

Laboratory of Population Dynamics and Sustainable Well-Being Max Planck Institute for Demographic Research, Rostock, Germany

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Ugofilippo Basellini

Education

Ph.D. in Health Sciences

Odense, Denmark · Paris, France

Sep 2016 - Feb 2020

University of Southern Denmark · Institut national d'études démographiques

Thesis Title: New Approaches in Mortality Modelling and Forecasting

Supervisors: Dr. Carlo Giovanni Camarda; Prof. Jim Oeppen; Prof. Vladimir Canudas-Romo

European Doctoral School of Demography and MaxNetAging Research School

MAX PLANCK INSTITUTE FOR DEMOGRAPHIC RESEARCH & SAPIENZA UNIVERSITÀ DI ROMA

Rostock, Germany · Rome, Italy

Feb 2015 - Jul 2016

M.Sc. and B.Sc. in Economics and Social Sciences

Milan, Italy

BOCCONI UNIVERSITY - GRADE: 110/110 SUMMA CUM LAUDE

Thesis Title: Estimating and Forecasting Mortality Rates Supervisors: Prof. Carlo Ambrogio Favero; Prof. Marco Bonetti

Exchange student at Boston University, Department of Economics and Mathematics

Sep 2006 - Nov 2011

Journal Articles

Authors listed as authorship order:

BASELLINI U., C.G. CAMARDA AND H. BOOTH (2023). Thirty years on: A review of the Lee-Carter method for forecasting mortality. International Journal of Forecasting, 39(3), 1033–1049. Online link, Github R codes, SocArXiv pre-print

ABURTO, J.M., U. BASELLINI, A. BAUDISH AND F. VILLAVICENCIO (2022). Drewnowski's index to measure lifespan variation: Revisiting the Gini coefficient of the life table. Theoretical Population Biology, 148, 1-10. Online link, Github R codes, arXiv pre-print

BASELLINI U. AND C.G. CAMARDA (2022). Explaining regional differences in mortality during the first wave of Covid-19 in Italy. Population Studies, 76(1), 99–118. Online link, OSF R codes, SocArXiv pre-print

NIGRI, A., J.M. ABURTO, U. BASELLINI AND M. BONETTI (2022). Evaluation of age-specific causes of death in the context of the Italian longevity transition. Scientific Reports, 12, 22624. Online link, OSF R codes, SocArXiv pre-print

VANELLA, P., U. BASELLINI AND B. LANGE (2021). Assessing Excess Mortality in Times of Pandemics Based on Principal Component Analysis of Weekly Mortality Data - The Case of COVID-19. Genus, 77, 16. Online link, ArXiv pre-print

RIFFE, T., E. ACOSTA, U. BASELLINI, THE COVERAGE-DB TEAM (2021). Data Resource Profile: COVerAGE-DB: a global demographic database of COVID-19 cases and deaths. International Journal of Epidemiology, 50(2), 390-390f. Online link, OSF R codes, medRxiv pre-print

BASELLINI U., D. ALBUREZ-GUTIERREZ, E. DEL FAVA, D. PERROTTA, M. BONETTI, C.G. CAMARDA AND E. ZAGHENI (2021). Linking excess mortality to mobility data during the COVID-19 pandemic in England and Wales. SSM - Population Health, 14, 100799. Online link, OSF R codes, SocArXiv pre-print

CAMARDA, C.G. AND U. BASELLINI (2021). Smoothing, Decomposing and Forecasting Mortality Rates. European Journal of Population, 37, 569-602. Online link, OSF R codes

BONETTI, M. AND U. BASELLINI (2021). Epilocal: A real-time tool for local epidemic monitoring. Demographic Research, 44(12), 307-332. Online link, Dedicated shinyapp, ArXiv pre-print

PASCARIU, M.D., U. BASELLINI, J.M. ABURTO AND V. CANUDAS-ROMO (2020). The Linear Link: Deriving Age-Specific Death Rates from Life Expectancy. Risks, 8, 109. Online link, GitHub R codes

