Mena Whalen

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EDUCATION

Northwestern University Evanston, Illinois

- Ph.D. candidate in Department of Statistics   September 2016– Present
  - Dissertation: Statistical Methods for Policy-Relevant Questions in Health and Criminology
  - Committee: Prof. Noelle I. Samia, Prof. Bruce Spencer and Prof. Joseph Feinglass
- M.S. in Statistics from Department of Statistics   2020

Missouri State University Springfield, Missouri

- B.S. in Mathematics emphasis in Statistics   August 2013 – May 2016
  - Minor in Computer Science

PROFESSIONAL

Northwestern University Evanston, Illinois

- Teaching Assistant   September 2017 – Present
  Classes: Introductory Statistics, Survey Sampling, and Data Visualization
- Curriculum Developer   January 2018 – Present
  Develop and code course material on an online platform for Introductory
  Statistics, Survey Sampling, and Data Visualization
- Athletics Department Tutor   September 2018 – June 2019
  Topics: Statistics and R

Cook County Department of Corrections Chicago, Illinois

- Volunteer Instructor   Summer 2019
  Designed, developed curriculum for, and taught Intro to Social Statistics
  and Data Literacy at CCDOC as part of the Northwestern Prison Education Program

IES Summer Training Institute: Cluster Randomized Trials Evanston, Illinois

- Consultant/ Facilitator   Summer 2019

Ozark Technical Community College Springfield, Missouri

- Speckman Tutoring and Learning Center Tutor   August 2013 – May 2016
  Subjects: Mathematics, Online, Study Skills, and Mentoring
- Disabled Support Services Assistant   August 2014 – May 2016
  Worked with visually impaired student in their math or physics classes

ACIS Computers Springfield, Missouri

- Executive Assistant   August 2014 – May 2016
  - Worked front office, assisted customers and ran transactions in store.
  - Managed large account payments occurring on a monthly basis as well as
    general daily billing needs.
  - Lead social media presence for the store and created documentation for
    routine processes throughout the company.

Office of the Legal Defender Phoenix, Arizona

- Administrative Assistant   June 2014 – August 2014
  - Delivered inter-department documents daily to courthouse and other
    court system buildings.
  - Organized cases set to go to trial in computer system and department
    filing system.

RESEARCH

- **Change Point Analysis Methods**- Using a multidimensional time series to understand the impact of the
  Affordable Care Act implementation on emergency department visits by locations in Illinois.
  Topics: Change Point Analysis, Clustering
- **Networks of Metabolites**- Studying the network of metabolites to better measure untargeted metabolites.
  Topics: Networks

- **Chicago Crimes**- Understanding the changes in crime based on a time series and neighborhood location using change point analysis and clustering methodology that incorporates spatial measures.
  Topics: Change Point Analysis, Clustering, Spatial Clustering
- **Previous Research**- *Dynamics and Bifurcations of a Cholera Epidemiology Model*
  •Use of partial differential equations to study points of Cholera outbreak in a simple system. •Presented at Kappa Mu Epsilon 40th National Biennial Convention 2015 and MSU College of Natural and Applied Sciences Undergraduate Research Day 2015.

PUBLICATIONS	Schauer, J.M., Fitzgerald, K.G., Peko-Spicer, S., **Whalen, M.C.R.**, Zejnullahi, R., Hedges, L.V. An evaluation of statistical methods for aggregate patterns of replication failure. Forthcoming in Annals of Applied Statistics. In Press

LEADERSHIP

Women in Statistics at Northwestern
- President - Founder   2018 – 2021
  Goal of the group is to develop a space for women in statistics through seminar speakers, discussions, and collaborations with other female statisticians. Event topics include female mentorship, academic research, work - life balance, and other topics.

Women in Data Science (WiDS)
- Regional Ambassador Chicago   2018 – 2021
  This group aims to inspire and educate data scientists worldwide, regardless of gender, and to support women in the field. The conference in hosted annually at Stanford with regional conferences planned locally by regional ambassadors.

Kappa Mu Epsilon – Mathematics Honor Society
- President   2015- 2016
  Organized meetings that promote further education in mathematics between the math department and the larger math community.
- Public Relations Chair   2014- 2015
  Informed the public about seminars, while developing a social media presence.

PROFESSIONAL AFFILIATIONS

American Statistical Association Survey Research Methods Section and Government Statistics Section

Institute for Policy Research at Northwestern

Alpha Chi Omega

COURSE WORK

Northwestern Statistics and Economics Department
- Statistical Theory and Methodology Sequence, Survey Sampling, Regression, Design of Experiments, Multivariate Analysis, Bioinformatics and Computational Biology, Probability Theory Sequence, Applied Bayesian Analysis, History of Statistics, Applied Econometrics, Nonparametic, Meta Analysis, and Generalized Linear Models

COMPUTING SKILLS
- Proficient in statistical software R and Microsoft Office Products
- Familiarity with Python, Stata, SAS, and MATLAB
- Familiarity in QuickBooks

VOLUNTEER WORK
- **Northwestern Prison Education Program**
- **Big Brothers Big Sisters Chicago**