Transport Data Analysis and Modelling Methodologies
CONTINUING PROFESSIONAL DEVELOPMENT 5-DAY COURSE

Presented by The University of Queensland, this week-long CPD course will provide expert insight into the application of a wide variety of statistical and econometric methods for analysing data in research.

From reviews of ordinary least squares linear regression to the latest in econometric models with random parameters, students will analyse continuous and discrete data, and gain knowledge to move their research to the next level of methodological sophistication.

The course will address fundamental conceptual issues often overlooked in the literature, including self-selectivity, unobserved heterogeneity, endogeneity, among others. Course participants will view their research and data in important new ways. Moreover, the course will be interspersed with hands-on modelling exercises so that students become proficient in estimating models using econometric software.

While the course will present model-estimation methods with examples drawn primarily from transport, the methods presented will have broad applications to a very wide variety of subject areas. Even though the course will emphasise model estimation and application, the underlying theory, limitations, and practical interpretation will be discussed to ensure that the methods are properly applied and understood.

DATE
Monday 25 June - Friday 29 June 2018

LOCATION
The University of Queensland, Brisbane, Australia

REGISTRATION
Interested professionals should register and complete payment no later than Monday 11 June 2018

Early Bird Discount*:
10% off the below rates

Full Rate: $3,200
University Students: $1,920
TMR Employees: $2,880
Group Rate**: $2,880 pp

*Early Bird pricing available until Monday 14 May 2018.
**3 or more people from the same organisation

REGISTER

COURSE ENQUIRIES
Selina Weller
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COURSE CONTENT
• Statistical modelling fundamentals
• Estimators and their properties
• Least squares regression and maximum likelihood estimation
• Model specification errors
• Simultaneous equation models
• Count-data models (Poisson, negative binomial, zero-inflated)
• Discrete outcome models (including ties to economic theory)
• Nested logit/generalized extreme value models
• Ordered probability models with fixed and random effects
• Self-selectivity and discrete/continuous models
• Hazard-based duration models
• Random parameter models (mixed logit, count duration models)

KEY FEATURES
Participants will receive extensive course notes and a copy of the 2011 instructor-authored book “Statistical and econometric methods for transportation data analysis, 2nd Edition”. Course instruction will closely follow this text to acquaint participants with the format, learning approach, and many other analysis concepts including extensive hands-on model estimation using a variety of data and examples.

• A total of 10 hands-on interactive modelling sessions will be included with direct input and one-on-one interaction with course instructors.
• Extensive post-course web-based support and access to additional data sets from the book will be available for continued learning and experimentation after course completion.

Participants are required to bring their own windows-capable laptop to this course. Econometric software will be provided for installation prior to commencement.

Professor Simon Washington
is currently Head of School at The University of Queensland’s School of Civil Engineering. Professor Washington has been lead investigator on over $26 Million of externally supported research and has secured nationally competitive research grants in both Australia and the United States. His research interests include the human and engineering causes and mechanisms associated with transport system related crashes, sustainable transport issues including active travel, air quality and global warming impacts of transport, travel behaviour, and links between transport, land use, and urban planning.

Professor Fred Mannering
is the Associate Dean for Research in the College of Engineering and Professor of Civil and Environmental Engineering at the University of South Florida. He received his BSCE from the University of Saskatchewan, MSCE from Purdue University and PHD from the Massachusetts Institute of Technology. His expertise is in the application of statistical and econometric methods to study a variety of subject areas including highway safety, transportation economics, automobile demand, and travel behavior. He has published over 130 journal publications, his work has been highly cited in the major citation databases, and he is an award-winning instructor.