

## FACULTY RESUME

### ***NAIRANJANA (JAN) DASGUPTA***

*Fellow, American Statistical Association*

*Boeing Distinguished Professor of Mathematics and Science Education*

*President Caucus for Women in Statistics*

*Advisory Board, Academic Data Science Alliance (ADSA)*

*Chair, JEDI Western North American Region International Biometric Society*

Director, Program in Data Analytics

Data Science Fellow, Office of Research

Professor, Department of Mathematics and Statistics

Washington State University (WSU)

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## EDUCATION

University of South Carolina (USC), Columbia, SC, January 1995 through August 1996.

- Earned Ph. D in Statistics, **August 1996** (Advisor: *John Spurrier*)
- Dissertation title: Comparison to control in logistic regression.

University of South Carolina (USC), Columbia, SC, August 1991 through December 1994.

- Earned M.S in Statistics, **December 1994** (Advisor: *Stephen Durham*)
- Thesis title: Hyperfinite Probability.

Presidency College, Calcutta, India, September 1987 through September 1990.

- Earned Bachelor of Sciences (with Honors) in Statistics with Minors in Mathematics and Economics, **September 1990**
- Rank 1<sup>st</sup> class 2<sup>nd</sup> in Calcutta University

## PROFESSIONAL EXPERIENCE

Date	Title	Unit	Employer
2020-	<i>Director, Data Analytics</i>	College of Arts and Sciences	WSU
2017-	<i>Boeing Distinguished Professor of Math and Science Education</i>	College of Arts and Sciences	WSU
2016-2018	<i>Affiliate Faculty</i>	Community Health Analytics Initiative	WSU
2015-2019	<i>Director, CISER</i>	Center of Interdisciplinary Statistics Education and Research	WSU
2014-	<i>Affiliate Faculty</i>	Bioinformatics and Computational Biology	WSU
2008-	<i>Professor</i>	Department of Statistics <sup>1</sup>	WSU
2002-2007	<i>Associate Professor</i>	Department of Statistics	WSU
1996-2002	<i>Assistant Professor</i>	Program in Statistics	WSU
1991-1996	<i>Graduate Teaching Assistant</i>	Department of Statistics	USC

<sup>1</sup> Currently: Department of Mathematics and Statistics

## SCHOLARSHIP

### PUBLICATIONS LIST in Refereed Journals (appeared/ accepted)

(\*: indicates primary author)

1. Dasgupta, N. (2021). *Skewed Distributions in Data Science* (1st ed., vol. 35, pp. 51-55). <https://doi.org/10.1080/09332480.2022.2039034>
- 2.
3. \*Li, Y., Liu, H., Dasgupta, N., 2021 “Binary Dynamic Logit for Correlated Ordinal (BDLCO): Estimation, Application and Simulation”, *Journal of Applied Statistics*, DOI <https://doi.org/10.1080/02664763.2021.1906849>.
4. Mitra, I., Bose, S., Dernel, W., Dasgupta N., Eckstrand C., Herrick, J., Yaszemski, Stuart B. Goodman, M.J., and Bandyopadhyay, A., , “3D Printing in alloy design to improve biocompatibility in metallic implants,” *Materials Today*, January 2021. <https://doi.org/10.1016/j.mattod.2020.11.021>
5. Sanclemente Lopez, J.L, Dasgupta, N.; Sanz M. 2020. Plasma lipidome of healthy and *Rhodococcus-equi* -infected foals over time - A pilot study. *Equine Veterinary Journal*. (accepted 2020)

6. Bandyopadhyay, A.; Shivaram A.; Mitra, I.; Dasgupta, N.; Bose, S. 2019., Direct comparison of additively manufactured porous Titanium and Tantalum implants towards in vivo osseointegration, *Adaptive Manufacturing*, 28, 259-266.
7. Nolazco Sassot, L.; Villarino, N.; Morrison, J.; Dasgupta, N.; Bayly, W.; Gang, D.; Sanz, M. 2019. The lipidome of Thoroughbred racehorses before and after supramaximal exercise. A pilot study. *Equine Veterinary Journal*. 51 (2019) 696–700
8. Morrison, J., Dasgupta, N., 2018., High School Students' Perceived Barriers to Higher Education in Central, Western, and Southern Belize *Journal of Education and Development in the Caribbean*, Vol. 17 No. 2, 2018
9. Garton, W.J., M. Mazzola, N. Dasgupta, T.R. Alexander and C.A. Miles. 2018. Evaluation of canker excision in combination with cauterization and/or fungicides for the management of anthracnose canker on cider apple trees in western Washington. *HortTechnology* 28 (6) 728-736.
10. Ashari, Z.A., Dasgupta, N., Kelly A. Brayton, K.A., Broschat, S.L., 2018. An optimal set of features for predicting type IV secretion system effector proteins for a subset of species based on a multi-level feature selection approach., *PLOS ONE Journal*, 2018, 13, e0197041. (doi.org/10.1371/journal.pone.0197041.)
11. Yeh, M. M., Boukhar, S., Roberts, B., Dasgupta, N., & Daoud, S. S. (2017). Genomic variants link to hepatitis C racial disparities. *Oncotarget*, 8:59455-59475. <https://doi.org/10.18632/oncotarget.19755>
12. Chaves, N., Salazar M. R., Schmidt, T., Dasgupta, N., & Hoogenboom, G. (2017). Modeling fruit growth of apple. *Acta Horti*, 1160. ISHS 2017. DOI 10.17660/ActaHortic.2017.1160.29.
13. Chaves, N., Salazar M. R., Schmidt, T., Dasgupta, N., & Hoogenboom, G. (2017). Modeling apple bloom phenology. *Acta Horti*, 1160. ISHS 2017. DOI 10.17660/ActaHortic.2017.1160.48.
14. \*Dasgupta, N., Lazar, N. A., & Genz, A. C. (2016). A look at multiplicity through misclassification. *Sankhya*, 98 (1), 98-116.
15. Sutradhar, B. C., and Dasgupta, N. (2016). Dynamic Models for Longitudinal Ordinal Non-stationary Categorical Data. In “ISS-2012 Proceedings Volume on Advances and Challenges in Parametric and Semi-parametric Analysis for Correlated Data” ed. B. C. Sutradhar. Springer Lecture Notes in Statistics. 169-198.
16. Doherty, M. C., McGuire, M., Beerman, K. A., Dasgupta, N., Ahmadzadeh, A., & McGuire, M. K. (2015). Loss of body fat and higher milk fat in early lactation are associated with

