

New estimates of the world urban and rural population by age and sex, 1950-2005

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Abstract

The paper presents new estimates of the urban and rural population data by age and sex (1950-2005), and examines the main characteristics of the estimates for the world, and for major geographical regions and development groups. We discuss the estimation method, along with an evaluation of the two most important assumptions upon which it is based. These new data, disaggregated by age and sex, provides greater detail than previously available and allows for better understanding of demographic dynamics in urban and rural areas across the countries and regions of the world. The paper shows some relevant features of international differences and trends of urban and rural population over time, including the extent of the aging observed at the urban and rural level.

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(Somewhat) Extended Abstract

This paper presents new estimates of the world's urban and rural population by age and sex (1950-2005) and analyzes the results for the major geographical regions of the world and development categories. The Population Division of the United Nations produces regularly (every two years) data on the *total* urban and rural populations for the major areas, regions and countries of the world. The latest data in this respect are available in the 2007 Revision of the *World Urbanization Prospects* (United Nations, 2008), which contains updated estimates and projections of the urban and rural populations of all countries in the world for the period 1950-2050, as well as estimates of the major urban agglomerations (of 750,000 inhabitants or more in 2007) projected up to 2025.

These data are widely used by researchers, analysts and policy makers around the world to examine broad trends in urbanization and their relationship to socioeconomic development. However, there is no comparably systematic database on the age and sex distribution of the urban and rural population, despite the well-known differentials in demographic behaviour between urban and rural areas,¹ and the key role of internal migration in urbanization dynamics in both developed and less developed countries (Bilsborrow, 1998). This is due, no doubt, to the greater scarcity of reliable data on the age and sex detail of the urban and rural population, especially in developing countries, to the discontinuities and gaps in the censuses or other national statistical sources, and to some inherent technical difficulties in producing a regularly-spaced time series of age and sex-disaggregated data matrices consistent with the national urban and rural population totals.

We report here the results of a project recently undertaken at the Population Division to obtain urban and rural population figures disaggregated by age and sex, that has yielded the first comprehensive data set on the age and sex distribution of the urban and rural populations for the period 1950 to 2005 at the global scale, for all the countries and regions of the world.

The paper describes the method used to obtain the estimates, and evaluates the main assumptions on which the estimates are based: a) the interpolation over time of the age and sex-specific “urbanization rates” u (i.e., the proportion urban of each age and sex group in the population, at given points in time), b) the imputation procedure used for

¹ Evidence drawn mostly from micro-level data demographic and health surveys or other surveys that include information on some demographic variables.

countries and time periods for which no age and sex disaggregated data was available, and c) a special adjustment/correction for the (relatively few) special cases of highly urbanized countries, where the observed or provisional estimates of the u 's was inconsistent with the overall level of urbanization. The paper also presents a brief analysis of the distributional differences by age and sex of both the regions of the world and the main development groups, an excerpt of which is given below.

As is now well-known, the world is undergoing a significant urbanization of the population, and has just become mostly urban for the first time in history. This is a dynamic process, is projected to continue onto the next several decades. The new estimates reveal that, at the world level, the children aged 0-14 in 2005 are the least urbanized population age group (only 41% of which currently live in urban areas), a result due, in all likelihood, to higher fertility in rural areas and to a selectively male rural-urban migration and large numbers of young and middle-aged adult women staying in the rural areas, often in charge of the children, and sometimes also of the elderly. The young, middle-aged and older adults have quite similar urbanization rates, globally in the order of 50% to 52%.

But there are substantial differences within geographical regions and, even more so, across the groups of countries in different stages of development. In the less developed regions, young (aged 15-24) and middle-aged (25-59) adults are the more urbanized age groups, while children (aged 0-14) are the least urbanized. Adults are also more urbanized than average in the least developed countries, but it is the elderly (aged 60 and over) the group that has the lowest urbanization rates (full 78% of them live in rural areas). By contrast, the population in the more developed countries is more evenly and highly urbanized, with the elderly being somewhat less urbanized (70%) than the other age groups (around 75%).

The difference in the age structure between urban and rural areas is remarkable - significantly more aged in the former than in the latter, especially in the group of less and the least developed countries. In the more developed countries, the urban and rural are more homogeneously aged.

From the point of view of temporal trends, we see broad evidence of population ageing in both urban and rural areas in virtually all the regions and across the development groups. The estimates reported here are consistent with the notion that the demographic transition started earlier in urban areas almost everywhere, but is evident also in rural areas, with the exception of the group of least developed countries, where aging is hardly noticeable even by 2005. The growth of the population aged 0-14 has been slowing over the last 30 years in both urban and rural areas, with very little absolute increase in the rural areas. A small but visible shrinkage can be observed for the urban population aged 0-5 and 5-10, mainly a result of reductions in urban fertility.

In the less developed countries, children and the elderly have a higher propensity to live in rural than in urban areas than the working age population, which is more highly

urbanized than the other groups. Among the working age group, males are more urbanized than females.

In the more developed regions, the sharp decrease of the share of the population aged 0-14 and the increase in the elderly population during the last 30 years in both urban and rural areas is clearly evident. Notably, in the rural areas, the elderly are the only age group that has experienced positive population growth during the last 3 decades.