

ALLEGATO G

Decreto Rettore Università di Roma "La Sapienza" n. 196/2020 del 17/01/2020

CURRICULUM VITAE

ELISABETTA BARBI

Part I – General Information

Full Name: Elisabetta Barbi

Citizenship: Italian

Spoken Languages: Italian, English

Part II – Education

University graduation

1995 Laurea in Statistical and Demographic Sciences, Sapienza University of Rome.

Post-graduate studies

1998 Doctoral Fellow, Max Planck Institute for Demographic Research, Rostock, Germany.

1999 Ph.D. in Demography, Department of Statistics, University of Florence (joint Ph.D. programme with the Universities of Padua and Sapienza).

Part III – Academic appointments

Current positions

2008- Associate Professor of Demography (SSD SECS-S04), Sapienza University of Rome, Dept. of Statistical Sciences.

2014-2023 National Scientific Qualification (ASN) for the position of Full Professor in Demography (SC 13/D3, SSD SECS-S/04) valid from 30/01/2014 to 30/01/2023.

2019- Editor-in-Chief of *GENUS, Journal of Population Sciences* (Springer), with A. De Rose and D. Vignoli.

2012- Referent of the curriculum of Demography within the PhD School of Statistical Sciences, Sapienza University of Rome.

Past positions

2005 – 2008 Associate Professor of Demography, University of Messina.

2002 – 2005 Research Scientist, Max Planck Institute for Demographic Research, Rostock (Germany).

2000 – 2002 Research grant (Assegno di Ricerca) in Demography, Dept. of Demographic Sciences, Sapienza University of Rome.

2000 Postdoc, Max Planck Institute for Demographic Research, Rostock (Germany).

1999 Research Associate, Istituto Superiore di Sanità.

1997 Visiting researcher at Institut national d'études démographiques (INED), Paris (France).

Part IV – Teaching experience

Graduate and undergraduate level courses (courses taught per academic year)

- 2019/20- Demografia (9 CFU), undergraduate level course “Statistica, Economia e Società”, Dept. of Statistical Sciences, Sapienza University of Rome.
Modelli demografici (6 CFU), graduate level course “Scienze Statistiche”, Dept. of Statistical Sciences, Sapienza University of Rome.
International Demography (6 CFU – in English), graduate level course “Statistical Methods and Applications”, Dept. of Statistical Sciences, Sapienza University of Rome.
- 2018/19 Demografia (9 CFU), undergraduate level course “Statistica, Economia e Società”, Dept. of Statistical Sciences, Sapienza University of Rome.
Modelli demografici (6 CFU), graduate level course “Scienze Statistiche”, Dept. of Statistical Sciences, Sapienza University of Rome.
- 2010/11 to 2017/18 Demografia (9 CFU), undergraduate level course “Statistica, Economia e Società”, Dept. of Statistical Sciences, Sapienza University of Rome.
Metodi di analisi demografica e previsioni (6 CFU), undergraduate level course “Statistica, Economia e Società”, Dept. of Statistical Sciences, Sapienza University of Rome.
- 2009/10 Metodi di analisi demografica e previsioni (6 CFU), undergraduate level course “Statistica, Economia e Società”, Dept. of Statistical Sciences, Sapienza University of Rome.
Laboratorio di Demografia Applicata (3 CFU), graduate level course “Scienze Statistiche Demografiche e Sociali”, Facoltà di Scienze Statistiche, Sapienza University of Rome.
- 2008/09 Dinamiche di Popolazione (4 CFU), undergraduate level course “Statistica, popolazione e ricerca sociale”, Facoltà di Scienze Statistiche, Sapienza University of Rome.
Laboratorio di Demografia Applicata (3 CFU), graduate level course “Scienze Statistiche Demografiche e Sociali”, Facoltà di Scienze Statistiche, Sapienza University of Rome.
- 2007/08 Demografia (6 CFU), undergraduate level course “Scienze Statistiche”, Facoltà di Scienze Statistiche, University of Messina.
Modelli Demografici (6 CFU), undergraduate level course “Scienze Statistiche”, Facoltà di Scienze Statistiche, University of Messina.
Tecniche di Analisi della Sopravvivenza (6 CFU), graduate level course in “Statistica per le Applicazioni”, Facoltà di Scienze Statistiche, University of Messina.
Dinamiche di Popolazione e Lab. di Previsioni (8 CFU), graduate level course “Scienze demografiche per le politiche sociali e sanitarie”, Facoltà di Scienze Statistiche, Sapienza University of Rome.
Dinamiche di Popolazione (4 CFU), undergraduate level course “Statistica, popolazione e ricerca sociale”, Facoltà di Scienze Statistiche, Sapienza University of Rome.
- 2006/07 Demografia (6 CFU), undergraduate level course “Scienze Statistiche”, Facoltà di Scienze Statistiche, University of Messina.
Modelli Demografici (6 CFU), undergraduate level course “Scienze Statistiche”, Facoltà di Scienze Statistiche, University of Messina.
Tecniche di Analisi della Sopravvivenza (6 CFU), graduate level course in “Statistica per le Applicazioni”, Facoltà di Scienze Statistiche, University of Messina.
- 2005/06 Maternity leave.
- 2004/05 Modelli Demografici (6 CFU), undergraduate level course “Scienze Statistiche”, Facoltà di Scienze Statistiche, University of Messina.
Laboratorio delle Statistiche Applicate (5 CFU), graduate level course “Statistica per le Applicazioni”, Facoltà di Scienze Statistiche, University of Messina.
- 2003/04 Demografia (7 CFU – contract), Facoltà di Economia, University of Molise.
Modelli demografici (3 CFU – contract), Facoltà di Scienze Statistiche, University of Messina.