shorter duration of postpartum anovulation in women. *Journal of Human Lactation*, pp1-12. (DOI: 10.1177/0890334414565794)

17. \*Dasgupta, N., Zhang, R., & Schmidt, T. (2015). Significance Testing of Alternate Bearing in "Granny Smith" apples. *Advances and Applications in Statistics*, 45 (1) 29-44.
18. Zekri, A. N., Bahnassy, A. A., Shoeab, F. E., Mohamed, W. S., Sabry, G. M., Dasgupta, N., & Daoud, S. S. (2014). Aberrant Methylation Patterns of Multiple Tumor Suppressor Genes in Hepatitis C Virus Genotype-4-Associated Hepatocellular Carcinoma: Prognostic and Predictive value. *Journal of Advanced Research*, 5, 27-40.
19. \*Dasgupta, N., Chen, Y. O., Kalyanaraman, A., & Daoud, S. S. (2013). Comparing clustering algorithms: An example with proteomic data. *Advances and Applications in Statistics*, 33(1) 63-81.
20. Morris, C. F., Fuerst, E. P., Dasgupta, N., & McLean, D. J. (2013). Optimizing experimental design using the house mouse (*Mus musculus* L.) as a model for determining grain feeding preferences. *Journal of Food Sciences*, 78 (10), 1614-1620.
21. \*Dasgupta, N., Chen, Y., Basu, R., & Daoud, S. S. (2013). An Application of Unsupervised Learning Methods to Proteomic Data from Colon Cancer. *Contemporary topics in mathematics and statistics with applications*, Vol 1 Ch 9, pp 170-184, Asian Books, New Delhi.
22. \*Dasgupta, N., & Sutradhar, B., & Yang, L. (2012). Many to one comparisons in a longitudinal binary data set up. *Sankhya B*, 74(2) 268-285.
23. \*Dasgupta, N., & Shaffer, M. (2012, accepted). Many to one comparison for non-linear growth curves for apple growth. *Journal of Applied Statistics*, 39(8) 1781-1795.
24. Ritzenthaler, K. L., McGuire, M. K., McGuire, M. A., Shahin, A. M., Shultz, T. D., & Dasgupta, N. (2012). Dietary intake of conjugated linoleic acid (CLA) correlates with its concentration in plasma lipid fractions of men but not women. *Journal of Nutrition*, 142(9) 1645-1651.
25. Yunfei Li, Ka-sum Lam, Dasgupta, N., & Ping Ye (2011). A Yeast's Eye View of Mammalian Reproduction: Cross-species Gene Co-expression in Meiotic Prophase. *BMC Systems Biology*, 4(1) 125.
26. Tollefson, T. N., Shipley, L., Myers, W. L., & Dasgupta, N. (2011). Forage Quality Influence on Mule Deer Fawns. *The Journal of Wildlife Management*. 75(4) 919-928.
27. \*Dasgupta, N., Solorzano, E., Tong, T., (2010). Comparing multiple test Treatments to Both Positive and Negative Controls. *Journal of Statistical Planning and Inference*, 140, 180-188

