We are looking for one junior research associate to work on the research project “Italians’ FERTility MOTivations in disorienting and uncertain time”, Acronym FER-MO. The project is funded by the Italian Ministry of Education, University and Research (MIUR), with Professor Letizia Mencarini (Bocconi University) as the principal investigator and Professor Raya Muttarak (University of Bologna) and Associate Professor Maria Letizia Tanturri (University of Padova) as co-investigators.

FER-MO offers a 12-month junior research associate position (with the possibility to be renewed up to 2 months) at Department of Statistical Sciences, University of Bologna.

Project description

Many studies have been conducted on Italy’s three decades persistent low fertility. Still, Italian fertility dynamics remain a conundrum: recent data from ISTAT reveal that monthly births were highly reactive to the ups and downs of the COVID pandemic. Yet the long-term trend remains stable – and importantly – at a very low level of below 1.3 children per woman. Given that classical theories are not up to explaining fertility dynamics, especially in the Italian setting, this project asks whether Italians’ motivation for having children is now changing. There are many good reasons to suspect that this is, indeed, the case: a deadly pandemic; sudden inflationary pressure sparked by an energy crisis, possibly bringing about an economic recession; geo-political tension such as has not been seen in Europe since the second World War; and a likely devastating climate and environmental crisis. Prospective young parents are, today, facing very different perspectives on the future compared to a few years ago. The Italian demographic winter risks turning into permafrost.

In order to answer whether Italian motivations for having children is changing, we pursue three approaches.

First, the 2016 Family, Social Subjects and Life Cycle (FSS) survey is used to investigate the fertility behaviour, intentions and ideals of a representative sample of 25,000 Italian adults. In collaboration with ISTAT, we are able to map fertility intentions with actual fertility using population register data. This unique data linkage allows us also to analyse, for the first time, the heterogeneous effects of the COVID pandemic on fertility.

Second, in close collaboration with ISTAT, we are able to identify the place of residence of the respondents, to map the economic, demographic and political characteristics of the municipality where they live. Combined with georeferenced environmental data, we also match the individual data with the climatic information of their municipality, including temperature and rainfall anomalies, and other extreme events, such as flooding. In this way we tap into underexplored fertility mechanisms.

Third, we plan to conduct a new survey where we ask individuals about their fertility intentions and ideals. Here we propose an important innovation: we design and implement a vignette study where individuals are exposed to a series of narratives under which respondents report whether the scenario would favour having children (or not). The factors in the vignette include: 1) short-term climatic shocks; 2) long-term climate change; 3) economic recession; 4) geo-political tensions; 5) fear of (another) pandemic; and 6) fear of the rising cost of living. This approach is unique in tapping into the competing concerns that individuals may have when considering future scenarios for childbearing. Combining this with information on the respondents’ background characteristics, we can also empirically analyse the heterogeneity of any concerns.
For further information about the project and the position please contact: Prof. Raya Muttarak raya.muttarak@unibo.it

Job description

The successful candidates will join the FER-MO project (project duration October 2023 – September 2025) and participate fully in the research life of the research team, and engage in advanced independent research within the remit of the project. More specifically, the appointed researchers will carry out the following research activities:

a) Contribute actively to the research of the FER-MO project, particularly in the following research areas:
   - applying advanced statistical methods to analyse climate change and environmental impacts on fertility behaviour in Italy
   - investigating demographic heterogeneity and mechanisms through which climate change affects fertility behaviour in Italy

b) Support the collection of relevant geo-referenced demographic, socioeconomic, political environmental/climate and internet/social media data at the micro and macro level. Preparing and managing large-scale data sources for the project;

c) Produce visualisations and maps to check results and communicate findings;

d) Publish research of an internationally excellent standard;

e) Represent the research group at internal and external meetings/seminars and present papers at conferences and public meetings;

f) Participate in the research activities of the FER-MO project and the Department of Statistical Sciences;

g) Undertake appropriate organisational duties within the group when required such as organising research meetings, seminars, conference sessions

Skills, qualifications and requirements

- Master’s in demography, statistics, economics, sociology, data science, Geographical Information Systems (GIS) or other related field(s) coupled with interest in the topic of population and climate change
- Proven competence in statistics/econometrics; experience with relevant statistical packages e.g., R, STATA and/or Python
- Experience in quantitative social sciences research, preferably in demographic analysis and modelling.
- Demonstrated experience in developing research plans, collecting and managing data, and carrying out statistical analyses.
- Experience in collecting and managing data, and carrying out statistical analyses
- Experience with data processing and handling of large-scale datasets at the micro and macro level and good data management skills.
• Excellent command of written and spoken English
• Expertise in one of the following areas is desirable:
  - Experience with handling and analysing georeferenced data e.g., matching demographic data with climate data
  - Experience with collecting and handling environmental/climate data; satellite data
  - Experience with assessing demographic outcomes such as fertility, mortality and migration