

Jonathan Rosenhead at LSE

Ailsa Land

As we all know, Jonathan Rosenhead is a man of many parts. I have been asked to speak about one of these parts -- his relationship to the London School of Economics.

As it happens, I didn't know Jonathan at all until his first appearance on a one-year appointment to cover the teaching normally done by Gordon Foster, who was visiting Trinity College Dublin for a year in 1967.

I will briefly explain what we were up to at LSE in OR in 1967. During the 1950's, there were a few of us, loosely attached to the Statistics Department, and encouraged by Professor Maurice Kendall, who had been giving one week courses sponsored by various London-based companies -- oil companies, for instance. We gave courses in particular on Linear Programming, Statistics, Stock Control, and probably other topics like Accounting, though I can't actually remember. The four people I particularly remember as being involved in these courses were Gordon Foster, Alison Doig (who was intending to spend a few years in Britain before returning to Melbourne in Australia), George Morton, who had been my PhD supervisor, and myself.

Gordon was a statistician, Alison had taken a Masters in Melbourne and had worked on LP, in particular, on the paper trim problem. George Morton had taken his PhD under the supervision of Professor Roy Allen, applying game theory to the minimum cost diet problem. During the 50s Alison and I had been paid for a year by the BP oil company to deal with the 'minor' difficulty of incorporating discrete variables into the extensions they wanted to make to their LP refinery models to incorporate world-wide transportation and storage facilities. Of course, it had turned out to be anything but a minor problem, and I doubt if BP were entirely satisfied with the outcome of their investment in us!

When the British Iron and Steel Association (BISRA) set up their graduate apprenticeship scheme, they looked for an academic component of their two-year course, and chose LSE. Since I couldn't actually remember when it started, I got in touch with one of the five students on the first course, Barbara Gershill (later Farbey) and she replied as follows:-

"As I recall it, the first year, that is the Diploma in OR, was 1960/61. I joined BISRA in 1959 and I think we came to the LSE the following year. We followed a fantastic course which did include a day a week at Imperial College with Sammy Eilon learning about the normal distribution, and a lecture a week by Maurice Kendall talking about the new multivariate statistics! Also of course Karl Popper's lectures (Scientific Method). Accountancy with Harold Edey. Also Durbin and Stuart. After that the course was far more focussed, but I guess less fun."

The course was basically in the hands of three of us, though as Barbara reminded me we drew on LSE's other departments, and even Imperial College – their students came to us one day a week, and conversely. George Morton and I taught optimisation topics, and Gordon the non-deterministic OR topics. – stock control, simulation etc. We had an ongoing difference of opinion with BISRA about what the students should be doing during the college vacations: we thought they should be studying their academic subjects, BISRA thought they should be in the office doing practical OR projects.

Before 1967 I had twice previously taken on the teaching from Gordon's lecture notes, and was heartily relieved that someone else, namely Jonathan Rosenhead, was hired to take them on when Gordon was going to be away.

Jonathan's career up to 1967 fitted him excellently for the task. After a degree in mathematics at Cambridge in 1959 and an MSc in Statistics at University College London in 1961, he worked as an OR scientist, first at United Steel in Sheffield and then in the consultancy firm SIGMA in London until 1963. He then spent a year at the Wharton School Management Science Center working with, amongst others, Russ Ackoff. Along the way, he had published papers on forecasting, simulation and statistics, arising from his consultancies.

A year Jonathan spent wrestling with Gordon Foster's lecture notes resulted in the publication jointly with Gordon and V. Siskind in the JRSS of a paper elucidating some aspects of the effects of demand distribution on stock holding models.

When Gordon decided to spend a second year at Trinity, Jonathan was again offered a one year appointment, and then, when Gordon decided to stay permanently in Eire, Jonathan took a normal full time LSE lectureship.

Over the years, the OR group within the so-called Statistics Department grew and flourished. We were joined by Ray Paul, John Howard, Susan Powell and others, and a good bunch of research students. We developed and were largely responsible for an undergraduate course in Management Sciences. The one year graduate OR course accepted more students than just the BISRA apprentices, and, when other LSE departments started one-year MSc courses, the OR course also became an MSc.

The additional manpower available gave Jonathan the opportunity to move away from the more purely technical bookwork OR topics and develop his interest in the appropriate approach to the difficult problems encountered in the application of operational research to the real world, so-called Soft OR. This, of course, is well illustrated by his publications and conference contributions over the years: from the LSE point of view, the important thing was his development of a course in Problem Structuring as a main component of the MSc course. It is a sad reflection of the difficulties caused by the setting of targets that some students, given a choice of options, prefer to

select the courses that would give them a straightforward way to earn high marks by learning a piece of mathematics or an algorithm although Jonathan's course might well be of greater practical use in their future OR work. Nevertheless, the best students did take advantage of their opportunities with Jonathan.

Jonathan became a Senior Lecturer, and then, when I decided to take early retirement from my personal Chair rather than take on additional administrative chores, Jonathan became the first to hold the title of Professor of OR at LSE in 1987. His first dramatic administrative achievement was when he became head (Convenor) of the Statistics Department and was largely responsible for the break up of that unwieldy department into its constituent parts.

In the years (not to say, decades) since then I have watched with admiration how he took on all those dreaded LSE administrative tasks and committees, and still found time for the research and writing that you will no doubt be hearing about during the following sessions. Perhaps sadly, after our escape from the Statistics Department and its brief independence within LSE, the OR group has recently been merged into another, the Department of Management. LSE was not prepared to live with many small departments, but I don't think we can hold Jonathan responsible for that, although there were differences of opinion within the OR group about the appropriate place they wished to be located.