





Transport Research Scholarships

Regulations 2021–24

<u>Te Manatū Waka–Ministry of Transport</u> and <u>Waka Kotahi, NZ Transport Agency</u> (The Funders) have established, and jointly fund, the Transport Research Scholarships. The scholarships were established to support students undertaking postgraduate research focusing on transport and its role and impact on Aotearoa New Zealand society.

Scholarships will be awarded to candidates who in the year of tenure will undertake (or have started) research into a topic supporting the current strategic intentions identified by either Te Manatū Waka–Ministry of Transport or Waka Kotahi.

Number, type and value

One or more research scholarships, based on the information included in the Appendices, may be awarded annually.

A range of scholarship categories are available from each of The Funders:

- A. Research and evaluation scholarships addressing a topic listed in Appendix 1 Ministry of Transport.
- B. Transport outcomes research scholarships addressing the questions listed in Appendix 2 Ministry of Transport.
- C. Strategic land transport priorities scholarships addressing the priorities listed in Appendix 3 Waka Kotahi.
- D. Short-term student research scholarships (for example, support for summer studentships) addressing the priorities listed in Appendix 3 Waka Kotahi.

The value of the scholarship will be determined by the Selection Committee and would normally be between \$6,000 and \$15,000.

Eligibility criteria

Applications will be accepted from candidates:

- Who are enrolled in, or are eligible to enrol in, full-time or part-time postgraduate study at a New Zealand university.
- Who are completing the research component of their degree in the year immediately following the award (part-time scholars have a maximum of two years to complete).
- Whose proposed course of study includes a research component with 30–120 credits remaining in their qualification.
- Whose research focuses on the topics, questions or strategic priorities of importance to The Funders as described in Appendices 1–3.

Selection criteria

The Selection Committees will determine the value and tenure of the scholarships based on the following criteria:

- Relevance of the research to The Funders' topics, questions or strategic priorities detailed in Appendices 1–3 respectively.
- Relevance of the research to the principles of Te Tiriti o Waitangi.
- Demonstrated academic merit of the candidate.
- Genuine interest in the research topic and evidence of commitment to ensure the role of transportation enables New Zealand society to flourish.

Selection Committees

The Selection Committees will consist of representatives nominated by The Funders.

The decisions of the Selection Committees are final and no correspondence will be entered into following the assessment of the applications and notification of successful and unsuccessful candidates.

Note:

- The Selection Committees may request that a candidate attend an interview online or in person. Reasonable costs associated with a candidate attending an in-person interview will be met by The Funders.
- Applicants may bring their whānau support (at their own expense) to the interview.
- A decision may be made purely on the submitted application and associated documentation.
- The Selection Committees may refrain from making an award if they find no candidate of sufficient merit.

Applications

Candidates must complete an application using the Universities New Zealand – Te Pōkai Tara <u>online</u> <u>scholarships application website</u> by the closing date of 15 November.

Candidates are requested by the Selection Committees to submit as part of their application:

- The scholarship category, a cover letter and curriculum vitae.
- A statement detailing why they wish to undertake the proposed research and what they wish to gain from it, including future career plans.
- A statement identifying the topic, question or strategic priority being addressed by the research as detailed in Appendices 1–3 respectively.
- A statement detailing how their proposed research relates to the topic, question or strategic priority detailed in Appendices 1–3 respectively.
- A research plan, detailing the proposed research approach, timeline and outputs/outcomes.
- A statement detailing how their proposed programme of study relates to the principles of Te Tiriti o Waitangi.
- An academic transcript (which will be supplied by the candidate's university).

- Statements from two referees:
 - 1. An academic able to comment on the applicant's academic ability/capability.
 - 2. A character reference to be submitted by someone who has known the candidate for a minimum of one year (family members are excluded). The character referee should be able to comment specifically on the applicant's commitment to transportation in New Zealand.

Note:

There is already a considerable body of New Zealand-specific transport research funded, commissioned and published by Waka Kotahi and the Ministry of Transport available for students' reference (links to the relevant pages on The Funders' respective websites are provided in Appendix 4).

