

2007 ANNUAL REPORT

A report on the 2007 activities of The Australian Key Centre in Transport and Logistics

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Australian Research Council's Key Centre Program*



ITLS

INSTITUTE
of TRANSPORT
and LOGISTICS
STUDIES

The University of Sydney



ITS (Monash)

INSTITUTE
of TRANSPORT
STUDIES

Monash University



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DIRECTOR'S REPORT

2007 marks the 13th year since the Institute of Transport Studies (ITLS-Sydney and ITS-Monash) was established as a Key Centre, although both nodes have a much longer independent history. We have grown to a total complement of forty five and with a sensible growth strategy we will be growing some more over the next few years.

In 2007, ITS-Monash welcomed Dr Yibing Wang who has joined from the Dynamic Systems and Simulation Laboratory in the Department of Production Engineering and Management at the Technical University of Crete, Greece. Dr Wang has strengthened the research focus on Intelligent Transport Systems at ITS-Monash where he will also be contributing to the undergraduate and postgraduate education programs. ITS-Monash bid farewell to Dr Imran Muhammad, who has taken a position at Massey University in NZ, and Mr Zed Senbergs, who returned to the consulting sector. Plans are in hand to fill the research positions left vacant by their departures. Professor David Walters joined ITLS-Sydney as a Professor of Logistics Management and has taken over leadership of the logistics program. David has held posts at the universities of Western Sydney (Sydney Graduate School of Management), Macquarie, Oxford (Templeton College), and the Cranfield School of Management. Professor Walters has taught in Australasia, North America, The Middle East, Europe, Asia, and Africa. In addition to this wide teaching experience he has acted as a consultant for a number of international companies including: BOC, CSR, Harrods, Laura Ashley, The Kingfisher Group, Storehouse, British Oxygen Company, Marks and Spencer, and Tesco's. Dr Ada Suk-Fung Ng also joined ITLS-Sydney in 2007, as a Lecturer in Logistics and Supply Chain. Before joining ITLS-Sydney, Dr Ng was an Assistant Professor in the Department of Transportation and Logistics, Malaysia University of Science and Technology and held a fellowship from the Croucher Foundation of Hong Kong for a research project in the Laboratoire d'Informatique of Ecole Polytechnique in France (2002-3). Her research interests are in operations research and combinatorial optimisation, maritime logistics, distribution network design, location problems, vehicle routing and manpower scheduling. In 2007 ITLS-Sydney bid farewell to Dr Miguel Figliozzi who returned to the USA. The full time academic staff of 11 (6 in Sydney and 5 in Monash) completes the current strategic mission of staffing the program in transport, logistics and supply chain management.

Research activities at both nodes continued to grow in 2007 with the evidence of that research activity being reflected in over 40 tier one international journal and conference papers being published during the year. In addition, the book titled 'No Way To Go - Transport and Social Disadvantage in Australian Communities', edited by Graham Currie, John Stanley and Janet Stanley has attracted considerable interest following its publication by Monash University e-Press. As part of the growing emphasis on transport and social exclusion research, the team at ITS-Monash were also delighted to launch the Social Research in Transport (SORT) clearing house (<http://www.sortclearinghouse.info/>) which aims to increase awareness of social issues in transport by making it easier to access research in this area. Reflecting the national significance of the travel demand management research being conducted at ITS-Monash, a framework for the appraisal and evaluation of travel demand management initiatives was completed for AUSTROADS, with that research undertaken in conjunction with the ARRB Group. Associate Professor Geoff Rose has been devoting time to expanding transport research activities through his role as Transport Theme Leader with the Monash Sustainability Institute. New research initiatives have focused on the role of driver training to reduce fuel consumption and emissions with preparations being made this year for a major field trial to be undertaken early next year. The field trial will focus on large commercial vehicles and will provide valuable insight into the potential of these driver training programs under Australian conditions. The Sydney node published two books in 2007, one from the successful Thredbo series, the other a compilation of Professor David Hensher's research contribution to bus transport economics and policy. Thredbo 10 was held in Australia and hosted by ITLS-Sydney. With over 160 participants from 23 countries, the conference was set in idyllic Hamilton Island over 4

days with workshops and plenary sessions on the latest developments on land passenger transport. Ruth Steel is thanked for her exceptional effort and guidance as Conference Director in planning and running the conference, described as the best yet in the series.

Professor Graham Currie was honoured by the Australia and New Zealand division of the Institute of Transportation Engineers (ITE) through presentation of the 2007 award for Contribution to the Transportation Profession. The award was presented to Professor Currie by the ITE at their December 2007 meeting in Melbourne.

Dr Sean Puckett who graduated with a PhD in 2005 received the 2006 Eric Pas Dissertation Prize from the International Association for Travel Behaviour Research. He was presented with this prestigious highly competitive award at Transportation Research Board 87th Annual Meeting in January 2008 in Washington DC. Professor Sean Doherty, the jury chair, indicated that the competition was extremely tough, with a large number of high quality dissertations.

Professor Peter Stopher was recognized for his contribution to the transport community by being awarded Emeritus membership of the Survey Methods Committee of US National Academy of Sciences Transportation Research Board (TRB). This is his second Emeritus Membership in a TRB Committee, having also been accorded this honour back in 2001 in the Traveller Behaviour and Values Committee. Professor Stopher played a significant role in starting both of those committees, which have now become two of the most active committees in the TRB, with Traveller Behaviour and Values having been in existence as a full committee for 37 years this January and Survey Methods becoming a full committee 13 years ago, after being a subcommittee of Traveller Behaviour and Values for most of the 14 years before that.

During the year, ITS-Monash and ITLS-Sydney once again welcomed many national and international visitors including: Professor Elizabeth Deakin, University of California, Berkeley; Professor Chandra Bhat, University of Texas at Austin; Professor Sandra Rosenbloom, University of Arizona; Professor David Layton, University of Washington; Professor Michiel Bliemer, Delft University of Technology, The Netherlands; Dr Karen Lucas, University of Westminster, UK; Professor Chris Nash, Institute of Transport Studies, University of Leeds, UK; Mr Brian Caufield, Centre for Transport Studies, Trinity College Dublin, Ireland; and Ms Carole Jolly, Department of Land and Building Services, University of British Columbia. Those visitors continue to strengthen the line up of speakers for the public seminar series run at both nodes.

Both nodes continue to play a leading role in developing professional capacity for the transport and traffic profession. Enrolments in the Transport Management Course in Bus and Coach Operations at ITS-Monash remained stable in 2007. As part of the undergraduate programs in Civil and Environmental Engineering, ITS-Monash had responsibility for over 400 subject enrolments in transport/traffic related subjects in 2007. With core units offered in levels two and three of the undergraduate civil engineering degree, two electives in final year, and the option to do a final year transport project, the program offers civil engineering graduates excellent preparation for careers in the transport and traffic industry. In addition, the postgraduate program in Transport and Traffic offered by ITS-Monash has continued to attract over 60 students from throughout Australia and overseas. Those students who are drawn from state and local government, consulting and transport operators, gain deeper, professionally oriented skills and understanding from the postgraduate program to assist them in their professional practice. ITLS-Sydney had over 250 postgraduates enrolled in the transport and logistics coursework programs, and a pleasing growth in the number of full time local PhD students, largely due to a greater commitment to more attractive scholarships.

The NSW Government has formed a partnership with ITLS-Sydney to establish a Chair in Public Transport. The motivation for establishing a Chair in Public Transport has grown out of recognition that there is a need for some independent and ongoing framework within which the full agenda relevant to supporting public transport in a balanced transport system can be housed. A major objective is to increase knowledge and learning of public transport within the transport industry (and the community in general, including the media) through research and educational activities including

briefings, papers, workshops, training courses, opinion pieces and media commentary. The Chair will be active in directing the overall program of public transport research, education, and training, overarching all themes of interest to ITLS-Sydney, government and industry. Given the Institute's strong interest and reputation in urban transport, the Chair will focus to a great extent (but not entirely) on passenger transport issues in urban areas. Themes that are high on the agenda include: growing patronage; optimisation of service delivery; environmental impacts; traffic congestion; the future of public transport, public transport performance in urban areas; and optimal mixing of transport and land use facilities. This position is planned to be filled in late 2008.

The Boards of Advice at each node (chaired by Dr Alastair Stone, ITLS-Sydney and John Stanley, ITS-Monash) met twice in 2007. These boards continue to play a key role in providing important advice and direction to the Institute and it is only appropriate that I acknowledge the commitment and dedication that Dr Stone and John Stanley bring to their roles.

As always, it has been a great pleasure to continue as Director of the Key Centre. The working environment brings a great deal of joy to me, overwhelmingly due to the team we have. A special thanks to all Key Centre staff. In ITLS-Sydney and ITS-Monash our success however is in no small measure due to the extraordinary support we obtain from the Dean (Professor Peter Wolnizer) and the Deputy Vice Chancellor, Research (Professor Edwina Cornish). I also wish to recognise the important role that Associate Professor Geoff Rose has played in leading the Monash node. I invite you to look at the fuller success of the Key Centre as set out in this Annual Report.

David A. Hensher



Systemwide Director

ABOUT THE KEY CENTRE

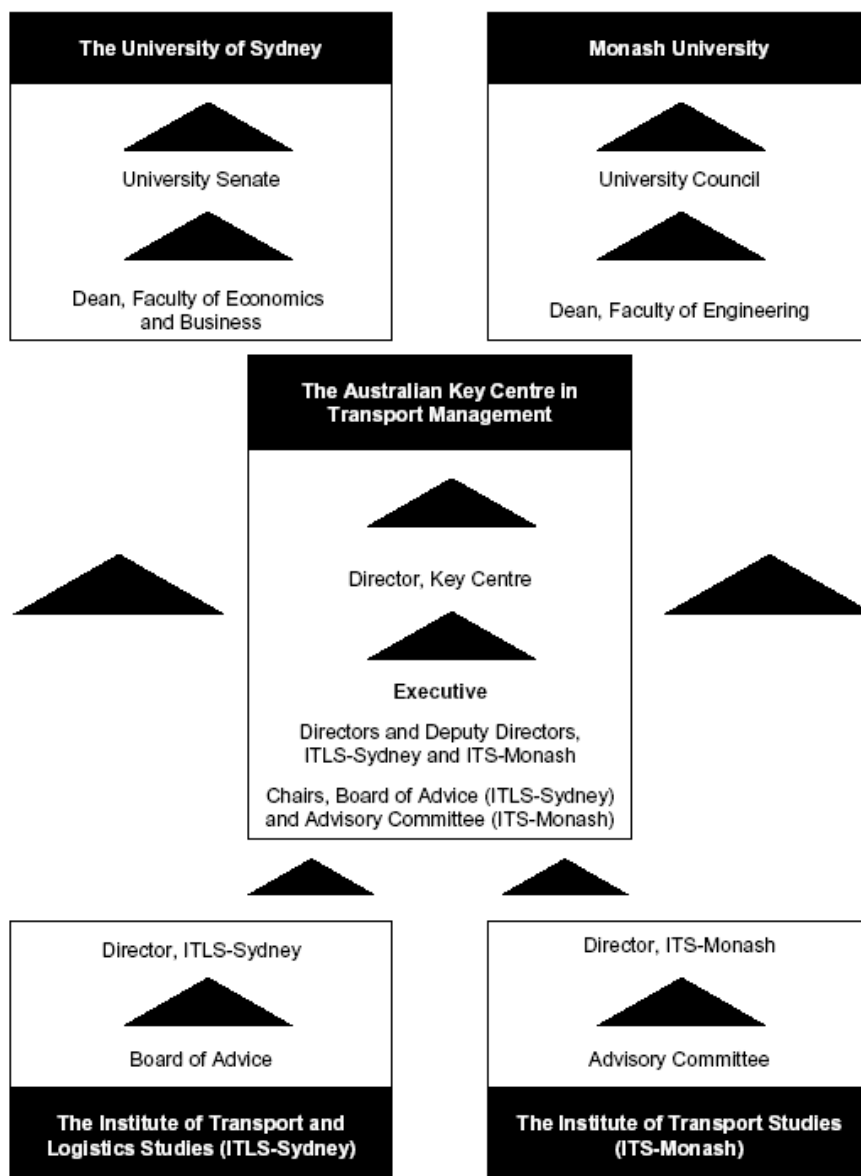
<http://www.itls.usyd.edu.au/>

Management structure

ITLS-Sydney

ITS-Monash

The management structure of the Key Centre is shown in the diagram below.



The two-node Centre is recognised by the Australian Federal Government as the National Centre of Excellence in teaching and research in transport and logistics management. The Australian Key Centre was established in July 1995 as a joint venture between the Institute of Transport Studies (ITS) within the Graduate School of Business at the University of Sydney and the Monash Transport Group within the Department of Civil Engineering at Monash University, Melbourne. These two groups were leading Australian centres in transport and traffic management education and research in their own right prior to the establishment of the Key Centre. In January 1998, ITS Sydney relocated to the Faculty of Economics (now the Faculty of Economics and Business) and in January 2005 it was renamed as the Institute of Transport and Logistics Studies (ITLS) to reflect its new focus.

The Key Centre continues to have integrated nodes at the University of Sydney (ITLS-Sydney) and Monash University (ITS-Monash).

The Director of the Key Centre is Professor David Hensher (Fellow of the Academy of Social Sciences in Australia and Recipient of the Engineers Australia Medal for lifelong contribution to transportation) who is regarded as one of Australia's most eminent transport academics and someone in high demand as an adviser to industry and government. The Deputy Director in Sydney is Professor Peter Stopher internationally recognised for his research in travel survey methods and data collection, as well as his recent work on travel behaviour adaptation. The ITLS-Sydney team consists of over 30 staff. Associate Professor Geoff Rose heads ITS-Monash, which has nine staff.

ITLS-Sydney

The spirit and challenge of ITLS

If there is one thing that our past students have said about studying at ITLS it is the high quality of the academic program and the commitment of academic and support staff in ensuring that one's time at ITLS is not only a learning experience but a period of conviviality in one's life. Everyone wants to engage in new learning as well as make new contacts from around the world and leave with a feeling of belongingness and achievement. This is the ITLS mission.

While our program is focused on academic objectives, we recognise the need for diversity in the set of management and specialist skills that produce well-rounded managers and leaders of the future. Our students like the opportunity to gain a solid grounding in the development of theory, strategy and practice backed with appropriate technical skills in transport and logistics management. The range of core and elective units of study in transportation, logistics and general management sharpen (or whet) the appetite of all our students.

These ensure that the diversity of study is shaped by a need to acquire certain basic skills in management and planning. Most importantly we set ourselves the challenge to produce reflective students who can ask penetrating and lucid questions on current issues. ITLS recognises that communication skills are as important as technical skills. How often is someone impressed with the way in which a position is articulated? ITLS graduates are given the opportunity to acquire these skills through the diversity of learning media such as face to face lectures, debates, group projects, video-recorded presentations and feedback as well as on-line study. With over 23 countries represented in our student body we are truly international. The networking has proven to be a most valuable part of the ITLS experience. We hope you will be motivated to want to participate in our program.

ITLS Cares, Inspires, Educates and Creates employment opportunities for its students.

Articulated training

Within a University environment, ITLS has been singularly successful in introducing a fully articulated series of management-oriented learning programs to cater for a very diverse background of participants. The diversity accommodates individuals with no formal tertiary education through to those with undergraduate qualifications. The opportunity for individuals to enter our non-award courses certificate programs and to articulate through to the Graduate Certificates of Transport and Logistics Management, the Graduate Diplomas in Transport and Logistics Management, and the Masters of Transport and Logistics Management is impressive. In addition, we offer the opportunity to combine the specialist Masters programs with a number of selected Masters programs offered by the University of Sydney and the possibility to undertake postgraduate research through our PhD or MPhil program. For further details of our graduate program see: www.itls.usyd.edu.au/graduateprogram

Industry links

A major strength of ITLS is its success and reputation in the custom design and delivery of training programs to suit the needs of particular organisations. ITLS has appropriate infrastructure to deliver award and non-award programs anywhere in Australia, programs that may be delivered in face-to-face, distance and / or on-line mode. We hope that future partnerships with industry will assist us in the upgrading of some infrastructure in a way that recognises the industry partner's support and secures world class facilities for delivering a training and education program. There are significant tax incentives for such activity. We always encourage a strong quality partnership between ITLS and a specific organisation or industry association in the development and execution of such programs. Such a partnership would involve some component of teaching by industry personnel. To illustrate this capability we refer to the very strong association and quality partnership forged between ITLS and the Bus and Coach Association of NSW and with the Roads and Traffic Authority of NSW.

In partnership with the Bus and Coach Association of NSW ITLS has developed a program designed to meet the requirements for accreditation for bus and coach companies in NSW under the Passenger Transport Act, as well as executive programs in this area. ITLS offers an online accreditation program (minimum standards) for new entrants to the industry and for incumbents wishing to stay up to date on accreditation requirements as part of the annual self audit. In addition, we offer a Certificate of Bus and Coach Operations for supervisors and a Certificate of Transport Management for managers and advisers to the industry. For full details of these programs see: www.itls.usyd.edu.au/busandcoach

The Advanced Certificate in Transport and Traffic Management (ACTTM) was originally developed in partnership with the Roads and Traffic Authority of NSW and is now available to all transport professionals who wish to advance their ability to analyse the social, environmental and business aspects of transport planning and management and develop creative new solutions by broadening their intellectual base and deepening their understanding of transport. Individual modules of the program may be taken as short courses, the successful completion of which may be used as credit towards the ACTTM or the graduate program. For full details of the program see: www.itls.usyd.edu.au/executive_programs

Keeping aware of activities at ITLS

As well its academic and training program the Key Centre has an extensive program of related activities including contract research to industry and government, publications, participation at conferences, software development, and links to other leading transport and logistics institutes around the world, especially in the USA, UK, Canada, The Netherlands, Chile, Brazil and Sweden.

Current updates on the diversity of activity at ITLS are readily available by visiting our home page: www.itls.usyd.edu.au

If you wish to keep up to date with ITLS events and activities please join our mailing list by emailing itlsinfo@itls.usyd.edu.au

Meeting objectives

The primary objective of ITLS-Sydney is to undertake graduate teaching, executive programs, grant and contract research and development in the fields of transport and logistics management. The table below show the objectives in detail and provides performance measures to demonstrate how well ITLS-Sydney is meeting each objective.

Objective	Performance measure
<ol style="list-style-type: none"> 1. Offer specialised training courses, workshops, short courses on topics of interest in the area of transport and logistics management. 2. Widen the range of courses available for middle level professional managers in critical areas of transport and logistics not currently served. 3. Build on the recognised need for stronger links between education of technical specialists and managers in transport and logistics. 4. Equip managers in all disciplines, the small business sector and local government to succeed in the face of technological, economic and institutional change. 5. Bring high quality transport and logistics management programs to people outside Sydney and widen the offerings of courses in Sydney through access to courses provided by ITLS. 	<p>Development and delivery across all modes (face-to-face, distance, on-line) of high quality graduate transport and logistics programs, certificates, advanced certificates, executive programs, short courses and workshops to meet specific training needs.</p> <p>www.itls.usyd.edu.au/graduateprogram www.itls.usyd.edu.au/executiveprograms www.itls.usyd.edu.au/busandcoach</p>
<ol style="list-style-type: none"> 6. Undertake research to develop state-of-the-art management practices and technical processes. 7. Seed the development of innovative ideas in transport and logistics management policy and professional practice in Australia, in which ITLS plays a role. 8. Contribute to Australia's growing participation in the Australasian and Asia Pacific region in a leadership role in transport and logistics management. 9. Collaborate with key players having an interest in transport and logistics management and its applications. 	<p>Active research program and consultancy work for a wide range of government and private clients and a successful doctoral program. www.itls.usyd.edu.au/research</p> <p>Transfer of knowledge developed through research to client groups through:</p> <ul style="list-style-type: none"> • publications, including 20 working papers and over 45 papers in refereed journals and conference proceedings annually; <p>www.itls.usyd.edu.au/publications</p> <ul style="list-style-type: none"> • editorial positions held by staff on leading international and national journals; • participation in local and international workshops, conferences and seminars; • media engagements; • participation in local and international networks of transport and logistics managers and engineers; <p>www.itls.usyd.edu.au/research</p> <ul style="list-style-type: none"> • in-house seminar series with internationally renown speakers. <p>www.itls.usyd.edu.au/seminars</p>
<ol style="list-style-type: none"> 10. Provide a focus for University activity in areas of transport and logistics management and establish an environment attractive to those committed to excellence in graduate transport and logistics management programs and research. 	<p>All performance measures mentioned above.</p>

ITS-Monash

While transport education and research programs have been offered at the Monash University Clayton campus for over 37 years, the formation of ITS-Monash heralded an expansion of those activities and in particular the development of a number of off-campus learning (distance education) programs. ITS-Monash now operates as a self-funded entity but continues to collaborate with IITLS-Sydney, the other node of the Key Centre. ITS-Monash is located within the Department of Civil Engineering, the original home of the transport education and research programs at Monash University.

Our Mission

To progress transport knowledge and practice

Our Vision

To be regarded as a provider of international standard transport education and research which contributes to the prosperity and sustainability of industry and the wider community

Our Values

In following our mission, we:

- Lead through innovation
- Provide quality education and research services
- Build a supportive team
- Develop effective partnerships
- Practise self-sustaining financial management

Our core activity areas

The activities of ITS-Monash are concentrated in the following areas:

Education

Education activities contribute to building professional capacity in the transport and traffic industry and focus on transport and traffic engineering, transport policy, planning and operations management. Education programs are offered at the following levels:

- Undergraduate
- Postgraduate
- Continuing education: seminars, short courses and workshops
- Industry programs

Research

ITS-Monash conducts research which contributes to the prosperity and sustainability of industry and the wider community through understanding, predicting and evaluating travel demand, transport operations, transport and traffic management and public transport planning and management. ITS-Monash research is focused in four program areas:

Travel demand

Transport operations

Transport and traffic planning and management

Public transport planning and management

Professional and community service

ITS-Monash staff engage in a range of professional and community service activities including:

Arranging public lectures on contemporary transport issues

Serving as committee members of national and international bodies

Contributing to the organization of state, national and international conferences

Providing editorial services to professional journals and publications

Reviewing papers submitted for publication at conferences and in journals

BOARDS OF ADVICE

ITLS-Sydney

http://www.itls.usyd.edu.au/about_itls/itlsboard.asp

Board of Advice Meetings were held on 31 May and 30 August 2007



Board of Advice May 2007 (left to right): Professor David Walters, Ms Louise Hooper, Mr Warren Bennett, Professor Chandra Bhat, Professor David Hensher, Mr Stephen Rowe, Dr Alastair Stone, Mr Darryl Mellish, Mr Lew Russell, Mr Scott Lennon, Professor Peter Stopher, Ms Gillian Akers, Mr John King and Mr Mark Rainbird

Statement of Purpose

The purpose of the Board of Advice is to support the continued development and utilization of the ITLS as a centre of excellence adding value to the community. The academic and commercial membership of the Board gives a broad network for the sharing of expertise and experience. Particular contributions from the Board Members are expected to include: high-level advice on issues identified by the Board and the Staff for inclusion in the teaching and research programs and assistance with integration of the faculty and student activities, within the community of stakeholders.

Dr Alastair Stone (Chair), Managing Director, Pacific Infrastructure Corporation

Professor David Hensher, Director, Institute of Transport and Logistics Studies

Gillian Akers, Senior Associate, Strategic Design and Development Pty Ltd

Dr Peter Barnard, General Manager, International Markets and Economic Services for Meat and Livestock Australia (MLA)

Warren Bennett, Executive Director, Board of Airline Representatives of Australia

Professor Chandra Bhat, Department of Civil Engineering, University of Texas at Austin, USA

Professor Edward Blakely, Director, Planning Research Centre, University of Sydney

Professor Axel Börsch-Supan, Director, Mannheim Research Institute for the Economics of Aging, University of Mannheim, Germany

Professor Ken Button, Director, Transportation Policy, Operations and Logistics Centre, George Mason University, USA

Professor Paul Cousins, Professor of Operations Management and CIPS Professor of Supply Chain Management, Manchester Business School, The University of Manchester, UK

Doug Dean, Managing Director, Veolia Environmental Services, Australia

Hans Fischer, Project Director, Transfield Holdings

Paul Forward, Principal, Evans and Peck

Jim Glasson, Director General, NSW Ministry of Transport

Professor Phil Goodwin, Professor of Transport Policy, Centre for Transport and Society, Faculty of the Built Environment, University of the West of England, UK

Mr Nicholas Hann, Managing Director, Infrastructure, Macquarie Bank, Australia / Canada

Len Harper, Executive Director, The Chartered Institute of Logistics and Transport in Australia

Professor Trevor Heaver, Centre for Transportation Studies, Operations and Logistics Division, Sauder School of Business, University of British Columbia, Canada

Stuart Hicks, Chair, National Transport Commission, Chair, Planning and Transport Research Centre and Chair, John Curtin Institute of Public Policy

Louise Hooper, Doctoral Program, Institute of Transport and Logistics Studies

John King, Managing Director, Aviation and Tourism Management Pty Ltd

John Lee, Chief Executive Officer, State Transit Authority

Scott Lennon, Partner – Economics, PricewaterhouseCoopers

Stephen Lucas, Chair, Bus Industry Confederation, President, Bus Association Victoria

Professor Alan McKinnon, Director of the Logistics Research Centre, Heriot-Watt University, Edinburgh, UK

Darryl Mellish, Executive Director, Bus and Coach Association NSW

Max Moore-Wilton, Executive Chairman and Chief Executive, Sydney Airport Corporation

Hal Morris, Chief Executive, Australian Logistics Council

Professor Marcus O'Connor, Pro-Dean and Professor of Business Information Systems, Faculty of Economics and Business, University of Sydney

Professor Juan de Dios Ortúzar, Department of Transport Engineering and Logistics, Pontificia Universidad Católica de Chile, Chile

Professor Tae Oum, UPS Foundation Chair in Transport and Logistics, Sauder School of Business, University of British Columbia, Canada

Phil Potterton, Executive Director, Bureau of Transport and Regional Economics, Department of Transport and Regional Services

Professor John Pucher, Bloustein School of Planning and Public Policy, Rutgers University, USA

Mark Rainbird, Managing Director, AWA

Professor Geoff Rose, Director, Institute of Transport Studies, Monash University

Stephen Rowe, Director, Busways Group

Llew Russell, Chief Executive, Shipping Australia Ltd

Tony Sheldon, State Secretary of the NSW Branch of the Transport Worker's Union

John Stanley, Executive Director, Bus Association Victoria

Professor Peter Stopher, Deputy Director, Institute of Transport and Logistics Studies

Mr John Stott, Executive Chairman, Transport Administration Corporation

Professor Wayne Talley, Executive Director, International Maritime, Ports and Logistics Management Institute, Old Dominion University, Norfolk, Virginia, USA

Professor Kenneth Train, Department of Economics, University of California, Berkeley, Vice President, National Economic Research Associates, USA

Professor Peter Wolnizer, Dean, Faculty of Economics and Business, University of Sydney

Secretariat: Ms Ruth Steel Projects Manager, Institute of Transport and Logistics Studies

ITS-Monash

The ITS-Monash Advisory Committee met twice in 2007 with Mr John Stanley from the Bus Association of Victoria continuing to serve as Chair. The advisory committee continued to provide valuable feedback on on-going research and teaching initiatives as well as on the Institute's community and professional service activities.

Mr Neil Aplin, Director Meyrick Associates

Mr Peter Bentley, Chief Operating Officer, ConnectEast Group

Mr Bernie Carolan, Chief Executive Officer, Metlink

Ms Charmaine Dunstan, Director, Traffix Group Pty Ltd

Professor David Hensher, Director, Institute of Transport and Logistics Studies (University of Sydney)

Mr Peter Hunkin, Business Centre Manager, Traffic Division, Hyder Consulting (Aust) Pty Ltd

Dr Michael Kennedy, Chief Executive Officer, Mornington Peninsula Shire

Dr Mary Lydon, General Manager, R and I, ARRB Transport Research

Mr William McDougall, Melbourne Traffic and Transport Team Leader, Sinclair Knight Merz

Dr Ken Ogden, General Manager, Public Policy, RACV

Ms Kate Partenio, Director, GTA Consultants

Dr Tim Patton, Manager, Planning and Policy Division, Department of Infrastructure

Mr Ian Pitcher, Director, Victoria Division, Maunsell Consulting

Mr John Stanley, Executive Director, Bus Association Victoria

Mr Jim Stevenson, Special advisor, Department of Infrastructure and National Transport Commission

Mr Michael Taylor, Secretary, Department of Transport and Regional Services (DoTARs)

Mr David Teller, Business Development Manager, Connex

Mr Ted Vincent, General Manager, Traffic and Transport Integration, VicRoads

KEY CENTRE STAFF

ITLS-Sydney

Academic and research staff



Professor David Hensher
BCom Hons I PhD UNSW FASSA FCIT FAITPM MAPA
Director, Professor of Management
Associate Dean (Postgraduate Coursework)
Faculty of Economics and Business

David Hensher is Professor of Management, and Director of the Institute of Transport and Logistics Studies: The Australian Key Centre of Teaching and Research in Transport Management in The Faculty of Economics and Business at The University of Sydney. David is a Fellow of the Academy of Social Sciences in Australia, Recipient of the 2006 Engineers Australia Transport Medal for lifelong contribution to transportation, Past President of the International Association of Travel Behaviour Research and a Vice-Chair of the International Scientific Committee of the World Conference of Transport Research. David is the Executive Chair and Co-Founder of The International Conference in Competition and Ownership of Land Passenger Transport (the Thredbo Series), now in its 18th year.

David is on the editorial boards of 10 of the leading transport journals and Area Editor of Transport Reviews. David was appointed in 1999 by one of the worlds most prestigious academic publishing houses – Elsevier Science press as series and volume editor of a new handbook series "Handbooks in Transport". He has published extensively (over 350 papers) in the leading international transport journals and key journals in economics as well as ten books and is Australia's most cited transport academic and number three academic economist. His books include the Demand for Automobiles, published by North-Holland the Bus and Coach Business (with Ann Brewer published - Allen and Unwin), Transport: An Economics and Management Perspective (With Ann Brewer – Oxford University Press), Stated Choice Methods (with Jordan Louviere and Joffre Swait – Cambridge University Press) and Applied Choice Analysis - a Primer (with John Rose and Bill Greene – Cambridge University Press). His particular interests are transport economics, transport strategy, sustainable transport, productivity measurement, traveller behaviour analysis, stated choice experiments, dynamic discrete-continuous choice modelling, privatisation and deregulation.

David has advised numerous government and private sector organisations on matters related to transportation especially matters related to forecasting demand for existing and new transportation services, for example the Speedrail project, the Liverpool-Parramatta Transitway, and numerous tollroad projects throughout Australia and internationally. David is regarded as Australia's most eminent expert on matters relating to travel demand and valuation and transport reform. Appointments over last few years include: a member of the executive committee that reviewed bus transport bids for the Olympic Games, the NSW Government's Peer Review Committee for the Sydney Strategic Transport Plan, Peer reviewer for Transfund (NZ) of the New Zealand project evaluation program, Peer reviewer of the NZ Land Passenger Transport Procurement Strategy for Land Transport NZ, member of the executive committee of ATEC, a consortium promoting a freight rail system between Melbourne and Darwin; economic adviser to Gilbert+Tobin Lawyers on valuation methods in IP context.



Professor Peter Stopher
BSc (Hons) Eng PhD Lond FIEAust FASCE MITE
Professor of Transport Planning
[Postgraduate Research Coordinator](#)

Professor Stopher is Professor of Transport Planning at the Institute of Transport and Logistics Studies at the University of Sydney, a position he has held since the beginning of 2001. He was educated at the University of London, where he received both his BSc (Eng.) in Civil Engineering and Ph.D. in Traffic Studies. He has been a professor at Northwestern University, Cornell University, McMaster University, and Louisiana State University, where he held the endowed chair of the Louisiana Land and Exploration Company. He spent 11 years from 1980 through 1990 as a full-time transport planning consultant in private industry. Prof. Stopher has 40 years of professional experience in transport planning, travel forecasting, travel-behaviour modelling, and associated areas. He has an international reputation in travel-demand modelling, and the development of new procedures for travel forecasting. He was one of the pioneers of the development of disaggregate travel-demand models and was the first to use and apply the logit model in the 1960s. He has been in the forefront of work to assess the shortcomings of conventional travel-forecasting models with respect to the demands of clean air legislation and goals. He was selected by the US Federal Highway Administration to develop one of four concept papers on a new paradigm for travel forecasting. He was a founding member of the Transportation Research Board's Committee on Traveller Behaviour and Values, serving as its first Chairman from 1971-1977, and again from 1995-1997 and was awarded Emeritus Membership of the Committee in 2002; he also founded the series of International Conferences on Traveller Behaviour that began in 1973 and which held its last meeting in Kyoto, Japan in 2006.

In addition to work in travel forecasting, Dr. Stopher has also developed a substantial reputation in the field of data collection, particularly for the support of travel forecasting and analysis. He pioneered the development of travel and activity diaries as a data-collection mechanism, and has also written extensively on issues of sample design, data expansion, non-response biases, and measurement issues. He recently completed a report on standardising household travel surveys, and is working on use of GPS devices in connection with personal travel surveys and for evaluation of voluntary travel behaviour change. Dr. Stopher initiated the TRB Subcommittee on Survey Methods, which is now a Committee of the TRB. He co-chaired the international conference on Transport Surveys: Raising the Standard, in Eibsee, Germany in May 1997, the following conference in Kruger Park, South Africa in 2001, and the International Conference on Travel Survey Methods in Costa Rica in 2004.



Professor David Walters
BA Alberta MSc Bradford PhD Cranfield
Professor of Logistics and Supply Chain Management
Postgraduate Coordinator in Logistics Management

David Walters BA (Alberta), MSc (Bradford), PhD (Cranfield) is Professor of Logistics and Supply Chain Management at IITLS. He has held posts at the universities of Western Sydney (Sydney Graduate School of Management), Macquarie, Oxford (Templeton College), and the Cranfield School of Management. He has published a number of textbooks in business and marketing subjects, the most recent "Strategic Operations: a Value Chain Approach" was published in 2007. In addition he has published over 30 articles in professional journals. He was the Australasian editor for the International Journal of Physical Distribution and Logistics Management from 1998 until 2005. David Walters has teaching experience in a wide range of continents including North America, The Middle East, Europe, Asia, and Africa. In addition to his wide teaching experience he has acted as a consultant for a number of international companies. These include: BOC, CSR, Harrods, Laura Ashley, The Kingfisher Group, Storehouse, British Oxygen Company, Marks and Spencer, Tesco and a number of others.



Dr Stephen Greaves
BA (Hons) Leeds MSc Wales PhD Louisiana State MITE
Lecturer
Senior Lecturer in Transport Management
Postgraduate Coordinator in Transport Management

Stephen is a Senior Lecturer in Transport Management at the Institute of Transport and Logistics Studies at the University of Sydney. He joined ITLS in February, 2004 after completing three years as a lecturer in transportation at Monash University. His teaching experience includes a wide variety of transportation-related courses at both the under-graduate and postgraduate levels as well as industry-based short courses. Current research activities are focused on the environmental/health externalities of transport and travel choices, and methodological and technological improvements to the collection of travel survey data.



Dr Miguel Andres Figliozzi (to August 2007)
MEng Cordoba Natnl PhD Maryland
Senior Lecturer in Logistics Management
Postgraduate Coordinator in Logistics Management

Dr Miguel Andres Figliozzi is a Senior Lecturer in Logistics Management at ITLS, which he joined in 2004. Miguel holds a PhD from University of Maryland College Park. His research was awarded by the prestigious INFORMS Transportation Science and Logistics dissertation committee. He has pioneered the study of sequential auctions in transportation and has published in the area of transportation auctions, real-time vehicle routing, and international freight transportation. Miguel's research areas are transportation logistics and supply chain management. His current interests are focused on these studies from a strategic perspective, which includes interaction between technology, information, and behaviour. Additional areas include, fleet management problems, port operations and ship scheduling, vendor management/inventory routing problems, pricing and auctions, and online problem in logistics.



Dr John Rose
BEc (Hons) PhD USYD
Lecturer in Transport and Logistics Management
Director of Industry Programs

John is a Lecturer in Transport and Logistics Management and the Director of the Industry Program at Institute of Transport and Logistics Studies (ITLS). John began his academic career in the field of marketing, commencing as an associate lecturer in the Discipline of Marketing at the University of Sydney in 1995. As an associate lecturer, John taught marketing principles, consumer behaviour, introductory and advanced marketing research techniques, and new product development, all at the undergraduate and postgraduate levels. In 1999, John was promoted to the level of Lecturer where he continued in his teaching role. At the same time, John acted as the quasi head of discipline when, on mass the entire discipline staff, left the University. In this unofficial role, John reshaped the Discipline, introducing new subjects and moving the Discipline into the first year of undergraduate studies. In 2001 John moved over to the ITLS to complete his PhD under Professor David Hensher, which he has since finished. At ITLS, John is responsible for running the industry program which includes courses taught to the Roads and Traffic Authority of NSW, to NSW bus operators, as well as other professional development courses open to academics and public companies. In terms of teaching, John is responsible for teaching introductory statistics, transport economics, and discrete choice modelling. John's research interests are in the areas of discrete choice modelling and efficient stated choice experiments. John has several articles published in the top Transportation and Logistics journals (including Transportation, Transportation Research A, B and E) and is a co-author of (with Professors David Hensher and William Greene) Applied Choice Analysis; A Primer, (2005) by Cambridge University Press. He

is currently writing a book on generating efficient stated choice experimental designs (with Mike Bliemer, Delft). Currently John is active in consulting, working in the areas of Toll Road evaluation and modelling, demand and take up for pharmaceutical and agricultural products. In between all this, John spent five years as a member of the Australian Army Reserves (1997-2002), which he left after injuring himself and discovering exactly how the Australian military treats its injured members first hand.