28. Johnson, H. D., Dasgupta, N., Zhang, H., & Evans, M. A. (2010). Internet Approach versus Lecture and Lab Based Approach for Teaching an Introductory Statistical Methods Course: Students' Opinions. *Teaching Statistics* 31(1), 21-26.
29. Tollefson, T. N., Shipley, L., Myers, W. L., Keisler, D. H., & Dasgupta, N. (2010). The influence of summer and autumn nutrition on body condition and reproduction in lactating mule deer. *The Journal of Wildlife Management*. 74(5) 974-986.
30. Das B., Chen C., Dasgupta, N., Cook, D. J., & Seele, A. M. (2010). Automated Prompting in a Smart Home Environment. *DMS2010 IEEE Computer Society Press*, 1045-1052.
31. \*Dasgupta, N., Jacroux, M. A., & SahaRay, R. (2010). Partially Replicated Fractional Factorial Designs. *Metrika*, 71, 295-311.
32. \*Dasgupta, N. (2009). A and D-optimal allocations in a multipoint grouped logit experiment. *Advances in Applied Statistics*. 12(2) 145-162.
33. \*Dasgupta, N., & SahaRay, R. (2007). Optimal Allocation for comparing k Test Treatments to Positive and Negative Control with unequal weighting under A-optimality and MV-optimality. *Metrika*, 65(1) 83-92.
34. D. L. Traul, H. Li, N. Dasgupta, D. O'Toole, J. A. Eldridge, T. E. Besser, & C. J. Davies. (2007). Resistance to malignant catarrhal fever in *Bison bison* is associated with MHC class IIa polymorphism. *Animal Genetics*, 38, 141-147.
35. \*Dasgupta, N., Solorzano, E., & Lazar, N. A. (2006). Using Numerical Methods to Find the Least Favorable Configuration when Comparing k Test Treatments to Both Positive and Negative Controls. *Journal of Statistical Computation and Simulations*, 76(3): 251-265.
36. Wold, L., Martinez, E. A., B. Moore, J. Schaumloffel, & N. Dasgupta. (2006). Growth and morphological responses in *Chironomus tentans* to arsenic exposure. *Archives of Environmental Contamination and Toxicology*, 51(4) 529-536.
37. \*Johnson, H. D., & Dasgupta, N. (2005). Traditional versus Non-traditional teaching: Perspectives of Students in Introductory Statistics Classes. *Journal of Statistics Education*, 13(5).
38. Wold, L. A., Moore, B. C., & Dasgupta, N. (2005). Life-history responses of *Daphnia pulex* with exposure to aluminum sulfate. *Lake and Reservoir Management*, 21(4) 383-390.
39. Anderson, N. K., Beerman, K. A., McGuire, M. A., Dasgupta N., Griinari, J. N., Williams, J., & McGuire, M. K., (2005). Trans Fatty Acid Intake and Maternal Adiposity Interact to Influence Human Milk Fat. *Journal of Nutrition*, 135(3): 416-21.
40. Kristin L. Ritzenthaler, Michelle K. McGuire, Mark A. McGuire, Terry D. Shultz, Alfred E. Koepp, Lloyd O. Luedecke, Travis W. Hanson, Nairanjana Dasgupta, & Boon P. Chew.

- (2005). Consumption of Conjugated Linoleic Acid (CLA) from CLA-Enriched Cheese Does Not Alter Milk Fat or Immunity in Lactating Women. *Journal of Nutrition*, 135(3): 422-430.
41. Porter, L. D., Dasgupta, N., & Johnson, D. A. (2005). Effects of tuber depth and soil moisture on infection of potato tubers in soil by *Phytophthora infestans*. *Plant Dis*, 89:146-152.
  42. Martinez, E., Moore, B., Schaumloffel, J., & Dasgupta N., (2004). Effects of exposure to a combination of Zinc and Lead spiked sediments on moult development and growth in *Chironomus tentans* (Diptera: Chironomidae). *Environmental Toxicology and Chemistry* 23(3):662-667.
  43. Martinez, E. A., B. Moore, J. Schaumloffel, & N. Dasgupta. (2004). Teratogenic vs. mutagenic abnormalities in chironomid larvae exposed to Zn and Pb. *Archives of Environmental Contamination and Toxicology*, 47(2): 193-198.
  44. Nunes M.C.S., Vasconcelos M.J.P., Pereira J. M. C., Dasgupta N., Alldredge R. J., & Rego F. C. (2004). Land cover type and fire in Portugal. Do fires burn land cover selectively? *Landscape Ecology*, Kluwer Academic Publishers. 20(6): 661-673.
  45. Martinez, E.A., B. Moore, J. Schaumloffel, & N. Dasgupta. (2003). Morphological abnormalities in *Chironomus tentans* exposed to cadmium and copper spiked sediments. *Ecotoxicology and Environmental Safety*, 55:204-212.
  46. \*Alldredge J. R., & Dasgupta N. (2003). Multiple comparison in resource Selection using Logistic regression. *Journal of Agricultural, Biological and Environmental Statistics*, 8(3) pp356-366.
  47. Martinez, E., Moore, B., Schaumloffel, J., & Dasgupta N. (2002). The potential association between menta deformities and trace elements in Chironomidae (Diptera) taken from a heavy metal contaminated river. *Archives of Environmental Contamination and Toxicology*, 42(3): 286-291.
  48. Masad, E., Jandhyala, V. K., Dasgupta, N., Somedavan, N., & Shashidhar, N. (2002). Modeling of air void distribution in asphalt mixes by a means of x-ray computed tomography *Journal of Materials in Civil Engineering* March/April 122-129.
  49. \*Dasgupta, N., & Alldredge, J. R. (2002). A single-step method for identifying individual resources. *Journal of Agricultural, Biological and Environmental Statistics*, 7(2) 208-220.
  50. Masters, N., Mcguire, M. A., Beerman, K. A., Dasgupta, N., & McGuire M. K. (2002). Maternal supplementation with conjugated linoleic acid decreases milk fat in humans. *Lipids*, 37 (2) 133-138.
  51. \*Dasgupta, N., & Chen, G. (2002). Some robustness issues for in comparing multiple logistic regression slopes to a control for small samples. *Journal of Statistical Computation and*

*Simulation*, **72** (12) 925-935.