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2002/03 Demography (5 CFU – in English, contract), course for incoming Erasmus students, Facoltà di Economia, Sapienza University of Rome.

Intensive courses and summer schools

- 2019 Lectures on Modelli previsivi (with Corrado Polli), Master “Big Data. Metodi statistici per la società della conoscenza”, Sapienza University of Rome, 15-16 November.
- 2017 Lectures on Modelli previsivi (with O. Casacchia and C. Polli), Master “Big Data. Metodi statistici per la società della conoscenza”, Sapienza University of Rome, 13-14 July.
- 2009 Lectures on Modelling mortality surfaces, Summer School “Frontiers of Formal Demography”, International Union for the Scientific Study of Population, Rostock 2-10 June.
- 2006 Lectures on Spatial demography, International Max Planck Research School for Demography “Spatial Demography”, Max Planck Institute for Demographic Research, Rostock (Germany), 20 Nov – 15 Dec.
- 2002 Lectures on Population heterogeneity, International Max Planck Research School for Demography “Demography of ageing”, Dept. of Demographic Sciences, Sapienza University of Rome, 20-24 May.
- 2001 “Historical demography”, International Max Planck Research School for Demography. Dept. of Demographic Sciences, Sapienza University of Rome, 14-19 May.
- 2001 Lectures on Population heterogeneity, International Max Planck Research School for Demography “Demography of ageing”, Dept. of Demographic Sciences, Sapienza University of Rome, 7-11 May.

Part V - Society memberships, Awards and Honors

- 2008- Expert for Population Europe (the network of Europe’s leading demographic research centres) <http://www.population-europe.eu>.
- 2002- Member of the Italian Statistical Society (SIS).
- 1997- Member of the “Gruppo di Coordinamento per la Demografia” of the Italian Statistical Society (GCD-SIS), since 2011 named “Italian Association for Population Studies” (AISP-SIS).
- 1996- Member of the Italian Society of Historical Demography (SIDeS).
- 2008-2018 Appointed as MPIDR Research Scholar by the founding Director of the Max Plank Institute for Demographic Research (MPIDR), Rostock, Germany. Research-stays at MPIDR every summer.
- 2009-2015 Member of the Steering Committee of the Italian Society of Historical Demography (SIDeS).
- 2007-2008 Member of the Steering Committee of the “Gruppo di Coordinamento per la Demografia” of the Italian Statistical Society (GCD-SIS).
- 2004 Best Poster Award for *Age and time patterns of mortality by cause in Italy: a mortality surface approach*, Annual Meeting of Population Association of America, Boston USA, 1-3 April 2004. PAA *Affair*, Summer 2004.
- 2000 Best Poster Award for *Cause specific Mortality and Selection Effects on Human Survival*, Annual Meeting of Population Association of America, Los Angeles USA, 23-25 March 2000. PAA *Affair*, Summer 2000.

