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## **Average Remaining Lifetimes Can Increase As Human Populations Age**

Vienna/Laxenburg – Many analyses of ageing populations of developed nations have been incomplete and potentially misleading, according to a study in this week's (Vol. 435, No. 7043, 9 June 2005) *Nature* by researchers at the International Institute for Applied Systems Analysis and the Vienna Institute of Demography of the Austrian Academy of Sciences.

Current estimates of a population's age are based on the average number of years that people have been alive. But equally important is the number of years they have left to live, point out Warren Sanderson and Sergei Scherbov. So they have redefined the average age by taking into account how life expectancy will change and present their results using historical data and forecasts for Germany, Japan, and the United States.

They show that in 2000, Germany was almost exactly a middle-aged nation. The average German was 39.9 years old and had a remaining life expectancy of 39.2 years. Sanderson and Scherbov forecast that by 2020, the average German would have aged by 7.5 years, but even so will have only 3.3 years less of remaining life expectancy.

The United States, in contrast, is a younger nation. The average American was 35.3 years old in 2000 and had a remaining life expectancy of 43.5 years. By 2020, the average American was forecasted to be only 2.4 years older than in 2000, and strikingly, to have an even longer remaining life expectancy than the average American in 2000.

Sanderson and Scherbov also use the concept of remaining life expectancy to compute a new aging measure. Using this method they arrive at some interesting predictions, particularly that populations will in some countries effectively become 'younger' in the sense that they have longer average times left to live.

Fear about the sustainability of public pension plans is often justified by forecasts of rapidly rising old age dependency ratios – the number of people over the retirement age per thousand people of working ages. Sanderson and Scherbov forecast how that number will change over the twenty-first century for Japan, Germany and the United States – three countries thought to be at risk from ageing.

The researchers show that if the age at receipt of a full pension is increased by around 2 months per year, the public pension system of the United States would be sustainable without additional reforms. Sustainability of pension systems in Germany and Japan would require a somewhat faster increase for the first half of the century and then only about 2 months per year thereafter.

### **CONTACT**

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