52. Sunseri, M. A., Johnson, D. A., & Dasgupta, N. (2002). Survival of detached sporangia of *Phytophthora infestans* exposed to ambient conditions. *American Journal of Potato Research*, **79**, 443-450.
53. Anderson, N., McGuire, M. K., McGuire, M. A., Beerman, K., Dasgupta, N., Koepp, A., Falen, L. R., Griinari, J. M., & Williams, J. (2002). Consumption of "no trans" margarine decreases human milk and serum conjugated linoleic acid (CLA) concentrations. *Faseb Journal*, 2002, **16**(4) A662-A662.
54. \*Dasgupta, N., Pascual, F. G., & Spurrier, J. D. (2001). Small sample techniques for comparing several logistic regression slopes to a standard. *Journal of Statistical Computation and Simulation*, **71**, 141-161.
55. Ritzenthaler, K. L., McGuire, M. K., Falen, R., Shultz, T. D., Dasgupta, N., & McGuire, M. A. (2001). Estimation of conjugated Linoleic Acid (CLA) intake by written dietary assessment methodologies underestimates actual intake evaluated by food duplicate methodology. *Journal of Nutrition*, **131**(5), 1548-54.
56. Martinez, E., Moore, B. C., Schaumlöffel, J., & Dasgupta, N. (2001). Induction of morphological deformities in *Chironomus tentans* exposed to zinc and lead spiked sediments. *Environmental Toxicology and Chemistry*, **20** (11), 2475-2481.
57. Kupferman, E., & Dasgupta, N. (2001). Comparison of pome firmness instruments. *Post harvest information network*, 1-12.
58. \*Dasgupta, N., & Alldredge J. R., (2000). A chi-square goodness-of-fit analysis of dependent resource selection data. *Biometrics*, **56**, 402-408.
59. \*Dasgupta, N., Spurrier, J. D., Martinez, E., & Moore B.C. (2000). Comparison to control in logistic regression. *Communication in Statistics: Simulation and Computation*, **29**(4), 1039-1050.
60. \*Dasgupta, N., Xie P., Cheney, M., Broemeling, L., Mielke, C.H., & Shields J.P. (2000). Spokane Heart Study: Weibull regression and Coronary Artery Disease. *Communication in Statistics: Simulation and Computation*, **29**(3), 747-762.
61. \*Dasgupta, N., Martin, J. W., & Guan, X. (1999). Statistical analysis of spectral UV data collected at Ocean City, New Jersey. *American Chemical Society Volume: "A Systems Approach to Service Life Prediction of Organic Coatings"*, **73**, 56-70.
62. \*Dasgupta, N., & Alldredge, J. R. (1998). A multivariate  $\chi^2$  analysis of resource selection data. *Journal of Agricultural, Biological and Environmental Statistics*, **3**, 323-334.
63. \*Dasgupta, N., & Spurrier J. D. (1997). A class of multivariate chi-square distributions with applications to comparison to control. *Communications in Statistics: Theory and Methods*,

26(7), 1559-1573.

**Refereed papers under review and preparation:**

1. Comparison between ordinal probit and the approximate latent linear models, Das, D., and Dasgupta, N., (submitted)
2. A generalized oracle estimator for the normal means problem, Sijuwade, A., Chakraborty S., Shaffer M., Dasgupta N. (submitted 2021)
3. Multiple comparisons with ordinal data, Morrison, J., Das, D., and Dasgupta, N., (to be submitted)
4. A Follow-up of r-power, Sijuwade, A., Chakraborty S., Dasgupta N. (to be submitted)

**Book Review**

- a. Dasgupta N., (2021) Biometrics., Introduction to Data Science: Data Analysis and Prediction Algorithms with R by Irizarry, Rafael"
- b. Dasgupta N. (2000). *Technometrics*, Statistics with Stata 5, by Lawrence C. Hamilton, Duxbury Press.
- c. Dasgupta N. (2003). *Technometrics*, Analyzing Categorical Data, by Jeffery S. Seminoff, Springer Texts in Statistics, Springer-Verlag, New York.
- d. Dasgupta N. (2006). *Technometrics*, Bayesian Analysis for Categorical Data, by Peter Congdon, John Wiley and Sons Chichester.
- e. Dasgupta, N. (2007). *Technometrics*, DNA, Words and Models: Statistics of Exceptional Words, by Robin, Rodoplhe and Schbath, Cambridge University Press.

