

## **CURRICULUM VITAE**

### **Personal**

Name: Dr. Javid Shabbir  
Father's Name: Shabbir Hussain  
Permanent Home Address: House No. 360, Street No. 33, F-11/2,  
Islamabad  
Postal Address: Dept. of Statistics  
Quaid-i-Azam University, Islamabad.  
Telephone #: 051-90642140  
Email: [javidshabbir@gmail.com](mailto:javidshabbir@gmail.com), [js@qau.edu.pk](mailto:js@qau.edu.pk)

### **Academic Career**

Visiting Research fellow (University of North Carolina at Greensboro, USA, 15-Jan. to 18 May, 2008)  
Post Doctorate (University of North Carolina at Greensboro 2005, USA)  
Post-Doctorate (University of Southern Maine 2003, USA)  
Ph.D. Statistics (Kent University at Canterbury 1997, UK)  
M. Sc. Social Statistics (Southampton 1993, UK)  
M. Sc. Statistics (Islamia University Bahawalpur, 1989)

### **Work Experience**

- (i) 2-6-2008 to date: Chairman, Department of Statistics, Quaid-i-Azam, University, Islamabad.
- (ii) 21-1.2012 to date: Tenured Track Professor, Department of Statistics, Quaid-i-Azam University, Islamabad.
- (iii) 26.2.2011-20.1.2012: Professor, Dept. Statistics, Quaid-i-Azam University, Islamabad.
- (iv) (21.07.2006 to 25.2.2011): Associate. Prof., Department of Statistics, Quaid-i-Azam University, Islamabad.
- (v) (9.8.1999 to 20.7.2006): Assistant Prof., Department of Statistics, Quaid-i-Azam University, Islamabad.
- (vi) Previous (From 13.1.90 to 7.8.99): obtained Ph. D. degree and served as Lecturer in Statistics at various Govt., colleges of Punjab, Lahore.

### **Computer Skills**

SAS, SPSS, S plus, Minitab, Fortran, C++, Microsoft Word, Latex 2E.

### **Field of Interest**

Randomized Response, Survey Sampling, Non-response.

### **Title of PhD Thesis**

Choice and collection of Agriculture survey Data in Punjab and its Use in Planning Improved Food Supply.

### **Title of MSc Thesis**

The Incidence of Measles in England and Wales (1945-1956).

### **List of Taught Courses**

- (i) Sampling Techniques
- (ii) Regression analysis
- (iii) Operation Research and Management
- (iv) Statistical Inference
- (v) Non-Parametric Statistics
- (vi) Survey Sampling (I, II)
- (vii) Experimental Design (I, II)
- (viii) Probability and probability distributions(I, II)

### **Scholarships/Awards:**

- (i) Merit Scholarship (First position in MSc Exam I.), Islamia Univ., Bahawalpur.
- (ii) Quaid-i-Azam scholarship for Ph.D, awarded by the Govt. of Pakistan, Ministry of Education, Islamabad.
- (iii) Gold Medal (First class first in MSc Exam.), awarded by Islamia Univ., Bahawalpur.
- (iv) Post-doc research fellowship (2003), awarded by Ministry of Science and Technology, Islamabad.
- (v) Post-doc research fellowship (2005), awarded by University of North Carolina at Greensboro, USA.
- (vi) Research Productivity Award 2012, Pakistan Council for Science and Technology, Islamabad.

### **Seminars/Conferences attended:**

- (i) Attend the RSS95 conference at Southampton, (UK), (11-15 Sept., 1995).
- (ii) Paper presented on “Data analysis on Agricultural production in Punjab” in 19<sup>th</sup> Research Students conference in Prob. and Statistics. Dept. Math and Social Statistics, university of Southampton, UK (March 17-24, 1996).
- (iii) Paper presented on “Comparison of some ratio type estimators under a super population Model”, Kent University at Canterbury, UK, (May 1995).
- (iv) Paper presented on “Improved ratio estimators”, Joint Statistical Seminars (Sussex and Kent Uni, UK) at Sussex university (June, 1995).
- (v) Shabbir and Zafaryab (2001): A ratio-type estimators and its comparison with similar estimators, paper presented at Islamic conference at Lahore, 2-5 January.
- (v) Shabbir and Zafaryab (2001): Comparison of Ratio-type estimators under a Super Population Model, paper presented at 8<sup>th</sup> Statistical Seminar held at Karachi University, Karachi, 23-25 July.
- (vi) Shabbir (2003): Modification of Warners Model, Paper presented at Southern Maine University, USA, March 2003.
- (vii) Shabbir, J and Gupta, S. (2004): Improved ratio estimators in PPS stratified sampling, paper presented at SCRA2004-FIM XI, Eleventh International conference of Forum for Interdisciplinary Mathematics held at Lucknow, India on Dec. 27-29, 2004.
- (viii) Shabbir, J (2004): Improved ratio estimators in stratified sampling, paper presented at Department of Mathematics, Quaid-i-Azam University, Islamabad on 30<sup>th</sup> Nov., 2004.
- (ix) Shabbir, J (2005): Optimal allocation in stratified randomized response model, paper presented at department of Statistics, Quaid-i-Azam University, Islamabad on 24 Feb., 2005.
- (x) Shabbir, J. Azam, M. (2005): The use of auxiliary information in Successive Sampling, 8<sup>th</sup> International conference ISSOS, 17-22 Dec., Lahore

