Assiut University

Faculty of Science

Mathematics Department

جامعة أسيوط

كلية العلوم

قسم الرياضيات

Zeinhum F. Jaheen
PROFESSOR OF MATHEMATICAL STATISTICS

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ADDRESS: Mathematics Department, Faculty of Science, Assiut University, Assiut 71516, **EGYPT**

DATE OF BIRTH: July 5, 1964

E-Mail: zjaheen@aun.edu.eg and zjaheen@hotmail.com

TELEPHONE: Mobile: (002)01099969429

https://www.scopus.com/authid/detail.uri?authorId=6701708136

https://orcid.org/0000-0002-7614-4639

ORCID ID	

ACADEMIC QUALIFICATIONS

1. Ph.D. Degree in Mathematics (Mathematical Statistics) from the Faculty of Science, Assiut University, Egypt, Title "Bayesian Estimations and Predictions Based on Single Burr type XII Models and Their Finite Mixture", December 1993.

2. M.Sc. Degree in Mathematics (Mathematical Statistics) from the Faculty of Science, Assiut University, Egypt, Title "Inferences Under the Burr Life Testing Model", October 1990.

3. Bachelor of Science (Mathematics) from the Faculty of Science, Assiut University, Egypt (May 1986), Grade: Distinction with Honors.

Professional Experience

- 2004 - : Professor, Department of Mathematics, Faculty of Science, Assiut University, Egypt.
- 1999-2004: Associate Professor, Department of Mathematics, Faculty of Science, Assiut University, Egypt.
- 1994-1999: Assistant Professor, Department of Mathematics, Faculty of Science, Assiut University, Egypt.

Teaching Experience

- Graduate Courses: Mathematical Theory of Statistics, Statistical Inference 1, Statistical Inference 2, Bayesian Statistics, Statistical Decision Theory, Reliability Theory and Life Testing, Sampling Theory, Order Statistics, Record Statistics, Linear Models, Regression and Correlation, Advanced biostatistics.
- Undergraduate Courses: Mathematical Statistics, Applied Statistics, Theory of Probability, Differential Equations, Special Functions, Calculus 1, 2, 3, Abstract Algebra, Linear Algebra, Analytical Geometry, Real and Complex Analysis, Scientific computation.

Conferences Participation

- Assiut First International Conference of Mathematics and Statistics, Feb. 12-14, 1990, Assiut Egypt.

Awards and recognition

- Award for Best Research in Mathematics from the Faculty of Science - Assiut University 2000.

M.Sc. Theses Supervision

1. AL-Feir, N. M. "*A Study on the Estimation and Prediction under the Burr Model*", Department of Mathematics, Girls College in Dammam, KSA, (2005).
2. AL- Amry, Z. M. "*Inferences Based on the Generalized Order Statistics*", Department of Mathematics, Girls College in Jeddah, KSA, (2006).
3. Mohamad, H. S. "*On Bayesian Estimation and Prediction based on Generalized Order Statistics*", Department of Mathematics, Assiut University (2008).
4. Modhesh, A. A. *"Discriminant Analysis based on Gumbel Models",* Department of Mathematics, Assiut University (2008).
5. Yousef, M. M. *"Statistical Inference for Some Stress-Strength Models",* Department of Mathematics, Assiut University (2009).
6. Mohamad, A. M. *"On the Fisher Information for Burr Distributions",* Department of Mathematics, Assiut University (2010).
7. Baseer, T.A. "On Bayesian Inferences for the Finite Mixture of Burr type XII Distribution and its Reciprocal", Department of Statistics, King Abdul Aziz University, KSA (2012).
8. Hussain, G.A. "Accelerated Life Tests based on the Generalized Exponential Distribution", Department of Mathematics, Assiut University (2012).
9. Ali, S.M.A. "Bayes Inferences and Prediction based on Hybrid Censored Data", Department of Mathematics, Assiut University (2013)

Ph.D. Theses Supervision

1. Al Harbi, M.M. "Generalized Order Statistics from Exponentiated Weibull Model and Associated Inference", Department of Statistics, King Abdul Aziz University, KSA (2011).
2. Mohamad, H. S. "On the Finite Mixture Model of Burr type XII Distribution and its Reciprocal", Department of Mathematics, Assiut University, (2012).
3. Mohamad, M. Atef "On a Finite Mixture of Exponentiated Weibull Distributions", Department of Mathematics, Assiut University, (2017).
4. Ali, S.M.A. "On the Weibull – Geometric Model: Inferences and Predictions", Department of Mathematics, Assiut University, (2018).
5. Hussain, G.A. "Inferences for Generalized Exponential Accelerated Model under Different types of Censoring", Department of Mathematics, Assiut University, (2018).

