

those connected with research. The 12-month salary does reduce pressure on researchers to seek summer support and beginners may especially benefit. There are obvious drawbacks to this system however.

NSERC, the primary source of support for statistical researchers in Canada, does not pay for teaching release. Operating grants are typically for 3 years, only a brief progress report is required at the end of period, and decisions about refunding a grantee are made almost entirely on the quality of completed research. The quality of the proposal is secondary. Consequently, proposals are brief and, in fact, are limited to about half a dozen pages. This contrasts markedly with the proposals I have reviewed and submitted to United States agencies.

There is a lot of flexibility in the way NSERC funds are used. Researchers, who are not themselves eligible for NSERC funding, may be hired for periods as long as several months or a year without justification in the original proposal, for example. Travel is limited only by the size of the grant although justification has to be made at the end of the day, of course. NSERC (and I believe each of the other Canadian federal granting agencies) pays no overhead to universities so the typical university research service office is quite modest.

The NSERC system is particularly advantageous to beginning researchers without track records. Those whose applications get reasonably good supporting letters, usually based on Ph.D. research, will almost automatically get a 1-3 year grant of about \$10,000

per year. Many of the tactics in Dr. Trumbo's paper are not needed by such applicants.

NSERC statistical research fund granting decisions, based upon a peer adjudication system, are ultimately decided on the recommendation of a committee of seven statistical researchers appointed by NSERC and broadly representative of statistical research fields and geographical subregions of the country. Policy decisions likewise are based on the recommendations by the scientific community as a whole through representatives, like the Group Chairman, who are appointed for a term of several years. Like all systems which have evolved over time, the NSERC system is complex and has a personality all of its own. My impression is it is well suited to its mission of supporting and fostering good research in Canada.

Overall, the North American system of research and development funding has worked well although I do have some concerns about present trends, which are echoed in my comments above. I am amazed by the enormous number of hours donated to its service by unpaid volunteers (reviewers and so on) and I am sure the success of the system has depended on their great but largely unrecognized efforts in search of excellence. Dr. Trumbo's very timely article, by assisting applicants in the preparation of their proposals, and reviewers thereby, must be viewed as a substantial contribution toward that goal.

ADDITIONAL REFERENCE

GILMAN, W. (1965). *Science: U.S.A.* Viking, New York.

Comment

Adrian F. M. Smith

The Editor has asked me to comment on this article from the perspective of statistics (including probability) research grant funding possibilities in the United Kingdom. However, because the current British system is substantially different from that in the United States, my discussion will largely take the form of a description of our system, rather than a detailed analysis of Trumbo's paper.

Research funds for academics in higher education establishments in the United Kingdom are distributed

Adrian F. M. Smith is Professor of Mathematical Statistics, Department of Mathematics, University of Nottingham, University Park, Nottingham NG7 2RD, United Kingdom.

by research councils. These consist of the Science and Engineering Research Council (SERC), Economic and Social Research Council (ESRC), Medical Research Council (MRC), Natural Environment Research Council (NERC) and Agricultural and Food Research Council (AFRC).

It is, in theory, possible for statisticians to apply for funding from any of these research councils. However, SERC is the appropriate council for most statistical research involving substantial methodological issues. Approaches to other research councils would typically only involve statisticians as part of a team proposing essentially applied investigations in a substantive area covered by the respective council. The remainder of my discussion will therefore focus on the mechanisms currently operating within the SERC, which is