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Part VI - Funding Information [grants as PI-principal investigator or I-investigator]

- 2018 Selective survival and shaping of human longevity. Sapienza University of Rome. **(PI)**.
- 2016 The impact of the economic crisis on longevity and health: new challenges for the welfare system. Sapienza University of Rome, PI Alessandra De Rose. **(I)**.
- 2014 Where the poverty lives. A multi-disciplinary analysis of the housing conditions in Roman slums and in the rural farms of south Agro Pontino in the Interwar years. Sapienza University of Rome, PI Brunero Liseo. **(I)**.
- 2013 Dynamic old age thresholds: some consequences of changing survival and health in the elderly people. Sapienza University of Rome, PI Viviana Egidi. **(I)**.
- 2011-2013 Demodoc: a Multinational PhD Program in Demography. A joint application of the University of Rostock, Max Planck Institute for Demographic Research, Autonomous University of Barcelona, University of Lund, Sapienza University of Rome. Deutscher Akademischer Austauschdienst (DAAD). **(National Representative)**.
- 2012 Trends in mortality and longevity. Sapienza University of Rome. **(PI)**.
- 2009 Mortality at older ages: open issues and methodological solutions. Sapienza University of Rome. **(PI)**.
- 2007 Stima del costo indiretto dei figli e valutazione degli effetti su lavoro e famiglia. Prin 2007, PI Gustavo De Santis. **(I)**.
- 2005 Convergenze/divergenze nella mortalità del mondo sviluppato e determinanti della longevità. University of Messina, **(PI)**.
- 2002 Demographic Analysis of Sardinian Longevity. National Institute of Aging (USA). PI James W. Vaupel. **(I)**.
- 2000 Specificazione e stima di modelli per l'analisi della sopravvivenza umana. MURST Junior Researchers. **(PI)**.
- 1997 Applicazione a dati italiani della Generalized Inverse Projection. Research National Council (CNR). **(PI)**.

Part VII – Research Activities

My recent research work mainly focuses on:

- a) Longevity. Determining the evolutionary shaping of human senescence, assessing how increasing longevity is determined, the role of the selective survival, and evaluating the existence of possible biological limits to lifespan.
- b) Differential mortality. Analysis of the structural characteristics of mortality (age, period, sex, cause of death, and space) through parametric models, including hidden Markov models, and semiparametric models to estimate time-varying effects in surfaces of total mortality and in those of leading causes of death, and the spatial variation of gender differences and age effects in cause-specific mortality.
- c) Demographic indicators. Highlighting the strategic role of demography to drive policy makers. Evaluation of the performance of straightforward demographic measures as proxies of more complex composite indicators of socio-economic conditions.

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Part VIII – Summary of Scientific Achievements

All information are taken from the MIUR-Cineca database:

- Journal papers: 14
- Contributions to volume: 14
- Conference proceedings: 7
- Edited volumes: 3
- Others: 3

For a more detailed description of the production, please see the complete list of publications.

Part IX – Participation to National and International Conferences

As presenter, discussant, chair:

Regular participation since the PhD as presenter, discussant and chair of national conferences (AISP, SDeS, SIS) and international conferences and workshops (ESHD, HMD Symposium, IUSSP Conference and Panel, IDL Workshop, PAA Annual Meeting, Rostocker Ring).

