

February 15, 2011

I am a final year Ph.D Researcher in the Department of Econometrics & Operations Research, Tilburg University (The Netherlands). I am expecting to finish my thesis in Spring, 2011. I completed my bachelor and master degrees in Statistics in the year 1990 and 1992 respectively from the University of Jahangirnagar, Bangladesh.

The title of my thesis is “Reproductive Behaviour, Child Survival and Use of Econometric Models: Evidence from Matlab, Bangladesh”.

My thesis focuses on:

- Investigating the inter-family observed and unobserved heterogeneity in child deaths and the causal effect of death of one child on survival chances of the next child, accounting for initial conditions problem.
- Investigating the relationships between birth spacing, child survival and fertility allowing for the simultaneous nature of these processes, with simulations for guiding public policies.
- Investigating the role of contraceptive use on birth spacing and infant mortality controlling for observed and unobserved heterogeneity in the data and accounting for endogeneity of the decision to use contraceptives (in this paper we are trying to investigate the arguments that made by John Bongaarts (1987) and several reactions including you (1988)).
- Analyzing the underlying epidemiology of child deaths taking into account competing risks associated with both observed and unobserved heterogeneity and assuming heterogeneity terms can be correlated.

My experience and training are unique because I have experience in both Econometrics and Biostatistics. More specifically my research focuses on reproductive behaviour, child survival, health care utilization, epidemiology, and contraceptive use dynamics, using both quantitative and qualitative data. I have vast experiences working as independent researcher with special focuses on population and health research, monitoring and evaluating projects, statistical analysis, report writing, and dissemination.

My longtime experiences working with various national and international organizations turn me to be confident on my personal qualities including highly communicative, friendly to colleagues, and adaptive to dynamic working environment.

I am enthusiastic to carry out policy related research in the area of behavioural and social sciences using econometric modeling technique (discrete choice models, panel data analysis, unobserved heterogeneity, simultaneous equations modeling, and time to event history analysis, simulations).

Sincerely,

Unnati Rani Saha

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(Residence)

**CURRICULUM VITAE**  
**OF**  
**UNNATI RANI SAHA**

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**Education**

- Ph.D researcher in **econometrics**, Tilburg University, The Netherlands, September 2007-
- M.Sc., **Statistics**, Jahangirnagar University, Savar, Dhaka, Bangladesh , 1992
- B.Sc. with honors, **Statistics**, Jahangirnagar University, Savar, Dhaka, Bangladesh, 1990

**PhD thesis:** “Reproductive Behaviour, Child Survival and Use of Econometric Models: An Evidence from Matlab, Bangladesh”.

**Expected date:** to obtain PhD in 2011, Supervisor: Prof. Arthur van Soest

**Training**

- Attended 3-days **teacher training** program in 2008 conducted by Tilburg University, The Netherlands.
- Completed a 3-month Internet course in **Advanced Epidemiological Methods** using R software, organized by the Epidemiology Unit, Faculty of Medicine, Prince of Songkla University, Thailand, 2006
- Completed a 3 month Advanced course in **Study Design and Data Analysis** for Public Health, conducted by ICDDR,B, Mohakhali, Dhaka, 2006.
- Completed one-month course on **Health Economics**, Institute of Health Economics, Dhaka University, 2001.
- Completed a number of certificate courses on **computer software and programming**, 1992/1999.

**Professional Experiences:**

**Position:** Ph.D student (Thesis Group)

**Employer:** Tilburg School of Economics & Management, Department of Econometrics & Operations Research (EOR), Tilburg University, The Netherlands

**Job Responsibility:** 1) To teach tutorial classes (Under-graduate students of International Economics & Finance) on Statistics 2 (Test of Hypothesis, Statistical Inference, Construction of Confidence Intervals, Regression Analysis, Time series analysis, and Forecasting)  
2) Study econometric methods and demographic research using econometric modeling technique (initial conditions, unobserved heterogeneity, simultaneous equations modeling, and time to event history analysis, simulations)

**Achievement:** Working as a principle investigator at research ideas, developing modeling framework, interpretation of modeling results, simulation technique, data management, programming in STATA and FORTRAN, systematic literature review, writing for peer reviewed

journals, presentation mathematical modeling results, and good teaching skill.

**Position:** Visiting Researcher, 2007 (Feb -March)

**Employer:** Tilburg University, The Netherlands.

**Job responsibilities:** to work with a NIH funded project proposal under supervision of Prof. Arthur van Soest, to develop a concept note and to discuss with Prof. Arthur van Soest, presentation of a research paper in the seminar series of econometrics and operations research department.

