Emily Berg
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Employment

- Associate Professor, Department of Statistics, Iowa State University, Ames, IA, 8/2021-present
- Assistant Professor, Department of Statistics, Iowa State University, Ames, IA, 8/2015-2021
- Research Assistant Professor, Center for Survey Statistics and Methodology, Iowa State University, Ames, IA, 6/2012-8/2015
- Mathematical Statistician, National Agricultural Statistics Service, Research and Development Division, Fairfax, VA, 9/2010-6/2012

Education

- Ph.D., Statistics, Iowa State University, Ames, IA, 2010
- M.S., Statistics, Iowa State University, Ames, IA, 2008
- B.A., Mathematics, Middlebury College, Middlebury, VT, 2005

Research Funding

External

- Intergovernmental Personnel Act (IPA) agreement with Bureau of Justice Statistics. 9/30/2022-9/29/2024. 50% of time for 2 years.
- Iowa Seat Belt Use Survey 2022 (154944-00001). 10/1/2022—9/30/2023. IA DPS-GTSB. $35,000 (50%). PI: E. Berg. Co-PI: A. Anderson.
- Iowa Seat Belt Use Survey 2021 (021452-00001). 10/1/2021—9/30/2022. IA DPS-GTSB. $35,000 (50%). PI: E. Berg. Co-PI: M. Allen.
- Statistical and Survey Methods Support for the National Resources Inventory – Alaska Implementation Plan. 10/1/2021—6/30/2023. USDA/NRCS. $430,000 (20%, approx.). PI: Z. Zhu. Co-PI: J. Kim, C. Yu, E. Berg.
- Iowa Seat Belt Use Survey 2020 (021452-00001). 10/1/2020—9/30/2021. IA DPS-GTSB. $35,000 (50%). PI: E. Berg. Co-PI: J. Larsen.
- Design, Implementation, Integration, and Analysis of the 2017 Pet Ownership and Demographics Survey and Annual Metro Market Demand Surveys (015735-00001). 6/23/2016—12/31/2018. National Center for Food and Agricultural Policy. $361,361 (33%). PI: Z. Zhu. Co-PI: E. Berg, C. Yu.
- Statistical and Survey Methods Support for the National Resources Inventory (022185-0001). 4/1/2020—6/30/2023. USDA-NRCS. $3,500,000 (33%). PI: Z. Zhu. Co-PI: E. Berg, J. Kim, C. Yu.
- Iowa Seat Belt Use Survey 2019 (021452-00001). 10/1/2019—9/30/2020. IA DPS-GTSB. $35,000 (50%). PI: J. Larsen. Co-PI: E. Berg.
- CEAP Grazing Land Support (021553-00001). 9/30/2019—8/30/2024. USDA-NRCS. $100,000 (33%). PI: C. Yu. Co-PI: E. Berg, Z. Zhu.

- Design, Implementation, Integration, and Analysis for the BLM Landscape Monitoring Framework (020829-00001). 6/1/2019—12/31/2021. USDA-ARS. $315,000 (33%). PI: C. Yu. Co-PI: E. Berg, Z. Zhu.
- Iowa Seat Belt Use Survey 2018 (019633-00001). 10/1/2018—9/30/2019. IA DPS-GTSB. $35,000 (50%). PI: J. Larsen. Co-PI: E. Berg.
- Iowa Seat Belt Use Survey 2018 (017925-00001). 10/1/2017—9/30/2018. IA DPS-GTSB. $35,000 (50%). PI: J. Larsen. Co-PI: E. Berg.
- Innovations in Statistical Methodology for Complex Surveys (017615-00001). 8/15/2017—7/31/2021. NSF. $430,000 (40%). PI: J. Kim. Co-PI: E. Berg.
- Statistical and Survey Methods Support for the National Resources Inventory (017301-00001). 5/22/2017—6/30/2020. USDA-NRCS. $10,177,450 (25%). PI: Z. Zhu. Co-PI: E. Berg, J. Kim, C. Yu.
- Iowa Seat Belt Use Survey 2017 (016276-00001). 10/1/2016—9/30/2017. IA-GTSB. $35,000 (50%). PI: J. Larsen. Co-PI: E. Berg.
- Research on Master Sampling Frame for Fisheries and Aquaculture Statistics (016078-00001). 8/1/2014—12/31/2016. UN-FAO. $65,020 (50%). PI: E. Berg. Co-PI: M. Kaiser.
- Statistical and Survey Methods for the National Resources Inventory (012173-00001). 7/1/2014—6/30/2017. USDA-NRCS. $9,500,000 (50%). PI: Z. Zhu. Co-PI: E. Berg, J. Kim, C. Yu.
- Improving the Methodology for Using Administrative Data in Agricultural Statistics (012694-00001). 8/1/2014—6/30/2017. United Nations – Food and Agriculture Organization (FAO). $225,000 (33%). PI: Z. Zhu. Co-PI: J. Kim, E. Berg.
- Statistical and Survey Methods Support for the Conservation Effects Assessment Project (011210-00001). 9/18/2013—9/30/2016. USDA-NRCS. $500,000 (33%). PI: E. Berg. Co-PI: C. Yu, Z. Zhu.
- Statistical and Survey Methods Support for the National Resources Inventory (006510-00001). 8/13/2011—6/30/2014. USDA-NRCS. $8,200,000 (25%). PI: Z. Zhu. Co-PI: E. Berg, J. Kim, C. Yu.