In particular, as invited speaker in the last years:

- 2020 "The plateau of human mortality: Demography of longevity pioneers". Plenary session, 50th Scientific Meeting of the Italian Statistical Society. Pisa, June 22-24.
- 2019 "La presenza straniera in Italia: demografia, lavoro, scuola". Unione Forense per la Tutela dei Diritti Umani, CNEL. Roma, October 11.
- 2019 "Emerging Research Questions on Late-Life Mortality". Workshop on Emerging Research Questions at the Intersection of Demography and Epidemiology. MPIDR Schloss Ringberg (Germany), March 20-23.
- 2019 "Demography of Human Longevity". Keynote speaker at the Sixth Annual Meeting of the Evolutionary Demography Society. University of Miami (USA), January 10-12.
- 2018 "Demografia della Longevità Umana. Accademia Medica di Roma, December 20.
- 2018 "The plateau of human mortality". World Health Summit, a leading international forum for global health under the patronage of Angela Merkel, Emmanuel Macron, Jean-Claude Juncker. Berlin, Germany, October 14-16.

As organizer:

- 2021 "Population Days – XIV Edition", member of the Scientific and Organizing Committee, AISP-SIS. Rome.
- 2015 "Statistics and Demography: the legacy of Corrado Gini", organizer of the specialized session "From life table to mathematical functions for modeling survival and longevity", SIS. Treviso, 9-11 September.
- 2013 "Sixth Eurostat/Unece Work Session on Demographic Projections", member of the Scientific Committee. Rome, 29-31 October.
- 2011 "The b-hypothesis and the modal age at death", workshop of the Panel of the International Union for the Scientific Study of Population (IUSSP) on Social and biological Determinants of Longevity. Rostock, 24-25 October.
- 2010 "The revolution of life expectancy", workshop of the IUSSP Panel on Social and Biological Determinants of Longevity. Rostock, 12-14 May.
- 2009 "Population Days – VIII Edition", member of the Scientific Committee, AISP-SIS. Milano 2-4 February

- 2008 “Early-life vs later-life effects on late-life mortality”, workshop sponsored by the Max Planck Institute for Demographic Research. Taormina, 2-3 June.
- 2005 “6th International workshop on Supercentenarians”, workshop sponsored by the Max Planck Institute for Demographic Research and the University of Messina. Taormina, 2-3 Oct.
- 2004 “Tempo Effects on Mortality”, workshop sponsored by Population Council NY (USA). New York, 18-19 Novembre 2004.
- 2000 “Inverse Projection Techniques”, workshop sponsored by Sapienza University of Rome. Sabaudia, 25-27 May.

Part X – Other Activities

1. Editorial activity

- 2019- Editor-in-Chief of *GENUS, Journal of Population Sciences* (Springer), with A. De Rose and D. Vignoli.
- 2008-2018 Associate Editor, *GENUS, Journal of Population Sciences* (Springer).
- 2004-2018 Member of the Editorial Board of *Demographic Research Monographs* (Springer).
- 2009-2015 Member of the Editorial Board of the scientific journal *Popolazione e Storia* (Forum).
- Referee for the international journals: *Demographic Research, European Journal of Population, Demography, Population Studies, Journal of the Royal Statistical Society*.

2. Doctorate

- 2015- Member of the Board of the “European Doctoral School of Demography” (EDSD).
- 2012- Referent of the curriculum of Demography within the PhD School of Statistical Sciences (active since the 28th cycle). Coordinator of the Ph.D. in Demography for the cycles 25-27.
- 2018 Member of the Admission Committee, PhD School of Statistical Sciences, Sapienza University of Rome.
- 2016-17 Mentoring programme for the incoming EDSD students (European Doctoral School for Demography). Sapienza University of Rome.
- 2015 Member of the Admission Committee, European Doctoral School of Demography.
- 2011-13 Mentoring programme for the incoming Demodoc students (Demodoc: a Multinational PhD Programme in Demography). Sapienza University of Rome and Max Planck Institute for Demographic Research, Rostock (Germany).
- 2009-2012 Member of the Board of the PhD in Demography. Department of Statistical Sciences, Sapienza University of Rome.
- 2008 Member of the final Examination Commission, PhD in Mathematical Engineering. Statistical Sciences and Techniques Area. Department of Statistics, Universidad Carlos III, Madrid, Spain.
- 2008 Member of the final Examination Commission, PhD in Demography, Sapienza University of Rome.
- 2005-2008 Member of the Board of the PhD in Statistics and Environmental Resources. Department of Statistics, University of Messina.

