

Dr. Neelam

Contact

Domicile Peshawar (N.W.F.P)

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Email Address: neelam_arbab@uop.edu.pk

Skills

Homework assistance

Excellent

Research analysis

Excellent

Computer

Excellent

Software

Stata15

Excellent

R language

SPSS

Excellent

“A highly motivated and research-oriented statistician with strong academic background in Statistics and ongoing Ph.D. research at the University of Peshawar. Specialized in Sampling Survey Techniques with a focused research interest in the development of efficient estimators for sensitive proportions and means in sample surveys. Possesses strong analytical, quantitative, and computational skills with solid grounding in statistical theory, econometrics, and data analysis. Committed to advancing statistical research and applying modern methodologies to real-world data problems in academia and applied fields”

Work History

2014 till to date	Lecturer of statistics <i>University Of Peshawar, Peshawar.</i> Working as a Senior lecturer at Univeristy Of Peshawar. I Taught the following subject in BS and MS level. 1.Statistical Methods, 2.Sampling and Survey Methods, 3.Computer and Statistical Software and Population Studies to M. Sc. Statistics. 4. Probability Theory, 5. Inference Theory, 6. Bio-statistics, 7. Regression Analysis, 8. Population Studies, 9. Introduction to Statistics, 10. Introduction to Probability and Probability Distribution, Introduction to Regression Analysis and Experimental Design, Statistical Inference, Stochastic Process, to B.S Statistics 11. Bayesian Statistics 12. Advance Econometrics.
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Education

2020-26	PhD Statistics University Of Peshawar
2018 - 2020	M.Phil Statistics <i>University of Peshawar</i>
2011-2013	M.sc Statistics (Gold Medal) <i>University of Peshawar.</i>

Additional Information

List of publication

1. **Neelam**, S. M. A., Iftikhar, S., Khalil, B., Murad, S., Dalail, M., & Shah, S. F. (2025). *Estimation of binary logistic regression parameters in sensitive surveys for a two-stage randomized response technique. Metallurgical and Materials Engineering*, 31(1), 817–834.
2. **Neelam**, S. M. A., Asim, S. M., Zaman, Q., & Shah, F. (2026). *Advancing randomized response: Logistic regression with zero-truncated negative binomial design. Journal of Probability and Statistical Science*, 24(1), 1–15
3. **Neelam**, Syed Muhammad Asim, Safia Murad, & Farooq Shah. (2025). Extending the Zero-Truncated Poisson Randomized Response Device to Logistic Regression with Covariates. *Journal for Current Sign*, 3(3), 1088–1109.
4. **Neelam**, Sofia, Qamruz Zaman, Nisar Ullah, Ihsan Ilahi, & Danish Waseem. (2024). DEVELOPMENT OF NEW RATIO TYPE ESTIMATOR USING THE AUXILIARY INFORMATION. *International Journal of Contemporary Issues in Social Sciences*, 3(3), 2715–2724.
5. **Neelam**, Sofia, Qamruz Zaman, Nisar Ullah, Danish Waseem, & Raees Khan. (2024). STATISTICAL DETERMINANTS OF CEREBRAL PALSY: A CASE STUDY OF KHYBER PAKHTUNKHWA. *International Journal of Contemporary Issues in Social Sciences*, 3(3), 2725–2741
6. Qamruz Zaman, Danish Wasim, Syed Habib Shah, **Neelam**, Atta Ur Rehman, Mohib Ullah Khan, & Asma Qureshi. (2024). PIECE WISE KAPLAN-MEIER SURVIVAL FUNCTION FOR DEPENDENT DISEASES. *International Journal of Contemporary Issues in Social Sciences*, 3(2), 2737–2753
7. Zaman, Q., Ali, M., Kayani, H., **Neelam**, N., Khan, W., Nawaz, S., Haider, B., & Iqbal, S. (2024). *National trends and patterns in traffic road accidents in Pakistan: A statistical analysis. Journal of Asian Development Studies*, 13(3), 336–350.
8. Zaman, Q., Ismail, M., Ahmad, M., Shah, A., Ali, M., **Neelam** & others. (2024). *Determinants of academic performance among undergraduate students: A case study of University of Peshawar (Pakistan). Journal of Asian Development Studies*, 13(3), 138–161
9. Zaman, Q., Khalil, B., Hussain, S., Shah, S. H & **Neelam**. (2025). *Statistical modeling of the performance of all-rounders in female Test cricket. Kurdish Studies*, 12(5), 5125–5134
10. Khan, M. U., Zaman, Q., Hussain, M., Shah, S. H & **Neelam**. (2024). Classification and Bayes Probability Approach for Evaluating the Performance of T-20 Batsmen. *International Journal of Social Science Archives (IJSSA)*, 7(3).
11. Sabir, A., Zaman, Q., Irfan Uddin, M., Shah, S. H., **Neelam**, N., & Ayub, G. (2024). *A comparative study of supervised machine learning models for predicting bowler performance in T20I cricket. Kurdish Studies*, 12(5), 1242–1250.
12. Sanam Wagma Khattak, Shehla Gul, & **Neelam**. (2024). DETERMINANTS OF FERTILITY INTENTIONS AMONG EVER-MARRIED WOMEN IN PAKISTAN: IMPLICATIONS FOR POPULATION GROWTH AND FAMILY PLANNING POLICIES. *International Journal of Contemporary Issues in Social Sciences*, 3(3), 1323–1333
13. Abdul Majid, Qamruz Zaman, Seema Zubair, Syed Habib Shah, Abdurrahman Sabir, Sana Gul, & **Neelam**. (2024). The Impact Of Wide Balls On The Results Of T-20 International Cricket. *Kurdish Studies*, 12(5), 770–780.
14. Shah, S. A. A., Zaman, Q., Hussain, S., Iftikhar, S., Shah, S. H., Sabir, A. R., **Neelam** & Shah, A. (2024). Analyzing the impact of venue and match factors on ground-wise average scores and successful run chases in T-20I cricket using factorial design. *Kurdish Studies*, 12(5), 781–788.
15. Shah, S. A. A., Sabir, A. R., Zaman, Q., Majid, A., Shah, S. H., Iftikhar, S., & **Neelam**,

