



# Modelling the age-sex profiles of net international migration

**Professor James Raymer**  
**ANU School of Demography**

*This series is an ANU-wide collaboration spearheaded by the Migration Hub @ ANU, in collaboration with the School of Archaeology and Anthropology*

TEQSA Provider ID: PRV12002 (Australian University)  
 CRICOS Provider #00120C

In our paper, we present a methodology to infer the age and sex profiles of net migration. This research supports the United Nations Population Division's estimation and population projection procedures for producing the World Population Prospects (WPP). Age and sex profiles of net migration are required as inputs into demographic accounting models for population estimation and projection. However, most countries in the world do not directly measure migration and residual methods for inferring the patterns have proven inadequate, due to errors in the measures of populations, births and deaths.

As net migration does not exhibit regularities across age and sex, we developed a strategy to first estimate flows of immigration and emigration by age and sex, which do exhibit regularities. Differences from these estimates are then calculated to obtain net international migration by age and sex. Based on empirical tests, using data from Sweden, South Korea, Australia, Canada and New Zealand, the methodology shows great promise for overcoming a major data limitation countries around the world. Further, we apply the model to countries where the age and sex patterns of net migration are unknown and show the results. The paper ends with a discussion of next steps and further extensions.

## Details

**Thursday 3 August, 3-4pm**

In person: Jean Martin Room, Beryl Rawson Bldg (#13)

[Join Online via Zoom](#)

Meeting ID: 865 5770 1787

Password: 836061

## Contact

Sverre Molland

E: [sverre.molland@anu.edu.au](mailto:sverre.molland@anu.edu.au)



**Australian  
 National  
 University**