**Achievement:** Introduced with Tilburg University, Prof. Arthur van Soest and exchange research views.

**Position:** Data Manager, April 2004-September 2007 (since October 2007 on study leave)

**Employer:** ICDDR,B, Mohakhali, Dhaka, Bangladesh

**Job responsibilities:** to perform study design, sample size determination, analysis plan and appropriate statistical methods for given research questions, document literature review, contribute to the interpretation of the results and writing for publications in the peer reviewed journal. Supervise/train the data management staff/field staff in data collection, coding, data entry, data cleaning and quality control of data. Provide statistical consults for scientists in the division and presenting journal club in the weekly round under Health Systems & Infectious Diseases Division (HSID) round, ICDDR,B. Develop concept papers, and submission for funding.

**Achievement:** Different statistical methods used in epidemiological research, team work, supervision, collaborating work with other scientists, interpretation of results and presentation, generating research ideas.

**Position: Research Investigator, January 2003/March 2004**

**Employer:** Independent University Bangladesh (IUB), Baridhara, Dhaka

**Job responsibilities:** To develop the research methodology for ongoing study and data collection instruments, to monitor the research activities at office and field level, to orient the staffs in data collection procedures, data management and statistical analysis, to design the analysis plan and perform statistical analysis using appropriate statistical methods, to write reports, and academic papers for peer reviewed journals.

**Achievement:** Good achievement to work as independently how to manage various inputs of a project, and supervision of field staffs.

**Position:** Research Officer, July 1999/December 2002

**Employer:** ICDDR,B, Mohakhali, Dhaka, Bangladesh

**Job Responsibilities:** Designing surveys and evaluating the Contraceptive Use Dynamics (CUD) project, worked under supervision of Dr. Radheshyam Bairagi for preparing manuscripts using several survey data and longitudinal data for publications.

**Achievement:** Generating research ideas and working as principle investigator, and international presentation.

**Position:** Research Consultant, September 1997/June 1999

**Employer:** TFIPP (Thana Functional Improvement Pilot Project), Dhaka, Bangladesh.

**Job responsibilities:** Collaborate with the GOB staffs about various project oriented input, develop the research methodology for study, train the monitoring

assistants, monitor the intervention activities and evaluate post intervention research program, perform Modelling exercises (Resource Allocation), statistical analysis and prepare working papers.

**Achievement:** How to collaborate high level officials at different levels of health infrastructure, development of monitoring tools, modeling exercise on resource allocation, report writing, and dissemination.

**Position:** Research Assistant, January 1994/July 1997

**Employer:** The Population Council, Dhaka, Bangladesh

**Job responsibilities:** Data management, analysis and interpreted results, to manage and maintain all software and computer equipment used in The Council, to administer and maintain Local Area Network System (NT), communicating with the personnel at new work head office and local computer vendors for all sorts of computer related matters. Taught statistical software SPSS, dBase programming to the participants of four organizations BAPSA, Menstrual Regulation Training Services Programme (MRTSP), Mohammadpur Fertility Service and Training Center (MFSTC) and Bangladesh Women's Health Coalition (BWHC) of a workshop held in Council, 1994.

**Achievement:** Teaching skill, team work, data analysis, and different computer systems.

**Position:** Teacher, January 1992/December 1993

**Employer:** Self, Dhaka, Bangladesh

**Job responsibilities:** Taught computer software packages Lotus 123 including Macro commands, Wordperfect 5.0/6.0, Ms-Excel, dBase IV and dBase III programming (Introductory concepts), Taught SPSS with basic statistics, and achieved teaching skill.

### Honors and Awards

- Partial travel award for attending international conference of International Union for Scientific Studies of Population (IUSSP), 2009, Marrakech, Morocco.
- Ph.D scholarship from Tilburg University, The Netherlands, September 1, 2007
- Received full fund as visiting researcher in Tilburg University, 2007' February-March
- Travel award for attending international conference of Population Association of America, 2003 (PAA, 2003)
- Travel award for attending international conference of Population Association of Pakistan, 2004 (PAP, 2004).
- Travel award for attending international conference of International Union for Scientific Studies of Population (IUSSP), 2005 at Tours, France

### Society Membership

- Life member of Bangladesh Statistical Association, Bangladesh 1995-now.
- Population Association of America (PAA), USA 2003.
- International Union for Scientific Study of Population (IUSSP), France since 2005-now
- Life member of Bangladesh Computer Society (BCS), Bangladesh since 1995-now
- Canadian Population Society (CPS), since 2008

### Research interests

- Micro-econometrics (discrete choice models, panel data, and duration model with particular interest on competing risks analyses with correlated unobserved heterogeneity), simulation based inference, demography, women & child health, Epidemiology (familiar with FORTRAN, STATA, R and SPSS).

