Australian Government
Australian Research Council

EI 2018 ENGAGEMENT AND IMPACT

Engagement and Impact 2018

Griffith University

GRF12 (CAH) - Impact

Overview

Title

(Title of the impact study)

Planning Transport in Australian Cities

Unit of Assessment

12 - Built Environment and Design

Additional FoR codes

(Identify up to two additional two-digit FoRs that relate to the overall content of the impact study.)

Socio-Economic Objective (SEO) Codes

(Choose from the list of two-digit SEO codes that are relevant to the impact study.)

88 - Transport

Australian and New Zealand Standard Industrial Classification (ANZSIC) Codes

(Choose from the list of two-digit ANZSIC codes that are relevant to the impact study.)

46 - Road Transport

Keywords

(List up to 10 keywords related to the impact described in Part A.)

transport and land use

accessibility

oil vulnerability

transport modelling

decentralisation

light rail

ferries

active transport

bicycles

children’s travel

Sensitivities

Commercially sensitive

No

Culturally sensitive

No

Sensitivities description

(Please describe any sensitivities in relation to the impact study that need to be considered, including any particular instructions for ARC staff or assessors, or for the impact study to be made publicly available after EI 2018.)

Aboriginal and Torres Strait Islander research flag

(Is this impact study associated with Aboriginal and Torres Strait Islander content?
NOTE - institutions may identify impact studies where the impact, associated research and/or approach to impact relates to Aboriginal and Torres Strait Islander peoples, nations, communities, language, place, culture and knowledges and/or is undertaken with Aboriginal and Torres Strait Islander peoples, nations, and/or communities.)

No

Science and Research Priorities

(Does this impact study fall within one or more of the Science and Research Priorities?)

Yes

Science and Research Priority	Practical Research Challenge
Transport	Improved logistics, modelling and regulation: urban design, autonomous vehicles, electrified transport, sensor technologies, real time data and spatial analysis.
Transport	Low emission fuels and technologies for domestic and global markets.

Impact

Summary of the impact

(Briefly describe the specific impact in simple, clear English. This will enable the general community to understand the impact of the research.)

The Griffith Transport Research team has delivered social benefits to a range of important communities. Our work has informed the planning, funding and management of our transport and land use systems. This has involved partnerships with NGOs, government and industry, with our evidence used to shaped funding practices and government decisions. Through our research, we have:
•Transformed understandings and raised awareness about the effects of sprawl and automobility
•Assisted world-leading travel behaviour change programs
•Developed new methods for analysis of walking and cycling in cities
•Advocated for and obtained changes in state and Commonwealth policy
•Developed collaborative international partnerships
•Placed Australia at the heart of important international networks

Beneficiaries

(List up to 10 beneficiaries related to the impact study)

General Public (i.e. all those who travel in daily life)

Active travellers (those who use walking, cycling or public transport)

Businesses (including transport providers such as Queensland Airports Ltd)

Children (especially those who participate in school-based travel behaviour change programs)

Local governments (i.e. transport agencies and urban planning/design teams)

state governments (i.e. transport agencies and urban planning/design teams)

Commonwealth government (including Infrastructure Australia)

Non-profits (i.e. the Heart Foundation; Queensland Community Alliance)

Professional associations (including the Planning Institute of Australia, PedBikeTrans, AITPM and others)

Countries in which the impact occurred

(Search the list of countries and add as many as relate to the location of the impact)

Australia
United States of America
Canada
China (excludes SARs and Taiwan)
New Zealand

Details of the impact

(Provide a narrative that clearly outlines the research impact. The narrative should explain the relationship between the associated research and the impact. It should also identify the contribution the research has made beyond academia, including:
- who or what has benefitted from the results of the research (this should identify relevant research end-users, or beneficiaries from industry, the community, government, wider public etc.)
- the nature or type of impact and how the research made a social, economic, cultural, and/or environmental impact
- the extent of the impact (with specific references to appropriate evidence, such as cost-benefit-analysis, quantity of those affected, reported benefits etc.)
- the dates and time period in which the impact occurred.

NOTE - the narrative must describe only impact that has occurred within the reference period, and must not make aspirational claims.)