<b>RESEARCH GRANTS AND CONTRACTS</b>
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**FUNDED**

**CURRENT:**

<b>National Institute of Health (NIH)</b>	<b>2015-2021</b>	<b>\$1.4 M</b>
<i>Co-PI on "3D Printed Surface Modified Porous Metal Coatings for Load-bearing Implants"</i>		

National Institute of Health (NIH-HHS)	2020-2024	\$350 K
<i>Co-PI on "3D Printed Calcium Phosphate Scaffolds with Natural Medicinal Compound for Dental Applications"</i>		

**PAST:**



<b>Energy System Innovation Center (ESIC)</b>	<b>2017-2018</b>	<b>\$10 K</b>
<i>Co-PI on “Monitoring and Mitigating Sub-synchronous Oscillations Induced by Wind Generators”</i>		
<b>Washington Tree Fruit Research Commission (WTFRC)</b>	<b>2009-2011</b>	<b>\$20.2 K</b>
<i>Co-PI on “Modeling Washington Apple bloom phenology and Fruit Growth”</i>		
<b>National Institute of Health</b>	<b>2010-2014</b>	<b>\$127 K</b>
<i>Collaborator on “Smart Environment Technologies for Health Assessment and Assistance”</i>		
<b>National Institute of Health (NIH)</b>	<b>2008-2013</b>	<b>\$107 K</b>
<i>Collaborator on “Trophoblast MHC-I: Trigger for Immune mediated abortion of cloned bovine fetuses”</i>		
<b>National Science Foundation (NSF)</b>	<b>2005-2009</b>	<b>\$905 K</b>
<i>Collaborator on “UBM: Foundation in mathematical biology through interdisciplinary research, training, and curriculum development”</i>		
<b>Orville A. Vogel wheat research funds</b>	<b>2005-2006</b>	<b>\$6 K</b>
<i>Co-operator on “DNA marker technology for wheat quality traits and market class identification”</i>		
<b>National Institute of Standards and Technology (NIST)</b>	<b>1998-1999</b>	<b>\$17.4 K</b>
<i>P. I on “Parameter Estimation for Stochastic Models for Cumulative Damage fitted with NIST’s moisture enhanced data”.</i>		
<b>National Institute of Standards and Technology (NIST)</b>	<b>1997-1998</b>	<b>\$23.4 K</b>
<i>P. I on “A statistical model for the UV radiation data for Coatings Service Life Prediction Consortium”.</i>		

**SUBMITTED LAST YEAR AND PENDING**

<b>National Institute of Health (HHS)</b>	<b>2020-</b>	<b>\$2.1M</b>
<i>3D printed Bio-tribo-corrosion resistant composites for load bearing implants</i>		
<b>National Institute of Health (HHS)</b>	<b>2020-</b>	<b>\$2.0M</b>
<i>Bio-tribo-corrosion resistant composites for load bearing implants</i>		
<b>National Institute of Health (HHS)</b>	<b>2021-</b>	<b>\$1.8 M</b>
<i>Surface Modified metal Implant using doped hydroxy-patite</i>		
<b>National Institute of Health (HHS)</b>	<b>2021-</b>	<b>\$2.2 M</b>
<i>3D printed surface modified porous metal coatings for load bearing implants</i>		

## MENTORING/ADVISING AND TEACHING

### MENTORING

#### Chair of Mentoring Committee:

1. Xioingzhi Chen (Assistant Professor, Statistics, WSU)
2. Yuan Wang (promoted to Associate, Statistics, WSU)
3. Daryl Deford (Assistant Professor, Mathematics and Statistics)

#### Faculty Mentor:

1. David Wheeler (Assistant Professor, Dept of Plant Pathology, WSU)
2. Leslie New (Promoted to Associate, Statistics, WSU)
3. Shengchi Liu (Promoted to Associate, Mathematics, WSU)
4. Snow Wang (Promoted to Associate, Mathematics, WSU)
5. Kazuo Yamasaki (Post-Doctoral Fellow, WSU)

### GRADUATE ADVISING

#### PhD Committee Chair: (PhD in Stats was introduced at WSU in 2017)

1. Jillian Morrison (2019)
2. Yingzi Li (2020)
3. Debasmita Das (2021)

#### Current:

4. Swarnita Chakraborty (expected 2023)
5. Lili Zhou (expected 2023)
6. Justice Ni-Aytey (expected 2024)
7. Mengqi Yin (expected 2025)

#### MS Committee Chair:

1. Xaiomei Guan (1997)
2. Peijin Xie (1998)
3. Monte Cheney (1998)
4. Glade Erickson (1999)

5. Fatuma Yusuf (1999)
6. Bruce Austin (2000)
7. Fengqin Zhao (2000)
8. Qizhi Wei (2000)
9. Maher Hasan (2001)
10. Gongwei Chen (2001)
11. Kristine Grimsrud (2002)
12. Prabin Thapa (2003)
13. Qinghua Liu (2003)
14. Jing Xi (2004)
15. Alok Anand (2005)
16. BenHu Li (2005)
17. Xiaomei Chen (2006)
18. Sridhar Komar (2006)
19. Wen Du (2007)
20. Tamizheniyam Suyambulingam (2008)
21. Armenak Markosyan (2008)
22. Lia Norguera (2008)
23. Kwon Suh (2007)
24. Ciaping Zhang (2008)
25. Saad Alsharani (2008)
26. Adam Seaburg (2009)
27. Kidane Ghebrehawariat (2009)
28. Bryan Klingaman (2009)
29. Dane Sorenson (2009)
30. Avishek Varma (2009)
31. Nan Yang (completed 2010)
32. Limin Yang (completed 2010)
33. Rashmita Basu (completed 2011)
34. John Snyder (completed 2011)
35. Tobin Northfield (completed 2011)
36. Yianzi Li (completed 2011)
37. Hatice Senol (completed 2011)
38. Monte Shaffer (completed 2011)
39. Qize Li (completed 2012)
40. Yingzi Li (completed 2013)
41. Huixin Li (completed 2013)
42. Ludwig Lineares (completed 2013)
43. Ruojin Zhang (completed 2013)
44. Xing Zhang (completed 2014)
45. Xiaonan Liu (completed 2014)
46. Boying Liu (completed 2014)
47. Tian Chuan (completed 2014)
48. Pavan Dhanireddy (completed 2015)
49. Umesh Bastola (completed 2015)
50. Lili Zhuo (completed 2016)