Thesis supervision: Vincenzo Pavia (PhD in Statistics and Environmental Resources, 2009); Carlo Lallo (PhD in Demography, 2014); Andrea Gamboni (PhD in Statistical Sciences – Demography, 2018); Andrea Nigri and Francesco Liedl (PhD in Statistical Sciences – Demography, current).

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3. Further assignments

- 2000- Member of the Scientific Advisory Board of the "International Database on Longevity" (IDL).
- 2012 Member of the Evaluation Committee for the nomination to the Otto Hahn Medal of the Max Planck Society.
- 2012 Member of the Selection Committee for Postdoc positions, Faculty of Health Sciences, University of Southern Denmark. Odense (DK).
- 2009-2011 Co-Chair of the Panel "Social and Biological Determinants of Longevity" of the International Union for the Scientific Study of Population (IUSSP).
- 1999 - 2004 Italian coordinator of the project "IPUMS international" (Integrated Public Use Microdata Series). Minnesota Population Research Institute - University of Minnesota.
- 1999 Member of the committee for "Garanzia dell'Informazione Statistica", working group on "Completezza e qualità delle informazioni statistiche utilizzabili per la valutazione della spesa pensionistica", Prime Minister's Office.

4. University Service

- 2016-2019 Elected member of the Board of the Department of Statistical Sciences, Sapienza University of Rome.
- 2017-2018 Alternanza Scuola-Lavoro, project P003.
- 2017 Member of the working group for the revision of graduate curricula (Lauree Magistrali), Department of Statistical Sciences, Sapienza University of Rome.
- 2016 Test TOLC commissions for September and October.
- 2013-2016 Elected member of the Board of the Faculty of Information Engineering, Informatics, and Statistics, Sapienza University of Rome.
- 2012-2013 Member of the Erasmus Mundus Commission, Sapienza University of Rome.
- 2012 Member of the Quality Team, Department of Statistical Sciences, Sapienza University of Rome.
- 2010-2013 Elected member of the Board of the Department of Statistical Sciences, Sapienza University of Rome.
- 2010-2013 Member of the Commission for the Internationalization of the Faculty of Information Engineering, Informatics, and Statistics, Sapienza University of Rome.
- 2010-2013 Erasmus delegate for the teaching area of Statistical, demographic and socio-economic sciences, Faculty of Information Engineering, Informatics, and Statistics, Sapienza University of Rome.
- 2005-2008 Member of the Orientation Commission of the Faculty of Statistical Sciences, University of Messina.
- 2005-2008 Scientific Director of the Library of the Faculty of Statistical Sciences, and Faculty Delegate for the University Library System (SBA) of the University of Messina.

Part XI – Selected publications

1. F. Lagona, M. Ranalli, E. Barbi (2020). A model with space-varying regression coefficients for clustering multivariate spatial count data. BIOMETRICAL JOURNAL, p. 1-20, ISSN: 0323-3847. In print.
Fascia A