Internal

- Development and Integration of Bioinformatics Tools to Characterize, Monitor, and Rapidly Recognize Emerging Influenza Viruses in Swine through Data Driven Science. 2016—2019. Iowa State University PIIR for Data Driven Science. $375,000 (less than 33%). PI: P. Gauger. Co-PI: E. Berg, Z. Zhu, et al.
- Combining Big Data and Survey Data to Meet New Challenges in Data-driven Policy Development and Evaluation. 2015—2016. Iowa State University PIIR for Data Driven Science. $55,000 (less than 8%). PI: Z. Zhu. Co-PI: E. Berg, I.H. Cho, H. Jensen, J. Kim, B. Kreider, O. Partalotti, S. Pouliot.

Publications

Book Chapter

1. Berg, E., Chandra, H., and Chambers, R.L. (2016). Small Area Estimation for Lognormal Data. In M. Pratesi (Eds.) *Analysis of Poverty Data by Small Area Estimation* (pp. 279—296). Chichester, United Kingdom: John Wiley and Sons.

Refereed Journal Publications

2. Sun, H., Berg, E., and Zhu, Z. (2023). Multivariate small area estimation for mixed-type response variables with item nonresponse. Accepted by *JSSAM* on April 27, 2023.
3. Berg, E. (2023b). Small Area Prediction of General Small Area Parameters for Unit-Level Count Data. Accepted by *Survey Methodology* on May-1-2023.
4. Berg, E. (2023a). Small area prediction of seat-belt use rates using a Bayesian hierarchical unit-level Poisson model with multivariate random effects. *Stat*. http://doi.org/10.1002/sta4.544
5. Welk, G., Lamoureux, N. R., Zeng, C., Zhu, Z., Berg, E., Wolff-Hughes, D. L., & Troiano, R. P. (2023). Equating NHANES Monitor Based Physical Activity to Self-Reported Methods to Enhance Ongoing Surveillance Efforts. *Medicine and Science in Sports and Exercise*.
6. Berg, E. (2022b). Empirical Best Prediction of Small Area Means Based on a Unit-Level Gamma-Poisson Model. *Journal of Survey Statistics and Methodology*. (Accepted)
7. Berg, E. (2022a). Construction of Databases for Small Area Estimation. *Journal of Official Statistics*, 38(3), pp.673-708. https://doi.org/10.2478/jos-2022-0031
8. Berg, E. and Mosaferi, S. (2022). An application of a small area procedure with correlation between measurement error and sampling error to the Conservation Effects Assessment Project. Accepted by the *Journal of Official Statistics*.
9. Sun H, Berg E, Zhu Z. (2021). Bivariate small-area estimation for binary and Gaussian variables based on a conditionally specified model. Biometrics. 2021 Sep 10. doi: 10.1111/biom.13552. Epub ahead of print. PMID: 34506632.
10. Berg, E. and Yu, C. Semi-Parametric Quantile Regression Imputation for Missing Response and Covariates Subject to NMAR Nonresponse. *Statistica Sinica*. (Accepted)
11. Berg, E., Im, J., Zhu, Z., Lewis-Beck, C., & Li, J. Integration of statistical and administrative agricultural data from Namibia. *Statistical Journal of the IAOS*, (Preprint), 1-22.
12. Berg, E., & Kim, J. K. (2021). An approximate best prediction approach to small area estimation for sheet and rill erosion under informative sampling. *The Annals of Applied Statistics*, *15*(1), 102-125.
13. Lyu, X., Berg, E., and Hofmann, H. (2020). Empirical Bayes small area prediction of sheet and rill erosion under a zero-inflated lognormal model. *Biometrical Journal*. DOI: 10.1002/bimj.202000029.
14. Berg, E. and Lee, D. (2019a). Prediction of small area quantiles for the conservation effects assessment project using a mixed effects quantile regression model. *The Annals of Applied Statistics*, 13(4), 2158-2188.
15. Berg, E. and Lee, D. (2019b). Small area prediction of quantiles for zero-inflated data and an informative sample design. *Statistical Theory and Related Fields*, DOI: 10.1080/24754269.2019.1666243. (Special issue on small area estimation for the conference "Small Area Estimation and Other Topics of Current Interest in Surveys, Official Statistics, and General Statistics: A Celebration of Professor Danny Pfeffermann's 75th Birthday")
16. Berg, E. and Yu, C. (2019). Semi-parametric Quantile Regression with Application to the Conservation Effects Assessment Project. *Survey Methodology*, 45(2), 249—270.
17. Erciulescu, A.L. Berg, E., Cecere, W., and Ghosh, M. (2019). A Bivariate Hierarchical Bayesian Model for Estimating Cropland Cash Rental Rates at the County Level. *Survey Methodology*, 45(2), 199—216.
18. Berg, E. and Fuller, W.A. (2018). Benchmarked Small Area Prediction. *The Canadian Journal of Statistics*, 46(3), 482—500.