Tenure

The amount and tenure of a scholarship will be determined by the Selection Committee and will be somewhat determined by the level of study and the size of the research component. Tenure will commence in the year immediately following the year of application. The scholarship may not be deferred unless prior approval is granted from the appropriate Convenor of the Selection Committee.

Co-tenure

A scholarship may be tenable with any other scholarship, fellowship or award with the permission of the appropriate Convenor of the Selection Committee. In granting permission for co-tenure, the Convenor may impose such conditions as they think fit, whether as a reduction in the emolument of the scholarship or otherwise.

Deferral of study

A deferral of study may be considered on individual cases of hardship or changes in circumstances and will be determined by the appropriate Convenor of the Selection Committee.

Payment

Award payments will be dependent on proof of enrolment and positive and satisfactory progress reports from the scholar and the institution at which the scholar is studying. Unsatisfactory progress may lead to termination of the award

Suspension or termination

A Selection Committee may at any time suspend or terminate any scholarship and award payments if the Committee is satisfied the scholar is not diligently pursuing the agreed programme of study, or has failed to comply with any of the terms and conditions on which the scholarship was awarded, or has acted in a manner that has brought The Funder into disrepute.

A scholarship may be terminated and no further payments made if a scholar ceases to pursue the agreed programme of study. Any changes to the original research topic will require prior approval from the Convenor of the Selection Committee to ensure continuation of the scholarship. Approval from the Convenor is not guaranteed.

Publicity and media

Scholars will agree to have their name and image published and be available for interviews with the media if required.

Intellectual property

The intellectual property (IP) will remain with the scholar and university unless otherwise negotiated. However, the expectation is that any research would be freely available for the Funder/s to use for non-commercial purposes, i.e., to inform policies, strategies and operational decision-making. The Funder/s would acknowledge the source of the information.

While the research publishing rights stay with the author, it is reasonable that the original thesis and any subsequent submissions to academic or professional journals (or any other media) acknowledges that the research was supported by The Funder/s.

Appendix 1: Research and evaluation scholarship topics

1. New transport technologies and physical activity

What is the relationship between new transport technologies and physical activity, and how can we best support active travel goals?

2. Environmental impacts of batteries

How can we reduce or mitigate the environmental impacts of batteries and other disposable transport technologies in an increasingly electrified transport system?

3. Transport and digital privacy

As we consider a move towards Road User Charging via in-vehicle GPS technologies, what are the public's perceptions of digital privacy in regard to transport?

4. Disruption from transport infrastructure

Large transport infrastructure projects can lead to local resident and business disruption. How can we predict and mitigate against these disruptions?

5. Low carbon urban form and housing affordability

We urgently need to reduce carbon emissions from transport. How can we ensure all 'greenfield' urban developments are well connected by frequent public transport services and active travel networks that people living in those places will regularly use and that are cost-effective for government to provide?

6. What impact did changes to agricultural transport legislation in 2012–13 have on safety, compliance and/or efficiency?

In 2012–13, changes were made to the *Land Transport Act 1998*, regulations and several land transport rules to improve the transport law governing agricultural vehicles. These changes aimed to reduce compliance and enforcement costs without adversely affecting safety. It was anticipated the changes would have flow-on benefits to the agricultural sector's productivity from reduced travel time, improved flexibility in planning operations and improved ability to recruit from a larger pool of suitably qualified workers. The Ministry would like to support a study that focuses on some or all of the following impacts: safety, compliance levels and/or costs, productivity, and labour.

7. How can we assess and track the impact of the transport system on biodiversity?

The Ministry has developed a set of indicators to provide an ongoing mechanism to track the state of the transport system against the Transport Outcomes Framework. To develop additional indicators for future reporting, the Ministry would like to support a study on how to assess and track the impact of the transport system on biodiversity – an area not as developed as other transport-related environmental impacts. This study should involve identifying, developing and/or validating metrics and/or methods to collect quantitative and reliable data on biodiversity. The study may focus on the impact of a specific mode of transport or multi-model.

8. Evaluation of transport-related interventions

Evaluation forms an important part of the transport evidence base. To build the capacity and capability in undertaking transport-related evaluation, we call for proposals that aim at evaluating the performance, outcomes and/or impacts of transport interventions (e.g. project, policy, strategy etc). It is expected that the studies will generate insights to improve future decision making.

