Dimensions of population projections

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Adapting demographic models

- With the help of multidimensional population models:
  Include granularity, i.e.
  - Human capital: Educational attainment
  - Urban & rural divide
  - Religion and religiosity
Education: A proxy for human capital

Education (stock) answers the three main criteria of why to explicitly consider a particular dimension in population projections

- It is interesting as such and is a desirable explicit output parameter;
- It is a source of demographic heterogeneity and has an impact on the dynamic of the system;
- It is feasible to consider the dimension explicitly.

Source: Lutz, Goujon, Doblhammer-Reiter (1998)
Education: A glimpse at human capital

The example of Asia

2015
Population by age and sex

Population: 4.3 billion

2015
Population by age, sex, and education

Population: 4.3 billion

2050
Population by age, sex, and education

SSP2- Medium
Population: 5.1 billion

SSP3- Stalled dev.
Population: 5.7 billion

### Concept: Population Dimensions

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<th>Fertility</th>
<th>Mortality</th>
<th>Migration (ext)</th>
<th>Education transition</th>
<th>Migration (int)</th>
<th>Migration (sub)</th>
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- **Fertility**
- **Mortality**
- **Migration (ext)**
- **Education transition**
- **Migration (int)**
- **Migration (sub)**
Total Fertility Rate in India, by education and place of residence

(source: SRS)
Concept: Mortality

Life expectancy at birth for females
States of India, 2013

(source: SRS)
Concept: Internal Migration

Source: Census 2001; Visualization: N. Sander, M. Speringer & S. KC
Methodology: Preliminary Results

Population of India by Rural/Urban

- **Population in Billions**
  - Rural
  - Urban

- **Year**: 2020, 2040, 2060, 2080, 2100
Methodology: Preliminary Results
Methodology: Preliminary Results
Methodology: Preliminary Results
Future religion and religiosity prospects

Will religion be the measure of humanity in the 21st century?

André Malraux: “The 21st century will be religious or it will not be” (1976)

Population projection of the U.S., by religion, religiosity, and ethnicity, 2003-2043, medium scenario