**Statistics in the State Universities: Beginnings and
Establishment
C.C. Heyde
Australian National University and Columbia University**

### Introduction

Statistics in the early colonial period in Australia (ie the first half of the nineteenth century) was almost entirely related to official data collection. But as universities were founded a broader range of scientific uses slowly opened up. Prior to Federation (1901), four universities had been established in the colonies. These were the universities of Sydney, established in 1850, Melbourne in 1853, Adelaide in 1874 and Tasmania in 1890. With Federation the states replaced colonies and the four existing universities were soon joined by ones in the remaining state capitals, namely Queensland in 1909 and Western Australia in 1911. This article will principally focus on the developments which took place through these institutions. It was not till after the second world war that Australia had a burst of creation of more universities and there followed the Australian National University (1946), University of New South Wales (1949), University of New England (1954), Monash University (1958), Macquarie University (1964), University of Newcastle (1965), Flinders University (1966), James Cook University (1970)....

Teaching in Mathematics began at all the original universities soon after their inception. Statistics, however, came much later. As in the UK and USA it was the methodological developments of the 1920s and the immediate success of their application, for example in agriculture, which spurred interest in the discipline. Statistics teaching had its beginnings in each of the Mathematics Departments, typically near the end of the 1920s or beginning of the 1930s, but also, and in some cases largely contemporaneously, in the Faculties of Economics and Agriculture. However, it was not till more than 20 years later that autonomous Departments of Statistics began to be created and Professors of Statistics were appointed. Then it was principally through a small cohort of Australian mathematical statisticians that Australian Statistics was placed firmly on the international map. The principal contributors were E.J.G. Pitman (1897-1993) in Tasmania, M.H. Belz (1897-1975) in Victoria, E.A. Cornish (1909-1973) in South Australia, H.O. Lancaster (1913-2001) in New South Wales and P.A.P. Moran (1917-1988) in the Australian Capital Territory. Remarkably, with the partial exception

of Moran, their excellence was essentially home grown and developed. It was the next generation, namely their students, who began to go to the UK or the USA for their postgraduate training.

**A State-by-State Account**

*Victoria*

The Department of Statistics of the University of Melbourne was established in 1948. Maurice H. Belz, who had been Lecturer in Mathematics at the University of Melbourne from 1923-1938 and Associate Professor of Mathematical Statistics from 1939 - 1954 was appointed as Professor of Statistics in 1954 and occupied the post till his retirement in 1963. He was succeeded in the chair by E.J. Williams (appointed 1964; retired 1982) and C.C. Heyde (appointed 1983; resigned 1986).

*Australian Capital Territory*

The Department of Statistics of the Australian National University was established with the appointment of P.A.P. Moran as Professor of Statistics in 1952. Moran, a graduate of the Universities of Sydney and Cambridge, had previously been a Lecturer at the University of Oxford.

*New South Wales*

The Department of Mathematical Statistics of the University of Sydney was established in 1959. The Foundation Professor was Henry Oliver Lancaster (appointed 1959; retired 1971). Lancaster was succeeded in the chair by E. Seneta in 1979.

*South Australia*

E.A. Cornish, who was born in Perth, was a graduate in Agricultural Biochemistry from the University of Melbourne 1n 1931. He took a position at the Waite Agricultural Research Institute in Adelaide where he became involved with statistics problems. In 1937 he took leave without pay for a year and went to University College, London to study with R.A. Fisher. In 1941, CSIR (CSIRO from 1949) created a Section of Mathematical Statistics with Cornish as its Head. In 1954 that Section became a Division and it

went on to become a centre for the development of statistical methods, particularly in the biometric area. A significant group of fine young researchers and consultants were also recruited including H.N. Turner, E.J. Williams, M. Barnard, E. Allan, G.A. McIntyre and A.T. James, all of whom are mentioned elsewhere in this article.

Cornish was a part-time lecturer in Statistics at the University of Adelaide for some years and in 1960 he was appointed as the first Professor of Mathematical Statistics, also on a part-time basis while he continued with his CSIRO post. His appointment was for five years and then he was succeeded by A.T. James (appointed 1965).

Professors were first appointed in Sydney in 1852 (M.B. Pell), Melbourne in 1855 (W.P. Wilson), Tasmania in 1896 A. McAulay), Adelaide in 1910 (R. W. Chapman), Queensland in 1911 (H.J. Priestley) and Western Australia in 1929 (C.E. Weatherburn), although some of the professors had additional responsibilities and specialties, such as in Physics or Engineering.