9. Investigating the potential for micro-incentives to induce mode-shift

Looking at how different types of incentives (e.g. credits, discounts, rewards) could be used to help promote mode-shift. This could include quantitative surveys to determine what sort of incentives would be required to achieve mode-shift in different demographics, or other approaches.

10. Impacts of road tax increases

Fuel excise duty and road user charges were increased three times over three years (2018, 2019 and 2020), and in 2018 a regional fuel tax was implemented in Auckland. In 2018, the Independent Māori Statutory Board commissioned a study on the potential impacts of the increases and introduction of the regional fuel tax. There is the opportunity now, after the changes, to ascertain the impacts (including distributional impacts) of the changes. We are particularly interested in empirical work on the impact on low-income communities of the changes.

11. Vehicles driven/owned by low decile households

We are interested in understanding the vehicles, and particularly the fuel efficiency of vehicles, owned by low decile households. There is little robust work on this topic in New Zealand. It has been suggested that many low decile households own or drive larger and potentially more fuel-inefficient vehicles. We are interested in this topic as fuel excise duty applies on a per litre basis and, if low decile households drive more fuel-inefficient vehicles, the way we fund transport may have a disproportionate impact on a segment of the community (irrespective of their lower incomes).

12. Changes in supply chains and the impacts on transport outcomes for New Zealand

We are interested in the impacts of supply chain changes such as shifts to more centralised hubs, onshoring of manufacturing and other global mega trends in supply chains.

- i. What are the possible futures for freight services and how will this change the ways they are currently delivered and procured?
- ii. What will the impacts be on commercial, financial and procurement models and frameworks?

The research will be used to support policy development and commercial frameworks, particularly for significant and complex transport infrastructure programmes.

13. Key trends regarding international freight and logistics services and the impacts on outcomes for New Zealand, including the transport sector

This research will identify the key trends in the supply of freight and logistics services in New Zealand. The research will be used to support policy development and commercial frameworks, particularly for significant and complex transport infrastructure programmes.

14. Review of app-based carpooling schemes

There have been a number of attempts (both in New Zealand and globally) to develop smartphone apps that facilitate car-pooling by connecting riders with drivers. While these schemes make sense from an economic perspective, we are not aware of any examples proven to be successful. This research could look at different examples of this model, whether they have worked, and what the key success factors and/or barriers have been.

This would inform decisions around whether to invest in similar schemes. It might also help identify whether the cap on payments for third-party facilitated apps is a barrier to greater adoption of carpooling.

Appendix 2: Transport outcomes scholarship topic area questions

1. Overarching and future questions

- i. What are the future technologies that could change the way the transport system operates and what impact (including unintended consequences) might they have?
- ii. How will increased spatial changes in population and changes in demographics affect travel patterns and demand for transport services?
- iii. What climate change mitigation efforts are required and by when? How will the transport system transition to net zero carbon emissions? What are the anticipated impacts of climate change on the transport system? What adaptation solutions can be best used to minimise these impacts?
- iv. What will the future demand for transport look like and how can we manage or plan for this now?
- v. How are people's perceptions, attitudes and values changing and what impact will they have on the transport system?
- vi. How does transport contribute, positively or negatively, to wellbeing and liveability of people living in New Zealand's cities, towns and rural areas?
- vii. What is the impact of transport on life satisfaction measures?
- viii. What is the impact of the shift to new modes of travel and who is most affected?
- ix. What data governance is needed to support supply chain and freight intelligence?

2. Economic prosperity: Encouraging economic activity via local, regional and international connections with efficient movements of people and products

- i. What is the relationship between the location of the transport network and transport services and economic activity in New Zealand?
- ii. What is the impact of transport network connectivity on economic productivity?
- iii. What are the main sources, types and quantities of economic costs and benefits from transport?
- iv. How are economic costs and benefits of transport distributed? And how do they change over time?
- v. How do we achieve intergeneration equity?

