PARTHA LAHIRI

CURRICULUM VITAE

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PERSONAL INFORMATION

Educational Background:

Ph.D. (Statistics)	1986	University of Florida, Gainesville, USA
M.Sc. (Statistics)	1981	Calcutta University, India
B.Sc. (Statistics)	1979	Presidency College, India

Academic Appointments:

Director	January 1, 2021 -	Joint Program in Survey Methodology
Full Professor (tenured)	2002-Present	Joint Program in Survey Methodology & Department of Mathematics University of Maryland, College Park
Adjunct Research Professor	2005-Present	Institute of Social Research University of Michigan, Ann Arbor
Faculty Associate	2013-Present	Maryland Population Research Center University of Maryland, College Park
Faculty Affiliate	2019-Present	Maryland Transportation Institute University of Maryland, College Park
Acting Director	January 1, 2019 - June 30, 2019	Joint Program in Survey Methodology
Director, Statistics Consortium	2002-2006	University of Maryland, College Park
Director, Division of Statistics	1993-2001	University of Nebraska-Lincoln
Milton Mohr Distinguished Professor	2000-2002	Dept. of Mathematics & Statistics University of Nebraska-Lincoln
Full Professor	1998- 2002	University of Nebraska-Lincoln
Adjunct Professor	2001-2002	University of Maryland, College Park
Associate Professor (tenured)	1992-1998	University of Nebraska-Lincoln
Assistant Professor	1986-1992	University of Nebraska-Lincoln
Graduate Consultant	1984-1986	University of Florida-Gainesville
Teaching Assistant	1983-1984	University of Florida-Gainesville
Lecturer	1982-1983	R.K. Mission College, India

Other Appointments:

Visiting Professor	2017-2018	Calcutta University, India	
Visiting Professor	1995-1996, 2017-2018	Indian Institute of Management	
Visiting Professor	2017-2018	ENSAI, Rennes, France	
Visiting Scholar	April-May, 1999	Department of Statistics Harvard University	vskip .3in
Visiting Scholar	Spring, 1989	Department of Mathematics & Statistics Carleton University, Canada	

AWARDS, HONORS AND RECOGNITION

Best paper in the scientific papers category for the North American region by the International Transportation Society (ITS) – presented at the Intelligent Transportation Systems World Congress November 2017.
Note: The paper uses a small area statistical model in solving a Big Data problem related to transportation statistics (written jointly with my UMCP engineering colleague Professor Cinzia Cirillo, a statistics PhD student Ying Han and and an engineering PhD student Kartik Kaushik).

Distinguished Alumni Award, Department of Statistics, University of Florida, Gainesville, 2008. The award was presented in recognition of outstanding contributions to statistics.
Note: As of 2019, only three won the award.

Elected Fellow, Institute of Mathematical Statistics (IMS), 2007, "in recognition of contribution to the development, dissemination and application of Mathematical Statistics."
Note: As of 2019, there were 3600 members and 10% *of them are Fellows.* [Information obtained from the IMS]

Elected Fellow, American Statistical Association (ASA), 2004, for "outstanding contribution to the theory and practice of small-area estimation, and for distinguished service to the profession."
Note: The designation of ASA Fellow has been a significant honor for nearly 100 years. Under ASA bylaws, the Committee on Fellows can elect up to one-third of one percent of the total association membership, which was about 18,000 in 2019, as fellows each year. [Information obtained from the ASA]

Young Statistician Award, International Indian Statistical Association (IISA), 2004.

Milton Mohr Distinguished Professor of Statistics, Department of Mathematics and Statistics, University of Nebraska, Lincoln, 2000-2002.
Note: I was the only statistician to receive this honor in the history of the department.

Honorary title of Senior Scientist, The Gallup International Research & Education Center, 2000-2002.

Senior Research Advisor, The Gallup Organization, 1998.

Elected Member, International Statistical Institute, 1997.

American Statistical Association (ASA)/National Science Foundation (NSF)/Bureau of Labor Statistics (BLS) & Census Bureau Senior Research Fellow, 1990-1991.

P.C. Mahalanobis Prize for securing the first position in B.Sc (Honors in Statistics) examination among all statistics students from Presidency College (now University), Kolkata, India.

Recipient of National Scholarship, Government of India, 1976.

RESEARCH, SCHOLARLY AND CREATIVE ACTIVITIES

Research Interests:

Small Area Estimation
Survey Statistics
Statistical Data Integration
Big Data
Resampling Methods
Bayesian Methods
Synthetic Data

Sponsored Research:

a. Current Individual Grants:

Statistical Analysis with Computerized Linked Data. Source of Support: National Science Foundation; Total Award Amount: $300,001; Award Period: 9/1/2018 - 8/31/2021. PI: P. Lahiri

b. Current Interdisciplinary Grants:

1. *National Data Innovation Center (India).* Source of Support: Bill and Melinda Gates Foundation, Total Award Amount: $ 1,193,929; Award Period: 12/01/2017-11/30/2020. My role on this multi-institutional international grant is to collaborate on small area estimation and sample survey design. PI: Sonalde Desai, Department of Sociology, UMCP.

c. Past Grants and Contracts

1. *Feasibility of Synthetic Data for Population-Averaged and Cluster-Specific Analyses by Researchers Utilizing Integrated State Longitudinal Data Systems.* Source of Support: Institute of Educational Sciences; Total Award Amount: $936,752 (UMCP portion only; combined UMB/UMCP Mpower project is funded at $2.6 million); Award Period: 10/01/2015- 10/01/2020 (now under no-cost extension). I am serving as a Co-PI on this interdisciplinary grant and am responsible for developing statistical methodology and supervising Dr. Daniel Bonnery, former JPSM Assistant Research Professor. This grant covered about 1.33 months of my salary per year. UMCP PI: Laura M Stapleton, Department of Human Development and Quantitative Methodology, UMD College of Education.

2. *On Area Specific Uncertainty Measures in Small Area Estimation.* Source of Support: National Science Foundation; Total Award Amount: $219,999; Award Period: 10/01/2015-09/30/2019. PI: P. Lahiri

3. *Educational Services in Survey Methodology.* Source of Support: Census Bureau; Total Award Amount: $12,771,404; Award Period: 09/01/2012 to 09/30/2017. This contract was awarded to JPSM.
   Note: This contract supported my salary for 6.75 months per academic year.

4. *Estimation of Unemployment Rates for Small and Large Areas in the US Current Population Survey Program.* Source of Support: U.S. Census Bureau Research Contract; Total Award Amount: $447,362; Award Period: 2012-2014; PI: P. Lahiri

5. *Collaborative Research: Computation-driven small area inference with applications.* Source of Support: National Science Foundation; Total Award Amount to UMCP: $97,543; Award Period: 2009-2013; PI: P. Lahiri
   Note: This is a collaborative grant with Professor S. Chatterjee of the University of Minnesota.

6. *Hierarchical Bayesian Analysis of Complex Samples.* Source of Support: National Institute of Health (R01); My portion of support: $156,028; Award Period: 2009-2013; Co-PI: P. Lahiri (PI: Michael Elliott, University of Michigan, Ann Arbor).

7. *An Area Level Integrated Modelling Approach with An Application to the County Level Estimation of the Number of Poor School-Age Children.* Source of Support: U.S. Census Bureau Research Contract; Total Award Amount: $259,523; Award Period: 2009-2012; PI: P. Lahiri

8. *An Empirical Best Prediction Approach for the National Agricultural Statistics Service County Estimates Program.* Source of Support: National Agricultural Statistics Service-US Department of Agriculture; Total Award Amount: $163,000; Award Period: 2009-2012; PI: P. Lahiri

9. U.S. Bureau of Labor Statistics, 2006-2007, PI: P. Lahiri

10. U.S. Center for Health Statistics, 2005-2006, PI: P. Lahiri

11. Center for Excellence in Health Statistics, University of Michigan, Ann Arbor, 2002-2004, PI: P. Lahiri

12. Gallup Research Grant, 2000-2002, PI: P.Lahiri

13. National Science Foundation, 1999-2002, PI: P.Lahiri

14. National Center for Health Statistics, 1998-99, PI: P. Lahiri

15. National Science Foundation, 1997-2000, PI: P. Lahiri

16. Nebraska Department of Health and Human Services, 1997-2000, Co-PI: P.Lahiri

17. National Science Foundation, 1995-1998, PI: P.Lahiri

18. National Science Foundation (INT), 1995-1997, PI: P. Lahiri

19. National Science Foundation, 1992-1995, PI: P.Lahiri

20. National Science Foundation (REU), 1993-1995, PI: P. Lahiri

21. The U.S. Bureau of Labor Statistics, 1992-1994, PI: P. Lahiri

22. The U.S. Bureau of Census, 1992, PI: P. Lahiri

23. Senior Research Fellowship sponsored by the American Statistical Association, the National Science Foundation, the U.S. Bureau of Labor Statistics (1990-91 and 2004-5) and the U.S. Census Bureau, 1990-91.

d. Current Internal Grants

1. *UMD Workshop on Small Area Data Analytics*, $16,750, UMD Year Of Data Science Initiative, Office of the Provost (joint with Professor Cinzia Cirillo, Department of Civil & Environmental Engineering). Additional funding secured from Maryland Transportation Institute ($8,000), Department of Mathematics ($6,000), and Joint Program in Survey Methodology ($6,000). *Note:* The event (see https://mti.umd.edu/event/14897/cancelled-year-of-data-science-workshop-on-small-area-data-analytics-march-30-april-3-2020) was scheduled during March 30-April 3, 2020, but was cancelled because of coronavirus outbreak.

