

Kayla Irish

✉ kayirish@uw.edu | 📍 Seattle, WA

Education

University of Washington, Seattle, WA
Ph.D. Student in Statistics

Sept 2022–June 2027
(expected)

Advisor: Dr. Alex Luedtke, Departments of Health Care Policy, Statistics, Harvard University
Developing interpretable covariate-adjusted estimators for clinical trials using weighting methods
2025-2026 FDA Oncology Center of Excellence Fellow

Coursework: Design and analysis of clinical trials, survival analysis, missing data, statistical theory

University of Montana, Missoula, MT
B.A.s in Mathematics, History; Presidential Scholar; GPA: 4.0

Fall 2017–Fall 2021

President's Outstanding Senior Awards, Statistics and History

Work Experience

Graduate Biostatistics Intern, Modeling and Methodology
AbbVie Statistical Innovation Group

Summer 2026

Simulated go/no-go operating characteristics with Bayesian hierarchical modeling and propensity score methods; built app to be used in all therapeutic areas for go/no-go decisions

Graduate Biostatistics Intern, Oncology
Johnson & Johnson Innovative Medicine

Summer 2025

Simulated surrogate analysis of time-to-event endpoints using cause-specific hazards models to inform go/no-go decision-making for potential Phase III trial

Statistical Consultant

For Statistics and Biostatistics Departments, University of Washington

Fall 2024

Advised clients on experimental design, data wrangling in R, regression, and model interpretation

For Dr. Scott Arcenas, University of Montana Department of History

Summer 2022–2025

Modeled survival data & designed figures for book, *Political Violence in Ancient Greece*, published Nov 2025

Research Assistant

Advisors: Dr. Sophia Newcomer and Dr. Jonathan Graham, Center for Population
Health Research

Winter 2021–Fall 2022

Analyzed spatial Monte Carlo simulations for public health studies focused on childhood undervaccination

Publications

1. **Irish, K.**, Zubizarreta, J.R., & Luedtke, A. (2026). Simple Covariate Adjustment for Many Estimands Using Stable Balancing Weights. [arXiv preprint arXiv:2609.01638](#) [🔗](#).
2. Newcomer, S. R., Graham, J., **Irish, K.**, Freeman, R. E., Leary, C. S., Wehner, B. K., & Daley, M. F. (2024). Identification of spatial clusters of undervaccination patterns among children aged <24 months using immunization information system data, Montana, 2015–2019. *Public Health Reports*, 139(3), 360–368.
3. **Irish, K.***, Colligan, T.*, Emlen, D.J., Wheeler, T.J. (2023). DISCO: A deep learning ensemble for uncertainty-aware segmentation of acoustic signals. *PLoS ONE*, 18(7): e0288172. (* equal contribution)

Fellowships & Awards

FDA–OCE–ASA Oncology Educational Fellowship ([article](#) [↗](#)) Fall 2025–Summer 2026

Training in oncology drug development, clinical trial design, and regulatory science

Chaired mock Oncologic Drugs Advisory Committee session on sotorasib, moderating discussion of PFS reliability, sensitivity analyses, and regulatory decision-making

Honorable Mention for Gertrude M. Cox Scholarship Spring 2026

Early career award for women in statistically oriented professions

Dorothy M. Gilford Teaching Award Fall 2025

Recognition for outstanding performance as a graduate teaching assistant for the 2024-2025 academic year

Honorable Mention for Best Student Oral Presentation Award Summer 2025

For talk at WNAR of The International Biometric Society Conference Student Paper Competition

Talks

Simple Covariate Adjustment Using Stable Balancing Weights

AbbVie Statistical Innovation Bi-Weekly Seminar North Chicago; Aug. 2026

ENAR of the International Biometric Society Contributed Session Indianapolis; Mar. 2026

Johnson & Johnson Statistics and Data Science in Modeling & Oncology-Cardiopulmonary-Ophthalmology Monthly Seminar Remote; July 2025

WNAR of the International Biometric Society Conference Student Competition Whistler, BC; June 2025

Teaching Experience

University of Washington

Teaching Assistant - Graduate Courses

Introduction to Statistics and Probability (DATA 556) Fall 2026

Measure Theory (STAT 559) Spring 2025 & 2026

Hierarchical Modeling (STAT 560) Fall 2025

Instructor of Record

Probability II (STAT 395 / MATH 395); Median course rating: 4.9/5 Summer 2024

Teaching Assistant - Undergraduate Courses

Statistical Concepts & Methods for the Social Sciences (STAT 221) Winter 2023 & 2026

Probability & Mathematical Statistics III (STAT 342) Winter 2025

Statistical Reasoning (STAT 220) Fall 2022, Spr & Sum 2023

Service

University of Washington

Directed Reading Program Mentor

Fall 2024–present

Served as a volunteer mentor for the following undergraduate independent study projects:

Winter 2026, Viki Hristova; Stratified Randomization in Clinical Trials

Fall 2025, Maia Czerwonka & Elly Lee; Multiple Testing

Spring 2025, Isaac Muhlestein; Data Visualization

Winter 2025, Catherine Zhang & Linyi Xia; Logistic Regression and Generalized Linear Models

Fall 2024, Linyi Xia; Survival Analysis in Clinical Trials

Statistics Outreach and Community Committee Member

Fall 2022–present

Statisticians & Biostatisticians of Underrepresented Genders Co-Leader

Fall 2024–Spring 2025

Statistics Department Seminar Moderator (typically a faculty role)

Winter–Spring 2025

Statistics Graduate Student Representative

Summer 2024–Spring 2025

Elected & paid position; attended faculty meetings, served on committees, and planned orientation and visit day for PhD and MS students

Student Interviewer for Tenure Track Assistant Professor Search

Winter 2024

Professional Organizations

Member of Covariate Adjustment Scientific Working Group, sponsored by the American Statistical Association Biopharmaceutical Section

Fall 2024–present

Education Subteam member; developing tutorials and practical guidance

Member of American Statistical Association

Fall 2025–present

Graduate Student Mentor for Expanding Opportunities Workshop at WNAR of the International Biometric Society Conference

Summer 2025