

Sara Weston

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DATA SCIENTIST | QUANTITATIVE RESEARCH | ADVANCED ANALYTICS & BEHAVIORAL DATA

Behavioral scientist with 14 years of experience and 50+ peer-reviewed publications, specializing in individual differences and heterogeneity analysis. I build reproducible data pipelines and modular systems that transform "messy data" into actionable insights—treating variation as signal, not noise. Award-winning instructor skilled at translating complex statistical methods into clear stakeholder narratives. I'm easier to work with than most academics: I trained 10+ grad students to challenge my thinking, I document so others can iterate without me, and I change my mind when the data says I should.

WORK EXPERIENCE

Rapid Assessment of Pandemic Impact on Development (RAPID-EC) **04/2020 – Present** **Data Scientist • Contractor** **Remote**

- Designed and deployed 50+ waves of nationally representative surveys tracking 3,300+ families during COVID-19, integrating behavioral and attitudinal data to uncover unmet needs; outputs used by Senate Finance Committee staff to inform Child Tax Credit expansion.
- Built automated NLP pipeline (tidytext, stm) to analyze 6,500+ open-ended responses, identifying emerging pain points in real time; findings informed survey iteration and federal policy recommendations.
- Developed predictive models identifying families at highest risk for material hardship, integrating attitudinal and behavioral data for targeted interventions.
- Created interactive R Markdown dashboards visualizing trends by demographic segments (e.g., material hardship by poverty status over time); used by policymakers and RAPID team to prioritize research questions.
- Collaborated with policymakers, non-profits, and technical teams to translate complex survey data into product-style briefs; insights reached 50,000+ households through federal support programs.

University of Oregon **01/2019 – Present** **Associate Professor of Psychology & Director of Graduate Studies** **Eugene, OR**

- Built Power BI dashboard tracking 70+ doctoral students' milestone progress; used by 30 faculty to identify at-risk students, reducing time-to-degree and informing program policy decisions.
- Led program redesign through stakeholder research: conducted interviews with faculty and students to identify pain points in a key milestone, synthesized feedback into proposals, and secured unanimous faculty vote—reducing completion time and advisor burden.
- Implemented proactive student tracking system with regular progress check-ins and newsletters, improving milestone completion rates and student satisfaction.
- Applied NLP and social network analysis to 700,000+ online community posts to map individual differences in the Type 1 diabetes community; findings informed healthcare communication strategies for patient advocacy organizations.
- Mentored 13 early-career researchers (5 graduate, 8 undergraduate) through publication and career transitions; graduates placed in data science roles, graduate programs, and industry research positions.
- Designed and delivered graduate-level statistics curriculum using open-source tools (R, jamovi); received Tykeson Teaching Award (2025) for making complex data accessible through clear storytelling.
- Managed \$250K annual research budget across multiple concurrent projects; secured \$1.5M+ in competitive NIH and foundation funding as PI. (

**Northwestern University
Postdoctoral Fellow, Medical Social Sciences**

**01/2017 – 01/2019
Evanston, IL**

- Coordinated analysis across 15 longitudinal datasets (49,000+ participants) to identify patterns in health behavior; led team of analysts across multiple international institutions.
- Built automated R pipelines for reproducible meta-analysis: analysts ran standardized scripts, outputs fed directly into aggregation and visualization. Increased research output 4x (from 3 coordinated analyses pre-pipeline to 12+ post-implementation).

EDUCATION

Ph.D. in Personality Psychology

Washington University in St. Louis

St. Louis, MO • 05/2017

B.A. in English & Psychology

Northwestern University

Evanston, IL • 06/2012

Recipient of Undergraduate Research Award

AWARDS & SCHOLARSHIPS

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| Tykeson Teaching Award | 05/2025 |
| University of Oregon | |
| Rising Star Award | 06/2021 |
| Association for Psychological Science | |
| Rising Star Award | 06/2017 |
| Association for Research in Personality | |

PUBLICATIONS

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|---|---------|
| Identifying the number and labels of topics in structural topic modeling analyses: A tutorial. | 05/2023 |
| Advances in Methods and Practices in Psychological Science | |
| Methods tutorial (cited 100+ times). | |
| Mapping individual differences online: A case study of the Type 1 diabetes community. | 10/2021 |
| JMIR Diabetes | |
| Large-scale social media text analysis. | |
| Psychosocial factors associated with preventive pediatric care during the COVID-19 pandemic. | 10/2021 |
| Social Science & Medicine | |
| ML for health behavior prediction; informed policy recommendations. | |
| For a complete list of publications, see www.sarajweston.com. | |

SKILLS

Programming & Tools: brms), ggplot2, Git, Power BI, Qualtrics, R (tidyverse, SQL, stm, Tableau, tidytext

Analytics & Modeling: Bayesian inference, causal inference, Multilevel/longitudinal modeling, NLP/topic modeling, predictive modeling, psychometrics, segmentation

Research Methods: A/B testing, experimental design, interviews, scale development, Survey design, usability testing

Collaboration & Communication: cross-functional alignment, Stakeholder management, translating technical findings for non-technical audiences, workshop facilitation