2. *Use of Big Data in Small Area Estimation: An integrated Machine Learning and Statistical Approach*, $10,000, Faculty-Student Research Award (FSRA), to be taken in academic year 2020-2021, UMD Graduate School.

e. Past Internal Grants

1. *Bayesian Data Science Methodology for Transportation Statistics at Granular Levels,* $50,000, FY 2018-2019 Maryland Transportation Institute (MTI) Seed Grant (joint with Professor Cinzia Cirillo, Department of Civil & Environmental Engineering).

f. Conference Grants

1. Institute of Mathematical Sciences (IMS), Total Award Amount: 90,000 Singapore dollars (about $65,000) . The grant supported organization of a workshop on Statistical Data Integration held at the National University of Singapore during August 5-8, 2019. Co-PI: P. Lahiri

2. National Science Foundation, Total Award Amount: $15,000. The grant supported 6 US graduate students to attend the ISI Satellite Meeting on Small Area Estimation, Santiago, Chile, August 3-5, 2015. PI: P. Lahiri

3. National Science Foundation, Total Award Amount: $10,000. The grant supported registration fees of 14 graduate students and 10 young researchers from different places in the US to attend the conference on "Frontiers of Hierarchical Modeling in Observational Studies, Complex Surveys and Big Data," held at UMCP during May 29-31, 2014. Co-PI: P. Lahiri

4. I obtained various grants to organize the international symposium on "Model Selection, Empirical Bayes and Related Topics," Lincoln, March 24-26, 1999. The external agencies that supported the symposium are the United States Postal Service, The Gallup Organization and National Center for Health Statistics.

5. I obtained various grants to organize the international conference on "Current Topics in Survey Sampling," Lincoln, October 24-26, 1997. The external agencies that supported the conference are the Gallup Organization, National Center for Health Statistics, U.S. Census Bureau, NORC at the Univ. of Chicago and National Science Foundation.

Special Issues/Mongraphs Edited

1. Served as Guest Editor-in-Chief, Special issue on statistical data integration, Statistics in Transition New Series, 2020.

2. Edited (jointly with Nikos Tzavidis, L.C. Zhang, and Danny Pfeffermann), Special issue on small area estimation, Journal of the Royal Statistical Society, Series A, 2017.

3. Edited (jointly with Eric Slud) a special issue of Statistical Science (Vol. 26, 2011) on "Bayesian methods that frequentist should know."

4. Edited two specials issues (Vol 112, nos. 1-2, 2003) of Journal of Statistical Planning and Inference. These two issues contain both theoretical and applied papers on Model Selection, Model Diagnostics, Empirical Bayes and Hierarchical Bayes.

5. Edited IMS Lecture Notes/Monograph on Model Selection, Volume 38, 2001. This volume features four long review papers (with discussions) by (i) C. R. Rao and Y. Wu, (ii) H. Chipman, E. I. George, and R. E. McCulloch, (iii) J. O. Berger and L. R. Pericchi and (iv) B. Efron and A. Gous. *Note: Professors Berger, Efron, and Rao are members of the National Academy of Sciences.*

6. Edited (jointly with J. K. Ghosh) a special issue of Sankhya on Sample Surveys (Series B, Vol. 61, 1999)

Book Chapters

*Note: *, **, # are used to identify co-authors who were my research associates, PhD students and postdoctoral associates, respectively.*

1. Erciulescu, A. L. Franco*, C. and Lahiri, P. (2020), Use of Administrative Records in Small Area Estimation, In Administrative records for survey methodology, Wiley Series in Survey Methodology, eds. Asaph Young Chun and Michael Larsen, forthcoming.

2. Casas-Cordero, C., Encina, J. and Lahiri, P. (2016). Poverty Mapping for the Chilean Comunas, In Analysis of Poverty Data by Small Area Estimation, ed. Monica Pratesi, Wiley Series in Survey Methodology, 379-403.

3. Gershunskaya, J.**, Jiang, J. and Lahiri, P. (2009), Resampling methods in surveys, Sample Surveys: Inference and Analysis, Vol. 29B, 121-152.

4. Lahiri, P. and Meza, J.** (2002), Small-Area Estimation, Encyclopedia of Environmetrics (A. H. El-Shaarawi and W. W. Piegorsch, eds.), 4, 2010-2014, Wiley.

5. Ghosh, M. and Lahiri, P. (1992), Estimation of $P(X_1 < X_2)$: A nonparametric empirical Bayes approach, Order Statistics and Nonparametrics: Theory and Applications, eds P.K. Sen and I.A. Salami, 247-261.

6. Ghosh, M. and Lahiri, P. (1992), A hierarchical Bayes approach to small area estimation with auxiliary information (with discussion), (1992), Bayesian Analysis in Statistics and Econometrics, 107-125, Springer, Berlin.

7. Ghosh, M. and Lahiri, P. (1988), Bayes and empirical Bayes analysis in multistage sampling, Statistical Decision Theory and Related Topics IV, Vol. 1, 195-212.

Peer-reviewed journal articles

1. Seagusa, T., Sugasawa, S. and Lahiri, P. (2020), Parametric Bootstrap Confidence Intervals for the Multivariate Fay-Herriot Model, Journal of Survey Statistics and Methodology, to appear.

2. Lahiri, P and Suntornchost, J. (2020), A General Bayesian Approach to Meet Different Inferential Goals in Poverty Research for Small Areas, Statistics in Transition New Series, Special Issue on Statistical Data Integration, 249-265, `https://doi.org/10.21307/stattrans-2020-040`; arxiv paper: `https://arxiv.org/abs/1812.06115v1`

3. Bonnery, D.#, Cheng, Y., and Lahiri, P. (2020), An evaluation of design-based properties of different composite estimators, Statistics in Transition New Series, Special Issue on Statistical Data Integration; arxiv paper: `https://arxiv.org/abs/1811.12249v2`

4. Hirose, M. and Lahiri, P. (2020), Multi-Goal Prior Selection: A Way to Reconcile Bayesian and Classical Approaches for Random Effects Models, 1-11, Journal of the American Statistical Association, `https://doi.org/10.1080/01621459.2020.1737532.`

5. Lahiri, P. and Pramanik, S.** (2019), Estimation of Average Design-based Mean Squared Error of Synthetic Small Area Estimators, Austrian Journal of Statistics, Volume 48, 43-57; doi.org/10.17713/ajs.v48i4.790.

6. Han, Y.** and Lahiri, P. (2019), Statistical Analysis with Linked Data, International Statistical Review, 87, S139-S157. `doi:10.1111/insr.12295`

7. Hawala, S. and Lahiri, P. (2018) Variance Modeling for Domains, *Statistics and Applications*, Volume 16, No. 1, (New Series), 399-409.

8. Li, Y.** and Lahiri, P. (2018), A Simple Adaptation of Variable Selection Software for Regression Models to select Variables in Nested Error Regression Models. Sankhya B, `https://doi.org/10.1007/s13571-018-0161-6.`

9. Cirillo, C., Han, Y.**, Kaushik, K.* and Lahiri, P. (2018), Synthetic time series technique for predicting network-wide road traffic, Statistical Journal of the IAOS 34 (2018) 425177 425 DOI 10.3233/SJI-170405.

10. Gabler, S., Ganninger, M. and Lahiri, P. (2018) A New Approximation to the True Randomization-based Design Effect, Statistics & Its Applications, Springer Proceedings in Mathematics & Statistics 244, Springer A.K. Chattopadhyay and G. Chattopadhyay (eds.), //doi.org/10.1007/978-981-13-1223-6_10.

11. Gershunskaya, J.** and Lahiri, P. (2018), Robust Empirical Best Small Area Finite Population Mean Estimation Using a Mixture Model, Calcutta Statistical Association Bulletin, 69(2) 18317204, DOI: 10.1177/0008068317722297.

12. Hirose, M**. and Lahiri, P. (2018), Estimating variance of random effects to solve multiple problems simultaneously, Annals of Statistics, 46, 1721-1741, https://doi.org/10.1214/17-AOS1600.

13. Jiang, J, Lahiri, P. and Nguyen, T. (2018), A Unified Monte-Carlo Jackknife for Small Area Estimation after Model Selection, Annals of Mathematical Sciences and Applications, Vol. 3, No. 2, 405-438, DOI: http://dx.doi.org/10.4310/AMSA.2018.v3.n2.a2

14. Liu, Benmei** and Lahiri, P. (2017), Adaptive Hierarchical Bayes Estimation of Small-Area Proportions, Calcutta Statistical Association Bulletin, 69(2) 11715, DOI:10.1177/0008068317722293.

15. Habermann, H., Kennedy, C. and Lahiri, P. (2017), A Conversation with Robert Groves, Statistical Science, 32, 128177. DOI: 10.1214/16-STS594

16. Kandari, N. and Lahiri, P. (2016), Prediction of a function of misclassified binary data, Statistics in Transition new series, Vol. 17, No. 3, 429-447.

17. Bonnery, D.#, Cheng, Y., Ha, N.**, and Lahiri, P. (2015), Tripe-goal estimation of unemployment rates for U.S. states using the U.S. Current Population Survey data, Statistics in Transition new series and Survey Methodology, 16, 511-522. Joint Special Issue: Small Area Estimation.