19. Wang, X.*, Berg, E., Zhu, Z., Sun, D., & Demuth, G. (2018). Small Area Estimation of Proportions with Constraint for National Resources Inventory Survey. *Journal of Agricultural, Biological and Environmental Statistics*, *23*(4), 509-528.
20. Berg, E., Kim, J.K., and Skinner, C.J. (2016). Imputation under informative sampling, *Journal of Survey Statistics and Methodology*, 4, 436—462.
21. Kim, J.K. Berg, E.J., and Park. T. (2016). Statistical Matching Using Fractional Imputation. *Survey Methodology*, 42, 19—40.
22. Caragea, P. and Berg, E. (2014). Autologistic Models for Spatially Correlated Binary Data. *Journal of Agricultural Biological and Environmental Statistics*, 19, 451—469.
23. Berg, E. and Fuller, W.A. (2014). Small Area Prediction for the Canadian Labour Force Survey. *Journal of Survey Statistics and Methodology*, 2, 227—256.
24. Berg, E. and Chandra, H. (2014). Small Area Prediction for a Unit-Level Lognormal Model. *Computational Statistics and Data Analysis*, 78, 159—175.
25. Berg, E., Cecere, W., and Ghosh, M. (2014). Estimation for County-level Cropland Cash Rental Rates. *Journal of Survey Statistics and Methodology*, 2, 1—37.
26. Nandram, B. Berg, E. and Barboza, W. (2013). A Hierarchical Bayesian Model for Forecasting State level Corn Yields. *Environmental and Ecological Statistics*, doi 10.1007/s10651-013-0266-z.
27. Williams, M. and Berg, E. (2013). Incorporating User Input into Optimal Constraining Procedures for Survey Estimates. *Journal of Official Statistics*, 29, 375—396.
28. Berg, E. and Fuller, W.A. (2012). Estimators of Error Covariance Matrices for Small Area Prediction. *Computational Statistics and Data Analysis*, 56, 2949 – 2962.
29. Tyndall, J.C., Berg, E., and Colletti, J.P. (2011). Corn Stover as a Dedicated Feedstock in Iowa's Bioeconomy: An Iowa Farmer Survey. *Biomass and Bioenergy*, 35, 1485—1495.

