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 text analysis, longitudinal modeling, and data visualization with a proven track record of translating research findings into actionable insights. Seeking to leverage deep expertise in research methods and leadership to drive data-informed decision making 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), Python, SQL, Git, structural topic modeling, natural language processing

Research Methods: Survey design, experimental design, longitudinal modeling, scale development, text analysis

Data Visualization: ggplot2, Shiny, PowerBI, interactive dashboards, presentation-ready graphics,

Leadership: Team management, project planning, mentoring, stakeholder communication, grant writing ($3.6M secured)

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 visualization tools 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

Data Scientist (Consulting), Rapid Assessment of Pandemic Impact on Development (2020-2021)
- Led real-time analytics for nationally representative longitudinal study tracking 3,300+ families with children under 5 during COVID-19 pandemic
- Designed and implemented weekly data collection pipeline using stratified sampling methods to maintain statistical power and demographic representation across 50+ survey waves
- 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

COVID-19 Family Impact Research (2020-2023)
- Used advanced text analytics and NLP to identify emerging family needs in real-time
- Developed a tutorial on selecting optimal topic numbers and labeling, now used by researchers across disciplines
- Created interactive visualizations to communicate key themes to policymakers and healthcare professionals
- ***Impact:*** *Findings informed public health communication strategies reaching 50,000+ households*

Personality Trait Assessment & Measurement Development (2018-2023)
- Evaluated measurement properties of personality assessments across diverse populations
- Developed new measurement approaches for capturing dynamic aspects of personality and emotion
- Created and validated item banks to improve assessment efficiency
- ***Impact:*** *Methodological advances adopted by 100+ researchers globally*

Bayesian Analysis Seminar (2025)
- Developed curriculum to teach Bayesian analysis – including regularization, multiple-regression post-stratification, and causal inference – to audience of wide background
- Built course website and lecture slides using R, Markdown, Stan, and associated packages
- Presented material and evaluated student progress
- ***Impact:*** *25 students – ranging from first-year Master's students to an administrative dean – have necessary knowledge and skills to implement Bayesian analysis in complex research projects*

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.
- Rising Star Award, Association for Psychological Science (2021)
  - Prestigious recognition awarded to outstanding psychological scientists in the early stages of their research careers
- Rising Star Award, Association for Research in Personality (2017)
  - Distinguished early career achievement in personality psychology research
- Competitive Grant Success Rate of 40%
  - Secured multiple NIH/NCI and foundation grants as PI, Co-I, and Consultant
  - Total secured funding exceeding $3.6 million
- 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*

SELECT PUBLICATIONS

- **Weston, S.J.,** et al. (2019). Recommendations for increasing the transparency of analysis of pre-existing datasets. *Advanced Methods and Practices for Psychological Science,* 2(3), 214-227. (228 citations)
- **Weston, S.J.,** Shryock, I., Light, R., & Fisher, P.A. (2023). Identifying the number and labels of topics in structural topic modeling analyses: A tutorial, 6(2) 25152459231160105. *Advanced Methods and Practices in Psychological Science.*
- Graham, E.K., **Weston, S.J.,** et al. (2020). Trajectories of Big Five Personality Traits: A Coordinated Analysis of 16 Longitudinal Samples. *European Journal of Personality.* (178 citations)
- **Weston, S.J.,** Hill, P.L. & Jackson, J.J. (2015). Personality traits predict the onset of disease. *Social Psychological and Personality Science,* 6(3), 309-317. (171 citations)