18. Lahiri, P. and Suntornchost, J.* (2015) Variable Selection for a Regression model when dependent variable is subject to measurement errors, Sankhya, Series B. DOI 10.1007/s13571-015-0096-0

19. Yoshimori, M.** and Lahiri, P. (2014), A second-order efficient empirical Bayes confidence interval, The Annals of Statistics, Vol. 42, No. 4, 1233-1261 DOI: 10.1214/14-AOS1219.

20. Yoshimori, M.** and Lahiri, P. (2014), A new adjusted maximum likelihood method for the Fay-Herriot small area model, Journal of Multivariate Analysis, 124, 281-294, http://dx.doi.org/10.1016/j.jmva.2013.10.012//

21. Ha, N. S.**, Lahiri, P. and Parsons, V. (2014). Methods and results for small area estimation using smoking data from the 2008 National Health Interview Survey, Statistics in Medicine. 33. 22.

22. Liu, B.**, Lahiri, P. and Kalton, G. (2014). Hierarchical Bayes Modeling of Survey-Weighted Small Area Proportions. Survey Methodology. 40. 1-13.

23. Ha, N. S.** and Lahiri, P. (2014), Comments on: Single and two-stage cross-sectional and time series benchmarking procedures for small area estimation, Test, 23.

24. Fabrizi, E. and Lahiri, P (2013) A design-based approximation to the Bayes Information Criterion in finite population sampling, Statistica, 73, 289-301. http://rivista-statistica.unibo.it/

25. Chen, S.** and Lahiri, P. (2012), Inferences on small area proportions, Journal of the Indian Society of Agricultural Statistics, 66(1), 121-124.

26. Chen, S.** and Lahiri, P. (2011), On the estimation of mean squared prediction error in small area estimation, CSA Bulletin, 63, 109-139.

27. Lahiri, P. and Pramanik, S.** (2011), Discussion of "Estimation of random effects via adjustment for density maximization," by C. Morris and R. Tang, Statistical Science, http://dx.doi.org/10.1214/10-STS349, 271-298.

28. Li, H.** and Lahiri, P. (2010), Adjusted maximum method for solving small area estimation problems, Journal of Multivariate Analysis, 101, 882-892, doi: 10.1016/j.jmva.2009.10.009.

29. Gabler, S., and Lahiri, P. (2009), A new measure of interviewer variability for a complex sampling design, Survey Methodology, 35, 85-99.

30. Lahiri, P. and Li, Y.** (2009), A New Alternative to the Standard F Test for Clustered Data, Journal of Statistical Planning and Inference, doi. 10.1016/j.jspi.2009.03.19.

31. Lahiri, P. and Li, H.** (2009), An Adaptive Hierarchical Bayes Quality Measurement Plan, Applied Stochastic Models in Business and Industry, DOI. 10.1002/asmb.778.

32. Ganesh, N.** and Lahiri, P. (2008), A new class of average moment matching prior, Biometrika, 95, 514-520.

33. Chatterjee, S., Lahiri, P. and Li, H.** (2008), On small area prediction interval problems, Annals of Statistics, 36, 1221-1245.

34. Chen, S.** and Lahiri, P. (2008), On mean squared prediction error estimation in small area estimation problems, Communications in Statistics -Theory and Methods, 37: 1792-1798.

35. Li, Y.** and Lahiri, P. (2007), Robust model-based and model-assisted predictors of the finite population mean, Journal of the American Statistical Association, 102, 664-673.

36. Lahiri, P. and Mukherjee, K. (2007), Hierarchical Bayes estimation of small area means under generalized linear models and design consistency, Annals of Statistics, 35, 724-737.

37. Jiang, J., and Lahiri, P. (2006), Estimation of Finite Population Domain Means - A Model-Assisted Empirical Best Prediction Approach, Journal of the American Statistical Association, 101, 301-311.

38. Jiang, J., and Lahiri, P. (2006), Mixed model prediction and small area estimation, Editor's invited discussion paper, Test, Vol. 15, 1, 1-96.

39. Lahiri, P. and Larsen, M. (2005), Regression analysis with linked data, Journal of the American Statistical Association, Vol 100, 222-230.

40. Meza, J.** and Lahiri, P. (2005), A note on the Cp statistic under the nested error regression model, Survey Methodology, 105-109.

41. Lahiri, P. (2003), On the impact of bootstrap in survey sampling and small-area estimation, Statistical Science, Vol. 18, 199-210.

42. Lahiri, P. (2003), A review of empirical best linear unbiased prediction for the Fay-Herriot small-area model, The Philippine Statistician, Vol 52, nos. 1-4, 1-15.

43. J.O. Endo, S. Chen**, J.F. Potter, A.E. Ranno, S. Asadullah, P. Lahiri (2002) Vitamin B12 Deficiency and Incontinence: Is There an Association? Journal of Gerontology: MEDICAL SCIENCES. Vol. 57A, No. 9, M583-M587

44. Lahiri, P. and Maiti, T.# (2002), Empirical Bayes estimation of relative risks in disease mapping, Vol 53, nos. 211-212, Calcutta Statistical Association Bulletin.

45. Butar, F.** and Lahiri (2002), On the measures of uncertainty of empirical Bayes small-area estimators, Journal of Statistical Planning and Inference, 112, 63-76.

46. Jiang, J., Lahiri, P. and Wan, S.** (2002), Jackknifing the mean squared error of empirical best predictor, Annals of Statistics, 30, 1782-1810.

47. Datta, G.S.#, Lahiri, P. and Maiti, T.# (2002), Empirical Bayes estimation of median income of four- person families by state using tie series and cross-sectional data, Journal of Statistical Planning and Inference, 102, 83-97.

48. Butar, F.** and Lahiri, P. (2002), Empirical Bayes estimation of several population means and variances under random sampling variances model, Journal of Statistical Planning and Inference, 102, 59-69.

49. Lahiri, P. and Mukerjee, R. (2000), On a simplification of the linear programming approach to controlled sampling, accepted for publication in Statistica Sinica, 10, 1171-1178.

50. Datta, G.S.#, Ghosh, M., Smith, D., and Lahiri, P. (1999), On an asymptotic theory of conditional and unconditional coverage probabilities of empirical Bayes confidence intervals, Scandinavian Journal of Statistics, 29, 139-152.

51. Jiang, J., Lahiri, P. and Wu, C.** (1999), On Pearson χ^2 testing with unobservable cell frequencies and mixed model diagnostics, Sankhya, 63, 260-276.

52. Jiang, J. and Lahiri, P. (1999), Empirical best prediction for small area inference with binary data, Annals of Institute of Mathematical Statistics, 53(2): 217-243.

53. Lahiri, P. (1999), Discussion of J.N.K. Rao's paper on "Some Current Trends in Sample Survey Theory and Methods," Sankhya, 61, 43-48.

54. Datta, G.S.# and Lahiri, P. (1999), A unified measure of uncertainty of estimated best linear unbiased predictors in small area estimation problems, Statistica Sinica, 10, 613-627.

55. Datta, G.S.#, Lahiri, P., Maiti, T.# and Lu, K.L. (1999), Hierarchical Bayes estimation of unemployment rates for the U.S. states, Journal of the American Statistical Association, 94, 1074-1082.

56. Gabler, S., Haeder, S., and Lahiri, P. (1999), A model-based justification of Kish's formula for design effects for weighting and clustering, Survey Methodology, 25, 105-106.

57. Butar, F.** and Lahiri (1999), Empirical Bayes estimation of finite population variances, Sankhya, B, 61, 305-314.

58. Chattopadhyay, M., Lahiri, P., Larsen, M. and Reimnitz, J. (1999), Composite estimation of drug prevalences for sub-state areas, Survey Methodology, 25, 81-86.

59. Arora, V.**, Lahiri, P. and Mukherjee, K. (1997), Empirical Bayes estimation of finite population means from complex surveys, Journal of the American Statistical Association, 92, 1555-1562.

60. Arora, V.** and Lahiri, P. (1997), On the superiority of the Bayesian method over the BLUP in small area estimation problems, Statistica Sinica, 7, 1053-1063.

61. Datta, G.S.# and Lahiri, P. (1995), Robust hierarchical Bayes estimation of small area characteristics in presence of covariates and outliers, Journal of Multivariate Analysis, Vol. 54, No. 2, 310-328.

62. Lahiri, P. and Rao, J.N.K. (1995), Robust estimation of mean square error of small area estimators, Journal of the American Statistical Association, Vol. 90, 758-766.

63. Lahiri, P. and Wang, W.# (1992), A multivariate procedure towards composite estimation of consumer expenditure for the CPI, Survey Methodology, 18, 279-292.

64. Lahiri, P. and Peddada (1992), Bayes and empirical Bayes estimation of finite population mean using auxiliary information, Statistics and Decisions, 10, 67-80.

65. Lahiri, P. and Park, D.H. (1991), Nonparametric Bayes and empirical Bayes estimators of the mean residual life at age t, Journal of Statistical Planning and Inference, 29, 125-136.

66. Lahiri, P. and Tiwari, R.C. (1991), Nonparametric Bayes and empirical Bayes estimation of variances from stratified samples, Sankhya, Series B , Vol. 52, Part 3, 105-118.

67. Lahiri, P. (1990), "Adjusted" Bayes and empirical Bayes estimation in finite population sampling, Sankhya, B, Vol. 52, 50-66.

68. Lahiri, P. and Tiwari, R.C. (1990), Empirical Bayes rank order estimation with the Dirichlet prior, Statistics and Decisions, 8, 231-245.