### Refereeing

- Population Studies, International Family Planning Perspectives, International Journal of Epidemiology, Journal of Biosocial Sciences, Journal of Tropical Medicine and International Health, PLoS Medicine, Journal of World Health and Population, Journal of Health Population and Nutrition

### Publications in Peer-Reviewed Journal

1. **Saha UR** and van Soest A. Infant Mortality in Rural Bangladesh: State Dependence vs Unobserved Heterogeneity. *Population Studies*, (accepted for publication, 15 February, 2011)
2. Rabbani GH, Larson CP, Islam R, **Saha UR** and Kabir A. Green banana-supplemented diet in the home management of acute and prolonged diarrhoea in children: a community-based trial in rural Bangladesh. *Tropical Medicine and International Health*. volume 15 no 10 pp 1132–1139 October 2010
3. Larson CP, **Saha UR** and Nazrul H. Impact Monitoring of the National Scale Up of Zinc Treatment for Childhood Diarrhea in Bangladesh: Repeat Ecologic Surveys. *PLoS Medicine*, November 3, 2009.
4. **Saha UR** and Bairagi R. Inconsistencies in the Relationship Between Contraceptive Use and Fertility in Bangladesh. *International Family Planning Perspective*, 2007, 33(1):31-37.
5. Halder AK, **Saha UR** and Kabir M. Inequalities in reproductive healthcare utilization: Evidence from Bangladesh Demographic and Health Survey 2004. *Journal of World Health and Population*, May 2007.
6. Khan AM, Larson CP, Faruque ASG, **Saha UR**, Alam AU, Salam MA. Introduction of Routine Zinc Therapy for Children with Diarrhoea: Evaluation of Safety. *J. Health Popul Nutr*, 2007;25(2):127-133
7. Larson CP, **Saha UR**, Islam R, Roy N. Childhood diarrhoea management practices in Bangladesh: Private sector dominance and continued inequities in care. *Intl. J. Epidemiology*, September 22, 2006:1-10.
8. Kamal N, **Saha UR**, Bairagi R. Use of periodic abstinence: Do they really understand?. *J. Biosoc. Sci.*, 2006; 3: 1-14.
9. Larson CP, Hoque M, Larson CP, Khan AM, **Saha UR**. Initiation of zinc treatment for acute childhood diarrhea and the risk for vomiting or regurgitation: a randomized, double-blind, placebo-controlled trial. *J Health Popul Nutr*, 2005;23:311-8.
10. **Saha UR**, Khan MA, Begum M, Bairagi R. Determinants of pill failure in rural Bangladesh. *J. Biosoc. Sci.* 2004, 36(1):39-50

### Work in progress (2010) (part of PhD thesis)

1. Birth Spacing, Child Survival and Fertility in Bangladesh: An Analysis of Causal Mechanisms
2. Causes of Neonatal and Infant Deaths in Bangladesh: Competing Risks Analysis with Correlated Unobserved Heterogeneity

3. Birth spacing, Infant deaths, and Contraceptive Use: Evidence of Matlab Data, Bangladesh

#### **Discussion Paper, Centre, Tilburg University (part of PhD thesis)**

1. Infant Mortality in Rural Bangladesh: State Dependence vs Unobserved Heterogeneity, with Arthur van Soest, *CentER Discussion Paper*, No. 26, 2009 (accepted for publication in journal of Population Studies, 15 February, 2011).

#### **Publication in Book Chapters**

1. **Saha UR** and Bairagi R. (2004). Fertility Stabilization in Bangladesh: The Role of Sex Preference on Desired Family Size. Book: *Fertility Transition in Bangladesh: Evidence and implication*, UNFPA. Dhaka. p 79-109.

#### **Publication in Report**

1. Kabir M. Rob U. Ahmed KS. **Saha UR** (1996). Differences Between Husbands and Wives in Attitudes Toward Contraceptive Use and Fertility Preferences: An Evidence from BDHS 1993/94 data; *Extended Analysis of BDHS 1993/94*, p.213-234

#### **Publication in Conference Proceedings**

1. **Saha UR** (2004). Contraceptive Use and Discontinuation and Method Switching in Rural Bangladesh. *Sharing Population and Development Research across South and West Asia*. Fifth Annual Research Conference Proceedings 14-16 December.