Conference Proceedings

30. E. Berg, J. Im, Z. Zhu, C. Lewis-Beck, and J. Lie. (2017). Integration of Statistical and Administrative Agricultural Data from Namibia. Proceedings of the International Statistical Institute, 61st ISI World Statistics Congress.
31. Berg, E., Fuller, W.A., and Erciulescu, A.L. (2012). Benchmarked Small Area Prediction. Proceedings of the American Statistical Association, Section on Survey Research Methods.
32. Berg, E., Cecere, W., and Ghosh, M. (2012). A Small Area Procedure for Combining Two Years of Survey Data and Auxiliary Information. Proceedings of the American Statistical Association, Section on Government Statistics.
33. Berg, E., Cecere, W., and Ghosh, M. (2011). Small Area Estimation for Cropland Cash Rental Rates. Proceedings of the American Statistical Association, Section on Government Statistics.
34. Berg, E. and Fuller, W.A. (2010). Alternative Variance Estimators for a Measurement Error Model. Proceedings of the American Statistical Association, Section on Survey Research Methods.
35. Berg, E. and Fuller, W.A. (2009). A Small Area Procedure for Estimating Population Counts. Proceedings of the American Statistical Association, Section on Survey Research Methods.
36. Berg, E. and Fuller, W.A. (2009). A SPREE Small Area Procedure for Estimating Population Counts. Proceedings of the Statistical Society of Canada, Section on Survey Research Methods.

37. Berg, E., Fuller, W.A., and Opsomer, J.D. (2007). Comparison of Estimators for the National Resources Inventory Calibration Study. Proceedings of the American Statistical Association, Section on Survey Research Methods.

Submitted Manuscripts

38. Berg, E. and Eideh, A. Small Area Prediction for Exponential Dispersion Families under Informative Sample Designs. Submitted to *JSSAM*. Recommendation was major revision. A revision is in preparation.
39. Zhou, Z. and Berg, E. A Unit-Level One-Inflated Beta Model for Small Area Prediction of Seat-Belt Use Rates. Submitted to *JAS*. Recommendation was reject with the option of resubmitting. A revision is in preparation.
40. Optimal Predictors of General Small Area Parameters under an Informative Sample Design Using Parametric Sample Distribution Models (Joint work with Yanghyeon Cho, Isabel Molina, Abdulhakeem Eideh, and Maria Guadarrama; submitted to *JSSAM*)

Manuscripts in Preparation

41. Graphical Model Selection with Complex Survey Data (Joint work with Hao Sun and Zhengyuan Zhu; draft prepared; improvements in progress)
42. Alternative Mean Square Error Estimators and Confidence Intervals for Prediction of Nonlinear Small Area Parameters (Joint work with Yanghyeon Cho; draft prepared; submission in preparation)
43. A Multivariate Bayesian Hierarchical Model for Small Area Estimation of Criminal Victimization Rates in Domains Defined by Age and Sex (Joint work with Alexandra Thompson from the Bureau of Justice Statistics, draft available on request)
44. A comparison of small area predictors based on the gamma distribution, with an extension to informative sampling (Joint work with Yanghyeon Cho; draft prepared; submission in preparation)

Technical Reports

45. Global Strategy (2015). Administrative Data and the Statistical Programmes of Developed Countries. Drafted by Emily Berg and Jie Li. Available at: http://www.gsars.org/wp-content/uploads/2015/10/WP2-Improving-the-Methodology-for-Using-Administrative-Data-in-an-Agricultural-Statistics-System_14102015.pdf.
46. Global Strategy (2017a). A Review of Literature Related to Master Sampling Frames for Fisheries and Aquaculture Surveys. Drafted by Emily Berg and Mark Kaiser. Available at: http://gsars.org/wp-content/uploads/2017/03/TR-28.02.2017-A-Review-of-Literature-Related-to-Master-Sampling-Frames-for-Fisheries-and-Aquaculture-Surveys.pdf.
47. Global Strategy (2017b). Gaps and methodological Approach: A Critical analysis of Methods for Surveys of Fisheries and Aquaculture. Drafted by Emily Berg and Mark Kaiser. Available at: http://gsars.org/wp-content/uploads/2017/12/TR-11.02.2017-Gaps-and-Methodological-Approach-A-Critical-Analysis-of-Methods-for-Surveys-of-Fisheries-and-Aquaculture-dec.pdf.
48. Global Strategy (2018). Final Technical Report on the Development of Master Sampling Frames for Fishery and Aquaculture Statistics. Drafted by Emily Berg and Mark Kaiser. Available at: http://gsars.org/wp-content/uploads/2018/12/TR-11.12.2018-Final-technical-

report-on-the-development-of-Master-Sampling-Frames-MSF-for-fishery-and-aquaculture-statistics.pdf.

