

Interdisciplinary population research

Population research at IIASA is interdisciplinary and thus looks beyond the traditional bounds of demography to study how development of human capital helps to address social, economic, and environmental challenges. These interactions, which emphasize human capital formation, are among the most important challenges facing IIASA demographers today.

In the mid-2000s IIASA and the Vienna Institute of Demography (VID) of the Austrian Academy of Sciences developed projection methods able, for the first time, to reconstruct populations by age, sex, and level of educational attainment for 120 countries. Back projections cover 1970–2000; forward projections, 2005–2050. These new data allow scientists to view how different education levels influence mortality, fertility, human capital, and the effects of age-specific human capital growth on economic growth.

New global projections

New IIASA global population projections, published in October 2014, incorporate the best substantive knowledge available in the international scientific community through the involvement of over 500 population experts worldwide. They also explicitly and systematically incorporate population heterogeneity by level of education to illustrate how educational attainment can and should be routinely added to age and sex as a third demographic dimension.

Population aging

Changes in life expectancy and health status in the 21st century have made traditional demographic measures inadequate. IIASA is conducting innovative approaches to depict population aging more realistically. One of the approaches defines the threshold of being old based on characteristics (increasing longevity, or health, for instance, and not on their chronological age). It has enormous potential for redefining sectoral policies in the context of rapidly aging societies.

Impacts

- The new IIASA set of world population projections were developed in tandem with the next-generation of the Intergovernmental Panel on Climate Change scenarios—the “Shared Socioeconomic Pathways” (SSPs)—which aim to capture the socioeconomic challenges to climate change mitigation and adaptation. While the previous scenarios depicted only total population size, the SSPs, being based on IIASA population projections, cover global social trends in a more relevant way, giving the full age, sex, and education structure across time and countries.
- IIASA demographers have won several European Research Council grants and the Wittgenstein Prize 2010. This has enabled the IIASA World Population Program, the VID, and the Research Institute on Human Capital and Development of Vienna’s University of Economics and Business to co-found The Wittgenstein Centre for Demography and Global Human Capital, The centre aims to be a leader in the demographic analyses of human capital formation and its impact on society, the economy, and the environment.
- IIASA demographers significantly contributed to regional and global-level policy dialogue on sustainable development by assessing progress and shaping new targets within the International Conference on Population and Development Beyond 2014 process, and the Millennium Development Goals post-2015 initiatives. IIASA demographers contributed to “Population Trends and Policies in the UNECE Region: Outcomes, Policies and Possibilities,” whose recommendations are formulated around investment in human capital, particularly education.
- IIASA made a significant input into the 2013 Human Development Report, “The Rise of the South: Human Progress in a Diverse World”, which examines the implications for overall human development of the fast-growing developing world.
- Every two years, IIASA demographers issue European and Asian Population Data Sheets which provide fresh data and new approaches to measure population dynamics and thereby contribute to regional and national development population policy. The last two issues of the European Population Data Sheet were translated into Russian, and the concepts of the tempo effect on fertility and prospective age were accordingly included in a new population policy discourse in the countries of the Commonwealth of Independent States.



Further information:
www.iiasa.ac.at/impacts/popprojections