Sara Weston

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BEHAVIORAL SCIENCE AND RESEARCH METHODOLOGIST

Data scientist and research methodologist with 10+ years of experience leading research teams and applying advanced statistical techniques to complex problems. Expert in survey design, text analysis, and data visualization with a proven ability of translating research findings into clear, actionable insights. Background in Personality Psychology translates to expert user segmentation. Seeking to leverage deep expertise in research methods and leadership to inform data-driven decision making and improve outcomes in a fast-paced industry environment.

EDUCATION

Ph.D., Personality Psychology 2017
Washington University in St. Louis
St. Louis, MO

M.S., Personality Psychology 2014
Washington University in St. Louis
St. Louis, MO

B.A., English & Psychology 2012
Northwestern University
Evanston, IL

SKILLS

Technical: R (advanced), SQL, Git, structural topic modeling, natural language processing
Research Methods: Survey design, experimental and A/B design, longitudinal modeling, scale development
Data analysis and visualization: multilevel modeling, psychometrics, Bayesian analysis, ggplot2, interactive dashboards, presentation-ready graphics
Leadership: Team management, project planning, mentoring, stakeholder communication, grant writing

PROFESSIONAL EXPERIENCE

Associate Professor, Department of Psychology, University of Oregon (2024-present)

- Developed and deployed text analysis pipeline that processed 6,500+ open-ended survey responses to identify key themes related to COVID-19 vaccination attitudes
- Manage annual research budget of $250,000 across multiple concurrent projects
- Created interactive visualizations to communicate complex statistical findings to non-technical stakeholders
- Recruited, trained, and supervised 5 graduate students and 8 undergraduate researchers

Assistant Professor, Department of Psychology, University of Oregon (2019-2024)

- Built and established a new research lab from the ground up, developing research focus, recruiting team members, and implementing effective workflows
- Secured over $1.5M in research funding through competitive grant applications, including NIH funding
- Developed and published innovative methodological approaches for analyzing pre-existing datasets, enhancing transparency in secondary data analysis
- Explained advanced statistical concepts to non-technical audiences

Data Scientist (Consulting), Rapid Assessment of Pandemic Impact on Development (2020-2021)

- Findings informed public health communication strategies reaching 50,000+ households
- Developed automated text analytics workflows processing 6,500+ open-ended responses using structural topic modeling and NLP to identify emerging family needs and policy gaps
- Delivered actionable insights to policymakers through bi-weekly policy briefs and data visualizations, informing federal and state-level family support initiatives
- Built predictive models identifying families at highest risk for material hardship, education disruption, and mental health challenges
- Created interactive dashboards enabling real-time monitoring of pandemic impacts across demographic groups
- Collaborated with cross-functional team including non-profit advocates and government stakeholders to translate complex data into policy recommendations

Postdoctoral Fellow, Medical Social Sciences, Northwestern University (2017-2019)

- Led coordinated analysis of 15 longitudinal datasets involving 49,000+ individuals across international research institutions to investigate personality-health connections
- Developed analysis pipelines to process and analyze complex multi-source data
- Created reproducible statistical workflows that increased team output by 400%
- Collaborated with cross-disciplinary teams including psychologists and medical researchers
- Presented findings to diverse stakeholders, translating complex statistical results into actionable insights

KEY PROJECTS

Selecting the Number and Labels of Topics in Topic Modeling (2023)

- Developed a step-by-step tutorial guiding researchers through choosing the number of topics and labeling them in structural topic models
- Demonstrated best practices using open-ended survey responses on COVID-19 vaccination attitudes from over 3,000 U.S. parents
- Provided practical tools and R code for evaluating candidate models, comparing solutions, and assigning interpretable topic labels
- ***Impact***: Tutorial has become a go-to reference for psychologists and social scientists applying text analysis, enhancing rigor and reproducibility in large-scale survey research

Mapping Individual Differences in the Type 1 Diabetes Community (2021)

- Collected and analyzed nearly 700,000 tweets from over 8,500 accounts in the Type 1 Diabetes (T1D) online community
- Used natural language processing (topic modeling) and social network analysis to identify six major themes, including insulin pricing, clinical research, daily management, and emotional support
- Found that influential community members were exposed to a broad mix of topics, suggesting diverse and interconnected online conversations rather than siloed “echo chambers”
- ***Impact***: Demonstrated how large-scale, low-cost text analysis can capture the lived experiences of people with chronic illness, providing insights for researchers, clinicians, and patient advocates

Psychosocial Predictors of Pediatric Care During COVID-19 (2021)

- Analyzed survey data from nearly 1,900 U.S. parents of young children to examine adherence to well-child visits and flu vaccinations during the pandemic
- Combined sociodemographic factors (e.g., income, education, insurance) with parent mental health, personality traits, and child temperament to predict preventive care
- Found that psychosocial characteristics—such as parent industriousness, sociability, and mental health—were as predictive of care adherence as structural barriers like insurance and income
- Impact: Revealed that pediatric healthcare systems disproportionately favor parents with certain psychological profiles, pointing to actionable strategies (e.g., reducing effort required to access care, tailoring interventions) to improve equity in child health outcomes

AWARDS AND RECOGNITION

- Tykeson Teaching Award, University of Oregon (2025)
  - Highest teaching honor at the University; awarded to one faculty member in Natural Sciences each year.
  - Recognized for outstanding pedagogy in statistical methods, taught at both graduate and undergraduate levels.
  - Celebrated for making complex quantitative concepts clear and engaging to students with little or no prior statistics training
- Rising Star Award, Association for Psychological Science (2021)
  - Prestigious recognition awarded to outstanding psychological scientists in the early stages of their research careers
- Editorial Appointments to Leading Journals
  - Selected as Statistics, Transparency and Reproducibility (STAR) Editor for *Psychological Science*
  - Editorial board member for *Journal of Personality and Social Psychology, European Journal of Personality,* and *Developmental Psychology*