics/Computer Information Systems, College of Saint Rose.
- 1998, 1999 Service and Appreciation Award, College of Saint Rose.

Professional Development Coursework

- 2015 Targeted Learning, Sherri Rose, Atlantic Causal Inference Conference short course.
- 2014 Applied Predictive Modeling in R, Max Kuhn, useR! Pre-Conference workshop.
- 2013 Using Spatial Data, Roger Bivand, useR! Pre-Conference workshop.
- 2012 Statistical Modeling in the R Context, Bill Venables, useR! Pre-Conference workshop.
- 2012 Geospatial Data in R and Beyond, Barry Rowlingson, useR! Pre-conference workshop.
- 2012 Building R Web Applications with Rook, Jeffry Horner, useR! Pre-conference workshop.
- 2012 Using the School Attendance Boundary Information System (SABINS), Salvatore Saporito and David Van Riper, AERA Mini-Course.
- 2011 R Development Master Class, Hadley Wickham
- 2011 Fitting and Evaluating Mixed Models using `lme4`, Douglas Bates.
- 2011 National Assessment of Educational Progress (NAEP) Database training, National Center for Educational Statistics.
- 2011 Presenting Data and Information, Edward Tufte.
- 2010 Handling missing data in R with MICE, Karin Groothuis-Oudshoorn and Stef van Buuren, useR!
- 2010 Elastic-R, a google docs-like portal for data analysis in the cloud, Karim Chine, useR!
- 2009 Using IPEDS Data for Institutional Effectiveness, Mary Ann Coughlin, NEAIR Workshop.
- 2009 Accessing and Analyzing National Databases in Secondary and Higher Education, Terrell L. Strayhorn, AERA Extended Course.
- 2009 An Introduction to Hierarchical Linear Modeling with R, J. Kyle Roberts, AERA Mini-Course.
- 2008 An Introduction to Propensity Score Analysis, Robert M. Pruzek, University at Albany.
- 2008 An Introduction to GIS for Educational Researchers, Mark Hogrebe, Courtney A. Bell, & Charisse A. Gulosino, AERA Mini-Course.
- 2008 Foregrounding Issues of Equity and Diversity in Mathematics Education Research: Implications for Research Methods and Teacher Development, Ban Battey, et al., AERA Mini-Course.
- 2008 A "Gentle" Introduction to Statistical Analysis and Teaching with R, Brandon K. Vaughn, AERA Mini-Course.

Graduate Coursework

Completed at the University at Albany

- EPSY 522 Adolescent Development
- EPSY 530 Statistical Methods I
- EPSY 540 Assessment in Education
- EPSY 610 Advanced Educational Psychology: Learning & Instruction
- EPSY 623 Advanced Developmental Psychology
- EPSY 630 Statistical Methods II
- EPSY 640 Educational & Psychological Measurement
- EPSY 687 Institute in Education: Item Response Theory
- EPSY 713 Self-Regulated Learning
- EPSY 721 Comparative Theories in Human Development
- EPSY 725 Seminar in Human Development: Language Development
- ECPY 725 Multivariate Applications in Counseling Psychology
- ECPY 726 Analysis of Covariance Structures
- EPSY 735 Seminar in Statistics (PSA, bootstrapping, factor analysis)
- EPSY 761 History & Issues in Special Education
- EAPS 762 Seminar in Advanced Research Methods for Educational Leadership (HLM)
- EPSY 780 Seminar in the Profession of Educational Psychology
- ETAP 850 Equity, Diversity, & Social Justice in Mathematics & Science Education
- EPSY 887 Institute in Education: The Use of R in Educational Psychology
- EPSY 887 Institute in Education: Modern Graphics for Social Science Research

Completed at the College of Saint Rose

- EDU 506 Educational Foundations
- EDU 530 Middle School Education: Theory & Practice
- EDU 590 Research Seminar
- EPY 500 Educational Research
- EPY 502 Survey of Educational Psychology
- SEC 515 Curriculum & Instruction in Secondary Schools
- SEC 518 Literacy Improvement in Secondary Schools
- SEC 522 Methods of Teaching Math in Secondary Schools

References

[Bruce Dudek, Ph.D.](#)

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