Dr. Sarah E. Schwartz Schwartz | Resume

Research Assistant Professor

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Appointments

Assistant Research Professor - Psychology Department, College of Education and Human Services- Utah State University — 2015-present

- Director, The Statistical Consulting Studio
- Instructor, graduate student quantitatice methods and statistics courses

Statistician - Office of Research Services, College of Education and Human Services- Utah State University — 2013-2015

- Acting Director, Office of Methodological and Data Sciences
- Instructor, graduate student quantitatice methods and statistics courses

Statistician and Data Manager - Center for Epidemiology- Utah State University — 2005-2013

- Managed databases, clean data, and prepare custom datasets
- Performed statistical analyses and prepared publications, posters, presentations, and grant submissions
- Worked under three main grants and many co-investigators: University of Utah, BYU, Duke, John Hopkins, University of Maryland, ect.

Data Manager - Kenoi Genetics Lab- Brigham Young University — 2012

- Managed databases and prepare custom datasets

Adjunct Lecturer - Mathematics and Statistics Department- Utah State University — 2006-2008

- Traditional, evening, and distance courses

High School Teacher, Math and Science - — 2000-2004

- Sky View High School, Smithfield, Utah
- Logan River Academy, Logan, Utah

Education

PhD: Mathetatics, Specialization in Statistics - Utah State University- Logan, Utah, USA — 2013-2017

- Mentor: Dr. Chris Corcoran
- TA: Lecturer and grader
- RA: Simulation programmer, Cytel Software Inc.

MS: Statistics - Utah State University- Logan, Utah, USA — 2004-2006

- TA: Lecturer and grader
- RA: Statistician, Center for Epidemiology Studies

BS: Math and Chem Secondary Education - Utah State University- Logan, Utah, USA — 1998-2000

Professional Memberships

American Statistical Association

- October 2018 - Present

Licenses

Secondary Education Teaching License - - State of Utah 2001-2009

- Endorsements: mathematics level 4 and chemistry

Software

R, R Studio, and R Markdown (LaTeX) -

- Data cleaning and wrangling, statistical analysis, and reproducible reporting

SAS, SPSS, MPlus, and G*Power -

- Data cleaning and wrangling, and statistical analysis

REDCap and Qualtrics -

- Creating forms and collecting data

Awards

Mathematics and Statistics Department, Utah State University

- 2015: Department Academic Excellence Award
- 2014: Department Industrious Graduate Student Award
- 2005: Department Graduate Student Teacher of the Year Award

Contracts, Grants and Sponsored Research

Grants

Sponsored by NSF, Federal - $1,120,807.00- Jody Clarke Midura, Victor Raymond Lee, Jessica Shumway, Sarah Schwartz 2019-2022

- Research on the Development of An Assessment to Measure Kindergarten Children's Abilities to Reason Computationally With Mathematical Problem-Solving Skills

Service

President - National- Utah Chapter 2019-2020

- American Statistical Association

Vice President - National- Utah Chapter 2018-2019

- American Statistical Association

Committee Member - Department- Psychology Department, Utah State University 2019 Spring

- Borg Scholarship Committee

Committee Member - College- College of Education and Human Services, Utah State University 2017 Fall

Directed Student Learning

PhD Committee Chair

Current:

- Amanda Hagman, Psychology - *Socio-Epidemiology Program*
    - Successfully proposed: Spring 2019

PhD Committee Member

Current:

- Sarai Holdbrook *(Dr. Sandra Gillam)*, Disability Disciplines
    - Successfully proposed: Fall 2019
- Carla Orellana *(Dr. Ron Gillam)*, Disability Disciplines
    - Successfully proposed: Fall 2019
- J. Scott Crapo *(Dr. Kay Bradford)*, Human Development & Family Studies
    - Successfully proposed: Spring 2019
- Josh Mayti *(Dr. JoAnne Tschanz)*, Psychology
    - Scheduled proposed: Summer 2019
- Chris Johnson *(Dr. Chris Corcoran)*, Statistics
    - Committee Formed: Spring 2019

Past:

- Eliza Jex *(Dr. Robert L. Morgan)*, Special Education
    - Successfully defended: Spring 2019

Masters Committee Member

Current:

- Carly Fox *(Dr. Sandra Gillam)*, Disability Disciplines

Past:

- Fred Hintz *(Dr. Christian Geiser)*, Psychology
    - Successfully defended: Spring 2018

Publications

Peer Reviewed Journals

Cluster randomized trial of a multicomponent school-based program in Mexico to prevent behavioral problems and develop social skills in children - NGA Buenabad, RS Ramos, S Schwartz, MLG López, ADD Juárez, …- Child & Youth Care Forum	2020
The ASKSP Revised (ASKSP-R) as a measure of ASD knowledge for professional populations - MB McClain, B Harris, CR Haverkamp, ME Golson, SE Schwartz- Journal of autism and developmental disorders	2020
Reactions to Witnessing Ethnic Microaggressions: An Experimental Study - L Torres, AK Reveles, F Mata-Greve, S Schwartz, …- Journal of Social and Clinical Psychology	2020
School-clinic care coordination for youth with ASD: A national survey of school psychologists - MB McClain, JD Shahidullah, KR Mezher, CR Haverkamp, KJ Benallie, …- Journal of autism and developmental disorders	2020
Wingate anaerobic test reliability on the Velotron with ice hockey players - RF Bringhurst, DR Wagner, S Schwartz- The Journal of Strength & Conditioning Research	2020
Innovative identification of substance use predictors: machine learning in a national sample of Mexican children - AL Vázquez, MMD Rodríguez, TS Barrett, S Schwartz, NGA Buenabad, …- Prevention Science	2020
Knowledge of Autism Spectrum Disorder Among School Psychology Graduate Students - B Harris, MB McClain, S Schwartz, CR Haverkamp- Contemporary School Psychology	2020
Auditory distraction in school-age children relative to individual differences in working memory capacity - NK Nagaraj, BM Magimairaj, S Schwartz- Attention, Perception, & Psychophysics	2020
Evaluation of the autism spectrum rating scales in a diverse, nonclinical sample - MB McClain, B Harris, SE Schwartz, ME Golson- Journal of Psychoeducational Assessment	2020
Validation of the ASKSG with a Parent Sample in the United States - KJ Benallie, MB McClain, B Harris, SE Schwartz- Journal of autism and developmental disorders	2020
Differential Item and Test Functioning of the Autism Spectrum Rating Scales: A Follow-Up Evaluation in a Diverse, Nonclinical Sample - MB McClain, B Harris, SE Schwartz, ME Golson- Journal of Psychoeducational Assessment	2020

Submitted or Under Review

2019

2018

2017 and prior

PhD Dissertation

Not Peer Reviewed

Online eBooks

Teaching: Graduate Level Courses

PSY 7650: Multilevel and Marginal Models for the Social Sciences

Coverage of multilevel *(ie, mixed-effects, hierarchical linear)* and marginal *(ie, GEE)* models for both continuous and categorical outcomes. Includes application of these methods to many types of cross-sectional and longitudinal research designs *(eg, experimental, case-control, cohort, cross-over, complex sample, randomized controlled trials)*. Software: `R` and `R Studio`.

- 2019 Fall *(scheduled)*
- 2018 Fall
- 2017 Fall
- 2016 Fall

PSY 6600: Statistical Foundataions *(previously: Research Design and Analysis I)*

Research design and statistical concepts for research in education, human services, and psychology, with emphasis on the selection and interpretation of statistical analyses. Focus on inference and ANOVA based methods. Includes a combination of traditional face-to-face and distance-site students. Software: `R` and `R Studio` starting in 2018, `SPSS` prior. *(Summer sessions condensed to 7 weeks)*

- 2020 Spring, Summer *(scheduled)*
- 2019 Spring, Summer
- 2018 Spring, Summer
- 2017 Spring, Summer
- 2016 Summer
- 2015 Summer

Teaching: Undergraduate Level Courses

STAT 2000: Statistical Methods

Introduction to statistical concepts, graphical techniques, probability, distributions, estimation, one and two sample testing, chi-square tests, and simple linear regression, one-way ANOVA. Software: `StatCrunch`.

- 2014 Spring, Fall
- 2005 Spring, Fall

STAT 1040 Introduction to Statistics

Descriptive and inferential statistical methods. Emphasis on conceptual understanding and statistical thinking. Examples presented from many different areas. Software: *none*.

- 2008 Spring *(mostly distance sites)*
- 2007 Spring, Fall
- 2006 Fall

MATH 1050 College Algebra

Functions: graphs, transformations, combinations, and inverses. Polynomial, rational, exponential, logarithmic functions, and applications. Systems of equations and matrices. Partial fractions. Software: `graphing calculators`.

