

CEPAR Summer Scholarship Application Form 2021/2022

Project Code: CEPARSP2021_02

Project title

Provide a short descriptive title of no more than 20 words.

Actuarial Modelling Health Status and Functional Disability in Australia

Supervisor

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| Name: Michael Sherris Kyu Park | Location: UNSW Sydney | Email: m.sherris@unsw.edu.au |
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Project summary

This project focuses on the development of actuarial longevity and health risk models with systematic trends and uncertainty and the optimal design of health and aged care insurance products with applications to various public sector support policies for retirement incomes and aged care. Applications include assessing alternative public debt instruments which may help immunize exposure to inflation and systematic longevity risk by insurers; the cost of public “tail-risk” cover and the potential benefits to retirement product pricing and marketing; the impact of various tax and subsidy measures as incentives for retirement and long term care products.

Role of the scholarship holder(s) in the project

The scholarship holder will

- Review and summarise current research on actuarial longevity and health risk models with systematic trends and uncertainty.
- Develop R code to simulate future health and functional disability in Australia including systematic trends and uncertainty with actuarial models.
- Compare simulated future health and functional disability in Australia with historical data.

Required knowledge, skills and/or training

Completing actuarial studies
Computing including R code

Preference

Applicants with an interest in pursuing an Honours program in Actuarial Studies
Applicants with combined Actuarial Studies and Science or Computing

Work period

The work period may be broken into two parts as students will not be expected to work during the UNSW shutdown over Christmas/New Year.

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| Total work weeks: up | The supervisor and the scholarship holder will discuss a mutually acceptable 6 week period over the summer term. |
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