ROLAND B. STARK

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RESEARCH EXPERIENCE

Chief Research Officer, **REINFORCED CARE, INC.**, Ashland, MA (2012-present).
- Analyze and interpret extensive patient data for hospital leaders.
  - Identify predictors and causes of post-discharge outcomes based on ongoing data feeds from hospitals and telephone outreach to patients.
  - Investigate hospital quality improvements that will also increase revenue.
  - Design research with and present findings to CEOs, chief medical and nursing officers, and directors of quality improvement and case management.
- Introduce statistical techniques including data mapping, path diagrams, random forests, Monte Carlo simulation, censored regression, CHAID, MICE, ARIMA, LASSO, and specialized *R* packages.
- Lead marketing initiatives encompassing collateral, white papers, and website redesign. Represent the company through proposals, publications, and presentations.
- Promoted from Senior Research Analyst, 2016.

Statistician, Research Consultant, and Principal, **INTEGRATIVE STATISTICS** (2001-present).
- Assist businesses, nonprofits, attorneys, and academic researchers. Clients include Thomson Publishing, Ropes & Gray, Princeton University, Boston College, and UMass Lowell.
  - Research design, from audience needs and budget constraints to power analysis, sampling and weighting, and psychometrics.
  - Data collection and management, including effective use of survey and statistical software.
  - Resourceful data analysis, including multivariate methods (e.g., multiple regression, binary and multinomial logistic modeling, factor and cluster analysis) and Monte Carlo simulation.
  - Insightful interpretation and effective presentation of findings.
- Conducted projects in health care (surgical errors, nurses' working conditions); education (university financial aid modeling, teacher salaries and retention); and business (staff training needs, sampling strategies for reducing auditing expenses).
- Helped attorneys prepare rebuttal of expert testimony; investigated gender inequality in law.
- Contributed to psychology, social work, and archaeology publications.

Senior Research Associate, **MAGUIRE ASSOCIATES, INC.**, Concord, MA (2007-2012).
- Conducted survey-based and other studies to support colleges' and universities' marketing, retention, and alumni outreach efforts. Clients included Bates, Carnegie-Mellon, Fordham, Georgia Tech, and University of New Mexico.
  - Collaborated with administrators to ensure fidelity of research to institutional needs.
  - Managed project flow and supervised design, data collection, processing, analysis, and reporting.
  - Created in-depth reports addressing school image, drivers of student decisions, and price sensitivity.
  - Presented findings to presidents, deans, and faculty.
- Co-led development of a new service line to increase student retention.
- Trained colleagues in statistics, data graphics, and psychometrics.
- Developed analytical and survey innovations drawing on findings from behavioral economics.
- Represented the company through proposals and publications. Co-created a 90-minute webinar.

Statistician/Researcher, HARVARD GRADUATE SCHOOL OF EDUCATION, Wide World Professional
Development Program, Cambridge, MA (2003-2007).

- ♦ Designed and conducted research and evaluations about online courses aimed at improving classroom teaching and supporting school reforms internationally.
  - o Coordinated all aspects of large-scale internet surveys administered in three languages.
    - ✓ Designed surveys using primary and secondary research on cross-cultural and online methods.
    - ✓ Introduced multivariate statistics and used data graphics and thematic analysis to investigate key issues for reports, web pages, and promotional presentations.
  - o Supervised or advised colleagues in processing, coding, and sharing data and in use of SPSS and Excel.
  - o Created innovative quality assurance approaches as part of a long-term team project.
    - ✓ Helped direct development, training, and pilot testing for assessment tools used by 45 employees.
    - ✓ Designed and conducted classroom observations and focus groups.
- ♦ Contributed to grant proposals, case studies, and reports for donors, accreditors, and journals.
- ♦ Promoted from Research Assistant IV, 2006.

Research Associate, **INTERCULTURAL CENTER FOR RESEARCH IN EDUCATION**, Arlington, MA (2002).

- ♦ Developed tools for managing an accountability system encompassing 35 Boston agencies. Customized tools to streamline agencies' reporting and to build in automatic accuracy checks.
- ♦ Evaluated large-scale public school and early childhood programs in Boston and New Haven.
  - o Constructed surveys, achievement tests, and classroom observation guidelines.
  - o Combined quantitative analysis, thematic analysis, and technical secondary research to create reports; presented findings internally and to clients.
  - o Supervised data entry and data management.
- ♦ Trained clients and colleagues in principles of statistical reporting and in SPSS and other applications.

Research Assistant, **BOSTON COLLEGE GRADUATE SCHOOL OF SOCIAL WORK** (2001-2003).

- ♦ Developed continuing education materials for social work professionals and students. Wrote study guides, technical instructions, and reviews of textbooks, websites, and software.
- ♦ Conducted literature reviews and drafted grant proposals.

Teaching Assistant, **BOSTON COLLEGE SCHOOL OF NURSING** (2001).

- ♦ Lectured on quantitative research methods for a graduate course on nursing research theory.

EDUCATION

BOSTON COLLEGE, LYNCH SCHOOL OF EDUCATION, M.Ed. in Research, Measurement, and Evaluation (2001).

