

# Joshua D. Wright, Ph.D.

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## Summary

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I am an accomplished researcher, scientist, and analyst with over 20 scientific publications, multiple research awards, and 500 citations. I have expertise in survey design, sampling methodology, scale validation, statistics, data analytics, data visualization, experimentation, Qualtrics, ETL pipelines, workflow automation, R, SQL, Quarto, Shiny, Tableau, survival analysis, multivariate statistical modeling, machine learning, factor analysis, segmentation analysis, structural equation modeling, topic modeling, and sentiment analysis.

## EMPLOYMENT

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Texas State Technical College  
Senior Research Scientist

September 2022 - Current

- Direct enterprise-wide survey research and analytics across a 12 campus higher education system, including independently managing 30 + end-to-end research projects, production of 40 + reports, and 30 + presentations each year on behalf of diverse institutional stakeholders, including the Office of the CEO, Executive Leadership, Enrollment Management, Student Recruitment, Testing Services, Human Resources, Sponsored Programs (Grants), Student Learning, Workforce Development, Institutional Effectiveness, and the Board of Regents.
- Introduced annual reporting of employee attrition using Kaplan-Meier estimates and Cox-Regression models in R Quarto, which identified large disparities in attrition across campuses and departments over time and identified key employee experience variables that impacted attrition patterns.
- Deployed automated employee experience research (EX) throughout the employee lifecycle using Qualtrics, ETL pipelines, and dashboards using Tableau and Shiny, which provided critical data to managers and Human Resources to maximize performance and retention.
- Managed the FY22 and FY23 performance evaluation of the Chancellor & CEO, which included targeted quantitative and qualitative data collection from direct reports and the Board of Regents. This included development of a new reporting format in R Quarto to deliver results to the Board of Regents for consideration in annual compensation discussions.
- Deployed annual assessment of employee engagement, including production of Tableau dashboard for internal stakeholders to access team data, production of individual reports on 8-year trends in high-level functional areas (e.g., operations, marketing, external relations, human resources) and tailored presentations to the Chancellor/CEO, executive leadership team, provosts, and managers to communicate findings, insights, and recommendations.
- Provide data collection and analytics to support successful grant funding, including \$3,000,000 in successful Department of Education grant funding in FY2023.
- Developed annual report of qualitative data using sentiment analysis and topic modeling of internal employee comments and online reviews including Glassdoor and Indeed, which identified key areas of focus for the next goal planning cycle.

- Produced 3-year projections for institutional graduation rates that accounted for macro and microeconomic trends, which were adopted by institutional leadership.
- Produced an application in Shiny and hosted on Shinyapp.io that utilizes prospective student inputs and institutional data to produce estimated lifetime net economic value to a prospective student for technical programs.
- Designed and automated end of course instructor evaluation process and communication plan in Qualtrics, which increased response rates +59% YoY first term in use, +113% YoY second term in use, and +54% YoY third term in use.
- Designed and automated assessment of student enrollment process, which identified key deficiency in the scheduling and communication system – a deficiency which was causing an estimated 35%-45% of phone appointments to be missed by academic advisors.
- Built comprehensive data simulations to demonstrate the potential impact on grades of instituting a competency-based evaluation model, which ultimately led to pausing the rollout of planned competency-based programs.
- Instituted annual collection of student experience data and instituted reporting of impact of student experiences on academic performance, retention, employment, and wages, using multivariate statistical models, which resulted in a new institutional focus on enhancing student use of high-impact services and improving student engagement in the online college.
- Conducted A/B Testing of at-risk student intervention designed to reduce student failure rates and attrition rates, which resulted in discontinuation of an ineffective at-risk intervention.

St. Joseph's University, NY

August 2020-June 2022

Assistant Professor

- Managed multiple multiyear survey research projects culminating in 4 scientific publications.
- Mentored 12 undergraduate students through independent research projects using Qualtrics and R.
- Designed and taught 17 undergraduate courses in psychology, which included development of over 180 hours of instructional content in psychology, research methods, and statistics.

Simon Fraser University

September 2018-August 2020

Postdoctoral Research Scientist

- Managed multiple multiyear research projects culminating in 6 scientific publications.
- Mentored 4 undergraduate and 2 graduate students through independent survey research projects using Qualtrics, R, and SPSS.
- Used structural equation modeling and factor analysis to develop, evaluate, and publish scales for research use.
- Designed and taught 6 courses including an advanced methods and statistics course for doctoral students, including development of over 45 hours of instructional content in advanced statistical methods for doctoral students.

University of Western Ontario

August 2014-May 2018

Doctoral Research Lead

- Managed multiple multiyear research projects culminating in 10 scientific publications.

- Mentored 7 undergraduate students through independent research projects using Qualtrics, R, and SPSS.
- Used structural equation modeling and factor analysis to develop, evaluate, and publish scales for research use.
- Produced and synthesized comprehensive analysis on migration flows for the government of Alberta.
- Led workshop on statistics, survey design, and psychometric practices for ~ 200 attendees.
- Designed & directed statistics course with 45 hours of course content for approximately 40 students.
- Awarded International Council of Psychologist's [Sukemune-Bain](#) Award for "outstanding early career contributions to scholarly endeavors..." (2015)

## **Contract Employment**

Data Analyst, LW Kimber Interests LP

February 2021 - Current

- Perform evaluation of investment opportunities, primarily using discounted cash-flow models over 5- and 10-year time horizons under varying assumptions, and produce quarterly and annual reports using R, Quarto, and Shiny to provide summary of the organization's investment performance. Recommendations directly influenced revenue increase of 27.8% in 2023.

Data Analyst & Data Science Certification Consultant, DataCamp Inc.

September 2022 - Current

- Review Professional Data Analyst and Data Science certification submissions in Python, R, Tableau, and Power BI for individuals and corporate clients (e.g., Deloitte) to determine whether applicants meet competencies, while maintaining a reliability rating over 80%.

## **EDUCATION**

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Ph.D. Experimental Social Psychology, Western University

M.A. Psychology, Hunter College, CUNY

B.A. Psychology, Texas Tech University

B.S. Exercise Science, Texas Tech University