

# Katherine R. McLaughlin

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## A. EDUCATION AND EMPLOYMENT INFORMATION

### A.1. Education

- 2011-2016 PhD in Statistics, **University of California, Los Angeles**, Los Angeles, CA, USA  
Thesis Advisor: Mark S. Handcock  
Thesis Title: *Modeling Preferential Recruitment for Respondent-Driven Sampling*
- 2007-2011 BA in Statistics (with Honors) and BA in Classical Civilization, **University of California, Berkeley**, Berkeley, CA, USA

### A.2. Employment

#### Oregon State University

Fall 2016-Present Assistant Professor of Statistics

#### University of California, Los Angeles, Department of Statistics

Spring 2015 Special Reader, STAT 218 Statistical Analysis of Networks  
Summer 2013 Teaching Assistant, STAT 100B Introduction to Mathematical Statistics

#### Energy Information Administration, U.S. Department of Energy

June-Sept 2012 Mathematical Statistician, worked with nationwide household-level survey data on energy consumption to compare various existing and original missing data imputation methods.

#### Child Health and Development Studies, Public Health Institute

June-Aug 2008, Intern and consultant, cleaned and analyzed large data sets from various health surveys conducted in conjunction with Kaiser Permanente hospitals. Modeled reproductive health determined by several fertility measures based on pre-natal and contemporary risk factors, adjusted for demographic parameters.  
June-Nov 2010,  
June-July 2014

## B. TEACHING

### B.1. Instructional Summary

#### Credit Courses

Term	Course	Title	Enrollment
Spring 2018	ST 553	Statistical Methods III	
Winter 2018	ST 411/511	Methods of Data Analysis	129
Fall 2017	ST 431/531	Sampling Methods	26

Fall 2017	ST 407/507/509	Consulting Practicum  (Secondary Professor Role)	22
Spring 2017	ST 518	Data Analytics II	9
Fall 2016	ST 431/531	Sampling Methods	31

## C. SCHOLARSHIP AND CREATIVE ACTIVITY

### C.1. Publications

#### Peer-Reviewed Publications

5. Reeve, A.L., Skinkis, P.A., Vance, A.J., **McLaughlin, K.R.**, and Tomasino, E., "Vineyard Floor Management and Cluster Thinning Inconsistently affect 'Pinot noir' Crop Load, Berry Composition, and Wine Quality," accepted to *HortScience*.
4. **McLaughlin, K.R.** and EmBree, J.D. (2018), "Empirical Assessment of Programs to Promote Collaboration: A Network Model Approach," *The Annals of Applied Statistics*, 12(1):654-682. [[Link](#)]
3. Johnston, L.G., **McLaughlin, K.R.**, Rouhani S.A., and Bartels S.A. (2017), "Measuring a hidden population: A novel technique to estimate the population size of women with sexual violence related pregnancies in South Kivu Province, Democratic Republic of Congo," *Journal of Epidemiology and Global Health*, 7(1):45-53. [[Link](#)]
2. Johnston, L.G., **McLaughlin, K.R.**, El Rhilani, H., Latifi, A., Toufik, A., Bennani, A., Alami, K., Elomari, B., and Handcock, M.S. (2015), "A novel method for estimating the size of hidden populations using respondent-driven sampling data: Case examples from Morocco," *Epidemiology*, 26(6):846-852. [[Link](#)]
1. Sholtz, R.I., **McLaughlin, K.R.**, Cirillo, P.M., Petreas, M., Park, J.S., Wolff, M.S., Factor-Litvak, P., Eskenazi, B., Krigbaum, N., and Cohn, B.A. (2011), "Assaying organochlorines in archived serum for a large, long-term cohort: Implications of combining assay results from multiple laboratories over time," *Environment International*, 37(4):709-714. [[Link](#)]

#### Conference Proceedings

1. **McLaughlin, K.R.**, Handcock, M.S., and Johnston, L.G. (2015), "Inference for the visibility distribution for respondent-driven sampling," *JSM Proceedings*, Alexandria, VA: American Statistical Association, 2259-2267.

#### Technical Reports

2. **McLaughlin, K.R.**, Kroese, D.R., and Hagerty, C.H., 2017, "Evaluating the Effect of Tillage on Soil-Borne Wheat Pathogens in the Dryland Pacific Northwest," *2017 Dryland Field Day Abstracts: Highlights of Research Progress*.
1. **McLaughlin, K.R.** and Stark, P.B., 2011, "Workload estimates for risk-limiting audits of large contests," *University of California, Berkeley Honors Thesis in Statistics*.

## Submitted Publications

2. **McLaughlin, K.R.**, Johnston, L.G., Jakupi, X., Gexha-Bunjaku, D., Deva, E., and Handcock, M.S., "Inference for the Visibility Distribution for Respondent-Driven Sampling," submitted to the *Journal of Survey Statistics and Methodology*.
1. **McLaughlin, K.R.**, "The Two-Sided Rational Choice Preferential Recruitment Model for Respondent-Driven Sampling," submitted to the *Journal of the American Statistical Association*.