- ♦ GPA 4.0. Dean's Award for Academic Accomplishment. Passed comprehensive examination with distinction.
- ♦ Projects included polygraph reliability; statistical detection of cheating on exams; time series analysis; multidimensional scaling; nonlinear dynamics; and the placebo effect.

HARVARD UNIVERSITY, B.A., History, *cum laude* in general studies (1988).

PUBLICATIONS AND PRESENTATIONS

Articles

Stark, R. B., and Courtney, L. (2015). Analyzing not just for correlation but for causation. Retrieved from http://www.reinforcedcare.com.

Stark, R. B., and Courtney, L. (2014). Joint replacement outweighs other factors in determining CMS readmission penalties. White paper prepared for ReInforced Care, Inc. Retrieved from http://www.reinforcedcare.com.

Stark, R. B., and Courtney, L. (2014). Clinicians benefit with the use of predictive tools. *Case In Point 12*:4, 1, 8-11.

Stark, R. B., and Lutz, E. (2013). Predicting your hospital's readmission penalty and gauging your ROI: A new approach. White paper prepared for ReInforced Care, Inc. Retrieved from http://www.reinforcedcare.com/financial-benefits.

Stark, R. B., and Scholder, T. (2011). What drives student choices? Applying behavioral economics to higher education. White paper prepared for Maguire Associates, Inc. Retrieved from http://www.maguireassoc.com/resources/paper-archives/.

Simons, S., Stark, R. B., and DeMarco, R. F. (2011). A new, four-item instrument to measure workplace bullying. *Research in Nursing and Health 34*, 132-140.

Stark, R. B., and Cohen, B. E. (2007). Promoting positive student attitudes toward social work research using course web sites. *Journal of Teaching in Social Work, 27*:1, 181-198.

Eddy Spicer, D., Stark, R. B., and Wiske, M. S. (2006). Assessment tango: The dance between nurturing and measuring learning in online professional development. *The Evaluation Exchange, 11*:4, 9.

Stark, R. B. (2002). Modeling student evaluations. In L. H. Ludlow and C. Rosca, Eds., *A longitudinal analysis of one professor's course evaluations*, Volume III (pp. 7-49). Boston: Boston College Press.

Presentations

Stark, R. B. (2014, December). How to read a research article – for non-statisticians: Gun ownership and stranger and nonstranger firearm homicide rates. Presentation at the Massachusetts Association of Public Health Nurses' Metrowest/Central Chapter meeting.

Stark, R. B., and Courtney, L. (2014, May). Post-discharge puzzles: Readmission and home health services. Presentation at the 4th Annual New England Home Care Conference, Boston, Massachusetts.

Butler, L. M., and Stark, R. B. (2011, November). Do we have a retention problem or do we have a problem with retention? Presentation at the 7th Annual National Symposium on Student Retention, Charleston, South Carolina.

Parrott, S., and Stark, R. B. (2010, December). Drive retention performance through a comprehensive action plan (Webinar, CD). Available from http://www.magnapubs.com/catalog/retention-performance/.

Stark, R. B., and Butler, L. (2010, November). Retention in 8-D. Presentation at the 6th Annual National Symposium on Student Retention, Mobile, Alabama.

Eddy Spicer, D., and Stark, R. B. (2006, April). Beyond self-report: Analyzing shifts in teaching practice following innovative professional development. Paper presented at the annual meeting of the American Educational Research Association, San Francisco, California.

Eddy Spicer, D., Hetland, L., Stark, R. B., and Wiske, M. S. (2005, April). Quality assurance "middleware" for gauging learning effectiveness in online teacher professional development. Paper presented at the annual meeting of the American Educational Research Association, Montréal, Canada.

Reports

Stark, R. B. (2017). Credential status of employees in C766 approved private special education school programs, SY 2016. Prepared for the Massachusetts Association of 766 Approved Private Schools. *(One in a series of reports prepared annually, 2005 to present.)*

Stark, R. B. (2017). Employee retention in C766 approved private special education school programs, SY 2005 to SY 2016. Prepared for the Massachusetts Association of 766 Approved Private Schools. *(One in a series of reports prepared annually, 2006 to present.)*

Stark, R. B. (2009). Staff salaries and their links to credential and retention rates in Massachusetts private special education schools, 2004-07: Overview and technical report. Prepared for the Massachusetts Association of 766 Approved Private Schools.

Eddy Spicer, D., and Stark, R. B. (2007). An evaluation of the Binghamton Summer Academy sponsored by the Broome-Tioga Board of Cooperative Educational Services (BOCES). Prepared for the Binghamton, New York Public School District.

Stark, R. B. (2007). Student referral survey report 2006: Report on referrals trends in 169 private schools providing special education programs. Prepared for the Massachusetts Association of 766 Approved Private Schools.

PROFESSIONAL ASSOCIATIONS

AMERICAN STATISTICAL ASSOCIATION (2003-2016).

AMERICAN EDUCATIONAL RESEARCH ASSOCIATION (2004-2007). Judged research proposals submitted for national conference in the Measurement and Research Methodology Division.

JOURNAL OF COLLEGE STUDENT RETENTION (2010-present). Peer reviewer.

STAT-HELP.COM (2010-2012). Statistics coach.