

INDEX NUMBERS IN THEORY AND PRACTICE

Index Numbers in Theory and Practice

R.G.D. ALLEN



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Preface

Index numbers are a widespread disease of modern life. . . . It is really questionable – though bordering on heresy to put the question – whether we would be any the worse off if the whole bag of tricks were scrapped. So many of these index numbers are so ancient and so out of date, so out of touch with reality, so completely devoid of practical value when they have been computed, that their regular calculation must be regarded as a widespread compulsion neurosis. M. J. Moroney (1951)

I lived with Moroney. M. C. Fessey, Business Statistics Office

There is at present, as Craig (1969) has remarked, no simple and reasonably comprehensive text on the design, construction and use of index numbers. Such references as are to be found in the standard texts on statistical theory, at various levels of difficulty, are brief and oversimplified. Sometimes the comments are more scathing than complimentary, as with the famous quotation from Moroney (1951) reproduced above. Even those who make much use of index numbers, in texts on applied economic and social statistics, do not seem willing to allocate space to an account of them. Perhaps part of the explanation of this state of affairs lies in the fact that no course in statistical methods can be expected to devote more than a few lectures and classes to index numbers. But even a few lectures need to rest on some recognised textbook for collateral or independent reading.

I have had these things in mind in writing the present text, the plan of which should be clear enough from the table of contents. In order to reach students of economics generally, and not only those who handle index numbers professionally, I have kept the text as simple as possible in mathematical terms. The subject of index numbers, however, is more extensive and sophisticated than might appear at first sight. I have not always resisted the temptation to explore far afield and not all readers will want to follow me all the way. It is just not possible to keep even a moderately comprehensive text as simple as all that.

I refer in the text to some books, and to many articles, on the theory and practice of index numbers. I have shown them as they

arise in a notation which relates to the Bibliography at the end of the text, e.g. Craig (1969) and Moroney (1951). For illustrative purposes I make use of many of the more important index numbers published in this country. I make no pretence, however, to give any complete or up-to-date account of them; for this the reader must go to the sources from which the index numbers come.

I need to thank my colleagues and the secretarial staff of the Statistics Department in the London School of Economics for more help than they may realise they have given me in preparing this text for publication.

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