Dr Ada Suk-Fung Ng
BSc Curtin WA PhD CUHK
Lecturer in Logistics and Supply Chain Management

Dr Ada Suk-Fung Ng is a lecturer in Logistics and Supply Chain Management at Institute of Transport and Logistics Studies (ITLS). Before joining ITLS, she was an assistant professor of the department of Transportation and Logistics, Malaysia University of Science and Technology (MUST). She received her Ph.D. from the Chinese University of Hong Kong and B.Sc from Curtin University of Technology in Western Australia. After her Ph.D., she got the Croucher Fellowship (2002 – 2003) from the Croucher Foundation of Hong Kong for doing a research project in the Laboratoire d'Informatique (Lix) of Ecole Polytechnique in France. She is interested in operations research and combinatorial optimisation. Her current research interests are maritime logistics, distribution network design, location problems, vehicle routing and manpower scheduling.

Ann Brewer

BA MCom Hons Macq PhD UNSW MCIT

Professor of Organisational Logistics

Long term secondment as Acting Deputy Vice Chancellor (Infrastructure)

A specialist in organisational behaviour, human resource management, Ann has experience in a many industries, with major projects such as teleworking, generational issues in business, value chain management, the impact of the Sydney Olympics on transport, educational needs of adult learners, all of which are pertinent to transport and logistics management. Ann has published many papers and five books. Ann is co-author (with David Hensher) of *Operating a Bus and Coach Business* (Allen and Unwin, 1997) and *Transport: an Economics and Management Perspective*, Oxford University Press (2001).

Academic and Industry Specialists



Matthew Beck
BEc Hons MPhil Usyd
Lecturer in Analysis Tools and GIS

Matthew Beck completed his undergraduate degree at the University of Sydney where he graduated with honours in Economics (specialising in International Trade and Development Economics). After flirting with studies in the analysis of discrete data and experimental design, he recently completed postgraduate research on the connectivity of individuals to the sporting teams they support. Working within the Faculty of Business and Economics, Matthew has extensive experience teaching statistics and associated research concepts, and was recently nominated for a faculty teaching award. He also works as a private consultant for many of Australia's leading companies and has managed research projects in banking and finance, pharmaceuticals, media, and fast moving consumer goods.



Professor Werner Delfmann
Lecturer in Aviation Management and Logistics

Professor Werner Delfmann is the Director, Department for Business Policy and Logistics, Faculty of Business Administration, Economics and Social Sciences, University of Cologne, Germany. His main research activities focus on strategic and international logistics and supply chain management, aviation management, e-commerce and information management, controlling and operations research. He has published 10 books and more than 100 scientific articles. Prof. Delfmann has been a visiting professor and invited lecturer at several European universities, e.g. HEC Paris, Stockholm School of Economics and Copenhagen Business School, as well as at universities and business schools overseas like University of British Columbia (UBC), Vancouver, Canada, National University of Singapore (NUS), Asian Institute of Management (AIM), Manila. Prof. Delfmann is founder and head of national and international working-groups in Strategic Management and Logistics with academics and senior executives. He is a member of numerous scientific organisations and management associations, e.g. of the research committees of the European Logistics Association (ELA), the German Logistics Association (BVL) and the German Society for Business Administration (SG-DGfB). Prof. Delfmann has close relationships with leading companies in industry and trade by holding mandates as counsellor, consultant and member of the supervising board, as well as in a broad scope of cooperative research projects.



Mr Frederic Horst
BBus Dusseldorf MTM Usyd
Lecturer in International Freight

Frederic Horst is currently employed as Global Network and JV Development Manager at DHL Aviation, based in Brussels, Belgium. There, he is part of the Network Planning Group, which is responsible for the DHL Express intercontinental air network.

Previously, he worked for Cargolux Airlines, a Luxembourg based all cargo carrier operating a fleet of Boeing 747-400 Freighters. At Cargolux, he was responsible for key account development and business planning, as well as being involved in market research, fleet planning, and some business related crew training projects. Prior to this, Frederic worked as a Consultant for MergeGlobal, a Washington, D.C. based strategy consulting company focused on freight transportation, and after that was involved in several ongoing projects at the Institute of Transport studies and Sydney Ports.

He has a Master of Transport Management from the University of Sydney and completed undergraduate studies in business at the University of Duesseldorf. Frederic teaches International Freight Transport in the Graduate Program.



Dr Andrew Kerr
MBA Macq DBA IntMC
Lecturer in International Logistics

Andrew has an extensive management and consulting background in the areas of operations management, service operations, marketing, services marketing, supply chain management and logistics. His doctoral research involved the strategic ramifications of enterprise outsourcing decisions, both in Australia and overseas.

Since late 1987, Andrew has been the Managing Director of Griffin Corporate Services; a Sydney based strategic consulting practice with network offices in several Pacific Rim cities. Previously, he held senior management appointments with Marrickville Holdings, Myer (NSW) Limited, GEC Australia Limited, Digital Equipment Corporation, Sperry Limited and Unisys.

Andrew is a visiting fellow at a number of graduate schools and since 1989 has delivered numerous post-graduate programs in Australia and overseas. Formerly Australian and Far East Editor of the International Journal of Physical Distribution and Logistics Management, Andrew remains a member of that Journal's Editorial Advisory Board. He is an assistant editor of the Gower Handbook of Logistics and Distribution Management.



Dr Peter Lok
BAppSc MHP UNSW MBA PhD UTS
Lecturer in People, Work and Organisations

Peter Lok is an Adjunct Lecturer in ITLS, Faculty of Economics and Business. His main research interests are in the areas of organizational change, cross-cultural management, Asian business, HRM and performance management, organizational culture, subculture and commitment. He has worked in many countries and he has extensive consultancy and executive teaching experience particularly in the Asian region. His recent publications are in the Journal of Management Studies, Applied Psychology – an international review, International Journal of Cross-cultural management and Leadership and Organizational Development Journal. He is also the co-author of two recent books (2006): “The measurement and management of strategic change”, (Pearson Prentice Hall, Sydney) and “The management of employee performance” (Pearson Prentice Hall, Sydney). Dr. Lok teaches in the areas of: Strategic change management, HRM and organizational performance, Cross cultural management and Asian Business. He has extensive work experience with international consultancy firms and clients particularly in the areas of organizational restructuring and performance management. Previously, Dr. Lok was a full time faculty of the Australian Graduate School of Management (AGSM), University of NSW and The Graduate School of Business, University of Sydney.



Robert Ogulin
BEc MBA PhD (in progress)
Lecturer in Logistics and Supply Chain Management

Robert Ogulin is an Adjunct Lecturer in Logistics and Supply Chain Management at ITLS, teaching Innovations in Logistics and Supply Chain Management. Robert Ogulin is a director at strategy and supply chain advisory Lucis Pty Ltd. He has twelve years experience in marketing, logistics and supply chain management and has the ability to combine innovative approaches in strategy and operations with proven techniques for clients and project teams. He has planned and delivered supply chain related strategic change, process and IT programs contributing to measurable benefits for blue chip clients across different industries in Australia, Asia, Europe and the US. Through his PhD research Robert continues to focus on development and application of management decision frameworks to turn out bottom line impact for Lucis clients and their trade network partners.



Chris Skinner
BSc Eng MEngSc MIEE MIEAust MACS CPEng
Lecturer in Intelligent Transport and Logistic Systems

Chris Skinner is an Adjunct Lecturer in Intelligent Transport and Logistic Systems [IT&LS] at the Institute of Transport and Logistics Studies, as well as Principal of DISplay Pty Ltd www.display.com.au a consulting company that works closely with Intelligent Transport Systems Australia Inc.

In 2005 and 2006 Chris developed the new Unit of Study TPTM6224 Intelligent Transport and Logistic Systems, which was successfully delivered in first semester 2006. Student feedback was positive with encouragement to include more case studies in logistics.

In January 2007 Chris delivered a two-day seminar on Intelligent Logistic Systems to a visiting group of logistics managers from the Aluminium Corporation of China (CHALCO) and arranged for site visits to the Star Track Express sortation centre and a major retail distribution centre in western Sydney. Company planning and management for system development was a feature of the visits.

Chris has been involved in the analysis, design and implementation of intelligent transport systems [ITS] since the beginning of 1992. This started with four years with Philips Electronics Australia in association with Hughes Electronics of California and was later continued for more than five years with the Roads and Traffic Authority of New South Wales. Chris has also worked as contract project manager in retail supply chain systems integration.

Chris has formed a strong working liaison with Australian national research organisations CSIRO and NICTA in the areas of software and systems engineering, with emphasis on application to transport and logistics.

Work in defence, aerospace and telecommunications industries followed a distinguished career in the Australian Navy as major project director and combat systems engineering specialist at sea and in shore appointments in Australia and USA.

For over 20 years, Chris has been active in professional organisations including Engineers Australia [EA], the Australian Computer Society and within the Institute of Electrical and Electronics Engineers [IEEE] he is a member of the technical societies for computers, communications and intelligent transport systems. Chris is the Acting Editor of Transport Engineering in Australia [TEA] published by EA.

Chris is an active member of ITS standards committees at both the Australian national and international levels covering transport information and control systems and supply chain automation.

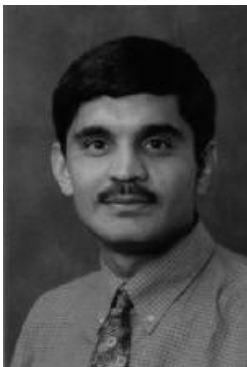
Chris has made several submissions to government on transport and technology issues and has presented at three ITS world congresses, most recently at Nagoya in 2004. From 2003 to 2005 Chris was the chairperson of the National ITS Architecture Working Group.



Dr Alastair Stone
MSc, DEng California
Lecturer - Institutional / Finance Specialist
Chair, ITLS Board of Advice

Alastair has over thirty years experience in banking, economics and engineering. He has successfully initiated, implemented and participated in major projects and infrastructure deals. He has also advised various international and domestic agencies and governments; including the Asian Development Bank, World Bank, Jakarta Municipal Government, Shanghai Municipal Government, and several Australian State Governments, on private sector participation policies and strategies. His career has covered all facets of urban affairs including senior positions with the World Bank, Lend Lease and Merrill Lynch. Alastair teaches in the area of joint ventures in public infrastructure projects

Visiting academics



Professor Chandra Bhat
The University of Texas at Austin
May 2007 to July 2007

Dr Chandra Bhat is a Professor of Civil Engineering at The University of Texas at Austin, where he teaches courses in transportation systems analysis and transportation planning. He is also the Associate Chairman of the Department of Civil, Architectural and Environmental Engineering and the Adnan Abou-Ayyash Centennial Professor in Transportation Engineering. Dr Bhat is widely recognized nationally and internationally as a leading expert in the area of travel demand modeling and travel behavior analysis. His substantive research interests include land-use and travel demand modeling, activity-based travel modeling, policy evaluation of the effect of transportation control and congestion pricing measures on traffic congestion and mobile-source emissions, marketing research of competitive positioning strategies for transportation services, use of non-motorized modes of travel, and physical health and transportation. His methodological research interests and expertise are in the areas of econometric and mathematical modeling of consumer behavior, including discrete choice analysis, discrete-continuous econometric systems, and hazard duration models. His methodological works are widely referenced in the economics, marketing, and transportation fields, and have been included in econometric textbooks and software packages. He has authored several book chapters focusing on improved methods for choice modeling in general and land use-travel demand modeling in particular. Dr Bhat's research has been funded by the National Science Foundation, the Environmental Protection Agency, the National Institute of Statistical Sciences, State Departments of Transportation, including TxDOT, the Bureau of Transportation Statistics, and the U.S. Department of Transportation.



Professor Michiel Bliemer
ITLS/Delft Partnership Visiting Professor
December 2006 to April 2007

After finishing his Masters degree in Econometrics and Operations Research, Michiel Bliemer received his PhD in transportation planning and traffic engineering on the topic of dynamic traffic assignment with heterogeneous travellers. Currently, he works as Associate Professor at Delft University of Technology in The Netherlands and since three years as Adjunct Professor at the Institute of Transport and Logistics studies in Sydney. Main research topics include (large scale) analytical dynamic network models for forecasting future network conditions and effects of dynamic traffic management measures, particularly the impact of road pricing. Another important research topic is the design of efficient stated choice experiments for estimating discrete choice models. Other topics of interest are travel choice behaviour under uncertainty, dynamic queuing models, and optimal control problems with conflicting interests using game theory.



Xueping Deng
MEng Chongqing
Occupational Trainee
May 2007 to May 2008

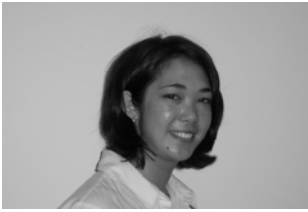
Xueping Deng is a third year PhD candidate of Mechanical Engineering College of Chongqing University P.R. China, whose research interest is the service quality of automobile logistics, specializing in automobile parts logistics, entire vehicle logistics and the management of the logistics operational process. As an Occupational Trainee at the Institute of Transport and Logistics Studies, and funded by the government of P.R.C. , Xueping will study at ITLS for one year, from June 2007 to May 2008 for his Doctoral dissertation. He has a Master's degree of Mechanical Engineering from the Chongqing University, and has passed a national competition and examination to study abroad. Xueping Deng's supervisors for this research are Dr Ada Ng and Professor David Walters.



Dr David Gerard
Carnegie Mellon University
June 2007 to August 2007

David Gerard is the Executive Director of the Center for the Study and Improvement of Regulation (CSIR) in the Department of Engineering and Public Policy at Carnegie Mellon University. He holds a Ph.D. in economics from the University of Illinois. His area of expertise is examining the development, implementation and enforcement of regulations, and how the effect of these regulatory institutions on economic behavior, the environment and public safety. Two areas of central interest are risk regulations and the interrelationships between regulations and technological change. He was a principal investigator in the development of an interactive web tool that communicates traffic safety risks (TrafficSTATS). Other research interests include regulations governing U.S. transportation fuels, petroleum refineries, automobile emissions, fuel economy, and carbon sequestration. Dr Gerard has developed economics courses for scientists and

engineers as part of Carnegie Mellon's Engineering and Technology Innovation Management program, and he teaches courses on institutions, regulation, and public policy in the Department of Social and Decision Sciences.



Alexandra Guesset
Ecole Nationale des Travaux Publics de l'Etat
Occupational Trainee
March 2007 to September 2007

Alexandra Guesset is a civil servant student in the ENTPE (Ecole Nationale des Travaux Publics de l'Etat), a French State Civil Engineering School in the special system of "Grandes Ecoles". This engineering school depends on the Ministry for Transport, Infrastructure, Tourism and Sea and trains mostly civil servant students. Alexandra is a full time, multidisciplinary Civil Engineering student specializing in Transport and works in the LICIT (Laboratory of Engineering in Circulation and Transport) which gathers the ENTPE and the INRETS (the National Institute of Research in Transport and Safety). She has the equivalent to a Diploma of Higher Education in Mathematics, Computer Science, and has passed a national competition and examination to enter the ENTPE. Alexandra is doing a five month internship to complete her second year of a three year course to obtain the equivalent of a Master of Science in Civil Engineering. Her studies at ITLS look at the over representation of young drivers in crashes from GPS data. Alexandra's supervisors for this research are Dr Stephen Greaves and Prof Peter Stopher.



Dr Stephane Hess
PhD Imperial MPhil Cambridge
September 2007 to November 2007

Dr Stephane Hess is a senior researcher in the Institute for Traffic Planning and Transport Systems at the Swiss Federal Institute of Technology Zürich (ETH), a visiting scholar in the Institute of Transport and Logistics Studies at the University of Sydney, and an honorary research associate in the Centre for Transport Studies at Imperial College London. Hess holds a PhD in transport demand modelling from Imperial College London, and an MPhil in Statistical Science from Cambridge University. He is a fellow of the Royal Statistical Society and a member of academic committees for the European Transport Conference and the Transportation Research Board. His main research interests lie in the use of advanced discrete choice models for the analysis of travel behaviour. Here, Hess has made several recent contributions to the state of the art in the specification, estimation and interpretation of such models, while also publishing a number of papers on the benefits of advanced structures in actual large-scale transport analyses.



Dr Jian Jin
ITLS Visiting Researcher
June 2006 to May 2007

Dr Jian Jin is currently Assistant Professor Transportation Safety at Southwest Jiaotong University, Chengdu, China. Jian lectures the Transportation Reliability, Traffic Safety Engineering and Transport Psychology course in the Transportation Department. After she received her PhD in transportation planning and management in 2002, she continued her main research on driving safety. Furthermore, she is also a principle member of Accident Prevention Joint Laboratories in Chengdu City. Other research interests are traffic

behaviour, traffic psychology, mixed traffic simulation models, and accident simulation. During her visit in ITLS, she worked in traffic safety research and published several papers and one book.



Professor David Layton
Visiting Professor
September 2007 to June 2008

David Layton is an Associate Professor in the Daniel J. Evans School of Public Affairs, and an adjunct Associate Professor in the Department of Economics and the College of Forest Resources, at the University of Washington in Seattle, Washington. His Ph.D. is in economics from the University of Washington and he was a Post-Doctoral Fellow at Stanford University. He also taught at the University of California, Davis prior to his current position. He is an environmental economist whose research focuses on Stated Preference approaches to non-market valuation and discrete choice modeling. His work has been published in journals such as *The Review of Economics and Statistics*, *Journal of Environmental Economics and Management*, and the *Journal of the American Statistical Association*. His recent work has focused on the efficacy of voluntary approaches to conservation using Stated Preference data, and locational choice modeling of large commercial fishing boats. His current work is focusing on travel behavior and land use modeling.



Andreas Madlencnik
Occupational Trainee
July 2007 to January 2008

Andreas Madlencnik is studying Industrial Logistics at the University of Leoben, Austria. The field of study include technical and economic basics, information technologies and logistics-specific units (international logistics, distribution logistics, warehouse logistics, Supply Chain Management). Andreas is an Occupational Trainee at ITLS until December 2007, is supervised by Professor David Walters and his project while at ITLS is on 'the effect of transport disruptions/unreliability on supply chain chains'.



Adam Pel
BEng Avans
Occupational Trainee
February 2007 to May 2007

Adam received his Bachelor of Engineering degree from the Avans University of Applied Science in Tilburg, The Netherlands in 2004. Currently he is following a Master of Science program in Transport and Planning at the Delft University of Technology in Delft, The Netherlands. Adam is working on his thesis study which will result in a computational model that can be used to support the evaluation of evacuation transport schemes. One of the main issues in his study is how people perceive the calamitous conditions and how they react to warnings and instructions. Furthermore, the evacuation simulation model will incorporate the impacts that the calamity has on the infrastructure performance. During his stay at ITLS Adam is concluding the underlying theory on traveller behaviour and developing the traffic simulation model. His thesis study is being supervised by Professor Michiel Bliemer (Visiting Professor, ITLS/Delft Partnership).



Alejandro Tirachini
BSc UChile
Occupational Trainee
March 2007 to September 2007

Alejandro received his Bachelor of Science degree from the University of Chile in 2005. Currently he is enrolled in the Master of Science program in Transport Engineering at the same university, his thesis work is about public transport planning and modelling, in particular, the development of optimal fleet assignment strategies in transit routes which present spatial concentration of the demand (for instance, trips concentrated around the Central Business District at peak hours). The strategies taken into account are deadheading and short turning. His supervisors in Chile are professors Cristián Cortés and Sergio Jara-Díaz. During his stay at ITLS, Alejandro is working under the supervision of Professor David Hensher, looking at systems which encompass bus and train lines and applying his research findings to current bus ways in Sydney. He is also identifying conditions which show that the provision of a bus-based transit way is better than a train-based transit way and vice versa.



Dr Simon Washington
Arizona State University
February 2007 to July 2007

Dr Simon Washington is a Professor of Transportation in the Department of Civil and Environmental Engineering at Arizona State University (ASU). Prior to joining ASU he was a faculty member at the University of Arizona and the Georgia Institute of Technology. Dr Washington's research and teaching interests include safety, planning, travel behaviour, and research design and statistical methods. Over the past 11 years Dr. Washington has been PI or Co-PI on over eight million dollars of externally supported research related to transportation safety and planning. He has managed and conducted safety research for the Federal Highway Administration, the National Highway Traffic Safety Administration, the National Academies, and the Arizona, California, and Georgia Departments of Transportation. Dr Washington is the primary author with Drs. Karlaftis and Mannering on a textbook (publisher Chapman and Hall/CRC) titled "Statistical and Econometric Methods for Transportation Data Analysis." Dr Washington is author or coauthor on over 50 peer reviewed technical papers or book chapters, and has advised over 30 graduate students. At ITLS Dr Washington is the unit coordinator for Transport Policy, Decision Making and the Environment.

Administration associates



Bart Ahluwalia
BA Hons London
Administration Officer

Bart has recently immigrated to Australia and settled in the Western Suburbs. Since earning his BA (Hons) in Classical Studies from King's College London, most of his employment has been for charities, national and international. Prior to settling in Australia, Bart travelled through Italy, Paris and around Britain to say one final goodbye to all his favourite places and people. He has a keen interest in politics/current affairs, music and history. He has joined Professor Stopher's team providing administrative support for the South Australian Travel Smart project.



Kaylene Bodell
Administration Assistant

Kaylene joined ITLS in March 07 working part-time and providing administrative support. Kaylene is the first point of contact for student enquiries and also assists with catering and setup of seminars held at ITLS. After being a lady of leisure for a few years (two kids, three dogs, a rabbit and tropical fish) and operating as an owner builder on her house, Kaylene decided to return to the workforce. Previously, Kaylene worked for 16 years for Oracle Corporation Australia in the Finance Department which included Purchasing, Payables, PA to the CEO Expense Analyst and internal Auditing which involved the implementation of Oracle's expense policies and procedures I loved every moment of it.



Jo Dumergue
Office Manager

Jo joined the ITLS team in 2001 and manages the administration of the Institute of Transport and Logistics Studies including the office of the Director/Associate Dean. Jo manages the graduate program and is responsible for creating the ITLS graduate timetable, room bookings, class notes, class listings and processing of final grades and amended results. She prepares and distributes the Annual Report for Senate and the Graduate Program Brochure for the graduate program. Jo ensures that visiting academics and occupational trainees to ITLS have their accommodation arranged prior to their arrival in Sydney and is responsible for producing the Visitors Handbook which is a compilation of information visitors new to Sydney find helpful. Jo manages the annual awards ceremony held in March and is responsible for gathering all relevant information for the final selection of award recipients and arranging plaques and prizes for the awards evening. Jo is the OH&S representative at ITLS.

From 1997-2001 Jo completed a number of assignments including providing executive support at Yooroang Garang, Indigenous Health at Cumberland Campus, and was the Executive Officer for two years at the Faculty of Dentistry Foundation, Faculty of Dentistry.

Prior to joining The University of Sydney in 1997, Jo managed her own business and information services office in Bali, Indonesia.



Anne Fernando
ACMA
Finance and Personnel Coordinator

Anne joined ITLS in 2001 and provides administrative support and financial management to the Institute of Transport and Logistics Studies. Prior to migrating to Australia Anne has worked as an Accountant in Sri Lanka.

Anne is responsible for preparation, presentation and revision of the budget of ITLS to the Faculty of Economics and Business and the University. She is responsible for timely processing of spendvision, accounts payable, accounts receivable, petty cash banking etc. Preparation and submission of financial data to external clients to secure projects and funding. She also carries out financial analysis of ITLS projects to assess viability and profitability of the projects. Prepares the financial statements for the annual reports, it

involves preparation of income and expenditure statements and analysis of significant variances. She does the forecasts on a monthly basis and quarterly reconciliations. She coordinates the human resource activities for all staff at I TLS. She also provides clarification of policies and procedures relating to Finance and Personnel matters.



Gary Mariano
Computer Systems Officer

Gary is the Computer Systems Officer for the Institute of Transport and Logistics Studies. He has over six years experience in Information Technology from Desktop Support to Server and Local Area Network Administration. He is responsible for the setup, configuration and the day-to-day care and maintenance and administration of the discipline's computer systems and its local area network. In 2006 Gary successfully completed his Cisco Network Academy Course in CCNA1, CCNA2, CCNA3 and CCNA4.

Technical Certifications

MCP - Microsoft Certified Professional

MCSA – Microsoft Certified Systems Administrator

MCSA + M – Microsoft Certified Systems Administrator + Messaging



Ruth Steel
BA Hons Lanc MSc MPhil Bristol DipLaw LPAB (in progress)
Projects Manager

Ruth joined the Faculty of Economics and Business in September 2003 working with Professor David Hensher (Associate Dean, Postgraduate Coursework) on a number of faculty-wide strategic initiatives including the review and development of graduate programs and the development and implementation of student related policies and procedures. She also conducts education research for the Faculty in liaison with the Office for Learning and Teaching.

At I TLS Ruth is responsible for various projects related to the development and review of learning and teaching policies and strategies and the implementation of innovations in this area. She also has an information and communications role at the Institute in developing promotional materials for the Institute, looking after branding issues, acting as website manager and coordinating the successful I TLS Research Seminar Series. In 2004 Ruth assisted Professor Hensher to edit a collection of papers from the eighth conference of the international conference series on Competition and Ownership in Land Passenger Transport (Thredbo). The book was published by Elsevier in 2005. She was the Conference Director for the tenth conference in the Thredbo series which was held on Hamilton Island, Australia in August 2007. Ruth is also secretariat to the I TLS Board of Advice.

After moving to Sydney from the UK in September 2002 Ruth completed a number of short term assignments in executive support and education administration at the University of Sydney. Prior to this she worked in the Planning and Management Information Office of the University of Exeter, UK. After completing an undergraduate degree in Politics and Religion at the University of Lancaster she went on to gain her Masters in Ethnic Relations from the University of Bristol. Funded by a scholarship from the Economic and Social Research Council she was awarded her MPhil from the University of Bristol in 2004. The title of her thesis is: The Host Country, From Protection to Control: UK Refugee Policy and Practice. Ruth worked for two years as an Information Officer for a refugee agency providing reception support to refugees on arrival to the UK, prior to this she worked as a Front of House Manager at a community arts

centre and theatre. Ruth is currently studying for a Diploma in Law with the Law Extension Committee of the Legal Practitioners Admission Board, University of Sydney. In support of her law studies, in 2005 Ruth was awarded a Career Development Support Grant from the University of Sydney's Staff and Student Equal Opportunity Unit and in 2006 she was awarded a Staff Scholarship from the Faculty of Economics and Business.



Annette Thomas
Administration Officer

Annette has a varied professional background beginning with many years experience in early childhood development, working for the Gabba Greyhound Racing Club, Queensland Cricketer's Club, the Y.M.C.A. and the Lions Australian Rules Football Club; all sponsors of child care centres, In more recent years she has had experience in superannuation and investment banking. Annette has travelled extensively and lived in Vancouver, Canada and London, England; she enjoys experiencing new cultures and exploring unfamiliar lands. At ITLS Annette is the first point of contact for student enquiries, her other tasks include assisting lecturers and helping to organize ITLS events. Annette enjoys working with the team at ITLS and meeting interesting people from around the world.

Research analysts



Dr Stuart Bain
BInfTech BEng Hons Griffith MIEEE
Research Analyst

Stuart completed an undergraduate degree in engineering (microelectronic) in 2001 and was subsequently awarded the Institute of Engineers Australia's Philip Jones Medal for his academic achievement, community involvement and advancement of the engineering profession. His doctoral studies, undertaken at Griffith University, examined how new algorithms may be automatically evolved to better solve particular classes of constrained optimisation problems. His research interests include evolutionary adaptation and algorithmic methods for complex systems. He is currently working within ITLS on algorithms for vehicle routing and combinatorial auctions.



Dr Eoin Clifford
BSc UCD PhD Trinity
Senior Research Analyst

Eoin Clifford completed a PhD in nanotechnology in Trinity College, Dublin, at the end of 2006. Much to the chagrin of nanotechnologists worldwide, he joined ITLS to work with Professor Peter Stopher on GPS travel surveys in March 2007. His current research interests include GPS technology and survey data analysis.



Andrew Collins
BA/BSc Hons NSW
Research Analyst

Andrew joined ITLS in December 2002, working casually on a range of internet stated choice surveys. In 2003 he completed his honours year of a combined BSc/BA degree. Co-supervised by Peter Stopher, he completed his thesis on 'Web visualisation of GIS data', achieving first class honours. Andrew joined ITLS full time in November 2003. He developed an online, animated trip visualisation tool for use with prompted recall surveys that utilise GPS data. Andrew has built a range of database systems to improve the data integrity and administrative efficiency of the many Stopher projects. He has an interest in improving the visual quality of survey materials, computer surveys, and database front-ends. In addition to the numerous online surveys that he has constructed, Andrew has programmed computer assisted personal interview survey programs for a range of research projects, including the study of urban freight movement with David Hensher and Sean Puckett, toll road and route choice studies with David Hensher and John Rose, and bushfire evacuation studies with Peter Stopher and John Rose. Andrew has worked extensively with John Rose and Michiel Bliemer on the generation of optimal experimental designs for stated choice experiments. He is currently developing a software package that will find highly efficient designs for a wide range of stated choice experiments. With Stephen Greaves, Andrew has examined the impact of aircraft noise, with a particular focus on the exposure consequences of a dynamic, moving population. Andrew has several refereed journal articles in press, and has presented papers at several conferences. In 2006 Andrew was awarded the David Willis Memorial Prize from the Australasian Transport Research Forum 2006 for the best paper by a student or new professional.



Dr Tharit Issayarangyun
BCivilEng KU MCivilEng AIT PhD Civil Eng UNSW
Research Analyst

Tharit Issarayangyun achieved his Bachelor of Civil Engineering in 1998 with second honour from Kasetsart University, Thailand. He received a partial scholarship from The Asian Institute of Technology, Thailand, to pursue his Master of Civil Engineering (Transportation Engineering) which he completed in 2000. After that he worked as a research associate at the Asian Centre for Transportation Studies for one year. His particular duties were to lead a group of graduate traffic engineer, provide supervision on traffic data collection, research and analyse the relationship between traffic conditions and ambient air quality using Bangkok as a case study, and assist the project manager in final report writing.

He completed his Doctoral degree in Civil and Environmental Engineering from University of New South Wales in 2005. His PhD thesis involved studying the impacts of aircraft noise on community health and well-being, and developing a 'new' easier-to-interpret aircraft noise index. After finishing his PhD, he worked with Renzo Tonin and Associates (NSW) for one year in their Environmental Acoustic Team (2) as a graduate engineer. He was involved in a diverse range of acoustical projects. His responsibilities included site inspections, environmental noise calculations, computer noise modelling and providing advice on the control of noise.

He is currently working within the Institute of Transport and Logistics Studies on determining the variability of personal exposure to fine particulates for urban commuters inside an automobile.



Natalie Swann (to November 2007)
BSc NSW
Research Analyst

Natalie has been working at ITLS on Professor Stopher's project team since May 2004. In that time she has contributed to TravelSmart Evaluation projects in Canberra, Sydney, and Adelaide and to the development of long range monitoring methods for a national evaluation. Her primary responsibility at present is the management, administration and analysis of a multi-wave Odometer Survey being conducted with 1200 households in Western Adelaide and being piloted with an additional 200 households in Melbourne. Natalie is a graduate of the University of NSW, where she studied Geography, focussing on urban and regional social science. She has training and experience in both quantitative and qualitative data collection and analysis, and is skilled in the production of critical, investigative text analysis.



Jun Zhang
BEng Hons Wuhan
Research Analyst

Jun Zhang holds a Bachelor of Engineering with Honours degree from the Wuhan Technical University of Surveying and Mapping and worked as a surveyor in China. Jun joined ITLS in April 2005 and is currently working with Professor Peter Stopher on the use of passive GPS devices in household travel surveys. His main interests are programming, GPS and GIS data processing and analysis.

Higher degrees by research program



Geoffrey Clifton
BEcon Hons QLD
Doctoral Program
PricewaterhouseCoopers (PwC) Australia Research Scholarship in
Transport and Finance

Geoffrey holds a Bachelor of Economics with first class Honours in Economic Statistics from the University of Queensland where he graduated in 1999. Prior to joining ITLS Geoffrey worked for three years at the Reserve Bank of Australia in Sydney in the Financial System Stability Department. In July 2003 he was awarded the PricewaterhouseCoopers Australia Research Scholarship in Transport Economics to undertake research leading to a PhD. In his role as a Doctoral research student and research analyst in ITLS, Geoffrey focuses on public transport issues, in particular the challenge to grow public transport patronage and the role of frequency and connectivity on the demand for bus services along 'Strategic Bus Corridors'. Research projects in ITLS focus on the use of stated choice methods and optimal pricing theories as tools to support the development of public transport outcomes that are both socially optimal as well as financially viable to operators in the presence of optimal subsidy payments. Supervisors: Professor David Hensher and Dr John Rose



Simon Fifer
BEc USYD MAppStats Macquarie
Doctoral Program

Simon holds a Bachelor of Economics from the University of Sydney and a Masters of Applied Statistics from Macquarie University. Prior to joining ITLS Simon worked as a Research Analyst / Manager for 5 years at a market research company who specialise in pharmaceutical market research. Simon has always had an interest in statistics, in particular choice modelling and is hoping to focus his research efforts in this area. Simon is being supervised by Dr Stephen Greaves and Dr John Rose.



Louise Hooper
BA Hons UNSW MBA Deakin
Doctoral Program

Prior to commencing a PhD in July 2004, Louise worked with Professor David Hensher in his role as Associate Dean (Postgraduate Coursework Programs) on a range of strategic initiatives in the Faculty of Economics and Business. Her diverse background includes market research analysis and defence logistics. Current research interests include uncertainty, contracting, bus industry reform and choice modelling. Thesis title: 'In Search of the Perfect Contract: A global perspective on bus service provision'. Supervisors: Professor David Hensher and Dr John Rose



Zheng Li
BEng BUAA MHRM Monash MLM Usyd
Doctoral Program

Zheng's current area of research at ITLS is time series data analysis and econometrics modelling, focused on transport fuel demand forecasting, and policy scenario analysis. In the next stage, he will focus on choice modelling and estimation. Zheng have also been involved in both research projects and tutoring at ITLS: mainly including BRT system analysis, congestion charging and emission charging schemes, car type and car use choice studies and Australian regional airports and low-cost airlines modelling with Professor David Hensher, and GPS data analysis and SA TravelSmart project effectiveness evaluation with Professor Peter Stopher. At the Faculty, he just finished the MASUS/interview exam analysis with Professor Mark Freeman, Office of Learning and Teaching in Economics and Business, and in 2007, he met with the EQUIS team as one of eight research student representatives selected from the Faculty of Economics and Business. His supervisors are Professor David Hensher and Dr John Rose



Qian Liu
BEng Tongji MTM/MLM Usyd
Doctoral Program

Qian Liu holds a Bachelor of Engineering, majoring in transport from Tongji University, China. Qian completed her Master of Transport Management and Master of Logistics Management at ITLS in 2006. Qian's doctoral research will be focused on investigating environmental/health externalities of transport. Qian is being supervised by Dr Stephen Greaves and Professor Peter Stopher



Joe Fai Poon
BEng Civil NTU MSc Transp Lond
Doctoral Program

Joe holds a Bachelor of Engineering (Civil) from the Nanyang Technological University (NTU) of Singapore where he graduated in 1996. He joined the Land Transport Authority (LTA) of Singapore in 1997 and has been with the organisation since. In LTA, he was worked in the areas of policy, planning and public transport regulation. He spent a year in London to pursue the Intercollegiate Masters of Science in Transport from the University of London, which he completed in 2000. Joe is supported by the LTA to undertake research at ITLS leading to a PhD. His research interest is the effects of travel information on travel behaviour, especially in the context of public transport. He is being supervised by Professor Peter Stopher.



Ali Shahi
MSc Texas GradDipBA Wollongong BSc Tehran CPEng
Doctoral Program

Ali Shahi holds an MSc in Civil Engineering, University of Texas at Arlington; Post Graduate Diploma in Business Administration, University of Wollongong; and BSc in Civil Engineering from the University of Science and Technology, Tehran. He is a Senior Traffic Engineer with over 12 years of traffic and transportation experience. He has specialist experience in traffic engineering, parking management transport planning. Ali has undertaken numerous traffic and transport studies for both private and local government organisations. His project involvement includes traffic operational analyses, traffic impact analyses, congestion management systems, roadway design, and traffic signal design. He is proficient with several traffic engineering software programs including, VISSIM, SIDRA, SCATES, Synchro, and HCS. Experience also includes development and analysis of travel, trip generation, and trip distribution characteristics by trip type and purpose for internal origin-destination surveys. Ali's research interests are in Traffic engineering, ITS, Simulation and Safety And has expertise in: Project Management; Civil Engineering; Traffic impact assessments of development applications; Local area traffic management schemes; Network efficiency studies; Parking management studies; Incident management, road safety and risk assessment; Roadway Design;and Microsimulation. Ali is also a member of the following organisations: National Professional Engineers Register – NPER- (Civil); Chartered Professional Engineer (CPEng); Professional Engineer License in the State of Texas; Member, Institution of Engineers; and Member of the American Society of Civil Engineers.