BASELLINI U., S. KJÆRGAARD AND C.G. CAMARDA (2020). An age-at-death distribution approach to forecast cohort mortality. Insurance: Mathematics and Economics, 91, 129–143. Online link, GitHub R codes

ABURTO, J.M., F. VILLAVICENCIO, U. BASELLINI, S. KJÆRGAARD AND J.W. VAUPEL (2020). Dynamics of life expectancy and life span equality. Proceedings of the National Academy of Sciences of the United States of America, 117(10), 5250-5259. Online link, Zenodo R codes

BASELLINI U. AND C.G. CAMARDA (2019). Modelling and forecasting adult age-at-death distributions. Population Studies, 73(1), 119-138. Online link, GitHub R codes

BASELLINI U., V. CANUDAS-ROMO AND A. LENART (2019). Location–Scale Models in Demography: A Useful Re-parameterization of Mortality Models. *European Journal of Population*, **35**, 645–673. Online link, GitHub codes

SUTTER, A., S. BARTON, M.D. SHARMA, U. BASELLINI, D. HOSKEN AND C.R. ARCHER (2018). Senescent declines in elite tennis players are similar across the sexes. *Behavioral Ecology*, **29**(6), 1351–1358. Online link

ARCHER, C.R., U. BASELLINI, J. HUNT, S.J. SIMPSON, K.P. LEE AND A. BAUDISH (2018). Diet has independent effects on the pace and shape of aging in *Drosophila melanogaster*. *Biogerontology*, **19**(1), 1–12. Online link

GIGLIARANO, C., U. BASELLINI AND M. BONETTI (2017). Longevity and concentration in survival times: the log-scale-location family of failure time models. *Lifetime Data Analysis*, **23**(2), 254–274. Online link, Dondena Working Paper

Other publications & pre-prints_

BADOLATO, L., A. DECTER-FRAIN, N.J. IRONS, M. MIRANDA, E. WALK, E. ZHALIEVA, M. ALEXANDER, U. BASELLINI AND E. ZAGHENI (2023). Predicting individual-level mortality with traditional and machine learning methods. *MPIDR Working Paper*. Online link

BONETTI*, M., U. BASELLINI* AND A. NIGRI (2023). The Average Uneven Mortality index: Building on the e^{\dagger} measure of lifespan inequality. SocArXiv. Online link. (*): equal contribution

ALBUREZ-GUTIERREZ*, D., U. BASELLINI* AND E. ZAGHENI (2022). When do parents bury a child? Quantifying uncertainty in the parental age at offspring loss. *MPIDR Working Paper*. Online link. (*): equal contribution

CONTE KEIVABU, R., U. BASELLINI AND E. ZAGHENI (2022). Racial disparities in deaths related to extreme temperatures in the United States between 1993 and 2005. MPIDR Working Paper. Online link

VAN RAALTE, A.A., U. BASELLINI, C.G. CAMARDA, M. NEPOMUCENO AND M.MYRSKYLÄ (2022). The dangers of drawing cohort profiles from period data: a research note. *SocArXiv*. Online link

BONETTI, M., C. GIGLIARANO AND U. BASELLINI (2021). The Gini concentration index for the study of survival. In N. Mukhopadhyay and P.P. Sengupta (eds.), *Gini inequality index: methods and applications*. Boca Raton, Chapman and Hall/CRC. Online link

BASELLINI U. AND C.G. CAMARDA (2020). A Three-component Approach to Model and Forecast Age-at-death Distributions. In S. Mazzuco and N. Keilman (eds.), *Developments in Demographic Forecasting*, 105–129, Springer, Cham. Online link, GitHub R codes

BERGERON-BOUCHER, M.P., S. KJÆRGAARD, M. PASCARIU, J.M. ABURTO, J.ALVAREZ, U. BASELLINI, S. RIZZI AND J.W. VAUPEL (2020). Alternative forecasts of Danish life expectancy. In S. Mazzuco and N. Keilman (eds.), *Developments in Demographic Forecasting*, 131–151, Springer, Cham. Online link

