

Conniffe, Denis

by Patrick Honohan

Conniffe, Denis (1942–2011), economist, was born on 10 January 1942 in Dublin, the only child of Patrick Conniffe, of Dublin, who had a career in law, and his wife Brigid (née Toland), of Derry. The family lived in Whitehall on the north side of the city and he attended the School of the Holy Child, Larkhill, and the O'Connell CBS, North Richmond Street. He studied mathematical sciences at UCD, where James R. Timoney (1909–85) was a strong influence. At UCD he was awarded a B.Sc. in 1962 and M.Sc. in 1963. Having received the necessary dispensation from the catholic archbishop of Dublin, he proceeded to postgraduate research in statistics at Trinity College Dublin, where he was awarded a Ph.D. in 1972.

In 1964 he joined the Agricultural Research Institute (An Foras Talúntais (AFT), later called Teagasc) in Dublin, where he became assistant director and head of research. He moved to the Economic and Social Research Institute (ESRI) in 1980, where he was a research professor and deputy director. In 2004 he took up a post as research professor in the department of economics, finance and accounting at the National University of Ireland Maynooth. He moved to the department of economics in UCD in 2008.

After the death of Roy Geary (qv) in 1983, Conniffe effectively assumed the mantle of Ireland's leading econometrician and mathematical statistician, often exposing methodological traps that could seriously mislead policy users of statistical evidence, and proposing more effective ways of reliably estimating relationships and trends. His international standing in these fields was evidenced by his many contributions to the leading journals (including *Biometrika*, *Econometrica* and the *Review of Economic Studies*).

His major contributions to the international literature included work on missing values, functional forms for utility functions, and simplified estimation methods and experimental design. For missing values, Conniffe tackled the question of how best to fill data gaps in conducting statistical analysis. He challenged the conventional short cut of simply replacing a missing value by the average in the rest of the sample, proposing (and analysing) instead a weighted regression whereby complete and incomplete observations need not be treated as of equal status. On utility functions, he pointed out that almost all econometric analysis of consumer demand made hidden assumptions by imposing a limited class of functional forms on the utility function, potentially biasing estimates; for example, of demand elasticities. He devised several new approaches to widen the class of functional forms that could conveniently be used to relax these constraints. Among the simplified estimation methods he devised were one for 'partial sums' (used, for example, in reservoir design in hydrology) and one for Zellner's seemingly unrelated

regressions technique (used, for example, in estimating relationships involving time series data on a cross-section of firms, where it is assumed that the relationships have different structures for different firms, but with correlated disturbance terms).

It was to Conniffe that established Irish economists and social scientists generally turned when they needed guidance on the finer statistical aspects of testing theories against empirical data in practice. He treated such enquiries from researchers with unfailing generosity and devoted much time to ensuring that the querist ended up fully understanding the problem and its solution. He was equally patient and generous with students. At Teagasc he was remembered as having revolutionised experimental design and laid secure foundations for decades of high-quality field research.

Conniffe's own applied statistical and econometric contributions widened out from his early work on agricultural productivity to such disparate topics as the pricing of electricity and other forms of energy; addiction to, and the taxation of, alcohol and tobacco; and the measurement of house price inflation. His applied work always employed – and often introduced – subtle measurement and inferential techniques with important policy implications. Indeed, many of his theoretical contributions to mathematical statistics (such as the missing values work) were motivated by, and contributed to the resolution of, tricky problems of interpreting data collected in particular applied contexts. Much of his applied statistical work took the form of critiquing conventional measurement methods applied unthinkingly. For example, he showed how incompatible with actual data on expectations of price inflation in Ireland was the model of adaptive expectations, very widely employed at the time he was writing.

Conniffe also took great pleasure in analysing *curiosa* in mathematical statistics of no obvious practical importance, such as the famous 'taxi problem' discussed decades before by his great Dublin predecessors Erwin Schrödinger (qv) and Roy Geary: if all the taxis in a city are numbered consecutively, what is best estimate of the total number of taxis, given a sample of observed numbers?

It was in recognition of his unquestioned professional integrity that the Irish government appointed Conniffe in 1985 to the politically delicate position of chair to a National Statistics Board mandated to design the new institutional structure for the production of national statistics.

A man of many parts, he represented Ireland in judo. At professional conferences, his economics and statistical colleagues could always rely on him to regale them with nuggets from his encyclopaedic knowledge of local, and especially military, history on the extra-curricular guided hill walks which he organised. Colleagues delighted in the mischievous wit with which he discussed the internal politics of the various institutions he worked for over the years.

He married (1969) Jean Murphy, daughter of Patricia and John Murphy of Johnstown, Co. Wexford, the latter an agricultural advisor; they had three sons (Derek, John and Brian).

Elected a member of the Royal Irish Academy in 2004, Denis Conniffe also served as president of both the Irish Economic Association and the Irish Statistical Association. After moving to UCD in 2008, he continued to teach and to publish until his death in St Vincent's Private Hospital, Dublin, on 20 January 2011. He was cremated at Mount Jerome crematorium. A commemorative bench in his memory is to be found on the UCD campus in Belfield.

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Alan Barrett, John Connolly and John Spencer, 'Denis Conniffe: an obituary', *Economic and Social Review*, xlii, no. 4 (winter 2011), 371–81