51. Huinan Liu (completed 2016)
52. Amrina Fedrous (completed 2016)
53. Cameron Sweet (completed 2016)
54. Ben Wiedeback (completed 2017)
55. Abdul Rezag Etelawi (completed 2017)
56. Tyler Laferriere (completed 2017)
57. Sai Orungati (completed 2017)
58. Amit Sengupta (completed 2017)
59. Boris Houenou (completed 2018)
60. Xi Gu (completed 2018)
61. Sarah Morton (completed 2018)
62. Mostafa Rezapour (completed 2019)
63. Andres Bieblinikis (completed 2020)
64. Adebo Sijuwade (completed 2021)
65. Alex Kappes (completed 2021)
66. Ashutosh Kumar (completed 2021)
67. Priyanka Rao (completed 2021)
68. Carly Dollin (completed 2022)
69. Imisi Ayetan (completed 2022)
70. Azhar Uddin (completed 2022)
71. Allison Fisher (completed 2022)
72. Md. Muhatsim Billah (expected 2022)
73. Luke Hall (expected 2023)
74. Shirin Shahsvand (expected 2023)

## **TEACHING**

### **Undergraduate:**

- STAT 212 (INTRODUCTION TO STATS METHODS)
- STAT 412 (BIOMETRY)

### **Graduate:**

- STAT 510 (SPECIAL TOPICS: STATISTICAL LEARNING THEORY)
- STAT 512 (ANALYSIS OF DESIGNED EXPERIMENTS)
- STAT 530 (APPLIED LINEAR MODELS)
- STAT 565 (STATISTICAL GENOMICS)
- STAT 590 (CONSULTING PRACTICUM)
- STAT 575 (THEORY OF MULTIVARIATE ANALYSIS)
- STAT 591 (SEMINAR IN STATISTICS)

## PROFESSIONAL AND COMMITTEE SERVICE

### NATIONAL/ INTERNATIONAL

- President, Caucus for Women in Statistics (2022)
- Advisory Board Member, Academic Data Science Alliance (ADSA, 2021-2023)
- Chair, JEDI WNAR International Biometric Society (2021)
- ASA Ad-Hoc Committee on Leadership. 2017-2019.
- ASA Committee on “Career Development”, 2010-2016.
- Associate Editor, *The American Statistician*, 2014-present.
- Associate Editor, *Journal of Statistical Computation and Simulation*, 2001- 2016.
- Member of Regional Advisory Board, WNAR International Biometric Society, 1999-2001.

### COLLEGE/UNIVERSITY (LAST 5 YEARS)

- Search Committee, Associate VP, Office of Research, WSU
- Faculty Fellow Data Science, Office of Research, WSU
- Facilitator for establishing PhD in Data Science at WSU
- Dean Search Committee for College of Arts and Sciences
- Chair: Committee for establishing a Center for Interdisciplinary Statistics
- Co-Chair: Establishing an Interdisciplinary BS in Data Analytics degree
- Member of the 12-member President’s Faculty Hearing Panel
- Member of 5-member committee for assessing Thursday football games at WSU.

### DEPARTMENT (LAST 5 YEARS)

- Chair for establishing a PhD in Statistics at WSU.
- Chair search committee assistant professor
- Chair search committee clinical assistant professor
- Co-chair search committee post-doctoral associate
- Chair colloquium committee
- Committee on awards
- Committee on Faculty Nominations
- Assessment Committee

### REFEREEING

Served as Reviewer for the following journals:

- *Journal of American Statistical Association.*
- *Journal of Statistical Computation and Simulation.*
- *Communication in Statistics: Theory and Methods.*
- *Journal of Wildlife Management*
- *Journal of Statistical Inference and Planning*
- *Biometrics*
- *American Statistician*

- *Sankhya*
- *Annals of Applied Statistics*

## ADMINISTRATION

### 1. Director of Center for Interdisciplinary Statistics Education and Research (CISER, 2016-2019)

#### **The Center's mission is three-fold:**

1. Providing research assistance to Graduate students and faculty across WSU
2. Facilitating interdisciplinary research
3. Building a Statistics community at WSU

#### **Responsibilities include:**

1. Obtaining internal and external funding for the Center.
2. Supervising
  - a. Statistician
  - b. Program Assistant
  - c. Research Assistant
3. Facilitating Interdisciplinary collaborations
4. Organizing CISER Communi-teas (an event where people across the campus have the option of interacting over tea with Statistics Faculty).

