LETTERS.

69 Harrington Gardens,
London S.W.7.

16th April, 1975.

Dear Liz,

Thanks for sending me a copy of RSS Newsletter. I'm afraid I haven't yet taken any action in response to it, but I am still interested. Even if I can't make time to participate in one of the sub-groups, I'm looking forward to reading anything that might evolve from them. Part of my reluctance (except for the usual time shortage syndrome) is a feeling that I probably couldn't contribute very much to a detailed discussion and that, given my rudimentary knowledge of statistics, I would do better to read and learn and proceed slowly. (The limit of my knowledge is a single statistics paper which I did as part of a social science degree. Few things could be more disheartening than the innumeracy of the average social scientist.)

I shall give you a couple of examples of the sort of statistical sleight-of-hand which I frequently encounter, and yet feel unable to criticise for lack of technical clarity. (I've been editing press clippings recently.) In an article about atomic power in the Sunday Times, 16/2/75, the author alludes all-too-briefly to the safety problems of breeder reactors and concludes

"........this can probably be analysed to show a reasonable degree of safety. It's death record will probably be better than that of coal or North Sea oil." (My emphasis.)

Apart from the "probably" aspect, which is a crude trick to conceal the fact that the sums haven't actually been done, I am even more concerned about the type of arithmetic which is implied. Presumably the certainty of a small number of deaths per year is being weighed against the tiny probability of a major disaster. But what sort of equation would that be, conceptually? What sort of statistic do you have when you multiply a big possibility by a small probability. For example, what, in mathematical terms, is the infinitesimal probability of total destruction? Something like $\frac{1}{\infty} \times \infty$? Since fundamental physics has taught us not to analogise from big things to small things, it might be prudent not to do so in probability theory. What if there were a probability quantum, for example? (I know that is, as we rationalists say, a silly question. But what if we rationalists were wrong? There would be more at stake than just intellectual embarrassment.)

Another example occurred on a BBC Radio Bristol News Feature, 14/4/75. A top scientist from the British Aircraft Corporation was being interviewed about U.S. Agency inquiries into whether Concord constituted a threat to the ozone layer. He said the issue was of "comparatively little importance" because the order of ozone depletion being considered (0.5% - 1%) was substantially less than the natural variations in ozone levels between, say, New York and Miami (15%) which, of course, is true, in a way, butit does not detract from the fact that a reduction in ozone (no matter how slight) will cause an increase in the incidence of skin-cancer (no matter how slight), and that the lives of some people and the convenience of others are being implicitly equated. This argument is identical to arguments concerning background radiation levels, atmospheric lead pollution, and an indefinite number of other phenomena, where small increments of something undesirable are compared to the pre-existing amounts and then declared to be of "comparatively little importance!"

I hope I've managed to give you an idea of the aspects of RSS in which I am particularly interested. If you hold any general meetings pitched at the same level as this letter I will be keen to come along.

Yours sincerely,

Martyn Partridge.

University of Edinburgh,
Department of Economics.

Dear Liz Atkins,

I feel rather remote, both geographically and because I am really more interested in Economics, but it is very good that the group has got off the ground and I find the Newsletter interesting reading. There are just two points I would make:-

1. On the Economics Group. Is it not possible to collaborate with the Conference of Socialist Economists to avoid duplication of effort? I would like to join your group on economics but feel I cannot dissipate my energies in too many directions and am already a member of CSE.
2. I am sure it is right for statisticians to get involved in activities and I support the suggestion of working with community groups. Assistance including computing is mentioned. One thing the group should be prepared for is objections by universities to computers being used for this purpose though it is as legitimate a form of research as others. There may be no problems but if there are the group should support any individuals who have difficulty in their institutions.

With best wishes.

Peter Vandome.

A.T.T.I., Manchester Polytechnic Branch

Dear Jeff,

Our Branch working party against cuts in teacher education and against any forced redeployment arising from College mergers in Manchester is hoping to produce a well-documented pamphlet against the cuts, for circulation in the local trade union movement. We hope to develop a campaign against the cuts in public services out of this.

One of our problems is a lack of informative criticism and discussion of Government statistics on population trends, etc.

Boris Allan gave me your name as someone who as a member of Rad Stats may have done some work on education statistics. Any information would be appreciated.

Yours sincerely,

Bob Askew, Branch Secretary.