GAIL POTTER
Curriculum Vitae

Department of Statistics
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Research Interests:

My research interests are applying and developing statistical methodology to issues in public health and the social sciences. I am currently developing social network methods to model influenza transmission over networks of person-to-person contacts, and using social network methods to describe patterns of economic resource transfer in a Malawian village.

I am a member of the Center for Statistics and the Social Sciences at the University of Washington.

Key skills:

Data analysis, stochastic modeling, mathematical statistics, social network analysis, Statistical demography

Education:

University of Washington (2005-present)
PhD Expected August 2010
Social Statistics Track in Statistical Demography through the Center for Statistics in the Social Sciences
Completed Qualifying Examinations in Statistical Theory and Applied Statistics
Cumulative GPA: **3.6**

Oberlin College (1993-1997)
B.A. Mathematics, May 1997
Cumulative GPA: **3.7**; Major GPA: **3.8**

Research Experience:

University of Washington, Seattle, WA
Research Assistant for Ira Longini, 9/08 – present
With supervision by Mark S. Handcock, develop social network models to describe how influenza is transmitted through person-to-person contact over a large network of people. Collaborate with epidemiologists, biostatisticians, and computer programmers. Communicate developments in social network methodology to researchers in other disciplines.

University of Pennsylvania Population Studies Center, Mchinji Malawi
Research Intern with the *Malawi Longitudinal Study of Families and Health*, 6/08 – 8/08
Managed a team of data entry specialists during survey implementation in Malawi, Africa. Supervised data entry, merged databases in STATA, performed consistency checks, supervised data cleaning, and coordinated communication between the data entry team, the interview supervisors, and the qualitative researchers. Advocated for employee needs with the project manager and organized social events to support employee morale during fieldwork in a cross-cultural research community.

University of Washington, Seattle, WA
Supervised independent study with Mark S. Handcock, 9/07 – 5/08
- Studied the methodology used to estimate HIV/AIDS prevalence by the Joint United Nations Programme on HIV/AIDS (UNAIDS) and methods to quantify uncertainty around these estimates.
- Explored effects of social network structure on disease transmission in a small community
- Explored the social network structure of economic resource change in a Malawian village.

Supervised independent study with Mark S. Handcock, Summer 2006
Introduction to the theory and application of social network modeling, including sampling techniques, inference methods, and use of statnet software.

The Urban Institute, Washington, DC
Research Assistant for Jeff Passel, Rebecca Clark, and Linda Giannarelli. 6/98- 6/99
Performed data analysis supporting child welfare and immigration policy studies. Duties included extensive SAS programming, exploratory data analysis, imputing variables, implementing prediction programs, testing survey questionnaires, and others.

Indiana University, Bloomington, IN
Research Intern with Dr. Alan McRae. Summer 1996
Did original math research on topological invariants of curves in surfaces as part of a Research Experience for Undergraduates.

Teaching Experience:

University of Washington, Seattle, WA
Instructor, Center for Statistics in the Social Sciences Math Camp, 9/08
Taught a one-week intensive review of undergraduate mathematics to graduate students in diverse disciplines, including social welfare, sociology, political science, and psychology. Topics included differential and integral calculus, matrix algebra, introductory probability, random variables, discrete and continuous probability distributions, and maximum likelihood estimation.

Mathematics Specialist, GK-12 Program in Mathematics, 8/07 – 6/08

Served as a mathematics specialist in a public elementary school to assist classroom teachers and students in understanding of mathematics through intuitive and exploratory methods.

Teaching Assistant, Structural Equations Modeling, Fall 2006
This is a specialized methods course for social science graduate students.
Graded homework assignments.
Held office hours.
Taught a review of linear algebra.

Teaching Assistant, Statistics Section, Summer Transition Program, Summer 2006
The Summer Transition Program is a one-month residential program for incoming freshmen who are first-generation college students, minority students, or could otherwise benefit from additional support to succeed in college.
Facilitated twice-weekly discussion sections.
Graded homework assignments.
Administered and graded quizzes.
Assisted students with statistical analysis in their psychology research projects.

Teaching Assistant, Case-Based Social Statistics, Spring 2006
This course covers statistical methods for the social sciences, and is required for undergraduate sociology honors students.
Planned and facilitated twice-weekly discussion sections.
Graded homework assignments and exams
Held office hours.
Held additional office hours for a student who failed the midterm and requested extra assistance. He went on to score 87.5 on the final examination and passed the class.