#### **Achievements as Director:**

1. Negotiating a project with Dept of Ecology of WA (\$11,000) and submitting all the reports exactly on time.
2. Getting CISER on five funded grants.
3. Working with faculty across campus to give CISER more visibility.
4. Working with American Statistical Association to promote CISER as a model for Academic Consulting/Collaboration Centers Nationwide.
5. Establishing the CISER excellence Fund
6. Establishing a "CISER Alumni Award" awarded to the best MS student in Statistics
7. Establishing 2 year around internships available through CISER for students to work with external companies open for Statistics Graduate students.
8. Workshop on data literacy as a part of Professional Development Series
9. Workshop in Spokane for Medical Librarian Annual meeting

## **Director of the Program of DATA ANALYTICS (2020-)**

### **Program Description and Mission:**

1. Interdisciplinary Program offering BS in Data Analytics
2. Housed in the College of Arts and Sciences
3. Collaborative effort between Departments of Mathematics and Statistics and School of Electrical Engineering and Computer Sciences
4. Students take classes in Math/Stat/CS as well as a concentration area
5. The mission is to graduate well-rounded graduates from the program that would be employable
6. Allow the students a good, cohesive environment in an interdisciplinary set-up.
7. Offer the classes needed for on-time graduation

### **Achievements as a Director:**

1. Established a Curriculum Committee from among faculty in Mathematics, Statistics and Computer Sciences with all the campuses represented.
2. Established a committee for the advisors on different campuses to allow for communication
3. Focused on the concentration classes, so that there was some structure and submitted the change to Faculty Senate
4. Established the BS program to be certified as the only 4 year program to be a Career Connected Learning program, with established internship opportunities for the students
5. Setting up a class for Internship, so students earn credit for their experiential learning
6. Setting up mentorship relationships between students and industry board
7. Setting up paid capstone projects from industry
8. Currently working on a more streamlined curriculum that is developed by faculty from Math/Stat/CS to offer more focused information so that students can finish in a timely manner.

## WORKSHOPS ORGANIZED AND PRESENTED

- Workshop: Manipulating Data and Analytics Using SAS University Edition 11/9/2017 from 9:00am to 3:00pm
- Professional Development Initiative: Data Literacy: Busting Myths of Big Data, Feb 6, 2018 1-5
- Professional Development Initiative: Data Literacy: Busting Myths of Big Data, Sept 24, 2018 1-3
- Data Literacy: Stats 101: Elson S. Floyd College of Medicine: for Pacific Northwest Conference for Medical Librarians: Oct 12, 2018
- Professional Development Initiative: Data Literacy: Busting Myths of Big Data, Feb 19 2019, 1-3.

## PRESENTATIONS

### Invited

- “Preliminary analysis of the Ocean city, UV irradiation data” Quarterly meeting for “Coatings Service Life prediction Consortium”, National Institute for Standards and Technology, Gaithersburg, MD, Feb. 1997.
- “Comparison to control in Logistic regression” University of Idaho, WSU, UI Statistics Joint Colloquium series, Sept 1997.
- “Statistical analysis of the Ocean city, UV irradiation data” Quarterly meeting for “Coatings Service Life prediction Consortium”, National Institute for Standards and Technology, Gaithersburg, MD, Oct 1997.
- “Multiple Comparisons in Logistic regression” Biological Sciences and Systems Engineering Graduate Seminar, WSU, Oct 1997.
- Lecture series on “Logistic Regression: Models, estimation and potential Applications” North Bengal University, India, Dec 1997.
- "Small sample problems in logistic regression" at the invited workshop on "Symposium Predicting Species Occurrences" Snow Bird, Utah, Oct 1999.



- "A Small sample technique when comparing several logistic regression slopes to a control", Washington State University, University of Idaho joint colloquium series, Feb 2000.
- "Some small sample problems when comparing several logistic regression slopes to a control", University of Idaho Agricultural Sciences Seminar series, Dec 2000.
- "Some multiple comparison issues in logistic regression" 15<sup>th</sup> Anniversary Alumni Conference at University of South Carolina, March 2001.
- "Of midge flies, potato blight, multiple comparison and logistic regression", Invited colloquium speaker at University of California, Davis, May 2001.
- "Comparing k treatments to a positive and a negative control", University of Idaho Agricultural Sciences Seminar series, Feb 2003.
- "Large and Small Sample Issues in comparing Logistic Regression parameters to a control", Indian Statistical Institute, Kolkata, India, Feb 2004.
- "Comparing k treatments to a positive and a negative control", Washington State University, University of Idaho joint colloquium series, 2005.
- "Issues in optimally designing an experiment with binary data" University of Idaho Agricultural Sciences Seminar series, Oct 2006.
- "Comparing multiple treatments to both positive and negative controls", Washington State University Colloquium series, Oct 2008.
- "Comparing k treatments to both positive and negative controls", Memorial University of Newfoundland, May 2009.
- "Many to one comparison in longitudinal data" University of Idaho Agricultural Sciences Seminar series, Oct 2011.
- "Clustering Proteomic Data" CIAS conference, Indian Statistical Institute, Jan 2012
- "Modeling apple growth stages with longitudinal binary data" The International Environmetrics Society Meeting, Jan 2012.
- "Auto-correlated Longitudinal Ordinal Data" Special Invited Speaker for ISS-2015.
- "Data Analytics: Curriculum design", Invited speaker at Boeing Company, Dec 2016.
- "Soft skills in Statistics: they are essential", Panelist at the Joint Statistical Meetings (JSM), August 2017.