Zeyan Zhang
BEcon MLM Usyd
Doctoral Student

Zeyan Zhang holds a Bachelor of Economics with accounting and auditing major and a Master of Logistics Management from ITLS. Due to high scholastic achievement, she was awarded the Ma Ching Prize for the most outstanding student in the graduate coursework or research program in transport and logistics, and has been selected for membership in Beta Gamma Sigma, the international honour society for collegiate school of business. She has six years' experience of Business Analysis, Procurement and Cost Management in manufacturing industry in China and one year's experience of accounts management and freight management in an international forwarding company of Sydney. Her research area is supply chain disruption costs and disruption management strategies. Supervisors: Dr Miguel Andres Figliozzi and Professor Peter Stopher

Academic and research staff



Geoff Rose
BEng QIT, MSc PhD Northwestern, MIEAust CPEng MITE MAITPM
Associate Professor
Director, ITS-Monash

Geoff's professional interests cover intelligent transport systems and sustainable transport, specifically travel demand management, travel behaviour change and non-motorised transport. His experience spans government, consulting and academia. He is Director of the postgraduate program in transport and traffic and is the author of four units currently offered in the program: Intelligent Transport Systems, Traffic Engineering Fundamentals, Transport Network Models and Transport Planning and Policy. Geoff is also leader of Monash Transport, a cross-faculty initiative enhancing multidisciplinary research activity. Active research projects relate to evaluation of driver training programs designed to reduce fuel consumption, the role of motorcycles in transport strategy, travel behaviour change programs, understanding use of off-road bicycle facilities, appraisal and evaluation of travel demand management initiatives and measurement and modelling of motorway travel time variability.



William Young
BE (Hons I) UNSW, GradDipMgt Deakin, MBA Deakin, MSc, PhD,
FIEAust, FCIT, FITTE, MACRS
Head
Monash University

Professor William Young is Chair of Civil Engineering, Monash University. He has a distinguished professional and academic career, having worked at Monash University for 33 years and prior to joining Monash in the transport industry in England, Germany and several states of Australia for four years. He has also held visiting positions at Oxford, Nanyang, Karlsruhe, Michigan State and Hong Kong Universities, and with the Australian Bureau of Transport and Communication Economics. He received his BE (with honours) degree from the University of New South Wales (1970), his Graduate Diploma in Management and MBA from Deakin University (1997, 1999), and his Master of Science (1990) and PhD (1982) from Monash University. Professor Young has wide-ranging interests and has researched, consulted and published widely in

the areas of land-use/transport/environment interaction, parking, engineering management and education. He has worked on several international research projects with teams from Sweden, Hong Kong, Japan, the UK, Germany and Indonesia, and was an Associate Editor of the international journal *Transportation* for 12 years. He has published over 300 papers and co-authored four books on transportation. He has been awarded a Chartered Institute of Transport Excellence Award, Bureau of Transport and Communication Fellowship, Alexander Von Humboldt Fellowship, and Monash Postgraduate Award. He has 29 years experience in teaching at an undergraduate and postgraduate level, and has also developed and run many distance education programs, short courses and workshops for industry. Professor Young has held a number of senior administrative positions at Monash, including: Head of the Department of Civil Engineering (1999-2008), Head of the Caulfield Division of the Department of Civil Engineering (1995-1997), Head of the Institute of Transport Studies (Monash) (1995-1998), Head of the Monash Transport Group (1994,1995,1996), Director of Graduate and Further Education in the Faculty of Engineering (2001-date) and Chairperson of the Monash University Advisory Committee on People with Disabilities (1997-2002). He is a Fellow of the Institution of Engineers, Australia (IEAust)), the Institute of Transportation Engineers and the Chartered Institute of Transport. He has been Chair of the Victorian Transport Committee (IEAust), the National Committee of Transport (IEAust), and the Institution of Transportation Engineers Australia.



Graham Currie
BSc (Hons) Huddersfield, MSc Cranfield
Professor of Public Transport, Department of Civil Engineering

Professor Currie has over 29 years experience as a transit planner and researcher. He has worked for some of the worlds leading public transport operators including London Transport. He is an internationally recognised advisor on public transport planning and has undertaken research projects in Europe, Asia, North America, and throughout Australasia. He is a World Bank accredited consultant and has developed and managed training programs in public transport planning for them in Asia. Professor Currie is a member of the US Transportation Research Board committee on Bus Transit Systems and also the TRB committee on Light Rail Transit. He is a member of the UITP (International Association of Public Transport) academic network and the Victorian Roads Based Public Transport Advisory Council in Australia. Prof Currie has led numerous research projects in public transport in all states and territories of Australia as well as assignments in Europe, Asia and North America. His research interests include bus rapid transit, behavioural factors in transit use, improving streetcar operations, transit signal priority, social perspectives on transit planning, market futures in transit, demand responsive transit, transit interchange design, schedule coordination optimisation and planning transit systems for major special events.



Majid Sarvi
BEng MEng Tehran, PhD Tokyo
Senior Lecturer

Majid's masters degree was in highway and transportation engineering. He worked at Tokyo University on the subject of traffic and transportation with emphasis on human factors and freeway operation and obtained his PhD there. He worked as a senior research fellow at Tokyo University and was the Chief Engineer at the i-transport laboratory in Tokyo. Majid has also worked as the chief researcher of the ITS research group of the Social System Research Institute and as a transport analyst with the Hong Kong Transport Department. Majid's research interests include traffic operations, traffic flow theory, transport modelling,

micro simulation programming, intelligent transport systems, public transit, application of GPS to transport studies, and highway operations. Majid joined Monash University in February 2004.



Yibing Wang
B.Sc. Sichuan University, MEng. Chongqing University,
PhD Tsinghua University
Senior Lecturer

Yibing Wang received the B.Sc. degree in electronics and computer engineering from Sichuan University, China, the M.Eng. degree in automatic control engineering from Chongqing University, China, and the Ph.D. degree in Control Theory and Applications from Tsinghua University, China. He was with the Dynamic Systems and Simulation Laboratory, Department of Production Engineering and Management, Technical University of Crete, Greece, where he was a Postdoctoral Researcher from 1999 to 2001 and a Senior Research Fellow from 2001 to 2007. His research interests include traffic flow modelling, freeway traffic surveillance, ramp metering, route guidance, urban traffic control, vehicular infrastructure integration. He has published 20 international journal papers and book chapters. He has extensive research and development experience on intelligent transportation systems (ITS). From 2000 to 2007, he participated in several European projects on ITS and collaborated with transportation research and practice professionals from Greece, Germany, the U.K., Belgium, Italy, and The Netherlands. Dr. Wang is a member of IEEE and Transportation Research Board, an Associate Editor for the IEEE Transactions on Intelligent Transportation Systems, the Book Review Editor of Transportation Research Part C: Emerging Technologies, an Associate Editor for the International Journal of Vehicle Information and Communication Systems, an Editorial Board Member of The Open Transportation Journal. He was a vice chair of the International Program Committee of the 9th IEEE Annual Conference on Intelligent Transportation Systems (Toronto, 2006).



John Clements
Bcom DipEd Mec Madmin FCILT
Program Director
Transport Management Course in Bus and Coach Operations

John joined ITS-Monash in July 2000. Prior to that he was Acting Head of the School of Marketing at RMIT University, and had previously been Head of the Department of Marketing, Logistics and Property and a Principal Lecturer responsible for the Transport and Logistics Management Group at RMIT. John is a Fellow of the Chartered Institute of Logistics and Transport and actively involved in the CILT (Victorian Section) General Committee and is Chair of the Passenger Transport Group. His major interests are in transport economics, policy and management and he is the author of the postgraduate unit Transport Economics which is offered by distance education as part of the (Monash) Masters degree program in transport and traffic. He has professional and consulting experience in the public sector, including the Victorian Ministry of Transport, the public transport operating authorities and water resource boards. John is a member of the editorial advisory board of the International Journal of Logistics: Research and Applications. He has undertaken quality assurance auditing with Open Learning Australia.



Astrid De Alwis
BA Melb, GradDipTr&DistMgt RMITU, MLogMgt, MCILT
Assistant Program Director
Transport Management Course in Bus and Coach Operations

Astrid is a logistician with a transport background. Initially in freight and currently in passenger transport, she has taught, written and/or practised transport for more than fourteen years. Working as a transport consultant to several commercial transport organisations, she has produced some key industry publications. Astrid's chief strength lies in her varied and cross-disciplinary educational and experiential background. Having worked in government, industry and academia, and on local and international projects, Astrid brings to ITS-Monash a broad blend of skills and aptitudes. While assisting with the ongoing development and delivery of the Transport Management Course in Bus and Coach Operations, Astrid is also pursuing a consulting interest in business systems and business development.

Adjunct faculty

Rahmi Akçelik
CivEng ITU, PhD Leeds, Fellow IEAust, Fellow ITE
Director, Akcelik and Associates Pty Ltd

Dr Akçelik is an Honorary Associate in the Department of Civil Engineering at Monash University, and Director of Akçelik and Associates Pty Ltd. He is a leading scientist and software developer in the area of traffic management, with over 250 technical publications in his area of expertise. His research and software development company specialises in the areas of road traffic operations, traffic engineering, management and control. Dr Akçelik is member of various US Transportation Research Board (TRB) Committees. Awards received by Dr Akçelik include the 1999 Clunies Ross National Science and Technology award for outstanding contribution to the application of science and technology in Australia, and the Institute of Transportation Engineers Australia and New Zealand Section Certificate of Commendation in recognition of an outstanding contribution to the advancement of the profession, and the Institute of Transportation Engineers (USA) 1986 Transportation Energy Conservation Award for research into energy savings from urban traffic management.

Rita Seethaler
MEc Berne

Rita graduated with a Master of Economics and Political Science from the University of Berne, Switzerland, in 1994. She has worked for the Swiss Federal Office of Statistics and for the Bureau of Transport Studies (Federal Department for Environment, Transport, Energy and Communications), Berne. She is presently a Director of the Urban Transport Institute, Victoria and an Associate of the Institute of Transport Studies (Monash University). She is the author of the postgraduate unit Infrastructure project and policy evaluation, which is offered by distance education as part of the postgraduate program in infrastructure engineering and management at ITS-Monash. Rita is currently undertaking a PhD with ITS-Monash.

Tony Richardson

BE (Hons) MEngSc UNSW PhD

Tony has wide experience in academia, having worked at Monash University, RMIT, the University of Melbourne, the University of Sydney and Cornell University in the USA. He has also worked for the Australian Road Research Board, the Victorian Ministry of Transport and in his own consulting practice. As well as being an Adjunct Professor at Monash, Tony is also a Director of the Urban Transport Institute, Victoria. He is the author of the postgraduate unit *Infrastructure project management* which is offered by distance education as part of the postgraduate program in infrastructure engineering and management at ITS-Monash.

Administration associate



Brenda O'Keefe

Administration Manager

Brenda is responsible for managing administrative support at ITS-Monash. This includes administering all aspects of ITS-Monash's industry distance education programs in the Transport Management Course in Bus and Coach Operations and the Education Program in Parking Management. She handles all general course enquiries, student enrolment and record keeping as well as all written communications with students throughout the semester. Brenda is also heavily involved with the role of administering all aspects of the Department of Civil Engineering's off-campus learning postgraduate programs in Transport and Traffic and also the Infrastructure Engineering and Management program. This also includes handling all general course enquiries, processing enrolments, re-enrolments, withdrawals and completions and carrying out extensive liaison with the Off-Campus Unit at Gippsland, other areas within the university system and the Faculty of Engineering's Postgraduate Manager. In her administrative support role, Brenda manages the production of all advertising and study guide material (which includes extensive liaison with printers and designers), and supports all other ITS-Monash activities including seminars, workshops and public lectures. Brenda also undertakes website and MUSO development and maintenance for ITS-Monash as well as for the Department of Civil Engineering's postgraduate programs.

Higher degrees by research program



Md. Aftabuzzaman

BE (Civil) (Hons), Bangladesh University of Engineering and Technology,
M Eng (Transportation Planning), The University of Tokyo
Doctoral Student

Aftabuzzaman has worked as a lecturer of Bangladesh University of Engineering and Technology. His previous research interests include travel demand forecasting, mode choice modelling, traffic performance measurement and parking demand and supply analysis. He has long been involved in the activities for encouragement of walking, cycling and public transport use. Aftabuzzaman has started his PhD study with a Monash Graduate Scholarship. His PhD study focuses on public transport measures for road traffic congestion relief. Supervisors: Professor Graham Currie and Dr Majid Sarvi



Daniel Csikos

B.Sc (Aust Env Stud)(Hons I) Griffith
Doctoral Student

Daniel graduated with a Bachelor of Science in Australian Environmental Studies from Griffith University, Brisbane, in 1997. He began work for Melbourne's public transport industry in 2000, for Yarra Trams. Roles included operations analysis, scheduling and market analysis. Daniel was awarded a joint Metlink-Monash PhD scholarship. His PhD study focuses on public transport reliability measures from a user perspective. Supervisors: Professor Graham Currie and Associate Professor Geoff Rose



Evan Gwee

BE (Civil) (Hons), MSc (Transportation Engineering),
Nanyang Technological University, Singapore
Doctoral Student

Evan has worked for more than 10 years in the Land Transport Authority of Singapore. Apart from land use and transport planning experience, Evan has been involved in numerous feasibility studies of new transport initiatives and infrastructures in Singapore. Evan has recently started his PhD study with a LTA scholarship. His PhD research focuses on the expansion of the conventional Benefit-Cost Analysis framework for the evaluation of transport projects. Supervisors: Professor William Young, Professor Graham Currie, and Mr John Stanley

Paul Hamer

BEng - University of Melbourne, LLB - University of Melbourne

Masters Student

Paul has worked in the transport sector at both local and state government level, and is currently managing the development of a range of public transport projects for the Victorian Department of Infrastructure. Paul has a particular interest in the use of pricing mechanisms to manage and influence travel demand. The focus of his Masters Research is a case study into the effectiveness of the inner Melbourne parking levy that was introduced in 2006. Supervisors: Professor Graham Currie and Professor William Young

Victoria Johnson

B.S.W, M.S.W (Res, Hons I) University of Melbourne

Doctoral Student

Victoria graduated with a Masters of Social Work from the University of Melbourne in 2003. She currently works as a Research Officer in the Research and Policy Centre of the Brotherhood of St Laurence. Victoria's PhD research focuses on transport and social exclusion, which is funded with a cross-faculty scholarship provided by the Departments of Civil Engineering (Engineering) and Social Work (Medicine, Nursing and health Sciences). Supervisors: Professor Graham Currie and Dr Janet Stanley.

Md. Iqbal Kabir

BE (Civil), Bangladesh University of Engineering and Technology

Doctoral Student

Iqbal has completed his Bachelor of Science in Civil Engineering from Bangladesh University of Engineering and Technology, Dhaka, Bangladesh. He is working as an Executive engineer in Dhaka City Corporation, the capital city council. As part of the Master of Engineering Science Degree he commenced in June 2005, he is modelling various aspects of impacts of land use pattern changes on transport systems of Melbourne Metropolitan area with an integrated land use-transport interaction model TRANUS. With that model, he is also examining impact of transport policy changes (such as construction of new large road infrastructure, introduction of new toll road etc) on land use patterns. Supervisors: Professor William Young and Professor Graham Currie



Mark Karpovich

BE MEng Sci

Doctoral Student

Mark has more than 20 years' experience in infrastructure and transport engineering projects in Hong Kong and Australia. His present field of study is transport, infrastructure and engineering projects based on transferred technology financed in China. This research uses a Delphi survey and aims to investigate success factor influence by comparing conventional and joint venture style projects. Supervisor: Professor William Young



Ehsan Mazloumi

BSc (Civil), Sharif University of Technology, MSc (Transportation Engineering and Planning), Sharif University of Technology
Doctoral Student

Ehsan completed his BSc in Civil Engineering and his MSc in Transportation Engineering and Planning at Sharif University of Technology, Tehran, Iran. His area of interest includes Transport Modelling, Micro and Macro Simulation, Network Design Problems, and Safety. Ehsan was awarded a Monash Graduate Scholarship in 2007 when he commenced his research at ITS-Monash. Currently, Ehsan is working on public transport travel time and its variability. Supervisors: Professor Graham Currie and Associate Professor Geoff Rose



Mahmoud Mesbah

BSc (Civil), University of Tehran, MSc (Transportation Planning), Iran
University of Science and Technology
Doctoral Student

Mahmoud completed his BSc in Civil Engineering at University of Tehran and graduated with a MSc in Transportation Planning from Iran University of Science and Technology. His previous research included approaches for reliability assessment of transport networks. Mahmoud was awarded a Monash Graduate Scholarship in 2006 when he commenced his research at ITS-Monash. Mahmoud is working on optimization of transit priority systems to be applied to the transport network. Supervisors: Dr Majid Sarvi and Professor Graham Currie



Michael Moffatt

BE (Hons) (Civil), University of Melbourne. MTech (Pavements), Deakin
Doctoral Student

Michael is currently a Principal Research Engineer at ARRB Research. Since joining ARRB in 1991, he has worked in a variety of areas dealing with both the design and analysis of road pavement structures, including the effects of water movements through pavements, the mechanistic design of new and rehabilitated pavements, and the characterisation of pavement materials, including the analysis of trials using the Accelerated Loading Facility (ALF). He also has experience in road and asset management, asset system design and implementation, and has also managed large pavement data collection exercises in Australia and overseas. Michael's research is focussed on the development of a rational approach to assessing the relative effects of different heavy vehicle axle groups on pavement performance. The findings would be of immediate use to both road pavement engineers and transport economists seeking to attribute road damage to different axles groups. Supervisor: Professor William Young



Sara Moridpour

BSc (Civil), Sharif University of Technology, MSc (Transportation Planning and Engineering), Sharif University of Technology, Tehran, Iran

Doctoral Student

Sara graduated with a Bachelor of Science in Civil Engineering from Sharif University of Technology, Tehran, Iran in 2002. She completed her masters of science in Transportation Planning and Engineering at Sharif University of Technology in 2004. In her Masters thesis, she worked on sensitivity of traffic equilibrium respect to some changes in the accuracy of network parameters. Her previous research interests include trip production and attraction models, travel time and volume delay functions, traffic assignment models and efficient methods for traffic surveys such as cordon line origin-destination surveys. In addition, she has been involved in the establishment of drivers' working hour standards in Iran. Sara started her PhD studies on a Civil Engineering Departmental Scholarship. Her PhD study focuses on lane changing behaviour of heavy vehicles. In her research, she realizes the differences in the lane changing behaviour of heavy vehicles and passenger cars. Then, she develops a specific model for lane changing patterns of heavy vehicles. Supervisors: Dr Majid Sarvi and Associate Professor Geoff Rose



Mike Shackleton

BSc (Civil) (Hons), University of Natal, MEng (Civil), The University of Pretoria

Doctoral Student

Mike holds a BSc Eng (Civil) from the University of Natal and an MEng (Civil) from the University of Pretoria. He has been involved in transportation engineering for twenty years, in both the consulting and research environments in South Africa, Botswana and Australia. Mike is currently Manager: Research Operations and Strategy at ARRB Group in Melbourne. His research is aimed at providing guidance to transportation research stakeholders for making transportation research sustainable. The research will focus on systematic evaluation of the impact and quality of transportation research, in terms of both current and potentially changed requirements in the future. Supervisors: Professor William Young and Professor Graham Currie



Nirajan Shiwakoti

BE (Civil), Tribhuvan University, Nepal, M Eng (Transportation), Hokkaido University, Japan

Doctoral Student

Nirajan has worked as a Civil Engineer in Nepal after his undergraduate degree in Civil Engineering. He was awarded with Monbukagakusho Scholarship for Master degree (Oct. 2004–Sept. 2006) at Laboratory of Transportation Intelligence, Hokkaido University, Japan. His areas of interest include Crowd / Pedestrian Behaviour Modelling, Pavement Management System, Traffic Safety and Risk Management, and Public Transport. Nirajan has recently enrolled as a MEngSci (Research) student at ITS, Monash University with a Monash Graduate Scholarship and Monash International Postgraduate Scholarship. His current study focuses

on modelling and simulating crowd dynamics. Supervisors: Dr Majid Sarvi and Associate Professor Geoff Rose

Roger Toleman

Doctoral Student

Roger has an extensive experience in transport planning and policy. He was Deputy Secretary, Strategic Directions at the Ministry of Transport in New Zealand. Roger has been involved in a wide variety of strategic initiatives and policy development in transport planning and responsible for the Ministry's policy input into the National Land Transport Strategy. Roger's research is exploring the relationship between toll roads and sustainable transport. Supervisors: Associate Professor Geoff Rose and Dr Tony Richardson



Tan Yan Weng

BE MEngSc CMCILT MIE Singapore MREAAA

Doctoral Student

Yan Weng lectures at the School of Civil and Environmental Engineering in Nanyang Technological University, Singapore. His current PhD research is in the area of parking systems design, with particular emphasis on developing an interactive stated preference approach to collect information on parking behaviour in multi-use facilities. Supervisor: Professor William Young

Richard Yeo

BE (Hons) M Eng (Res) RMIT

Doctoral Student

Richard has worked with Maunsell Consultants and VicRoads and is currently a Principal Engineer (Pavements) at ARRB. His main research interests are in the areas of construction quality, pavement performance, accelerated pavement testing, stabilisation and pavement materials characterisation. He is a member of the Austroads Pavement Technology Review Panel and is currently the manager of the Australian Accelerated Loading Facility (ALF) program. Richard is leading the research associated with investigating the impact of heavy vehicles on the pavement infrastructure. This is one of the largest research projects currently being conducted by ARRB, in terms of both scope and funding. Supervisor: Professor William Young

Ali Zavabeti

BE Hons (Telecommunications), Monash University

Masters Student

Ali joined the Institute of Transport Studies in 2006 as a research assistant primarily working on the development of the Institute's instrumented vehicle. Prior to this he received a Bachelor of Telecommunications Engineering with honours from Monash University in 2006. He has started a MEngSc (Res) in 2007 focussing on driver behaviour prediction utilising Hidden Markov Models, Fuzzy Logic and Neural Networks. Supervisor: Dr Majid Sarvi

EDUCATION

ITLS-Sydney

Graduate Program in Transport and Logistics Management

The Faculty of Economics and Business and the Institute of Transport and Logistics Studies at the University of Sydney offer a range of fully integrated and articulated graduate programs. Six degree programs are available to graduates or non-graduates with industry experience. These are the Graduate Certificate in Transport Management or Logistics Management, the Graduate Diploma in Transport Management or Logistics Management and the Master of Transport Management or Logistics Management. Students who have completed the MLM, MTM or one of the combined degrees on offer may be eligible to enrol in a research program leading to an MPhil or PhD in Transport Management or Logistics Management.

The demand for the units of study remains very high. Many of the students are enrolled in a major or minor in logistics and/or transport management via the MBus, MCom and MIB as well as the transport and logistics degrees.

Coursework Degrees

GradCertTM and GradCertLM

Graduate Certificates of Transport Management and Logistics Management (4 units)

GradDipTM and GradDipLM

Graduate Diplomas in Transport Management and Logistics Management (6 units)

MTM and MLM

Masters of Transport Management and Logistics Management (8 units)

Combined Coursework Degrees

MTM / MLM

Master of Transport Management / Master of Logistics Management

MTM / MCom and MLM / MCom

Master of Transport Management / Master of Commerce

Master of Logistics Management / Master of Commerce

MLM / MIB and MTM / MIB and MTM / MURP

Master of Logistics Management / Master of International Business

Master of Transport Management / Master of International Business

Master of Transport Management / Master of Urban and Regional Planning

Higher degrees by research

MPhil

Master of Philosophy (Transport Management or Logistics Management)

PhD

Doctor of Philosophy

Doctor of Philosophy

With so many exciting and important themes available to research and the general shortage of well-trained researchers in transport and logistics, ITLS always encourages inquiries. The Institute invites individuals with strong interests in higher level research to contact us. We offer a Master of Philosophy (MPhil) and a Doctor of Philosophy (PhD) by research in any area of transportation and logistics. ITLS has a large number of research themes which we believe would make an excellent research program. These can range from highly quantitative to highly qualitative research topics with a focus on basic and applied research. ITLS has the largest group of postgraduate students in transport management in Australia. Our full time research students become close members of ITLS and have open access to research facilities and internationally renowned academic staff in transport and logistics.

Higher degrees by research presentations

Each Higher Degree by Research student must present a seminar each year as part of the progress review of their research program. Seminars are chaired by each student's supervisor.

24 July 2007

Louise Knowles

Paying for performance - contract choices in the bus service industry

Abstract: Urban bus provision, globally, involves a partnership between operators (private or public) and the regulators who contract their services on behalf of government. The two parties to a bus service contract are subject to differing, and often conflicting, motivations, which theory suggests should be aligned explicitly in an incentive-based contract. In the urban bus sector, however, these contracts are rare; and, where used, incentive specifications are based on experience rather than research.

This seminar presentation will outline a program of research that aims to use stated preference methods to study drivers of the decision-making process, uncovering the role of risk-sharing and effort incentives suggested by classical contract theory. The research will attempt to provide incentive design guidance for those organisations looking for a utility-maximising contract.

20 November 2007

Zeyan Zhang

Supply chain disruption costs study in international maritime transport

Abstract: International supply chains are becoming tightly interconnected and inherently vulnerable to disruptions. Recently, supply chain risks and vulnerabilities have received a great deal of attention from both researchers and industry practitioners. Although there are numerous reports focusing on anecdotal or qualitative aspects of supply chain disruptions, little have been done to survey or quantify the causes and costs of supply chain disruptions. Furthermore, very little is known about different perceptions regarding risks and vulnerabilities among logistics managers based in different countries. This seminar will outline a program of research to understand the causes of transport related supply chain disruption costs and quantify shippers' increased value of time/reliability when disruptions take place. The research focus is on importers and exporters based on Sydney and Shenzhen.

2 October 2007

Zheng Li

Modelling and forecasting the demand for automobile petrol in Australia, and its policy implications

Abstract: Petrol is the most significant fuel and accounts for the largest consumption share among the various road transport energies. This thesis presents different econometric modelling systems to estimate the demand for petrol in the Australian road transport sector, emphasizing the effects of national income and petrol price. Quarterly time series data for Australia over the period 1977-2006 are employed to capture the adjustment

process associated with responses through time to changes in those factors. Seasonality is also addressed due to the use of quarterly data. Eight modelling systems for petrol demand are used to compare the forecasting performance of different approaches. The most appropriate model is selected to predict automobile petrol demand in Australia from 2007 through to 2020.

The prediction of a 14-year forecasting horizon shows that Australian automobile petrol consumption will continuously increase under the “business-as-usual” scenario, and increased greenhouse gas emission (primarily CO₂) will be produced and emitted into the environment. Effective policy instruments need to be implemented to contain and then reduce the emissions from automobiles. TRESIS, an integrated transport, land use and environmental strategy impact simulation program, is used to estimate the impacts on CO₂ of several policy instruments. Given the findings from the evaluation of different policy scenarios, the appropriate strategies are suggested in order to contribute to reducing greenhouse gas emission in Australia.

Enrolments

	GradCertTM			GradCertLM					
Year	Local	Internat.	Total	Local	Internat.	Total			
1999	15	0	15	7	0	7			
2000	6	1	7	15	0	15			
2001	3	0	3	5	0	5			
	GradDipTM			GradDipLM					
Year	Local	Internat.	Total	Local	Internat.	Total			
1999	16	2	18	na	na	na			
2000	5	1	6	2	1	3			
2001	4	1	5	5	0	5			
	MTM			MLM			PhD		
Year	Local	Internat.	Total	Local	Internat.	Total	Local	Int'l	Total
1999	22	11	33	na	na	na	2	1	3
2000	10	7	17	13	4	14	2	3	5
2001	7	5	12	16	14	30	4	2	6
	Graduate Program						PhD		
Year	Specialisation	Total	Specialisation	Total	Local	Int'l	Total		
2002	Transport UoS	134	Logistics UoS	371	2	4	6		
2003	Transport UoS	207	Logistics UoS	1331	3	5	8		
2004	Transport UoS	158	Logistics UoS	1237	3	5	8		
2004	Joint UoS in T and L	161							
2005	Transport UoS	196	Logistics UoS	1235	3	5	8		
2005	Joint UoS in T and L	237							
2006	Transport UoS	305	Logistics UoS	1110	4	3	7		
2006	Joint UoS in T and L	232							
2007	Transport UoS	324	Logistics UoS	1150	6	2	8		
2007	Joint UoS in T and L	301							

Units of study

The following transport and logistics management courses were taught during 2007 (Students in each unit of study are given in parenthesis, excluding non-award and ITLS research staff who undertook a number of graduate units).

Summer Session (4 January - 9 February 2007)

Logistics Management (41)
Strategy and Supply Chain Management (56)

Semester 1 (5 March- 25 June 2007)

People, Work and Organisation (138)
Transport and Logistics Economics (47)
Logistics Management (128)
Strategy and Supply Chain Management (95)
Intelligent Transport and Logistics Systems (58)
International Logistics (45)
Survey, Design and Management (28)
Transport Policy, Decision Making and Environment (49)
Logistics and the Environment (5)
Analysis Tools for Transport and Logistics (98)

Winter Session (2 July - 20 July 2007)

Maritime Logistics (65)
Innovations in Logistics and Supply Chain (17)
International Freight Transport (69)

Semester 2 (30 July – 13 November 2007)

People, Work and Organisation (139)
Logistics Management (121)
Aviation Management and Logistics (68)
Strategy and Supply Chain Management (107)
Geographical Information Systems for Planning and Logistics (46)
Logistics Systems (31)
International Logistics (59)
Project Management in Supply Chain (84)
Land Use and Transport Planning (41)
Traffic Systems Management and Control (32)
Analysis Tools for Transport and Logistics (73)

Orientation for coursework degree students

Every semester ITLS invites its new students to attend a half day orientation. The orientation provides valuable guidance on what new students can expect at ITLS and helps to ensure that their studies here are both enjoyable and successful. It is also a great opportunity for new students to meet ITLS staff and their fellow students. The orientation program includes tips on preparing assignments and using the web as a research tool, as well as introductions to some of the units of study on offer at ITLS. Morning tea and lunch are provided.

Feedback from our students on what they found most useful about Orientation

The whole day was very good and useful

Warm welcome

Very helpful and informative, great value

Good overview.

Gives a lot of information about the library, blackboard and study related issues in concise manner.

I appreciated the mix of speakers and Faculty. It helped to give me a full bodied concept of the Institute and the resources available to students. I also thought the step-by-step approach to the website was incredibly helpful, as most students wouldn't think to mine the Institute website for a quarter of the information it has.

Lots of important information.

Knowing how to use the web effectively.

How to learn and manage myself through the course.

Preparing and formatting assignments.

Dr John Rose and Dr Miguel Figliozzi were extremely helpful with all the information provided which is very worthwhile to understand the University and the Institute's functioning and features.

Met with people I am going to get along with...

Photos from ITLS 2007 Orientation



Feedback on the graduate program

Mastering Transport Management

NM News congratulates Yogen Bhatnagar for being the first RTA sponsored staff member to successfully complete a Masters Degree in Transport Management.

Yogen, Leader Technical Transfer and Compliance in Traffic Management Branch, was able to achieve this feat through a RTA sponsorship program.

He was among ten RTA staff offered a one-off sponsorship by the Chief Executive in 2005.

Two other Network Management staff Christian Chong-White, Traffic Systems, and Kenneth Seeto from the TMC, will graduate from the Masters program in 2008.

The Masters program, offered by the Faculty of Economics and Business at the University of Sydney, provides specialist training in the field of transport management and planning.

"It provides an excellent opportunity to learn from experts like Professor David Hensher. I am very keen to contribute to the directorate using the expertise I have gained," Yogen said.

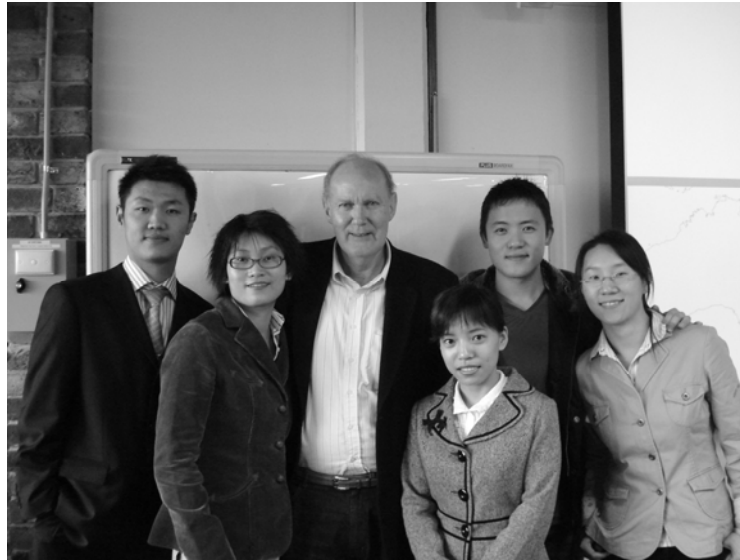
For more information on other RTA sponsored programs, refer to the RTA intranet at <http://home.rta.nsw.gov.au/org/directoratesandbranches/cserv/hr/landd/sponsored/index.html>.



Yogen Bhatnagar on the lawn of Sydney University in full regalia.

Extract from Roads and Traffic Authority NSW Newsletter, November 2007

To our Director, Professor David Hensher



Dear David, How are you! I want to say that I'm very proud of being your student. You are the most knowledgeable professor I've ever met. What all I have learned in your class and from your books are very helpful for my future career. Expectantly, someday you would like to go to China to help us solve some traffic problem which is quite serious now. Thank you so much and wish you happy everyday and enjoy your work. By the way here is a picture taken on our wonderful presentation day.

Your smart student Lauren 2007

Gentlemen, Just a quick note to say that although it took me a year since I graduated from the MTM program at ITLS I have found a job in the Ontario (Canada) Ministry of Transportation. I am a policy analyst in the Sustainable Transportation Policy Unit. I am happy that I have finally got a job in the transportation field and one that involves sustainable transportation, of which I'm particularly interest in. I wanted to thank you for the great experience I had at ITLS and I look fondly back at my time in Sydney, especially as it's winter here in Toronto! It was a risk going back to school and changing careers, but with the support of the ITLS program and professors in particular it paid off.

Rob Dolezel, MTM graduate 2006

With the upcoming graduating ceremony in mind... I thought I would take the opportunity to thank you for your efforts and others at ITLS in stimulating and advancing my interests in transport. Although at times I found it to be a frustrating experience (the group work!), one cannot fault the underlying drive of ITLS to prepare its graduates for the real world through a careful mix of pragmatism and practicality. Whilst I don't anticipate being back in Australia for a little while, I hope that our tracks may meet again in the future.

Matthew Yi

Dr Ada Suk-Fung Ng, Project Management in Supply Chains

Case study and in class discussion were very good, helpful.

Well done in general. Lecturer is very responsible and helpful. Thank you.

Dr Stephen Greaves and Matthew Beck, GIS for Transport Planning and Logistics

It was very hands-on and intense, but I was always able to understand how the different steps fit in to a larger picture.

The unit is well organised and taught.

Very interested in hands on experience of Transcad software.

VERY good lecturer- a pleasant education experience.

Professor Werner Delfmann, Aviation Management and Logistics

Good lectures, flexible communication.

The teacher is helpful and knowledgeable.

Honestly has been an amazing course!

The lectures as well as the lecturer of this unit were really great!

Chris Skinner, Intelligent Transport and Logistic Systems

Very impressive on state-of-the-art technology.

Enhanced skills on research and development in transport systems.

Professor David Hensher, Dr John Rose and Geoffrey Clifton, Transport and Logistics Economics

Lectures were very interesting and I gained a lot of knowledge.

This is the best subject I took ever at ITLS, I like the structure of "individual reports" should this be adapted for other courses as well, John, David and Geoffrey are very great and helpful, well done for all in this unit.

It gave me a good understanding of methods used in determining strategies to be used in gaining a better transport system.

Frederic Horst, International Freight Transportation

The notes are very useful to understand this course.

I like this subject, it gives me an overview of international freight.

Lecturer was very knowledgeable.

Heaps of industry knowledge.

Dr Peter Lok, People, Work and Organisations

Excellent lecturer with enthusiasm in class.

This is an absolutely exceptional teacher. I would really recommend this course it gave me a whole perspective about logistics.

Dr John Rose, Matthew Beck and Geoffrey Clifton, Analysis Tools in Transport and Logistics

The only draw back of the analysis tools course is I am not getting a chance to thank you and Mr Clifton. Both of the lecture teaching by you and the computer laboratory practice lead by Mr Clifton are highly informative and practical. If I were asked to give a satisfaction rating, I would grade it as most satisfaction. Your effort to record the virtual MP3 lecture provide me a great help in further understand how to interpret the computer output as well as doing the assignments. The best part of the course is the assignment titles, which give us great freedom as well as allow us apply to our previous learning and real life situations. I had started to use the statistic technique for my winter school study. I have recommend your course to students I know, however some remind me this is their core subjects that they have to take it anyway. I hope you have another successful teaching next semester. All the best.

Elson Chan

Robert Ogulin, Innovations in Logistics and Supply Chain

Lecturer with genuine industry experience.

Very interesting unit.

Very good lecture style and industry expertise, clearly interested.

Responsible staff, fun class, interesting knowledge brought into class.

Well done in general, framework is very useful!

Thanks for such wonderful lectures.

A lot of useful reading sources provided by the teacher.

Professor Peter Stopher, Survey Design and Management

Stats stuff very good.

The lecturer had knowledge and expertise.

Dear Peter, I wish to express my most sincere thanks for your lectures. You have unparalleled knowledge of the subject and supplement it with examples to make the understanding of difficult concepts easy to understand. I thoroughly enjoyed the teaching experience except that yesterday while appearing for the final quiz, I suffered from an attack of acute migraine and was incapacitated to do anything, however, I accept it as my fate. Many thanks for making the lectures great learning experience. Kind regards.

Yogendra Bhatnagar

Professor Peter Stopher, Land Use and Transport Planning

A patient, friendly and respectful professor. Well structured assessments, good process and focus on the important part of the content of the lecture.

Peter is a good person, always friendly and patient.

The unit is current and relevant.

Professor Peter Stopher, Traffic Systems Management and Control

The lecturer is very professional in my opinion. He can explain most of things clearly.

Professor David Walters, Logistics Management

I have found the lecturer and subject stimulating.

Very helpful to my degree and career which is already in the logistics.

Very good lecturer, extensive knowledge, a lot I can learn from.

This class was very current and useful.

It met my expectations. The teacher was very concerned about being clear (content and expression).

