Session 8: Mortality "Laws" and Models, Part 2

Application of Mortality Models to Japan

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When projecting future mortality trends, researchers first develop models that fit observed historical data, and then use those models to project future mortality by estimating future model parameters or modifying the model assumptions. In this paper, four mortality models are closely examined: the Heligman-Pollard model, the Lee-Carter model, the Mixed Weibull model and a Monte Carlo simulation model. Using the Japan life table as input, this paper compares characteristics of each model, shows how the parameters or model assumptions are determined, and discusses how future mortality rates are projected. Finally, the strength and limitations of each model are discussed when they are applied to older-age mortality projections.