- (xi) Gupta, S. Shabbir, J. (2005): Mean estimation using transformed auxiliary variables, ISCM , Malaysia, 28 Dec., 2005.
- (xii) Shabbir, J and Zawar, H. (2006): Extension of Kim and Park Quantitative randomized response Model, Ist International conference on Statistics and operation Research-2006 (April 3-5, 2006), Punjab University, Lahore.
- (xiii) Shabbir, J. (2008): Variance estimation for separate regression estimator of the mean in Stratified sampling, International conference on interdisciplinary mathematical and statistical techniques, IMST 2008 / FIM XVI, 15 May-18 May 2008, the dept. of mathematical sciences, the university of Memphis, USA.
- (xiv) Shabbir, J. Majid, S. (2008): Variance estimation under Nest Stratified Sampling, 23-25 December, 2008., ISOS Lahore.
- (xv) Shabbir, J. and Gupta, S. (2010): Generalized estimators of finite population mean in the presence of auxiliary attribute, LinStat 2010, Tomar, Portugal, 27-31 July.
- (xvi) Shabbir, J. (2010), Search of effective rotation patterns in successive sampling over two occasions, Third International conference on “Statistical Sciences”, Nov. 25-27.
- (xvii) Gupta, S. Mehta, S. Shabbir, J. and Dass, B. K. (2010): Estimation in two stage randomized response models, 19<sup>th</sup> international conference of forum for Interdisciplinary mathematics on interdisciplinary mathematical and statistical techniques (IMST 2010FIMXIX), 18-20 December, PATNA University, India.
- (xviii) Riaz, S. and Shabbir, J. (2011): An improved class of regression estimators for the population mean using multi-phase sampling scheme in the presence of non-response, The 11<sup>th</sup> Islamic Countries Conference on Statistical Sciences (ICCS-11), 19-22 December, Lahore, Pakistan.
- (xix) Batool, S. and Shabbir, J. (2011): Food inflation in Pakistan, The 11<sup>th</sup> Islamic Countries Conference on Statistical Sciences (ICCS-11), 19-22 December, Lahore, Pakistan.
- (xx) Ahmed , A and Shabbir, J. (2011): Estimation of Finite Population Coefficient of Variation in Stratified Random Sampling, The 11<sup>th</sup> Islamic Countries Conference on Statistical Sciences (ICCS-11), 19-22 December, Lahore, Pakistan.
- (xxi) Honor, W. and Shabbir, J. (2011): Efficient estimators under two successive occasions using auxiliary information and non response, The 11<sup>th</sup> Islamic Countries Conference on Statistical Sciences (ICCS-11), 19-22 December, Lahore, Pakistan.
- (xxii) Aneela, S. and Shabbir, J. (2011): Double sampling for stratification with sub-sampling the non-respondents when utilizing information on the auxiliary attribute, The 11<sup>th</sup> Islamic Countries Conference on Statistical Sciences (ICCS-11), 19-22 December, Lahore, Pakistan.
- (xxiii) Real, P. C., Sousa R., Gupta, S. And Shabbir, J. (2012): A Utilização de Informação Auxiliar Retrospectiva na Estimação da Média, JA CLAD2012, XIX Jornadas de Classificacao e Analise de Dados, 28-31 March, Tomar, Portugal.
- (xxiv) Sousa, R., Shabbir, J., Real, P. C. and Gupta, S. (2012): Ratio estimation of the mean of a sensitive variable in the presence of auxiliary information, XX CONGRESSO Sociedade Portuguesa De Estatistica, 26-29 September, Portugal.
- (xxv) Shabbir, J. and Gupta, S. (2012): Some estimators of finite population mean in case of missing observations, International conference on Interdisciplinary Statistics and Combinatorics (AISC-2012), University of NorthCarolina-Greensboro, October 5-7, 2012.
- (xxvi) UNODC (2013): Regional workshop on the collection of data on drug use, 1-4<sup>th</sup> July, Islamabad, Pakistan.

- (xxvii) Khan, M. and Shabbir, J. (2014): A general class of estimators for finite population mean in the presence of non-response when using second raw moments, International conference on Computational and Social sciences, Abdul Wali Khan University, Mardan, Pakistan.
- (xxviii) Shabbir, J. (2014): On a general class of mean estimators in survey sampling, International conference on Interdisciplinary Statistics and Combinatorics (AISC-2014), University of North Carolina-Greensboro, October 10-12, 2014.

## **Publications**

### **(a) International Journal**

#### **2015**

1. Shabbir, J. and Gupta (2015): Estimation of finite population mean using two auxiliary variables in stratified two phase sampling, *Communication in Statistics-Theory and Methods* (Accepted for publication).
2. Shabbir, J., Gupta, S. and Hussain, Z. (2015): Improved estimation of finite population median under two-phase sampling when using two auxiliary variables, *Scientia Iranica* (Accepted for publication).
3. Shabbir, J. and Gupta, S. (2015): Estimation of finite population mean in stratified random sampling with two auxiliary variables under double sampling design, *Communication in Statistics-Theory and Methods* (Accepted for publication).
4. Khan, Z. and Shabbir, J. (2015): Modified systematic sampling in the presence of linear trend, *Hacetepa Journal of Mathematics and Statistics* (Accepted for publication).
5. Khan, Z. and Shabbir, J. (2015): Generalized systematic sampling, *Communication in Statistics-Computation and Simulation* (Accepted for publication).
6. Batool, F. and Shabbir, J. (2015): A two stage design for multivariate estimation of proportion, *Communication in Statistics-Theory and Methods* (Accepted for publication).
7. Khan, Z. and Shabbir, J. (2015): Some remarks on the traditional way of circular and diagonal circular systematic sampling schemes, *Communication in Statistics-Theory and Methods* (Accepted for publication).
8. Zawar, H. Bandar, A. Shabbir, J. and Khan, M. (2015): On using negative binomial distribution as a randomization device in sensitive surveys, *Communication in Statistics-Theory and Methods* (Accepted for publication).

#### **2014**

9. Haq, A. and Shabbir, J. (2014): An improved estimator of finite population mean when using two auxiliary attributes, *Applied Mathematics and Computation*, 141, 14-24.

