

## Tracing and explaining causes and consequences of population change

Demographers study the structure and dynamics of populations. They look at the populations of individual countries or regions as well as the life-course of individuals.

Catchwords such as "Demographic Change" or "Aging Society" refer to the challenges produced in most European countries by the demographic developments of the last decades: Birth rates are sinking or stagnating; at the same time people continue to grow older, leading to a society that is 'graying'. Before long, the population will shrink.

Immigration and migration movements have not induced a reversed trend so far, but merely led to a regional dislocation of associated problems.

These developments have far-reaching social, economic, and political consequences. For example, old-age provision systems, health care, the labor market or education have not been able to keep pace with demographic change.



Finding long-term solutions to these structural problems is one of the most important tasks facing politics, economics, and society. At the same time, these changes also pose new challenges for families, unions, and individuals. Demography makes a fundamental contribution to gaining a deeper understanding of the causes and the consequences of the demographic change.

Demography analyzes the underlying causes of demographic change, describes trends, and produces forecasts for the future direction of demographic processes. The discipline also highlights the potential consequences society faces. Finally, demography assists decision-makers in the various political and social institutions by providing them with solid information and expert advice.

## Developing research skills in an interdisciplinary environment

### Master of Science:

The Master of Science, M.Sc., in demography combines theoretical and methodological knowledge and offers in combination with economics and sociology the option of a focus on the subject "demographic change".

It prepares students for professional fields in which knowledge of and competence in the analysis and understanding of the causal relationships of demographic processes are needed, particularly under conditions of demographic change.



### The program is designed to:

- Enable students to gain a high-level overview of topics and methods in demography and detailed knowledge in the special fields chosen;
- Promote critical awareness of the most important theories and methods in demography as well as policy recommendations;
- Provide students with personal skills, competence and a professional perspective that enables them to apply their knowledge and understanding in the field of demography to their professional activities, to identify new problems, analyze them theoretically and empirically, and formulate policy recommendations;
- Enable students to communicate information, ideas, problems and solutions in the field of demography to both specialists and non-specialists and to take responsibility in a team.

Students are required to gather own research practice in a six-month practical research training. Their ability to conduct independent scientific work and research is further assessed through writing and defending a master's thesis within a period of six months.

The University of Rostock is the only university in Germany that offers a Master's program in Demography.

Ten to twelve students enroll each year and work in close collaboration with the faculty. The Master's program is designed for two years of full-time study.

Lectures are held mainly in German, but may also be held in English. German language courses can be organized.

### Schedule:

First Semester	ETCS
Demographic methods and multivariate statistics	12
Basic demography: Mortality	12
Electives	6

Second Semester	ETCS
Survival analysis	6
Basic demography: Fertility	12
Consequences of the demographic change	6
Electives	6

Third Semester	ETCS
Basic demography: Migration	12
Practical research training	12
Electives	6

Fourth Semester	ETCS
Master's thesis	30

### Further information:

- Institute for Sociology and Demography: [www.wiwi.uni-rostock.de/soziologie](http://www.wiwi.uni-rostock.de/soziologie)
- Application for Master program: 15 July
- Information for applicants: [www.uni-rostock.de/studieninteressierte](http://www.uni-rostock.de/studieninteressierte)

## Perspectives in science and in international research collaborations

### Integrated PhD track:

For highly motivated students an integrated PhD track is available, offering in-depth research possibilities.

The PhD program includes training in statistical demography, demographic models and theories, causes and consequences of demographic change, advanced techniques in individual data analysis as well as a mentoring program with leading experts in the various fields of demography.

Doctoral students participate in courses at the International Max Planck Research School for Demography and the European Doctoral School of Demography.

### Professors and their fields of expertise:

- Gabriele Doblhammer: Determinants of longevity and health, care need in aging societies, cognitive status and dementia.
- Michaela Kreyenfeld: Life course research, fertility analysis, sociology of the family.
- Roland Rau: Demographic analysis methods and mortality analysis.
- Heike Trappe: Social differences and gender, life course, family and labor market studies.

Two chairs will be newly appointed: Formal Demography with a focus on mortality and/or migration as well as Mathematical Demography.

### Networks:

- Rostock Center for the Study of Demographic Change: a joint research institution of the University of Rostock and the Max Planck Institute for Demographic Research (MPIDR).
- Joint assistant professorships of the University of Rostock and the MPIDR.
- Cooperations exist with other German universities as well as research bodies outside the university framework. The faculty enjoy a wide international network of collaboration in the framework of European Union Research Projects as well as with leading research organizations in Europe and the USA.