



31 May - 03 June 2016  
at  
ISEG- Lisbon School of Economics  
and Management

If you intend to submit a paper for the ASTIN COLLOQUIUM LISBOA 2016, you need to provide a **Synopsis** (using the template on the next page), complete this **Submission Form** and submit both to [astincolloquium2016@gmail.com](mailto:astincolloquium2016@gmail.com) by **Saturday 7 May 2016**. Synopses and submission forms must be sent as MSWord attachments, please do not supply them in the body of an email. You will be advised of the outcome and, if accepted, your abstract will be uploaded to the website.

## SUBMISSION FORM

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E:			
Title of Paper / Presentation / Session to appear in program:			
Closing-out the Algerian life tables: For more accuracy and consistency at old ages			
Author/s:			
1.	farid FLICI	2.	
3.		4.	

What will your final submission be? Presentation and Paper  Presentation Only

If selected, what level of knowledge will delegates attending your session require? (please select only) one

No prior knowledge  General industry knowledge assumed  Technical/specific industry knowledge assumed

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## ABSTRACT

### Closing-out the Algerian life tables: for more accuracy and consistency at old ages

Farid FLICI

#### Key words:

Mortality, goodness-of-fit, predictive capacity, BIC, MSE, extrapolation, life expectancy, Algeria.

**Purpose of your paper:** The objective of the present work is to extend mortality to the older ages for the Algerian population on the basis of the adult age mortality by comparing a set of proposed models. The extrapolation results are generally related to the quality of the existing data and also to the shape of the mortality curve at the age group used for extrapolation. This least can vary from a period to another according to the regularity of the data. Generally, starting from a certain ages (35, 40 or 45) the mortality rates grow following an exponential function. This regular trend allows to extend easily mortality to the older ages. But the final result is much related to the method and the age group chosen to calibrate the model, in the absence of observed data to be used for comparison. Some other criteria can be used to orient the model calibration. Generally, an assumption about the ultimate age is defined. The mortality curve for the Algerian population has changed many times over the observed period and it is so complicated to find a unique model which allows a good quality all over the period ensuring some adequacy between males and females and also an adequacy regarding to the year-to-year mortality rates varying.

#### Abstract:

The usefulness and use of the life tables highlight the need for precision in their construction. In this sense, Closing-out of life-tables has a great importance. Given the inefficiency of mortality data beyond a certain age, particularly in developing countries, the model life tables are an unavoidable solution for the estimation of mortality at older ages. As an international standard, this tool provides approximate and not specified for a particular country estimations and the obtained results are not always satisfactory, especially when these model life tables are not used in the right way. Thereby estimate the old ages mortality by extrapolating the observed trend on the available data is assumed to provide more relevant and coherent results. The specifics of mortality at advanced ages requires the use of appropriate models instead of conventional models. A set of models is designed for this purpose. In the present paper, we evaluate and compare some proposed old ages mortality models to extend mortality rate beyond the age of 80 for the Algerian population. The comparison will be based on various criteria: Goodness-of-fit, predictive capacity, sex differential coherence, expected age limit and unisex vs both-sexes estimations coherence. The final results will be used to correct the historical series of life expectancy at birth for Algeria between 1977 and 2014 and will serves also as a basis for old age mortality extrapolation of dynamic life tables.

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**Note:** If you are not presenting a paper for this Colloquium, please include as much detail as possible in your Abstract (maximum three pages) to enable delegates to prepare for your session.

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