RIFFE, T., M.R. NEPOMUCENO AND U. BASELLINI (2020). Mortality modeling. In D. Gu and M.E. Dupre (eds.), *Encyclopedia of Gerontology and Population Aging*. Springer, Cham. Online link

BASELLINI U. (2020). New Approaches in Mortality Modelling and Forecasting. PhD thesis. Odense: Syddansk Universitet / University of Southern Denmark. Online link

BASELLINI U. AND C.G. CAMARDA (2018). A Three-Component Lee-Carter approach to decompose and forecast human mortality. *Proceedings of the 33rd International Workshop on Statistical Modelling*, Bristol (UK), 17–22. Proceedings link

Papers in preparation.

BASELLINI U. AND C.G. CAMARDA. Lee-Carter cohort mortality forecasts

GÓMEZ UGARTE, A.C., U. BASELLINI, C.G. CAMARDA AND E. ZAGHENI. A novel approach to measure socioeconomic inequalities in mortality

ZAZUETA, J.D., U. BASELLINI, P. MARTIKAINEN, E. ZAGHENI AND F. JANSSEN. Contribution of past trends in socio-economic inequalities in longevity to overall trends in life expectancy and lifespan inequality

Invited Talks

Centre for Population Change - Connecting Generations

Online webinar, March 2023

Workshop Climbing Mortality Models

MISURINA (ITALY), SEPTEMBER 2022 (PROGRAM)

Brazilian Association of Population Studies (ABEP) - Population and Health Working Group

ONLINE WEBINAR, JUNE 2022 (SLIDES; YOUTUBE RECORDING)

Seminar Series of the Dondena Centre for Research on Social Dynamics and Public Policy

BOCCONI UNIVERSITY, MILAN, MAY 2022 (SLIDES)

Leveraging New Digital Data Sources to Address the COVID-19 Pandemic

DISCUSSANT, 86TH PAA ANNUAL MEETING, MAY 2021 (PAA FINAL PROGRAM; SLIDES)

IUSSP Webinar: Digital and computational approaches to study determinants and consequences of the spread of COVID-19

ONLINE WEBINAR, JULY 2020 (PROGRAM AND VIDEO RECORDING)

Workshop on Forecasting Danish Life Expectancy and Age at Retirement

ODENSE (DENMARK), DECEMBER 2018 (TALK)

Workshop on Inequality and Uncertainty in Length of Life

TEL AVIV (ISRAEL), MAY 2018 (TALK)

MaxNetAging Annual Meeting

12TH MEETING, ROSTOCK (GERMANY), MAY 2017 (TALK)

IUSSP Seminar: Mortality analysis and forecasting

NEW DELHI (INDIA), APRIL 2017 (TALK)

Conference contributions

European Population Conference

Groningen (The Netherlands), June 2022 (Talk; Co-author; Co-author) Brussels (Belgium), June 2018 (Talk); Mainz (Germany), September 2016 (Talk)

Annual Meeting of the Population Association of America

87TH MEETING, ATLANTA (GA) AND ONLINE, APRIL 2022 (TALK; CO-AUTHOR; CO-AUTHOR); 86TH MEETING, ONLINE, MAY 2021 (TALK; POSTER); 84TH MEETING, AUSTIN, TX (USA), APRIL 2019 (TALK); 83RD MEETING, DENVER, CO (USA), APRIL 2018 (TALK); 81ST MEETING, WASHINGTON, DC (USA), APRIL 2016 (POSTER; POSTER)

Annual Conference of the German Society for Demography

2022 MEETING, ONLINE, MARCH 2021 (CO-AUTHOR)

IUSSP International Population Conference

29TH MEETING, ONLINE, DECEMBER 2021 (CO-AUTHOR; CO-AUTHOR; CO-AUTHOR); 28TH MEETING, CAPE TOWN (SOUTH AFRICA), NOVEMBER 2017 (TALK; CO-AUTHOR; CO-AUTHOR)

Annual Conference of the International Society for Clinical Biostatistics

42ND MEETING, LYON (GA) AND ONLINE, JULY 2021 (CO-AUTHOR)

