

ARTICLES, PAPERS AND PUBLICATIONS OF ACTUARIAL INTEREST

POPULATION STUDIES

44.1

JOSHI, H. *The Cash Opportunity Costs of Childbearing: An Approach to Estimation using British Data.*

The opportunity costs of rearing British children in terms of cash earnings foregone by their mother are estimated for a typical family. Data from the Women and Employment Survey (1980) provide estimates for hourly pay (as a function of work experience and current hours of work) participation and hours profiles for representative women with different numbers of children, which are used to simulate lifetime income. Earnings foregone as a result of bearing and rearing two children are composed of three roughly equal effects, on participation, hours and pay. They exceed direct costs, and do not rise proportionally with family size. The method and results contrast markedly with those of a similar study of U.S. women.

POPULATION PROJECTIONS, 1987–2027

Prepared by the Government Actuary
(HMSO 1989—ISBN 011 691268 5)

The main changes from the previous projection are in the migration assumption to an overall nil movement for England and Wales and in making allowance for premature deaths due to AIDS. Projection F of the Institute Working Party has been adopted and the AIDS mortality rates added to those projected for other causes of death.

POPULATION INDEX

55.4

COALE, A. & GUO, G. *Revised Model Life Tables at very low levels of mortality.* The 25 year old models of Coale and Demeny cannot be properly extrapolated to fit closely the recent low patterns of mortality (especially for females). The Gompertz constancy of increase in mortality was modified above age 80 into a steady reduction, tending to an arbitrary limit of 0.66 for the mortality rate over age 105.

Notional experiences were smoothed and rates calculated by regression and summarised in terms of ${}_{55}P_{10}$, extended by assuming $s m_x + s/m_x$ declined linearly above age 80 to the arbitrary limit above. In addition, new estimates of the relationship between infant mortality and survival to 65 were employed.

It was found that the new models closely reflected actual experience of high life expectation cases and (at least for females) there was convergence towards a single pattern of mortality rates by age, justifying extrapolation above the most 'vital' present experience for modelling purposes.

Male model death rates were obtained by multiplying the corresponding female rates by a 'representative vector' of relative mortality by sex above age 80.