Statistics Tutor, Statistics Tutor and Study Center, 9/05 to 11/06, 3/07 to 6/07
Tutored undergraduate students in a variety of statistics classes, including Basic Statistics (220), Case-Based Social Statistics (321, 322), Elements of Statistical Methods (311), Introduction to Probability and Statistical Inference (341), and Probability and Statistics in Engineering and Science (390)

Baxter Hemoglobin Therapeutics, Boulder CO, 11/02 to 7/03
Baxter Hemoglobin Therapeutics was a research branch of Baxter Healthcare, whose research efforts focused on producing synthetic hemoglobin.
As a temporary employee hired for administrative duties, I also trained the entire company (over 90 employees) on a Quality Assurance Procedure.

U.S. Peace Corps, Nepal
English and Mathematics Teacher, 6/99 to 9/01
Completed an intensive three-month training program in language, culture, and pedagogy.
Taught English and mathematics in Nepali in a rural public school.
Created and ran a girls club to support intellectual and creative development.
Trained new Peace Corps Volunteers.
Performed site development for Peace Corps.
Served on the Peace Corps Women in Development Committee and the Peer Support Network.
Successfully integrated into Nepali village life and culture, while facing challenges of life in a developing country: numerous health hazards, political instability, and growing violence.

U.S. Peace Corps, Guinea

Mathematics Teacher, 7/97 to 11/97

Completed an intensive three-month training program in language, culture, and pedagogy.
Taught high school mathematics in French.

Oberlin College, Oberlin, OH

Linear Algebra Grader, 9/96 to 12/96

After bypassing the linear algebra requirement by teaching myself the material in a one-month supervised independent study, I graded homework assignments for one linear algebra class.

Calculus Tutor, 1/94 to 5/95

Tutored Oberlin college students in calculus I and II.

Service and Community-Building Activities:

Graduate Student Representative, 2008-2009

Coordinate with the other co-Graduate Student Representative to organize and run the orientation for new graduate students, act as point person to represent graduate student views to faculty members, convey departmental news and developments to graduate students, organize activities for prospective student visit day, participate in faculty retreat to evaluate program goals and new directions prior to ten-year internal review of the department, mentor new graduate students and assist them with course selection, attend faculty meetings.

Member, UW Social Network Modeling Group, 2007-Present

Martina Morris, and Mark S. Handcock, PIs.
This interdisciplinary research group includes researchers from sociology, statistics, ecology, anthropology, and biostatistics.

Lead Teaching Assistant, Department of Statistics, 9/06-9/07

Organized and led introductory meeting for new teaching assistants
Contact person for teaching assistants to resolve issues that arise while serving as a TA.

Research Assistant for the Statistics Learning Initiative, 1/07 – 6/07

Interviewed faculty members about undergraduate statistics pedagogy.
Created learning objectives for two introductory statistics courses.
Researched undergraduate statistics requirements in various universities.

Department of Statistics Fun Committee Member, 2006-2007

Co-chair, 2006-2007
Organized department social events

Member, National Science Foundation, Vertical Integration of Research and Education in the Mathematical Sciences (VIGRE) Undergraduate Research Committee, 2/06-5/06 and 1/07 – 9/07

Chair, 2/06-5/06
Advertised undergraduate research opportunities in the mathematics department.

Organized symposium for undergraduates to present research.
Facilitated contact between faculty members with projects available and interested students.

Honors:

National Science Foundation, Graduate Teaching Fellowship, 2007-2008
Awarded to graduate students with strong mathematical ability, teaching skills, communication skills, and cultural sensitivity. Fellows serve as mathematics specialists in the Seattle public schools.

National Science Foundation, Vertical Integration of Research and Education in the Mathematical Sciences (VIGRE) Fellowship, 2005-2007
Awarded for academic excellence and promise for facilitating the integration of research and education at the University of Washington.

Achievement Rewards for College Scientists (ARCS) Fellowship, 2005-2007
Awarded for academic excellence and promise in a scientific discipline.

Hubert M. Blalock Fellowship, 2005
Awarded by University of Washington's Center for Statistics in the Social Science to incoming students who are considered promising candidates for interdisciplinary research.

University of Colorado Continuing Education Scholarship, 2004

Phi Beta Kappa Honor Society, elected 1997

Oberlin co-winner of the William Putnam Mathematics Competition, 1995

National Merit Scholarship Finalist, 1993

School Winner of the American High School Math Exam, 1993

Outstanding Achievement Award in Advanced Placement BC Calculus, 1993