INED Doctoral Research Day

PARIS (FRANCE), MAY 2019 (TALK)

Italian Population Days Conference (Popdays)

MILAN (ITALY), JANUARY 2019 (TALK; TALK); FLORENCE (ITALY), FEBRUARY 2017 (TALK)

International Workshop on Statistical Modelling

33RD MEETING, BRISTOL (UK), JULY 2018 (POSTER)

International Longevity Risk and Capital Markets Solutions Conference

13TH MEETING, TAIPEI (TAIWAN), SEPTEMBER 2017 (TALK)

Human Mortality Database Symposium

4TH MEETING, BERLIN (GERMANY), MAY 2017 (CO-AUTHOR)

Italian Statistical Society Conference

TREVISO (ITALY), SEPTEMBER 2015 (TALK)

Nordic-Baltic Biometric Conference

4TH MEETING, STOCKHOLM (SWEDEN), JUNE 2013 (TALK)

Post-graduate education

Topics in Digital and Computational Demography

Online course

International Advanced Studies in Demography (IDEM), Instructors: Prof. E. Zagheni et al. 2021

Advanced Methods for Causal Inference with Observational Data

Online course

International Advanced Studies in Demography (IDEM). Instructors: Dr. P. Eibich, Dr. A. Lorenti 2021

Data visualization: the art/skill cocktail

Online course

International Advanced Studies in Demography (IDEM), Instructor: Dr. I. Kashnitsky 2020

Multistate Models: Analysis from event histories and panel data

Rostock, Germany

International Advanced Studies in Demography (IDEM). Instructors: Dr. J. Gampe, Prof. H. Putter,

Prof. A. van den Hout

Smoothing Demographic Data

Rostock, Germany

International Advanced Studies in Demography (IDEM). Instructor: Dr. C.G. Camarda 2017

Probabilistic Population Projections: Theory and Practice Rostock, Germany

International Advanced Studies in Demography (IDEM). Instructors: Prof. A. Raftery and

PROF. H. SEVCIKOVA

Statistical methods for population-based cancer survival analysis

Treviso, Italy

SUMMER SCHOOL ON MODERN METHODS IN BIOSTATISTICS AND EPIDEMIOLOGY. INSTRUCTORS:

Prof. P.W. Dickman and Prof. P.C. Lambert

Teaching

Population Projections Online & Barcelona

EUROPEAN DOCTORAL SCHOOL OF DEMOGRAPHY, COHORT 2019-2020, 2020-2021 (ONLINE COURSE) & 2021-2022, 2020, 2021, 2022, 2023 (IN PRESENCE). (COURSE MATERIAL 2020, 2021, 2022, 2023)

Advances in Mortality Forecasting Online course

International advanced studies in DEMography (IDEM) & International Max Planck Research School

for Population, Health and Data Science (IMPRS-PHDS). Jointly Taught with Carlo G. Camarda.

2021, 2022

(COURSE MATERIAL)

Presentations in LTEX Odense, Denmark

EUROPEAN DOCTORAL SCHOOL OF DEMOGRAPHY, COHORTS 2017-18 & 2018-19 (COURSE MATERIAL) 2018, 2019

Survival Analysis in Medical Research Odense, Denmark

Teaching assistant, University of Southern Denmark, PhD in Health Sciences 201

Work experience.