Dr Miguel Figliozzi, Maritime Logistics

It was short, intensive, but packed with tons of useful information.

Miguel is really a good teacher.

Professor Miguel is great for this unit of study.

Dr Andrew Kerr, Logistics Management

Good lecturer, really interesting unit and approach.

One of the best lecturers in this course.

This unit of study is a must for any student in logistics. Above all Dr Andrew Kerr is just brilliant to take this unit of study.

Very good, real-world skills training. The lecturer is good and serious.

Dr Andrew Kerr was very responsive to all questions put forward to him.

Dr Andrew Kerr was very effective in his teaching methods. good lecturer, clear voice.

Our research project enabled us to clearly articulate what we learnt in logistics management.

Dr Simon Washington, Transport Policy, Decision Making and Environment

I was very happy to study this unit. Professor was excellent, helpful and very responsive. Very easy to catch up with him after class. Thanks! I'm very appreciative.

This is a very good teacher, very nice and kind as well as knowledgeable.

I enjoyed the group interaction during the lectures. It helped break down a long day but also to learn from other students.

Other comments

What academics say:

Dear David, I want to thank you and all of ITLS staff for inviting me to the University of Sydney for a semester. I am extremely impressed with the range of activities going on at ITLS, the depth of industry support for the program, and the staff currently assembled in the program. I'm very excited about some of the research I began working on at ITLS and plan to continue and build upon this research over the coming months. I should also state that the collection of visiting scholars and academics that ITLS seems to attract is also far-ranging, impressive, and dynamic. I have not witnessed a program with such great potential for the exchange of ideas, collaboration, and networking. I am fortunate to have been taken part in these activities for a short while, and have indeed become a 'champion' of ITLS Sydney.

Simon Washington, Professor, Department of Civil and Environmental Engineering, Arizona State University, July 2007

Industry programs

2007 proved a successful year for ITLS industry programs. Twenty one participants successfully graduated from the Certificate of Transport Management (CTM) which also required successful completion of the new bus operator accreditation standards (BOAS) module. The BOAS online module came into effect in February 2007, replacing the requirement for NSW bus and coach operators having to complete either the CTM or now ended Certificate of Coach Management (CCM) for purposes of accreditation. The success of the CTM as a professional development program, taught in partnership with the Bus and Coach Association (NSW) and Ministry of Transport therefore demonstrates the strength of ITLS as a premier provider of education within the NSW bus and coach industry. Aside from the 21 CTM students, an additional 126 students successfully completed the BOAS online module in the calendar year for 2007. Further details about the CTM and BOAS online model are set out on the ITLS web at <http://www.itls.usyd.edu.au/busandcoach.asp>.

Certificate of Transport Management – Bus and Coach (CTM)

Established in conjunction with the Bus and Coach Association (NSW) and the NSW Government Ministry of Transport, this program has been designed as a professional development program for bus and coach operators in NSW. Participants are required to also undertake the BOAS online module, therefore meeting the requirements of accreditation for NSW bus and coach companies operating under the NSW Passenger Transport Act and enables operators to be accredited for all route bus, coach and tourist vehicle operations. The CTM notes and materials have been regularly updated to reflect trends in the NSW bus and coach industry.

Topics in the 2007 CTM included:

The NSW Government Sector Structure and Roles	Human relations management
Accessibility and transport strategy – the big picture	Industrial relations system
Accreditation	Industry environment
Bus and Coach Scheduling	Institutional settings and contracts
Driver authority and coach operations	Knowing your costs
Drug and alcohol testing procedures	Marketing and Passenger Relations
Financial decision making	Occupational health and safety
Financial management	SSTS, Tcard, sections and fares
Fleet age and DDA	Workers compensation

Feedback on the CTM

"Well prepared and very interesting presentations."

"The course was excellent"

"All parts of the course is interesting, but a little rushed in their delivering in general. Facilities and catering were excellent. Geoff Ferrio, Shanil Fernando, Michael White, David Hensher and Linda Cowen are excellent presenters."

Participants also were asked to rate aspects of the course from 1 to 4 (4 being highest). The average results based on all participant feedback for 2007 were:

Material covered in the topic was relevant	3.60
Material covered in each topic was well presented	3.23
The level of emphasis was about right for the topic	3.34
I will be able to use what I have learnt	3.40
The notes are very useful	3.37
The notes are up-to-date	3.32
Overall, the topic was worth attending	3.35

Executive programs

Advanced Certificate in Transport and Traffic Management (ACTTM)

The ACCTM is an Executive Program designed to equip professionals working in the complex area of transport and traffic management with the planning and management skills demanded by today's employers. The program was originally developed in partnership with the Roads and Traffic Authority and is now available to all transport professionals who wish to advance their ability to analyse the social, environmental and business aspects of transport planning and management and develop creative new solutions by broadening their intellectual base and deepening their understanding of transport. Individual modules of the program may be taken as short courses, the successful completion of which may be used as credit towards the ACTTM or the graduate program. The program is likely to have particular appeal to transportation planners and engineers working in all levels of government and in consultancy practices.

This certificate has high recognition within the industry and enables articulation to the graduate program in transport management at the ITLS. Individual modules may be taken as short courses, the successful completion of which may be used as credit towards the ACTTM or the graduate program. Presentations were given by some of Australia's leading academics in transport and traffic management, together with guest lecturers from prominent positions in the transport industry. Recent guest lecturers have included Dr Alastair Stone, Director of the Pacific Infrastructure Group and Mr Frank Milthorpe from the Transport and Population Data Centre, NSW Department of Infrastructure, Planning and Resources.

Selected comments from the 2007 participants:

"It improved my knowledge about traffic flow, traffic management, road design etc. Some of these concepts will help decision making with the RTA projects."

"The tutorial/assignment days allowed the students to get together to discuss and understand concepts and problems and also gave us a chance to get some assignment work done."

"The meeting of fellow students, lecturers and the course outline of the first module. It gives an insight on what I need to know and the level of knowledge that is expected of me. It highlighted what additional preparation I need in advance of the block strategy."

"Energy and enthusiasm of lecturers was inspiring. Great to be taught by lecturers with a great deal of experience in the field."

Discrete Choice Modelling (DCM)

Almost without exception, everything human beings undertake involves a choice. In recent years there has been a growing interest in the development and application of quantitative statistical methods to study choices made by individuals with the purpose of gaining a better understanding both of how choices are made and of forecasting future choice responses.

The DCM course is intended for researchers in fields in which consumer demand and choice is of interest. These include marketing, economics, health services, environmental science, agriculture, engineering, planning, transportation, logistics and finance. The courses are intended for practitioners, academics, and managers in government and industry. Participants should have an appreciation of basic statistical concepts and spreadsheets and some familiarity with econometrics, but advanced training is not necessary. The course will provide an unthreatening introduction to the main techniques of choice analysis and build on this base knowledge introducing state of the art tools.

DCM methods are widely used in many fields to study the preferences and behavioural responses of individuals, households as well as other organizations. The course on offer is designed to provide both theory and practical experience in the building and estimating of simple (e.g., Multinomial Logit (MNL)) and more advanced choice models (e.g., mixed logit), as well as in generating stated choice experimental designs. Whilst theory will be covered, the majority of time will be spent in a computer lab, working on building and automating models using real data, and generating workable designs. Those completing the course will be capable of transferring the techniques taught to their own research and practice areas.

Some comments from past participants:

"Thank you for presenting such a stimulating and inspiring course - thoroughly enjoyed it."

"I was recently privileged to attend the Choice Analysis course offered by IITLS at the University of Sydney. What a fantastic course !!! The course structure comprised introductory and advanced modules with theory immediately complemented by hands on lab sessions. We were all very impressed with every aspect of both course content and delivery. Professor Hensher and his team (Drs Rose and Bliemer) went out of their way to ensure this complex and fast developing area was demystified with their attention to detail and clear and precise expositions of theory and practice. Highly detailed models such as Mixed Logit and advanced experimental designs were delivered with clinical precision enabling an immediate appreciation of these fickle methods. I would highly recommend this course to anyone who wishes to understand the analysis of choice modeling and experimental design in an intuitive, methodical and sequential manner."

"I just wanted to say how much I enjoyed the course, I found it extremely useful and practical."

Good structure, clear explanations, very consistent approach and treatment of material between lecturers.

This is the best short course I have attended. The teachers have really structured the learning content to meet the course objectives.

Great stuff! You've nailed it, overall, a credit to both John and Mike.

This has actually given me the skills to go away and do it for real.

Cutting-edge methods in the field. Comprehensive and inclusive.

Found the course very enjoyable and really really useful. Mike and John were helpful and extremely knowledgeable plus really approachable and willing to help. Great.

Methodology for developing efficient designs, 5 star rating with 2 thumbs up.

Enrolment numbers

Year	CTM (Bus and Coach)	CCM	BOAS†	CLM	ACTTM
1999	53	167	-	**	
2000	31	198	-	***	
2001	47	164	-	15	
2002	56	171	-	12	
2003	45	135	-	15	16
2004	29	181	-	****	15
2005	42	177	-	****	14
2006	50	134	-	****	8
2007	21	-	126	****	14

** *Two executive programs were run*

*** *No programs except via Deakin Australia*

**** *From 2004 onwards, non-award students in logistics enrol directly into graduate units*

† *From 2007 onwards online accreditation course (Bus Operators Accreditation System (BOAS))*

ITLS-Sydney 2007 Awards Evening

The **ITLS-Sydney Awards Evening** is an opportunity to celebrate the success of the Institute with our staff, our students, our Board of Advice, our industry partners and the sponsors of prizes. This year the Awards Evening was held on Saturday 31 March (6pm to 9pm) at the Forum Restaurant, Darlington Centre, The University of Sydney.



Professor David Hensher, Director, ITLS welcoming guests



Guest speaker Mark Rainbird Managing Director, AWA Limited

The following awards and certificates for 2006 were presented during the evening

The Chartered Institute of Logistics and Transport (CILT) Ken Hillyar Award for best graduate student in a masters program with a major in transport or logistics management was awarded to Qui Shing Mok and was presented by Dorothy Koukari, Chairwoman, NSW Section, CILT. Qui Shing Mok was presented with an annual membership to CILTA, a cheque (\$200) and an inscribed glass trophy.



Qui Shing Mok and Dorothy Koukari

The Chartered Institute of Logistics and Transport (CILT) Sir Hudson Fysh Award for best student in a masters program with a major in transport or logistics management was awarded to Lei Fu and was presented by Dorothy Koukari, Chairwoman, NSW Section, CILT. Lei Fu was presented with an annual membership to CILTA, a cheque (\$200) and an inscribed glass trophy.



Lei Fu

The Logistics Association of Australia (LAA) logistics prize for outstanding achievement in the logistics program was awarded to Wei Tan and was presented by Denis Horder, Vice President, LAA. Wei Tan was presented with an inscribed trophy.



Wei Tan with Denis Horder, Vice President, LAA

The Institute of Transport and Logistics Studies (ITLS) Prize for research excellence in transport or logistics management was awarded to Andrew Collins and was presented by Dr Alastair Stone, Chair, ITLS Board of Advice. Andrew was presented with a cheque (\$250) and an inscribed glass trophy.



Dr Alastair Stone, Chair, ITLS Board of Advice with Andrew Collins

The Mrs MA Ching Prize for the most outstanding student in the graduate coursework or the research program in transport or logistics was awarded to Fang Wu and was presented by Mark Rainbird, Managing Director, AWA Limited. Fang Wu was presented with a cheque (\$1000) and an inscribed glass trophy.



Professor David Hensber, Fang Wu and Mark Rainbird



Professor David Hensber, Dr Alastair Stone and award recipients

The Bus and Coach Association (BCA NSW) Prize for the student with the highest grade in the 2006 certificate of transport management program was awarded (in absentia) to Jamie Dean and was presented by Mr Darryl Mellish, Executive Director, BCA (NSW). The recipient was awarded a cheque (\$500) and an inscribed glass trophy.

Presentation of Certificate of Transport Management

Presented by Darryl Mellish, Executive Director, Bus and Coach Association NSW to:



Darren Baker



Peter Cohen



Geraldine Dickie



David Farthing



Eric Graham



Sam Kemkemia



Andrew McAulay (shown here with Stephen Rowe, Director, Busways Group)



Peter Nelson

Awarded in absentia: Andrew Bailey, Jamie Deane, Trevor Ford, Brendan Gavin, Peter Hammond, Craig Kelly, Anton Klemm, Samantha McKenzie, Fred McNeilly, Barry Moore, Michael Noack, Serene Peiti, Belinda Rachwal, Mandy Rogers, James Singer, Trevor Thompson, and Lisa Williams.

Guests and award recipients



From left to right: Jing Chen Liu, Fang Wu, Lei Fu, Wei Wang, Wei Tan, Bijl Cheng, Nitin Bhatia



From left to right: Yolande Stone, Frank Miltborpe, Matt Hunter, Megan McPherson



From left to right: Joanne McAuley, Della Farthing, David Farthing, Andrew McAulay



From left to right: Andrew Dickie, Geraldine Dickie, Fe Kemkemia, Sam Kemkemia



*Closing remarks - Professor Peter Stopher
Professor of Transport Planning, ITLS*

Award Recipients

Students who had completed four or more TPTM units of study, had majored in either Transport or Logistics and who had achieved 75% or higher in their overall grade (i.e., a distinction average or higher) received a Certificate of Outstanding Achievement and a congratulatory letter from the Professor David Hensher, Director, ITLS.

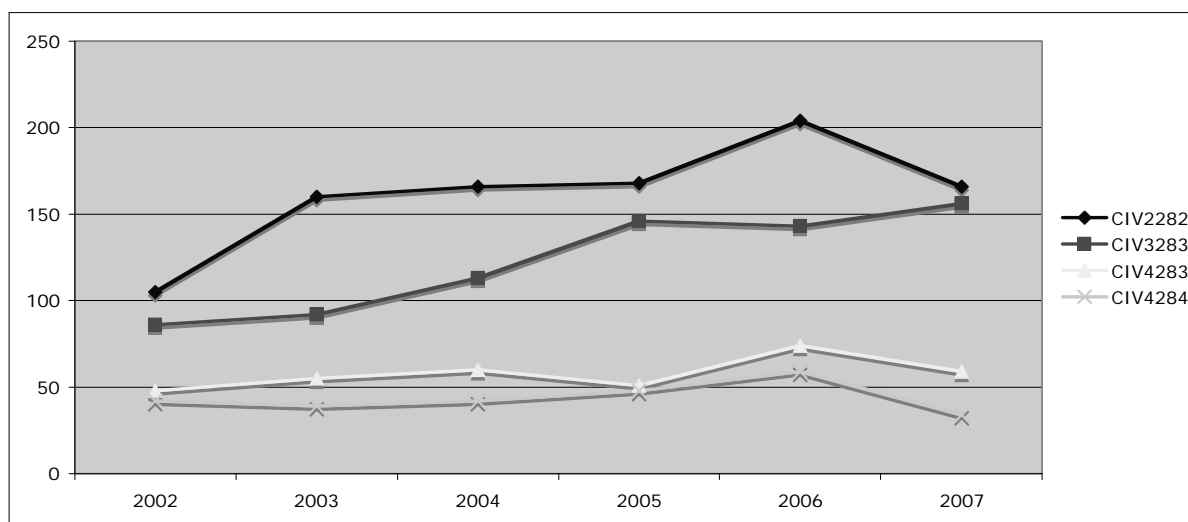
The following students were awarded their Certificate in 2007

Name	Country	Major
Ms Paranee Pinjinda	Thailand	Logistics
Mr Muhammed Shafiq Ur Rahman	Bangladesh	Transport
Mr Andrey Myasnikov	Russia	Logistics
Mr Abram Diamond	USA	Logistics
Mr Robert Dolezel	Canada	Transport
Mr Joep Louis Servaas Hamers	The Netherlands	Logistics
Ms Fang Wu	China	Transport and Logistics
Mr Knut Oeyvind Bjerk	Norway	Logistics
Mr Chin Kok Lee	Singapore	Logistics
Mr Wai Bun Cyril Lui	Hong Kong	Logistics
Ms Kwankamon Asawarachan	Thailand	Transport and Logistics
Ms Qui Shing Mok	Singapore	Logistics
Ms Fidelia	Indonesia	Logistics
Mr Noppawut Thiravijaranayankul	Thailand	Logistics
Ms Lei Fu	China	Logistics
Ms Wei Tan	Australia	Transport and Logistics

ITS-Monash

Undergraduate teaching

Staff associated with ITS-Monash continue to play a key role in the delivery of the undergraduate transport units in the civil and environmental engineering programs. The graph below illustrates the trends in undergraduate student numbers. Level 2 enrolments decreased slightly while last year's higher numbers at level 2 translated into higher enrolments in the core road engineering unit.



KEY TO UNIT CODES: CIV2281 - Transport and traffic, CIV3283 – Road engineering, CIV4283 – Transport planning, CIV4284 – Transport systems

Trends in undergraduate transport unit enrolments

Enrolments in the final year electives were down slightly reflecting a smaller final year cohort in the civil engineering degree.

Staff also supervise final year research project students who are enrolled in CIV4210 Project A and CIV4211 Project B (Professors Bill Young and Graham Currie, Associate Professor Geoff Rose and Dr Majid Sarvi). Details of those projects are provided in the section of this report which deals with research activities.

Apart from the dedicated transport units described above, the staff also contribute to other units in the civil engineering program. Dr Majid Sarvi is responsible for the transport component of the major group design subject (CIV4212 Civil engineering practice 4), which is a core unit in the final year of the civil engineering degree. Staff are also responsible for two other units in the civil and environmental engineering programs: CIV3204 Engineering investigations which is taught by Dr Majid Sarvi and CIV3205 Project management for civil engineers which is taught by Professor Bill Young.

Undergraduate student prizes awarded in 2007

The GHD Highway Design Prize – awarded to the group of Bachelor of Engineering students who submitted the best highway design – Katherine Gibson, Alaa Hassan, Jetson Saliu, Minh Thong Nguyen

The Richardson Prize in Transport – awarded to the BE student showing the greatest proficiency in one transport elective and project – Josephine Neal

The Traffix Group Prize – awarded to the BE student showing the greatest proficiency in level 4 transport engineering elective subjects – Josephine Neal

Undergraduate student scholarships

The Traffix Group generously offers two scholarships to students who have an interest in and intend to pursue careers in transport engineering. The students must be in levels 2 and 3 of the Bachelor of Engineering degree at the time of application, and are awarded \$1,000 and \$1,500 respectively, as well as six to twelve weeks' work experience with the company. In 2007, the level 2 scholarship was awarded to Sarah Mahmoud and the level 3 scholarship to Leigh Furness.

Postgraduate degrees by coursework

Graduate Certificate in Transport and Traffic

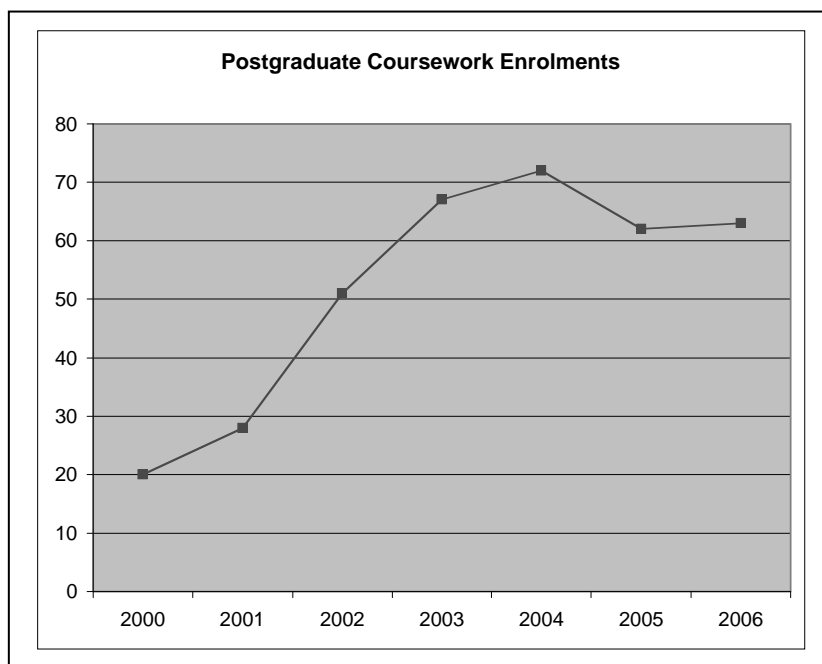
Postgraduate Diploma in Transport and Traffic

Master of Transport

Master of Traffic

Master of Infrastructure Engineering and Management (course management responsibility)

Trends in enrolments in the postgraduate coursework program are shown in graph below. Enrolments stabilised in 2007 with the postgraduate program in transport and traffic continuing to attract strong interest from throughout Australia and overseas.



Trends in postgraduate coursework student enrolments

Transport and traffic related units offered in 2007, as part of the distance education postgraduate coursework degree programs, are listed below along with details of the unit co-ordinator:

- CIV5301 Traffic engineering fundamentals (Ramsay/Rose)
- CIV5302 Road traffic: engineering and management (Young)
- CIV5303 Quantitative methods (Sarvi)
- CIV5304 Intelligent transport systems (Rose)
- CIV5305 Transport network models (Sarvi)
- CIV5306 Road safety engineering (Daly/Rose)
- CIV5307 Parking policy and design (Young)
- CIV5308 Case studies in transport (Rose/Currie)
- CIV5310 Infrastructure project management (Seethaler)
- CIV5311 Infrastructure project and policy evaluation (Richardson)
- CIV5314 Transport planning and policy (Rose)
- CIV5315 Transport economics (Clements)
- CIV5316 Public Transport Planning (Currie)

Postgraduate student awards

The VicRoads prize in Transport Engineering is awarded to the postgraduate student who has achieved the highest average mark in their coursework units. The 2006 award was won by Chris DeGruyter. Chris has recently started in a new role as with Maunsell Consulting following a number of years with the Department of Infrastructure. Chris completed his Bachelor of Engineering (Civil) (Honours 1) at Monash University. He was presented with his award by Ms Anita Curnow, a previous recipient of the award and Director of Road Based Public Transport at Vic Roads.



Ms Anita Curnow, Director, Road Based Public Transport at Vic Roads congratulating Chris DeGruyter, winner of the Vic Roads prize in Transport Engineering

This year saw a number of postgraduate students complete their coursework degrees. Some of them chose to attend the graduation ceremonies held throughout the year (photos below). The groups shown in the photos included Dr Seethaler and Dr Ruimin Li who graduated with their PhDs.



From left to right: Kamal Weeratunga, Philip Gray, Dr Rita Seethaler, Prof. Bill Young, Veronica Skrzyniarz, Assoc. Prof. Geoff Rose, Peter McMurray and Frank Iacono



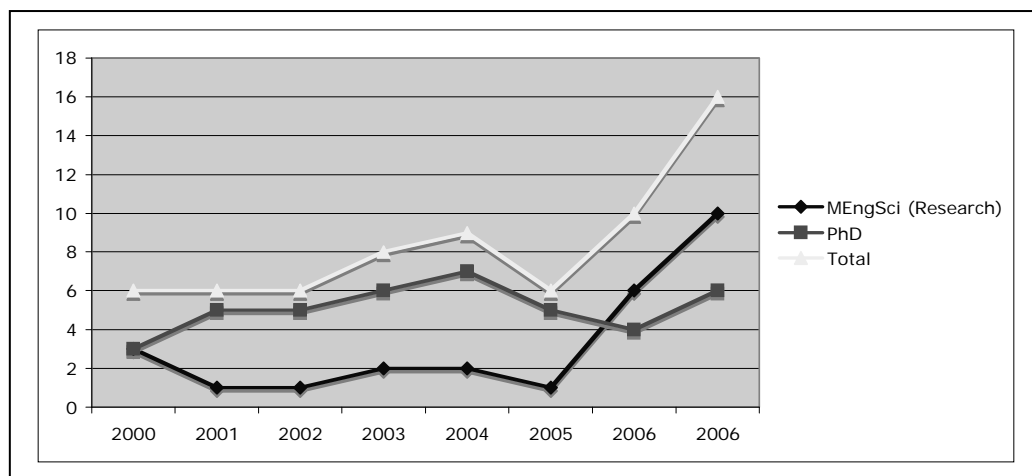
From left to right: Assoc. Prof. Geoff Rose, Andrew Somers, Dr Ruimin Li, Prof. Bill Young

Master of Infrastructure Engineering and Management

Using the same format and operational methods as the ITS-Monash postgraduate programs in transport and traffic, the Department of Civil Engineering developed a distance education masters program in infrastructure engineering and management in 2001. The course consists of eight units dealing with asset management, project management and project and policy evaluation, with specialisations in traffic, transport and water engineering. As a result of the experience gained in running the Bus and Coach and Transport Masters courses, it is managed by the Administration Manager of ITS-Monash, Brenda O'Keefe, on a contract basis for the Department. The course had 44 students enrolled in 2007.

Postgraduate research degrees

Trends in higher degree by research enrolments [MEngSci (Research) and PhD], are shown below. Postgraduate research student enrolments strengthened considerably in 2007 with most of the students enrolled in the Masters planning to transfer to the PhD program.



Trends in postgraduate research student enrolments

Students engaged in research degrees at ITS-Monash during 2007 were:

Daniel Csikos: Exploring commuter stress and public transport reliability

Mahmoud Mesbah: Optimisation of transit priority systems

Mark Karpovitch: Transport, infrastructure and engineering projects based on transferred technology financed in China

Md. Aftabuzzaman: Public transport performance measures of road traffic congestion relief

Md. Iqbal Kabir: Transport and land use modelling: a Melbourne Case Study

Mike Shackleton: A model for management of a public-good transport related research institutions

Richard Yeo: Effects of large road freight vehicles on the performance of typical Australian road pavements: the performance of cemented pavement materials under heavy axle loading.

Roger Toleman: Tollroads and sustainability: Friends or foes?

Sara Moridpour: Lane changing behaviour of heavy vehicles

Tan Yan Weng (external): A study of parking in multi-use facilities.

Tim Martin: Predicting pavement performance at a road network and road program level.

Two students submitted their PhD dissertations in 2006 and are were awarded their degrees in 2007:

Rita Seethaler: Incorporating the psychological principles of persuasion into a community-based TravelSmart campaign

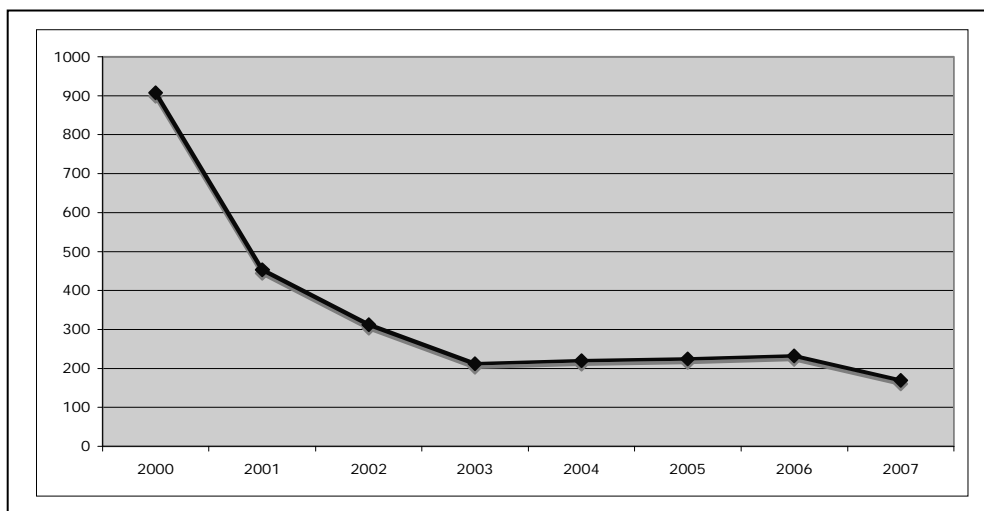
Ruimin Li: Incorporating travel time variability into travel time prediction models

Research student awards

Robbie Napper was awarded the postgraduate student prize at the 2007 Conference of Australian Institutes of Transport Research. for his paper on ‘Route Bus Transport - Stakeholders, Vehicles and New Design Directions’.

Transport industry education programs

The transport industry education programs remain core activities of ITS-Monash. The Bus and Coach accreditation course was launched in 1999. Enrolments have declined since the early high levels when the program was first introduced. Greater stability in the industry in 2007, with fewer operators entering the industry, resulted in a slight decline in the overall enrolments in the course. Existing operators continue to support the course when they employ new staff or seek to upgrade staff qualifications. Enrolments in the course in Parking Management also remain steady but are much smaller than the Transport Management Course in Bus and Coach Operations.



Enrolments in the Transport Management Course in Bus and Coach Operations

Transport industry education program and postgraduate coursework program awards

In 2007, the presentation of awards to outstanding students in the Transport Management Course in Bus and Coach Operations and the postgraduate program in Transport and Traffic was again held in conjunction with the sixth annual Ogden Lecture. This high profile evening was held at the State Library of Victoria Theatre in Melbourne in early August and provided the ideal forum in which to recognize the achievements of our most successful students. A large audience participated in the evening, including senior officers of the Department of Infrastructure (DOI) and the Executive Director of the Bus Association of Victoria (BAV), as well as many industry, government and academic representatives. The awards are sponsored by industry and government and recognise outstanding performance of bus and coach operators completing subjects in the course.

The winners of the 2007 awards were as follows:

Bus Association of Victoria award for best overall performance in the Transport Management Course in Bus and Coach Operations (bus and coach operations, AO accreditation) – Alison Stone

Bus Association of Victoria award for best overall performance in the Transport Management Course in Bus and Coach Operations (charter and coach operations, AC accreditation) – Robert Ettery

Department of Infrastructure Small Operator Award for Unit 4101 Introduction to legislation and operations – Beth Britton

iComply, AC/AO Operator Award for Unit 4101 Introduction to legislation and operations – Clint Comelli

The Pitcher Partners Large Operator Award for Unit 4102 Financial management – Andrea Ladner

Grenda Transit Large Operator Award for Unit 4103 Human Resource Management – Robert Ettery

The Ventura National Bus Award for Unit 4104, Marketing, planning and operations – Tracy Walker

Professional Development

Public Transport Planning I and II – Network and Strategic Perspectives

Both industry short courses in public transport planning (I and II) were run in October 2007. This year they were held concurrently in Melbourne (1 to 4 October) and then in Brisbane (15 to 18 October). Attendance was very high for all of these short courses with participants coming from a variety of professional backgrounds, including public transport operators and state government agencies from throughout Australia and overseas. The course was presented by Professor Currie and Professor Avi Ceder from the University of Auckland. Topics covered include strategic perspectives on planning public transport, performance monitoring and network design as well as operational perspectives.

RESEARCH AND POLICY


ITLS-Sydney

Current projects

SUSTAINABILITY

ITLS has as part of its objectives a commitment to research which focuses on the three cornerstones of sustainability:

- Economic and financial sustainability - Creating incentives for efficient responses to needs; making limited funding produce maximum benefits.
- Environmental sustainability - Promoting more livable settlements and reducing adverse external effects such as air, water, ground pollution.
- Social sustainability - Reducing poverty and meeting the needs of the disadvantaged (poor, disabled, elderly, young), improving public health.

 The Earth image indicates projects that promote sustainability.

CLIMATE CHANGE, ENHANCED GREENHOUSE GAS EMISSIONS AND PASSENGER TRANSPORT – WHAT CAN WE DO TO MAKE A DIFFERENCE?

D. Hensher

2007, ongoing

Climate change, global warming and enhanced greenhouse gas emissions (GGEs) are hot topics for many reasons, including scientific and speculative. The transportation sector, led by the automobile, has been cited constantly as a major contributor through human intervention to climate change. The media and lobby groups have, for many years escalated the case for finding ways to reduce the impact that people movement has on enhanced GGEs. Governments have ramped up the rhetoric to gain political support. Short of banning car use, the challenge remains one of understanding better what mix of actions might contribute in non-marginal ways to reducing the growth of GGEs (primarily CO₂) and even reduce the absolute amount of CO₂ produced by automobility. This research evaluates potentially effective instruments that are aimed at a number of policy objectives linked to the triple bottom line – efficiency, sustainability and equity – focusing on social surplus gains in addition to cost effectiveness; but in particular the ability to reduce CO₂. We use TRESIS, an integrated transport, land use and environmental strategy impact simulation program, developed by the author, to assess the influence on CO₂ of a number of ‘at source’ and ‘mitigation’ instruments such as improvements in fuel efficiency, a carbon tax, congestion charging, variable user charges, and improvements in public transit. We apply TRESIS to the Sydney metropolitan area with instruments enacted in 2010 up to 2015. There are some instruments that can reduce CO₂ in the passenger transport sector by 5 percent over the next 8 years, with some more politically palatable, although requiring a greater amount of investment outlay by government. A mix of technological improvement linked to fuel efficiency and pricing of car use offer the most balanced way forward in terms of impacts on all stakeholders, especially in preserving government revenue sources and the opportunity to re-invest back into the transport sector through improved multi-modal infrastructure.

HETEROGENEOUS PICK UP AND DELIVERY ROUTING PROBLEMS WITH TOTAL ROUTE TIME CONSTRAINT

A. Ng and S. Bain

2007, ongoing

The transportation and trucking industry remains one of the most important fields in the area of freight logistics. Recent advances in computing speed and power have led to a wide variety of applications being developed in the field of the trucking industry. Due to the increasingly demanding nature of servicing the transportation of goods between different locations, it has become more important for trucking companies to adopt more up-to-date methods of handling operational activities. In this project, we look into a FTL pickup and delivery routing issue where the total route time of each truck is limited such that truck driver will not be away from the depot longer than the time limit, which reduces the turnover rate of long-haul truck driver. Our objective is to effectively assign trucks to customer orders in various locations, to minimize costs due to deadhead travel between the various pickup and delivery locations, and delay in deliveries.

A DISTRICTING PROBLEM WITH SERVICE-TIME CONSTRAINTS

A. Ng, J. Leung, X. Cai and S. Bain

2007, ongoing

In police patrolling service, police patrolling teams have to patrol within the servicing area round the clock everyday. Whenever there is incident reported, the team has to reach the crime scene in a reasonably short time. A typical way to achieve this is to zone the area into a certain number of districts. Each district is served by a patrolling team. The objective of this project is to provide an effective zoning method in order to minimize the number of patrolling teams needed, while keeping a high service level by responding to the incident in a reasonably short time.

A TWO-STAGE SCHEDULING MODEL FOR THE IN-FLIGHT CATERING SERVICE

A. Ng, D. Oron, S.N. Sze and V. Timkovsky

2007, ongoing

This project studies the in-flight catering scheduling problem. A group of loading teams has to transport food from the kitchen and load it into aircrafts, which land and depart within tight time windows. The number of aircraft that can be served in a trip is restricted by the capacity of the loading truck and a food exposure time limit. Each loading team can only serve a specific set of aircraft types. A two-stage scheduling model is proposed to assign each loading team to aircrafts and decide the shift hour of each team in order to minimize the number of loading team needed.

PORT CHOICE: AN OCEAN LINER'S PERSPECTIVE

A. Ng

2007, ongoing

Ongoing Ocean liners and port operators are closely related business partners in sea borne supply chains. An ocean liner calling on a port will increase the connectivity of the port. Together with the efficiency and productivity of the port, more shippers will be attracted to ship their cargos via this liner-port pair. As a result, it increases the profit of both the ocean liner and the port operator. This project aims to study the factors that affect the choice of ports of an ocean liner on its regular shipping routes in order to provide insights for port operators in developing business and marketing strategies.

IS THE TRADITIONAL SUPPLY CHAIN ADEQUATE TO THE CHANGES OF THE TWENTY FIRST CENTURY?

D. Walters

2007, ongoing

It is arguable that the conventional supply chain is becoming limited in its ability to identify optional and innovative responses. Recent research suggests understanding the nature of demand through demand chain

analysis for example; the trade-off factors between product-service characteristics, may result in on an emphasis on non-price value differentiation and greater margins. Demand chain analysis has explored and has ascertained, for example, the role of brands, innovation, and service response and identified the sensitivities of customer response to these and other product-service features. Using demand chain to identify the customer expectations or, product/service profile(s) of markets and their segments results in an effective and efficient Response Management approach to both customer and supplier relationship management and a closer alignment with the value chain concept

EMERGING BUSINESS MODELS: THE IMPACT ON LOGISTICS

D. Walters

2007, ongoing

The expanding interest by the recently industrialised economies has led to their increasing competition in high labour content manufacturing. This development resulted in many Australian manufacturing companies becoming uncompetitive and looking to restructure their business models. This project considers the impact that a shift from “high volume-low value” business models towards “high value-low volume” models is having on business model design and logistics management.

LONG-RANGE MONITORING OF TRAVEL BEHAVIOUR CHANGE PROGRAMS FOR THE NTBCP

P. Stopher

2007 to 2013

Following on from the successful completion of the Pilot Testing of alternative methods for conducting a long-range monitoring program for voluntary travel behaviour change projects, the National Travel Behaviour Change Project partners, through Queensland Transport selected ITLS to conduct long-range monitoring for the period from late 2007 until late 2012, with a final report to be submitted in March 2013. The project involves a panel of approximately 115 households, drawn from the ACT, Queensland, South Australia and Victoria who will complete a 15-day GPS survey once a year from 2007 through 2012. The initial wave of the panel was completed in November-December of 2007, and subsequent waves of the panel will be completed in the period of October-November. A report is to be provided to the NTBCP partners prior to March 1 each year from 2009, documenting the changes in greenhouse gas emissions that are estimated from this survey.

EXPLORING BEHAVIOURAL RESPONSES OF MOTORISTS TO EXPOSURE-BASED CHARGING MECHANISMS [ARC Linkage Grant, with AAMI]

D. Hensher, S. Greaves and P. Stopher

2007 to 2010

Our continued reliance on cars is estimated to cost the Australian economy around \$50 billion per year in accidents, congestion and air pollution. This project delivers a new approach to reduce these externalities, in which charges are levied on drivers based on their accident history, the kilometres driven and the circumstances under which these kilometres are driven. In addition to the safety and congestion benefits, the outcomes of the project will be of importance to those charged with raising revenue to support infrastructure maintenance and development, and the insurance industry as a basis for reducing risks in driving and making premiums more equitable.