## C.2. Presentations

<b>Date</b>	<b>Title</b>	<b>Role/Location</b>
January 2018	Estimating the Size of Hidden Populations	Invited talk at CNSTAT Workshop on Improving Health for Small Populations, Washington, D.C., USA
October 2017	Models for the Respondent-Driven Sampling Recruitment Process	Invited talk at ASA Oregon Chapter Fall Meeting, Corvallis, Oregon, USA
August 2017	Empirical Assessment of Programs to Promote Collaboration: A Network Model Approach	Topic-contributed talk at Joint Statistical Meetings (JSM) Session on Advances in Inference on Networks, Baltimore, Maryland, USA
July 2017	Modeling Preferential Recruitment for Respondent-Driven Sampling	Poster at Institute of Mathematical Statistics New Researcher's Conference, Baltimore, Maryland, USA
July 2017	Statewide Crop Load Project: Five Years of Data	Invited talk at Statewide Crop Load Project annual collaborator meeting, Yamhill County Extension Office, Oregon, USA
May 2017	Visibility Imputation for Respondent-Driven Sampling	Contributed talk at American Association of Public Opinion Research (AAPOR) Annual Conference, New Orleans, Louisiana, USA
April 2017	Accessing Hidden Populations at High-Risk for HIV/AIDS Using Respondent-Driven Sampling	Invited talk at Center for Genome Research and Biocomputing (CGRB) Spring Conference, Corvallis, Oregon, USA
February 2017	Accessing Hidden Populations Using Respondent-Driven Sampling	Invited talk at Reed University, Portland, Oregon, USA
January 2017	Inference for the Visibility Distribution for SS-PSE	Contributed talk at Consultation on Estimating the Size of Key Populations in Resource-Limited Settings at Centers for Disease Control and Prevention (CDC), Atlanta, Georgia, USA
August 2016	Analysis of Networks with Missing Data with Application to the National Longitudinal Study of Adolescent Health	Invited talk at Network Science and its Applications Workshop, Isaac Newton Institute, Cambridge, United Kingdom
August 2016	Using Respondent-Driven Sampling to Access Hidden Populations: Current Research	Contributed talk at International Indian Statistical Association (IISA) International Conference on Statistics, Corvallis, Oregon, USA

<b>Date</b>	<b>Title</b>	<b>Role/Location</b>
August 2016	Modeling Preferential Recruitment for Respondent-Driven Sampling	Topic-contributed talk at Joint Statistical Meetings (JSM) Joint SRMS, SSS, and GSS Student Paper Award Session, Chicago, Illinois, USA
April 2016	Modeling Preferential Recruitment for Respondent-Driven Sampling	Contributed talk at International Network of Social Network Analysis (INSNA) Sunbelt Conference, Newport Beach, California, USA
October 2015	Data Analysis and Population Size Estimations using RDS Analyst	Co-instructor at WHO Collaborating Center for HIV Surveillance, 5 day workshop, Zagreb, Croatia
August 2015	Inference for the Visibility Distribution of RDS	Contributed talk at Joint Statistical Meetings (JSM) Session on Society and Networks, Seattle, Washington, USA
May 2015	Sequential Sampling-Population Size Estimation (SS-PSE)	Invited talk at 3rd Global HIV Surveillance Consultation, Bangkok, Thailand
June 2014	Interpretation and Analysis of Data from Respondent-Driven Sampling using RDS Analyst	Co-instructor at 4-day workshop, Hanoi, Vietnam

## **D. SERVICE**

### **D.1. University Service**

#### **University Committees**

Spring 2017          SURE: Science Review Committee

#### **Departmental Committees**

Fall 2017-Present    Tenure Track Search Committee  
 Fall 2017-Present    Office Manager Search Committee (Search Advocate)  
 Fall 2016-Present    Library Committee  
 Fall 2016-Present    Website Committee  
 Fall 2016-Present    Computer Committee

## **E. AWARDS**

### **E.1. National and International**

- 2016 JSM Joint SRMS, SSS, and GSS Sections Student Paper Award (\$800)
- 2016 JSM SRMS Student Travel Award (\$800)
- 2012-2015 National Science Foundation Graduate Research Fellowship (Awarded 2011; \$32,000/year)

### **E.3. University and Community**

- 2015-2016 UCLA Dissertation Year Fellowship (\$20,000)
- 2011-2012 UCLA Chancellor's Prize Fellowship (\$10,000)
- 2015 UCLA Jeffrey L. Hanson Distinguished Service Award (Finalist)
- 2013 UCLA Most Promising Applied Statistician