Scottish Graduate School
of Social Science
Sgoil Cheumnaichean Saidheans
Sòisealta na h-Alba

Understanding and Modelling Trajectories in the Social Sciences

25 June 2025

Dr Diarmuid McDonnell

Many interesting social phenomena follow processes of change that are not directly observable but can be inferred using statistical models. The classical example is the development trajectories of infants and children (e.g., height and weight) but many other outcomes are amenable to what are known as growth-curve analytical approaches e.g., career earnings trajectories, area-level change in business or charitable activity, changes in subjective wellbeing of individuals over time.

This short (3 hour) course will outline the fundamental concepts and approaches for estimating trajectories of change for social science phenomena, and includes practical examples and exercises using R and Stata.

Programme

10:00 – 10:10	Welcome
10:10 – 10:45	Lecture 1 – Fundamentals of modelling trajectories
10:45 – 11:00	Practical – Getting set up
11:00 – 11:15	Break
11:15 – 12:30	Practical 1 – Estimating growth-curve models
12:30 – 13:00	Next steps