HYPOTHETICAL BIAS, STATED CHOICE STUDIES AND WILLINGNESS TO PAY

David A. Hensher

2007 to 2009

There is growing interest in establishing the extent of differences in willingness to pay (WTP) for attributes, such as travel time savings, that are derived from real choice settings and hypothetical (to varying degrees) settings. Non-experiment external validity tests involving observation of choice activity in a natural environment where the individuals do not know they are in an experiment are rare. In contrast the majority of tests are a test of external validity between hypothetical and actual experiments. Deviation from real

market evidence is referred to in the literature broadly as hypothetical bias. The challenge is to identify such bias, and to the extent to which it exists, establishing possible ways to minimise it. This research reviews the efforts to date to identify and ‘calibrate’ WTP derived from one or more methods that involve assessment of hypothetical settings, be they (i) contingent valuation methods, (ii) choice experiments involving trading attributes between multiple alternatives, with or without referencing, or (iii) methods involving salient or non-salient incentives linked to actual behaviour. Despite progress in identifying possible contributions to differences in marginal WTP, there is no solid evidence, although plenty of speculation, to explain the differences between all manner of hypothetical experiments and non-experimental evidence. The absence of non-experimental evidence from natural field experiments remains a major barrier to confirmation of under or over-estimation. Initial findings suggest, however, that the role of referencing of an experiment relative to a real experience, in the design of choice experiments, appears to offer great promise in the derivation of estimates of WTP that have a meaningful link to real market activity.

DEVELOPMENT OF A BEHAVIOURAL SYSTEM OF STATED CHOICE MODELS: MODELLING BEHAVIOURAL, PRICING AND TECHNOLOGICAL OPPORTUNITIES TO REDUCE AUTOMOBILE ENERGY LEVELS [ARC Discovery Project Grant]

D. Hensher, J. Rose and M. Beck

2007 to 2010

Automobile use is attributed with over 70% of CO₂ emissions from the transport sector. This project delivers a new framework to assess the impact of policies to reduce CO₂ and other energy sources associated with existing ICE fuel sources and a range of scenarios that involve futures with alternative fuels. The proposed framework will radically change the approach used by practitioners in prediction, and provide a way of capturing behavioural responses of car users to new environmental futures, in which price, performance, distribution and maintenance play a crucial role in adopting environmentally friendly fuels and vehicle designs. Australia lacks this behavioural capability. The focus is on vehicle type choice and use, implementing ideas in discrete-continuous choice modelling, attribute processing, group decision making and prospect theory.

INTEGRATING ACCIDENT AND TRAVEL DELAY EXTERNALITIES IN AN URBAN SPEED REDUCTION CONTEXT [ARC Discovery Project Grant]

D. Hensher

2007 to 2009

The recognition that accident externalities are not independent of travel delays, and hence travel time savings and losses will promote a serious policy rethink about strategies designed to reduce the risk of exposure to accidents. The evidence is designed to identify that additional externality that has to be factored into the accident costs to recognise the other sources of externality typically ignored in accident costing and speed restriction studies. The implication on the development of a national program of road safety is likely to be profound. New surveys using stated choice methods are being developed and data collected to identify the willingness to pay to avoid fatalities and severe injuries.

R-TRESIS: DEVELOPING A DEMAND AND SUPPLY MODELLING CAPABILITY FOR AN INTEGRATED TRANSPORT AND LAND USE MODEL SYSTEM FOR REGIONAL NEW SOUTH WALES

D. Hensher, S. Bain and Z. Li

2007 to 2010

This research sets out a demand modeling framework for the development of a regional transport and land use model system (R-Tresis), to be implemented for New South Wales (Australia). Traditionally, the focus of such a model system has been major metropolitan areas such as Sydney, where we have developed Tresis (Hensher 2002). Given the growing concern about regional accessibility to many service classes, there is a need for a modeling capability that can be used to prioritise and guide policy decisions in regions that are often described as remote, rural, low density and small town. In developing a framework that is capable of integrating both demand and supply elements of transportation and land use activity, we recognized the challenges in developing primary data sources, and the high likelihood of a reliance on secondary data

sources. This suggested an alternative approach to demand modeling that was not dependent on choice models; namely a suite of continuous choice models in which we capture the actual activities undertaken by each mode on both the demand and supply side.

DEVELOPING TOUR BASED MODELS FOR AN INTEGRATED LAND USE, TRANSPORT AND ENVIRONMENT MODEL SYSTEM FOR AUSTRALIA [ARC Discovery Project Grant]

P. Stopher

2007 to 2009

This project will provide a powerful new planning and decision tool with practical applications to assess the environmental, land use, and transport related impacts of (i) transport policies (e.g., congestion charging, TravelSmart, fuel taxation regimes, light rail vs. bus, etc.), (ii) development of major infrastructure investment (e.g., building new (toll) roads, rail lines, etc.) and (iii) introduction of various land use strategies and policies (e.g., infill vs. fringe development). The research will develop an integrated land-use travel demand model using tour-based demand models and microsimulation. The proposed research will not only have implications for improving transportation planning in Australia, but around the globe. Land use activity and transport provision represent important facets of the Australian economy (e.g., transport activities represent 17% of the total national gross domestic product). This project will improve significantly the ability of policy makers to make better and timely judgments about the virtues of specific land use and transport planning outcomes. The behavioural models to be developed will allow for greater sensitivity analysis to policy scenario planning, with measured impacts including forecasts of traffic levels and environmental impacts, especially greenhouse gas emissions and energy requirements.

COMMUNITY PERCEPTION AFTER SURVEY

P. Stopher

2007 to 2008

ITLS was asked to repeat the Community Perception Survey conducted in Western Adelaide in 2005, prior to the TravelSmart implementation, using as many of the same households as had been used in 2005 as possible. The survey was identical to the previous one, except for the opening screening questions, and the recruitment of additional households to make the sample up to the same size as the original survey. Fieldwork was conducted with about 400 households in November and early December and data have been computerised from the face-to-face surveys. Analysis will be completed in the first three months of 2008. The purpose of the project is to determine whether or not the TravelSmart intervention has changed attitudes about car use and barriers to change from car dependence. The final sample consists of a mix of TravelSmart participants and non-participants.

PILOT VALIDATION OF THE VISTA 2007 HOUSEHOLD TRAVEL SURVEY BY GPS

P. Stopher

2007 to 2008

PlanTrans Pty Ltd was selected by VicRoads to undertake a pilot validation of the new Victoria Integrated Survey of Travel and Activity (VISTA) of 2007-8. PlanTrans Pty Ltd subcontracted with ITLS to provide the GPS devices and to analyse the data collected from the GPS units. The survey was conducted by recruiting households by door-knocking in selected suburbs of Melbourne and, after recruiting the household to do the VISTA survey, then attempting to recruit the household to also do a one-week GPS survey covering the same time as the VISTA survey. A sample of 80 households undertaking the GPS survey was desired, with the expectation that this would result in 50 households actually completing both the VISTA and GPS surveys as requested. Final analysis of the results is still being conducted.

USING ARTIFICIAL NEURAL NETWORKS TO PREDICT EXPOSURE TO FINE PARTICULATES IN ROADWAY ENVIRONMENTS

S. Greaves

2007 to 2008

Over the last three years, we have conducted a number of trials using GPS technology and portable pollution monitors to assess exposure to pollution at highly disaggregate spatio-temporal levels on various modes of transport in Sydney. The issue under investigation here is the identification and adaptation of appropriate statistical techniques for analysing these data, which by their very nature exhibit a highly complex data structure. Here, we investigate the potential for applying methods based on Artificial Neural Networks (ANNs) to this problem.

DISRUPTION COSTS AND DISRUPTION MANAGEMENT STRATEGIES FOR SYDNEY BASED IMPORTER/EXPORTERS

M. Figliozzi

2007

In this project we are surveying importers and exporters to understand what are the relevant factors that determine shippers' decision making when a supply disruption has taken place. We are using a SP survey and we pivot the levels of the freight rate and transit time attributes in the stated choice experiment design. The respondents are being selected to represent different commodities and supply chain configurations. The variability engendered within and between shippers should provide enough variance to estimate a discrete choice model capable of separating out the influence of commodity values, service level (damage, frequency), and supply chain characteristics on shipper value of time with and without supply chain disruptions.

APPROXIMATIONS TO THE LENGTH OF VEHICLE ROUTING PROBLEMS IN URBAN NETWORKS

M. Figliozzi

2007

This research focuses on one type of distribution structure: a distribution or service centre that provides to several retailers or customers. Within this basic distribution structure, the number of retailers/customers in a given route can increase or decrease due to economical or technological reasons. This configuration has been chosen because recent studies in urban areas have shown that deliveries from distribution canters (DC) or warehouses have one of the largest impacts on vehicle miles traveled (VMT) in urban areas. On the service side, the commercial vehicles with the largest impact on VMT are business and personal service vehicles, rental cars, and public service vehicles that mostly operate from a central depot. The one to many model (routing from one depot to many customers) is not only ubiquitous but also represents distribution activities of supermarkets, distribution centres, producers, and repair service centres while keeping analytical complexity at a tractable level.

METHODOLOGIES TO EVALUATE AND MITIGATE THE IMPACT OF TRAFFIC CONGESTION IN URBAN FREIGHT DISTRIBUTION SYSTEMS

M. Figliozzi

2007

The major aim of this project is to develop and evaluate new methods for vehicle routing in congested urban areas. This work will build upon existing methods already studied in the literature but with the addition of constraints that reflect travel times in congested urban areas. Travel time will not be considered a known constant but a time-varying or random variable instead. Two main limitations have been identified with existing approaches: (1) handling realistic travel times: time-varying travel times that reflect the uncertainties and different travel speeds associated with peak and non-peak traffic conditions; and (2) scalability and fast computation of routing solutions: as congestion may develop unexpectedly, routing methods for congested urban areas must have a fast response time in order to take full advantage of real-time traffic information.

APPROXIMATION OF BAYESIAN EFFICIENCY IN EXPERIMENTAL CHOICE DESIGNS

J. Rose, M. Bliemer and S. Hess

2007, ongoing

This research compares different types of simulated draws over a range of number of draws in generating Bayesian efficient designs for stated choice studies. The research focus is on how closely pseudo Monte Carlo, quasi Monte Carlo and polynomial cubature methods are able to replicate the true levels of Bayesian efficiency for Stated choice (SC) designs of various dimensions. The authors conclude that the predominantly employed method of using pseudo Monte Carlo draws is unlikely to result in leading to truly Bayesian efficient SC designs. The quasi Monte Carlo methods analyzed here (Halton, Sobol, and Modified Latin Hypercube Sampling) all clearly outperform the pseudo Monte Carlo draws. Results to date show that the polynomial cubature method examined, incremental Gaussian quadrature, outperforms all, and is therefore the recommended approximation method for the calculation of Bayesian efficiency of stated choice designs.

ORDERED CHOICES AND HETEROGENEITY IN ATTRIBUTE PROCESSING

W. Greene, D. Hensher

2007, ongoing

A growing number of empirical studies involve the assessment of influences on a choice amongst ordered discrete alternatives. Ordered logit and probit models are well known, including extensions to accommodate random parameters and heteroscedasticity in unobserved variance. This research extends the ordered choice random parameter model to permit random parameterization of thresholds and decomposition to establish observed sources of systematic variation in the threshold parameter distribution. We will illustrate the empirical gains of this model in the context of an individual's choice amongst unlabelled attribute packages of alternative tolled and non-tolled routes for the commuting trip, and the role that each attribute plays, in the sense of being ignored or not. The ordering represents the number of attributes attended to from the full fixed set. Preliminary evidence suggests that there is significant heterogeneity associated with the thresholds that can be connected to systematic sources associated with the respondent (i.e., gender) and the choice experiment (i.e., aggregation treatment of components of travel time).

ASSESSING WILLINGNESS TO PAY FOR URBAN WATER, WASTEWATER, GAS AND ELECTRICITY DELIVERY SERVICE STANDARDS [ARC Linkage Grant]

D. Hensher, R.A. Letcher (ANU) and D. Graham (ActewAGL)

2006 to 2009

This ARC Linkage project (with ANU and ActewAGL) over 2006-2009 aims to develop understanding of the nature of willingness to pay (WTP) for utility services standards and the appropriate role of WTP in regulating prices and service quality. Given the current prevalence of service failure in Australia and the pressure on governments and utilities to invest in maintaining and improving infrastructure, this research is necessary to assess the level of investment required and the extent to which customers should pay. The research will be directly applicable to all gas, electricity, water and wastewater utilities and regulators in Australia. Results will also be crucial in developing regulation policy relating to the use of S-factors and regulation of service quality in Australia.

SELECTIVE DEVELOPMENTS IN CHOICE ANALYSIS

D. Hensher and J. Rose

2006 to 2008

Developments in data and modelling paradigms in choice analysis are developing at a fast pace. This research takes a selective view of some of these developments, especially four broad themes – information processing strategies, especially in the context of stated choice studies; agency interdependency (with a strong applied focus), developments in the design of choice experiments, and a smorgasbord of themes centred on expanding the behavioural capabilities (and longer term forecasting accuracy) of discrete choice models.

PROFILING DRIVING RISK USING PASSIVE IN-VEHICLE MEASUREMENT

S. Greaves

2006 to 2007

The aim of this project is to identify driver exposure to potential risk of a collision based on in-vehicle usage information (i.e., how much, when, where, and how they drive) collected using GPS technology. This is a pilot project designed to provide baseline critical information for the successful ARC-Linkage application (LP0775505) in which I am working with a national motor vehicle insurance company to look at how we might facilitate reductions in risk exposure through usage-based pricing mechanisms.

SAMPLING ERROR FOR MULTI-DAY SURVEYS

P. Stopher

2006 to 2007

ITLS has amassed a substantial amount of multi-day data, through the use of GPS surveys of up to 28 days duration. An issue that arises with multi-day data is to determine what are the required sample sizes and how to estimate sample statistics, bearing in mind that the observations of one person on multiple days are not independent observations. The project will investigate how to compute the intrapersonal variability and covariance, and how to modify the variance of the sample of multi-day observations to correct for the lack of independence in the observations. From this, we will be able to assess needed sample sizes and the sampling errors that will result from multi-day surveys.

VALUATION OF CAR PASSENGER'S TRAVEL TIME SAVINGS: TREATMENT OF PASSENGERS IN CARS USING TOLL ROADS

D. Hensher

2006 to 2007

All studies that develop estimates of the value of travel time savings (VTTS) for car travel, assume that the VTTS of the driver is the only relevant measure of the worth of time savings. If a car has multiple occupants, the passengers are typically excluded in the valuation. The literature has singularly failed to address this important issue other than with rare exception, to establish VTTS for the driver given the number of passengers. This research investigates the role that the passenger plays in the VTTS of the vehicle trip, identifying the extent to which time-cost trade-offs is a driver or a group decision. The implications on travel time benefits ignored in previous studies and hence impact on infrastructure justification, may be profound.

ASYMMETRICAL PREFERENCE FORMATION IN WILLINGNESS TO PAY ESTIMATES IN DISCRETE CHOICE MODELS

J. Rose, S. Hess and D. Hensher

2006, ongoing

Individuals when faced with choices amongst a number of alternatives often adopt a variety of processing rules, ranging from simple linear to complex non-linear treatment of each attribute defining the offer of each alternative. In recent years, there has been a growing interest in the choice process as a basis of understanding how best to represent attributes in choice outcome models. In this paper, in the context of choice amongst tolled and non-tolled routes, we investigate the presence of asymmetry in preferences, drawing on ideas from prospect theory to test for framing effects and differential willingness to pay according to whether we are valuing gains or losses. The findings offer clear evidence of an asymmetrical response to increases and decreases in attributes when compared to the corresponding values for a reference alternative. The degree of asymmetry varies across attributes and population segments, but crucially is independent of the inclusion or otherwise of an additional constant for the reference alternative, contrary to earlier findings.

DESIGNING EFFICIENT DATA FOR STATED CHOICE EXPERIMENTS: ACCOUNTING FOR SOCIO-DEMOGRAPHIC AND CONTEXTUAL EFFECTS IN DESIGNING STATED CHOICE EXPERIMENTS

J. Rose and M. Bliemer

2006, ongoing

Identifying methods for reducing the number of respondents required for stated choice (SC) experiments is important for transport studies given increases in survey costs. Such reductions, however, must not come at the cost of a lessening in the reliability of the parameter estimates obtained from models of discrete choice. Recognition of this has resulted in growing interest in a class of SC designs known as efficient designs, which balance reliability concerns with sample size issues. To date, however, the literature on generating efficient designs has only considered experiments that involve only attributes of the experiment. Covariates that may be used in data analysis have therefore ignored to date. In this research, we demonstrate that if covariates are to be used in data analysis, then the efficiency of a SC design may be lessened. We demonstrate how efficient SC experiments may be constructed to account for covariates, and how minimum quotas may be established in order to retain a fixed level of efficiency.

DESIGNING STATED CHOICE EXPERIMENTS: STATE-OF-THE-ART

J. Rose and M. Bliemer

2006, ongoing

Stated choice experiments are often used in transportation studies for estimating and forecasting behaviour of travellers, road authorities, etc. These kinds of experiments rely on underlying experimental designs. This research is designed to analyse and describe in as simple manner as possible, the processes of designing stated choice experiments and is intended to give an overview of the current state-of-the-practice and more importantly the current state-of-the-art. Different design types are examined and described. Orthogonal designs are mainstream under practitioners, but nowadays many researchers realize that so-called efficient designs are able to produce more efficient data in the sense that more reliable parameter estimates can be achieved with an equal or lower sample size. Different types of efficient designs are examined, including possible algorithms for generating efficient designs.

ESTABLISHING SIGNALS OF FIRM DISTRESS: A STATED PERCEPTION ASSESSMENT OF FIRM PROFILES

D. Hensher, S. Jones, J. Rose and A. Collins

2006, ongoing

Recent developments in data paradigms designed to assess preferences for packages of attributes that may or may not exist in real markets opens up opportunities to identify the signals that experts believe are being sent about the distress level of a firm with that condition. Although revealed preference data itself has inherent merit in the sense of defining a current distress state, the ability to develop a model to predict the distress outcome relies of the pooling of observations to create between-firm variability. An alternative methodology within the discrete outcome model setting involves a data paradigm centred on experimental design in which we design future firm profiles described by packages of financial factors. By varying these profiles and offering CFO's at least two of the packages to assess and indicate the ranking of them on a scale (from best to worse) that can be mapped into a distress index, we provide a new capability in the accounting and finance literature to predict the likelihood of a firm's profile being perceived by CFO's as a candidate for a specific distress classification. Specifically, given a list of financial factors identified through in depth interviews with CFO's and evidence sourced from the published literature, we can design a stated perception experiment based on combinations of levels of each financial attribute. We use state of the art D- and S-optimal designs with priors on attribute parameters (in contrast to sub-optimal orthogonal designs- except when we have no priors) to design an experiment used to reveal CFO's ranking of attribute profiles. If we assume a ranking of three constructed profiles, pivoted around each CFO's current firm's profile on these same attributes, we can use the rank order (1,2,3,4) together with the attribute levels across the four ordered alternatives to estimate an ordered mixed logit model. This model (see Jones and Hensher 2004) can be used to identify the probability of a specific distress level for each CFO, given their mapping of each rank against a distress level

scale. The estimated model can be validated with a hold out sample, drawn from the surveyed sample of CFO's. In addition to financial factors, we recognise the influence that macroeconomic variables have on the assessment of financial performance. We propose, in the stated perception ranking design, to overlay an additional experimental design in which we vary the levels of a set of macroeconomic variables (e.g., interest rate increases, volatility in exchange rates), pivoted around levels reported by each CFO as current exposure. The survey will also collect contextual data on firm specific characteristics, financial systems in place within the CFO's firm, the quality of management, corporate governance conditions and other factors.

ROUTE CHOICE BEHAVIOUR OF FREEWAY TRAVELLERS UNDER REAL-TIME TRAFFIC INFORMATION PROVISION—APPLICATION OF THE BEST ROUTE AND THE HABITUAL ROUTE CHOICE MECHANISMS

D. Hensher and J. Rong-Chang

2006, ongoing

The route choice behaviour on freeways between Taipei and Taichung in Taiwan under the provision of real-time traffic information is investigated. Two types of route choice selection rules (the best-route and habitual-route) are analysed using ordered probit models to identify the major influences on freeway travellers' route choice behaviour. The level of service associated with each route is defined as a generalized cost saving and specified non-linearly with a threshold inherent to travellers. The marginal (dis)utility thresholds in the 'best' and 'habitual' behaviour models are identified through a goodness of fit grid. The results to date confirm that the thresholds for changing the inertia behaviour of drivers should be larger than the ones for choosing the best routes. In addition, the drivers are more likely to choose either the best or the habitual routes once the generalized cost savings are greater than threshold values.

SUSTAINABLE PUBLIC TRANSPORT SYSTEMS: MOVING TOWARDS A VALUE FOR MONEY AND NETWORK-BASED APPROACH AND AWAY FROM BLIND COMMITMENT

D. Hensher

2006, ongoing

Growing public transport patronage in the presence of a strong demand for car ownership and use remains a high agenda challenge for many developed and developing economies. While some countries are losing public transport modal share, other nations are gearing up for a loss, as the wealth profile makes the car a more affordable means of transport as well as conferring elements of status and imagery of "success". Some countries however have begun successfully to reverse the decline in market share, primarily through infrastructure-based investment in bus systems, commonly referred to as bus rapid transit (BRT). BRT gives affordable public transport greater visibility and independence from other modes of transport, enabling it to deliver levels of service that compete sufficiently well with the car to attract and retain a market segmented clientele. BRT is growing in popularity throughout the world, notably in Asia, Europe and South America, in contrast to other forms of mass transit (such as light and heavy rail). This is in large measure due to its value for money, service capacity, affordability, relative flexibility, and network coverage. This research takes stock of its performance and success as an attractive system supporting the ideals of sustainable transport.

VALUATION OF TRAVEL TIME SAVINGS – PRACTICAL LESSONS IN ESTIMATION AND APPLICATION

J. Rose and D. Hensher

2006, ongoing

Recent developments in willingness to pay (WTP) methods have focused extensively on accounting for preference heterogeneity through judicious selection of analytical distributions in random parameter logit models. In the context of valuing travel time savings, there is now an accumulated body of evidence and experience on what happens to the WTP distribution when we impose specific distributional assumptions in unconstrained and constrained forms. The evaluation of various distributions has in large part been motivated by the desire to avoid long tails and sign changes on WTP that are often deemed behaviourally implausible. Recent research has raised a more fundamental concern about the focus on alternative distributions which may be looking in the wrong place for resolving some empirically identified behavioural inconsistencies. In this research we take a close look at a range of issues that we believe will support greater

behavioural realism without having to exercise analytical gymnastics to establish behavioural compliance. The issues investigated include the heterogeneity of attribute processing strategies adopted by individuals; a two-stage estimation method that first identifies anomalies in choice outcomes and then re-estimates on the remaining data set; and specific treatments of the numerator and denominator in WTP calculations.

TRANSPORT EVALUATION OF HOUSEHOLDS IN THE WEST

P. Stopher, S. Greaves, A. Collins, J. Zhang, N. Swann and C. FitzGerald

2005 to 2008

ITLS has been selected to undertake a 3-year evaluation of the effects of a variety of transport policy and investment actions by the government of South Australia in a significant portion of Adelaide's western suburbs. This is the first 3-year evaluation of its type to be undertaken in Australia. To implement the evaluation, ITLS established two panels in three Local Government Areas – one to provide odometer readings of all household vehicles every four months, beginning in April 2005, and ending in August 2007; and the other to use personal GPS recording devices for one week each year, in the months of August-September of each of 2005, 2006, and 2007. Based on analysis of the measurement of these two panels, ITLS will be able to determine the extent to which households change their travel behaviour and also whether such changes are sustained in the short term. Of particular interest will be the effects of the project on the amount of travel and the modes of travel used by panel members over the three-year period. This project marks the first time in which a panel odometer survey and a GPS panel will be used to evaluate transport initiatives. Following the successful completion of pilot studies, ITLS is conducting continuing surveys using both panel odometer surveys of 1000 households and a GPS panel survey of 200 households with an annual survey period of 7 days travel in each wave. The current monitoring of household travel is expected to continue to late 2007

EXPLORING THE STRUCTURE OF OUTSOURCING DECISIONS IN THE COMPUTER SERVICE INDUSTRY

D. Walters and S. Glaser

2005 to 2007

In August 2005 AWA Ltd made available \$25,000 for an investigation of value chains and their adoption in the Computer Service Industry. Subsequently University of the West of Sydney joint funded the project by a further \$20,000. The computer hardware industry is an example of an established value chain with much of its manufacturing, distribution and service operations outsourced. This study considers the recent developments in outsourcing and compares these with the developments within the computer industry.

THE MOBILITY AND ACCESSIBILITY EXPECTATIONS OF SENIORS IN AN AGING POPULATION [ARC Discovery Program Grant]

D. Hensher and R. Alsnih

2005 to 2007

Populations of post-industrial nations are aging. With a growing number of people living well into their 80's and maintaining active lives, the transportation system will have to start focusing more closely on understanding their mobility and accessibility needs, so as to ensure that specific requirements of this large segment are not being ignored through the promotion of traditional 'solutions' and historical assumptions. This research takes a close look at the evidence on the mobility needs and travel patterns of individuals over 64, distinguishing between the "young" elderly (aged 65 to 75 years) and the "old" elderly (over 75 years). This distinction is particularly useful in recognising the threshold of health change that impacts in a non-marginal way on mobility needs. This distinction also focuses transport planning and policy on a commitment to understanding the different needs of these subgroups of the population, identifying services and facilities that better cater for these groups. We review the evidence, in particular, on the mobility characteristics of the over 75 age group, including how they secure support through migration and settlement patterns. We use the empirical evidence from a number of western nations to identify the role of conventional and specialised public transport as an alternative to the automobile in meeting mobility and accessibility needs. In addition to the review study above, This project is funded by the ARC Discovery Program.

Seniors in an ageing population (SAPS) are a significant and growing segment of the population. As (relatively) cash rich and time poor, they have very high expectations in respect of levels of accessibility and mobility required from the transport system, as well as from other supporting networks. We currently lack policy-rich travel demand models to assist in understanding the complex dynamics that influence the travel activities of SAPS. Using ideas from stated choice methods, interactive agency choice experiments, panel econometrics and behavioural discrete choice models we propose a research program designed to understand these demands. Special focus is given to support networks and the ways in which these impact on the demand for car and public transport use, as well as meeting the access needs to health-support and leisure facilities and to supporting networks of family and friends.

REDUCING SIGN VIOLATION FOR VTTS DISTRIBUTIONS THROUGH RECOGNITION OF AN INDIVIDUAL'S ATTRIBUTE PROCESSING STRATEGY

D. Hensher

2005 to 2007

A number of authors have recently argued that the selection of the distributional assumptions in mixed logit models used in deriving distributions of valuation of travel time savings (VTTS) to capture taste heterogeneity has a significant impact on the empirical evidence. A recent paper by Hess *et al.* (2005) points out that constraining a specific distribution by some bounding rule to ensure that the 'wrong' sign is not permissible is problematic in that it ignores the impact of data or model imperfections. The stream of research by Hensher and his colleagues on accounting for the attribute processing strategy in stated choice studies (the main data source of VTTS) suggest that the existence of intuitively implausible signs for a subset of the sampled population is due, to some extent, to the manner in which the information in the stated choice experiment is actually input into the estimation of the choice model, and that searching for analytical distributions that appear to deliver more acceptable VTTS across the specific distribution may be looking substantively in the wrong place for the explanation. In this research we show evidence of what happens when we take into account the attribute processing strategy in contrast to assuming, as is common practice, that all attributes are relevant as presented. The findings produce the remarkable result of significantly reducing the incidence of intuitively implausible VTTS, even with unconstrained distributions.

CONGESTION AND VARIABLE USER CHARGING AS AN EFFECTIVE TRAVEL DEMAND MANAGEMENT INSTRUMENT

D. Hensher and L. Knowles

2005, ongoing

Interest at the political level in congestion charging is gaining pace as cities struggle with ways to reduce the effects of growing traffic congestion on the liveability of cities. Despite a long history of promotion of a wide array of travel demand management (TDM) initiatives, very few have had a noticeable impact on the levels of traffic on the road networks of metropolitan areas. TDM success in this context has almost become 'band-aid' in the absence of a pricing strategy that not one promotes efficient use of the system but also hypothecates revenues to support essential complementary infrastructure and services such as public transport. This research takes a look at the stream of pricing consciousness that is surfacing around the world. Although very few jurisdictions have implemented congestion charging, or any form of efficient variable car and truck user charging, the winds of change are well in place. The adage "it is not a matter of if but of when" seems to be the prevailing view.

SPATIAL ALLIANCES OF PUBLIC TRANSIT OPERATORS: ESTABLISHING OPERATOR PREFERENCES FOR AREA MANAGEMENT CONTRACTS WITH GOVERNMENT

D. Hensher and L. Knowles

2005, ongoing

Scheduled transit services in many countries are provided by operators within geographical jurisdictions protected from competition with other public transit operators, although unprotected from the competition by other modes, especially the car. This increased competition in many developed economies has led to a loss of market share of urban transit and contributed to the growing crisis in escalating costs of service provision (leading to pressure for increasing subsidy support). The response to this throughout the 1990s has seen

governments progressively introducing market reforms centred on competitive tendering and economic deregulation. In more recent years, performance-based contracts have become popular variants, with an increasing number of incentive payment criteria introduced to not only promote cost efficiency but also aimed at growing patronage. Where such reform has involved area wide contracts, the boundaries of the contract areas have been essentially preserved. In recognition of the growing support for bus-based transit systems (variously referred to as bus rapid transit, busways and transitways), which offer increasing promise in growing public transit patronage, the NSW government in Australia has introduced reforms that require existing operators in the Sydney metropolitan area each currently holding an area contract (87 contracts) to work together under fifteen new spatial contracts. These new contracts overlay the existing contract areas and give incumbent operators the first option to participate. In this project we assess ways in which operators might coalesce to deliver ongoing and new 'regional' services. Operator business preferences and potential barriers to cooperation are identified through stated preference experiments.

THE PROVISION OF CONSULTANCY SERVICES ADVICE IN REGARD TO THE ACT TRAVEL-SMART PROJECT

P. Stopher

2005 - 2007

ITLS was selected to provide ongoing advice to the ACT Planning and Land Authority during a period of implementation of TravelSmart initiatives in the Canberra area. This advice includes assistance in drafting requests for proposals, reviewing requests for proposals, reviewing work scopes and reviewing reports and other materials, as requested by the ACTPLA.

PREDICTING FINANCIAL DISTRESS USING REPORTED CASH FLOWS: AN ORDERED MIXED (RANDOM PARAMETER) LOGIT MODEL

D. Hensher

2004, ongoing

Previous research examining the incremental information content of operating cash flows (CFO) and traditional accrual measures in financial distress prediction has been inconclusive. Many studies have employed some estimate of CFO, rather than reported CFO of firms. In most cases modelling has been confined to a simple binary logistic analysis, discriminant analysis or a rudimentary multinomial approach. Using a more robust four-state random parameter (ordered) logit design, ratios based on reported CFO were found to have higher predictive value than estimated CFO, including a cohort of traditional accrual ratio measures. The advantages of using advanced discrete choice models by researchers in this field, including their econometric implications, are discussed.

URBAN PUBLIC TRANSPORT DELIVERY IN AUSTRALIA: ISSUES AND CHALLENGES IN RETAINING AND GROWING PATRONAGE

D. Hensher

2004, ongoing

Urban public transport continues to be a high priority social obligation of governments throughout the world. In some jurisdictions it is the prime responsibility of national governments, while in other localities it is a state or local responsibility. To varying degrees, public and private organizations deliver the services within a regulatory framework that has responsibility for the performance of suppliers in a wide range of market settings. Increasingly government subsidy support is being aligned to the patronage levels and market share of public transport. This research focuses on the challenges involved in retaining and growing patronage in the presence of the dominant automobile. We focus primarily on bus and rail services but recognise the valuable role of ferries and taxis in the delivery of public transport.

ASSESSING SOURCES OF VARIATION IN TRAVEL DEMAND ELASTICITIES: A META ANALYSIS

D. Hensher

2003, ongoing

This project is documenting studies that have established empirical estimates of direct and cross elasticities for public transport service and cost. The aim is to explain differences in the estimates as way of understanding the influence on methods, data paradigms and context in influencing variations in estimates.

URBAN FREIGHT MODELS: ESTABLISHING SUPPLY CHAIN MODELS [ARC Discovery Program Grant]

D. Hensher and S. Puckett

2002, ongoing

As part of a five-year ARC Discovery Program (2002-06), the aim is to develop new approach to modelling the key travel choices associated with the movement of urban freight. A central focus is on understanding the interactive agency aspect of the supply chain within which freight movement decisions are made. Thus the decision on choice of supply chain alliance and structure precedes the specification and modelling on trip decisions such a routing and chaining. The long term goal is to have a suite of choice models that can be used to evaluate the impact of transport policies such as congestion pricing on freight movements.

DIMENSIONALITY OF STATED CHOICE DESIGNS [ARC Grant]

D. Hensher

2000, ongoing

Stated choice (SC) methods are now a widely accepted data paradigm in the study of behavioural response of agents (be they individuals, households, or other organizations). Their popularity since the pioneering contributions of Louviere and Woodworth (1983) and Louviere and Hensher (1983) has spawned an industry of applications in fields as diverse as transportation, environmental science, health economics and policy, marketing, political science and econometrics. With rare exception, empirical studies have used a single SC design, in which the numbers of attributes, alternatives, choice sets, attribute levels and ranges have been fixed across the entire design. As a consequence the opportunity to investigate the influence of design dimensionality on behavioural response has been denied. Accumulated wisdom has promoted a large number of positions on what design features are specifically challenging for respondents (eg the number of choice sets to evaluate); and although a number of studies have assessed the influence of subsets of design dimensions (eg varying the range of attribute levels), there exists no single study (that we are aware of) that has systematically varied all of the main dimensions of SC experiments. This research uses a Design of Designs (DoD) SC experiment in which the 'attributes' of the design are the design dimensions themselves including the attributes of each alternative in a choice set. The design dimensions that are varied are the number of choice sets presented, the number of alternatives in each choice set, the number of attributes per alternative, the number of levels of each attribute and the range of attribute levels. We investigate hoe different designs impact on willingness to pay (ie attribute valuation), using a sample of respondents in Sydney choosing amongst trip attribute bundles for their commuting trip.

A LATENT CLASS MODEL FOR DISCRETE CHOICE ANALYSIS: CONTRASTS WITH MIXED LOGIT

D. Hensher

Ongoing

The multinomial logit model (MNL) has for many years provided the fundamental platform for the analysis of discrete choice. The basic model's several shortcomings, most notably its inherent assumption of independence from irrelevant alternatives (IIA) have motivated researchers to develop a variety of alternative formulations. The mixed logit model stands as one of the most significant of these extensions. This research proposes a semi-parametric extension of the MNL, based on the latent class formulation, which resembles the mixed logit model but which relaxes its requirement that the analyst makes specific assumptions about the

distributions of parameters across individuals. An application of the model to the choice of long distance travel by three road types (2-lane, 4-lane without a median and 4-lane with a median) by car in New Zealand is used to compare the MNL latent class model with mixed logit.

CONGESTION PRICING AND THE OPTIMAL PROVISION OF PUBLIC INFRASTRUCTURE GOODS: WITH REFERENCE TO TOLL ROADS

D. Hensher

Ongoing

The research provides a theoretical framework for analysing the effects of public infrastructure provision on private sector productivity using the example of a transport network. Public infrastructure such as a transport network is assumed to be a (congested) public good. When the provision of this good is at the long run equilibrium level, consumers pay a price which reflects the (individually-determined) marginal productivity of the good and the supplier is also recovering all its opportunity costs. In practice, the determination of the optimal level of provision of a public infrastructure good is not always an easy matter because of the (semi) public good nature of the infrastructure good. The set of 'Lindahl prices' which are supposed to be levied on each individual user to reflect the individualised marginal productivity of the public good are not easily determined or observed. Fortunately, in the case of a 'congested' public good such as a tolled road, it can be shown that congestion can act as though a kind of implicit tax, or 'Lindahl prices' which will help to reveal the individual user's true willingness-to-pay for the public good. If we can estimate the level of these implicit taxes from the level of congestion and the aggregate level of demand associated with this level of congestion, then we can use these to estimate the (aggregated) Lindahl prices which will help in determining the optimal level of provision of the public good. Congestion thus can act as though a kind of 'invisible hand' which helps to restore equilibrium in the case of a congested public good. We illustrate this with an empirical calculation for an actual road network.

CONTRACT AREAS AND SERVICE QUALITY ISSUES IN PUBLIC TRANSIT

D. Hensher

Ongoing

The introduction of contract regimes for the provision of bus services such as competitive tendering and performance-based contracts is usually premised on a prior assumption that the size of the physical contract area is given and that any policies related to interactions between contract areas such as integrated ticketing and fares are agreed to. This research reviews the evolving arguments that promote a review of contract area sizes before re-contracting and the positions supporting the benefits of service quality-related issues such as an integrated fares policy. Given that a number of analysts (in Sydney) are promoting the appeal of increasing physical contract area size to facilitate, amongst other reasons, an integrated fare regime, it is timely to set out the pros and cons for such reform to ensure that they are not counter-productive to the desired outcomes of the reform process. The arguments herein caution the support for too small a number of large contract areas on grounds of internal efficiency losses and limited gains in network economies (but support amalgamating very small contract areas). The existing empirical evidence tends to support contract areas currently services by fleet sizes in the range 30-100 regardless of urban development profile. Alternative ways of delivering cross-regional and broad-based network benefits are proposed.

