

Curriculum Vitæ— Roland Rau

(Last Update: February 7, 2024)

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1 Name and Address for Correspondence

Name: Roland Rau
 Date of Birth: 27 May 1975
 Marital Status: Married, 1 Child

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2 Education

June 2005: Ph.D. in Demography with distinction (“summa cum laude”), University of Rostock, Germany
 May 2001: Dipl.-Pol. Univ. (~Master’s Degree) in Political Science (Major), Statistics and Demography (Minors), University of Bamberg, Germany

3 Current and Previous Appointments

since 06/2011: Professor of Demography at the University of Rostock (full professor, tenured)
 since 08/2021: Senior Research Scientist, Max Planck Institute for Demographic Research, Rostock
 03/2016–03/2021: Max Planck Fellow, appointed by the president of the Max Planck Society
 06/2014–05/2015: Guest Researcher, Institute of Public Health, University of Southern Denmark, Odense
 02–03/2014 & 02–03/2015: Visiting Scholar, Center for Demography & Population Health, Florida State University, USA
 07/2009–05/2011: Assistant Professor of Demography at the University of Rostock (“Juniorprofessor”)
 09/2008–06/2009: Senior Research Scientist, Max Planck Institute for Demographic Research, Rostock
 09/2006–08/2008: Research Scholar, Terry Sanford Institute of Public Policy, Duke University, USA
 06/2005–08/2006: Research Scientist, Max Planck Institute for Demographic Research, Rostock

4 Major Grants / Third Party Funding

- Research Group “Actuarial and Mathematical Demography”
 - *Role:* Head of Group / Max Planck Fellow
 - *Funded by:* Max Planck Society
 - *Amount:* € 500,000
 - *Time-Frame:* 15 Mar 2016 – 14 Mar 2021

- Rates of Mortality Improvement (ROMI).
 - *Role*: Principal Investigator
 - *Funded by*: European Research Council (ERC Starting Independent Researcher Grant)
 - *Amount*: € 498,600
 - *Time-Frame*: 01 Jan 2011 – 31 Dec 2015
- From Disparities in Mortality Trends to Future Health Challenges (DIMOCHA)
 - *Role*: Cooperating Partner
 - *Funded by*: Deutsche Forschungsgemeinschaft (DFG), Agence Nationale de la Recherche (ANR)
 - *Amount*: € 619,435
 - *Time-Frame*: 01 Jan 2013–31 Dec 2015

5 Selected Honors and Prizes

- April 2019: Best poster award, Annual Meeting of the PAA (with Torsten Sauer)
- August 2018: Best paper award, Demographic Research (with Joel E. Cohen & Christina Bohk-Ewald)
- April 2017: Cozzarelli Award, Proceedings of the National Academy of Sciences (for joint paper Colchero et al.)
- March 2016: Appointed as Max Planck Fellow by the president of the Max Planck Society
- May 2015: Best poster award, Annual Meeting of the PAA (with Christina Bohk and Joel E. Cohen)
- May 2014: Best poster award, Annual Meeting of the PAA (with Marcus Ebeling)
- July 2013: Teaching Award of the University of Rostock
- July 2006: Otto-Hahn-Medal of the Max Planck Society

6 Publications

- MARCUS EBELING, MICHAEL MÜHLICHEN, MATS TALBÄCK, ROLAND RAU, ALEXANDER GOEDEL, SEBASTIAN KLÜSENER (2024): Disease incidence and not case fatality drives the rural disadvantage in myocardial-infarction-related mortality in Germany. **Preventive Medicine** Vol. 179: 107833.
- MARINA KOLOBOVA, DMITRI JDANOV, DOMANTAS JASILIONIS, VLADIMIR M. SHKOLNIKOV, ROLAND RAU (2023): Variation in the burden of the COVID-19 pandemic across federal states in Germany. **European Journal of Public Health**, Vol 33, No. 5:930–936
- MAXI S. KNIFFKA, ROLAND RAU, MINE KÜHN, JONAS SCHÖLEY, NATHALIE NITSCHKE (2023): Steigende Totgeburtenraten in Deutschland. Der Einfluss von Strukturveränderungen in der Bevölkerung. **Deutsches Ärzteblatt** 120: 503–504. DOI: 10.3238/arztebl.m2023.0054
- GUSTAV FEICHTINGER, ROLAND RAU, ANDREAS J. NOVÁK (2023): On the Momentum of Pseudostable Populations. **VID Working Papers 01/2023**. <https://doi.org/10.1553/0x003e187b>
- ESTHER DENECKE, PAVEL GRIGORIEV, ROLAND RAU (2023). Evaluation of small-area estimation methods for mortality schedules. **arXiv preprint arXiv:2302.01693**
- MARCUS EBELING, ROLAND RAU, NIKOLA SANDER, EVA KIBELE, SEBASTIAN KLÜSENER (2022): Urban-rural disparities in old-age mortality vary systematically with age: evidence from Germany and England & Wales. **Public Health**, Vol. 205:102–109