Research by the Griffith Cities Research Institute delivered benefits by working in partnerships, and building and communicating evidence to decision-makers and to those delivering transport infrastructure and services. Research teams included members from planning, engineering, economics, logistics, urban design and law. The research involved detailed modelling and analysis, travel behaviour surveys, project evaluations, and partnering on policy development and advocacy. This work helped all levels of government identifying cost-effective 'solutions' to transport problems, improving efficacy of policies and programs, and finding alternative sources of funding for transport infrastructure.
Funding from the Queensland Department of Transport and Main Roads (TMR) consolidated the Academic Strategic Transport Research Alliance (2010-2015), expanded as the Transport Academic Partnership (2016-2020). Key projects developed with TMR officers during the review period included the ARC LP Transport Impacts of Employment Decentralisation study as well as evaluations of agency investments such as a section of the V1 Veloway cycling project.
Changes to state and local government programs
Work on children's travel began in the early 2000s (Ridgewell, Sipe & Buchanan, 2008) and led to the ARC DP Children's Active Transport, Connectedness and Health, and the ARC LP Independent Mobility, Active Travel and Children's Health (IMATCH). This body of research raised awareness of the concept of children's independent mobility and in response, TMR, an industry partner, shifted its funding away from children's travel behaviour interventions that did not support children's independent mobility. Instead, the Healthy Active Schools Travel program (HAST, 2012-2015) was funded, involving 25k primary school students in 38 schools. Griffith researchers worked directly with officers in local governments such as Ipswich City to design and improve HAST interventions and evaluations. The program was increasingly effective with reported decreases in car driving to schools of -6.9% in the first wave of HAST school initiatives and of -14.4% in the second wave (Deloitte 2015:7). Enquiries for similar advice were received from state or local authorities in WA, SA, Vic, Tas, NSW, New Zealand and Shanghai.
Research on the concept of demand-responsive transit (DRT) in 2015 to 2016 benefitted the Combined City of Choice and Queensland Community Alliance (QCA) Transport Working Group in Logan City, as it led directly to the securing of a $10M DRT trial from Qld Government in 2016, now operational and serving many thousands of Logan residents (Translink 2017).
Improved methods for project evaluations
The project on the V1 Veloway with TMR and QUT (Heesch et al. 2016) was the first to use third-party sourced mobile phone apps to evaluate behaviour changes from a bicycle infrastructure investment. Working with industry partners Strava and TMR, heat maps of rider-supplied data were used to test for shifts in patterns pre-/post- a new bikeway. The approach was codified and Strava data has been widely used by Australian state transport agencies (Qld, NSW, Vic) and at least 125 authorities around the world (Schneider 2017).
Research on the Gold Coast Light Rail demonstrated innovative methods to appraise the effects of investments on city life, as included in a set of longitudinal studies undertaken with the City of Gold Coast on annual basis (City of Gold Coast and Griffith University 2015; City of Gold Coast et al. 2013). This work received a Planning Institute

of Australia – Queensland Division award for planning excellence in 2015 in the category of “Best Planning Ideas”, influenced the design of the recently opened Stage 2 of the Gold Coast Light Rail and is assisting TMR and the City of Gold Coast with the planning for Stage 3 to Coolangatta.
Better transport investment policies
Partnering with the Heart Foundation and the Cycling Promotion Fund, researchers were involved in advocacy activities in NSW, Qld and Canberra to overturn key deficiencies in transport policy for walking and cycling. A/Prof Burke was lead speaker at key briefings to Senators in Parliament House, and involved in briefings to Infrastructure Australia in Sydney that eventually led Minister Albanese to introduce a positive-provision policy in March 2013 to include and fund cycling infrastructure as part of all Commonwealth-funded urban transport projects. Conservatively, at least $100M of cycling and pedestrian infrastructure has been funded since that policy shift, including the 12.6km of bikeway built alongside the Moreton Bay Rail Link connecting communities to seven railway stations.
“The Heart Foundation could not have helped achieve a positive-provision for cycling policy from the Department of Infrastructure and Transport without Griffith’s assistance. Matthew Burke was and still is an essential communicator and advocate.” – Sheree Hughes, Healthy Living Manager, Heart Foundation
A/Prof Burke was keynote speaker at the Parliamentary Friendship Group for Better Cities in 2015 promoting active transport solutions and alternative funding options for public transport such as ‘value capture’ funding and financing schemes. These schemes have since been increasingly promoted by the Commonwealth Government and the independent advisory agency Infrastructure Australia, now influencing industry partners more directly through work on the ARC LP ‘Funding on the Line’.
Awareness raising
Griffith researchers played key role in the media as public experts educating and raising the level of transport planning debates. Researchers delivered over 60 media appearances on transport and land use issues in 2015 alone, covering outlets such as ABC’s Life Matters, Channel 10’s The Project, and Channel 7’s Sunrise. The team’s media hits on the Brisbane Airport Link tunnel’s financial collapse in February 2013 reached over 1.15 million Australians (i.e. see Haxton 2013).