#### **Working papers and Internal Document**

1. **Saha UR**, Bartlema J (1998). Poverty and use of MOHFW services-community survey and pretest: comparative findings. Operations Research and Social Development Unit, TFIPP, Dhaka (Working paper No. 2)
1. **Saha UR**, Bartlema J (1999). User Fees and Aspects of Perceived Quality of Services Some Empirical Indicators from Bagerhat and Comilla. Operations Research and Social Development Unit, TFIPP, Dhaka. (Working paper No. 3)
2. **Saha UR**, Mendoza J (1999). Assessment of Village Health Volunteers (VHB's) regarding Utilization of Health Care Services. Operations Research and Social Development Unit, TFIPP, Dhaka. (Working paper 13)
3. Mandoza J, Anwar I, **Saha UR** (1999). User fees and the Users of Thana Health Complexes. Operations Research and Social Development Unit, TFIPP, Dhaka. (Working paper No. 15)
4. **Saha UR**, Bartlema J (1999). Effectiveness, Efficiency and Equity of Ambulance Transport-an Illustrative Analysis of Rangpur district, Bangladesh. Operations Research and Social Development Unit, TFIPP, Dhaka. (Internal document)
5. **Saha UR**, Bartlema J (1999). Which is the Best Districting for VHB's? Pirgacha sadar union. Operations Research and Social Development Unit, TFIPP, Dhaka. (Internal document)
6. **Saha UR** (1999). Integrated Community Family Health Development Programme: A Socio-Economic Descriptive Sketch of Bogra. GTZ, Dhaka.

#### **Conference/seminar presentations**

- Oral presentation on "Birth Spacing, Child Survival and Fertility in Bangladesh" in the Econometrics/Statistics seminar, Department of Econometrics & Operations Research, Tilburg University, the Netherlands, June 2, 2010.

- Oral presentation on “Infant Mortality in Rural Bangladesh: State Dependence vs. Unobserved Heterogeneity” in the conference of International Union for Scientific Study on Population (IUSSP), September 27- October 2, 2009, Marrakech, Morocco.
- Oral Presentation on “Side Effects and Contraceptive Discontinuation in Rural Bangladesh” in the conference of Canadian Population Society (CPS), June 4-6, 2008, Vancouver, Canada
- Oral presentation on “Infant Mortality in Rural Bangladesh: State Dependence vs. Unobserved Heterogeneity” in the Health & Labour Group seminar series of Tilburg University, the Netherlands, December 16, 2008.
- Poster presentation on “Discontinuation of Contraceptives and Method Switching in Rural Bangladesh” in the conference of International Union for Scientific Studies of Population (IUSSP), Tours, France, 2005.
- Oral presentation on “Contraceptive Use and Discontinuation and Method Switching in Rural Bangladesh” in the conference of Population Association of Pakistan (PAP), Karachi, 2004, December 11-14.
- Oral presentation on “Inconsistencies in the Relationship between CPR and TFR in Bangladesh: How and Why?” in the conference of Population Association of America (PAA), Minneapolis, Minnesota, 2003.
- Internal presentation on “Applications of Multilevel Models to Hierarchical Data” taken from a book by W.J Browne and J.Rasbash, John Fox, in the monthly Poverty and Health meeting, ICDDR,B, January 31, 2007.
- Journal Club presentation (internal) on “Effect of Routine Zinc Supplementation on Pneumonia in Children aged 6 months to 3 years: randomised controlled trial in an urban slum” conducted by Nita Bhandari et al, published BMJ, June 2002, in the weekly round of HSID Division, ICDDR,B, January 26, 2006.
- Internal presentation on “Multi-level model and its application” taken from a book by W.J Browne and J.Rasbash, in the weekly round of HSID Division, ICDDR,B, November 30, 2006.

### Consultations :

- Worked as **Research Associate** Employed by Patricia Johnson, Professor, Department of Anthropology, Penn State University, USA. The pilot project entitled “Factors Affecting Access to Health Care by Women residents of Dhaka Bustees” Sponsored by the American Institute of Bangladesh Studies. The responsibilities were: Planning and managing the field activities, to review literature and to perform the preliminary analysis.
- Worked as **Consultant** of UNFPA, Dhaka (2002). The assignment was to prepare a scientific paper using Bangladesh Demography Health Survey, 2000 (BDHS, 2000).
- Worked as **National Consultant** with British Council/NICARE for 30 days (May-June 2001) under Private Public Partnership (PPP) to ensure poor women and children access to the essential service package (at community clinic). PPP is the component of DFID support to HPSP (Health & Population Sector Program in Bangladesh).
- Worked as Short-term **Consultant** under Integrated Community Family Health Development Program, Bogora at German Technical Corporation (GTZ) office Dhaka during 1999 July to 1999 August.

## Referees:

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1. Prof. Arthur van Soest  
Professor  
Department of Econometrics & Operations Research  
Tilburg School of Economics & Management  
Tilburg University, The Netherlands, Email: [avas@uvt.nl](mailto:avas@uvt.nl)
2. Prof. Charles P Larson  
Director (Former Director, HSID, ICDDR,B, Dhaka, Bangladesh)  
Centre for International Child Health, **All children matter**  
British Columbia Children's Hospital, Vancouver, BC, Canada  
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3. Dr. Radheshyam Bairagi  
Former Senior Scientist & PI of Contraceptive Use Dynamics Project  
Health & Demographic Surveillance Programme, ICDDR,B, Mohakhali, Dhaka 1212.  
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