Max Planck Institute for Demographic Research

RESEARCH SCIENTIST

Rostock, Germany

Jan 2020 - present

Institut national d'études démographiques

ASSOCIATED RESEARCHER

Paris, France

Jan 2020 - December 2022

Institut national d'études démographiques & University of Southern Denmark

PhD student

Paris, France · Odense, Denmark

Sep 2016 - Dec 2019

Max Planck Institute for Demographic Research & Sapienza Università di Roma

PRE-DOCTORAL STUDENT

Rostock, Germany \cdot Rome, Italy

Feb 2015 - Jul 2016

Max-Planck Odense Center on the Biodemography of Aging

RESEARCH ASSISTANT, FORECASTING CLUSTER

Odense, Denmark Nov 2014 - Feb 2015

Just Retirement Reigate, UK

STATISTICIAN, MEDICAL ADVISORY TEAM

Sep 2012 - Nov 2014

Barclays Capital

London, UK

GRADUATE ANALYST, FIXED INCOME RESEARCH

Jan 2012 - Sep 2012

Skills

Programming R, MFX, STATA, SAS, EViews, SPSS, Matlab

Mathematics 97th percentile (grade: 800/800) in the quantitative GRE exam

Languages Italian (mother tongue), English (fluent), Portuguese (intermediate), French & Spanish (basic)

Other experiences _

Chairing roles

- Deputy Head of Laboratory of "Population Dynamics and Sustainable Well-Being", MPIDR. January 2023 present. Research-administrative role leading a group of seven researchers and four doctoral students
- Chair of Research Area "Aging and Generational Processes", Laboratory of Digital and Computational Demography, MPIDR. September 2021 December 2022. Research-administrative role leading a group of four researchers and three doctoral students
- Chair of Workshops of the 2022 Summer Incubator Program at the MPIDR. Organization, chairing and moderation of 17 scientific workshops. June 2021 August 2022
- Chair of Seminar Series of the Laboratory of Digiatal and Computational Demography. Organization, chairing and moderation of weekly invited external or internal talks of the Laboratory. September 2021 January 2022

Faculty

- Faculty member of the PhD program "International Max Planck Research School for Population, Health and Data Science" (IMPRS-PHDS). 2022 present.
- Lecturer of the "European Doctoral School of Demography" (EDSD). 2018 present.

Participation to research groups & projects

- Member of the Laboratory "Population Dynamics and Sustainable Well-Being", MPIDR. January 2023 present. Collaboration with national and international colleagues on five projects: "Forecasting Population-level Mortality"; "Forecasting Individual-level Mortality"; "Formal and Statistical Approaches to the Study of Inequalities in Mortality"; "Demographic Perspectives on Kin Availability and Kin Loss"; "Analyzing and Monitoring the Early Spread of COVID-19: A Demographic Perspective"
- Member of the Research Area "Aging and Generational Processes", Laboratory of Digital and Computational Demography, MPIDR. January 2020 December 2022. Collaboration with national and international colleagues on four projects: "New Perspectives in Mortality Forecasting"; "Formal Demographic Approaches to the Study of Inequalities in Mortality and Kinship Resources"; "Estimating and Projecting Offspring Mortality over the Life Course for all Countries of the World"; "Analyzing and Monitoring the Spread of COVID-19 in Italian Regions and Provinces: A Demographic Perspective"
- Member of the Mortality, Health and Epidemiology Unit, INED. September 2016 December 2022. Collaboration with national and international colleagues on the project: "Geographical disparities in mortality: analysing causes of death to inform health transition"
- Member of the "Forecasting" cluster, Max-Planck Odense Center on the Biodemography of Aging, University of Southern Denmark. November 2014 - February 2015. Collaboration with national colleagues