- N. (2024). *Forecasting major fruit production in Khyber Pakhtunkhwa, Pakistan. Remittances Review*, 9(S3), 559–583.
16. Ismail, M., Zaman, Q., Wasim, D., **Neelam**, N., Shah, S. H., Wazir, S., Karam Khan, G., & Abdur Rehman. (2024). *Private schools teachers' satisfaction: A case study of District Dir Lower Tehsil Talash KPK Pakistan. International Journal of Contemporary Issues in Social Sciences*, 3(2), 2713–2718.
 17. Abdurrahman Sabir, Zaman, Danish Wasim, **Neelam**, Syed Habib Shah, Atta Ur Rehman, ... Abdur Rehman. (2024). UNVEILING EXCHANGE RATE DYNAMICS: A MARKOV CHAIN MODELING OF PAKISTAN'S CURRENCY TRENDS AND PERSISTENCE PATTERNS. *International Journal of Contemporary Issues in Social Sciences*, 3(2), 2605–2613.
 18. Ijaz, M., Khan, A. U., Asim, S. M., Hayat, Y., Shah, S. H., Farooq, M., **Neelam** & Zubair, S. (2020). A new ratio type estimator to estimate the population mean using auxiliary information. *Advances and Applications in Statistics*, 63(1), 97-108.
 19. Usman Farooq, Adnan Ashraf, Dr.Sami Ullah, Muhammad Israr, Neelum, Sanam Wagma Khattak, Irshad Ghafoor (2021). The Role Of Formal Education Infarm Productivity And Farmer's Socio-Economic Development In District SWAT. *Multicultural Education*, 7(9).
 20. Prof. Qamruz Zaman, Abdur Rehman Sabir, Syed Asghar Ali Shah, Soofia Iftikhar, **Neelam**, Muhammad Waqas, Abdul Majid, Syed Habib Shah. (2024). Trends And Variability Of Major Fruits Production In Khyber Pakhtunkhwa, Pakistan. *Migration Letters*, 21(S13), 388–401
 21. Sofia, Qamruz Zaman, Soofia Iftikhar, Najma Salahuddin, Mansoor Ahmad, Aizaz Shah, Mir Ullah, & **Neelam**. (2024). ANALYSIS TO EXPLORE THE PREVALENCE RATE OF POLIO IN KHYBER PAKHTUNKHWA, PAKISTAN: CAUSES, CONSEQUENCES AND REMEDIES. *Journal of Population Therapeutics and Clinical Pharmacology*, 31(9), 369-392.
 22. Irshad Ghafoor, Dr. Sami Ullah, Saima Hashim, Muhammad Israr, Dr. Sanam Wagma Khattak, Neelam (2021). Micro-Credit Advances by Zarai Taraqiyati Bank Limited and its Effect on Socio-Economic Development of Farmer's Community in Dir Lower. *Linguistica Antverpiensia* 4986-4995

Research Interests

Randomized response techniques, zero-truncated probability models, logistic regression in sensitive surveys, survey sampling and estimation theory, auxiliary information-based ratio estimators, survival analysis, statistical modeling in public health and epidemiology, demographic and fertility studies, socioeconomic impact analysis, agricultural production forecasting, time series and Markov chain modeling in economics, machine learning applications in classification and prediction, sports analytics and performance modeling in cricket, educational performance and institutional studies, and applied statistical inference in real-world data analysis.

