BARRACK ROOM STATISTICIANS

In principle it is great that the RSS and IoS are becoming concerned with the role of the statistician as expert witness in the courtroom. Unfortunately the programme for this conference misses out on the two most controversial types of cases in which statisticians have given evidence.

The first is the identification of individuals either through fingerprinting or handwriting by pointing to the "statistical impossibility" of resemblances occurring by chance. Thus positive identification of fingerprints is based on a minimum of 12(in the USA) and 16(in the UK) characteristics. To my knowledge though there has been a considerable forensic literature in the States,noone has yet provided good physiological? reasons for the choice of 'significant' charcteristics or systematic evidence of the population distribution of fingerprint characteristics. Both the procedure for comparing charactristics and the choice of 16 are rules of thumb.

Intuiitively, it is possible that rigorous investigation might show these criteria to be not unreasonable. But the situation in respect of handwriting evidence is much worse. Not only does an individual's handwriting change much more rapidly than his or her fingerprints, the characteristics used by different analysts and the criteria of resmblance are both arbitrary.

It is true that people rarely get convicted on this kind of evidence **alone**. There is , however, a well-known counter example in a Californian case where the evidence of identification of suspected bank robbers depended on the statistical combination of a variety of characteristics such as clothing and race of the people and the colour and make of the car. The jury was eventually "convinced" by the statement on the front cover.

The second type of case is where statistical evidence is used to support a charge of conspiracy. The spectacular examples (in the UK) are the trial of the Stoke Newington Eight(known as the "Angry Brigade" trial) and the Balfour Street Seige trial , but there have been several occasions on which this evidence has been used to convict a suspected gang of safebreakers of a series of offences. The statistical argument is that because the incidents on the charge sheet are significantly different from some rather ill-defined population in respect of a number of arbitrarily chosen characteristics, then the incidents on the charge sheet form " a connected set".

I could go on but it seems clear that the statistician in these cases is more suspicious than the person(s) in the dock! I intend to go to this conference and argue for a minimal code of practice for statisticians in the courtroom (without necessarily requiring that the expert witnesses be accredited). One could imagine that such a code of practice might require:
- that the raw data is available to both sides;
- that the procedures used are set out in full; and
- that the limitations of probability calculations are explained clearly.

I hope other RS readers feel that this "event" is important and can come along to the conference. Anyone who would like to contact me to talk over the above - and especially a possible code of practice - please leave a message with Liz Atkins, 86 Lyndhurst Way, S.E.15, Tel: 701 2812
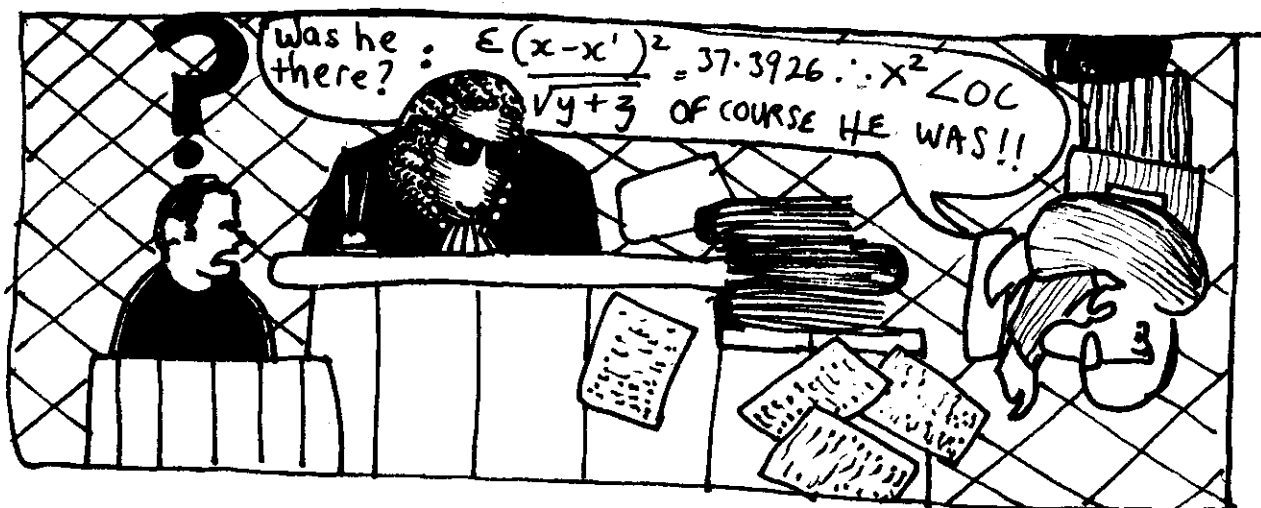
Joint Conference on

THE STATISTICIAN AND THE LAW

Wednesday, 15th June, 1977

at

The Royal Society, Carlton House Terrace, London, S.W.1

Increasingly, many professional statisticians find their work brings them into contact with the law! This conference is intended to investigate some areas of interest and importance to the practising statistician. The conference will look at the role of the statistician as an expert witness, and at the way in which statistics and probability can be introduced into evidence, into the courtroom and into legislation.

The conference papers will be pre-circulated, and it is intended that at least half the session time will be devoted to discussion.

The conference fee (inclusive of lunch, wine, coffee, tea and VAT) is £8.50. Application should be made by 1 June 1977.

The programme includes: The position of the expert witness—Mr Ian Miller, Solicitor; Experience as an expert witness in gambling cases— Professor F Downton; Statute law and statistical procedures—Dr W R Buckland & Mr W A Pridmore; Probability and the law—Professor D V Lindley.