RESEARCH INTERESTS

- Bayesian Statistics (Inference and Prediction)
- Reliability Theory and Life Testing
- Mixture of Distributions
- Distribution Theory.
- Order Statistics and Records

ASSOCIATE EDITOR

Journal of Statistical Theory and Applications

PUBLICATIONS APPEARED IN

- Communications in Statistics: Theory and Methods (USA)
- Communications in Statistics: Simulation and Computation (USA)
- Statistics (GERMANY)

- Journal of Statistical Computation and Simulation (USA)
- Journal of Statistical Planning and Inference (USA)
- Metron (ITALY)
- Statistica (ITALY)
- Statistical Papers (GERMANY)
- Test (SPAIN)
- Computers and Mathematics with Applications (USA)
- Applied Mathematical Modeling (USA)
- Journal of Applied Statistical Science (USA)
- Applied Mathematics and Computations (USA)
- Journal of the Egyptian Mathematical Society (EGYPT)
- Journal of Statistical Theory and Applications (USA)
- Microelectronics and Reliability.(UK)

REFERRED ARTICLES FOR

- Life Time Data Analysis, USA
- Communications in Statistics: Theory and Methods, USA
- Communications in Statistics: Simulation and Computation, USA.
- Statistics, Germany
- Test, Spain
- Applied Mathematical Modeling, USA
- Journal of Applied Statistics, UK
- Statistical Papers, Germany
- Metrika, Germany
- Metron, Italy
- Journal of Statistical Computation and Simulation, USA
- Computers & Industrial Engineering, USA
- Pakistan J. of Statistics, Pakistan
- Soochow J. of Mathematics, Taiwan, China.
- Journal of the Egyptian Mathematical Society (EGYPT)
- Journal of Applied Statistical Science (USA)
- Applied Mathematics and Computations (USA)

A LIST OF PUBLICATIONS

1. AL-Hussaini, E.K., Ali Mousa, M.A.M. and <u>Jaheen, Z.F.</u> (1992). Estimation under the Burr type XII failure model based on censored data: A comparative study. ***Test , 1,*** 33- 42. (Spain)

2. AL- Hussaini, E. K. and <u>Jaheen, Z. F.</u> (1992). Bayesian estimation of the parameters, reliability and failure rate functions of the Burr type XII failure model. ***Journal of Statistical Computations* and *Simulation*, 41,** 31- 40. (USA).

3. AL- Hussaini, E. K. and <u>Jaheen, Z. F.</u> (1994). Approximate Bayes estimators applied to the Burr model. ***Communications in Statistics-Theory and Methods*, 23 (1),** 99 - 121. (USA)

4. Ali Mousa, M. A. M. and <u>Jaheen, Z. F.</u> (1994). Interval estimation under the Burr type XII failure model based on censored data. ***Journal of the Egyptian Mathematical Society*, 2,** 67- 73. (Egypt)

5. Ahmad, K. E., Fakhry, M. E. and <u>Jaheen, Z.F.</u> (1995). Bayes estimation of $P(Y>X)$ in the geometric case. ***Microelectronics and Reliability*, Vol. 35, No. 5,** 817- 820. (UK)

6. Ahmad, K. E. and <u>Jaheen, Z.F.</u> (1995). Approximate Bayes estimators applied to the Inverse Gaussian lifetime model. ***Computers and Mathematics with Applications, Vol. 29,** 39- 47. (USA)

7. AL-Hussaini, E. K. and <u>Jaheen, Z. F.</u> (1995). Bayesian prediction bounds for the Burr type XII failure model. ***Communications in Statistics-Theory and Methods*, 24 (7),** 1829-1842. (USA)

8. <u>Jaheen, Z.F.</u> (1995). Bayesian approach to prediction with outliers from the Burr type X model. ***Microelectronics and Reliability*,** Vol. **35,** No. **4,** 703- 705. (UK)

9. AL-Hussaini, E.K. and <u>Jaheen, Z. F.</u> (1996). Bayesian prediction bounds for the Burr type XII distribution in the presence of outliers. ***Journal of Statistical Planning and Inference, 55,** 23 - 37. (USA)

10. <u>Jaheen, Z.F.</u> (1996). Empirical Bayes estimation of the reliability and failure rate functions of the Burr type X failure model. ***Journal of Applied Statistical Science ,** Vol. **3,** No. **4,** 281-288. (USA)

11. Ahmad, K. E., Fakhry, M. E. and Jaheen, Z. F. (1997). Empirical Bayes estimation of P(Y<X) and characterization of the Burr type X model. ***Journal of Statistical Planning and Inference*, 64,** 297-308. (USA)

