

From Survey Data with Mortality Follow-up to Period Life Expectancy:

The Longitudinal Survival Method

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Abstract

Estimation of period life expectancy for specific subpopulations is a common problem for demographers because population statistics often do not include the required data on deaths and the population at risk. To overcome this problem we develop a simple demographic approach to derive life tables from survey data with mortality follow-up. We refer to the method as “Longitudinal Survival Method” (LSM) because it is based on longitudinal survival experiences of survey respondents which are transformed into a period life table. The specific strengths of the LSM include the low demand on the data, the easy applicability and the estimation of age-specific probabilities of dying. Moreover, the LSM allows estimations even for very small subpopulations. The only necessary assumption is that the relationship between cohort and period survival prevalent in the entire population applies to each subpopulation. We demonstrate the functionality of the LSM through application to the German Life Expectancy Survey.

Full paper available (open access)

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<http://www.comparativepopulationstudies.de/index.php/CPoS/article/view/203/217>