69. Tiwari, R.C. and Lahiri, P. (1989), Empirical Bayes estimation of the mean of a "nonhomogeneous" finite population, Communications in Statistics: Theory and Methods, 18(7), 2553-2568.

70. Tiwari, R.C. and Lahiri, P. (1989), On Robust Bayes and empirical Bayes estimation of means and variances from stratified samples, Communications in Statistics: Theory and Methods, 18(3), 913-926.

71. Ghosh, M., Lahiri, P. and Tiwari, R.C. (1989), Nonparametric Bayes and empirical Bayes estimation of the distribution function and the mean, Communications in Statistics: Theory and Methods, 18(1), 121-146.

72. Lahiri, P. and Park, D.H. (1988), Nonparametric Bayes and empirical Bayes estimation of the residual survival function at age t, Communications in Statistics: Theory and Methods, 17(12), 4085-4098.

73. Peddada, S.D. and Lahiri, P. (1988), The exact mean squared error of Stein-rule estimator in linear models, Journal of Statistical Planning and Inference, 18, 345-353.

74. Ghosh, M. and Lahiri, P. (1987), Robust empirical Bayes estimation of variances from stratified samples, Sankhya, B, Vol. 49, 78-89.

75. Ghosh, M. and Lahiri, P. (1987), Robust empirical Bayes estimation of means from stratified samples, Journal of the American Statistical Association, Vol. 82, 1153-1162.

Professional Publications:

1. Lahiri, P. and Suntornchost, J.* (2018), A General Bayesian Approach to Meet Different Inferential Goals in Poverty Research for Small Areas, arxiv paper.

2. Cirillo, C., Y. Han**, K. Kaushik*, and P. Lahiri (2017b). Synthetic Time Series Technique for Predicting Network-wide Road Traffic. In: The 24th ITS World Congress. `https://submission.itsworldcongress2017.org/timetable/.` NOTE: The paper has been selected as the best paper in the North America region at the 24th ITS World Congress, Montreal, Canada.

3. Hirose, M.** and Lahiri, P. (2017), A New Model Variance Estimator for an Area Level Small Area Model to Solve Multiple Problems Simultaneously, arXiv:1701.04176v1 [math.ST]

4. Jiang, J., Lahiri, P. and Nguyen, T. (2016), A Unified Monte-Carlo Jackknife for Small Area Estimation after Model Selection, arXiv:1602.05238v1 [stat.CO]

5. Franco, C.* and Lahiri, P. (2012) Interval Estimation for Small Area Proportions with Small True Proportions from Stratified Random Sampling Survey Data, Proceedings of the Survey Research Methods Section, American Statistical Association.

6. Hawala, S. and Lahiri, P. (2012) Hierarchical Bayes Estimation of Poverty Rates, Proceedings of the Survey Research Methods Section, American Statistical Association.

7. Yoshimori, M.** and Lahiri, P. (2012) A New Adjusted Maximum Likelihood Method in Small-Area Estimation, Proceedings of the Survey Research Methods Section, American Statistical Association.

8. Bellow, M. and Lahiri, P. (2012) Evaluation of Methods for County Level Estimation of Crop Harvested Area That Employ Mixed Models, ICES Proceedings.

9. Ha, N.**, Lahiri, P. and Parson, V. (2011), Methods and results for small area estimation using smoking data from the 2008 National Health Interview Survey, Proceedings of the Survey Research Methods Section, American Statistical Association, 2635-2646.

10. Hawala, S. and Lahiri, P. (2011), Estimation of Poverty at the School District Level Using Hierarchical Bayes Modeling, Proceedings of the Survey Research Methods Section, American Statistical Association, 2832-.

11. Bellow, M. and Lahiri, P. (2011), An Empirical Best Linear Unbiased Prediction Approach to Small-Area Estimation of Crop Parameters, Proceedings of the Survey Research Methods Section, American Statistical Association, 3976-3986.

12. Bellow, M. and Lahiri, P. (2010) Empirical Bayes Methodology for the NASS County Estimation Program, Proceedings of the Survey Research Methods Section, American Statistical Association, 343-355.

13. Hawala, S. and Lahiri, P. (2010) Variance Modeling in the U.S. Small Area Income and Poverty Estimates Program, Proceedings of the Survey Research Methods Section, American Statistical Association, 4655-4663.

14. Lahiri, P. and Pramanik, S.** (2010) Estimation of Average Design-based Mean Squared Error of Synthetic Small Area Estimators, Proceedings of Statistics Canada Conference, American Statistical Association.

15. Henry K, Lahiri, P. and Scali, J. (2009) Using Sample Data to Reduce Nonsampling Error in State-Level Estimates Produced from Tax Records, Proceedings of the Section on Survey Research Methods, American Statistical Association, 3571-3585.

16. Gershunskaya, J.** and Lahiri, P. (2008), Robust estimation of monthly employment growth rates for small areas in the Current Employment Statistics survey, Proceedings of the Section on Survey Research Methods, American Statistical Association, 297-308.

17. Chatterjee, S. and Lahiri, P. (2007), A Simple Computational Method for Estimating Mean Squared Prediction Error in General Small-Area Model, Proceedings of the Section on Survey Research Methods, American Statistical Association, 3486-3493.

18. Snigdhansu Chatterjee, Parthasarathi Lahiri, Huilin Li** (2007), On Small Area Prediction Interval Problems, Proceedings of the Section on Survey Research Methods, American Statistical Association, 3494-3505.

19. Kimberly Henry, Partha Lahiri, and Robin Fisher (2007), Using the Statistics of Income Divisions Sample Data to Reduce Measurement and Processing Error in Small Area Estimates Produced from Administrative Tax Records, Proceedings of the Section on Survey Research Methods, American Statistical Association, 3111-3115.

20. Liu, B.**, Lahiri, P., and Kalton, G. (2007), Hierarchical Bayes modeling for survey-weighted small area proportions, Proceedings of the Section on Survey Research Methods, American Statistical Association, 3181-3186.

21. Chen, S.**, Lahiri, P., and Rao, J.N.K. (2007), Robust Mean Squared Prediction Error Estimators of EBLUP of a Small Area Total Under the Fay-Herriot Model, Proceedings of the Statistics Canada Symposium.

22. Gershunskaya, J.B.** and Lahiri, P. (2005), Variance estimation for domains in the U.S. Current Em- ployment Statistics Program, Proceedings of the Section on Survey Research Methods, American Statistical Association, 3044-3051.

23. Chen, S.**, and Lahiri, P. (2005), On mean squared prediction error estimation in small area estimation problems, Proceedings of the Section on Survey Research Methods, American Statistical Association, 2852-2856.

24. Lahiri, P., and Li, B.T. (2005),Estimation of the Change in Total Employment Using the U.S. Current Employment Statistics Survey, Proceedings of the Section on Survey Research Methods, American Statistical Association, 1268-1274.

25. Chen, S.** and P. Lahiri (2003). A comparison of different MSPE estimators of EBLUP for the Fay-Herriot model. Proceedings of the Section on Survey Research Methods, American Statistical Association, 905-911.

26. Chen, S.** and Lahiri, P. (2002), A weighted jackknife MSPE estimator in small-area estimation,Proceedings of the Section on Survey Research Methods, American Statistical Association, 473-477.

27. Jiang J, Lahiri P, Wan S**, Wu C.** (2001) Jackknifying in the Fay-Herriot model with an example (with discussions). Proceedings of the Seminar on Funding Opportunity in Survey Research, Council of Professional Associations on Federal Statistics, Arlington, VA, 2001, 75-109.

28. Lahiri, P. and Larsen, M. (2000), Regression analysis with linked data, Proceedings of the Section on Survey Research Methods, American Statistical Association, 11-19.

29. Meza, J.**, Chattopadhyay, M., Lahiri, P. and Tourangeau, R. (1999), Current estimates for sampling on two occasions using two-stage sampling, Bulletin of the International Statistical Institute, 52nd Session.

30. Banerjee, T. and Lahiri, P. (1999), Discussion on three papers [(1) Ballard; (2) Nordbotten and (3) Basu, Burma and Chaudhuri] presented in the invited session on "Information revolution and statistics in developing countries", Bulletin of the International Statistical Institute, 52nd Session, Book 3, 87-88.

31. Chattopadhyay, M., Lahiri, P., Larsen, M. and Reimnitz, J. (1996), Composite estimation of drug prevalences for substate areas, Proceedings of the Annual Research Conference and Technology Interchange, March 1996, 638-658 (Invited paper).

32. Datta, G.S.#, Lahiri, P. and Lu, K.L. (1996), Hierarchical Bayes time series modeling in small area estimation with an application (with discussion by R. Tiller), Proceedings of the Annual Research Conference and Technology Interchange, March 1996, 432-454 (Invited paper).

33. Arora, V.** and Lahiri, P. (1995), On the superiority of the Bayesian method over the BLUP in small area estimation problems, Proceedings of the Survey Methods Section, SSC Annual Meeting, July 1995, 39-45 (Invited Paper).

34. Datta, G.S.# and Lahiri, P. (1992), Composite estimation of unemployment rates for small domains, (1992), Proceedings of the Annual Research conference of the Census Bureau, March 1992, 353-363 (Invited Paper).

35. Lahiri, P. and Wang, W.# (1992), Estimation of all employee links for small domains - an application of empirical Bayes procedure, Proceedings of the Workshop on Statistical issues in Public Policy Analysis, II-32-II-53 (Invited Paper).