- INNA DANILOVA, ROLAND RAU, MAGALI BARBIERI, PAVEL GRIGORIEV, DMITRI A. JDANOV, FRANCE MESLÉ, JACQUES VALLIN, VLADIMIR M. SHKOLNIKOV (2021): Subnational consistency of cause-of-death data: the cases of Russia, Germany, the United States, and France. **Population**, Vol. 76, No. 4:645–674
- ROLAND RAU (2021) Best Performance Countries in Longevity. In: Danan Gu, Matthew E. Dupre (Eds.): *Encyclopedia of Gerontology and Population Aging*. Springer, Cham.
https://doi.org/10.1007/978-3-319-69892-2_797-1
- MAXI S. KNIFFKA, NATALIE NITSCHKE, ROLAND RAU, MINE KÜHN (2021): Stillbirths in Germany: On the rise, but no additional increases during the first COVID-19 lockdown. **International Journal of Gynecology & Obstetrics**, Vol. 155, No. 3:483-489
- ROLAND RAU (2021): Der unerbittliche Gleichschritt des Alterns. **Demografische Forschung Aus Erster Hand** 18(3), 4 (popular science article, not peer-reviewed)
- MARCUS EBELING, ROLAND RAU, HÅKAN MALMSTRÖM, ANDERS AHLBOM, KARIN MODIG (2021): The rate by which mortality increases with age is the same for those who experienced chronic disease as for the general population. **Age & Ageing**, Vol. 50(5):1633–1640. DOI: 10.1093/ageing/afab085
- ROLAND RAU, CARL P. SCHMERTMANN (2020): District-Level Life Expectancy in Germany. **Deutsches Ärzteblatt** Vol 117: 493–499
- ANNA OKSUZYAN, ANDREAS HÖHN, JACOB KRABBE PEDERSEN, ROLAND RAU, RUNE LINDAHL-JACOBSEN, KAARE CHRISTENSEN (2020): Preparing for the future: The changing demographic composition of hospital patients in Denmark between 2013 and 2050. **PLOS ONE**, Vol. 15, No. 9, pp. e0238912
- KARIN MODIG, ROLAND RAU, ANDERS AHLBOM (2020): Life Expectancy: What does it measure? **BMJ Open**, Vol. 10, No. 7:e035932
- TORSTEN SAUER, MARCUS EBELING, ROLAND RAU (2018). The Fateful Cohorts. **American Journal of Public Health**, Vol. 108, No. 10:e1–e2
- ANDREAS HÖHN, LISBETH AAGAARD LARSEN, DANIEL CHRISTOPH SCHNEIDER, RUNE LINDAHL-JACOBSEN, ROLAND RAU, KAARE CHRISTENSEN, ANNA OKSUZYAN (2018): Sex differences in the 1-year risk of dying following all-cause and cause-specific hospital admission after age 50 in comparison with a general and non-hospitalized population: A register-based cohort study of the Danish population. **BMJ Open**, Vol. 8, No. 7, e021813. <https://bmjopen.bmj.com/content/8/7/e021813.info>
- MARCUS EBELING, KARIN MODIG, ANDERS AHLBOM, ROLAND RAU (2018): The effects of increasing longevity and changing incidence on lifetime risk differentials: A decomposition approach. **PLOS ONE**, Vol. 13, No. 4, e0195307. <https://doi.org/10.1371/journal.pone.0195307>
- MARCUS EBELING, ROLAND RAU, ANNETTE BAUDISCH (2018): Rectangularization of the survival curve reconsidered: The maximum inner rectangle approach. **Population Studies**, Vol. 72, No. 3, pp. 369-379
- JOEL E. COHEN, CHRISTINA BOHK-EWALD, ROLAND RAU (2018): Gompertz, Makeham, and Siler models explain Taylor’s law in human mortality data. **Demographic Research**, Vol. 38, pp. 773-842
- ROLAND RAU, CHRISTINA BOHK-EWALD, MAGDALENA M. MUSZYŃSKA, JAMES W. VAUPEL (2018): **Visualizing Mortality Dynamics in the Lexis Diagram**. The Springer Series on Demographic Methods and Population Analysis. Dordrecht, The Netherlands: Springer
- ROLAND RAU, MARCUS EBELING, FREDERIK PETERS, CHRISTINA BOHK-EWALD, TRIFON I. MISSOV (2017): Where is the level of the mortality plateau? Society of Actuaries (Eds): **2017 Living to 100 Monograph**
- CHRISTINA BOHK-EWALD, MARCUS EBELING, ROLAND RAU (2017): Lifespan Disparity as an Additional Indicator for Evaluating Mortality Forecasts. **Demography**, Vol. 54, No. 4, pp. 1559–1577

