Faculty of Business and Economics
Summer Research Scholarships

2026/2027 Projects (Economics)

Project code:	BUS003
Project title:	**Management Practices, Energy Efficiency, and Decarbonisation in New Zealand Manufacturing firms**
Discipline:	Economics
Supervisor(s)	Le Wen
Contact details	l.wen@auckland.ac.nz
Skills Needed	• Strong quantitative and analytical skills • Familiarity with statistical and data management software such as: SQL, SAS, R, or Stata • Ability to work with large and complex datasets • Strong attention to detail and problem-solving skills • Good written and verbal communication skills

Project description

New Zealand's manufacturing sector contributes approximately 10% of GDP and represents a substantial share of national energy use, making it a key focus for improving energy efficiency, enhancing productivity, and supporting the transition to a low-carbon economy. Despite its importance, little is known about how firm-level management practices influence energy efficiency and emissions performance.

This project will develop a novel empirical framework to investigate the determinants of energy efficiency in New Zealand manufacturing firms. Using advanced quantitative techniques and microdata from Statistics New Zealand, the project will estimate firm-level energy-efficiency scores under both conventional and emission-adjusted energy measures, enabling comparisons between "clean" and "dirty" energy use.

The student will work on integrating large-scale datasets, constructing analytical variables, and supporting econometric and efficiency analyses. The project will generate new evidence on how management practices, innovation, workforce skills, and business strategies affect energy performance. Findings will provide valuable insights for policymakers pursuing New Zealand's Zero Carbon transition and help businesses identify opportunities to improve productivity while reducing emissions.

Project code:	BUS004
Project title:	**Seasonal Migration and Development Trap**
Discipline:	Economics
Supervisor(s)	Debasis Bandyopadhyay
Contact details	d.bandyopadhyay@auckland.ac.nz
Skills Needed	• Empirical analysis, which involves data collection, data processing, statistical manipulation, and conducting econometric tests of competing hypotheses using software like R, EViews, or STATA.

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	• Numerical analysis of an analytical model of the dual economy, which involves computer programming (coding) with MATLAB and simulations of the model's outcomes to match relevant statistics generated from the empirical analysis.

Project description

We propose a new hypothesis of a dual macroeconomic outcome involving technology and women's rights. Contrary to the Washington Consensus, which posits per-capita income convergence through globalisation, the above hypothesis explains the observed divergence between two distinct economic groups: one using mental-labor-intensive technology and providing significant women's rights, and the other using physical-labor-intensive technology and denying women adequate rights. Such duality also explains growing inequality among groups and nations, and a rising share of the world's impoverished population with high fertility, which has precipitated today's global migration crisis due to the shortage of unskilled labour in developed countries, met by seasonal migrants. As an integral part of gathering evidence for the dual economy hypothesis, using data on the Pacific Island Country (PIC) migrants to New Zealand, under the Recognised Seasonal Employer (RSE) scheme, we plan to quantify the macroeconomic welfare effects of such temporary migration on the women of the migrant families, as well as on the population of the PIC and New Zealand. Students with the necessary expertise will utilise software like STATA or R and MATLAB to assist me in conducting an empirical analysis of the data, followed by a numerical analysis of the model through simulation-based experiments.