Supervision of students

- Daniel Zazueta Borboa (with F. Janssen, P. Martikainen & E. Zagheni). PhD student at the Netherlands Interdisciplinary Demographic Institute. April 2023 present. Co-supervised during his research stay at MPIDR. We are working on a manuscript that we started during his stay "Contribution of past trends in socio-economic inequalities in longevity to overall trends in life expectancy and lifespan inequality"
- Ana Cristina Gomez Ugarte (with C.G. Camarda, F. Janssen & E. Zagheni). PhD student at the University of Groningen & MPIDR. September 2022 present. Currently co-supervising her PhD thesis on "Socio-economic inequalities in mortality"
- 6 PhD and MSc students (with A. Akbaritabar & E. Zagheni). June 2023 present. Co-supervision and mentoring of the research project "Projecting the population of scholars worldwide" as part of the 2023 MPIDR Summer Incubator Program
- 6 PhD and MSc students (with E. Zagheni). June August 2022. Co-supervision and mentoring of the research project "Predicting individual-level mortality with traditional and machine learning methods" as part of the 2022 MPIDR Summer Incubator Program
- Maria Laura Miranda. MSc student at the University of Minas Gerais & pre-doctoral student at the European Doctoral School of Demography. May 2022 present. Currently co-supervising her MSc thesis on "Life expectancy forecast in São Paulo city, Brazil, in the context of Covid-19" (with C. Turra) & her EDSD thesis on "The different measures of period shocks on mortality the case of COVID-19" (with E. Acosta and E. Zagheni)
- Emanuele Depaoli (with S. Mazzuco). PhD student at the University of Padova. March July 2022. Supervised during his research stay at MPIDR
- Dorothee Beckendorff (with S. Lohmann). Pre-doctoral student at the European Doctoral School of Demography. October 2021 September 2022. Dorothee successfully defended her EDSD thesis "Who gets to go and who must stay? Examining the links between climate change induced migration and educational attainment in Chile"
- Risto Conte Keivabu (with E. Zagheni). PhD student at the European University Institute. April June 2021. Co-supervised during his research stay at MPIDR. We are finalizing the manuscript that we started during his stay "Ethnic disparities in temperature related deaths in the U.S."
- Silvio Cabral Patricio (with E. Zagheni). Pre-doctoral student at the European Doctoral School of Demography. October 2020 September 2021. Silvio successfully defended his EDSD thesis "Is that a mortality deceleration or just a misspecified model?"

Administrative experiences

- Organizer (with E. Zagheni and R. Chunara) of the 2022 "Population and Social Data Science Summer Incubator Program" at the MPIDR.
 Development of research projects, scientific and social activities; recruitment and superivsion of twelve young researchers. November 2021 August 2022
- Member of the Search Committee for the recruitment of:
 - one research assistant for the Laboratory of Migration and Mobility. June 2023
 - one PhD student for the Laboratory of Digital and Computational Demography (to work under my co-supervision). April 2022
 - six MSc/PhD students for the Summer Incubator Program (to work under my co-supervision). February 2022
 - one PhD student for the Laboratory of Demographic Data. June 2021
 - one research assistant for the Laboratory of Demographic Data. May 2021
 - one research scientist/post-doct for the Laboratory of Digital and Computational Demography. December 2020 January 2021
- Member of the Scientific Committee for the Jan M. Hoem Paper Award. April 2023 present
- Member of the Election Committee for the Academic Staff Representative and Ombudsperson at the MPIDR. July December 2020

Awards

- Co-Winner (with D. Alburez-Gutierrez) of the 2022 Günther Beyer Award for Best Paper by an Early Career Scholar at a European Population Conference (EPC link)
- Winner of the 2022 Best Paper Award of the German Society for Demography Annual Conference (DGD link)
- Winner of the 2021 Jan M. Hoem Paper Award (MPIDR link)
- Winner of the PAA 2021 Blue Ribbon Poster Award (PAA link)
- Bocconi Merit Awards Scholarship for M.Sc. program (2009-2011). Full waiver of tuition fees (20,000€) and yearly stipend (3,500€)

Editorial experience

Associate Editor, Demographic Research. April 2022 - present

Reviewer for the following peer-reviewed journals

eLife; The Lancet Regional Health - Europe; Demography; Population Studies*; BMJ Open; BMC Public Health; ASTIN Bulletin; European Journal of Population*; Demographic Research*; SSM - Population Health; Population; Genus*; Statistical Methods & Applications*; Comparative Population Studies; European Journal of Ageing; PLOS ONE; Pathogens and Global Health; Asian Population Studies; Journal of Population Research*; International Journal of Clinical Biostatistics and Biometrics; RIEDS - Italian Review of Economics, Demography and Statistics; Revista Colombiana de Estadistica; Indonesian Journal of Electrical Engineering and Computer Science.

(*) = multiple times

Other reviewing tasks

Selection of papers for the 29th IUSSP International Population Conference (2021)

Parental leave

Four months of parental leave in 2021