Work In Progress

a. Book

Writing a book on Small-area estimation (to be published by the Cambridge University Press)

b. Papers Submitted for Review

1. Vogt, M., Munnich, R. and Lahiri, P. (2019), Spatial Prediction in Small Area Estimation, under revision.

2. Das, S., Basu, A., Lahiri, P. and Sengupta, S. (2019), Nowcasting of state level poverty using Indian Household Consumer Expenditure Survey Data, under revision.

3. Gabler, S., Ganninger, M. and Lahiri, P. (2019), Estimation of small positive intra-cluster correlation, under revision.

Conferences, Workshops, and Talks

Keynote/Plenary Speaker at Professional Meetings:

1. Plenary Special Lecture, International Conference on Strategic Management, "Need for Data Integration and Statistical Modeling for Various Purposes," Decision Theory and Data Science, January 4-6, Kolkata, India. 2020.

2. Plenary Speaker, Current Trends in Survey Statistics, ISI World Statistics Congress Satellite Meeting, Singapore, August 13-16, 2019.

3. Plenary Speaker, International Quantitative Research and Application Conference 2018, Kuching, Malaysia, August 5-8, 2018.

4. Keynote Speaker, Jean Monnet Chair SAMPLEU Workshop on "Small Area Methods and Living Conditions indicators in European Poverty studies in the era of Data deluge and Big Data," Pisa, Italy, May 8-10, 2018.

5. Plenary Speaker, Bayesian Methods and Applications, Calcutta University, India, September, 2017.

6. Keynote address at the International Statistical Institute SAE Satellite Meeting, Paris, July 10-12, 2017.

7. Plenary Invited Speaker, Contemporary Theory and Practice of Survey Sampling: Celebration of Research Contribution of J.N.K. Rao, Kunming, May 24-27, 2017.

8. Keynote Speaker, Fourth Baltic-Nordic Conference on Survey Statistics 17BaNoCoSS-2015, Helsinki, August 24-28, 2015.

9. Plenary Invited Speaker, ISI Satellite Meeting on Small Area Estimation, Santiago, Chile, August, 2015.

10. Plenary Invited Speaker, Recent Advances in Survey Sampling Techniques, Banff, Canada, July25-27, 2014.

11. Keynote Speaker, EUROSTAT Meeting, Brussels, February, 2011.

12. Plenary Speaker, The First international Conference on theory and applications of statistics, Dhaka, December, 2010.

13. Plenary Special Address, The First International Workshop on Surveys for Policy Evaluation sponsored by the International Association of Survey Statisticians (IASS), Natal, Brazil, November, 2009.

14. Keynote Speaker, Third European Small Area Estimation Conference, Elche, Spain, June 29-July 01, 2009.

15. Keynote Speaker, Sixth Annual National Labour Market Information Forum, Fredericton, New Brunswick, Canada, October, 2008.

Invited Speaker/Discussant at Professional Meetings:

1. Invited Speaker, INDSTATS 2019: Innovations in Data and Statistical Sciences, December 26-30, 2019, Mumbai, India.

2. WSS-BLS joint seminar, "Need for Data Integration and Statistical Modeling for Various Purposes," September 26, 2019.

3. Invited Speaker, "Nowcasting of state level poverty using Indian Household Consumer Expenditure Survey Data," 62nd World Statistics Congress, Kuala Lumpur, August 18-23, 2019.

4. Discussant for two invited sessions, 62nd World Statistics Congress, Kuala Lumpur, August 18-23, 2019.

5. Invited Speaker, Tenth International Triennial Calcutta Symposium on Probability & Statistics, Kolkata, India, December 27-30, 2018

6. 2018 International Methodology Symposium, Ottawa, Canada (Two Invited Talks – one on record linkage and the other on Big Data for small area estimation).

7. The 2018 International Workshop on Survey Statistics and Big Data, Nanchang, China, June 20-22, 2018

8. International Statistical Institute 61st World Congress, Marrakech, Morocco, July 16-21, 2017.

9. Discussant for an invited paper session on Big Data at the International Statistical Institute 61st World Congress, Marrakech, Morocco, July 16-21, 2017.

10. Platinum Jubilee International Conference on Applications of Statistics, University of Calcutta, December 21-23, 2016.

11. Discussant of keynote speech by Professor Thomas Louis, SAE 2016.

12. InGRID workshop, Livorno, Italy, June, 2015

13. Statistics and Society in the New Information Ages: Challenges and Opportunities, Colombo, Sri Lanka, December 28-30, 2014.

14. Statistics Workshop, W.B. State University, India, December 16, 2014

15. SAE 2014, September 3-5, Poznan, Poland.

16. International Methodology Symposium, Gatineau, Canada, October 29-31, 2014.

17. ASC-IMS Conference, Sydney, July 7-10, 2014

18. Discussant, JSM Meeting, Boston, August 2-7, 2014.

19. International Conference on Recent advances in Mathematical Statistics and its applications in applied sciences, Guwahati, India, December 31, 2012 -January 2, 2013.

20. Joint Statistical Meeting, San Diego, July 29-Aug 2, 2012 (presented by co-author).

21. 40th Annual Meeting of the Statistical Society of Canada, Guelph, Canada, June 3-6, 2012

22. Fields Institute Symposium on the Analysis of Survey Data and Small Area Estimation in honour of the 75th Birthday of Professor J.N.K. Rao, May 29-June 1, 2012

23. The XIII HSE April International Academic Conference on Economic and Social Development, Moscow, Russia, April 3-5, 2012.

24. 22nd Annual Conference of The International Environmetrics Society, Hyderabad, 2012

25. International Sri Lankan Statistical Conference: Statistical Concepts and Methods for the Modern World, Colombo, Sri Lanka, 2011.

26. The 7th Conference on Survey Sampling in Economic and Social Research, 2011, Katowice, Poland

27. International Statistical Institute Meeting, Dublin, 2011

28. Small Area ISI Satellite Meeting, Trier, Germany, 2011

29. ISA International Conference on Statistics, Probability, Operation Research, Computer Science and Allied areas, Visakhapatam, Andhra Pradesh, India, January, 2010.

30. Annual General Meeting of Advanced Survey Research Centre, India, June, 2010

31. Workshop at the West Bengal State University, India, July, 2010

32. Statistics Canada 2010 Methodology Symposium, entitled Social Statistics: The Interplay among Censuses, Surveys and Administrative Data

33. Seventh International Triennial Calcutta Symposium on Probability and Statistics, Kolkata, India, December, 2009.

34. Second Brazilian School on Sampling and Survey Methodology 17 ESAMP II, Natal, Brazil, November, 2009.

35. Conference on Survey Sampling in Economic and Social Research, Katawice, Poland, September, 2009.

36. Small Area Workshop to be held in Germany, June, 2009.

37. Bayesian Statistics and Survey Statistics, Southampton,UK, August, 2008.

38. Special Invited Speaker, Q2008 conference, Rome, July 2008.

39. International Conference, Indian Statistical Institute, Kolkata, January, 2008.

40. CSA Meeting, December, 2007, Kolkata, India

41. International Statistical Institute Satellite Meeting, Pisa, September 2007

42. International Statistical Institute Meeting, Portugal, August 2007

43. International Statistical Institute Satellite Meeting, Azores, Portugal, August 2007

44. Joint Statistical Meeting (JSM), Salt Lake City, July-August 2007

45. Annual Meeting of the Statistical Society of Canada (SSC), June 2007

46. Invited Expert, European Social Survey - 1st Survey Quality Enhancement Meeting, Mannheim, Germany, January 2007

47. IISA Joint Statistical Meeting, Cochin, India, January 2007

48. JSM, Seattle, August 2006

49. International Sociological Association (ISA) World Congress, Durban, South Africa, July, 2006

50. ENAR, March 2006.

51. International Conference honoring Alastair Scott, April, 2005

52. International Conference on the Future of Statistical Theory, Practice and Education, Dec 29, 2004- January 1, 2005.

53. Workshop in ZUMA, Germany, July, 2004.

54. IMS Meeting, Santiniketan, December, 2003

55. International Conference on *Current Advances in Survey Sampling*, Ottawa, Canada, July, 2002.

56. Annual Conference of the International Environmetrics Society, Genoa, Italy, June, 2002.

57. ENAR Meeting, Arlington, March 2002.

58. FCSM Seminar on the Funding Opportunity in Survey Research, Washington, D.C., June, 2001.

59. Small-Area Conference, April, 2001

60. Fourth International Triennial Calcutta Symposium on Probability and Statistics, University of Calcutta, India, December, 2000.

61. AMS Summer Research Conference, 2000.

62. Joint Statistical Meetings, August, 2000

63. Symposium on Selected Topics in Variance Components, January 21-22, 2000, University of Florida.

64. Indian Science Congress, January 3-8, 2000.

65. Presented two invited papers at the International Statistical Institute Meeting, 1999, Helsinki. Also, a discussant of an invited session.

66. Small Area Estimation Conference, organized by the US Census Bureau, Washington, DC, March, 1998.

67. Annual Meeting of the ASA, Dallas, August, 1998.

68. The 3rd International Triennial Calcutta Symposium, December, 1997.

69. International Conference On Recent Advances in Statistics and Probability, December, 1997, Calcutta.

70. IMS Meeting, Taipei, July, 1997.

71. Eugene Lucas Symposium, Bowling Green, April, 1997.

72. Statistical Research in the 21st Century, Montreal, November, 1996.

73. Annual Research Conference of the U.S. Census Bureau, March 17-21, 1996, Washington, D.C..
74. IMS/SSC Meeting, Montreal, Canada, July 9-13, 1995.
75. Workshop on Statistical Issues in Public Policy Analysis, May 8 and 9, 1992, Ottawa, Canada.
76. UGC Conference on Statistical Inference, Pune, India, June, 1989.
77. Science Congress, Madurai, India, January, 1989.