10. Haq, A. and Shabbir, J. (2014): An improved family of estimators of finite population mean based on the auxiliary attribute, *Applied Mathematics and Computation*, 230, 336-341.
11. Haq, A. and Shabbir, J. (2014): Improved exponential type estimators of finite population mean under complete and partial auxiliary information, *Hacetepa Journal of Mathematics and Statistics*, 43(6), 1079-1093.
12. Saba, R., Diana, G. and Shabbir, J. (2014): A general class of estimators for the population mean using multi-phase sampling with the non-respondents, *Hacetepa Journal of Mathematics and Statistics*, 43(3), 511-527.
13. Shabbir, J., Haq, A. and Gupta, S. (2014): A new difference-cum-exponential type estimator of finite population mean in simple random sampling, *Revista Colombiana de Estadística*, 37 (1), 199-211.
14. Awan, W. H. and Shabbir, J. (2014): On optimum regression estimator for population mean using two auxiliary variables in simple random sampling, *Communication in Statistics-Computation and Simulation*, 43, 1508-1522.
15. Sousa, S, Shabbir, J. Gupta, S. and Real (2014): Improved exponential type estimators of the mean of a sensitive variable in the presence of non-sensitive auxiliary information, *Communication in Statistics-Computation and Simulation* (Accepted for publication).
16. Shabbir, J. and Gupta, S. (2014): An improved generalized difference-cum-ratio type estimator for the population variance in two phase sampling using two auxiliary variables, *Communication in Statistics-Theory and Methods*, 43(10), 2540-2550.
17. Sousa, R., Gupta, S., Shabbir, J. and Real, P. C. (2014): Improved mean estimation of a sensitive variable using auxiliary information in stratified sampling, *Journal of Statistics and Management Systems*, (Accepted for publication).
18. Khan, M., Shabbir, J. Hussain, Z. and Al-Zahrani, B. (2014): A class of estimators for finite population mean in double sampling under nonresponse using fractional raw moments, *Journal of Applied Mathematics*, 2014, ID 282065, 12 pages.
19. Ullah, A., Shabbir, J. Hussain, Z. and Al-Zahrani, B. (2014): Estimation of finite population mean in multivariate stratified sampling under cost function using goal programming, *Journal of Applied Mathematics*, 2014, ID 686579, 12 pages.
20. Gupta, S., Kalucha, G., Shabbir, J. and Dass, B. K. (2014): Estimation of finite population mean using optional RRT models in the presence of non-sensitive auxiliary information, *American Journal of Mathematics and Management Sciences*, 33, 147-159.
21. Khan, Z., Gupta, S. and Shabbir, J. (2014): A note on diagonal circular systematic sampling, *Journal of Statistical Theory and Practice*, 8(3), 439-443.

22. Diana, G., Riaz, S. and Shabbir, J. (2014): Hansen and Hurwitz estimator with scrambled response on the second call, *Journal of Applied Statistics*, 41 (3), 596-611.
23. Jabbar, M., Shabbir, J., Ahmed, Z. and Rehman, Z. (2014): Ratio type exponential estimator for the estimation of finite population variance under two-stage sampling, *Research Journal of Applied Sciences*, 7(19), 4095-4099.
24. Khan, S., Muhammad, Y. S. and Shabbir, J. (2014): Comparison of modified extended lexicographic technique with fuzzy and value function techniques using the auxiliary information as attributes, *International Journal of Business and Social Sciences*, 5(13),
25. Naz, S., Shad, M. Y. and Shabbir, J. (2014): Compromise allocation for mean estimation in stratified random sampling using auxiliary attributes when some observations are missing, *International Journal of Business and Social Sciences*, 5(13).

### 2013

26. Hussain, Z. Shah, E. A., Shabbir, J., and Riaz, M. (2013): On an improved bayesian item count technique using different priors, *Revista Colombiana Estadística*, 36(2), 305-319.
27. Hussain, Z. Abid, M., Shabbir, J., and Riaz, M. (2013): Alternative estimation procedures for estimating the population proportion using Mahmood et al. (1998) technique 1. *International Journal of Agriculture and Statistical Sciences*, 9(2), 387-398.
28. Khan, M. and Shabbir, J. (2013): Some improved ratio, product and regression estimators of finite population mean when using minimum and maximum values, *The Scientific World Journal*, 1-7.
29. Khan, M. and Shabbir, J. (2013): A ratio type estimator for the estimation of population variance using quartiles of a auxiliary variable, *Journal of Statistics Applications and Probability*, 2(3), 319-325.
30. Gupta, S., Mehta, Shabbir, J., Dass, K. (2013): Generalized scrambling in quantitative optional randomized response models, *Communication in Statistics-Theory and Methods*, 42 (22), 4034-4042.
31. Shabbir J. and Khan, N. S. (2013): On estimating the finite population mean using two auxiliary variables in two phase sampling in the presence of nonresponse, *Communication in Statistics-Theory and Methods*, 42 (22), 4127-4145.
32. Khan, Z., Shabbir, J., Griffiths, M. and Lausen, B. (2013): On the ratio method of estimation via auxiliary attributes in simple and stratified random sampling, *International Journal of Statistics and Systems*, 8(2), 163-180.
33. Hussain, Z., Abid, M., Shabbir, J. and Riaz, M. (2013): Estimating the Population Proportion using Mahmood et al. (1998) Technique-I, *International Journal of Agricultural and Statistical Sciences*, 9(2), 387-398.

34. Hussain, Z. and Shabbir, J. (2013): Estimation of mean of a socially undesirable characteristic, *Scientia Iranica*, 20(3), 839-845.
35. Shabbir, J. and Khan, N. S. (2013): Some modified exponential ratio-type estimators in the presence of non-response under two-phase sampling scheme, *Electronic Journal of Applied Statistical Sciences*, 6(1), 1-17.
36. Zaheen, K., Shabbir, J. and Gupta, S. (2013): A new sampling design for systematic sampling, *Communication in Statistics-Theory and Methods*, 42(18), 2659-2670.
37. Haq, A. and Shabbir, J. (2013): Improved Family of ratio estimators in simple and stratified random sampling, *Communication in Statistics-Theory and Methods*, 42(5), 782-799.

