

## UNSW Business School

### Conditional life expectancy comparisons using a semi-parametric trending panel model approach

#### Project Code: CEPAR2

#### Project title

Conditional life expectancy comparisons using a semi-parametric trending panel model approach

#### Supervisor

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#### Project summary

Life expectancy is an important and widely used measure of the mortality experience of a population. However, as a single index, it does not reflect certain underlying features in mortality surfaces such as cohort effects. Therefore, we want to introduce the concept of conditional life expectancy as a new mortality index so that the experience within different age groups can be explicitly studied and compared. In this project, we will apply a semi-parametric varying coefficient panel model to analyse the relationship between life expectancy and several socio-economic factors. The model will be estimated with state-level data for Australia.

#### Role of the scholarship holder(s) in the project

The scholarship holder will carry out a literature review on mortality modelling and life expectancy calculation. He/she will also assist in the model design process after collecting data from the Australian Bureau of Statistics. A report needs to be prepared by the scholarship holder at the end of the project.

#### Required knowledge, skills and/or training

Potential applicants need to have basic programming and computing background and be willing to learn statistical computing software such as R or MATLAB if required.

## Preference

Preferences will be given to students who have completed ACTL3141 and have a good understanding of survival models and different estimation techniques. Preferences will also be given to students who are interested in proceeding to Honours study.

## 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.

Total work weeks: 8 weeks	Preferably from early December (excluding Christmas period) to early February
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## How to Apply

Apply on the Scholarships website [here](#), using the scholarship code **UGVC1053**.

You will need:

- An electronic copy of your CV
- An electronic copy of your academic transcript
- The project codes and titles of up to three projects you'd be interested in getting involved in

The deadline for submissions is 4<sup>th</sup> October 2017.