- 2004 Fall

MATH 1010 Intermediate Algebra

Review of introductory algebra concepts. Topics include manipulating and simplifying expressions, solving equations and inequalities, graphing equations, and inequalities. Real world applications including linear, quadratic, polynomial, rational, exponential, and radical functions.

Teaching: College-wide Workshop Series

The Statistical Consulting Studio: 2-3 hour sessions held several times a semester, open to faculty and graduate students.

Time-to-Event Modeling: Survival Analysis (SPSS & R)

In some situations, we are most concerned with monitoring participants to see if an event like death or relapse occurs, yet due to time constraints, attrition, and other factors some participants are censored (eg. KM plots and Cox Regression).

- 2019 Spring
- 2018 Spring

Intro to Multilevel & Marginal Models: MLM, HLM, & GEE

Where your participants are nested (eg. students in classes) or you are monitoring repeated measurements (eg. longitudinal), correlation between observations should not be ignored, but leveraged. This workshop will give you the foundation to get started.

- 2019 Spring
- 2018 Spring

Random Forests: Classification and Regression Trees

Introduction to a novel approach for prediction and variable selection, especially dealing with large numbers of potential predictors and allowing for interactions, collinearity, missingness, and unbalancedness across groups. Introduction to CART trees and random forests focus on variable screening and examples in the literature.

- 2019 Spring
- 2017 Spring, Fall

Effect Size and Power Analysis Using `G*Power`

Review effect size measures for various types of study designs and learn how to report them appropriately, including converting between various effect size measures. Cover power analysis and learn to use the free G*Power software, as well as conversion Excel files

- 2018 Fall
- 2017 Fall
- 2015 Fall

Missing Data and Multiple Imputations

Cover: (1) Identification of patterns and sources of missingness in data, (2) diagnosing mechanizms of missingness, and (3) traditional and modern techniques for dealing with missing data…including multiple imputation methods

- 2018 Fall

Powerful Publishable Plots: The Grammar of Graphics

The do's and don't of good graphics, not specifically to any one software package.

- 2018 Fall
- 2016 Spring

Drop in Statistical Software Summer Sessions

Installation, orientation, & workflow, Importing & wrangling data, Summary tables & graphics, Running Analyses, Tabulation & visualization of results…R and SPSS

- 2018 Fall *(3 sessions)*
- 2018 Summer *(6 sessions)*

Reproducible Workflow: Intro to SPSS, via Syntax

Do you use SPSS only by clicking on the menus? Have you ever wanted to learn how to use SPSS syntax? Learn how to be more efficient, have more control, and save time, by using syntax for data management and statistical analysis. No SPSS background required.

Exact Methods for Categorical Data (SPSS, R, & StatXact)

Not all data is 'normal' or continuous. Other samples are small, sparse, or highly correlated. If standard ANOVA and Regression methods are out, what can you do instead? Come find out about methods you can use in these situations.

- 2018 Spring

Multiple Linear Regression Refresher (SPSS & R)

Did you know that ANOVA is just a special case of regression? Regression permits the inclusion of continuous predictors, customized interactions, quadratic terms, and can better model the results of observational studies.

- 2018 Spring

Logistic Regression

Introduction to modeling dichotomous (binary) outcomes and interpreting results, including interactions. Focus on demystify odds, log odds, odds ratios, and probabilities, while also covering assumptions and interpretation of results.

- 2017, Fall

GEE: Generalized Estimating Equations

Introduction to GEEs for clustered and nested data (cross-sectional) and repeated measures (longitudinal)

- 2017 Spring

Intro to R: the Tidyverse way

Introduction to R via R Studio using the tidyverse packages import, tidy, transform, visualization, models, and results

- 2016 Fall

Explore Your Data with ggplot in R

Interactive, hands-on workshop assumes some familiarity with R

- 2016 Spring

Introduction to R & R Studio, For Absolute Beginners

Lecture and Interactive, hands-on workshop suggest coming with a laptop preloaded with R and R Studio

- 2015 Fall

Talks

USU Data Analytics Student Seminar Series

What should I "git?" Getting started with Git and GitHub using the Git Kracken interface for version control and collaborative research.

- Jan. 19, 2019