Presentations

Invited Talks

1. A Multivariate Bayesian Hierarchical Model for Small Area Estimation of Criminal Victimization Rates in Domains Defined by Age and Gender, International Indian Statistical Association Conference, June 2023.
2. An application of a small area procedure with correlation between measurement error and sampling error to the Conservation Effects Assessment Project, Small Area Estimation Conference, May 2022.
3. Graphical model selection under a complex survey design, IISA Meetings, May 2021.
4. Semi-Parametric Quantile Regression Imputation for Missing Response and Covariates Subject to NMAR Nonresponse, Sixth International Conference on Establishment Surveys, June 2021.
5. An approximate best prediction approach to small area estimation for sheet and rill erosion under informative sampling, Conference on Small Area Estimation, September 2021.
6. Bivariate Small Area Estimation under a Conditionally Specified Model, Joint Statistical Meetings, August 2019, Denver, CO, USA.
7. Small Area Prediction of Quantiles for the Conservation Effects Assessment Project. SAE 2018 Conference - Small Area Estimation and Other Topics of Current Interest in Surveys, Official Statistics, and General Statistics: A Celebration of Professor Danny Pfeffermann's 75th Birthday, June 16-18 2018 in Shanghai, China.
8. Empirical Bayes small area prediction of sheet and rill erosion under a zero-inflated lognormal model. CRM-CANSSI Workshop Statistical Inference for complex surveys, Montreal, Canada. May 30 – June 1, 2018.
9. Empirical Bayes small area prediction of sheet and rill erosion under a zero-inflated lognormal model. IISA Conference, Florida, USA. May 30 – June 1, 2018.
10. Integration of Statistical and Administrative Data for Namibia. International Statistical Institute Meetings, Marrakech, Morocco, May 17—20, 2018.
11. Small Area Estimation for Developing Countries: Discussion. International Statistical Institute Meetings, Marrakech, Morocco, July 2017.
12. Improving the Methodology for Using Administrative Data across the Agricultural Statistics System. Panel on Improving Data Collection and Reporting about Agriculture with Increasingly Complex Farm Structures. National Academy of Sciences, Washington DC, February, 2017.
13. Semiparametric Quantile Regression Imputation with Application to the Conservation Effects Assessment Project. Worcester Polytechnic Institute, October, 2016.
14. Imputation under Informative Sampling. International Biometrics Society Meeting, Victoria, BC, July 2016.
15. Advanced Methods for Agriculture and Agro-environmental Monitoring. Monitoring agriculture for market management and food security. Milan, Italy, October 2015.
16. Semi-parametric Quantile Regression with Application to the Conservation Effects Assessment Project. Joint Statistical Meetings. Seattle, WA, August 2015.

17. Small Area Estimation for Cropland Cash Rental Rates, First Asian Satellite Meeting on Small Area Estimation (SAE), Bangkok, Thailand, August 2013.
18. Small Area Estimation for Cropland Cash Rental Rates, Joint Statistical Meetings, San Diego, CA, August, 2012.
19. A Small Area Procedure for Estimation of Population Proportions. E. Berg, National Center for Health Statistics, February, 2012.
20. A SPREE Small Area Procedure for Estimating Population Counts. E. Berg, and W.A., Fuller, Meetings of the Statistical Society of Canada, June 2009.

