



Dustin A. Fife

Assistant Professor
Psychology

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Education:

BS (Psychology), Brigham Young University, Provo
PhD (Quantitative Psychology), University of Oklahoma
Biostatistician, Oklahoma Medical Research Foundation

Research Expertise:

Missing Data | Data Visualization | Data Mining

Most statistical procedures assume (explicitly or implicitly) that samples were obtained using random selection. Rarely is this the case in Psychology, where convenience samples are frequently used. My research aims to discover how convenience sampling biases parameter estimates and how we can recover population parameters from biased samples. It turns out, if we consider non-random selection as a “missing data” problem, solutions are possible.

Aside from my main research area, I also spend a lot of time thinking and writing about, as well as programming algorithms for large-scale data mining operations. I have developed packages in R that aim to solve “small N, large p” type problems.

Honors and Awards:

Chuck Gettys Award for Outstanding Research in Graduate School, Department of Psychology at the University of Oklahoma, 2013
Best Paper Award, The Consortium for Student Retention Data Exchange (CSRDE), 2011

Member of:

Academic Educational Research Association

Recent Publications:

Brown M, Fife DA, Guthridge JM, James JA, Monroe ME, Montgomery CG (2017) Association of IFIH1 and pro-inflammatory mediators: Potential new clues in SLE-associated pathogenesis. *PLoS one*, 12: e0171193.

Fife DA, Mendoza JL (2017) Estimating incremental validity under missing data. *Multivariate Behav Res.* 52:164-177.

Munroe ME, Lu R, Zhao YD, Fife DA, Robertson JM, Guthridge JM, Niewold TB, Tsokos GC, Keith MP, Harley JB, James JA (2016) Altered type II interferon precedes autoantibody accrual and elevated type I interferon activity prior to systemic lupus erythematosus classification. *Ann Rheum Dis.* 75:2014-2021.

Fife DA, Hunter MD, Mendoza JL (2016) Estimating Unattenuated Correlations with Limited Information about Selection Variables Alternatives to Case IV. *Organizational Research Methods*, 19:593-615.

Fife DA, Rodgers JL, Mendoza JL (2014) Model conditioned data elasticity in path analysis: Assessing the “confoundability” of the data. *Multivariate Behav Res.* 49:597-613.