the International Conferences of Labour Statisticians since 1923. The international standards concerning statistics of child labour can be found in Resolution II of the 18th ICLS, 2008 (wcms_101467.pdf).

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Notes

[1]http://www.ilo.org/stat/Publications/WCMS_215885/lang--en/index.htm
[2]http://www.ilo.org/ipec/Informationresources/WCMS_099362/lang--en/index.htm
[3]http://www.ilo.org/global/statistics-and-databases/WCMS_314425/lang--en/index.htm

Bayesian Analysis with Stata
John Thompson
Stata Press, 2014, 279 pages, $48.00, paperback
ISBN: 978-1-59718-141-9

Readership: Individuals either with a deep understanding of Bayesian principles or with an advanced knowledge of Stata intending to carry out Bayesian analysis using the software.

Bayesian Analysis with Stata by John Thompson is the first comprehensive guide to employing Bayesian methods using Stata statistical software. Stata is one of the most comprehensive commercial statistical software packages on the market, but it has not developed MCMC, Metropolis–Hastings, Gibbs Sampler or other related Bayesian software as part of the official commercial package. It is not difficult to write Stata algorithms to implement basic Bayesian methods, and several programmers have performed just this in the past. However, until this book, there has been no unified presentation of how to implement Bayesian methods using Stata.

Bayesian Analysis with Stata was written for readers with little to no background in using Bayesian statistics, as well as for those having a rather extensive understanding of Bayesian methods, but who want to use Stata to implement these methods in their research. The book is not, however, for those with little experience in programming with Stata or for those without a solid background in statistical inference and probability. The author provides instruction in these areas, but it is assumed that the reader already has a fair understanding of them.

The book may be partitioned into three sections. Discussion in the first part relates to presenting the basics of Bayesian theory and of showing how traditional algorithms may be programmed using Stata's programming language. The second component of the book discussed Mata, Stata's proprietary matrix programming language, which comes with the commercial package at no extra cost. Stata provides two reference manuals for using Mata, which allows Stata users the capability of designing most any conceivable statistical routine. Bayesian programmes written using the basic Stata programming language in the first part of the book are re-written using Mata, or a combination of Stata and Mata.

The third component of the book starts by providing a tutorial in using WinBUGS and Open-BUGS software. The discussion then turns to using the Stata environment to pass both models and data to OpenBUGS or WinBUGS for running MCMC chains via Metropolis–Hastings or Gibbs sampling. The results are thereupon passed back to Stata to display on the screen and

to allow alternative or additional post-estimation techniques. Various author-written toolboxes are provided that reduce computation time, particularly when executing complex models. The logic of the relationship of Stata and OpenBUGS, for example, is similar to that of using the r2jags function within R to pass code and data to OpenBUGS for running a Bayesian model and returning the results to the R environment.

A nice feature of the book is the use of real data, called by the author 'Case Studies', for examples. The author leads the reader through the modelling process using simple examples at the early stages of the presentation. By the end, the reader is able to handle complex models, which are described in detail. Examples of the 16 given Case Studies include the following: 'an early phase vaccine trial' (the initial Case Study), 'polyp counts', 'growth of Sea Cows', 'microarray experiment' and 'recurrent asthma attacks'. The examples are all from ecology and medical statistics, but the underlying logic of the examples and the discussion is applicable to most any other discipline.

Considerable attention is given to the assessment and validation of code and chains, including difficulties that may occur when chains are mixed and burn-in problems. Techniques such as Griddy sampling, adaptive rejection Metropolis sampling and slice sampling are also examined.

In sum, the author sets out to provide Stata users with an overview of the theory and logic of Bayesian modelling and with the software tools to implement Bayesian modelling into their research. The book meets this goal, and I recommend it for Stata users who wish to employ Bayesian modelling within the Stata environment.

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Past, Present, and Future of Statistical Science
Edited by Xihong Lin, Christian Genest, David L. Banks, Geert Molenberghs,
David W. Scott, and Jane-Ling Wang
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Readership: Anyone with a broad general interest in statistics and statistical applications, from undergraduate students through to statistical professionals and application area specialists. Note however that the contributions vary widely in their technical demands.

The Committee of Presidents of Statistical Societies (COPSS) has representatives from the American Statistical Association, the Institute of Mathematical Statistics, the Eastern and Western North American Regions of the International Biometric Society and the Statistics Society of Canada. This volume brings together contributions from past winners of the COPSS Presidents' Award.

The 52 contributions range over history, biography and autobiography, gender equity, the mathematics of statistics, foundations, statistical education, the interplay between statistics and science, statistics as a profession, the interplay with computing and the Internet, and applications. Application areas that are strongly represented include biostatistics, genetics, genomics, public health and economics. Areas that have a more limited representation include financial mathematics, geostatistics, educational statistics, psychology, demography, econometrics,