Contributed Conference Presentations and Posters

21. A Celebration of 75 Years of Statistics at ISU: A Tribute to Gertrude Cox! Presented on behalf of the Diversity, Equity, and Inclusion Committee.
22. Empirical Best Prediction of Nonlinear Parameters for an Informative Sample Design. Presented by Yanghyeon Cho at the Joint Statistical Meetings, August 2022.
23. Construction of a database for small area estimation. Joint Statistical Meetings. August 2021.
24. Small area estimation under a zero-inflated lognormal model. Joint Statistical Meetings. August 2020.
25. Small Area Prediction of Quantiles for the Conservation Effects Assessment Project. Langenhop Lecture and SIU Probability and Statistics Conference. May 14-15 2018.
26. Small Area Estimation of Quantiles based on a Mixed Effects Quantile Regression Model. SAE 2016, Maastricht, The Netherlands.
27. The Role of Geographic Information in Minimizing Total Survey Error for the National Resources Inventory. Total Survey Error Conference, Baltimore, MD, September 2015.
28. Integration of Administrative Data on Federal and Large Water Areas in the National Resources Inventory. International Total Survey Error Workshop, October 2014.
29. Estimation for a Model with Error in a Covariate Using Parametric Fractional Imputation. International Statistical Institute, World Statistics Congress, Hong Kong, August 2013.
30. An Evaluation of Nonsampling Errors for the Conservation Effects Assessment Project. Graybill Conference: Modern Survey Statistics, Fort Collins, CO, June, 2013.
31. Estimation for a Model with Error in a Covariate Using Parametric Fractional Imputation. International Total Survey Error Workshop, June 2013.
32. Imputation Error in Erosion Estimates Based on a Longitudinal Survey. International Total Survey Error Workshop, June 2013.
33. Benchmarked Small Area Prediction. Topic Contributed, Joint Statistical Meetings, August, 2012.
34. Small Area Prediction for a Unit-Level Lognormal Model, The Federal Committee on Statistical Methodology (FCSM) Research Conference, Washington D.C., January 10-12, 2012.
35. Alternative Variance Estimators for a Measurement Error Model, Joint Statistical Meetings, August, 2012.
36. A Small Area Procedure for Estimating Population Counts, Joint Statistical Meetings, August, 2009.
37. Bivariate Models and Covariates for Spatially Correlated Binary Data, ENAR Spring Meeting, March, 2008.
38. A Method to Account for a Complex Sample Design in Linear Regression. Colorado State University, June 2008.

39. Comparison of Estimators for the National Resources Inventory Calibration Study. Joint Statistical Meetings, August, 2007.

Consulting Experience

- Consultant: The World Bank. Review of 50x2030 Sampling Strategy Document. UPI 573305. September 20, 2020.

Teaching

- STAT 520 – Statistical Methods III
    - Fall 2018, 2019, 2020, 2021, 2022
- STAT 421 – Survey Sampling Techniques
    - Spring 2016, 2017, 2018, 2022
- STAT 621 – Advanced Survey Sampling Techniques
    - Spring 2021
- STAT 521 – Theory and Application of Survey Sampling
    - Spring 2017, Fall 2019
- STAT 401 C (STAT 587 B)– Statistical Methods for Research Workers
    - Fall 2017, Spring 2019

Student Supervision

Current Ph.D. Students

1. Chengpeng Zeng (joint with Zhengyuan Zhu)
    - Topics: measurement error modeling and nonprobability surveys
2. Yanghyeon Cho (joint with Jae-Kwang Kim)
    - Topic: unit-level models for the analysis of survey data
3. Zirou Zhu
    - Topic: small area estimation under a unit-level one-inflated beta model

Ph.D. Students Completed

4. Hao Sun (joint with Zhengyuan Zhu), Ph.D. 2022 “Small Area Estimation and Graphical Model for Complex Surveys”
5. Xiaodan (Annie) Lyu (joint with Heike Hofmann), Ph.D. 2020 “Small area prediction and big data visualization: analysis of soil losses from sheet and rill erosion on cropland.”
6. Danhyang Lee (joint with Jae-Kwang Kim), Ph.D. 2019. “Topics on small area estimation, multi-level models, and semiparametric imputation.”
7. Gabriel Demuth (joint with Philip Dixon), Ph.D. 2018. “State space models for partially observed biological and agricultural data.”

Masters Students Completed

1. Gani Agadilov completed a creative component on regression estimation for the National Resources Inventory in Summer 2019.

2. Steve Harms completed a creative component on a bivariate Markov random field model with Gaussian and binary components in spring 2019.
3. Zhenzhen Chen completed a creative component in the area of model-based inference for surveys in Summer 2019. One part investigated model selection for survey data in the context of the National Agricultural Workers Survey. The other part compared small area estimators under area level and unit-level models.
4. Xiaodan Lyu completed a creative component in the area of empirical Bayes prediction based on a zero-inflated lognormal model in the context of the Conservation Effects Assessment Project survey in spring 2018.

