Estimating the mortality of the Philippines and some Southeast Asian countries using the Heligman-Pollard Model

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Abstract: In 1980, Heligman and Polard proposed an eight parameter mortality model encompassing the entire lifetime of a human life. The Heligman-Pollard model is given by:

$$\mu(x) = A^{(x+B)^C} + De^{-E(\ln x - \ln F)^2} + GH^x$$

In 2005, Ozeki used this model to fit eighteen Japan Life tables from 1891 to 2000. He then used the results to project the Japan Life Table for 2025. This paper will use the procedure suggested by Ozeki to estimate the parameters of the Philippine life table. Life tables of other Southeast Asian countries, namely Thailand, Malaysia, and Singapore will be used to find estimates for these countries' mortality using the same procedure.

Key Words: mortality models; life table; estimation