MIXED LOGIT MODELS: THE STATE OF PRACTICE

D. Hensher

Ongoing

The mixed logit model is considered to be the most promising state of the art discrete choice model currently available. Increasingly researchers and a few practitioners are estimating mixed logit models of various degrees of sophistication with mixtures of revealed preference and stated preference data. It is timely to review progress in model estimation since the learning curve is steep and the unwary are likely to fall into a chasm if not careful. These chasms are very deep indeed given the complexity of the mixed logit model. Although the theory is relatively clear, estimation and data issues are far from clear and indeed there is a great deal of potential mis-inference consequent on trying to extract increased behavioural realism from data that is often not able to comply with the demands of mixed logit models. Possibly for the first time we now have an

estimation method that requires extremely high quality data if the analyst wishes to take advantage of the extended behavioural capabilities of such models. This research focuses on the new opportunities offered by mixed logit models and some issues to be aware of to avoid misuse of such advanced discrete choice methods by the practitioner.

MODELS OF ORGANISATIONAL AND AGENCY CHOICES FOR PASSENGER AND FREIGHT-RELATED TRAVEL CHOICES: NOTIONS OF INTER-ACTIVITY AND INFLUENCE

D. Hensher

Ongoing

The study of traveller behaviour has in the main treated each agent in a decision-network as an independent decision maker conditioned typically (and exogenously) on the socio-economic and demographic characteristics of other agents and at best on a set of exogenous variables representing the (perceived 'equilibrium') influence of other agents. In many literatures it has long been recognised that agency interaction plays a (potentially) significant role in the actions of individuals. Examples at the household, community and business level abound. McFadden (2001a,b) recently stated that a high priority research agenda for choice modellers is the recognition of the role of social and psychological interactions between decision makers in the formation of preferences. Manski (2000) came to a similar conclusion and offered a plea for better data to assist in understanding the role of interactions between social agents (promoting the role of experimental choice data). While the interest in (endogenous) interactions between agents involved in passenger travel activity is generally neglected, the absence is particularly notable and of greater concern with the renewed interest in the study of (urban) freight travel activity where a supply chain of decision-makers have varying degrees of influence and power over the freight distribution task. This research reviews the broad literature on interactive decision making with a specific focus on choices made by interactive agents and the role of individuals in networks. A number of modelling perspectives are presented that use well established discrete choice paradigms. We highlight the challenges in designing data collection paradigms that are comprehensive, relevant and comprehensible by participating agents and suggest an agenda for ongoing research.

PERFORMANCE-BASED QUALITY CONTRACTS FOR THE BUS SECTOR: DELIVERING SOCIAL AND COMMERCIAL VALUE FOR MONEY

D. Hensher

Ongoing

Reform of the bus sector has been occurring in many countries. One matter central to these reform initiatives is the establishment of a value for money (VM) regime to ensure that operators deliver to the market the best possible service levels consistent with stakeholder needs and especially the objectives of government. A key underlying feature of 'value for money' (VM) is identifying the benefit to society associated with each dollar of subsidy support from government. This research reviews the elements of a VM regime within the setting of an incentive-based performance contract and develops a formal framework for establishing optimum subsidy based on system-wide maximisation of social surplus. The maximisation of social surplus is subject to a number of constraints including the commercial imperative of the operator, minimum service levels under community service obligations and a fare and subsidy budget cap. An important feature of the performance-based contract (PBC) regime is a passenger trip-based incentive payment scheme linked to user and environmental externality benefits incorporating a subsidy per additional passenger trip above the patronage delivered under minimum service and fare levels. In this way, rewards to operators are revealed through the fare box, through increased consumer surplus and through reductions in negative externalities associated with car use. PBCs can be designed to accommodate both transition from an existing regime and post-transition growth strategies. The implementation of performance-based contracts is illustrated using data from private operators in the Sydney Metropolitan Area.

RESPONDENT BURDEN IN CHOICE EXPERIMENTS: DOES TEMPORAL BURDEN-SPREADING HELP?

D. Hensher

Ongoing

A feature of choice experiments that continues to concern many analysts is the impact of the choice task itself on choice responses. As we show the behavioural merits of increasingly more demanding choice tasks to evaluate, we impose additional burdens on respondents. While in reality individuals seem able to make decisions by evaluating alternatives in complex (often sub-conscious) ways, we still struggle with how best to replicate that process in a way that captures the data necessary to formally model the choice process. This research investigates the variability in choice response when we offer choice experiments under a number of alternative data collection paradigms. The alternatives are based on the number of choice experiments and the elapsed time between requests for data response. Holding the actual design alternatives and attributes fixed, we compare a 32 choice set in which we offer all 32 at one time, 16 sets over two sittings, and 8 sets over four sittings. We space the sequenced interviews apart by 7, 14 and 21 days. The main hypothesis is the impact on variability of choice response and a range of valuation outputs of exposure to a specific number of choice sets over a period of time ranging from all at once to a spread of 21 days. We use a convenience sample of 90 respondents (yielding 960 observations per setting or 2880 in total) and a toll vs free road trade off on toll cost, travel time, and travel time variability (ie reliability) for three unlabelled alternatives.

SQI: A SERVICE QUALITY INDICATOR FOR URBAN BUS OPERATIONS – DEVELOPMENT PHASE

D. Hensher

Ongoing

Building on the 1999 pilot study that identified the potential for a new service quality index for urban bus operations, this development phase involved the State Transit Authority of NSW and Busways in further detailed refinement of the SQI measure. We divided each operator into a number of route-based segments and surveyed a sample of passengers in each segment using a stratified random sample. As a benchmarking exercise we developed a joint discrete choice model (using a nested logit trick) with the capability of scaling each segments parameter estimates in recognition of the data being drawn from different sampled populations. Ignoring such scaling leads to notable reordering of the SQI performance of each segment. Suggested mechanisms for introducing SQI into contract specification are presented.

TRESIS: TRANSPORT AND ENVIRONMENT STRATEGY IMPACT SIMULATOR

D. Hensher

Ongoing

The Institute of Transport Studies has recently released Transportation and Environment Strategy Impact Simulator (TRESIS) as a decision support system to assist planners to predict the impact of transport strategies and to make recommendations based on those predictions. A key focus of the simulator is the richness of policy instruments such as new public transport, new toll roads, congestion pricing, gas guzzler taxes, changing residential densities, introducing designated bus lanes, implementing fare changes, altering parking policy, introducing more flexible work practices, and the introduction of more fuel efficient vehicles. The appropriateness of mixtures of policy instruments is gauged in terms of a series of performance indicators such as impacts on greenhouse gas emissions, accessibility, equity, air quality and household consumer surplus.

TRESIS Version 1.0 is provided exclusively to the Bureau of Transport Economics. This version is the 1995 ITS-BTCE source code, extensively edited and restructured to increase the performance of the code. The software can be applied on six capital cities in Australia (Sydney, Brisbane, Melbourne, Canberra, Perth and Adelaide). A user friendly input and output interface has also been added using the latest map objects and Boolean tools. In 1995 a typical run for one policy instrument for the years 1993-2017 took up to 12 hours. The combination of a streamlined code and faster computers has reduced this time to minutes. For example, a single policy evaluation for Canberra for 1993-2017 on a Pentium III with 128 MB of ram and 32 bit virtual memory (under Windows 98) takes about 9 minutes. TRESIS version 1.4, a major upgrade of version 1.0

(with intermediate test versions 1.2, 1.3) was released in early 2003 and updated base year to 1998 as well as adding new features to select the number of synthetic households and a new joint departure-mode choice model for commuters and is specialised at this stage to Sydney. TRESIS version 2 is in progress and is a major overhaul including extensive new networks for highway and public transport modes (bus, ferry, rail, busways, light rail). It replaces the 14-zone system of version 1.4 with 904 zones and has placed the entire architecture on a built-in GIS platform. No additional support software is required.

TOLLED CROSS CITY TUNNEL IN SYDNEY

D. Hensher

Ongoing

Transfield, Multiplex and a major Warburg Dillon commissioned me to provide expert advice in the preparation of a bid to build, finance and operate a proposed tolled tunnel under the central business district of Sydney. The main focus was on appointment of sub-consultants and directing the travel demand research.

Recent research achievements

Grants

In the period of 2002-7 ITLS had a large success in winning Australian Research Council (ARC) grants winning 13 (Professor David Hensher 9, Professor Peter Stopher 3, Dr Stephen Greaves 1) of the 63 ARC grants awarded to the Faculty of Economics and Business over that period.

Dr Stephen Greaves

Using artificial neural networks to predict exposure to fine particulates in roadway environments

Faculty of Economics and Business Research Grant [2007: \$15,000]

Profiling driving risk using passive in-Vehicle measurement

School of Business Research Grant [2007: \$7,000]

Professor David Hensher

Roads and Traffic Authority of NSW safety research 2007

[2007: \$97,000]

Secured Chair in Public Transport in ITLS, funded by NSW Government

[2008-2012: \$1m]

Development of a behavioural system of stated choice models: modelling behavioural, pricing and technological opportunities to reduce automobile energy levels.

Australian Research Council Discovery Project [2007 to 2009: \$264,394]

Integrating accident and travel delay externalities in an urban speed reduction context.

Australian Research Council Discovery Project [2007 to 2009: \$239,394]

Professor David Hensher, Professor Peter Stopher and Dr Stephen Greaves [with AAMI Ltd]

Exploring behavioural response of motorists to exposure-based charging mechanisms

Australian Research Council Linkage Project [2007 : \$95,000; 2008 : \$100,000; 2009 : \$35,000]

Dr Ada Suk-Fung Ng

Heterogeneous pickup and delivery routing problem with total route time constraint

Faculty of Economics and Business Research Grant [2007: \$11,200]

Competitive factors for regional container hub port: A case study in East Asia

Malaysia E-Science Fund, funded by Ministry of Science of Malaysia [2006-7: \$28,174]

Dr John Rose

The impact of a carbon tax upon air travel: Imposing carbon taxes on customers aboard long haul flights

Faculty of Economics and Business Research Grant [2007: \$11,500]

Professor Peter Stopher

Developing tour based models for an integrated land use, transport and environment model system for Australia

Australian Research Council [2007: \$62,000; 2008: \$66,000; 2009: \$79,000]

Pilot validation of the VISTA 2007 household travel survey by GPS

PlanTrans Pty Ltd [2007: \$15,264]

Community perception after survey

South Australia Department of Transport, Energy, and Infrastructure [2007: \$90,090]

Awards

Dr Sean Puckett received the 2006 Eric Pas Dissertation Prize from the International Association for Travel Behaviour Research. He was presented with this prestigious award at Transportation Research Board 87th Annual Meeting in January 2008 in Washington DC. This is a prestigious award in the field and highly competitive. Professor Sean Doherty, the jury chair, indicated that the competition was extremely stiff this time around, with a large number of high quality dissertations. The jury, however, determined that Sean Puckett's dissertation stood out among the many high quality submissions. Sean Puckett's Doctoral Supervisor was Professor David Hensher.

Research Projects

PREDICTING PAVEMENT PERFORMANCE AT A ROAD NETWORK AND ROAD PROJECT LEVEL

T. Martin and W. Young

PhD project

Tim Martin is a principal research engineer with ARRB Transport Research Ltd, and commenced his PhD in April 2001. It is postulated, and generally observed, that pavement performance is influenced mainly by levels of maintenance expenditure, climate, traffic loading and its associated dynamic effects and the structural condition of the pavement and its variability along the pavement. All factors are interrelated and correlation of these factors is prevalent in the usual historical performance databases used in quantifying pavement performance. This research aims to develop improved network and program level roughness deterioration models, including identifying the components of uncertainty associated with these models. The quantification of pavement performance will take the form of deterioration relationships expressed as a function of time, traffic loading and other variables and will cover sealed granular pavements (typical of 95% of Australia's sealed road network) and the typical range of traffic levels and climatic conditions for pavements (network and program level) within most road networks in Australia. Pavement performance will be assessed by an overall serviceability and surface condition measure and an overall structural condition measure. More accurate deterioration models will improve the reliability of the estimates of road wear and cost allocation (with implications for heavy vehicle charging), of the estimates of the differences in road maintenance costs that are due to the various climatic regions in Australia, and of the estimates for maintenance and rehabilitation scheduling along each road in the road network (with implications for the estimation of the capital costs of increased pavement capacity under the regime of increased road use).

ENVIRONMENTAL IMPACTS OF TRANSPORT

W. Young

This project explores the relationship between land use, transport and the environment. Long term changes in transport and their impact on land use and the environment are investigated.

THE EFFECTS OF LARGE ROAD FREIGHT VEHICLES ON THE PERFORMANCE OF TYPICAL AUSTRALIAN ROAD PAVEMENTS: THE PERFORMANCE OF CEMENTED PAVEMENT MATERIALS UNDER HEAVY AXLE LOADING

R. Yeo, W. Young and K. Kodikara

PhD project

This project involves a study of road capacity to carry increasing axle loads on pavement structures incorporating cemented materials. Full scale accelerated load testing of two purpose built test pavements will be undertaken to assess the effects of axle load on pavement life. Laboratory test protocols for assessment of the elastic properties and fatigue properties of cemented materials will be investigated and the results of the full scale and laboratory tests will be compared with current theory.

INTEGRATION OF DATA MODELS AND ANALYSIS TECHNIQUES.

F. Spirodonis and W. Young

This project looks at the hierarchy of data and modeling systems and investigates the integration of these aspects into the development of an integrated transport information system.

LAND USE AND TRANSPORT INTERACTION IN MELBOURNE

I. Kabir and W. Young

This project develops and model of the land use and transport interaction in Melbourne. It uses the TRANUS model and data collected on population and travel in Melbourne over the period 1976 to 2001.

THE INFLUENCE OF MULTIPLE AXLE LOADS ON PAVEMENT PERFORMANCE

M. Moffat and W. Young

MEngSci project

Michael Moffat is a principal research engineer with ARRB Transport Research Ltd, and commenced his MEngSci in April 2007. This study will focus on the developing a better means of assessing the relative damaging effects of axle groups. The recent trend towards more innovative heavy vehicle design makes this issue more relevant than ever.

ASSESSING THE IMPACT AND QUALITY OF TRANSPORTATION RESEARCH

M. Shackleton and W. Young

Phd project

Michael Shackleton is a principal research engineer with ARRB Transport Research Ltd, and commenced his PhD in April 2007. This study investigates that currently, economic benefits of transportation research are the primary and practically sole means of assessing transportation research quality. There is reason to believe that this undervalues the research in terms of the impact it has or potentially can have on social endeavours. Research quality has moved beyond being a measure of the academic or intellectual impact of research. While the extent to which outputs from research are used is still a measure of other researchers' perceptions of quality, factors such as rigour, relevance of the topic and innovation are increasingly important factors in determining 'research quality' and need to be considered.

TRANSFERRED TECHNOLOGY-BASED TRANSPORT, INFRASTRUCTURE AND ENGINEERING PROJECTS FINANCED AND UNDERTAKEN IN CHINA AND ASIA

M. Karpovitch and W. Young

PhD project

High economic growth rates of the economies in Asia and China have meant increased transport and infrastructure construction project activity in the region. This program of research aims to investigate and analyse the influence of systems of managing and financing large public transport and infrastructure projects on their outcome.

ACCURACY AND TRAFFIC SIMULATION MODELING

W. Young

This project looks at the reliability of traffic simulation models. In particular it investigates the assumptions made in the model and their impact on the output. Particular attention will be paid to assumptions about drivers risk taking.

DEVELOPMENT OF A NATIONAL FRAMEWORK FOR APPRAISAL AND EVALUATION OF TDM INITIATIVES

G. Rose

This research project, undertaken for Austroads, developed a framework to assist in the selection and evaluation of Travel Demand Management (TDM) measures. The project drew on the UK Governments' 'New Approach to Appraisal', the Auslink 'Transportation System Management Guidelines' and work previously undertaken by ARRB Transport Research for the Victorian Department of Infrastructure to develop a TDM measure selection toolkit and framework for TDM appraisal and evaluation. The framework once developed in draft form, was subjected to extensive peer review and testing through a series of workshops held in Australia and New Zealand. Drawing on the input from the nearly 60 TDM practitioners, policy makers and academics who participated in those workshops, the framework was refined and its application tested in a series of hypothetical case studies. The framework has since been published in an Austroads report.

COMPARING CYCLING IN MELBOURNE AND SYDNEY

J. Pucher, S. Greaves, J. Garrard and G. Rose

This study is comparing cycling in Melbourne and Sydney. It seeks to examine differences in the level of involvement in cycling and the relative safety of cycling in the two cities.

UNDERSTANDING PATTERS IN THE USE OF MELBOURNE'S OF-ROAD BICYCLE PATHS

G. Rose and J. Phung

Data from automatic loop detectors installed throughout the Melbourne's bikepath network is being used to develop models of usage. The research has examined not only daily, weekly and annual patterns in usage but also the impact of weather effects, specifically rain, wind and temperature, on the level of cycling. The results have not only highlighted the non-linear impact of weather on demand but also provided a basis for classifying bike paths, according to their usage patterns, into those which fulfill primarily a commuter purpose and those which attract predominantly recreational use.

ECODRIVE AS A ROAD SAFETY TOOL FOR AUSTRALIAN CONDITIONS

G. Rose and M. Symmons (Cognitive and Behavioural Sciences)

EcoDrive initiatives encourage drivers to modify their driving style to conserve fuel. Overseas results suggest a reduction in crashes can also be achieved. This project is critically examining past evaluations in order to develop recommendations for an EcoDrive model suitable for Australia. The study is being undertaken for the Federal Office of Road Safety.

DESIGN and EVALUATION OF AN ECODRIVER TRAINING PROGRAM IN THE VICTORIAN CEMENT INDUSTRY

G. Rose and M. Symmons (Cognitive and Behavioural Sciences)

This project is being undertaken to develop, conduct and evaluate a pilot EcoDriver training program aimed at reducing fuel consumption and emissions, specifically CO₂ emissions, produced by heavy commercial vehicles involved in the cement industry. The project represents a collaboration between the Cement Industry Federation in Australia, Sustainability Victoria, Blue Circle Southern Cement, Strategix Training and Monash University. A central part of the study, where the Monash researchers are responsible for evaluation, involves a field trial scheduled for the first quarter of 2008.

MOTORCYCLES AND TRANSPORT STRATEGY

G. Rose

Within the context of sustainable transport strategies being prepared throughout the world, motorcycles rarely feature prominently. Motorcycles tend to get greatest attention in the content of road safety strategies where actions are identified to reduce the incidence of fatalities and serious injuries associated with motorcycle use. The mobility advantages of the mode have received limited professional attention. This project examined the relevance of motorcycling in the context of achieving broader objectives being set by Governments for the transport system explores a set of policy instruments which could be employed to influence the extent and use of motorcycles.

CARPOOLING: REVIEW OF INTERNATIONAL BEST PRACTICE

D. Lavoipierre and G. Rose

Undergraduate research project

A literature review was used to identify initiatives designed to encourage carpooling and to identify the potential of carpooling in urban areas. A distinction was drawn measures to assist at the start of the trip (e.g. software or registration schemes to match up potential carpoolers), during the trip (High Occupancy Vehicle and High Occupancy Toll lanes) and at the end of the trip (preferential car parks, guaranteed ride home schemes, differential pricing for carpools). The review identified examples of international best practice and progressed understanding of the potential of carpooling as a response to challenges such as global warming and peak oil.

LOW POWERED PERSONAL MOBILITY DEVICES

N. Guy and G. Rose

Undergraduate research project

A variety of low powered personal mobility devices are available overseas such as powered bicycles and the Segway Human Transporter. This project examined the characteristics of these devices, the experience with their use and the current regulations in Australia which may limit their use or restrict their availability here. The project explored the development of a performance based standard for these devices in Australia.

EVALUATION OF THE MONASH UNIVERSITY CARPOOL SYSTEM

A. Lam, O. Kohnesheen and G. Rose

Undergraduate research project

This study drew on a variety of data sources to provide enhanced understanding of the Monash University Carpooling system. A web-based survey of individuals registered for the carpool service, an analysis of ticket machine data and surveys of carpool usage provided a comprehensive data base for the study. The carpool carparks provide free parking. The price of regular parking permits increased dramatically in 2007 (from approximately \$80 in 2006 to \$280 in 2007). This resulted in not only an increase in usage of the carpool parks but also a large reduction in the proportion of vehicles using carpool carparks which also displayed a regular parking permit. A survey which targeted the behaviour of individual carpools provide insight into the membership characteristics or carpools in terms of their relative household locations and also confirmed substantial reductions in vehicle kilometres travelled on the days when participants carpooled.

INVESTIGATING TRANSPORT DISADVANTAGE, SOCIAL EXCLUSION AND WELL BEING IN METROPOLITAN, REGIONAL AND RURAL VICTORIA

G. Currie, T. Richardson, P. Smyth and D. Vella-Broderick

ITS-Monash has won its first Australian Research Council Industry Linkage award for this 3 year interdisciplinary project to explore how transport problems impact on life opportunities and community well being. The project has a \$1.1M budget and draws together international collaborations from the UK (Prof Hine, University of Ulster and Dr Karen Lucas, University of Westminster) as well as sponsorship resources from the Department of Infrastructure, The Brotherhood of St Lawrence and the Bus Association of Victoria. The project will entail case study analysis of six regions of Victoria and the development of quantitative survey instruments to explore the mechanisms and behaviours associated with transport disadvantage, understand how public transport acts to influence these issues and explore wider life impacts of lack of mobility.

A REVIEW OF AUSTRALIAN BUS RAPID TRANSIT SYSTEM DEVELOPMENTS

G. Currie

Started in 2004 this is proving an ongoing project as developments in BRT have continued in Australasia throughout 2006. ITS-Monash has been invited to undertake presentations of our research in this area in Barcelona Spain (February 2006), Florida (January 2006) and also Bogota, Columbia at the 5th International Bus Conference (February 2007). This year the project was also funded by the US Federal Transit Authority through the Bus rapid Transit Institute at the University of Florida. The major project output is a 'white paper' updating bus rapid transit developments in Australasia to 2008.

REGIONAL TRANSPORT TO REMOTE COMMUNITIES IN DESSERT AUSTRALIA

G. Currie

Specialist advice to the Dessert Knowledge Cooperative Research Centre on a project in association with the Transport Systems Centre in South Australia on access options and issues for Aboriginal Communities between remote settlements and major regional centres.

REVIEW OF OLYMPIC GAMES TRAVEL DEMAND MANAGEMENT APPROACHES AND IMPACTS – LONDON 2012 OLYMPIC GAMES AUTHORITY

G. Currie

A synthesis of transport planning experiences of the Olympic Games in terms of spectator and ground transportation access to the largest major events in the world. This project is for the London 2012 Olympic Delivery Authority.

METLINK MARKET FUTURES RESEARCH AND DEVELOPMENT PROJECT

G. Currie, Z. Senbergs and M. Imran

This project is exploring the influences which changes in society might have on public transport travel into the future. The first of two major stages of the project are nearing completion. Phase 1 has reviewed literature and experience in a series of 11 major theme areas. These are to be workshopped with the transit industry in Melbourne and stage 2 will commence in 2007 exploring travel behaviour evidence from available secondary surveys.

SOCIAL CAPITAL COMMUNITY STRENGTHENING AND PUBLIC TRANSPORT

G. Currie and J. Stanley

This project undertaken for the Department of Infrastructure is a collaboration between ITS-Monash, the Department of Social Work at Monash University and the Brotherhood of St Lawrence Research Group. Its aim is to explore how the social policy concepts of social capital and community strengthening relate to public transport as a basis to inform policy development and research in the field.

RESEARCH QUALITY IN TRANSPORT

M. Shkelton, G. Currie and W. Young

This project examines the quantification of quality in research. It looks at research quality in industry, academia and research companies to investigate the best methods of ensuring and measuring it.

THE IMPACTS OF TRANSIT RELIABILITY AND WAIT TIME FOR LONG HEADWAY SERVICES

D. Csikos and G. Currie

A review of theoretical research on the waiting time impact of headways and alternative service reliability has been completed and followed by primary data collection on wait times and reliability associated with Melbourne passenger rail services. Data was collected using magnetic ticket validation data and established one of the most robust models ever to test the theory associated with these issues. Results are to be reported at the 2007 Annual Meeting of the US Transportation Research Board and have been recommended for publication in Transportation Research Record.

LINKING FUEL PRICE INCREASES AND PUBLIC TRANSPORT DEMAND – MELBOURNE

G. Currie and J. Phung

This project was an empirical statistical exploration of the relationship between car fuel price changes and public transport patronage growth on Melbourne's public transport. An econometric statistical model was developed which identified a significant statistical relationship between rail and bus patronage growth and fuel prices. A major finding was the significantly higher cross elasticities which were demonstrated for rail patronage in Melbourne. Results were published at ATRF 2007.

US TRANSIT RIDERSHIP AND AUTO GAS PRICES AND WORLD EVENTS – NEW DRIVERS OF CHANGE?

G. Currie and J. Phung

This project extended the econometric modeling undertaken at ITS-Monash on changes in ridership and fuel price in Melbourne to a short term contemporary assessment of these issues for transit systems in the United States of America. The results confirmed statistically significant elasticities which demonstrated changes in

market sensitivity to fuel price over short term periods before the 9/11 terrorist attacks, the Iraq war and Hurricane Katrina. Results are to be presented at the 2007 annual meeting of the US Transportation Research Board in Washington and have been recommended for publication in the Transportation Research Record.

LINKING FUEL PRICE INCREASES AND DISAGGREGATE BUS/RAIL DEMAND – MELBOURNE, ADELAIDE AND BRISBANE

G. Currie and J. Phung

Continuing on from previous topical research in this field a project examining the market impacts on individual bus routes is being undertaken into 2007/8.

SUCCESSSES AND CHALLENGES IN MODERNISING STREETCAR SYSTEMS – EXPERIENCE IN MELBOURNE AND TORONTO

G. Currie and A. Shallaby

This project is part of a program of research developed by ITS-Monash which aims to assist the Melbourne tram system learn from lessons in other streetcar (or mixed traffic) based tram systems. It is a collaboration of ITS-Monash and the University of Toronto and has included a review of the challenges associated with streetcar operations and a comparative assessment of the policy measures aimed at addressing these challenges. The research which resulted was one of the subjects presented at the Melbourne workshop 'Tram Planning – Lessons from Toronto'. A follow on workshop is planned for 2007 in Toronto. The work is also part of a program run by the US Transportation Research Board's committee AP070 on Light Rail Transit and will be part of a special session of the 2007 TRB Annual Meeting focusing on modernizing streetcar systems.

COMPARATIVE ASSESSMENT OF SIGNAL PRIORITY FOR TRAM SYSTEMS – LESSONS FROM MELBOURNE AND TORONTO

G. Currie and A. Shallaby

Another comparative study of Melbourne and Toronto streetcars. This examines the technologies employed in providing active signal priority in both cities. Outcomes will be published at the 2008 Transportation Research Board annual meeting.

VICROADS TRAM DYNAMIC FAIRWAY AND MOVING BUS LANE

G. Currie and H. Lai

A review of the VicRoads Toorak Road Dynamic fairway project in association with an assessment of the Intermittent Bus Lane project underway in Lisbon, Portugal. Outcomes will be published at the 2008 Transportation Research Board annual meeting.

A COMPARATIVE ASSESSMENT PUBLIC TRANSPORT TRENDS IN AUSTRALIA, AND NORTH AMERICA

G. Currie and J. Pucher

A review of the public transport trends in three countries undertaken in association Rutgers University, USA.

ASSESSING THE QUALITY OF AUSTRALIAN TRANSIT SIGNAL PRIORITY AGAINST WORLDS BEST PRACTICE

G. Currie

This project followed on from a literature review of signal priority practices undertaken in 2005 for VicRoads. It included a review of current Australian approaches to signal priority in each state and an assessment of these against world practice. A key finding was that despite much enthusiasm in the 1980's and 1990's for signal priority, in practice, the development of these technologies has proven problematic and little real progress has been occurring over the last few years.

TRANSPORT DISADVANTAGE AND INDIGENOUS AUSTRALIANS

G. Currie and Z. Senbergs

This project comprised a review of research and experience concerning transport disadvantage and indigenous Australians. It includes a review of issues and problems related to transport and behavioral and social issues which are related to this.

AUSTRALIANS WITH DISABILITIES – TRANSPORT ISSUES AND PROBLEMS

G. Currie, Z. Senbergs and J. Allen

This project is a collaboration of the ITS-Monash and the Department of Design at Monash Caulfield. It is a review of current experience and research evidence on transport disadvantage issues and the full range of Australian groups facing physical, social and intellectual disabilities.

YOUNG AUSTRALIANS AND TRANSPORT DISADVANTAGE

G. Currie

This project follows on from Prof Currie's national review of transport for rural and regional young people undertaken for the National Youth Affairs Research program in 2005. It is an update and review of issues associated with transport and access problems for young Australians.

INVESTIGATING AUSTRALIAN GOVERNMENT STRUCTURES AND PUBLIC TRANSPORT

G. Currie

This project is a review of evidence concerning the structure of local, state and federal government involvement in the planning, funding and development of public transport services. Results were presented at the 2006 Australian Institute of Traffic Planning and Management Conference.

DESIGNING FOR PEDESTRIANS

J. Ronquillo, D. Hislop and G. Currie

Undergraduate research project

This project reviewed the factors of importance to creating a safe and attractive environment for pedestrians. It includes a review of readily available research on good practices in designing for pedestrians. It also reviewed techniques for undertaking manual quantification of the relative 'walkability' of communities and the quality and level of service of existing provision for pedestrians. This project includes the application of self completion 'walkability' and "walk quality" assessments at Clayton Campus to assess the performance of existing street and path design and to identify ideas for improving the 'walkability' of campus.

THE DESIGN OF PUBLIC TRANSPORT INTERCHANGES AND TERMINALS

P. Constance and G. Currie

Undergraduate research project

This project included a review of research literature regarding public transport stations, terminals, interchanges and bus and tram stops to understand the design requirements, techniques for evaluating interchanges and good practices and innovations in design. The project also involved the application of the findings of this research on the Huntingdale bus rail interchange and Monash University interchange to assess their performance from a transit operations and patronage amenity viewpoint.

DESIGN OF THE CAULFIELD-HUNTINGDALE-MONASH-ROWVILLE BUS RAPID TRANSIT SERVICE

J. Neal and G. Currie

Undergraduate research project

The Victorian Government has announced it will invest over \$30M on a Smart Bus service between Caulfield, Monash and Rowville on Wellington Road. The aim is to deliver Victoria's first 'Bus Rapid Transit' service in line with world's best practice. This project developed design concepts for the proposed service with reference to world best practice in relation to Bus Rapid Transit (BRT). The project included a review of

BRT literature, a review of existing Smart Bus services and the policy context of Smart Bus in Victoria, an assessment of existing conditions in the proposed service corridor including field surveys and the development of design concepts for the service.

A REVIEW OF THE PUBLIC TRANSPORT CUSTOMER SATISFACTION DATABASE

D. Mak and G. Currie

Undergraduate research project

This project was undertaken in association with Metlink and mined the long running Melbourne Public Transport Customer Satisfaction Database to undertaken relationships between service performance factors and customer satisfaction elements output from the quarterly survey.

INVESTIGATING PASSENGER WAITING BEHAVIOUR AT TRANSIT STOPS AND STATIONS

S. Hung, K. Shen, B. Wan and G. Currie

Undergraduate research project

This project explored the theoretical literature associated with passenger waiting behaviour at bus and rail stops concerning average waiting times and relationships to headways. A field survey was then undertaken to collect primary evidence to test the theoretical background in practice.

IMPROVING METHODOLOGIES TO ASSESS ON ROAD PUBLIC TRANSPORT PRIORITY

G. Currie, M. Sarvi and W. Young

This project examines previous approaches to allocating road space for all users and also reviews approaches to giving public transport priority in road space allocation. A new approach to determining 'optimum' road space allocation is developed using a Social Cost Benefit approach. Advanced micro-simulation approaches to model traffic impacts of alternative public transport priority designs is used to determine guidelines for 'optimal' road space allocation in relation to public transport. The research is being funded by Vic Roads.

DEVELOPMENT OF AN INSTRUMENTED VEHICLE UTILIZING LASER BASED SENSING TECHNOLOGY

M. Sarvi and A. Zavabeti

In this study a sophisticated instrumented vehicle is being developed utilizing laser based sensing technology. The key enabling technology required is an automatic and accurate system capable of capturing real time traffic and driver data. Laser sensors and a model known as 'SLAMMOT' are being used for automating the sensing and interpretation of sensing data, respectively. The laser sensors handle the task of sensing the environment and the SLAMMOT model is employed to interpret the data obtained by the laser sensors (ie. "sense and make sense" tasks). While the operation of the laser sensors is based on the emission of a laser beam, recovering the reflected beam and measuring distances to significant points in the environment draws on the SLAMMOT model which is able to detect and model both static and moving objects in unknown environments. SLAMMOT involves both simultaneous localisation and mapping in dynamic environments and detection and tracking of these dynamic entities.

STUDY OF FREIGHT OPERATIONS

N. Abdulmalek, P. Reddy and M. Sarvi

Undergraduate research project

This project explored the lane changing behaviours of heavy vehicles and their interaction with surrounding vehicles on freeways and arterial roads under congested conditions. This research has potential to enhance freeway and arterial road operations and safety. Video and vehicle trajectory data were obtained from the Next Generation Simulation project in California. From these, heavy vehicle lane change maneuvers were identified and analysed. These individual analyses were collated to explore a number of driver stimuli affecting lane changing behaviour such as relative speeds, absolute speeds, and space gaps between vehicles. The results indicated a relationship between the lane changing vehicle and the leader and follower vehicle in the target lane. The strongest relationships were found between the accepted gap and the speed of the leader and follower vehicles relative to the lane changer, as well as the lane changer's acceleration.

STUDY OF DRIVER INTERACTION BEHAVIOURS

R. Chase and M. Sarvi

Undergraduate research project

Being able to model different vehicle classes is becoming increasingly important given predictions that passenger vehicles will comprise a declining proportion of traffic in the future. The number of motorcycles and the level of road freight are correspondingly predicted to increase. Understanding the behaviour of these vehicle types, and their interactions will help in developing more accurate models real-life traffic problems. Existing models tend to be limited to the study of how passenger vehicles approach and pass larger vehicles, but the understanding of travel behaviour in the presence of following vehicles has not been rigorously examined. The Federal Highway Administration in North America has undertaken the Next Generation Simulation Project. One of the components of the project is an extensive data collection exercise designed to collect information that can be used for analysis and to check the validity of different transport models. The data extracted for this investigation included a 45-minute dataset collected between 7:50 a.m. and 8:35 a.m. from the southbound lane of the freeway US 101. Extensive data extraction using Microsoft Excel was undertaken to obtain information relating to the travel characteristics of different transport classes under different conditions. Statistical tests were applied to examine relationships between the driving characteristics of the different vehicle classes. The aim of this research was to better understand how each vehicle class travels, and any interactions that may occur. From the limited information available on motorcyclists, the analysis found that these vehicles do not travel at a headway statistically different from that of the passenger vehicles but the average speed on the freeway is higher than other vehicle types. Trucks travel at a larger spacing and headway than other vehicles, but the difference in speed is not statistically different from that of a car under the same traffic conditions. The headway of passenger cars remains unaffected by the presence of a following vehicle however when unimpeded there is a statistically significant increase in travel speed. There was evidence to suggest that the change in travel speed tended to be larger if the vehicle behind was another car. This research has important implications for refinement of the 'car following' models which lie at the heart of many micro-simulation software packages.

INVESTIGATING PUBLIC TRANSPORT TRAVEL TIME VARIABILITY

M. Tiong and M. Sarvi)

Undergraduate research project

This study investigates the variability of public transport travel time and aims to not only quantify that variability but also better understand the factors which contribute to that variability.

Recent research achievements

Staff Industry Award

The Australia and New Zealand Division of the Institute of Transportation Engineers awarded Professor Graham Currie the 2007 award for Contribution to the Transportation Profession at their December 2007 meeting in Melbourne. This award is presented to individuals who have made a significant contribution to the development of the transport/traffic engineering profession over a sustained period. The award recipient does not have to be a member of ITE. Founded in 1930, the Institute of Transportation Engineers is an international educational and scientific association of transportation professionals who are responsible for meeting mobility and safety needs.



Professor Currie being presented with the ITE Award by Peter Daly, past president of the Australian and New Zealand Chapter of ITE.

PUBLICATIONS

Staff disseminate research and policy work through a wide range of publications from books, journal articles, conference proceedings, working papers and project reports.

Handbooks in Transport

David Hensher was appointed in 1999 as volume and series editor for a series of Handbooks in Transport with Ken Button (George Mason University) by Elsevier Science Ltd. Six handbooks have been published under the Pergamon and Elsevier imprint over a period of five years. This now completes the series, although revised editions are being planned.



Handbooks in Transport 6-Volume Set (2007)

Handbook of Transport Modelling 1.

D.A. Hensher and K.J. Button (editors) (2007, 2nd edition)

Handbook of Logistics and Supply Chain Management 2.

A. Brewer, D.A. Hensher and K.J. Button (editors) (2001)

Handbook of Transport Systems and Traffic Control 3.

D.A. Hensher and K.J. Button (editors) (2001)

Handbook of Transport and the Environment 4.

D.A. Hensher and K.J. Button (editors) (2003)

Handbook of Transport Geography and Spatial Systems 5.

D.A. Hensher, K.J. Button, K.E. Haynes and P. Stopher (editors) (2004)

Handbook in Transport Strategy, Policy and Institutions 6.