## 2012

38. Hussain, Z. and Shabbir, J. (2012): New randomized response procedures, *Journal of Science*, Islamic Republic of Iran, 23(4), 347-356.
39. Tahir, M. H., Iqbal, I. and Shabbir, J. (2012): Polygonal designs with block size 3 and single distance, *Hacettepe journal of Mathematics and Statistics*, 41(4), 587-604.
40. Mehta, S., Dass, B. K.; Shabbir, J. and Gupta, S. (2012): A three stage optional randomized response model, *Journal of Statistical Theory and Practice*, 6(3), 417-427.
41. Hussain, Z., Shah, E. A. and Shabbir, J. (2012): An improved item count technique in sensitive surveys, *Revista Colombiana de Estadística*, 35(1), 39-54.
42. Gupta, S. Shabbir, J., Sousa, R. and Real, C. (2012): Estimation of the mean of a sensitive variable in the presence of auxiliary information, *Communication in Statistics-Theory and Methods*, 41(13-14), 2394-2404.
43. Hussain, Z. and Shabbir, J. (2012): Bayesian estimation of population proportion in Kim and Warde mixed randomized response technique, *Electronic Journal of Applied Statistical Analysis*, 5(2), 213-225.

## 2011

44. Gupta, S; Mehta, S; Shabbir, J. and Dass, B. K. (2011): Some optimality issues in estimating two-stage optional randomized response models, *American Journal of Mathematical and Management Sciences*, 31(1 & 2), 1-12.
45. Shabbir, J. and Hussain, Z. (2011): Using inverse binomial sampling in randomized response models, *International Journal of Agricultural and Statistical Sciences*, 7, 2, 361,-370.
46. Masood, S. and Shabbir, J. (2011): Ratio estimators for the population variance in nested stratified sampling, *International Journal of Agricultural and Statistical Sciences*, 7, 2, 589-603.

47. Nzuk, A, Nadir, S. and Shabbir, J. (2011): Adjustment of the auxiliary variable(s) for estimation of a finite population mean, Annual International Conference on Operation Research and Statistics, Global Science and Technology Forum (GSTF), 7-8 April, Malaysia, 3-6.
48. Shabbir, J. and Hussain, Z. (2011): On modified randomized device for Simmon's model, *International Journal of Agricultural and Statistical Sciences*, 7(2), 77-85.
49. Shabbir, J. and Gupta, S. (2011): On estimating the finite population mean in simple and stratified random sampling, *Communication in Statistics-Theory and Methods*, 40(2), 199-212.
50. Hussain, Z. and Shabbir, J. (2011): Improved estimation of mean in randomized response models, *Hacettepe Journal of Mathematics and Statistics*, 40(1), 91-101.
51. Hussain, Z., Shabbir, J. and Riaz, M. (2011): Bayesian estimation using Warner's randomized response model through simple and mixture prior distributions, *Communication in Statistics-Simulation and Computation*, 40, 159-176.
52. Hussain, Z., Shabbir, J. (2011): An estimation of sensitive proportion utilizing higher order moments of auxiliary variable, *International Journal of Business and Social Science*, 2(2), 121-125.
53. Hussain, Z., Hamraz, S. and Shabbir, J. (2011): An improved Quantitative randomized response model. *International Journal of Business and Social Science*, 2(2), 200-205.
54. Hussain, Z., Anjum, S. and Shabbir, J. (2011): Improved logit estimation through Mangat randomized response model, *International Journal of Business and Social Science*, 2(5), 179-188.
55. Gupta, S. and Shabbir, J. (2010): Estimating variance of stratified random sample mean in two phase sampling using two auxiliary variables, *American Journal of Mathematical and Management. Sciences*, 30(3&4), 347-364.
56. Hussain, Z., Shabbir, J. (2011): Estimation of mean, variance and sensitive level of a sensitive variable using scrambled response technique, *World Applied Science Journal*, (Accepted).

## **2010**

57. Hussain, Z., Shabbir, J. (2010): On item count technique in survey sampling, *Journal of Informatics and Mathematical Sciences*, 2 (2 & 3), 161-169.
58. Shabbir, J. and Gupta, S. (2010): Some estimators of finite population variance of stratified sample mean, *Communication in Statistics-Theory and Methods*, 39 (16), 3001-3008.
59. Gupta, S. Shabbir, J. and Sehra, S. (2010): Mean and sensitivity estimation in optional randomized response models, *Journal of Statistical Planning and Inference*, 140(10), 2870-2874.

60. Shabbir, J. and Gupta, S. (2010): Estimation of finite population mean in two-phase sampling when auxiliary variables are attribute, *Hacettepe Journal of Mathematics and Statistics*, 39 (1), 121-129.
61. Haq, A. and Shabbir, J. (2010): A family of ratio estimators for population mean in extreme ranked set sampling using two auxiliary variables, *SORT*, 34(1), 45-64.
62. Tahir, M. H., Iqbal, I., Akhtar, M. and Shabbir, J. (2010): Cyclic polygonal designs with block size 3 and  $\lambda=1$  for joint distance  $\alpha=6$  to 16, *Journal of Statistical Theory and Practice*, 4 (2), 204-220.
63. Gupta, S. and Shabbir, J. (2010): Variance estimation for the regression estimator of the mean in stratified sampling, *Journal of the Indian Society of Agricultural Statistics*, 64(2), 255-260.
64. Sousa, R., Shabbir, J. Real, P. C. and Gupta, S. (2010): Ratio estimation of the mean of a sensitive variable in the presence of auxiliary information, *Journal of Statistical Theory and Practice*, 4(3), 495-507.
65. Hussain, Z. and Shabbir, J. (2010): Three stage randomized response model, *Journal of Probability and Statistical Sciences*, 8(2), 223-235.
66. Nazuk, A. and Shabbir, J. (2010): A new mixed randomized response model, *International Journal of Business and Social Science*, 1(1), 186-190.