Service on POS Committees: Ph.D.

1. Charlie Labuzetta (Statistics, Summer 2022)
2. Dae-Gyu Jang (Statistics, Summer 2022)
3. Zihao Chen (Statistics, Summer 2022)
4. Haley Jeppson (Statistics)
5. Manju Johny (Statistics)
6. Hengfang Wang (Statistics)
7. Xiaofei Zhang (Statistics)
8. Xin Zhang (Statistics)
9. Christine Komjathy (Food science)
10. Ulloa Nehemais (Statistics, 2019)
11. Jue Wang (Math and Statistics, 2019)
12. Weiching Wu (Statistics, 2018)
13. Zonglei Wang (Statistics, 2018)
14. Colin Lewis-Beck (Statistics, 2018)
15. Seho Park (Statistics, 2018)
16. Xin Wang, (Statistics, 2018)
17. Maggie Johnson (Statistics, May, 2017)
18. Yu-Hui Kao (Sociology, May, 2017)
19. Jongho Im (Statistics, May, 2015)
20. Stephanie Zimmer (Statistics, 2014)

Service on POS Committees: Masters

1. Peiyi Lu (Statistics and Political Science)
2. Ziwei Zhou (Statistics, Summer 2020)
3. Paul Morris (Statistics, Summer 2020)
4. Charlie Labuzzetta (Statistics, Fall 2019)
5. Xin Zhang (Statistics, Fall, 2018)
6. Xiaofei Zhang (Statistics, May, 2018)
7. Su-Yeon Cho (Greenlee School of Journalism, May, 2018)
8. Wenjun Wu (Accounting, 2018)
9. Anna Johnson (Sociology, May, 2016)
10. Mauricio Lila (Statistics, 2015)
11. Andreea Erciulescu (Statistics, May 2013)

Rudimentary R Package: https://github.com/emilyjb/UnitLevelNonlin

Professional Service

- Chair of Iowa State University Diversity, Equity and Inclusion Committee, 2022-2023
- Associate Editor, Journal of Survey Statistics and Methodology, 2022
- Member of Iowa State University Diversity, Equity and Inclusion Committee, 2021-2022
- Iowa State University Awards Committee, 2019
- Iowa State University Exam Committee, 2018-2019
- Iowa State University Statistics Department Admissions Committee, 2015- spring 2018
- Faculty adviser for Iowa State Statistics Department student organization STATCOM, 2018
- Member of Iowa State Statistics Department Governance Document Committee, 2017
- Co-organizer for International Total Survey Error workshop June, 2013
- Co-author of StatSig issue on Statistics in Agriculture December, 2012
- Journal refereeing (Canadian Journal of Statistics, 2019; Journal of Survey Statistics and Methodology, 2019; Statistica Sinica, 2019; Journal of the American Statistical Association, 2017; Journal of the Royal Statistical Society B 2017; Statistica Sinica, 2016; Scandinavian Journal of Statistics, 2017; Journal of Official Statistics, 2016; Test, 2016; Journal of the American Statistical Association, 2015; Scandinavian Journal of Statistics, 2014; Journal of Agricultural Biological and Environmental Statistics, 2014; Annals of Applied Statistics, 2013; Statistics in Transition, 2012; Electronic Journal of Statistics, 2012; Survey Methodology, 2009 – 2012, 2014; Australian and New Zealand Journal of Statistics, 2010—2014)

Scholastic Honors

- Statistical Significance poster contest winner. Joint Statistical Meetings (2011).
- Student Paper Award, Section on Survey Research Methods, Statistical Society of Canada Proceedings (2009)
- Snedecor Award (Iowa State University, 2008)
- Holly C. & E. Beth Fryer Award in Statistics (Iowa State University, 2007)
- ASA Survey Research Methods Section Travel Award (Summer, 2007)
- Gertrude M. Cox Scholarship Honorable Mention (2006)
- Vera David graduate award in Statistics (Iowa State University, 2006)
- NSF VIGRE assistantship from Iowa State University (Fall, 2005)
- Francis D. Parker Mathematics Prize for Senior Work (Middlebury College Math Department, 2005)