- “Roshomon: A consulting dish cooked three different ways- from the perspective of academia”, Invited speaker at the Joint Statistical Meetings (JSM) 2017
- “Data Literacy” Tableau Conference 2021, Global virtual
- “Data Literacy and Societal Impact” Women in Statistics and Data Science conference, 2021
- “Journeys in Stats and Data Science: a female perspective” Women in Statistics and Data Science conference 2021
- “A perspective from Academia: Statistics and Data Science, SPE 2021 (Portuguese Statistical Society).
- “Data: An ultimate divide” colloquium at Wake Forest University
- Data Literacy” Tableau Conference 2022, Global virtual

### **Contributed**

- A Multivariate  $\chi^2$  analysis of resource selection data” (Joint with J. R. Alldredge) of Western North American Regional (WNAR) Meetings, San Diego, CA, June 1998.
- "Modified Goodness of Fit in Resource Selection Data" American Statistical Association, Joint Meeting, Baltimore, MD, August 1999.
- "Exact Unconditional Tests for comparing several logistic regression slopes to a standard", The 2<sup>nd</sup> International Conference on Multiple Comparisons, Berlin, Germany, June 2000.
- “Comparing k treatments to both positive and negative control”, The 3<sup>rd</sup> International Conference on Multiple Comparison, Bethesda, MD, USA, 2002.
- “Optimal Allocation for comparing k Test Treatments to Positive and Negative Control with unequal weighting under A-optimality and MV-optimality” Joint Statistical Meetings, Seattle, WA, August 2006.

### **Selected Guest Lectures**

- "Life and times of F.N. David and contributions to correlation coefficients" One Laboratory period for "Women, Science and Culture" class, WSU, Spring 1999.
- "Life and times of Gertrude Cox and some simple statistical concepts" One Laboratory period for "Women, Science and Culture" class, WSU, Spring 2000.

- "Life and times of Gertrude Cox, and the Goodness of Fit measure" One Laboratory period for "Women, Science and Culture" class, WSU, Spring 2001.
- "M&M and the Goodness of Fit test" One Laboratory period for "Women, Science and Culture" class, WSU, Spring 2001.
- "On design issues and data Analysis", CSS 442, Spring 2002.
- "Modeling Apple Growth" one class period in "Global issues in Science", Fall 2016
- "Analysis of lead data in Flint Michigan" one class period in "Global issues in Science", Fall 2017

### Session Chairs:

1. Chair WSDS 2021 "Journeys in Data Science" session
2. Co-chair of the ADSA Leadership Summit, Session on "Challenges and Best Practices for creating Data Science Programs and Institutes"
3. The 3<sup>rd</sup> International Conference on Multiple Comparison, Bethesda, MD, USA, 2002
4. Joint Statistical Meetings in San Francisco, CA 2003.

<h3>HONORS AND AWARDS</h3>
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1. Women of the year 2022, WSU
2. Data Science Fellow, WSU
3. Interdisciplinary Catalyst Award, 2021, College of Arts and Sciences
4. President's Award 2019
5. Awarded for "Excellence in Graduate Advising and Mentoring", College of Arts and Sciences, 2019
6. *Advance* Featured Faculty, Fall 2018
7. Fellow, American Statistical Association, 2018
8. Boeing Distinguished Professorship in Mathematics and Science Education, August 2017.
9. *WSU Featured Faculty* for Nov 7, 2015 Football games.
10. "Outstanding Mentor Award" among research faculty in March 2006.
11. Travel award to attend NSF-CBMS Regional Research Conference in the Mathematical Sciences titled "New Horizons in Multiple Comparison Procedures", 2001.
12. Outstanding Graduate student award 1996, University of South Carolina, Columbia, SC.
13. Runner-up for Outstanding Graduate student award 1995, University of South Carolina, Columbia, SC.
14. Runner-up for Outstanding Graduate student award 1994, University of South Carolina, Columbia, SC.

15. Graduate Teaching Assistant Award 1993, University of South Carolina, Columbia, SC.
16. Best First Year student award 1992, University of South Carolina, Columbia, SC.
17. P. C. Mahalanobis Memorial Award, Presidency College, 1990.
18. Surendranath Bose Memorial Award, Presidency College, 1988.

#### **PROFESSIONAL SOCIETY MEMBERSHIPS**

- American Statistical Association
- International Biometric Society
- Academic Data Science Alliance
- Caucus for Women in Statistics
- Mu Sigma Rho Statistics Honor Society

#### **PERSONAL**

- **US Citizen**
- **Married since 1992 to H. Dean Johnson**
- **Two Children (born 2004, 2007)**