Statistical Society of Australia Inc.

E. A. Cornish Memorial Lecture Announcement
South Australian Branch Of The Statistical Society Of Australia

Date: WEDNESDAY 17 October 2007

Venue: Union Hall, University of Adelaide, North Terrace.

Time: 5.45pm Gather in Foyer.
6.00pm E. A. Cornish Memorial Lecture.

Speaker: Mr Dennis Trewin.
Former Australian Statistician and member of the Australian State of the Environment Committee.

Topic: Statistical Critique of the International Panel on Climate Change's work on Climate Change.

Abstract:
Climate change is one of the most important issues facing us today. Many governments have introduced or are developing appropriate policy interventions to (a) reduce the growth of greenhouse gas emissions in order to mitigate future climate change, or (b) adapt to future climate change.

This important work deserves a high quality statistical data base but there are statistical shortcomings in the work of the International Panel on Climate Change (IPCC). There has been very little involvement of qualified statisticians in the very important work of the IPCC which appears to be scientifically meritorious in most other ways.

Mr Trewin will explain these shortcomings and outline his views on likely future climate change, taking into account the statistical deficiencies.
His conclusions suggest climate change is still an important issue that needs to be addressed but the range of likely outcomes is a lot lower than has been suggested by the IPCC.
This presentation will be based on an invited paper presented at the OECD World Forum.

Biography:
Mr Trewin is member of a Committee commissioned by the Australian Government to provide an independent report on the State of the Environment.

Dennis Trewin attained a BSc (Hons) from Melbourne University with majors in statistics and pure mathematics in 1968 and was awarded the Maurice H Belz prize for statistics. He then moved to Canberra to take up a position at the Australian Bureau of Statistics which was to be the starting point for an illustrious career. Further studies saw Dennis awarded an MSc from the London School of Economics with majors in statistics and econometrics in 1975.

Over a career which spanned 40 years Dennis moved from technocrat through to senior positions culminating in a six year term as the Australian Statistician, Chief Executive of Australian Bureau of Statistics, responsible for Australia's official statistical system. Over the years Dennis has held a number of Non-ABS positions including Australian Electoral Commissioner, President of the International Statistical Institute and the Statistical Society of Australia, editor of the International Statistical Review and is currently Chairman of the Advisory Board to the Coral Reefs Research Centre.

In recognition of Dennis distinguished career he was awarded the Officer in the Order of Australia (AO), named 2003 winner of the "Society" category in The Bulletin's Smart 100 awards for making "a significant and positive contribution to Australian life", and awarded the Centenary Medal for contribution to statistics.

Since his 'retirement' from the Australian Bureau of Statistics Dennis has been working as a statistical consultant on a variety of assignments. Recent assignments were for the United Nations Statistics Division as an Inter-regional Adviser on National Statistical Systems from January to March 2007, the OECD to prepare a Handbook on Statistical Indicators, the Brazilian Government to advise on National Statistical Systems, and the Statistical Institute for Asia and Pacific to develop and facilitate a Workshop for regional heads of National Statistical Offices.

The E.A. Cornish Lecture Series

The Statistical Society of Australia, South Australian Branch, inaugurated a series of public lectures on statistical topics of broad interest in 2001. The lecture series has been named to commemorate Alf Cornish, a leading figure in the early years of the statistical profession in Adelaide.

The lectures are held biennially and presented by eminent statisticians from around the world. Previous presenters of the Cornish Lecture have been Professor Terry Speed on the topic "Gene Expression", Professor Adrian Baddeley on "Practical analysis of spatial points patterns" and Professor Kerrie Mengersen on "Making Decisions Based on Data".

Edmond Alfred Cornish (1909 - 1973)

E.A. Cornish graduated from Melbourne University in 1931 with first class honours in Agricultural Biochemistry, Agricultural Engineering and Surveying. While working as an agrostologist (specialist in grasses) at the Waite Research Institute, a centre for agricultural research and development in Adelaide, he became interested in statistical issues arising in agriculture. His interest in patterns of rainfall and their relationship to the yield of natural pastures continued throughout his life.
In 1937 he took a leave of absence at his own expense to study statistics with R.A. Fisher in London. On his return, he was appointed statistician to the Waite Institute. In 1940 he was appointed as Officer-in-Charge of the Biometric Section of the Council for Scientific and Industrial Research (CSIR, now CSIRO) in Melbourne. Under his leadership, the Biometric Section grew, attracting such high calibre scientists as Evan Williams, George McIntyre and Helen Newton Turner. In 1944 the headquarters of the Section was moved to Adelaide and renamed the Mathematical Statistics Section; in 1954 it became the Division of Mathematical Statistics (DMS), with Cornish as its first Chief. Under his leadership DMS grew to 50 staff at his death in 1973.

During the late 1950's, the University of Adelaide had become aware of the importance of mathematical statistics and appointed Cornish as Foundation Professor of Mathematical Statistics at the University of Adelaide from 1960 until 1965, when his former student Alan James returned from Yale to take over the role.

While his name is perhaps most often heard in connection with the Cornish-Fisher expansion of quantiles of the distribution of a mean in terms of cumulants, his contributions to statistics and the profession were broad and of considerable significance for the development of statistics in Australia.

In addition to his early work on rainfall, he published extensively on experimental designs and analysis of experimental data, particularly in the presence of missing values. His work with Fisher led him to a strong interest in fiducial theory. This led him to develop ground-breaking ideas in multivariate analysis, including the development of a multivariate t-distribution to obtain fiducial distributions of multivariate means.

He was enthusiastic about the use of electronic computers in statistical work, perhaps as a result of his work on climatology, which involved the calculation and modelling of 90585 correlation coefficients. He appreciated early the potential for simulation to answer intractable statistical problems, and promoted the establishment of CSIRO's Division of Computing Research, whose successor, the Division of Information Technology joined with DMS to form the current Division of Mathematical and Information Sciences.

He was a Fellow of the Australian Institute of Agricultural Science, an Honorary Fellow of the Royal Statistical Society and a Fellow of the Australian Academy of Science. He also served as President of the international Biometric Society and of the Australasian Region.

Alf Cornish laid the foundations for the strong tradition of experimental and theoretical statistics in Adelaide and it is fitting that his name should be associated with a series that will bring eminent statisticians to Adelaide to support the ongoing strength of the statistical profession here.