- KARIN MODIG, TOMAS ANDERSSON, JAMES W. VAUPEL, ROLAND RAU, ANDERS AHLBOM: How long do centenarians survive? Life expectancy and maximum lifespan. **Journal of Internal Medicine**, Vol 282, No. 2, pp. 156–163
- FERNANDO COLCHERO, ROLAND RAU, ALEXANDER SCHEUERLEIN, BJÖRN SCHWENTKER, JAMES W. VAUPEL (2017): Sterbealter gleichen sich an. In: Max-Planck-Gesellschaft zur Förderung der Wissenschaften (Ed.): **Jahrbuch 2017**, pp. 1–6
- CHRISTINA BOHK-EWALD, ROLAND RAU (2017): Probabilistic mortality forecasting with varying age-specific survival improvements. **Genus**, Vol. 73, pp. 1–37
- FERNANDO COLCHERO, ROLAND RAU, OWEN R. JONES, JULIA BARTHOLD, DALIA A. CONDE, ADAM LENART, LASZLO NEMETH, ALEX SCHEUERLEIN, JONAS SCHOELEY, CATALINA TORRES, VIRGINIA ZARULLI, JEANNE ALTMANN, DIANE K. BROCKMAN, ANNE M. BRONIKOWSKI, LINDA M. FEDIGAN, ANNE PUSEY, TARA S. STOINSKI, KAREN B. STRIER, ANNETTE BAUDISCH, SUSAN C. ALBERTS, JAMES W. VAUPEL (2016). The emergence of longevous populations. **Proceedings of the National Academy of Sciences**, Vol. 113, No. 48, pp. E7681-E7690
- RUNE LINDAHL-JACOBSEN, ROLAND RAU, BERNARD JEUNE, VLADIMIR CANUDAS-ROMO, ADAM LENART, KAARE CHRISTENSEN, JAMES W. VAUPEL (2016): The rise, stagnation and rise of Danish women's life expectancy. **Proceedings of the National Academy of Sciences**, Vol. 113, No. 15, pp. 4015–4020
- CHRISTINA BOHK, ROLAND RAU (2016): Changing mortality patterns and their predictability: The case of the United States. In: Robert Schoen (Ed.): **Dynamic Demographic Analysis**. Springer, Chapter 5, pp. 69–89
- FELIX ZUR NIEDEN, ROLAND RAU, MARC LUY (2016): Allgemeine Sterbetafel 2010/12 — Neue Ansätze zur Glättung und Extrapolation der Sterbewahrscheinlichkeiten **Wirtschaft und Statistik** 1/2016, p. 63–74
- FREDERIK PETERS, CHRISTINA BOHK-EWALD, ROLAND RAU (2015): Future inequalities in life expectancy in England and Wales. **The Lancet (Correspondence)**, Vol. 386, p. 2391
- CHRISTINA BOHK, ROLAND RAU (2015): Impact of Economic Conditions and Crises on Mortality and its Predictability. **Kölner Zeitschrift für Soziologie und Sozialpsychologie**, Vol. 67, pp. 271–294
- CHRISTINA BOHK, ROLAND RAU, JOEL E. COHEN (2015): Taylor's power law in human mortality **Demographic Research**, Vol. 33, No. 21, pp. 589–610
- ROLAND RAU (2015): Alternative estimates support new findings of Andreev and Kingkade. **Demographic Research**, Electronic Response Letters. Available online at http://www.demographic-research.org/volumes/vol133/13/letter_41.pdf
- ROLAND RAU (2015), Contributor for demographic keywords. In: Rainer Diaz-Bone, Christoph Weischer (Eds.): **Dictionary of Methods in the Social Sciences** ("Methoden-Lexikon für die Sozialwissenschaften"), Springer
- CHRISTINA BOHK, ROLAND RAU (2014): Mortality forecasts with a flexible age pattern of change for several European countries. In: Marco Marsili, Giorgia Capacci (Eds.): **Proceedings of the Sixth Eurostat/UNECE Work Session on Demographic Projections**. eurostat, UN Economic Commission for Europe, Istat, pp. 360–371
- MAGDALENA M. MUSZYŃSKA AND ROLAND RAU (2014): Did Men Benefit More from Medical Progress in Recent Decades? Cause-of-Death Contributions to the Decreasing Sex-Gap in Life Expectancy in the United States. **Warsaw School of Economics, Institute of Statistics and Demography, Working Paper Nr. 42, 2014** Available Online At: http://kolegia.sgh.waw.pl/pl/KAE/struktura/ISiD/publikacje/Documents/Working_Paper/ISID_WP_42_2014.pdf

