JIA 95 (1969) 183-184

REVIEWS

Introduction to Demography. By MORTIMER SPIEGELMAN.
[Revised edition 1968, pp. 514. Harvard University Press, Cambridge, Mass. U.S.A. $15]

THE first edition was favourably reviewed in *J.I.A.* **82,** 162 as a 'textbook of very high quality' and it is pointless to recapitulate all that was then said. We confine ourselves here to reaction to the apparent effects of revision.

The immediate impression is that revision has resulted in extension (the original edition had only 309 pages) a temptation which a textbook author always finds it difficult to resist unless severely disciplined as most of us are by our publishers. The extension too has involved the introduction of material which is demographically and even actuarially advanced (for example, the section on theories of mortality and the section on intrinsic natural increase). It is doubtful whether the term 'introduction' in the title is still appropriate. It is a complete work on demographic methods in the North American context.

The author has evidently taken considerable pains to bring the text up to date on matters such as the population census and cause of death analysis where quite rapid developments are taking place. This is always a difficult problem in revision since one has to have a considerable understanding of the direction of development in order to discard changes which are shortly likely to be overtaken by events and to project likely further developments. Mortimer Spiegelman has, in the opinion of the reviewer, struck a nice balance.

It is possible to find a few faults. The treatment of errors of enumeration seems somewhat academic since the 'ideal' is never known and the substitution of a quasi-ideal or standard from some other enumeration is open to question. In the calculation of life-tables a certain over-formalization (e.g. separation factors) makes the process look a little more difficult than it is (the horrible word 'Makehamized' is introduced—Makeham must still be spinning in his grave). The discussion of family formation gives no attention to the establishment of conventions for definition of family types e.g. by the United Nations. Updating of the bibliography has not been so balanced as the updating of the text, e.g. on the mortality indices.

These are minor criticisms and they do not detract from the general view that the already high quality of the book has been enhanced by revision.

B. BENJAMIN

Mathematical Programming in Practice. By E. M. L. BEALE.
[Pp. xi+195. London: Sir Isaac Pitman & Sons Ltd, 1968. 40*s*.]

THE author has an international reputation in this field, and he explains his subject very clearly. The emphasis is on the practical aspects of solving large linear programming problems and problems which require special methods.

The book is divided into three parts:

I: which deals with methods of solving linear programming problems. The influence of the solution procedure (which is likely to be the product form of the inverse) on the method of formulating a problem in mathematical terms is explained.

II: which shows how the computer can be used not just to handle the mathematics and compute the solution but, equally important, can assist in setting up the

problem in the first place and, after the calculations have been completed, can present the results in a clear language report.

III: which covers non-linear and integer programming and decomposition and introduces stochastic programming. Some theory is included, but this is confined to that which is relevant to understanding these special procedures. In most cases explanations are illustrated by worked examples.

This is not, perhaps, a book for someone who is coming to this subject for the first time; but someone who already has some knowledge of the subject and wishes to go further, or who is moving to larger or more complicated problems, will find it invaluable.

N. WILLIAMS