3. Environmental sustainability: Transitioning to net zero carbon emissions and maintaining or improving biodiversity, water quality and air quality

- i. How do we quantify the environmental cost of transport?
- ii. How can we assess the effectiveness of interventions to reduce transport-related environmental impacts (including greenhouse gas emissions)?
- iii. How can we improve transport system climate change mitigation, including transitioning to net zero carbon emissions?

- 4. Healthy and safe people: Protecting people from transport-related injuries and harmful pollution, and making active travel an attractive option
 - i. What attitudes, perceptions and preferences do people have towards different transport modes?
 - ii. What are the reasons for personal attitudes, perceptions and preferences that impact on travel choices?
 - iii. What is the influence of infrastructure type and availability on active travel?
 - iv. The impact on safety outcomes of prescription drugs and medicinal cannabis.
 - v. What factors contribute to risk of harm and in what quantities and proportions?
 - vi. What is the effectiveness of safety interventions?
 - vii. How many near misses across modes (and reasons for not resulting in an injury)?
 - viii. What is the risk exposure by mode?
 - ix. What are the sources and types of health impacts from transport?
 - x. What are the harms and benefits of these impacts?
 - xi. How do we quantify the cost (including social cost) to human health?
 - xii. How can transport improve mental health outcomes?

5. Inclusive access: Enabling all people to participate in society through access to social and economic opportunities, such as work, education and healthcare

- i. Who experiences barriers to access or use?
- ii. What are the barriers to access and use and how are these changing?
- iii. What is the access to transport options by people with different income levels and geographical/residential distribution?
- iv. Why people don't (or can't) travel?
- v. What is people's accessibility threshold?
- vi. How well connected are different parts/modes of the transport system?
- vii. How does land use affect the different transport modes?
- viii. How can we improve information on and understanding of Māori needs from, view and use of, and involvement in transport?

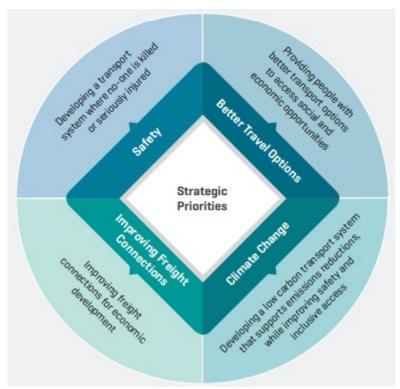
6. Resilience and security: Minimising and managing the risks from natural and human-made hazards, anticipating and adapting to emerging threats, and recovering effectively from disruptive events

- i. Improve understanding of the interdependencies between the transport system and other network infrastructure services?
- ii. The ability of the transport system to respond and recover from incidents or crises.
- iii. Improve understanding of the impact of the environment (including climate change) on the transport system.
- iv. The ability for communities to adapt to climate change.

- v. How to safeguard infrastructure from the impacts of climate change and/or develop new transport infrastructure that is resilient to the impacts of climate change?
- vi. Identify, incorporate and include the critical methods that can be used to value resilience.
- vii. Identifying and measuring the different types of risk, uncertainties and options values.

Appendix 3: *Government Policy Statement for Land Transport Funding* strategic priorities

The strategic priority areas listed in the *Government Priority Statement for Land Transport Funding 2021–24* are:



Source: Government Policy Statement on Land Transport Funding 2021, page 13

A detailed description of each of the strategic priorities is available on the Ministry of Transport website at: <u>https://www.transport.govt.nz/area-of-interest/strategy-and-direction/government-policy-statement-on-land-transport/</u>.

Appendix 4: Existing transport research

There is already a considerable body of New Zealand-specific transport research funded, commissioned and published by Waka Kotahi and the Ministry of Transport available for students' reference:

- A list of active research projects funded through the Waka Kotahi Sector Research Programme is available here: Active research projects | Waka Kotahi NZ Transport Agency (nzta.govt.nz)
- A list of **published** Waka Kotahi Sector Research Programme **research reports** is available here: <u>https://www.nzta.govt.nz/assets/planning-and-investment/docs/published-research-reports.xlsx</u>
- A broader list of **other transport-related research** is available on the Ministry of Transport Knowledge Hub here: <u>Publications | Transport Knowledge Hub</u>