- ROLAND RAU (2014): Der demografische Wandel in Deutschland unter besonderer Berücksichtigung der Mortalitätsentwicklung. In: *Ärzteversorgung Niedersachsen* (Eds.): 50 Jahre Ärzteversorgung Niedersachsen, S. 102–117
- CHRISTINA BOHK, ROLAND RAU (2014): Probabilistic Mortality Forecasting with Varying Age-Specific Survival Improvements. *arXiv.org*, 1311.5380
- ROLAND RAU, JAMES W. VAUPEL (2014): The Changing Demographic Context of Aging. In: Thomas B. Kirkwood, Cary L. Cooper (Eds.) **Wellbeing in Later Life: Wellbeing: A Complete Reference Guide, Volume IV**, pp. 2–21
- ROLAND RAU, MAGDALENA M. MUSZYŃSKA, PAUL H.C. EILERS (2014): Minor Gradient in Mortality by Education at the Highest Ages in the US. An Application of the Extinct-Cohort-Method. **Demographic Research**, Vol. 29, No. 19, pp. 507–520
- ROLAND RAU (2013). Jacob S. Siegel: The Demography and Epidemiology of Human Health and Aging. **European Journal of Population**, Vol. 29, No. 3, pp. 355–356 (Book Review)
- ROLAND RAU, MAGDALENA M. MUSZYŃSKA, JAMES W. VAUPEL (2013): Europe, the Oldest-Old Continent. In: Gerda Neyer, Gunnar Andersson, Hill Kulu, Laura Bernardi, Christoph Bühler (Eds.): **The Demography of Europe**. Springer, pp. 119–137
- JAMES W. VAUPEL, ROLAND RAU (2013): Research vs. Rhetoric. **Gerontology**, Vol. 59: pp. 95–96
- ROLAND RAU (2012): Methusalem bald unter uns? (Methuselah Soon Among Us?) **Neue Zürcher Zeitung — NZZ Fokus**, Issue 51, pp. 90–91 (non-scientific article)
- MAGDALENA M. MUSZYŃSKA, ROLAND RAU (2012): The Old-Age Healthy Dependency Ratio in Europe. **Journal of Population Ageing**, Vol. 5: 151–162
- ROLAND RAU, GABRIELE DOBLHAMMER (2012): Zur Epidemiologie des Sterbens in der deutschen Gesellschaft. Entwicklung von Lebenserwartung, Todesursachen und Pflegebedarf am Lebensende. In: Franz-Josef Bormann, Gian Domenico Borasio (Eds.): **Sterben. Dimensionen eines anthropologischen Grundphänomens**. Berlin/Boston: Walter de Gruyter, pp. 3–22
- KAARE CHRISTENSEN, MICHAEL DAVIDSEN, KNUD JUEL, LAUST MORTENSEN, ROLAND RAU, JAMES W. VAUPEL (2011): The Divergent Life-Expectancy Trends in Denmark and Sweden—and Some Potential Explanations. In: EILEEN M. CRIMMINS, SAMUEL H. PRESTON, BARNEY COHEN (Eds.); Panel on Understanding Divergent Trends in Longevity in High-Income Countries; National Research Council: **International Differences in Mortality at Older Ages: Dimensions and Sources**. Washington D.C.: National Academies Press
- BRIAN D. MARX, PAUL H.C. EILERS, JUTTA GAMPE, ROLAND RAU (2010): Bilinear modulation models for seasonal tables of counts. **Statistics and Computing**, Vol. 20: 191–202.
- KAARE CHRISTENSEN, GABRIELE DOBLHAMMER, ROLAND RAU, JAMES W. VAUPEL (2010): Ageing and health – Authors’ reply. **The Lancet**, Vol. 375, Issue 9708, pp. 26–27
- MAGDALENA M. MUSZYŃSKA, ROLAND RAU (2009): Falling Short of Highest Life Expectancy: How Many Americans Might Have Been Alive in the Twentieth Century? **Population & Development Review**, Vol. 35, No. 3, pp. 585–603
- KAARE CHRISTENSEN, GABRIELE DOBLHAMMER, ROLAND RAU, JAMES W. VAUPEL (2009): Ageing populations: the challenges ahead. **The Lancet**, Vol. 374, Issue 9696, pp. 1196–1208
- DOBLHAMMER, GABRIELE, ROLAND RAU, J. W. VAUPEL (2009): Selbstbestimmtes Leben trotz Zunahme von Krankheiten: Studie zeichnet gemischtes Bild vom Altern. **Demografische Forschung Aus Erster Hand** 6(4), 1–2