Seminar/Colloquium Talks:

1. Australian Bureau of Statistics
2. Beijing University, China
3. Bellcore
4. Calcutta University, India
5. Case Western Reserve University
6. Chulalongkorn University, Thailand
7. Biostatistics, Columbia University
8. CORE and Institute De Statistique, Belgium
9. Gallup Organization
10. Department of Statistics, Harvard University, Boston
11. Imperial College, U.K.
12. Institute of Statistical Science at Sinica, Taiwan
13. National Council of Applied Economic Research, India
14. National Health Research Institutes
15. Iowa State University
16. Indian Statistical Institute, Kolkata
17. Kuwait University
18. New York University
19. Oregon State University
20. Penn State University
21. Presidency College, Calcutta
22. Purdue University
23. National Cancer Institute.
24. Jiangxi University of Finance and Economy, Nanchang, China
25. Renmin University, China
26. Sam Houston State University

27. Statistics Canada
28. Statistics Mongolia
29. Statistics New Zealand
30. Statistics Norway
31. Statistics South Africa
32. Temple University
33. Texas A & M University
34. University of Aurangabad, India.
35. University of Auckland, New Zealand
36. University of Bergamo, Italy
37. University of Bologna, Italy
38. University of Cape Town, South Africa
39. University of Chicago
40. University of California, Davis
41. University of Connecticut, Storrs
42. University of Durham, U.K.
43. University of Florida, Gainesville
44. University of Helsinki, Finland
45. University of Maryland Baltimore County
46. University of Maryland, College Park
47. University of Mannheim, Germany
48. University of Southampton, U.K.
49. University of New South Wales. Australia
50. University of Osaka, Japan
51. University of Pisa, Italy
52. University of South Carolina
53. University of Sydney, Australia
54. University of Tokyo, Japan
55. University of Western Cape, South Africa
56. University of Wits, South Africa
57. University of Wollongong, Australia
58. U.S. Bureau of Labor Statistics
59. U.S. Census Bureau

60. Westat
61. West Bengal State University
62. Wharton School, University of Pennsylvania
63. ZUMA (Germany)

Research Related Activities:

1. Visited University of Washington, Seattle, October, 2019.
2. Visited University of Hokkaido, Sapporo, Japan, June, 2019.
3. Visited University of Pisa, Italy, April, 2019.
4. Visited National University of Singapore, 2018
5. Visited Universiti Putra Malaysia, Malaysia, 2018
6. Visited University of Trier, Germany, 2018
7. Visited Jiangxi University of Finance and Economy, Nanchang, China, 2018
8. Visited Statistics Mongolia, 2018
9. Visited Chulalongkorn University, Thailand, 2018
10. Visited University of Pisa, Italy, 2017
11. Visiting Professor, University of Tokyo, September, 2017
12. Visited Statistics Netherlands, August, 2016.
13. Attended South Big Data Hub workshop, 2015.
14. Co-Organizer of an invited session, 57th Session of the International Statistical Institute, Durban, South Africa, August, 2009.
15. Organizer of an invited session, CAPS2008 conference, Hanoi, Vietnam, Nov 30 - Dec 3, 2008.
16. Co-Organizer of an invited session on small area, JSM 2005
17. Co-Organizer of two invited sessions, International Conference on the Future of Statistical Theory, Practice and Education, Dec 29, 2004- January 1, 2005.
18. Organizer of six roundtable luncheons sponsored by ASA's SRMS, JSM 2003, San Francisco.
19. Guest Professor, ZUMA, Mannheim, Germany, for four weeks in summer, 1998 and a week in 2003.
20. Faculty Development Leave, 1995-96 (supported by the University of Nebraska-Lincoln, National Science Foundation, Gallup Organization, Health and Welfare Canada, Indian Institute of Management and the Indian Statistical Institute.) During the sabbatical year I visited the Indian Institute of Management, Indian Statistical Institute, CORE and Institute De Statistique (Belgium), National University of Singapore, University of Auckland, Statistics New Zealand, University of Sydney, University of New South Wales, The Australian Bureau of Statistics, University of Southampton, Imperial College, University of Durham.
21. Chaired an invited session at the IMS/SSC Meeting, Montreal, Canada, July 9-13, 1995.

22. Discussion leader at the round table luncheon on Bayesian methods in small area estimation, Joint Statistical Meetings, Dallas, August, 1998.

23. Visited Dipartimento di Scienze Statistiche "Paolo Fortunati", Bologna, Italy, for a week in summer, 1998. Offered a short course on *Small-Area Estimation*.

24. Gallup Research Professor, 1997-1998.

25. Visited the Department of Economics, the University of Auckland (New Zealand), Nov. 17, 1997 - Dec. 1997.

26. Discussion leader at the round table luncheon on small area estimation, Joint Statistical Meetings, Atlanta, August, 1991. Invited talk sponsored by the Washington Statistical Society, June, 1991 and June, 1995.

27. Discussant (invited), Joint Statistical Meetings, Boston, August, 1992.

28. Chaired an invited session at the International Symposium on Nonparametric Statistics & Related Topics, Ottawa, Canada, May, 1991.

29. Chaired a session at the U.G.C. Seminar on Statistical Inference, Pune, India, June, 1989.

TEACHING, MENTORING AND ADVISING

Courses Taught (1986-present):

Undergraduate Level Courses at the University of Nebraska, Lincoln (UNL):

1. Pre-calculus Introductory Undergraduate Statistics
2. Calculus-based Statistics for Engineers

Graduate and Advanced Undergraduate Level Courses at UNL:

1. Nonparametric Statistics and Sampling
2. Multivariate Statistics and Time Series
3. Mathematical Statistics
4. Regression and Analysis of Variance

Graduate level Courses:

1. Statistical Inference (UNL)
2. Multivariate Analysis (UNL)
3. Bayesian Methods (JPSM & STAT)
4. Applied Multivariate, Categorical Data and Time Series (JPSM)
5. Applied Sampling (JPSM)
6. Sampling Theory (JPSM & STAT)
7. Regression and Analysis of Variance (JPSM)

8. Statistical Analysis with Missing-Data (JPSM)

9. Statistical Data Integration (JPSM)

10. Record Linkage and Disclosure Avoidance (JPSM)

11. Small-Area Estimation (JPSM)

12. Ph.D. Seminar (JPSM, co-taught with Professor Robert Groves for eight years)

Advising

Postdoctoral Fellows supervised (with current employment):

1. Daniel Bonnéry; Current Employment: Cambridge University, U.K.

2. Tapabrata Maiti; Current Employment: Full Professor and Graduate Director, Department of Statistics and Probability, Michigan State University, East Lansing.

3. Gauri Sankar Datta; Current Employment: Full Professor, Department of Statistics, University of Georgia, Athens.

4. Wenyu Wang; Current Employment: Adjunct Faculty, University of Oklahoma.

Doctoral:
Completed dissertations (23) supervised or co-supervised (with current employment of student):

Completed dissertations supervised in 2020:

1. William Waldron, 2020, Mathematical Statistics Program, UMCP
   Title of Dissertation:
   Generalized observed best prediction with empirical Bayes parametric bootstrap model selection and diagnostic.
   Employment History: neilsen Company; *Current Employment:* US Census Bureau.

Students working in Academia

1. Judith Law, May, 2018, Applied Mathematics & Statistics, and Scientific Computing Program, UMCP
   Title of Dissertation: Estimation of a Function of a Large Covariance Matrix Using Classical and Bayesian Methods.
   Employment History: Postdoctoral Fellow, Harvard Medical School; *Current Employment:* University of Colorado, Department of Mathematics; Associate Director, MS Program in Applied Mathematics.

2. Masayo Yoshimori, 2014 (University of Osaka, Japan; Advisors: Yutaka Kano, University of Osaka, Japan, and Partha Lahiri
   Title of Dissertation: An Empirical Best Linear Unbiased Predictor in Small Area Estimation via Adjusted Maximum Likelihood Method
   Employment History: Assistant Professor, Institute of Statistical Mathematics, Tokyo, Japan; *Current Employment:* Assitant Professor, Division of Advanced Mathematics Technology, Institute of Mathematics for Industry, Kyushu University, Japan

3. Jan Pablo Burgard, 2013 (University of Trier, Germany; Advisors: Ralf Munnich, University of Trier, Germany, and Partha Lahiri)
   Title of Dissertation: Evaluation of Small Area Techniques for Applications in Official Statistics
   Current Employment: Akademischer Oberrat (Assistant Professor with tenure), University of Trier, Germany.

4. Martin Vogt, 2011 (University of Trier, Germany; Advisors: Ralf Munnich, University of Trier, Germany, and Partha Lahiri)
   Title of Dissertation: Bayesian spatial modeling: propriety and applications to small area estimation with focus on the German census 2011
   Current Position: Professor for Business Intelligence, University of Applied Sciences, Trier, Germany.

