



Population Aging Research Center
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**A Methodology for Studying Child Mortality Differentials
in Populations with Limited Death Registration**

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ABSTRACT

The paper presents an alternative to the linear Trussell-Preston method for analyzing child mortality differentials when the only available information is the number of children ever born and deceased (the Brass questions) and various characteristics of their environment. We apply the method to the 1993 Gambian census. Our model assumes a binomial dichotomous dependent variable recording failures (survivorships) and successes (deaths) following a number of trials (children ever born). It is based on a skewed logistic regression (scobit), an elaboration upon the standard logit model which relaxes the assumption that individuals with probability $P_i = .5$ of experiencing a success are most sensitive to independent variable changes. We offer a second improvement by relying on Brass multipliers more carefully tailored to local mortality and fertility conditions. Preliminary results of Monte Carlo simulations based on small sample sizes indicate that the logit model is superior in samples of size $N=1,000$ while the scobit model performs best when $N=5,000$.