12. Ali Mousa, M. A. M. and Jaheen, Z. F. (1997). Bayesian prediction for the Burr type XII model based on doubly censored data. ***Statistics***, **48**, 337-344. (Germany)

13. Ali Mousa, M. A. M. and Jaheen, Z. F. (1998). Bayesian prediction for the two-parameter Burr type XII model based on doubly censored data. ***Journal of Applied Statistical Science,* 7**, 2/3, 103 - 111. (USA)

14. AL-Hussaini, E.K. and Jaheen, Z. F. (1999). Parametric prediction bounds for the future median of the exponential distribution. ***Statistics*, 32,** 267-275. (Germany)

15. Jaheen, Z.F. (1999). Bayesian estimation for the three-parameter random walk distribution. ***Journal of Applied Statistical Science,*** Vol. **8,** No. **2/3**, 174-183. (USA)

16. AL-Hussaini, E.K., Nigm, A.M. and Jaheen, Z.F. (2001). Bayesian prediction based on finite mixtures of Lomax components model and type I censoring**, *Statistics,* Vol**. 35, 3, 259-268.(Germany)

17. Ali Mousa, M. A. M. and Jaheen, Z. F. (2001). Empirical Bayes prediction for the Burr model, ***Journal of the Egyptian Mathematical Society*, 9** (1), 69-78. (Egypt)

18. Jaheen, Z.F.   (2001). Bayesian prediction for the Burr model with outliers and random sample size, ***Metron,*** Vol. 59, 3-4, 217-230. (Italy)

19. Jaheen, Z.F. (2001). Empirical Bayes prediction under the constant hazard rate model. ***Statistica,* LXI*, 4,*** 650-658. (Italy).

20. Ali Mousa, M. A. M. and Jaheen, Z. F.   (2002). Statistical inference for the Burr model based on progressively censored data. ***Computers and Mathematics with Applications,* Vol.** 43, 1441-1449. (USA)

21. Ali Mousa, M.A.M. and Jaheen, Z. F.   (2002). Bayesian prediction for progressively censored data from the Burr model. ***Statistical Papers***, Vol. 43, 4, 587-593. (Germany).

22. Ali Mousa, M. A. M., Jaheen, Z. F. and Ahmad, A.A. (2002). Bayesian estimation, prediction and characterization for the Gumbel model based on records. ***Statistics,* Vol**. 36, 1, 65-74. (Germany)**.**

23. <u>Jaheen, Z.F.</u> (2002). On Bayesian prediction of generalized order statistics. ***Journal of Statistical Theory and Applications,*** Vol. 1, 3,191-204. (USA).

24. <u>Jaheen, Z.F.</u> and Al-Matrafi, B.N. (2002). Bayesian prediction from the scaled Burr type X model. ***Computers and Mathematics with Applications,*** **Vol.** 44, 587-594. (USA)

25. <u>Jaheen, Z.F.</u> (2003). Prediction of progressive censored data from the Gompertz model. ***Communications in Statistics: Simulation and Computation***, Vol. 32, N. 3, 663-676. (USA).

26. <u>Jaheen, Z.F.</u> (2003). Bayesian prediction under a mixture of two component Gompertz lifetime model***. Test,* 12, 1,** 413-426. (Spain)

27. <u>Jaheen, Z.F.</u> (2003). A Bayesian analysis of record statistics from the Gompertz model. ***Applied Mathematics and Computations,* 145**, 2-3, 307-320. (USA).

28. <u>Jaheen, Z.F.</u> and Al-Matrafi, B.N. (2003). Recurrence relations for moments of k-th record values from a class of continuous distributions. ***Journal of Statistical Theory and Applications, 2***, 1, 39-46. (USA).

29. Nigm, A.M, AL-Hussaini, E.K. and <u>Jaheen, Z.F.</u> (2003). Bayesian one-sample prediction for future observations under the Lomax distribution. ***Statistics,* 37**, 6, 527-536. (Germany).

30. <u>Jaheen, Z.F.</u> (2004). Empirical Bayes analysis of record statistics based on linex and quadratic loss functions. ***Computers and Mathematics with Applications,* Vol**. 47, 947-954. (USA).

31. <u>Jaheen, Z.F.</u> (2004). Empirical Bayes inference for generalized exponential distribution based on records. ***Communications in Statistics: Theory and Methods,*** Vol. 33, No. 8, pp. 1851–1861. (USA).

32. <u>Jaheen, Z. F.</u> (2005). On record statistics from a mixture of two exponential distributions. ***Journal of Statistical Computations*** **and** ***Simulation,* Vol**. 75, No. 1, 1-11. (USA).