5. Huilin Li, 2007, Mathematical Statistics Program, UMCP
   Title of Dissertation: Small area estimation: an empirical best linear unbiased prediction approach
   Employment History: Postdoctoral Associate, National Cancer Institute; *Current Employment:* Associate Professor, Division of Biostatistics, Department of Population Health, School of Medicine, New York University.

6. Yan Li, 2006, Joint Program in Survey Methodology
   Title of Dissertation: Analysis of complex survey data using robust model-based and model-assisted methods
   Employment History: Postdoctoral Associate, National Cancer Institute; *Current Employment:* Full Professor, JPSM, University of Maryland, College Park.

7. Paul Hinrichs, 2003, Department of Mathematics & Statistics, University of Nebraska-Lincoln
   Title of Dissertation: Consumer expenditure estimation incorporating generalized variance functions in hierarchical Bayes models
   Current Employment: Full Professor of Mathematics & Dean of Arts and Sciences, Peru State College, Nebraska.

8. Jane L. Meza, 2000, Department of Mathematics & Statistics, University of Nebraska-Lincoln
   Title of Dissertation: Resampling methods in small area estimation and disease mapping
   Current Employment: Associate Vice Chancellor for Global Engagement and Full Professor of Biostatistics, College of Public Health, University of Nebraska Medical Center, Omaha.

9. Shu-Mei Wan, 1999, Department of Mathematics & Statistics, University of Nebraska-Lincoln
   Title of Dissertation: Jackknife methods in small-area estimation and related problems
   Current Employment: Associate Professor, Department of Finance , Lunghwa University of Science and Technology , Taiwan, Republic of China.

10. Chien-Hua Wu, 1998, Department of Mathematics & Statistics, University of Nebraska-Lincoln
    Title of Dissertation: On a test for multivariate normality and on certain statistical procedures for complex surveys
    Current Employment: Full Professor, Department of Applied Mathematics, Chung Yuan Christian University, Taiwan, Republic of China.

11. Ferry Butar Butar, 1997, Department of Mathematics & Statistics, University of Nebraska-Lincoln
    Title of Dissertation: Empirical Bayes methods in survey sampling
    Current Employment: Full Professor, Department of Mathematics and Statistics, Sam Houston State University, Texas.

Students working in government agencies

1. Julie Borisovna Gershunskaya, 2011, Joint Program in Survey Methodology
   Title of Dissertation: Treatment of influential observations in the Current Employment Statistics survey
   Current Employment: Mathematical Statistician, U.S. Bureau of Labor Statistics.

2. Benmei Liu, 2009, Joint Program in Survey Methodology
   Title of Dissertation: Hierarchical Bayes Estimation and Empirical Best Prediction of Small-Area Proportions
   Employment History: Westat; *Current Employment:* Mathematical Statistician, National Cancer Institute.

Students working in non-profit organizations

1. Taylor Lewis, 2014, Joint Program in Survey Methodology (Advisors: Frauke Kreuter and Partha Lahiri)
   Title of Dissertation: Testing for Phase Capacity in Surveys with Multiple Waves of Nonrespondent Follow-Up
   Current Employment: Senior Research Statistician, Research Triangle Institute International and Adjunct Faculty, Department of Statistics, George Mason University.

2. Santanu Pramanik, 2008, Joint Program in Survey Methodology
   Title of Dissertation: The Bayesian and approximate Bayesian methods in small area estimation
   Current Employment: Fellow, National Council of Applied Economic Research (NCAER), India & Deputy Director, NCAER-National Data Innovation Centre (funded by Bill & Melinda Gates Foundation)

3. Nadarajasundaram Ganesh, 2007, Mathematical Statistics Program, UMCP (Advisors: Partha Lahiri and Eric Slud)
   Title of Dissertation: Small area estimation and prediction problems: spatial models, Bayesian multiple comparisons, and robust MSE estimation
   Current Employment: Senior Statistician, Statistics and Methodology, NORC at the University of Chicago.

4. Kennon R. Copeland, 2004, Joint Program in Survey Methodology
   Title of Dissertation: Panel survey estimation in the presence of late reporting and nonresponse
   Current Employment: Senior Fellow (formerly Senior Vice President and Director, Statistics and Methodology), NORC at the University of Chicago.

Students working in pharmaceutical industry

1. Zhenyi Xue, 2015, Applied Mathematics & Statistics, and Scientific Computing Program, UMCP, Advisors: Partha Lahiri and Yan Li)
   Title of Dissertation: Bayesian estimation of the inbreeding coefficient for single nucleotide polymorphism using complex survey data
   Current Employment: Associate Director, Statistics, Abbvie.

2. Shijie Chen, 2001, Department of Mathematics & Statistics, University of Nebraska-Lincoln
   Title of Dissertation: Empirical best prediction and hierarchical Bayes methods in small-area estimation
   Current Employment: Associate Director of Biostatistics, PTC Therapeutics, Inc.

3. Vipin Arora, 1994, Department of Mathematics & Statistics, University of Nebraska-Lincoln
   Title of Dissertation: Empirical Bayes and hierarchical Bayes estimation of small area characteristics
   Current Employment: Senior Research Advisor at Eli Lilly and Company.

Students working in other private organizations

1. Ying Han, August, 2018, Mathematical Statistics Program, UMCP
   Title of Dissertation: Statistical Inference Using Data From Multiple Files Combined Through Record Linkage
   Current Employment: Gallup Organization

2. Lijuan Cao, August, 2018, Mathematical Statistics Program, UMCP
   Title of Dissertation: Adjustment for density method to estimate random effects in hierarchical Bayes model *Current Employment:* Senior Consultant, Tiandao Education Group, China.

3. Neungsoo Ha, 2013, Applied Mathematics & Statistics, and Scientific Computing Program, UMCP
   Title of Dissertation: Hierarchical Bayesian estimation of small area means using complex survey data
   Current Employment: Data Scientist, nielsen.

Current doctoral research being supervised

1. Dilhanie Deepawansa, current student of the University of Colombo, Sri Lanka (Co-advisor). Her dissertation title: "Nature and Magnitude of Poverty in Uva province in Sri Lanka: A Multidimensional Approach."

2. Natalia Tchetcherina, current student, Applied Mathematics & Statistics, and Scientific Computing Program, UMCP

3. Soumojit Das, current student, Applied Mathematics & Statistics, and Scientific Computing Program, UMCP

4. Jonathan Mendelson, current student, JPSM, UMCP (Co-advisor).

Doctoral Committee Memberships

I served on the Supervisory Committees of several Ph.D. students, including students from Electrical Engineering, Management, Accounting, Civil and Environmental Engineering, and Nutrition.

Other Graduate Student Advisees

As the Director of the University of Nebraska-Lincoln Division of Statistics, I advised all Statistics majors during 1993-2001.
At JPSM, I supervised many Master students.

Professional and Extension Education

Short Course/Workshop:

1. Instructor, Two-day short course on Data Linkages, March 9-10, 2010, Washington DC.

2. Instructor, Second Statistical Analysis of Disaggregated SDG Indicators for Inclusive Development Policies, Chiba, Japan, June 3-July 12, 2019, UN-SIAP.

3. Instructor, Two-day short course on Big Data for Small Areas, Universiti Putra Malaysia, Malaysia, August 13-14, 2018.

4. Instructor, half-day short course on Statistical Data Integration, International Quantitative Research and Application Conference 2018, Kuching, Malaysia, August 5-8, 2018.

5. Instructor, half-day short course on small area estimation, Shanghai, China, June 14, 2018.

6. Instructor, half-day short course on nonprobability sampling and Big data, Oslo, Norway, January 29, 2018.

7. Instructor, Two-day short course on statistical data integration, ISTAT, Rome, November 20-21, 2017.

8. Instructor, One-day short course on small area estimation, Deagu, South Korea, July, 2016.
9. Instructor, half-day short course on Big data for Small Area Estimation, American Association for Public Opinion Research (AAPOR) Meeting, Austin, May, 2016.
10. Instructor, two-day short course on small area estimation, ISI Meeting, July, 2015.
11. Instructor, two-day workshop on small area estimation, University of Limpopo, South Africa, May, 2015.
12. Instructor, two-day workshop on sample surveys, Universiti Putra Malaysia, Malaysia, July, 2012.
13. Instructor, two-day workshop on small area estimation, Institute of Employment Research, Nürnberg, Germany, May, 2012.
14. Instructor, two-day workshop on sample surveys and small area estimation, Ministry of Health, Singapore, January, 2012.
15. Instructor, week-long workshop on poverty mapping, Santiago, Chile (supported by UNDP), May, 2011.
16. Instructor, ECAS course on Small Area Statistics, August, 2011.
17. Instructor, American Statistical Association Webinar on small area estimation, 2010.
18. Instructor, week-long training course on small area estimation for the employees of Instituto Brasileiro de Geografia e Estatistica (IBGE), Rio de Janeiro, Brasil, November, 2009.
19. Instructor, one-day training course on small area estimation for Executives of Chinese Government, organized by George Washington University, August, 2009 and July, 2011.
20. Instructor, one-day training course on small area estimation, Q2008, Rome, July, 2008.
21. Instructor, two-day workshop on small area estimation, Imperial College, London, February, 2008.
22. Instruction, one-day short course on Applied Sampling, sponsored by American Statistical Association, 2008.
23. Instructor, one-day short course, Small Area Estimation, 2007, (ISI Satellite Meeting), Pisa, Italy, September 2007.
24. Instructor, one-day short course on small area estimation, Joint Statistical Meetings, Seattle, August 2006.
25. Instructor, two-day short course on small area estimation, Joint Program in Survey Methodology, November, 2001; May 2006.
26. Instructor, two-day workshop on small area estimation, March 2005, ZUMA, Mannheim, Germany.
27. Course Director, United Nations two-week country course on small area estimation, Manila, The Philippines, July, 2004.
28. Instructor, a week long short course on small area estimation, University of Michigan, Ann Arbor, June, 2000 and July, 2002.
29. Instructor, two-day short course on small area estimation, Dipartimento di Scienze Statistiche "Paolo Fortunati", Bologna, Italy, Summer, 1998; June 2002.
30. Lecture series, Case Western Reserve University, June, 2001.
31. Instructor, one-day short course on small area estimation, United States Postal Service, April, 2000.