D.A. Hensher and K.J. Button (editors) (2005)

Books

Currie, G. Stanley, J. and Stanley, J. (2007) No Way To Go - Transport and Social Disadvantage in Australian Communities, Monash University ePress: www.epress.monash.edu/nwtg

Hensher, D.A. (2007) Bus Transport: Economics, Policy and Planning in Research in Transportation Economics, Volume 18, Elsevier Science, Oxford

Macario, R., Viegas, J. and Hensher, D.A. (editors) (2007) Competition and Ownership in Land Passenger Transport: Selected papers from the 9th International Conference (Thredbo 9), Elsevier, Oxford

Walters, D. and Rainbird, M. (2007) Strategic Operations Management: A Value Chain Approach, Palgrave Macmillan, London

Book chapters

- Currie, G., Stanley, J., and Stanley, J. (2007) Introduction in *No Way To Go - Transport and Social Disadvantage in Australian Communities*, Monash University ePress: www.epress.monash.edu/nwtg.
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ITLS-Sydney Working Papers

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Alastair Stone
- ITLS-WP-07-02** **Daytime population tracking for planning and pollution exposure assessment**
Andrew Collins and Stephen Greaves
- ITLS-WP-07-03** **Planning approximations to the length of TSP and VRP problems**
Miguel Andres Figliozzi
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- ITLS-WP-07-12** **Predicting fine particulate concentrations near a busy intersection in Sydney using artificial neural networks**

Tharit Issarayangyun and Stephen Greaves

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David Walters and Mark Rainbird

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Chandra R. Bhat

ITLS-WP-07-21 **Power, concession and cooperation in freight distribution chains subject to distance-based user charges**

David A Hensher and Sean M. Puckett

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David A Hensher, John M Rose and Sean Puckett

PROFESSIONAL ACTIVITIES

ITLS-Sydney

Thredbo conference

The 10th International Conference on Competition and Ownership in Land Passenger Transport (Thredbo 10) was hosted by the Institute of Transport and Logistics Studies on Hamilton Island in August last year. The series is the premier international forum dedicated to determining the effects of different forms of competition, ownership and organisation for land-based passenger transport on operators, users, governments / funders and society as a whole. The objective of the series is to provide an international forum to examine passenger transport competition and ownership issues, reporting on recent research and experience and developing conclusions on key issues. The conference series is directed towards a broad audience of policy makers, planners, decision makers on infrastructure and service operators, consultants, researchers, academics and students, and is recognised as one of the most important international forums for analysis and debate of competition and ownership issues in land passenger transport. The Thredbo Series was established in 1989 by Professor David Hensher and the late Professor Michael Beesley CBE. Since this time it has been held biennially in locations all over the world: Tampere, Finland, 1991; Toronto, Canada, 1993; Rotorua, New Zealand, 1995; Leeds, UK, 1997; Cape Town, South Africa, 1999; Molde, Norway, 2001; Rio de Janeiro, Brazil, 2003; and Lisbon, Portugal in 2005.

The 2007 conference was a huge success attracting high quality participation from 140 delegates of 22 countries, from government, industry and academia. Plenary sessions were held over four days and a series of intensive workshops based around keynote papers and resource papers providing a wide range of international perspectives on each issue. The conference delivered a large portfolio of impressive material, synthesising developments not only from developed economies but also from developing economies. The international influence of the papers, deliberations and workshop reports will be shared through the publication of the key findings in special volumes of key international transport journals and a volume of Elsevier's Research in Transportation Economics series. Thredbo 11 will be held in September 2009, in Delft, The Netherlands. The Chair of the Local Organising Committee for Thredbo 11 is Dr Didier van de Velde d.m.vandevelde@tbn.tudelft.nl A permanent website is being established for the conference series at: www.itls.usyd.edu.au/thredbo [under construction]



Thredbo 10 delegates on Hamilton Island

Selected comments from the 2007 Thredbo conference:

Thanks a lot for organising Thredbo 10. It was a great conference.

Florian Dehne

You organized a fantastic conference and did a great job.

Professor Toni Lindau

Thank you again for the perfect organisation at the Thredbo conference. This sets a very high benchmark for us next time...

Didier van de Velde

Thank you very much for everything you did at Thredbo 10! It was a wonderful experience of mine.

Yoshinori Takahashi

I think your organization was excellent and was a major factor in an overall very good experience for my family and myself in Hamilton Island. Thanks again for your hard work.

Professor Jose Viegas

Thank you very much for what you have done for me. I was happy when I was in Hamilton and enjoyed the Thredbo conference.

Professor Zhang Rong

Congratulations for your fine organization of a very good conference.

Professor Ken Gwilliam

Thank you for sending files. The photo is good memory of Thredbo 10. Mr Takahashi and I already plan for the next Thredbo in Holland. It was my great pleasure to know you and to have a good time in Hamilton Island. Thank you again and please send Jo and Annette my best regards!

Professor Mami Aoki

Once again congratulations on the excellent organisation of the conference. Your efforts at attending to the smallest detail made the conference a great success. I would also like to thank you for your assistance in my personal requests that I bombarded you with.

Professor Jackie Walters

Thank you for your efficiency for this conference.

Dominique Bouf

I want to write to thank you and your staff for the perfect handling of all aspects of the conference.

Professor Amal Kumarage

Thanks and congratulations for the huge success of Thredbo 10.

Fernando Rolim

Governments need to refocus public transport priorities

Commentary made at the Thredbo10 Conference held in Australia last month looked at ways to improve public transport on a global scale.

Several conference workshops concluded that there is a global failure to ensure good strategic policy drives transport outcomes.

Practitioners, regulators and academics representing 22 countries concluded that transport policy makers have been focusing too much on who should provide services, and how they should be provided, without ensuring that services that are provided properly align with the needs of society and users.

This conference series of world leaders in land passenger transport has had a major influence on international transport policy reform. It was first held in Thredbo in 1989 and subsequently in a different country every two years, returning to Australia in 2007.

The main conclusions from 10th Conference were:

Australia needs a national land transport strategy and policy, with funding to encourage public transport to contribute to reducing traffic congestion and greenhouse gas emissions and increasing social inclusion.

Success in growing patronage however must be tempered by concern about the financial capacity of State Governments to provide enough public transport infrastructure to cope with future demand. Australia's urban public transport systems have been living off excess capacity through the 1990's, that was released as a result of the move to the car. The swing back to public transport is stretching systems' capacity to cope.

Transport authority staff need up-skilling and better resources to adequately undertake their tasks.

Collaborative commercial relationships involving government and public transport operators typically deliver better outcomes in the Australian context and elsewhere than arrangements that adhere slavishly to the letter of contracts.

Bus Rapid Transit (BRT) has demonstrated in many countries that it can deliver great benefits at a reasonable cost in contrast to any rail-based system of the size justified in Australian cities. It is a coming technology that has great potential for Australia.

The problems created by poor land use planning (or the disconnect between transport and planning) are becoming critical to solving the urban transport problem on a sustainable basis.

Experience in reform of bus and rail systems throughout the world points to the need for far greater incentives to operators to grow patronage and coverage at improved service levels. Contracting regimes offered to bus and rail operators in Australia run the high risk of a focus on compliance instead of performance to attract growing numbers of users to public transport.

Social exclusion policy needs to be integrated into the mainstream consideration of the provision of public transport and not left to community transport.

Workshops, seminars and industry linkages

Dr Stephen Greaves participated in Sydney Learning workshop entitled 'Using radio, television and online forums to share your work'. This one-day practical course provides guidance on how to respond to topical and contentious issues as well as communicating a new message to the community. (February 2007)

Professor David Hensher spoke at the International Quality and Productivity Centre's event, Performance Based Contracts, Melbourne (28 February – 1 March 2007)

Professor David Hensher gave a paper on new methods to value externalities and a seminar on public transport service quality at the Institute of Transport Economics, Oslo, Norway (March 2007)

Professor David Hensher presented a paper at the Valuation of Transport Externalities conference in Norway (17-26 March 2007)

Professor David Hensher presented a paper on performance based contracts to the Bus and Coach Association (NSW) conference, Crowne Plaza, Hunter Valley (20-23 April 2007)

Professor David Hensher presented a seminar at Macquarie University, Economics Department, on interactive agency choice experiments (4 May 2007)

Professor Peter Stopher gave a presentation on 'Recent developments in using GPS to measure travel behaviour' at the University College London, Centre for Transport Studies, London (May 2007)

Dr Stephen Greaves was invited to be a panelist for a public debate on Sydney's transport at the Powerhouse Museum. Debate available as a pod cast. (May 2007)

Professor Peter Stopher gave a presentation on 'Emergency evacuation planning in Sydney' at the Louisiana State University, Baton Rouge, LA (May 2007)

Professor Peter Stopher gave a presentation on 'Recent developments in using GPS to measure travel behaviour' at Portland State University, Portland, Oregon (May 2007)

Professor David Hensher attended the Clean Vehicle Symposium at Olympic Park (26 June 2007)

Professor David Hensher attended the Federal Government's Emissions Workshop (as an expert adviser), to discuss 'emissions trading in the transport sector', Farrer Place, Sydney (27 June 2007)

Professor David Hensher delivered a series of public addresses on public transport reform, choice analysis and its relevance to the Civil Service College, Land Transport Authority, National University of Singapore and met with Singapore's Minister of Transport on land transport policy (July 2007)

Professor David Hensher and Dr John Rose delivered a 3-day course (3-5 July) on 'choice analysis' at the National University of Singapore (3 July 2007)

Professor David Hensher gave the eminent speakers lecture at a public seminar at the Singapore Civil Service College (CSC) on 'the relevance of choice analysis', (300 plus attended) (3 July 2007)

Professor David Hensher gave the inaugural eminent speakers seminar at the Land Transport Authority (LTA) Singapore on 'Competition in public transport - global trends and ideal performance-based contract' (75 attended) (4 July 2007)

Professor David Hensher gave the SCAPE public lecture, Singapore, on 'service quality at NUS' (70 attended) (4 July 2007)

Professor David Hensher was the MC at the opening of the new depot for Forest Coaches at Terrey Hills (7 August 2007)

Professor David Hensher and ITLS staff attended the Thredbo 10 International Conference on Competition and Ownership in Land Passenger Transport, Hamilton Island, Great Barrier Reef, Australia (12-17 August 2007)

Dr Stephen Greaves gave a presentation on 'Exploring variability in exposure to fine particulates (PM2.5) within travel microenvironments' at University College London, Centre for Transport Studies, London (September 2007)

Professor Peter Stopher gave a presentation on 'Managing Congestion: Are We Willing to Pay the Price?' at the Summit: Under a Bigger TDM Tent, Langham Hotel, Melbourne, Victoria (September 2007)

Professor David Hensher attended the BCA Regional Workshop and spoke on 'Accreditation and CTM' (21-23 September)

Dr Stephen Greaves gave a presentation on 'Climate change: Transport's role and mitigation strategies' at the 'Spring back to Spring' Alumni reunion, University of Sydney (November 2007)

Dr Stephen Greaves participated in the Urban Planning, Sedentism and Walkability Interest Group (UPSWING) organised by University of Western Sydney Department of Public Health (November 2007)

Professor David Hensher attended the first IAP meeting in Singapore offering expert advice as a Member of the IAP (4-8 November 2007)

Professor David Hensher attended the BCA luncheon at the Harbourview Hotel, The Rocks (22 November 2007)

Media

Professor David Hensher was interviewed by the Daily Telegraph to discuss 'Sydney's future transport system - what will it look like' (10 February 2007)

Professor David Hensher was interviewed by Vesna Poljak, Australian Financial Review. Ms Poljak was working on a profile of a business leader behind the Sydney Harbour Tunnel. David spoke on 'what made the tunnel remarkable for its time - what is innovative or significant about it' (March 2007)

Dr Stephen Greaves was interviewed for article that appeared in the Inner West Courier on Sydney's traffic problems. (May 2007)

Professor David Hensher was filmed by The University Marketing Department, with Olivia Ji at ITLS on the topic of her experiences as a graduate student in the Faculty (3 May 2007)

Professor David Hensher was interviewed on ABC Radio (Port Macquarie) to discuss 'the Pacific Highway, tolling and impact on local business' (18 May 2007)

Dr Stephen Greaves had an article published in the Sunday Telegraph about his research into exposure to air pollution while driving, titled 'Car drivers being poisoned by roads'. (June 2007)

Professor David Hensher was interviewed by Access Economics on 'valuation of a statistical life' (18 June 2007)

Professor David Hensher was interviewed by Theresa Meija (ITSA) on 'research' (20 June 2007)

Professor David Hensher was interviewed by Naleeza Channel News Asia on his views on 'transport reform in Singapore' - 30 minutes of video material for release from Dec 07 – Jan 08 (6 July 2007)

Professor David Hensher was interviewed by Woon Wui Tek, Assistant Editor of The New Paper (Singapore Press) on 'challenges facing Singapore in transport reform' (7 July 2007)

Dr David Gerard was interviewed on the Roger Hedgecock Show, KOGO Radio out of San Diego, on 'traffic safety' (17 July 2007)

Professor David Hensher wrote a short piece on Choice Analysis for "Challenge" the Singapore Public Service Newsletter (30 July 2007)

Professor David Hensher was interviewed by Mark Bannerman for the ABC 7:30 Report on the topic of 'bus safety' (7 August 2007)

Professor David Hensher was interviewed by Anna Game-Lopata, Editor, Logistics Magazine to discuss 'the history of ITLS; vision of ITLS; types of students; what roles does technology play etc'. The article first appeared on www.logisticsmagazine.com.au and in the October/December issues of Logistics Magazine 2007 (21 August 2007)

Professor David Hensher was interviewed by SMH on the topic of 'urban planning in Sydney' (10 September 2007)

Dr John Rose was interviewed for Channel 10 News in relation to an NRMA report on the benefits of toll roads in NSW (September 2007)

Professor David Hensher was interviewed by Jane Garcia, Editor, Government News magazine on 'free rail travel in Victoria for passengers who arrive at their destination before 7am' (2 October 2007)

Professor David Hensher was interviewed by Linton Besser, Transport Reporter, SMH on 'traffic congestion' (15 October 2007)

Professor David Hensher wrote an article for ABC Magazine Opinion Piece: Food for Thought 'The data trail – Keep it simple but make it meaningful' (October 2007)

Professor David Hensher was interviewed by the [Sydney Morning Herald](http://www.sydneymorningherald.com.au) on Professor Jan Gehl's Public Spaces and Public Life Survey for the Sydney CBD, commissioned by the City of Sydney Council (December 2007)

Meetings

Professor David Hensher met with members of the Lomonosov Moscow State University's Faculty of Economics. The delegate included Professor Vasily Kolesov (Dean, Faculty of Economics), Associate Professor Vladimir Echenike (Vice Head, Faculty of Economics), Associate Professor Olga Solovyeva (Vice Head, Accounting, Analysis and Audit Department) and Maria Uliyanova (Chief, International Projects Department) to discuss transport and logistics training (30 January 2007)

Professor David Hensher met with Michael Haskins, (Bus and Coach Association) to discuss CTM (8 February 2007)

Professor David Hensher met with Liam McKay (National Manager, Transport, TFF Australia) to discuss links between ITLS and TFF (22 February 2007)

Professor David Hensher and Dr John Rose met with Michael Haskins, (Bus and Coach Association) to discuss changes to the 2008 CTM and updates of online accreditation material (22 February 2007)

Professor David Hensher attended a meeting with the RTA in Sydney (1 March 2007)

Professor David Hensher and Professor David Walters met with delegates from Umm Al-Qura University to discuss transport and logistics research (12 March 2007)

Professor David Hensher met with Paul Duigan and Vincent Wong (Roads and Traffic Authority) to discuss training (14 March 2007)

Professor David Hensher met with Stephen Alchin and Andrew Tessler, from Booz Alan Hamilton, to discuss possible funding for a Lectureship in rail transport (29 March 2007)

Professor David Hensher attended the TTF Australia Leaders' Boardroom Luncheon which was hosted by Leslie Cassar AM KSJ, Chairman, TTF Australia, with special guest, Geoffrey Askew, Head of Group Security, Qantas Airways, Circular Quay (3 April 2007)

Professor David Hensher met with Darryl Mellish, Executive Director, Bus and Coach Association to discuss recent developments in bus contracts (18 April 2007)

Professor David Hensher met with Darryl Mellish and Ian McDonald, Bus and Coach Association (NSW) and Pitcher Partners to discuss benchmarking (14 May 2007)

Professor David Hensher met with Rhonda Daniels, Assistant Director, Transport Strategic Planning NSW Department of Planning and Matt Fabour to discuss the Sydney strategic transport plan (15 May 2007)

Professor David Hensher was invited by the Hon Michael Costa (Treasurer) and the Premier, the Hon Morris Iemma to attend Parliament House to discuss 'transport policy and strategy for Sydney' (22 May 2007)

Professor David Hensher met with the Hon John Watkins, Deputy Premier and Minister of Transport, Jim Glasson, Director General, NSW Ministry of Transport, and the Hon Dr Geoff Gallop, Professor and Director, Graduate School of Government, The University of Sydney to discuss 'opportunities to establish a chair in public transport in ITLS' (29 May 2007)

Professor David Hensher provided advice to Ms Lynne Pezzullo (Director, Access Economics, Canberra) on the 'value of statistical life' (13 June 2007)

Professor David Hensher and Dr John Rose met with Hans Fischer, Transfield Holdings, at Walsh Bay to discuss toll road projects (13 June 2007)

Professor David Hensher met with Jim Glasson, Director General, NSW Ministry of Transport to discuss 'the Chair in public transport obligations' (13 June 2007)

Professor David Hensher met with the delegation from the National Treasury, South Africa, Richard Wade (Sector Analysis), Theo van Rensburg and Marna Kearney (both from the Modelling and Forecasting Unit) and Malcolm Simpson (2010 World Cup Unit), to discuss 'planning for the World Cup' (18 June 2007)

Professor David Hensher met with Peter Hines, Lean Centre, Cardiff to discuss 'developments in reverse logistics and logistics programs in the UK' (18 June 2007)

Professor David Hensher met with Price Waterhouse Coopers and the RTA to discuss 'valuation of risk reduction in car and pedestrian travel' (20 June 2007)

Professor David Hensher met with Peter Nagel, Institute for Logistics and Supply Chain Management, Melbourne University to discuss 'University logistics centres' (21 June 2007)

Professor David Hensher met with NSW Treasury, Sydney to discuss 'bus rapid transit and Sydney's transport challenges in the North West' (21 June 2007)

Professor David Hensher met with Darryl Mellish, BCA, to discuss 'rural and regional reform' (29 June 2007)

Professor David Hensher, PTC Council members and Mr Joe Fai Poon were invited to a lunch session at the Goodwood Park Hotel, Singapore (3 July 2007)

Professor David Hensher attended a luncheon meeting with the Chairperson and selected members of the Public Transport Council (the regulatory body in Singapore) (5 July 2007)

Professor David Hensher had a private lunch with Minister Raymond Lim, Minister of Transport, Singapore (6 July 2007)

Professor David Hensher met with Barry Garnham from Rail Corp to discuss 'engagement of ITLS with RailCorp' (11 July 2007)

Professor David Hensher met with David Thorp, Principal Advisor, Transport and State Infrastructure [NSW Treasury] to discuss 'bus based transport' (11 July 2007)

Professor David Hensher met with Tony Sheldon, TWU, to discuss 'ITLS training' (17 July 2007)

Professor David Hensher met with Macquarie Bank to discuss 'value of travel time savings for tollroad users' (6 September 2007)

Professor David Hensher met with Associate Professor Ken Fisher, Learning Futures, SA (11 September 2007)

Professor David Hensher met with the Ministry of Transport to discuss 'bus benchmarking' (13 September 2007)

Professor David Hensher met with the Ministry of Transport and the BCA to discuss 'performance indicators' (4-5 October 2007)

Professor David Hensher met with Rod Staples, Ministry of Transport, to discuss 'the role of the new Transport Planning and Research Centre' (9 October 2007)

Professor David Hensher met with Ministry of Transport to discuss 'KPIs' (11 October 2007)

Professor David Hensher met with Steve Allen, Macquarie Bank, to discuss 'tollroad projects' (17 October 2007)

Professor David Hensher met with Ministry of Transport and SAHA to discuss 'bus benchmarking' (18 October 2007)

Professor David Hensher met with Ministry of Transport to discuss 'bus benchmarking' (22 October 2007)

Professor David Hensher attended the BIC Conference in Perth (27-31 October 2007)

Professor David Hensher met with Jim Glasson, Director General, NSW Ministry of Transport and Darryl Mellish, Executive Director, BCA (NSW) to discuss 'bus benchmarking' (14 November 2007)

Professor David Hensher met with Michael Haskings to discuss the '2008 CTM' (19 November 2007)

Professor David Hensher met with Kate Harrison, Gilbert and Tobin, to discuss 'value of music in gyms' (20 November 2007)

Professor David Hensher met with the Ministry of Transport and the BCA to discuss 'key performance indicators' (23 November 2007)

Professor David Hensher met with staff from Gilbert and Tobin to discuss 'value of music in gyms' (28 November 2007)

Professor David Hensher met with Professor Bent Flyvberg, ABN Amro, to discuss 'infrastructure cost over runs and patronage over forecasts' (30 November 2007)

Professor David Hensher met with Dick Fleming, National Leader, Transit Planning at Parsons Brinckerhoff Australia Pty Ltd to discuss 'scholarships' (3 December 2007)

Professor David Hensher met with the Ministry of Transport to discuss 'bus benchmarking' (12 December 2007)

NSW Chair in Public Transport

Sydney Morning Herald Media announcement

New chair of transport

September 12, 2007

The State Government will spend \$1 million over the next five years to fund a chair in public transport at the University of Sydney.

The new full-time professorship, in the university's Institute of Transport and Logistics Studies, is aimed at developing new thinking about public transport policy, said the Transport Minister, John Watkins.

"The chair will be an independent voice for public transport who will be able to think outside the square, suggest new solutions to old problems and bring academic rigour to transport and planning debates," he said.

The institute's founding director, Professor David Hensher, said the independence of the position was critical to the university accepting the money.

"This was made clear right from the start. Under no circumstances is this a position that will reflect the position that the Government wants promoted."

The chair will focus on research in areas such as technological development, bus rapid transit, integrated transport and the support of rural public transport. The person will also teach graduate students.

A global recruitment campaign to fill the position had begun, Professor Hensher said. "It will be a leader who will be responsible for carrying forward the research and debate on the challenges and solutions for transport in Sydney."

Linton Besser



(L-R: Professor David Hensher, Director, IITLS, Professor Gavin Brown, Vice Chancellor, The University of Sydney with the Hon John Watkins, Deputy Premier and Minister for Transport

Deputy Premier press release

Deputy Premier and Minister for Transport John Watkins today announced that the Government would fund a Chair in Public Transport, to be established at the University of Sydney.

Mr Watkins said the academic who filled the Chair – subject to an independent appointment process including an international search – would contribute to the debate on transport solutions for Sydney's future.

"The Iemma Government is already actively pursuing integrated transport solutions to improve Sydney's public transport services," Mr Watkins said.

"The University of Sydney's decision to establish a dedicated Chair in Public Transport will mean a new voice in the academic transport community, potentially influencing full time professional planners and government decision makers.

"The Chair will be an independent voice for public transport, at arm's length from the Government's planners, who will be able to think outside the square, suggest new solutions to old problems and bring academic rigour to transport and planning debates," he said.

Mr Watkins said the Government was also expanding its work on transport planning, with the recent establishment of the Centre for Transport Planning and Product Development (CTPPD), as part of the Premier's Urban Transport Statement.

He said the CTPPD was a group of cross-agency transport planners who develop long-term integrated solutions to Sydney's transport challenges for both public transport and private cars.

"The Government is actively rolling out improvements to public transport, such as the Epping to Chatswood Rail Line, strategic bus corridors and delivery of new trains and buses, but it's also vital we look many decades into the future to cater for population growth, and the increased patronage this will bring," Mr Watkins said.

"The CTPPD is a full time body of transport planners drawing on expertise from public transport agencies and the RTA, laying out visions for the future of our city's growth."

Mr Watkins said while these plans were being formed, the Chair would be integral to injecting fresh and new ideas to the plans.

"I'm confident the Chair will, likewise, make a valuable contribution to Sydney's public transport debate," Mr Watkins said.

"That's why the Government is contributing to the funding of the Chair, with \$200,000 committed annually for the next five years.

"It's important to note this will still not cover the University's costs, and the funding is entirely without obligation, as it's vital the Chair remain fully independent," he said.

Mr Watkins said he expected the Chair position would be advertised shortly.

Professor Gavin Brown, Vice-Chancellor of the University of Sydney thanked the government for their financial support and underlined the independence of the position.

"This new Chair will be in the University's Institute of Transport and Logistic Studies and will provide strong, independent strategic advice especially regarding public transport development associated with Sydney and NSW."

(15 September 2007)

Land Transport Authority – News Release

(November 2007)

LTA Appoints Inaugural International Advisory Panel

International experts provide input to Singapore’s Land Transport Review

‘.....The Land Transport Authority (LTA) has appointed an International Advisory Panel (IAP) to advise the Authority on its transport policies and strategies, and help keep LTA abreast of the latest global trends and developments in land transport. The six-member panel include eminent and internationally recognised transport experts and practitioners from Australia, Japan, Korea, Netherlands, United States and the United Kingdom. (For a full list of the IAP, please refer to Annex A). The IAP met in Singapore for its first inaugural meeting from 5-7 November 07.

This 1st IAP meeting chaired by the Minister for Transport, Mr Raymond Lim focused on the on-going Land Transport Review, covering the challenges in the land transport sector as we move forward to meet our population and economic growth needs in the next 10 to 15 years.’



Professor David Hensber (fourth from the right) attended the first International Advisory Panel meeting in Singapore (4-8 November 2007)

Positions

Dr Stephen Greaves became a member of the Sustainable Management of Organisations Group (SMOG) within the Faculty of Economics and Business, the University of Sydney. This research network was established by Dr Greaves and colleagues to focus on sustainability issues within organisations. Dr Greaves was also appointed as an Advisor on transport issues associated with the 2003 and 2007 New South Wales Action for Air initiatives.

Professor David Hensher was appointed as a member of Singapore's Land Transport Agency's International Advisory Panel which will provide expert input into Singapore's Land Transport Review. The six-member panel include eminent and internationally recognised transport experts and practitioners from Australia, Japan, Korea, Netherlands, United States and the United Kingdom. The inaugural meeting of the panel was held from 5-7 November 2007 and was chaired by the Minister for Transport, Mr Raymond Lim. Minister Raymond Lim said, 'The IAP members offered valuable insights as well as a global perspective on how Singapore can move forward to achieve a sustainable land transport system. This first IAP meeting is an important part of the Land Transport Review. The inputs from the members will go towards shaping the key ideas for Singapore's next phase of land transport development.' Professor Hensher stated at the meeting, 'Singapore's public transport system is ready for some innovative developments in integrated multi-modal public transport delivery designed to enhance the services provided to commuters and motorists. Importantly, any reform of public transport must be accompanied by greater recovery for society of the costs that motorists impose on the system.' Professor Hensher also provides advice to the NSW Ministry of Transport, the UK Department of Transport and the consultancy firm, Frontier Economics.

Editorial Positions

Professor David Hensher

Series and Volume Editor: (with Professor Kenneth Button) Elsevier Handbooks in Transport

Area Editor: Transport Reviews, Taylor and Francis Ltd., London

Guest Editor: Special Issue of Transportation Research B on Behavioural Insights into Freight Distribution (2006-07); Special Issue of Transportation Research A on Public Transport Reform (2007-08); Special Issue of Transportation on Global Public Transport Reform (2007-08); and Journal of Transport Geography on Planning and Patronage (2007-08)

Editorial Advisory Board: Transportation, Elsevier Publishers; Journal of Asian and Pacific Transport; Transportation Research, Pergamon Press; International Journal of Transport Economics; Journal of Choice Modelling; and Journal of Transport and Land Use

Editorial Board: Journal of Transport Economics and Policy; Journal of Transport Planning and Technology; Cooperative Transportation Dynamics; Transportation Research Part E, Universities of British Columbia and California at Berkeley; Transport Policy, Butterworths; Journal of Retailing and Consumer Behaviour; Journal of Transport and Statistics, US Department of Transportation and the Bureau of Transportation Statistics; and Perspectives on Transport: The Journal of the World Conference of Transport Research Society

Member: USA National Academy of Sciences, Transportation Research Board Committee on Traveller Behaviour and Values; and USA National Academy of Sciences, Transportation Research Board Committee on Travel Forecasting

Dr John Rose

Editor in Chief: Journal of Choice Modeling

Professor Peter Stopher

Editorial Board: Transport Reviews; Transport Policy; Journal of Transportation and Statistics; and Journal of Transportation and Land Use

Professor David Walters

Guest Editor: International Journal of Physical Distribution and Logistics Management, an Emerald journal

Professional Committees

Dr Miguel Figliozzi

Intermodal Freight Terminal Design and Operations Committee, Transportation Research Board, Academy of Sciences; Freight Transportation and Logistics Planning Committee, Transportation Research Board, Academy of Sciences; and Transportation and Logistics Society, Institute for Operations Research and Management Science (INFORMS)

Dr Stephen Greaves

International committee member of Transportation Research Board Committees, ABJ40-4 [New Technologies in Travel Surveys], and ADC20 [Air Quality].

Professor David Hensher

Singapore's Land Transport Agency's International Advisory Panel; Advisory Committee of Transport Research Centre, Melbourne University; Vice-Chairman, International Steering Committee of the World Conference on Transport Research Society; NSW Department of Transport Technical Advisory Committee; and Standards Committee on Logistics, Australia

Dr Ada Suk-Fung Ng

Sydney Transport Panel; Eastern Asia Society of Transport Studies (EASTS); and Institute for Operations Research and Management Sciences (INFORMS)

Dr John Rose

Travel Survey Methods Committee and Transportation Research Board

Conference Committees

Professor David Hensher

Executive Chair and Co-Founder, International Conference on Competition and Ownership in Land Passenger Transport

Chair, 10th International Conference on Competition and Ownership in Land Passenger Transport, Hamilton Island, Australia, August 2007

Professor Peter Stopher

Co-Chair of Organising Committee, International Conference on Travel Survey Methods

Professional Associations

Professor David Hensher

Economic Society of Australia and New Zealand; Transportation Research Board, USA; Australasian Transport Research Forum; American Transportation Research Forum; Chartered Institute of Transport, UK; World Conference of Transport Research Society; International Association of Travel Behaviour; American Planning Association; Australian Institute of Traffic and Planning Management; and Australian Institution of Engineers

Professor Peter Stopher

American Statistical Association, USA; Institute of Transportation Engineers; American Society of Civil Engineers, USA; Committee on Environmental Issues, Transportation and Development Institute, American Society of Civil Engineers, USA; Committee on Planning and Economics, Transportation and Development Institute, American Society of Civil Engineers, USA; Committee on Survey Methods, Transportation Research Board, National Academies of Science and Engineering, USA; Committee on Traveller Behaviour

and Values, Transportation Research Board, National Academies of Science and Engineering, USA; Institute of Engineers Australia, Civil College, Australia.

Referee of Papers

Dr Miguel Figliozzi

Journals: Transportation Science; European Journal of Operational Research; Transportation Research Part B; Transportation Research Record (for the following committees: Network Modeling, Freight Transportation and Logistics Planning, Intermodal Freight Terminal Design Operations); Australian Economic Review; and International Symposium on Transportation and Traffic Theory (ISTTT).

Dr Stephen Greaves

Journals: IEEE Transactions on Intelligent Transport Systems Journal; Transportation Research Record; Journal of Transport Statistics; Transportation; Road and Transport Research; and Australasian Transport Research Forum.

Conferences: Thinking on Two Wheels Conference; and Annual Meeting of the Transportation Research Board.

Grants: Large grant application for the Carnegie Trust in Scotland on transport and emissions.

Other: Reference Panellist for the Bicycle Federation of Australia fact-sheets on environmental and health issues associated with bicycle use.

Professor David Hensher

Journals: Transportation Research (A,B,E); Transportation; Journal of Transport Economics and Policy; Journal of Transportation and Statistics; Environment and Resource Economics; Review of Economics and Statistics; Environment and Planning A; Transport Reviews; Transportation Research Board Journal; Transport Policy, Regional and Urban Economics; Economic Record; and Journal of Transport Geography and Applied Economics. He is also a regular reviewer of chapters for books in the Elsevier Science Series.

Dr Ada Suk-Fung Ng

Journals: Naval Research Logistics; IIE Transactions; Computers and Operations Research; International Journal of Service Operations and Informatics; International Journal of Production Economics; International Journal of Physical Distribution and Logistics Management; Academy of Management; and Asia Pacific Journal of Marketing and Logistics.

Dr John Rose

Environmental and Resource Economics, Transportation Research A, B, D and E, Journal of Choice Modelling, Transportation Research Board, Journal of transportation engineering, Social Science Medicine, Journal of Transport Economics and Policy, Transport Reviews

Professor Peter Stopher

Journals: Transportation; Transportation Research A; Transportation Research Board; Transport Reviews; Transportation Research Forum; Australasian Transport Research Forum; Transport Policy; Journal of Transportation and Statistics; and Road and Transport Research

Professor David Walters

Journals: Management Decision; Supply Chain Management; International Journal of Logistics Management; Journal of Management History; European Journal of Marketing; and Asia Pacific Journal of Marketing and Logistics.

Conferences: ANZAM Operations Management 2007; Fifth Annual Symposium on Supply Chain Management 2007; and ANZAM Conference 2007.

ITS-Monash

Workshops, seminars and industry linkages

A/Professor Geoff Rose

National TDM Scoping Workshop – Adelaide, 2007.

Keynote Presentation titled ‘Cycling to avoid the crash ahead’, Queensland Cycling Congress, Brisbane, November, 2007.

Professor Graham Currie

Professor Currie made a presentation to the Transport Operations Research Institute, Uni of Newcastle Upon Tyne UK ‘Fixed Route Service Conversion to Demand Responsive Transit - The Australian Experience’ January 2007

Professor Currie made an invited presentation to the UK Annual Bus Priority Conference - Better Travel by Bus – Best Practice in Bus Priority Lakeside Centre, Aston University, Birmingham UK, Evaluating Bus Priority in Australia – Key Lessons for UK Projects, 31 January 2007

Professor Currie made a presentation to the Transport Operations Research Institute, Uni of Newcastle Upon Tyne UK ‘Evaluating Bus and Tram Priority in Australia – Key Lessons for UK Projects’, February 2007

Professor Currie made a presentation to the London Olympic Delivery Authority –‘Olympic Transport Planning – lessons for London’, February 2007

Professor Currie made an invited presentation to the UITP 5th International Bus Conference - Bus Systems Without Limits – Bogota, Colombia - Australasian BRT : Diverse high quality low cost transit solutions for low density cities, 14-16 February 2007

Professor Currie was invited to speak at the Conference of Transport, Social Disadvantage and Well Being – Melbourne, 19 April 2007

Professor Currie made an invited presentation to the AITPM Technical Forum – Modal Interchanges – Problems, Opportunities, Lessons From Best Practice - Transport Interchanges –the barriers to progress, 2 May 2007

Professor Currie made an invited Key Note Speech – Queensland ‘Closing the Gaps – Local Transport Solutions in Action’, 10-11 May 2007

Professor Currie made an invited presentation to Gold Coast City Council –Providing a Choice for Gold Coast Transport Options, 21 May 2007

Professor Currie made an invited key note speech to the Australasian Railway Association - RAILmates Briefing Breakfast - Stamford Plaza, Melbourne, Urban Congestion – The Need for Government Action, 27 June 2007

Professor Currie made an invited presentation to the VCOSS - Peak Oil, Petrol Prices and Climate Change: Preparing Victoria for the Future - ‘Forced’ Car Ownership – Links to Transit and Accessibility, 27 July 2007

Professor Currie was the Key Note speaker at the City of Hume – Public Transport Summit, August 2007

Professor Currie made an invited key note speech to the Transport Connections Induction Melbourne – Transport Connections Program Challenges, Opportunities and Suggestions, 23 August 2007

Professor Currie made an invited presentation to the Melbourne Demand Responsive Transit (DRT) Workshop DoI, Melbourne DRT Trial Program Development Project, 28 August 2007

Professor Currie made an invited presentation to the VicRoads – Roads for Public Transport Summit - Roads for Public Transport in Congested Areas Hilton on the Park - Getting Public Transport Through Congestion - Problem definition and a solution, 29 August 2007

Professor Currie made an invited presentation to the Victorian Planning and Environmental Law Association Annual Conference - Yarra Valley - Integrated Transport – What is it? Why is it important? How to do it well, 30 August 2007

Professor Currie made an invited presentation to the Brotherhood of St Laurence Lunchtime Seminar - Thursday, Fr. Tucker Room, 7 Brunswick St Fitzroy - Transport and Access Issues for Young People in Australia, 6 September 2007

Professor Currie made an invited presentation to the Glen Huntly Progress Group – Transport Forum - St Agness Church, 114 Booran Rd, Glen Huntly - Traffic Congestion and the Drivers of Change, 4 September 2007

Professor Currie made an invited presentation to the Queensland Department of Main Roads Lunchtime Seminar - Policy and Strategy Branch and Capability, Strategy and Finance - Transport Disadvantage in Australia – Understanding Service Gaps and International Perspectives, 19 October 2007

Professor Currie made an invited presentation to Glen Eira City Council Address - Glen Eira – Transport Issues and Futures, 9 October 2007

Professor Currie made an invited presentation to the Monash Research for an Ageing Society - How do older people get around? Wednesday - Ageing, Transport Disadvantage and Social Exclusion, 10 October 2007

Professor Currie made an invited key note speech to the Bus Industry Confederation 2007 National Conference - Perth West Australia –Australian Bus Rapid Transit – Why, What and How? 28-31 October 2007

Professor Currie made an invited presentation to the Bus Industry Confederation 2007 National Conference - Perth West Australia – Key Note Speech - Opportunities, Strengths and Weaknesses of Bus in relation to Transit Oriented Development, 28-31 October 2007

Professor Currie made an invited presentation to the Australian Labor Party Ashburton - Future Transport Challenges and Opportunities - in Melbourne - An Independent View - Solutions and opportunities for improving Melbourne's public transport, 15 November 2007

Annual Ogden Transport Lecture

The Ogden Transport Lecture was initiated in 2001 by the Institute of Transport Studies (ITS) to recognise Professor Ken Ogden's role in founding the transport program at Monash in 1969. The 2007 Ogden Lecture was held on 27 August 2007 at the theatre in the State Library of Victoria in Melbourne. The keynote address was given by Professor Chris Nash, from the Institute of Transport Studies at Leeds University in the UK. Professor Nash's address was titled 'Privatisation of Public Passenger Transport – Insight from the British experience'. His presentation covered privatisation in both the bus and rail sectors and considered the impacts on demand and costs. The talk was very timely given that the contracts for private sector operation of Melbourne's public transport system were coming up for review. While in Melbourne to give the Ogden Lecture, Professor Nash visited Monash University and gave a presentation to staff and students on current his other research activities at ITS Leeds.

