

SEMRU Seminar, Wednesday 17th February, 2010

Title: **Outlying sensitivities in discrete choice data: consequences and remedies**

Abstract:

Unlike other areas of econometric analysis, the sensitivity of outliers is rarely assessed or even explored in stated choice analysis, despite calls to do so (e.g., in [Ben-Akiva and Lerman, 1985](#)). In this paper, using stated preference data collected to estimate the existence value of a number of rare and endangered fish species in the Lough Melvin Catchment in Ireland, we focus on a specific type of outlier, namely respondents with extreme sensitivities. We show that the presence of only a handful of such respondents can be responsible for a large part of the heterogeneity retrieved by using a single sample population distribution for sensitivities. We propose the use of different modelling approaches in this context, and show that directly accommodating very low and high taste intensities leads to significant improvements in model performance. Additionally, we find that accounting for outliers may lead to significant reductions in the 'residual' random heterogeneity. Our findings reinforce the importance of testing for the presence of outliers and that this should be part of standard practice in choice modelling.

Keywords: Discrete choice experiments; continuous distributions; discrete mixtures; outliers; taste heterogeneity

Speaker: **Danny Campbell, Gibson Institute for Land, Food and Environment Queen's University Belfast.**

Day/Time/Venue: **Wednesday, 17th February, 1.00 p.m., CA117**