

Session C8

Future Directions in Statistics

Organiser: Joe Gani (Santa Barbara, California, USA)

Invited Speakers: Vic Barnett (Sheffield, UK)
Joe Gani (Santa Barbara, California, USA)
Lennart Råde (Gothenburg, Sweden)

*Abstract and
Contribution to
the Discussion:* Makio Ishiguro (Tokyo, Japan)
Marcel Neuts (Tucson, Arizona, USA)

Introduction

Many participants at ICOTS 2 in 1986 expressed the view that the discussion of statistics teaching at the primary, secondary and tertiary levels, while clearly of importance, was not quite enough by itself. Teachers needed to know more of the substance of statistics, and of its most recent directions; it would, in fact, be very useful to make some (inspired) guesses as to future directions in statistics.

These thoughts have been reflected in the selection of topics for the plenary sessions at ICOTS 3, three of which were concerned with statistical developments in the modelling of epidemics, statistical inference and statistical graphics respectively. In addition, this section was organised with the specific intention of offering for discussion some views on the possible directions which statistics might take during the next decade.

Professor Lennart Råde of the University of Göteborg leads off with some reflections on "Statistics and the Computer"; in his talk he describes the numerous ways in which mainframe and personal computers can and will assist the statistician. He is followed by Professor Vic Barnett of the University of Sheffield (represented by Professor Toby Lewis of the University of East Anglia), who considers the industrial and social influences acting on statistics; his paper "Statistical Trends in Industry and in the Social Sector" provides several examples of these. Finally, Professor Joe Gani of the University of California, Santa Barbara discusses some potentially fruitful research areas in "Statistical Directions in the 1990s". Professor Marcel Neuts of the University of Arizona was to have spoken on "Rethinking the Statistics-Probability Textbook in the Computer Era", but decided to present his paper by Abstract only.

Professor Makio Ishiguro of the Institute of Statistical Mathematics, Tokyo, has acted as an invited discussant, summarising the main points made by the previous

speakers, and asking them several penetrating questions. He initiated the lively discussion in which many participants from the floor joined with enthusiasm.

It may well be that the speakers' predictions are off the mark, but I hope that the ideas generated in this session will prove to be of some value to everyone who teaches statistics. We are all curious to know where the field may be heading over the next decade: these papers are our stabs into the future.