Media and Meetings

Professor Currie gave the following interviews:

- Radio - Congestion Inquiry Findings – John Fayn ABC, February 2007
- Radio - Rail Franchising – ABC, March 2007
- Media - Airport Railways – The Age, April 2007
- Media - Hume Transport Futures – Hume Leader, April 2007
- Media - Transport Trend to Poverty – The Australian Financial Review, 9 October 2007
- Media - Boffin Backs Buses – Gold Coast Bulletin, March 2007
- Media - Melbourne Sticks to Cars for Work – The Age, October 2007
- Media - Call for Tube Line under City – The Age, November 2007
- Media - Living on the Urban Edge – Opinions Piece – Herald Sun, 1 October 2007
- Media - Two cars on the Outer – Herald Sun, 25 September 2007
- Media - ABC Nation A.M. – Future urban Transport (plus numerous regional radio stations, September 2007
- Media - Blast at Travel Poverty, July 2007

Positions

Editorial Positions

Professor Graham Currie

Editorial Advisory Board, Road and Transport Research

USA National Academy of Sciences, Transportation Research Board Committee on Light Rail Transit

USA National Academy of Sciences, Transportation Research Board Committee on Bus Transit Systems

Guest Editor – Journal of Transport Geography Special Issue on the Tenth International Conference on Competition and Ownership in Land Passenger Transport

John Clements

Advisory Board, International Journal of Logistics: Research and Applications

Professor William Young

Advisory Board, Transportation Journal

Dr Yibing Wang

Associate Editor for the IEEE Transactions on Intelligent Transportation Systems

The Book Review Editor of Transportation Research Part C: Emerging Technologies

Associate Editor for the International Journal of Vehicle Information and Communication Systems

Editorial Board Member of The Open Transportation Journal

Professional Committees

Astrid de Alwis

Member, Chartered Institute of Logistics and Transport

John Clements

Fellow, Chartered Institute of Logistics and Transport, United Kingdom, Member, Chartered Institute of Logistics and Transport (Victorian section), General Committee and Passenger Transport Group Committee

Professor Graham Currie

International panel member, Transport Cooperative Research Program Project H-32 'Determining elements needed to create high ridership transit systems', Full member, Transportation Research Board Committee AP050 'Bus transit systems', Full member, Transportation Research Board Committee AP075 'Light Rail transit systems', International friend, Transportation Research Board Committee AP025 'Public transportation planning and development', International friend, Transportation Research Board Committee 'Transit capacity and quality of service', Academic network member, Union Internationale des Transports Publics (UITP), Academic member, Victorian Road Based Public Transport Advisory Committee, Steering committee member, Victorian Auditor Generals Office (performance audit of rail franchising arrangements)

Associate Professor Geoff Rose

Member of the following: Institute of Transportation Engineers (ITE) Australia and New Zealand Section, Australian Institute of Traffic Planning and Management (AITPM), Monash University Car Parking Policy Committee, Monash University Transport Planning Committee, Monash University Faculty of Engineering Senior Lecturer Promotions Committee, Transport Reference Group, Victorian State of the Environment Report, Commissioner for Sustainability, Institute of Transportation Engineers (ITE) Australia and New Zealand Section, Scientific Committee of the World Conference on Transport Research

Dr Majid Sarvi

Member of the following: Transportation Research Board, Institute of Transportation Engineers (ITE) Australia and New Zealand Section, Student Chapter Coordinator, Institute of Transportation Engineers (ITE) Australia and New Zealand Section, Institution of Engineers Australia Victorian Division Transport Branch Committee

Professor William Young

Fellow of the following: Chartered Institute of Logistics and Transport, United Kingdom, Institute of Transportation Engineers, USA, Institute of Transportation Engineers (ITE) Australia and New Zealand Section. Member of the following: Advisory Committee, NRTC Committee on Performance Based Standards, Monash University Education Committee, Monash University Faculty of Engineering Board, Steering Committee, Chair, Monash University Faculty of Engineering Graduate and Further Education Committee, Deputy Chair, Monash University Faculty of Engineering Committee, Treasurer, AITPM Victorian Committee

Dr Yibing Wang

Member of the following: Institute of Electrical and Electronics Engineers (IEEE), Transportation Research Board

Conference Committees**Professor Graham Currie**

Second National Conference of Transport, Social Disadvantage and Well Being – Melbourne, Australia 19 April 2007

A/Professor Geoff Rose

Second National Conference of Transport, Social Disadvantage and Well Being – Melbourne, Australia, 19 April 2007

Co-Chair, 30th Australasian Transport Research Forum, 2007

Symposium on Travel Behaviour Research, Northwestern University, 2007

Scientific Committee of the World Conference on Transport Research, 2007

Dr Majid Sarvi

Chair, Third international symposium of transport simulation, 2008, Australia

Dr Yibing Wang

The 10th IEEE International Conference on Intelligent Transportation Systems, Seattle, USA, 2007

The IEEE International Conference on Vehicular Electronics and Safety, Beijing, China, 2007

Referee of papers**Professor Graham Currie**

Transportation Research Record; Transport Policy; Applied GIS; Australasian Transport Research Forum; Transport reviews; Transportation Research Part C; Environment and Planning A; European Journal of Transport and Infrastructure Research; Journal of Transportation Engineering; Australian Planner; International Journal of Sustainable Transportation; Urban Policy and Research, Road and Transport Research

Associate Professor Geoff Rose

ATRF 2007, EASTS 2007, IEEE ITS Conference, IEEE Transactions in ITS, IET ITS Journal, Journal of Transportation Engineering, Journal of Transport Geography, Journal of ITS, World Congress on Transport Research, Transportmetrica

Dr Majid Sarvi

IEEE transaction in intelligent transportation, Transportation Research part B and C, Transportation Research Record, Journal of advanced transportation, ASCE Journal of Transportation Engineering, ISTTT Journal, Road and Transport Research

Dr Yibing Wang

IEEE Transactions on Intelligent Transportation Systems, Transportation Research C, Transportation Research B, Transportation Research Record, The Open Transportation Journal, IEEE Transactions on Control Systems Technology, IEEE Transactions on Knowledge and Data Engineering, Journal of Advanced Transportation, IEEE Conference on Intelligent Transportation Systems, Transportation Research Board Meeting, IEEE International Conference on Vehicular Electronics and Safety, European Control Conference

Overseas and Interstate Visits

Associate Professor Geoff Rose

University of Maryland, January 2007

Northwestern University, June 2007

Professor Graham Currie

Transportation Research Board Annual Meeting January 2007

University of Westminster, January 2007

University of Ulster, January 2007

University College Dublin, January 2007

Transport Operations Research Group, University of Newcastle Upon Tyne, UK February 2007

UK Bus Priority Conference, Birmingham, February 2007

5th International Bus Conference UITP Bogota, Colombia 2007

Key Note Speech – Queensland ‘Closing the Gaps – Local Transport Solutions in Action’ 10-11 May 2007

Bus Industry Confederation 2007 National Conference - Perth West Australia, Key Note Speech ‘Australian Bus Rapid Transit – Why, What and How?’, 28-31 October 2007

Australian Labor Party Presentation Canberra December 2007

Dr Yibing Wang

Transportation Research Board Annual Meeting, 2007

Other activities

Professor Graham Currie

Commissioner for Environmental Sustainability - State of Environment Report – Peer Review – July 2007

Land Transport New Zealand - Project Number: 7-07-29 Performance of Urban PT Systems – Peer Reviewer

Ministry of Transport, New Zealand - Accessibility Planning to Address Social Exclusion – Peer Review

Land Transport New Zealand - Project Number: LTR 0066 Project Short Title: Personal Security in Public Transport Travel – Peer Review

Australasian Railway Association – National Passenger Transport Agenda – Inputs to the LEK study process Advisor

NSW Independent Transport Safety and Reliability Regulator – Review of Public Transport Contracting Systems – Advisor

Associate Professor Geoff Rose

Panel Participant in session on International Developments in Travel Demand Management, World Conference on Transport Research, University of California Berkeley, July 2007

Presentation ‘Voluntary Travel Behaviour Change: Insights from the lab Down Under’, Symposium on Travel Behaviour Research, Northwestern University, July 2007

Seminar series

ITLS-Sydney

13 March 2007

Associate Professor Michiel Bliemer, ITLS Visiting Professor, Delft University of Technology, The Netherlands

Rewarding instead of charging road users: Effects and implications from a survey and a pilot study in the Netherlands

Abstract: Road pricing needs no introduction. Many countries have already introduced or are looking at introducing different forms of charging schemes for a range of objectives (congestion, pollution, safety, revenues, etc.). The main problem is usually public acceptance. In order to overcome this problem, rewards instead of charges have been considered, and this led to an actual pilot study in 2006 in the Netherlands. In the pilot, approximately 300 car drivers between two cities volunteered to participate. If these car drivers avoided driving between 7:30am and 9:30am (the congested rush hours), they got rewarded either with money (3 to 7 euros per day), or they earned credits for a free navigation system. This was enforced using cameras and on board units. In the presentation, this pilot is outlined in more detail, and preliminary outcomes regarding travelers' behavior to such rewards are presented. Furthermore, forecasts using traffic simulation models are made to investigate what the impact would be on the network traffic conditions if such a rewarding scheme would attract a larger amount of participants and what the influence of the reward level is. First results of these model studies will be presented as well.

27 March 2007

Dr Yehuda Gur, Private Transportation Engineering Consultant, Israel

A country-wide travel demand model in Israel: Formulation and development

Abstract: Some recent developments presented the need for a country-wide travel demand model in Israel. Those include: i) The increased investment in, and planning of, the intercity transport network in Israel, both rail and highway; ii) Government requirement for formal evaluation of any transport infrastructure investment; iii) Continuous difficulties of the Metropolitan planning agencies to estimate properly the external and through travel. A model which supports these tasks, and is developed with modest investment in a short time is being prepared. The presentation will describe the modeling approach selected, the model structure, and few intermediate results. Work is planned to be completed by September, 2007. In formulating the approach, a major concern was the data requirements and availability. Available travel habits survey data provides rather a poor description of intercity travel, in the range of 50 to 250 km. A decision was made to rely heavily on aggregate travel data, obtained using modern data collection tools.

Three new such tools were developed and applied. First, a network of about 100 video cameras were deployed around the major road network. Second, time and location data from a few hundred GPS equipped vehicles was gathered. Third, continuous location data of a few thousand varying cellular phones was gathered for 13 weeks. These data were designated to provide: a person trip table by time of day, a description of inter-city travel as tours, and link travel times by time of day, for travel time estimation and assignment model calibration. The selected model is an aggregate, regular 4 step tour based model. Unique features of the model include: a probabilistic modal split model, with a ring based approach for presenting access impedance, a tour generation model and a tour-table-to-trip-table translation model. A number of model elements have not yet been decided. A major issue relates to the way of handling time of day in the trip table and assignment model. Should a dynamic assignment model be used? How to formulate it? Should the tour generation model be formulated by trip purpose? By time of day?

3 April 2007

Professor Simon Washington, ITLS Visiting Professor, Department of Civil and Environmental Engineering, Arizona State University

Evaluation of the first automated speed enforcement program on a US freeway: The Scottsdale Arizona experience

Abstract: Speeding is recognized as one of the most contributors to traffic crashes. In 2004, 36 percent of all motorcyclists involved in fatal crashes were speeding, approximately twice the rate for drivers of passenger cars or light trucks (National Highway Traffic Safety, 2005). Intelligent Transportation Systems (ITS) now exist to reduce speeding related crashes by enforcing speed limits with camera-based technologies. These enforcement technologies are generically called "speed cameras" and have been effective on municipal streets and arterials in Arizona (Roberts and brown-Esplain, 2005). The City of Scottsdale began a speed enforcement program (SEP) in December of 1996. Between 1996 and 1998, four wet film mobile speed units and 6 wet film red light cameras were deployed for a total of 9 intersections on enforcement rotation, depending on the needs of the City. The cameras on city streets have helped Scottsdale improve safety (Washington and Shin, 2005). Scottsdale expanded these efforts in August of 2004 with a dual direction fixed speed enforcement system on 7700 Frank Lloyd Wright Blvd. This system covers three lanes of traffic Eastbound and three lanes of traffic Westbound on Frank Lloyd Wright Blvd. The city's recent experience on Frank Lloyd Wright Boulevard is that speed violations significantly decreased in one year period after installation of cameras. Accurately estimating the impacts of speed enforcement cameras is challenging for several reasons. First, many safety related factors such as traffic volume, the crash reporting threshold (legal requirement to report a crash), the probability of reporting, and the driving population are uncontrolled during the periods of observation. Second, 'spillover' effects can make the selection of comparison sites difficult. Third, the sites selected for the treatment may not be selected randomly, and as a result may suffer from regression to the mean effects. Fourth, a speed enforcement program may influence specific types of crashes-called target crashes-which often may be difficult to define and identify. Finally, crash severity needs to be considered to fully understand the safety impact of the treatment. This presentation presents an analysis of the 101 SEP. Presented are the estimates of the impact of the SEP on speeding behavior, estimates of the changes in mean speeds, estimates the impact of the SEP on traffic safety, and estimates of the impact on economic costs and/or benefits. Highlighted in the presentation are theoretical and practical challenges, as well as planned future analyses.

24 April 2007

Dr Miguel Figliozzi, Senior Lecturer in Logistics Management, ITLS

Vehicle routing in congested urban areas: The cost of congestion from the carrier's point of view

Abstract: Congestion is a common phenomenon in all major cities of the world, and Sydney is no exception. Direct and indirect costs incurred due to congestion have been widely studied and reported. A recent report by Australian Bureau of Transport Economics has estimated the economic costs of congestion in the Sydney region at a figure close to 7.8 billion dollars between 2005 and 2020. This seminar provides an overview of freight routing issues in congested urban areas, specifically analyzing congestion and travel time unreliability costs from the carrier's perspective. Data from the daily activity of less than truckload (LTL) delivery tours in the Sydney region will be used to illustrate typical truck travel patterns and characteristics. I will present new strategic and operational approaches to estimate the impact of congestion in urban areas. Data collection and modeling challenges will be discussed. Finally, I will discuss how the public availability of historical and real-time travel time information can be used to reduce carriers' congestion costs.

29 May 2007

Associate Professor Dieter Fox, Director of the Robotics and State Estimation Lab, Computer Science and Engineering Department, University of Washington, Seattle.

Location-based activity recognition

Abstract: Knowledge of a person's location provides important context information for many applications, ranging from services such as location-enhanced emergency calling to personal guidance systems that help cognitively impaired individuals move safely through their community. Location information is also extremely helpful for estimating a person's high-level activities. In this talk we show how dynamic Bayesian networks and conditional random fields can be applied to estimate the location and activity of a person using

information such as GPS readings or WiFi signal strength. The techniques track a person on graph structures that represent a street map or a skeleton of the free space in a building. We also show how to learn a user's significant places and daily movements through the community. Our models use multiple levels of abstraction so as to bridge the gap between raw sensor measurements and high level information such as a user's mode of transportation, her current goal, and her significant places (e.g. home or work place). Finally, we will discuss recent work on using a multi-sensor board so as to better estimate a person's activities.

5 June 2007

Llew Russell, Chief Executive Officer, Shipping Australia Ltd

The future of intermodal terminals in Australia

Abstract:

The presentation will cover the following areas:

- *What is Shipping Australia Ltd
- *Definition of an intermodal terminal
- *Why do we need intermodal terminals
- *Where are the intermodal terminals – now and future
- *What should an intermodal terminal look like
- *Metropolitan v regional intermodal terminals
- *Challenges with intermodal terminals / policy considerations
- *Other challenges facing the maritime industry and their impact on intermodal terminals
- *The future of intermodal terminals
- *Conclusion
- *Websites

19 June 2007

Professor Chandra Bhat, Department of Civil, Architectural and Environmental Engineering, University of Texas at Austin

The Multiple Discrete-Continuous Extreme Value (MDCEV) model: Role of utility function parameters, identification considerations and model extensions

Abstract: Several consumer demand choices related to travel decisions are characterized by the choice of multiple alternatives simultaneously. Examples of such choice situations include vehicle type holdings and usage, and activity type choice and duration of time investment of participation. In the former case, a household may hold a mix of different kinds of vehicle types (for example, a sedan, a minivan, and a pick-up) and use the vehicles in different ways based on the preferences of individual members, considerations of maintenance/running costs, and the need to satisfy different functional needs. In this case, the choice of vehicle type is a discrete choice, while the usage (say, in annual miles) of each chosen vehicle type is a continuous choice. In the case of activity type choice and duration, an individual may decide to participate in multiple kinds of recreational/social activities within a given time period (a discrete choice), and allocate different durations of participation for each activity (a continuous choice). Other travel-related and consumer demand situations characterized by the choice of multiple alternatives include airline fleet mix and usage (for an airline carrier), carrier choice and transaction level (for a shipper), brand choice and purchase quantity for frequently purchased grocery items (for households or individuals), and stock selection and investment amounts (for households, individuals, or firms).

This presentation discusses a simple and parsimonious Multiple Discrete-Continuous Extreme Value (MDCEV) econometric approach to handle multiple discreteness (i.e., the choice of multiple alternatives at the same time) within the broader Kuhn-Tucker (KT) multiple discrete-continuous economic consumer demand framework. The paper examines several issues associated with the MDCEV model and other extant KT multiple discrete-continuous models. The paper proposes a new utility function form that enables clarity in the role of each parameter in the utility specification, and presents identification considerations associated with both the utility functional form as well as the stochastic nature of the utility specification. Extensions of the MDCEV model to accommodate a more generalized extreme value error structure for the stochastic specification, as well as randomly-varying coefficients, are discussed. A utility-consistent nesting approach to integrate the MDCEV model and a single discrete choice model to consider cases where consumers choose

multiple alternatives simultaneously from a certain set of alternatives, but also choose only one alternative from among a subset of alternatives, is discussed. Such a combined system, over which random coefficients are specified, is used to analyze household vehicle holdings (vehicle body type, vintage, make, and model) and use. In addition, ongoing work on the application of the MDCEV model to other choice contexts is discussed. Data for the analysis is drawn from the 2000 San Francisco Bay Area Travel Survey. The model results indicate the important effects of household demographics, household location characteristics, built environment attributes, and vehicle attributes on household vehicle holdings and use. The model is then applied to predict the impact of land use and fuel cost changes on household vehicle holdings and usage. Such predictions can inform the design of proactive land-use, economic, and transportation policies to influence household vehicle holdings and usage in a way that has the potential to alleviate the negative impacts, such as traffic congestion, fuel consumption and air pollution, of automobile dependency.

26 June 2007

Associate Professor Nicholas O'Brien, Counter-Terrorism Charles Sturt University

The terrorist threat to transport infrastructure

Abstract: The presentation will focus on the terrorist threat to transport infrastructure using the attacks in London in July 2005 as a case study and also bringing in examples of other attacks on transport by terrorists elsewhere.

31 July 2007

Dr David Gerard, Executive Director, Center for the Study and Improvement of Regulation, Department of Engineering and Public Policy, Carnegie Mellon University

Characterizing risk regulations of US transportation fuels

Abstract: We draw on an original database of more than 200 regulations (individual rules) to examine factors that influence the development of US federal regulations governing the health, environmental, and safety risks associated with the production, distribution, and use of transportation fuels. First, we quantify a number of dimensions of the rulemaking process and develop metrics of regulatory stringency based on four factors (risk reduction, scope of regulated parties, compliance procedures, and deadline for compliance). Next, we use this data to examine the factors that influence both the number and direction of stringency changes between the proposed rule and the version of the rule that is finalized. We find that in over half of the cases the final rule is less stringent than the rule that was originally proposed. A number of factors contribute to this effect, including stakeholder participation (advocacy groups and industry), the type of risk regulated, the agency issuing the rule, as well as variables characterizing political control and the institutional setting. [with David E. Stickers and Paul S. Fischbeck]

21 August 2007

Heather Allen, Sustainable Development Manager UITP (The International Association of Public Transport)

Sustainable cities and the social element of sustainability

Abstract: Access to markets, employment, health services, and education is necessary for the sustainable development of society, and transport in all its forms plays a critical role in shaping this. However, the results from urban areas of the full impact of a society that is predominately car based are not promising, and high levels of local pollution, safety concerns, escalating health and social costs, dangerous environments and reduced travel speeds all have a negative impact on urban quality of life. There is a growing body of evidence for putting public transport at the heart of creating sustainable communities and the positive effects this brings not only in terms of mobility but also on a local level as an employer and social actor. UITP, the international association of public transport launched its sustainable development charter in May 2003, now recognised as an international 'gold standard' has helped to increase the aspect of sustainability. The list of signatories has grown to more than 115 organisations and public transport actors who have all made a voluntary commitment to monitor and measure their own performance in social, environmental and economic terms, possibly the first sector to have gained this level of voluntary commitment. The social pillar is an integral part of this commitment, but is probably the least well documented and the most vulnerable in today's competitive, liberalised public transport market. Should this be the case and how does this fit with a growing international concern for social justice and the reduction of poverty?

28 August 2007

Jarrett Walker, Senior Consultant, McCormick Rankin Cagney Pty Ltd (Australia)

Sydney's public transport crisis: A North American perspective

Abstract: Can Sydney learn from leading North American cities when it comes to public transport? Australians often look to the UK for models and inspiration, but North American cities are much more comparable to Australian ones in age, geography, and economic history. This presentation compares Sydney's PT network with those of similar cities in North America, and points out fundamental differences in the philosophy that guides public transport service design. These philosophical choices or attitudes - affecting issues such as connectivity, frequency, evening/weekend service, and public information - rarely emerge in the explicit public debate, but they are at the foundation of every decision our leaders make about public transport. The goal is to clarify these philosophical choices, and show how different cities have made these choices differently, so that Sydneysiders can reach their own judgments about the choices being made in Sydney today. The author worked for 15 years in public transport service design in North America, and is now a consultant based in Sydney.

4 September 2007

Christopher Stapleton Director, Christopher Stapleton Consulting Pty Ltd

Sydney transport; the sum of increments

18 September 2007

Professor Werner Delfman, Director, Department of Business Policy and Logistics, University of Cologne

Gateways and corridors: Adding value in global logistics systems

Abstract: Gateways and corridors have always played a key role in global transportation. From a logistical point of view gateways are nodes, corridors are edges of logistics networks through which logistical flows are directed, linking locations and regions of supply with demand markets. However, in the context of globalisation of target markets as well as complex production networks and multistep supply chains, based on specialization, outsourcing and inter-organizational integration, the role of gateways and corridors is changing. Following current trends of organizing logistics in global value systems aiming at highest logistical performance, gateways and corridors have to be understood and assessed as integrated elements of such systems. The design and operation of gateways and corridors has to take into account the role they are supposed to play in the context of global logistics networks. Depending on this role development guidelines as well as performance criteria differ significantly. One key question for the competitiveness, economic and environmental sustainability and finally profitability of gateways and corridors is, in how far they can add logistical value. Logistics is much more than efficient transportation and handling of big container volumes. Beyond efficiency modern logistics systems aim at providing customers (suppliers, manufacturers, retailers, shippers) with logistical added value, complex customized solutions, flexibility and reliability. Therefore key logistics decision makers more and more take on a customer value perspective rather than focussing only on efficiency, when it comes to the choice of nodes and roads, modes and loads for their (global) logistics networks. Consequently this has to be taken into consideration when it comes to the future development of gateways and corridors. This is even more important as global production networks are in constant change. New markets develop faster than traditionally. Global markets for sourcing change. This all leads not only to a high dynamic but also to high imbalances of global logistics flows which again directly impact the economic position of gateways and corridors. Furthermore new technologies and logistical concepts in line with intense multimodal competition as well as cooperation offer new opportunities and challenges which have to be taken on to sustain competitiveness.

The aim of this presentation is to shed some light on the changing role of gateways and corridors in the context of global value system dynamics. To do so a logistics and value system perspective is taken on. After an explication of the multidimensional space of logistics decision making in global value systems it is discussed which current and future trends and dynamics of logistics systems can be identified. In a final outlook some key implications for gateways and corridors are derived.

25 September 2007

Dr Stephane Hess, Centre for Transport Studies, Imperial College London

Models for air travel choice behaviour

Abstract: This presentation discusses a number of issues relating to the pre-analysis and cleaning of stated preference data, where we look specifically at the problems caused by non-trading, lexicographic and inconsistent response patterns. We argue that this process is in fact considerably more complex and challenging than many in the field have hitherto acknowledged, with the standard practice being the use of rather ad-hoc procedures for the identification of the above listed phenomena. A detailed analysis on four different SP datasets highlights the potential impacts of these methods on model estimation results. The aim of this presentation is to shed some light on the changing role of gateways and corridors in the context of global value system dynamics. To do so a logistics and value system perspective is taken on. After an explication of the multidimensional space of logistics decision making in global value systems it is discussed which current and future trends and dynamics of logistics systems can be identified. In a final outlook some key implications for gateways and corridors are derived.

23 October 2007

Professor Peter Stopher, Senior Lecturer in Transport and Deputy Director, ITLS

Advances in the use of GPS to measure travel behaviour

Abstract: Over the past 6 years, ITLS has been pioneering the use of personal GPS devices to measure personal travel. With recent advances in the technology and a significant amount of experience in the use of personal GPS devices, we believe that GPS technology is now sufficiently advanced to offer a real potential for collecting a range of personal travel behaviour data. In this seminar, Prof. Stopher will briefly describe past and current projects using GPS devices, and will then review the capabilities of the current devices that ITLS is using. He will demonstrate some of the insights being obtained from using GPS devices and will also explore current and future directions in data processing of GPS data.

ITS-Monash

ITS-Monash holds regular Transport Research Workshops (TRWs) at which staff, students and visitors are able to present recent research results, discuss grant applications, and exchange new ideas for projects. At each TRW, a formal presentation is made by one of the ITS staff or students or by a visiting researcher.

9 March 2007

A/Professor Geoff Rose, Dr Imran Muhammad, Department of Civil Engineering, Monash University

Reports from the Recent Conferences

At this seminar, the speakers shared with the audience their experience at Environment 2007 Conference in Abu Dhabi and Transportation Research Board 2007 Annual Meeting in Washington DC.

30 March 2007

Professor Graham Currie, Department of Civil Engineering, Monash University

Research Adventures in the Americas and Europe- 2007

Professor Currie holds Australia's first professorship in public transport where he researches and provides training in public transport planning. He has over 27 years experience as a transit planner and has worked for some of the worlds leading operators of public transport including London Transport.

9 July 2007

Professor Chandra Bhat, University of Texas at Austin

Important Land-Use and Transport Policy Considerations Today in the US and Their Implications for Analysis

This presentation will discuss the important policy-relevant considerations that are determining the focus and methods of travel behaviour analysis today in the U.S. Specifically, the presentation will highlight the increasing attention at the interface of transportation and public health, on integrated land use-transportation research, and in the use of activity-based travel modelling for policy analysis. Important limitations of current approaches and the challenges that lie ahead will be identified.

13 July 2007

Nirajan Shiwakoti, Department of Civil Engineering, Monash University

Simulation of Pedestrian Dynamics in Case of Emergency Evacuation in a Community

Existing models of pedestrian behaviour on evacuation seemed to be concentrated mainly on the indoor evacuation such as building, ship, aircraft, stadium etc. but there has not been much study regarding the pedestrian behaviour in outdoor evacuation scenario such as in a community evacuation. In case of any disaster event, it has been now realized that finding the optimal evacuation and rescue work along the most favourable routes is vital and thus constitutes an important part of soft disaster prevention approach. In this study, a hypothetical network that represents a community is considered. Then the impact of consideration of different evacuation routes (in case of a disaster like earthquake) on evacuation time and the number of escaped pedestrians is observed through simulation of pedestrian dynamics. The description of crowd motion in case of emergency evacuation in a community area is presented by extending Social Force Model (SFM) as proposed by Helbing et.al

24 July 2007

Professor Sandra Rosenbloom, University of Arizona

Does the Way we Conceptualize Mobility Distort our Transport Research?

Professor Rosenbloom has an international reputation for her research work on transportation planning and the comparative impact of socio-demographic trends on transportation and land use patterns. She is a recognized expert on the travel patterns of groups with special needs and on the role of the private sector in the provision of transportation and other services. In 1999 she was given the inaugural Roger Tate Award by

the Transportation Research Board in recognition of her outstanding body of research on the transportation needs of special groups. Prof. Rosenbloom is the sole or senior author of over 50 peer-reviewed articles and dozens of monographs, book chapters, and major professional reports based on work funded by the National Science Foundation, the National Research Council, the US Departments of Labor, Transportation, and Housing and Urban Development, the General Motors Corporation, the Fannie Mae Foundation, and the American Association of Retired People (AARP). She has served as a consultant to the European Conference of Ministers of Transport (ECMT) and has consulted to the governments of Australia, Sweden, the Netherlands, and New Zealand on major transport issues. Prof. Rosenbloom is active in the US Transportation Research Board, the American Planning Association, the Association of Collegiate Schools of Planning, and the Women's Transportation Seminar (WTS). In 2005 she received the Roy Crum Distinguished Service Award by the National Research Council's Transportation Research Board for Outstanding Achievement in the field of transportation research in production of fundamental and developmental research.

10 August 2007

Dr Karen Lucas, University of Westminster, UK

Putting new values on public transport services for social inclusion

Dr Karen Lucas is the research co-ordinator for the Centre for Sustainable Development (CfSD) and a Principal Research Fellow with the Transport Studies Group, within the School of the Built Environment at the University of Westminster. Her specialist research area is the relationships between sustainable development and social exclusion, with a particular emphasis on the two policy areas of neighbourhood renewal and transport. In 2002, Karen was seconded to the UK Government's Social Exclusion Unit to act as policy advisor on their study of transport and social exclusion and subsequently worked for DfT to develop guidance for the implementation of the policy strategy that resulted from this study. She has recently published a book on this subject, entitled *Running on Empty: transport, social exclusion and environmental justice*.

20 August 2007

Brian Caufield, Centre for Transport Studies, Trinity College Dublin, Ireland

The impact of geographic location on the utility derived from real-time public transport information

27 August 2007

Professor Chris Nash, Institute of Transport Studies, University of Leeds, UK

In what circumstances is there an economic case for investing in high speed rail?

The presentation explores how economic evaluations can be expanded to quantify intangible factors in project assessment.

21 September 2007

Carole Jolly, Department of Land and Building Services, University of British Columbia

Managing travel demand to the University of British Columbia campus

The University of British Columbia is home to over 40,000 students, 10,000 staff and faculty, and 3,500 other residents. The TREK (Trip Reduction, Research, Education, and Knowledge) Program Centre (www.trek.ubc.ca), UBC's Transportation Demand Management Department, is dedicated to promoting a more sustainable environment by providing a variety of sustainable transportation options to cater for commuting needs of the campus community. This seminar will describe TREK activities and achievements.

24 September 2007

Professor Elizabeth Deakin, Department of City and Regional Planning

Stemming the spread: Planning to contain sprawl in California

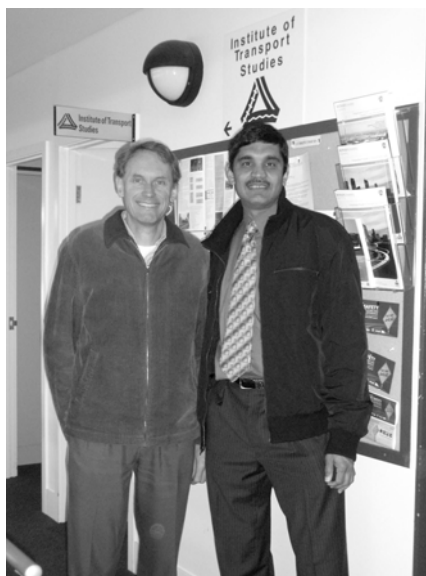
California's population will grow from approximately 38 M today to 50 M by 2025-2030 and to 100M by the end of the century. This seminar will provide insight into strategies for coordinating California state funds for transport, housing, water, open space and agricultural preservation. The aim is to promote sustainable development instead of the de-facto policy which could be characterised as 'sprawl-over-an-area-the size-of Japan'. As a point of comparison, California has an area of 404 sq km while Japan is slightly smaller at 378K sq km.

30 November 2007

Christian Jakob, school of Mathematical Sciences, Monash University

Using weather forecasts and climate projections in decision making

We all know how weather forecasts are made! Or do we? And how can meteorologists say anything about the climate in 50 years, if they can't even predict the weather three days from now? This presentation will briefly summarize the state of the art and the challenges in weather prediction and climate simulation. Australia's response to those challenges is the Australian Community Climate and Earth System Simulator (ACCESS), a new Australian community forecast model built jointly by the Bureau of Meteorology, CSIRO and the University community. This activity will be very briefly reviewed. It will be shown that in essence all weather forecasts and climate projections are probabilistic in nature. This leads to the challenge of using probabilistic information in decision making. How exactly does one use a prediction of 30% chance of rain for Sunday to decide whether to have a barbecue or not? A simple method for doing so will be presented and some examples for its application will be provided. The talk aims to explore possible future collaboration between atmospheric and climate science and its user communities.



A/Professor Geoff Rose and Professor Chandra Bhat, a TRW speaker, on July 9, 2007



Dr Brian Caufield (left second), a TRW speaker, along with an ITS visitor and staff on 20 August 2007



Professor Chris Nash (left), a TRW speaker and 2007 Ogden Transport Policy Lecturer, with Mr Evan Gwee on 27 August 2007



Professor Christian Jakob, from the School of Mathematical Sciences at Monash presented a TRW seminar on probabilistic weather prediction



Dr Jon Allen, Dr Dianne Vella-Brodrick, Ms Victoria Johnson, Dr Janet Stanley and Dr Fay Wang (Department of Infrastructure) join Professor Sandra Rosenbloom after her TRW presentation

FINANCIAL STATEMENTS

ITLS-Sydney



The University of Sydney

Institute of Transport and Logistics Studies

Balance Sheet as at 31 December 2007

(University account codes: F0701 00000, 11111, F0702 00000)

	2007	2006
CURRENT ASSETS		\$
Cash Balances (Including Funds in Reserves earning Uni. Pool Interest)	3,541,168	3,063,470
Deposits	1,500	17,045
Petty Cash Balance	800	800
TOTAL ASSETS	<u>3,543,468</u>	<u>3,081,315</u>
CURRENT LIABILITIES		
Prepaid Income	63,900	12,200
Accrued Expenses		
TOTAL LIABILITIES	<u>63,900</u>	<u>12,200</u>
NET ASSETS	<u>3,479,568</u>	<u>3,069,115</u>
EQUITY		
Accumulated Funds	1,279,568	869,115
Reserves	2,200,000	2,200,000
TOTAL EQUITY	<u>3,479,568</u>	<u>3,069,115</u>

I certify that the Income Statement and Balance Sheet of the Institute has been prepared in accordance with the University's accounting practices and procedures. These Institute accounts form part of The University of Sydney's financial statement which have been audited by the Auditor General, New South office

John Edwards
Finance Director
Faculty of Economics and Business
20 March 2008



The University of Sydney

Institute of Transport and Logistics Studies Statement of Income for the year ended 31 December 2007

(University account codes: F0701 00000, 11111, F0702 00000)

	2007	2006
INCOME		
Operating Grant	18,200	39,741
Student Fees	1,791,404	1,474,363
Other Fees - Short course and Conference	602,206	415,960
- Testing and Consulting	164,809	230,726
Donation	25,000	25,000
Allocation - Faculty of Economics and Business	154,590	423,883
Sale of Publication	3,082	3,596
Interest	110,997	95,030
Miscellaneous Income	19,663	21,677
TOTAL INCOME	2,889,952	2,729,976
EXPENDITURE		
Salaries and Oncost	1,478,083	1,304,934
Contractors - Casual Teaching	290,223	383,887
Equipment, Repairs & Maintenance	70,871	23,824
Travel and Conference	409,908	62,889
Consumables	351	32,074
Communication	5,267	8,656
Photocopying & Printing	45,255	44,157
Advertising	20,950	19,374
Rent	22,496	2,807
Catering & Hiring Charges - Conference and Seminars	20,281	57,851
Commuter Surveying Expenses	28,500	26,606
Entertainment	3,439	5,242
New Staff Appointment & Relocation Costs	7,038	-
General Expenses	25,217	24,041
Reference Material	3,739	4,108
Student Cost	47,880	7,341
Staff Development & Training	-	5,255
TOTAL EXPENDITURE	2,479,498	2,013,048
SURPLUS/(DEFICIT)	410,454	716,928
ACCUMULATED FUNDS AS AT 1 JANUARY 2007	869,115	152,187
Transfer to Reserves	-	-
ACCUMULATED FUNDS AS AT 31 DECEMBER 2007	1,279,568	869,115

John Edwards
Finance Director
Faculty of Economics and Business
20 March 2008

ITS-Monash

The ITS-Monash financial statements are supplied separately to the ARC.

2007 Annual Report

May 2008

INSTITUTE OF TRANSPORT AND LOGISTICS STUDIES

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