- ROLAND RAU, DOMANTAS JASILIONIS, EUGENY L. SOROKO, JAMES W. VAUPEL (2008): Continued Reductions in Mortality at Advanced Ages. **Population & Development Review**, Vol. 34, No. 4: pp. 747–768
- ROLAND RAU, GABRIELE DOBLHAMMER, VLADIMIR CANUDAS-ROMO, ZHANG ZHEN (2008) : Cause-of-Death Contributions to Educational Inequalities in Mortality in Austria between 1981/82 and 1991/92. **European Journal of Population**, Vol. 24, No. 3, pp. 265–286
- PAUL H.C. EILERS, JUTTA GAMPE, BRIAN D. MARX, ROLAND RAU (2008): Modulation Models for Seasonal Incidence Tables. **Statistics in Medicine**, Vol. 27, Issue 17 (30 July 2008), pp. 3430–3441
- JAMES W. VAUPEL, KRISTÍN VON KISTOWSKI, ROLAND RAU (2008): “Mortality”. In STEVEN N. DURLAUF, LAWRENCE E. BLUME (EDS.): **The New Palgrave Dictionary of Economics Vol. 5**, Palgrave Macmillan, pp. 781–787
- DMITRI A. JDANOV, DOMANTAS JASILIONIS, EUGENY SOROKO, ROLAND RAU, JAMES W. VAUPEL (2008): Beyond the Kannisto-Thatcher Database on Old Age Mortality: an assessment of data quality at advanced ages **Max Planck Institute for Demographic Research Working Paper WP-2008-013**, Rostock: Max Planck Institute for Demographic Research.
- BRIAN D. MARX, PAUL H.C. EILERS, JUTTA GAMPE, ROLAND RAU (2008): Bilinear varying-coefficient models for seasonal time series and tables. In: Paul H.C. Eilers (Eds.): **Proceedings of the 23rd International Workshop on Statistical Modelling**, Utrecht 7 - 11 July, 2008, pp. 339–344
- ROLAND RAU (2007): **Seasonality in Human Mortality. A Demographic Approach**. Demographic Research Monographs Series, Heidelberg: Springer
- PAUL H.C. EILERS, JUTTA GAMPE, BRIAN D. MARX, ROLAND RAU (2007): Modulation Models for Seasonal Incidence Tables In: **Proceedings of the 22nd International Workshop on Statistical Modelling**, July 2–July 6, 2007, Barcelona
- JAMES W. VAUPEL, ROLAND RAU, DOMANTAS JASILIONIS (2006): The Remarkable, Accelerating Decline in Mortality at Older Ages and the Prospects for Further Improvement in Life Expectancy. **Biochimica Clinica**, Vol. 30, Supplement No. 1. Luca Deina, James Vaupel (Eds.): Longevity in Sardinia “The centenarian island”, pp. S4–S5
- JAMES W. VAUPEL, ROLAND RAU (2006): Mortality after Age 80 in France. In: France Meslé and Thérèse Locoh (Eds.): **Vie des populations, santé des humains. Population Life, Human Health. Festschrift in Honour of Jacques Vallin**
- ROLAND RAU, EUGENY SOROKO, DOMANTAS JASILIONIS, JAMES W. VAUPEL (2006): 10 Years after Kannisto: Further Evidence for Mortality Decline at Advanced Ages in Developed Countries **Max Planck Institute for Demographic Research Working Paper WP-2006-33**, Rostock: Max Planck Institute for Demographic Research.
- JAMES W. VAUPEL, ROLAND RAU, CARLO GIOVANNI CAMARDA, KRISTÍN VON KISTOWSKI (2006): Can Heterogeneity of Populations Explain Differences in Mortality? **Center for Retirement Research at Boston College Working Paper WP #2006-10**, Center for Retirement Research, Boston College, Chestnut Hill, MA (USA).
- GABRIELE DOBLHAMMER, ROLAND RAU, JOSEF KYTIR (2005): Trends in educational and occupational differentials in all-cause mortality in Austria between 1981/82 and 1991/92. **Wiener klinische Wochenschrift. The Middle European Journal of Medicine**, Vol. 117, Issue 13–14, pp. 468–479
- ROLAND RAU (2004): Winter mortality in elderly people in Britain: Lack of social gradient in winter excess mortality is obvious in Denmark (Letters). **British Medical Journal**, Vol. 329, pp. 976–977
- JUTTA GAMPE, ROLAND RAU (2004): Seasonal Variation in Death Counts: *P*-Spline Smoothing in the Presence of Overdispersion. In: ANNIBALE BIGGER, EMANUELA DREASSI, CORRADO LAGAZIO, MARCO MARCHI (EDS.): **Statistical Modelling. Proceedings of the 19th International Workshop on Statistical Modelling, Florence (Italy), 4–8 July 2004**, Firenze, I: Firenze University Press, pp. 405–409