## 2009

67. Hussain, Z. and Shabbir, J. (2009): Bayesian estimation in Kim and Ward's (2009) mixed randomized response model using mixed prior distribution, *Journal of Probability and Statistical Sciences*, 7(1), 71-80.
68. Iqbal, I. Tahir, M. H., Akhtar, M., Ghazali, S.S.A., Shabbir, J. and Bukhari, N. S. (2009): Generalized polygonal designs with block size 3 and  $\lambda=1$ , *Journal of Statistical Planning and Inference*, 139, 3200-3219 .

## 2008

69. Gupta, S; Shabbir, J. (2008): On improvement in estimating the population mean in simple random sampling, *Journal of Applied Statistics*, 35(5), 559-566.
70. Hussain, Z. and Shabbir, J. (2008): An improvement over Christofides' randomized response technique, *Journal of Probability and Statistical Sciences*, 6(1), 85-90.
71. Gupta, S. Shabbir, J. and Ahmad, S. (2008): Estimation of median in two phase sampling using two auxiliary variables, *Communication in Statistics-Theory and Methods*, 37(11), 1815-1822.
72. Hussain, Z. and Shabbir, J. (2008): Generalized quantitative randomized response model, *Interstat*, <http://interstat.statjournals.net/INDEX/Jan08.html>
73. Gupta S. and Shabbir, J. (2008): On estimation the ratio of proportions of two categories of a population using auxiliary information, *Journal of Indian Society of Agricultural Statistics*, 62(2), 149-155.

74. Gupta S. and Shabbir, J. (2008): Variance estimation in simple random sampling using auxiliary information, *Hacetepa Journal of Mathematics and Statistics*, 37(1), 57-67.
75. Hussain, Z. and Shabbir, J. (2008): Logit estimation using Warner's randomized response model, *Journal of Modern Applied Statistical Methods*, 7 (1), 140-151.

## 2007

76. Zawar, H; Shabbir, J. and Gupta, S. (2007): An alternative to Ryu et. al. Randomized response model, *Journal of Statistics and Management System*, 10(4), 511-517.
77. Gupta, S and Shabbir, J. (2007): On the use of transformed auxiliary variables in estimating population mean, *Journal of Statistical Planning and Inference*, 137(4), pp. 1606-1611.
78. Shabbir, J. and Gupta, S. (2007): On improvement in variance estimation using auxiliary information, *Communication in Statistics (T & M)*, 36(12), 2177-2185.
79. Hussain, Z. and Shabbir, J. (2007): Randomized used of Warner's randomized response model, *Interstat*, <http://interstat.statjournals.net/INDEX/Apr07.html>.
80. Hussain, Z. and Shabbir, J. (2007): Improved Mixed Randomized Response Model, *Interstat*, <http://interstat.statjournals.net/INDEX/Jun07.html>
81. Hussain, Z. and Shabbir, J. (2007): Improvement over Kim and Ward's Randomized Response Technique over Complex Survey, *Interstat*, <http://interstat.statjournals.net/INDEX/Jul07.html>
82. Hussain, Z. and Shabbir, J. (2007): On estimation of mean of a sensitive quantitative variable, *Interstat*, <http://interstat.statjournals.net/INDEX/Jul07.html>
83. Gupta S. and Shabbir, J (2007): On the estimation of population mean and sensitivity in two-stage optional randomized response model, *Journal of Indian Society of Agricultural Statistics*, 61(2), 164-168.
84. Hussain, Z. and Shabbir, J. (2007): Estimation of mean of a sensitive quantitative variable, *Journal of Statistical Research*, 41(2), 83-92.

## 2006

85. Shabbir, J and Gupta, S. (2006): A new estimator of population mean in stratified sampling, *Communication in Statistics-Theory and Methods*, 35(7), 1201-1209.
86. Shabbir, J and Gupta, S. (2006): On estimation of finite population variance, *Journal of Interdisciplinary Mathematics*, 9(2): 405-419.
87. Shabbir, J and Gupta, S (2006): On Improved Estimators of  $K$  and  $B$  in Finite population. *Journal of Statistics and Management Systems*, 9(1), 15-25.
88. Gupta, S and Shabbir, J (2006): An alternative to Warner's randomized response Model, *Journal of Modern Applied Statistical Methods*, 5(2), 328-331.

89. Gupta, S; Thornton, B; Shabbir, J; Singhal, S (2006): A comparison of multiplicative and additive optional RRT models, *Journal of Statistical Theory and Applications*, 5(3), pp. 226-239.
90. Gupta, S; Shabbir, J and Lembo, R (2006): Modification to Warner's Model using blank cards. *American Journal of Mathematical and Management Sciences*, 26 (1&2), 185-196.
91. Gupta, S; Shabbir, J. (2006): On dual to ratio-type estimators of population mean using transformed auxiliary variables, *Journal of Combinatorics, Information and System Sciences*, 31(1-4), 295-206.

## 2005

92. Shabbir, J and Gupta, S (2005): Improved ratio estimators in stratified sampling, *American Journal of Mathematical and Management Sciences*, 25 (3 & 4), 293-311.

## 2004

93. Gupta, S and Shabbir, J (2004): Sensitivity estimation for personal Interview Survey Questions, *STATISTICA*, 64(4): 643-653.

## 2003

94. Shabbir, J and Yaab, Z. M (2003): Improvement over transformed auxiliary variable in estimating the finite population means, *Biometrical Journal*, 45(6), 723-729.