SERVICE AND OUTREACH

Editorships, Editorial Boards, and Reviewing Activities

a. Editorships and Editorial Boards:

1. Guest Editor-in-Chief, Statistics in Transition New Series, special issue on statistical data integration.
2. Board of Scientific Advisors, Statistics in Transition New Series, August, 2019-present.
3. Guest Editor, Journal of the Royal Statistical Society, Series A, special issue on small area estimation
4. Associate Editor, Survey Methodology, 1999-
5. Associate Editor Metron, 2007-2017.
6. Served as Co-Editor Sankhya two times.
7. Associate Editor, Calcutta Statistical Association Bulletin.
8. Associate Editor, Special issue of Statistical Science, May, 2011.
9. Associate Editor, Journal of the American Statistical Association, 2006-2009.
10. Guest Editor, Journal of Statistical Planning and Inference, Vol 112, nos. 1-2, 2003.
11. Editor, IMS Lecture Notes/Monograph on Model Selection, Volume 38, 2001.
12. Guest Editor, Sankhya, Series B, Vol. 61, 1999.

b. Journal Referee/Reviewer for:

1. Annals of Statistics
2. Annals of the Institute of Statistical Mathematics
3. Biometrika
4. Australian and New Zealand Journal of Statistics
5. Canadian Journal of Statistics
6. Communications in Statistics
7. Journal of the American Statistical Association
8. Journal of Statistical Computation and Simulation
9. The American Statistician
10. Journal of the Royal Statistical Society
11. Journal of Statistical Planning and Inference
12. Journal of Multivariate Analysis
13. Metrika
14. Metron

15. Official Statistics
16. Sankhya
17. Survey Methodology
18. Statistics and Medicine
19. Statistica Sinica
20. Statistics and Probability Letters
21. Statistics
22. NSF and NCERC research proposals

Committees, Professional & Campus Service

Campus Service - Department

1. Teaching Planning Committee, JPSM, 2019-
2. CADM Executive Director Search Committee, 2019.
3. Chair, APT Committee, 2018
4. Director of Graduate Studies, JPSM, 2011-2013
5. Chair, APT Committee, 2013
6. Member, Admission Committee (several years)
7. Member of UNL Department's Executive Committee, Graduate Examination Committee, Research Advisory Committee, Curriculum Committee, Statistics Search Committee, 1989-90 and 1992-93; Chair, Statistics Search Committee, 1997-98, 1998-99, UNL
8. Director (1993-2001), UNL Division of Statistics: worked with the Chair on matters related to statistics program, worked with the Graduate Chair on graduate admissions, worked with the Vice Chair on statistics course offerings and teaching assignments. Served as the department's statistics representative on the campus.
9. Served as a chair and member of several Search Committees at UNL.

Campus Service - College

1. College APT Committee, 2018-

Campus Service - University

1. Senator, University of Maryland, College Park, Senate
2. Served as a member of the Advisory Board for the UNL Gallup Research Center, UNL.
3. Served as a member of the Committee to establish the M.S. Program in Survey Research, UNL. 2008-2011.

Leadership Roles in Meetings and Conferences

1. Chair, Advisory Board, SAE2020: A Conference on Big Data for Small Area Estimation, Naples, Italy, July 6-8, 2020 (postponed because of coronavirus outbreak).

2. Member, Program Committee, First NCAER International Conference on Survey Methodology, New Delhi, India, June 10-11, 2020 (postponed because of coronavirus outbreak)

3. Co-organizer, Small Area Data Analytics, March 30-April 3, 2020, University of Maryland, College Park (postponed because of coronavirus outbreak).

4. Member, Scientific Committee, International Conference on Strategic Management, Decision Theory and Data Science, Kolkata, India, January 4-6, 2020.

5. Chair, Advisory Board, ISI World Statistics Congress Satellite Conference on Current Trends in Survey Statistics, August 13-16, 2019, co-sponsored by the Institute of Mathematical Sciences (IMS) and supported by International Association of Survey Statisticians (IASS).

6. Member, Advisory Board, Institute of Mathematical Sciences (IMS) Workshop on Statistical Data Integration, National University of Singapore, August 5-8, 2019.

7. Vice Chairperson, Tenth International Triennial Calcutta Symposium on Probability & Statistics, December 27-30, 2018.

8. Chair, Advisory Board, 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, Shanghai, China.

9. Member, Advisory Board, International Statistical Institute Satellite Meeting on Small Area Estimation, July 10-12, 2017.

10. Member, Scientific Committee, SAE 2016, Maastricht, Netherlands, August 17-19, 2016.

11. Chair, Advisory Board, International Statistical Institute Satellite Meeting on Small Area Estimation, August 3-5, 2015.

12. Chair, Local Organizing Committee, and Member, Scientific Committee, Frontiers of hierarchical modeling in observational studies, complex surveys and big data: a conference honoring Professor Malay Ghosh, College Park, May 29-31, 2014.

13. Co-chair, International Statistical Institute (ISI)- International Association of Survey Statistician (IASS) Satellite Meeting on Small Area Estimation, Bangkok, Sept, 2013.

14. Co-Organizer, Workshop on *Bayesian Methods that Frequentists Should Know*, University of Maryland, College Park, April 30- May 1, 2008. The workshop was co-sponsored by the UMD Statistics Consortium, Institute of Mathematical Statistics, SRMS, WSS and the National Center for Health Statistics.

15. SRMS Representative, IBR/ENAR/IMS Annual Meeting, Tampa, March 2006.

16. Member, International Organizing Committee, International Conference on the Future of Statistical Theory, Practice and Education, Dec 29, 2004- January 1, 2005.

17. Program Chair, Survey Research Section of the ASA for the 2004 JSM meeting.

18. Chair of the Scientific Advisory Committee, IMS/SRMS Joint Mini Meeting, Calcutta, January 2-3, 2004.

19. Member, ASA's SRMS/Govt. Section/Social Science Section Student Paper Competition, 2004.

20. Acted as the Advisor to the Organizer (Dr. Stephen Woodruff, United States Postal Service), 2001 Small-Area Estimation Conference.

21. Organizer, Workshop on Statistical Genetics, Lincoln, October 1-2, 2001.

22. Organizer, Symposium on Model Selection, Empirical Bayes and Related Topics, March 24-26, 1999.

23. Co-Organizer, Workshop on Small-Area Estimation and Analysis of Complex Survey Data, Lincoln, September 9-10, 1998.

24. Organizer of the conference on "Current Topics in Survey Sampling," October 24-26, 1997. More than 150 participants from around the world participated in the conference.

25. President, Nebraska Chapter of the American Statistical Association, 1993-94.

26. Vice President, Nebraska Chapter of the American Statistical Association, 1992-93.

Other Non-University Committees, Memberships, Panels, etc.

1. Washington Statistical Society (WSS) Committee for selection of annual Hansen lecturer, 2018-

2. Member, Small Area Estimation (SAE) Expert Panel Meeting for the Programme for the International Assessment of Adult Competencies (PIAAC). The meeting was organized by the U.S. Department of Education's National Center for Education Statistics (NCES) and Westat to prepare for the upcoming production of indirect county-level estimates of adult literacy for the United States, December, 2017.

3. Advisory Committee on Continuing Education (ACCE) Committee of ASA, 2010-2016

4. Statistical Partnerships Among Academe, Industry, and Government (SPAIG) Committee of the American Statistical Association, 2011-2013

5. Member, U.S. National Academy of Science Panel on Estimating Children Eligibility for School Nutrition Programs Using the American Community Survey, 2009-2011

6. Advised German researchers to improve the 2011 German Census.

7. Member, Institute of Educational Sciences Panel on Statistics and Modeling Education Research, 2009.

8. Invited Expert, European Social Survey - 1st Survey Quality Enhancement Meeting, Mannheim, Germany, January 2007

9. Member, ASA Edward C. Bryant Scholarship Committee, 2001-2006; Vice Chair, 2006.

10. ASA Census Advisory Committee, 2002-2007; Chair, 2006.

11. Served as a panel member for Texas Board of Higher Education

12. Served as a panel member for a Research Triangle Institute program.

External Service and Consulting

Consulting/Advising Activities:

1. United Nations Statistical Institute for Asia and the Pacific

2. United Nations Development Programme (UNDP)

3. The World Bank

4. U.S. Census Bureau

5. U.S. Postal Service
6. ZUMA/GESIS (Germany)
7. Gallup Organization
8. Research Triangle Institute
9. WESTAT.
10. Ministerio de Desarrollo Social

Professional Society Memberships:

1. Institute of Mathematical Statistics
2. American Statistical Association
3. International Statistical Institute
4. Indian Society for Probability and Statistics
5. International Indian Statistical Association
6. American Association for Advancement of Science (AAAS)