# How long do World Bank retirees live?

The email on longevity of World Bank retirees provides interesting reading, opening up a number of questions. However, without proper context for the data, statistical conclusions should not be drawn, and the comparison between the mean of the World Bank retirees’ distribution and US life expectancy at age 65 is misleading.

While the graph of ‘Retiree age at death’ shows the distribution of deaths of World Bank retirees clearly, it does not allow conclusions to be drawn on whether it is indeed ‘wide’ as there is no comparison with reference distributions for the entire population. Displaying the age of death distribution for the US over the past six years, for example, alongside or superimposed with the current graph (with appropriate scaling), would improve the visualization and allow greater understanding of the data.

The distribution shown provides age at death data for a specific population over the last six years. Age at death is related to life expectancy at birth for that population. Life expectancy at age 65 measures the additional years a man or woman may expect to live, based on age-specific mortality rates today. Since age-specific mortality rates do not remain constant over time, comparing the mean age at death of World Bank retirees who were 65 years of age up to 40 years ago with the mean life expectancy for men and women aged 65 years today results in misleading conclusions. In most countries, life expectancies have increased steadily over the past 30-40 years, and life expectancy at birth is typically lower than life expectancy at age 65 as older persons have survived infancy, childhood and adolescence and so their chance of living longer increases.

Other potential confounding factors in this dataset that prevent simple comparison with US mean life expectancies include the gender split in World Bank retirees, and the global nature of World Bank employees. It is likely that the gender split at The World Bank does not match that of the US population, and no information is provided on the gender of the retirees in the dataset. Similarly, the global nature of The World Bank suggests that its workforce would include employees in and from a range of countries, many of which have life expectancies much lower than the US.

The purpose of the visualization and email is unclear. If it is to consider the age at which retirees are dying (and associated implications on pension liability perhaps), or to determine if World Bank employees have poorer health at retirement than the general population (and thus implications of employee healthcare provisions) then it would be useful to compare with a reference distribution, or to compare the actual age at death with the life expectancy at age 65 of each person for the year in which they were, or would have been, 65 years.