## Local Journals

95. Riaz, S., Diana, G. and Shabbir, J. (2014): Improved classes of estimators for population mean in presence of non-response, *Pakistan Journal of Statistics*, 30(1), 83-100.
96. Haq, A., Shabbir, J. and Gupta, S. (2013): Improved exponential ratio type estimators in stratified sampling, *Pakistan Journal of Statistics*, 29(1), 13-31.
97. Hussain, Z. Hamraz, M. and Shabbir, J. (2013): On alternative estimation techniques for randomized response models, *Pakistan Journal of Statistics* 29(3), 283-306.
98. Saghir, A. and Shabbir, J. (2012): Estimation of finite population mean in stratified random sampling using auxiliary attribute(s) under Non-Response, *Pakistan Journal of Statistics and Operation Research*, 8(1), 73-82.
99. Ahmed, A. and Shabbir, J. (2011): Estimation of finite population coefficient of variation in stratified sampling, *Proceedings, ICCS-11, Lahore*, 21, 591-608.
100. Riaz, S. and Shabbir, J. (2011): An improved class of regression estimators for the population mean under multi-phase sampling scheme in the presence of non-response, *Proceedings, ICCS-11, Lahore*, 21, 563-576.

101. Tahira, A. and Shabbir, J. (2011): A general family of estimators when the study variable is an attribute, *Proceedings, ICCS-11, Lahore*, 21, 577-590.
102. Batool, S. and Shabbir, J. (2011): Determinants of food inflation in Pakistan and effects of seasonal adjustment on forecasting food inflation, *Proceedings, ICCS-11, Lahore*, 21, 577-590.
103. Shabbir, J., Khan, Z., and Hussain, Z. (2011): Estimation of population mean in systematic sampling, *Proceedings Pakistan Academy of Sciences*, 48(3), 173-178.
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105. Hussain, Z and Shabbir, J. (2009): Bayesian estimation of population proportion of a sensitive characteristic using mixed and simple prior distribution, *Pakistan Journal of Statistics*, 25 (1), 27-35.
106. Hussain, Z and Shabbir, J. (2009): On estimation of mean of a sensitive quantitative variable in complex surveys, *Pakistan Journal of Statistics*, 25 (2), 127-134.
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108. Shabbir, J., Zavar, H. and Irshad, M. (2007): On modified randomized device of Warner's model in stratified sampling, *Journal of Science and Technology, University of Peshwar*, 31(1-2), 1-5.
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110. Shabbir, J. (2006): A dual to variance ratio-type estimator in simple random sampling, *Pakistan Academy of Sciences*, 43(4), 279-283.
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114. Shabbir, J and Gupta, S (2004): Unbiased ratio-cum-product estimator in estimating the finite population mean, *Islamabad J. of Science*, 14(1), 107-114.
115. Shabbir, J and Gupta, S (2004): Efficiency and Bias reduction in Ratio estimation under a model, *Pakistan Academy of Sciences*, 41(2), 133-139.

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119. Shabbir, J. and Akhtar, M. (2000): Study of Whole-plot and Sub-plots for estimating the production estimates. *Sarhad Journal. of Agriculture*, 16(1), 105-109.
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121. Shabbir, J. and Akhtar, M. (1999): Estimating the area under crops for intercrop in Bahawalpur Division. *Journal of Scientific. International*, 11(4), 401-412.
122. Shabbir, J and Akhtar, M (1999): Ratio-type estimator and its comparison. Proc. PSA- XII, Lahore, *Pakistan Journal of Statistics*, 22, 89-100.
123. Shabbir, J and Akhtar, M (1999): Crop-Cut method to evaluate production estimates and its improvement. *Sarhad Journal. of Agriculture*,15(5), 505-511.
124. Shabbir, J and Akhtar, M. (1998): Improvement over ratio and ratio-type estimators. *Journal of Statistics*, 6(1), 23-32.

### **Book Review**

125. Shabbir, J. (2010): [Book Review: Advances in Sampling Theory - Ratio Method of Estimation by Hulya Cingi and Cem Kadilar \(eISBN: 978-1-60805-012-3\), Bentham Science Publishers Ltd, Sharjah, UAE, 2009](#), *Journal of Statistical Theory and Practice*, 4(3), 527.
126. Shabbir, J. (1998): “Applied Statistical Methods: for business, economics and social sciences”. *Journal of Royal Statistical Society, The Statistician*, UK, 47(3), 540.
127. Shabbir, J. (1998): “Understanding Statistics: An introduction for the social sciences” *Journal of Applied. Statistics.*, UK, 25(5), 716.

### **Duties:**

- Member of the Board of Study, Allama Iqbal Open University, Islamabad.
- Member of the Board of Study, International Islamic University, Islamabad.
- Members of the Board of Study, Bahuddin Zakariya University, Multan.
- Member of the Board of Study, University of Sargodha, Sargodha.
- Associate editor, *Journal of Statistical Theory and Practice* (2012)
- Member of the Board of Examiners, University of Madras, India.
- Member of the PhD Review Committee, HEC, Islamabad.
- Focal point under National Research Program for Universities NRPU.

- Chairman House Allotment Committee at QAU.
- Member of Fee Structure Committee at QAU.
- Chairman Physical Verification Committee.

#### **Referees:**

- Communication in Statistics-Theory and Methods
- Communication in Statistics-Simulation and Computation
- Journal of Statistical Theory and Practice
- Journal of Statistical Planning and Inference
- Hacettepe Journal of Mathematics and Statistics
- Statistics in Transition-new series
- Metron
- Metrika
- Statistics
- Statistical Papers
- Journal of Applied Statistics
- Pakistan Journal of Statistics
- Pakistan Journal of Statistics and Operation Research
- Pakistan Journal of Agricultural sciences
- Quality and Quantity
- Journal of official Statistics
- American Journal of Mathematics and management Systems.
- Sociological Methods and Research
- Journal of Applied Statistics

#### **Reviewed for Math Review**

Reviewed a paper in “Journal of Statistical Planning and Inference” (2009)

Reviewed a paper in “Nonlinear Analysis: Modeling and Control” (2011).