Associated research

(Briefly describe the research that led to the impact presented for the UoA. The research must meet the definition of research in Section 1.9 of the EI 2018 Submission Guidelines. The description should include details of:
- what was researched
- when the research occurred
- who conducted the research and what is the association with the institution)

The research base on which this impact is built is primarily from a series of ARC grants and a transport research work program for TMR. This included:
•Projects on children’s travel, transport accessibility, cycling, employment decentralisation, and gamification under the Academic Strategic Transport Research Alliance (2010-2015) and the Transport Academic Partnership (2016-2020) with TMR and MAIC.
•Five ARC Projects:
oChildren’s Active Transport, Connectedness and Health (CATCH; ARC–DP1094495)
oIndependent Mobility, Active Travel and Children’s Health (iMATCH; ARC–LP 100100344) projects.
oTransport Impacts of Employment Decentralisation study (TIEDAC –ARC-LP120100407)
oMaking Light Rail a Success in Australian Cities (ARC-FT120100976)
oStrengthening Australia's suburbs: advancing urban planning knowledge to limit oil vulnerability and build household resilience (ARC-DP1095562)

This research base includes modelling studies, evaluations of investments, travel behaviour interventions, socio-spatial analysis and policy analysis. Much of the research has been multi- or inter-disciplinary, with a mix of qualitative and quantitative approaches, and additional insights from geography, health and economics researchers. The breadth has allowed the team to produce research outputs that extend from specific technical and methodological concerns, and applied research impacts, through to higher-order policy and program considerations.

FoR of associated research

(Up to three two-digit FoRs that best describe the associated research)

12 - Built Environment and Design

References (up to 10 references, 350 characters per reference)

(This section should include a list of up to 10 of the most relevant research outputs associated with the impact)

City of Gold Coast and Griffith University. 2015. "Building our city: Light Rail Corridor 2015 Status Report." Gold Coast, Australia: City of Gold Coast.

City of Gold Coast, Queensland Department of Transport and Main Roads, Griffith University, Urban Circus, and Halfpipe. 2013. "Building our city: Light Rail Corridor 2013 Baseline Report." Gold Coast, Australia: City of Gold Coast.

Deloitte. 2015. "Evaluation of Healthy Active School Travel (HAST) initiative - Summative Report." Brisbane, Australia: Deloitte.

Haxton, N. 2013. "Operator of Brisbane Airport Link Tunnel in receivership." The World Today. Available online at http://www.abc.net.au/worldtoday/content/2013/s3694300.htm

Heesch, K.C., B. James, T.L. Washington, K. Zuniga, and M. Burke. 2016. "Evaluation of the Veloway 1: A natural experiment of new bicycle infrastructure in Brisbane, Australia." Journal of Transport & Health 3(3):366-376.

Schneider, B. 2017. "The Social Network That Helps Planners Understand Pedestrians and Cyclists." CityLab. Available online at https://www.citylab.com/transportation/2017/11/strava-metro-global-heatmap-urban-planning/545174/

Translink. 2017. "Demand Responsive Transport trials." Brisbane, Australia: Translink. Available online at https://translink.com.au/travel-with-us/drt.

Additional impact indicator information

Additional impact indicator information

(Provide information about any indicators not captured above that are relevant to the impact study, for example return on investment, jobs created, improvements in quality of life years (QALYs). Additional indicators should be quantitative in nature and include:
- name of indicator (100 characters)
- data for indicator (200 characters)
- brief description of indicator and how it is calculated (300 characters).)