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2. F. Lagona, E. Barbi (2019). Segmentation of mortality surfaces by hidden Markov models. STATISTICAL MODELLING, vol.19(2), pp.276-298, ISSN: 1471-082X, DOI:10.1177/1471082X18777806. **Fascia A**
3. E. Barbi, O. Casacchia, F. Racioppi (2018). Cause-specific mortality as a sentinel indicator of current socioeconomic conditions in Italy. DEMOGRAPHIC RESEARCH, vol. 39, p. 635-646, ISSN: 2363-7064, DOI:10.4054/DemRes.2018.39.21. **Fascia A**
4. E. Barbi, F. Lagona, M. Marsili, J.W. Vaupel, K. W. Wachter (2018). The plateau of human mortality: Demography of longevity pioneers. SCIENCE, vol. 360, p. 1459-1461, ISSN: 0036-8075, DOI: 10.1126/science.aat3119. **Fascia A (press review attached)**
5. T. E. Sannikova, A. A. Romanyukha, E. Barbi, G. Caselli, C. Franceschi, A. Yashin (2017). Modeling of Immunosenescence and Risk of Death from Respiratory Infections: Evaluation of the Role of Antigenic Load and Population Heterogeneity. MATHEMATICAL MODELLING OF NATURAL PHENOMENA, vol. 12 (5), pp.48-62, ISSN: 0973-5348, DOI:10.1051/mmnp/201712504.
6. E. Barbi (2015). Demographic techniques: Inverse Projection. In: James D. Wright (editor-in-chief). International Encyclopedia of the Social & Behavioral Sciences, 2nd edition, vol. Vol. 6, p. 149-153, OXFORD: Elsevier, ISBN: 9780080970868.
7. E. Barbi, Camarda C (2011). Period and Cohort Effects on Elderly Mortality: A New Relational Model for Smoothing Mortality Surfaces. STATISTICA, vol. 71(1), p. 51-70, ISSN: 0390-590X, DOI: 10.6092/issn.1973-2201/3604.
8. S. Bruzzone, E. Barbi, G. Caselli (2010). Italian Supercentenarians: Age Validation of Deaths from 1969 to 2000. In: Maier H.; Gampe J.; Jeune B.; Robine J.M.; Vaupel J.W. (Eds). Supercentenarians. p. 137-150, Heidelberg:Springer, ISBN: 9783642115196, DOI: 10.1007/978-3-642-11520-2_8.
9. E. Barbi (2008). How Long Do We Live? Demographic Models and Reflections on Tempo Effects: An Introduction. In: E. Barbi, J. Bongaarts, J.W. Vaupel (Eds). How Long Do We Live? Demographic Models and Reflections on Tempo Effects. p. 1-9, Heidelberg: Springer, ISBN: 9783540785194, DOI: 10.1007/978-3-540-78520-0.
10. E. Barbi, Vaupel J (2005). Comment on "Inflammatory Exposure and Historical Changes in Human Life-Spans". SCIENCE, vol. 308, p. 1743a-1743b, ISSN: 1095-9203, DOI: 10.1126/science.1108707. **Fascia A.**
11. E. Barbi, Oeppen J (2004). Comparing the Results from Generalized Inverse Projection and Stochastic Inverse Projection. In: E. Barbi, S. Bertino, E. Sonnino (Eds). Inverse Projection Techniques. Old and New Approaches. p. 95-106, Heidelberg:Springer, ISBN: 9783540209317.
12. Barbi E, G. Caselli (2003). Selection effects on regional survival differences in Italy. GENUS, vol. LIX (2), p. 37-61, ISSN: 0016-6987.
13. Caselli G, Peracchi F, E. Barbi, Lipsi R (2003). Differential mortality and design of the Italian system of public pensions. LABOUR, vol. 17 Supplement, p. 45-78, ISSN: 1121-7081, DOI: 10.1111/1467-9914.17.specialissue.3.
14. E. Barbi, Caselli G, Vallin J (2003). Trajectories of extreme survival in heterogeneous populations. POPULATION, vol. 58, n.1, p. 43-65, ISSN: 1634-2941.
15. E. Barbi (2001). Aggiornamento ed analisi delle caratteristiche strutturali dei coefficienti di trasformazione previsti dalla legge 335/1995. In: F. Peracchi, E. Barbi, A. Brugiavini, T. Tamborini, E. Viviano, a cura di (2001). Completezza e qualità delle informazioni statistiche utilizzabili per la valutazione della spesa pensionistica. Commissione per la Garanzia dell'Informazione Statistica, Presidenza del Consiglio dei Ministri. p. 11-31, Roma.