- ROLAND RAU, GABRIELE DOBLHAMMER (2003): Seasonal mortality in Denmark: The role of sex and age. **Demographic Research**, Vol. 9, pp. 197–222
- ROLAND RAU, GABRIELE DOBLHAMMER (2003): Seasonal mortality in Denmark: The role of sex and age. **Max Planck Institute for Demographic Research Working Paper WP–2003–14**, Rostock: Max Planck Institute for Demographic Research
- GABRIELE DOBLHAMMER, JOSEPH LEE RODGERS, ROLAND RAU (2000): Seasonality of Birth in Nineteenth- and Twentieth-Century Austria. **Social Biology**, Vol. 47, pp. 201–217
- ROLAND RAU (2000): **Alters-, Perioden-, und Kohorteneffekte im Wahlverhalten**. Diploma-Thesis, Lehrstuhl für Politikwissenschaft II, Universität Bamberg, July 2000
- HARALD W. LEDERER, ROLAND RAU, STEFAN RÜHL (1999): **Migration Review 1999. Migration in- and outflows to and from Germany**. Bamberg: efms (CD-ROM)
- GABRIELE DOBLHAMMER, JOSEPH LEE RODGERS, ROLAND RAU (1999): Seasonality of Birth in nineteenth and twentieth century Austria: steps toward a unified theory of human reproductive seasonality. **Max Planck Institute for Demographic Research Working Paper WP–1999–013**, Rostock: Max Planck Institute for Demographic Research
- HARALD W. LEDERER, ROLAND RAU, STEFAN RÜHL (1999): **Migrationsbericht 1999. Zu- und Abwanderung nach und aus Deutschland**. Bonn / Berlin: Beauftragte der Bundesregierung für Ausländerfragen

7 Software

- “StablePop”, extension package for R. Authors: Roland Rau; first published in 2022. License: GPL-2. **Language: R**. Available online at <https://gitlab.com/rolandrau/StablePop>
- “ProjMatRawData”, extension package for R providing the raw data to create projection matrices for all countries/regions of the world. Author: Roland Rau; first published in 2022. License: GPL-2. **Language: R**. Available online at <https://gitlab.com/rolandrau/ProjMatRawData>
- “WorldPopQuery”, extension package for R to query package “AnnualWorldPopulation”. Author: Roland Rau; first published in 2022. License: GPL-2. **Language: R**. Available online at <https://gitlab.com/rolandrau/WorldPopQuery>
- “AnnualWorldPopulation”, extension package for R containing the population estimates by single age and single calendar year from the United Nations’ World Population Prospects 2019 Revision of the United Nations. Author: Roland Rau; first published in 2022. License: GPL-2. **Language: R**. Available online at <https://gitlab.com/rolandrau/AnnualWorldPopulation>
- “LogrankA”, extension package for R. Authors: Jonas Richter-Dumke, Roland Rau; first published in 2013. License: GPL-2. **Language: R**.
- “ROMIplot”, extension package for R. Authors: Roland Rau, Tim Riffe; first published in 2015. License: GPL-2. **Language: R**.
- “npst”, extension package for R; this package generalizes Hewitt’s (1971) test for seasonality and Rogerson’s (1996) extension based on Monte-Carlo simulation; first release in 2011. GPL-2. **Languages: R, Fortran 90/95**.
- minor contribution to statistical programming package “ESS” for the Emacs family of editors; license: GPL-2 or later. **Language: Emacs-Lisp**