Reviewed a paper in “Biometrika” 98(1), 163-175, (2011).

Reviewed a paper in “Lithuanian Mathematical Journal” 51(3), 425-439, (2011).

#### **PhD Thesis Evaluated**

1. Haq, Inam ul (2010) [\*A Family of Estimators for Two Phase Sampling using Multi-Auxiliary Attributes.\*](#), National College of Buisness Administration & Economics, Lahore .
2. Ahmed Faisal Imtiaz Siddiqi (2009): Child labour: A statistical study using multistage probability proportional stratified systematic sampling, Department of Statistics, GC University, Lahore.
3. Azhar Saleem (2011): Modelling the behaviour of Pakistani married women towards contraceptive use, Department of Statistics, Bahauddin Zakariya University, Multan.
4. Varalakshmi, V. (2011): A study on some systematic sampling schemes, Department of Statistics, University of Maras, Chennai, India.
5. Deepa, S. P. (2013): Designing of Acceptance sampling plans for crisp and fuzzy environment using genetic algorithms, University of Maras, Chennai, India.

#### **Supervision of PhD Students**

1. Mazhar Yaqub (2011): Treatment of non-response in survey sampling, Dept. of Stat, QAU, Islamabad (under process).
2. Zaheen Khan (2011), Generalized designing of systematic sampling schemes, Dept. of Stat, QAU, Islamabad (under process).

3. Lakhkar Khan (2012): Dept. of Stat, QAU, Islamabad (under process).
4. Ayesha Nazuk (2014): Dept. of Stat, QAU, Islamabad (under process).
5. Ehtasham (2014): Dept. of Stat, QAU, Islamabad (under process).
6. Shameem Alam (2014): Dept. of Stat, QAU, Islamabad (under process).
7. Erum Zahid (2014): Dept. of Stat, QAU, Islamabad (under process).
8. Frayal Younus (2014): Dept. of Stat, QAU, Islamabad (under process).
9. Aneel Ahmad (2014): Dept. of Stat, QAU, Islamabad (under process).

### **Co-Supervision of PhD Students**

Tanja Zaezalo (2014): Ratio and regression estimation of the mean of a sensitive variable using RRT models, Department of Mathematics and Statistics, University of North Carolina at Greensboro NC 27412 USA.

### **PhD Produced:**

1. Zawar Hussain (2009): Various Randomized response models in survey sampling, Dept. of Statistics, QAU Islamabad ( viva voce held on 11th March, 2009).
2. Saadia Masood (2014): Variance Estimation in Sampling Theory using Multi Auxiliary Variables, Dept. of Statistics, QAU Islamabad ( viva voce held on 11th March, 2014).
3. Saba Riaz (2014): Multiphase sampling scheme in the presence of nonresponse, Dept. of Statistics, QAU Islamabad ( viva voce held on 26th May, 2014).
4. Wajid Hussain Awan (2015): Efficient control charting schemes for monitoring process location parameter, Dept. of Stat, QAU, Islamabad (Viva voce held on January 5, 2015).

### **Mphil Dissertation Supervised**

1. Muhammad Azam, (2005): Use of Auxiliary Information in Successive Sampling.
2. Shabbir Ahmad (2005): Median Estimation in Survey Sampling.
3. Asif Muhammad. (2005): Various Sampling Techniques with Inclusion Probability Proportional to size.
4. Waqas, Ahmad. (2006): The Use of Non-response in Survey Sampling.
5. Ayesha Nazuk. (2007): Using randomized response to estimate the truthful replies.
6. Nadia Mushtaq (2007): Estimation of a proportion in sampling finite population.
7. Saadia Masood (2007): Hierarchic predictive estimators and their efficiency.
8. Raheela Yaqoob (2007): Jackknifing some classes of estimators in survey sampling.
9. Sadia Nadir (2007): Adjustment of the auxiliary variable(s) to estimate the finite population parameters.
10. Zahid-ur-rehman (2007): Using quantile estimates in a finite population .
11. Nasir Khan (2008): Methods of Imputation based on available units.
12. Sahid Hussain (2008): Use of Calibration estimators in survey sampling.
13. Aqueel-Ur-Rehman (2008): Accuracy of some estimators in the presence of measurement errors.
14. Ansar Sahazadi (2008): Some Families of Population Variance using Auxiliary Information.
15. Samia Sabir (2008): Cluster sampling conjunction with various methods of estimation.
16. Uzma Nasim (2008): Empirical study in finite correlation coefficient in survey

