

WILLIAM GEMMELL COCHRAN 1909-1980

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W. G. Cochran died at Cape Cod on March 29, 1980 after several years of indifferent health. He retired from Harvard University in 1976 after a long and distinguished career and was working actively to the end. A quintessential Scot, his unwavering wisdom and good humour endeared him to all who knew him. His writings, especially his books *Sampling Techniques* and *Experimental Designs* (with Gertrude Cox), and his revision of Snedecor's *Statistical Methods*, have been enormously influential. The latter is by far the most cited statistical reference book.

Cochran was born on July 15, 1909 in the Royal Burgh of Rutherglen, Scotland to Thomas and Jeannie Cochran. Most of Rutherglen's population of almost 30,000 worked in factories which "belched smoke and fumes" and lived in tenements nearby. But close at hand were woods, hills, and fields where Cochran could walk with his older brother, Oliver, who gave (at the service for Cochran in Harvard Memorial Church on May 2, 1980) a vivid picture of their happy, but penurious, childhood.

Their father was the eldest of seven children and had (at age thirteen) to take a job with a railroad company. The family moved first to Gourock and then to Glasgow when "Willie" (pronounced Wully) was 16. Oliver became an accountant and later joined the Civil Service.

In 1927, Willie was first in the Glasgow University Bursary Competition, taking papers in English, Latin, mathematics, natural philosophy (physics), and chemistry. With this bursary, he was able to finance himself through the University; and, of course, to be first in this competition was always regarded as a very fine achievement. He graduated M.A. in 1931 with First Class Honours in Mathematics and Natural Philosophy, and shared the Logan Medal for the most distinguished graduate in the Arts Faculty. He was also awarded the George A. Clark Scholarship of £200 per annum for four years which was then enough to finance him through Cambridge University. Glasgow recognized their distinguished son with an honorary LL.D. in 1970.

Cochran entered St. John's College, Cambridge, in 1931 with four mathematical graduates of other universities—Keith Bullen from New Zealand, William Egner from Durham, Anton Hales from Capetown, and Frank Smithies from Edinburgh. Bullen soon became a research student of Harold Jeffreys and subsequently was knighted for his work in seismology. (Bullen taught me applied mathematics and recommended me as a graduate student to Cochran.) The other four, all becoming Wranglers (people who gained First Class Honours) in 1933, studied for the Mathematics Tripos before becoming research students. Smithies became an influential mathematical don in Cambridge, Hales became a well known geophysicist, and Egner was the head master of several schools and a scientific officer (O.R.) in the Royal Air Force in World War II. In pure mathematics, their Tripos supervisors were E. Cunningham, F. P. White, and M. A. Newman, and in applied mathematics, Sydney Goldstein, "who could solve any Tripos examination problem on the spur of the moment." This, no doubt, explains why Cochran's first paper [2] is on the flow

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