8 Presentation of Papers and Posters

More than 100 scientific presentations incl. posters. Among them:

- 13 papers at the International Population Conference (every 4 years)
- 17 papers and 12 posters at the Annual Meeting of the Population Association of America (annually, incl. three poster awards)
- 13 papers and 1 poster at the European Population Conference (every 2–3 years)

9 Professional Activities

9.1 Reviewer for Funding Agencies

Alexander von Humboldt Foundation, BMBF (German Federal Ministry of Education and Research), Czech Science Foundation (GAČR), European Research Council, fwf, Austria (Fonds zur Förderung der wissenschaftlichen Forschung), German-Israeli Foundation for Scientific Research and Development, Israel Science Foundation, Studienstiftung des deutschen Volkes, Swiss National Science Foundation

9.2 Reviewer for Journals

Advances in Life Course Research, BMC Public Health, American Journal of Epidemiology, British Medical Journal, Bundesgesundheitsblatt, Canadian Studies in Population, Comparative Population Studies, Demographic Research, Demographic Research Monographs (Springer), Demography, Deutsches Ärzteblatt, European Journal of Epidemiology, European Journal of Population, Frontiers in Public Health, Genus, Human Biology, International Journal of Environmental Research and Public Health, International Journal of Epidemiology, Journal of Applied Mathematics and Computing, Journal of Epidemiology and Community Health, Journal of Gerontology: Biological Sciences, Journal of Internal Medicine, Journal of Official Statistics, Journal of Population Ageing, Mechanisms of Ageing and Development, Naturwissenschaften, Population & Development Review, Population Health Metrics, Population Studies, PLoS ONE, Proceedings of the National Academy of Sciences (PNAS), Social Science & Medicine, Statistische Nachrichten of Statistics Austria, Vienna Yearbook of Population Research

9.3 Further Academic Service

- Editor Comparative Population Studies, CPoS (2024–, jointly with Heike Trappe)
- Associate Editor for European Journal of Population (2015–2023)
- Associate Editor for Genus (2010–2023)
- Member of Board of Trustees (“Kuratorium”), Federal Institute for Population Research, Wiesbaden, Germany (2018–)
- Member of Scientific Board, European Doctoral School of Demography (2010–)
- Chair of Working Group “Demographic Methods”, German Demographic Society (2016–2022)

9.4 Professional Affiliations

Population Association of America (PAA), European Association for Population Studies (EAPS), International Union for the Scientific Study of Population (IUSSP), German Demographic Society (DGD)

10 Policy-Relevant Activities

- Representative for Europe, **Global Longevity Council**, 2021–2023
- Invited to panels/discussions on demographic change with (selection)
 - six heads of state (**Federal Presidents** of Germany, Austria, and Switzerland, **King of Belgium**, **Grand Duke of Luxembourg**, Hereditary **Prince of Liechtenstein**), September 2014
 - Thomas de Maizière, **Federal Minister** of the Interior in Germany, June 2014
 - Georg Milbradt, former **Prime Minister** of Saxony, January 2014
 - Erwin Sellering, **Prime Minister** of Mecklenburg-Vorpommern, July 2013
- Editor-in-Chief for **Demographic Newsletter** “Demographische Forschung aus Erster Hand” (2012–2019)
- Expert Panel on Population Projections, **German Federal Statistical Office**, Wiesbaden, Germany
- Expert panel on life table estimation. **German Federal Statistical Office**, Wiesbaden, Germany
- Member of an Expert Panel of the **German Federal Ministry of Education and Research** to identify key themes in the Social & Economic Sciences and the Humanities for the Research Frameworks of the European Union (2010, 2021)
- Invited speaker for panel discussion ““Fighting ageism: transforming public attitudes and addressing ageism in healthcare and at the workplace” at the annual conference of the **NDPHS Partnership** (Northern Dimension Partnership in Public Health and Social Well-being)
- Member of Expert Panel on Future Trends in Demography, **RAND Europe** (2013)
- Steering Committee “Sustainable Development Goals and the Role of Research: A Focus on Coastal Regions”, **Volkswagen Foundation** (2015)
- Steering Committee of Winter School “Limits to Growth Revisited”, **Volkswagen Foundation** (2012).
- Member of Council of Advisors of **Population Europe** (2012–)