- sampling.
17. Hafiz Zafar Nazir (2009): Non-Parametric approaches to control charts.
  18. Zaheen Khan (2009): An almost unbiased estimator of population mean using auxiliary information in systematic sampling (Allama Iqbal University, Islamabad).
  19. Abdul Haq (2010): Estimation of population mean using nested stratified and ranked set sampling.
  20. Muhammad Abid (2010): Bayesian Analysis of some Randomized response models.
  21. Muhammad Hamraz (2010): On Quantitative Randomized Response Models.
  22. Adila Kausar (2010): Estimation of finite population variance in the presence of measurement errors.
  23. Sobia Qayyum (2010): Some estimators for the population mean and population variance using auxiliary information.
  24. Ummara Shahid (2010): Search of effective rotation patterns in successive sampling over two occasions
  25. Jawaria Nasir (2010): Estimation of population mean when some observations are missing.
  26. Manzoor Khan (2010): Treatment of non-response using auxiliary information.
  27. Zardar Khan (2011): Ratio method of estimation for auxiliary attribute.
  28. Kadija Maryam (2011): Optimal use of auxiliary information under sub-sampling scheme.
  29. Aneela Saghir (2011): Some estimators of finite population mean in stratified sampling using the auxiliary attributes under non-response.
  30. Um-e-Rabab (2011): Efficient estimators for the population mean in unequal probability sampling.
  31. Nasir Saeed Khan (2011): On estimating the finite population mean in the presence of non-response under double sampling, Allam Iqbal Open University.
  32. Tariq Aftab (2012): Estimating the poin bi-serial correlation coefficients using auxiliary attribute(s), Allam Iqbal Open University.
  33. Saadia Batool (2012): Determinants of food inflation in Pakistan and effects of seasonal adjustment on forecasting food inflation.
  34. Honour Waheed (2012): Search of effective rotation patterns in successive sampling over two occasions, Quaid-i-Azam University.
  35. Ayesha Tahira (2012): A general family of estimators when the study variable is an attribute, Quaid-i-Azam University.
  36. Samira Asif (2012): Estimation in systematic sampling with supplementary observations, Quaid-i-Azam University.
  37. Aneel Ahmad (2012): Estimation of population coefficient of variation under simple and stratified sampling, Quaid-i-Azam University.
  38. Farzana Tabassum (2012): Estimation of population mean in the presence of measurement error, Allama-Iqbal University, Islamabad.
  39. Mursala Khan (2012): Estimation ratio of two ratios in simple and stratified sampling, Quaid-i-Azam University, Islamabad.
  40. Muhammad Jabbar (2012): A generalized method of estimation for two stage sampling, Quaid-i-Azam University, Islamabad.
  41. Muhammad Rizwan Iqbal (2013): Efficient monitoring of non-normal process, Quaid-i-Azam University, Islamabad.

42. Adnan, M. (2012): Development of regression model for the potential predictability of climate extreme indices and cross-validation, Allama-Iqbal University, Islamabad.
43. Nazish Masood (2012): Mean estimation with application to missing data, Quaid-i-azam University, Islamabad.
44. Nazish Shaheen (2013): Some modified exponential ratio type estimator in the presence of non-response under double sampling, Allama-Iqbal University, Islamabad.
45. Muhammad Amir (2013): On estimating the median from survey data using the auxiliary information, Quaid-i-Azam University, Islamabad.
46. Sahar Sarder (2013): Estimation of population mean using jackknife estimators in systematic sampling, Allama-Iqbal University, Islamabad.
47. Nafeesa Kanwal (2013): Utilization of transformed auxiliary variables in estimating the finite population mean, Allama-Iqbal University, Islamabad.
48. Siraj Muneer (2013): Estimation of finite population mean under different sampling schemes, Quaid-i-Azam University, Islamabad.
49. Muhammad Taqi Shah (2013): On the performance of time series control charts, Quaid-i-Azam University, Islamabad.
50. Serish Naheed (2013): Process monitoring using multivariate attributes control charts, Quaid-i-Azam University, Islamabad.
51. Serish Fatima (2013): Optimum multivariate stratified sampling designs with travel cost function, Quaid-i-Azam University, Islamabad.
52. Sadia Nazir (2013): Effect of measurement errors in survey sampling, Quaid-i-Azam University, Islamabad.
53. Fatima Batool (2013): Efficient estimators for randomized response models, Quaid-i-Azam University, Islamabad.
54. Atta Ullah (2013): Some allocation in multivariate stratified sampling under cost function using multi-objective optimization, Quaid-i-Azam University, Islamabad.
55. Nazish Masood (2013): Mean estimation with application to missing data, Quaid-i-Azam University, Islamabad.
56. Erum Zahid. (2014): Spatial interpolation and optimized sampling design of sodium concentration in drinking water, Quaid-i-Azam University, Islamabad.
57. Naima Mubarak. (2014): Spatial analysis of sulphate concentration in pure drinking water, Quaid-i-Azam University, Islamabad.
58. Waqar Hafiz (2014): Some median type estimators to estimate the finite population mean under different sampling schemes, Quaid-i-Azam University, Islamabad.
59. Naila Afzal. (2013): Robust ratio type estimators under non-normality (under process)
60. Ayesha Saleem (2013): An improved class of estimators for population mean in presence of non-response under different sampling schemes.
61. Sohaib Ali (2014): Bayesian model based inference for finite population total by using discrete data in sample survey, Quaid-i-Azam University, Islamabad.
62. Ayesha Siddiq (2014): Estimation of population mean when some observations are missing, Allama-Iqbal University, Islamabad.
63. Farman Ali (2014): Estimation of finite population mean in sampling using the auxiliary information, Allama-Iqbal University, Islamabad.
64. Maria Qamar (2015): Variance estimation under simple and stratified random sampling (under process).

65. Irum Rehman (2015): Measuring income inequality in Pakistan through Theil Entropy Index, Quaid-i-Azam University, Islamabad.
66. Noreen Naeem (2015): Different aspects of estimation of population mean on two occasions rotation pattern (under process).
67. Isma Siddiqa (2015): Estimation of correlation coefficient under random non-response (under process).
68. Verda Nasir (2015): (under process).
69. Asam Nawaz (2015): (under process).
70. Shakeel Ahmed (2015): (under process).
71. Rukhasana Kosar (2015): (under process).

### **MSc Thesis Supervised**

Mahmood, T. (2005): Comparison of estimators using ranked set sampling.

### **Research Projects:**

1. Shabbir, J. (2005-2006): A comparison of Multiplicative and Additive optional RR Model, URF, Quaid-i-Azam University, Islamabad.
2. Shabbir, J. (2003-2004): Repeated Substitution Method: Estimation of population mean and population variance in the presence of random non-response using two phase sampling, URF, Quaid-i-Azam University, Islamabad.
3. Shabbir, J. (2009-2010): A family of estimators using auxiliary information in the presence of measurement errors, Quaid-i-Azam University, Islamabad.
4. Shabbir, J. (2011-2012): Estimation of finite population mean and variance of missing data under different sampling schemes, URF, Quaid-i-Azam University, Islamabad.