33. <u>Jaheen, Z.F.</u> (2005). Estimation based on generalized order statistics from the Burr model. ***Communications in Statistics: Theory and Methods,*** 34, 785-794. (USA).

34. Nigm, A.M., AL-Hussaini, E. K. and <u>Jaheen, Z.F.</u> (2007). Bayesian two sample prediction under the Lomax model with fixed and random sample size**, *Journal of Applied Statistical Science,*** Vol. 15, 4, 381-390. (USA).

35. Ahmad, K. E., <u>Jaheen, Z.F.</u> and Yousef, M.M. (2008). Inference on Pareto distribution as stress-strength model based on generalized order statistics. ***Journal of Applied Statistical Science,* Vol. 17, 247-258.** (USA).

36. Ahmad, K. E., <u>Jaheen, Z.F.</u> and Modhesh, A.A. (2010). Estimation of a discriminant function based on small sample size from a mixture of two Gumbel distributions. ***Communications in Statistics: Simulation and Computation***, **39, 713-725.** (USA).

37. <u>Jaheen, Z.F.</u> and Al Harbi, M. M. (2011). Bayesian estimation for the exponentiated Weibull model via Markov chain Monte Carlo simulation. ***Communications in Statistics: Simulation and Computation***, 40, 532–543**.** (USA).

38. Ahmad, K. E., <u>Jaheen, Z.F.</u> and Mohamed, H.S. (2011). Finite mixture of Burr type XII distribution and its reciprocal: properties and applications. ***Statistical Papers***, 52, 835–845. (Germany).

39. Ahmad, K. E., <u>Jaheen, Z.F.</u> and Mohamed, H.S. (2011). Bayesian estimation under a mixture of the Burr type XII distribution and its reciprocal. ***Journal of Statistical Computations* and *Simulation*, 81,** 2121-2130. (USA).

40. <u>Jaheen, Z.F.</u> and Okasha, H.M. (2011). E-Bayesian estimation for the Burr type XII model based on type-2 censoring. ***Applied Mathematical Modeling,*** 35, 4730-4737. (USA).

41. <u>Jaheen, Z.F.</u> and Al Harbi, M. M. (2011). Bayesian estimation based dual generalized order statistics from the exponentiated Weibull Model. ***Journal of Statistical Theory and Applications,*** Vol. 10, 4, 591-602. (USA).

42. Ahmad, K. E., <u>Jaheen, Z.F.</u> and Mohamed, H.S. (2012). Bayesian prediction based on type-1 censored data from a mixture of the Burr type XII distribution and its reciprocal. ***Statistics,* 46**, 787-797**.** (Germany).

43. <u>Jaheen, Z.F.</u> and Ali, S.M.A.M (2012). Bayesian prediction of hybrid data from linear exponential distribution**. *Al-Azhar Bulletin of Science*** 23 (2), 103-115. (Egypt)

44. <u>Jaheen, Z.F.</u>, Mustafa, H.M. and Abd El-Monem, G.H. (2014). Bayes inference in constant partially accelerated life tests for the generalized exponential distribution with progressive censoring. ***Communications in Statistics: Theory and Methods***, 43, 2973-2988. (USA).

45. Abd El-Monem, G.H. and <u>Jaheen, Z.F.</u> (2015). Maximum likelihood estimation and Bootstrap confidence intervals for a simple step-stress accelerated generalized exponential model with type-II censored data. ***Far East Journal of Theoretical Statistics***, 50, 2, 111-124. (INDIA)

46. <u>Jaheen, Z.F.</u> and Ali, S.M.A.M (2016). Bayesian estimation for the parameters of the Weibull – geometric distribution based on progressive first failure censored data. J. Math. Comput. Sci. 6, No. 5, 814-825. (USA).

47. Abd El-Monem, G.H. and <u>Jaheen, Z.F.</u> (2017). Bayesian estimation for a multi step-stress accelerated generalized exponential model with type-II censored data. J. Math. Comput. Sci. 7, No. 2, 292-306. (USA).

48. <u>Jaheen, Z.F.</u> and Ali, S.M.A.M (2017). Bayesian Prediction for Progressive Censored Data From the Weibull-Geometric Model. **American Journal of Mathematical and Management Sciences.** Vol.36, No. 3, 274-258. (USA).
DOI: 10.1080/01966324.2017.1334603

49. <u>Jaheen, Z.F.</u> and Ali, S.M.A.M (2020). Bayes estimation of linear exponential parameters based on hybrid data. J*ournal of Statistical Theory and Applications.* Accepted and to Appear. (USA).