11 Teaching Experience

- Winner of the 2013 teaching award of the University of Rostock.
- Winner of the teaching award of the Department of Sociology & Demography for the the winter terms 2012/2013 and the summer terms 2012, 2017 & 2018.
- More than 2200 classroom hours of teaching experience at the BA, MA, and doctoral level (not included: various guest lectures)
- Courses at the University of Rostock include (BA & MA, 2009–): Survival Analysis, Cancer Mortality in the United States, Introduction to Demography, Formal Demography, Analysis of Mortality, and “Introduction to Demography and Aging Research” at the Medical School.
- Courses at Max Planck Research Schools include (doctoral students, 2004–2006, occasionally since 2009): Introduction to programming with R, Survival Analysis, various seminars on stable and nonstable populations, old-age mortality, and seasonal mortality.
- Course at the University of Stockholm (MA, 2008): Basic methods and current issues in mortality research

12 Thesis Supervision

- Supervisor/evaluator of 13 doctoral dissertations.
- Supervisor/evaluator of more than 30 Master theses.
- Supervisor/evaluator of more than 40 Bachelor theses.

13 Service at the University of Rostock

- Chair of the Department of Sociology and Demography (2012–2017, 2021–2023)
- Elected Member, University Council (2016–2018, 2018–2021, 2021–2023, 2023–)
- Elected Member, Faculty Council (2010–2012, 2014–2016, 2018–2021, 2021–2023, 2023–)
- Ombudsperson for the Social Sciences and Humanities (2019–2022)
- Joachim-Jungius-Award, Member of Jury (2021)
- Appointed Member of Senate Commission on Research (2012–2014)
- Director of MSc Demography Program (since January 2012)
- Chair of Appointment Committee for W1-Professorship in Demography (2018–2019)
- Chair of Appointment Committee for W1-Professorship in Computational Social Science (2023–)
- Graduate Studies Council (2010–2014)
- Exam Board, (2009–2012, 2017–) for BA Social Science, MSc Demography, MA Sociology, MA Economics
- Chair of Evaluation Committee Assistant Professorship Demography
- Member of Appointment Committees for Professorships: Mathematical Demography (2010, “Juniorprofessur”), Demography (2011–2012, “Juniorprofessur”), Political Science (2012), Political Science (2017), Political Science (2019/2020), Sociology (2019/2020), Sociology (2021–), Computer Science (2021–)

14 Media Experience

Extensive media experience. For instance, more than 380 media covered the paper on life expectancy on the district level in Germany with many direct interviews (Die ZEIT, Süddeutsche Zeitung, FAZ, ...). But also previous research results were featured in many media (selection):

Print: The Globe & Mail, Frankfurter Allgemeine Zeitung, Berliner Zeitung, Tagesspiegel, Die Welt, Men’s Health, Slate, Neue Zürcher Zeitung, P.M.-Magazin, Schweriner Volkszeitung, Münchner Merkur, brand-Eins, Hannoversche Allgemeine Zeitung, n-tv.de, Märkische Allgemeine Zeitung, Nordkurier, Focus, Mannheimer Morgen, BILD, BamS

Radio: Deutschlandradio, Deutsche Welle, Bayerischer Rundfunk

TV: RTL, NDR, mdr, Pro 7 (expert for feature on life expectancy in program *Galileo*)

Indirect (research cited without interview, selection): ABC, BBC, CBC, The Guardian, Hamburger Abendblatt, The Hindu, New York Times, NY Post, Reuters, Sky News, The (London) Times, USA Today, U.S. News & World Report, FAZ, Augsburger Allgemeine, BILD

15 Language and Computer Skills

- Languages: German (mother tongue), English (fluent), French (basic), Latin
- Computer Skills:
 - Operating Systems: GNU/Linux (since 2001), MS Windows (since Windows 3.11)
 - Office-Software: MS Word, MS Excel, MS Powerpoint, OpenOffice.org, LibreOffice
 - Editors: Emacs/XEmacs, WinEdt, vi
 - Typesetting: L^AT_EX
 - Statistical Packages: R, SAS, S-Plus, SPSS, Stata, aML, TDA, EViews, XLisp-Stat
 - Symbolic Algebra Packages: Maxima
 - Databases: SQLite
 - Programming: awk, SQL; Hobby: C, Fortran (90/95), Python, functional programming (Lisp, Haskell, OCaml)