

#EconStats2025

# UNSW-ESCoE Conference on Economic Measurement 2025

The University of New South Wales (UNSW) Sydney, 8-9 December 2025



**UNSW**  
SYDNEY

E	S	
	C	O
		E

ECONOMIC  
STATISTICS  
CENTRE  
OF  
EXCELLENCE



**CAER** UNSW  
Centre For Applied  
Economic Research

# Welcome

## Welcome to the UNSW-ESCoE Conference on Economic Measurement 2025.

We are delighted to welcome you to Sydney for discussions on recent research advances in economic measurement. The conference brings together researchers across academia, government and the private sector to improve measurement and understanding of data that informs policy and business decisions.

The topics covered are diverse, including measurement of ecosystems and energy, the digital economy and impacts of Artificial Intelligence, firm performance, the nature and effects of working from home, and recent advances in national statistics. Our keynote speakers are Vipin Arora, Director of the U.S. Bureau of Economic Analysis; Catherine de Fontenay, Commissioner of the Australian Productivity Commission, and R. Quentin Grafton, Emeritus Professor at the Crawford School of Public Policy at the Australian National University. More programme details can be found on pages 3-9, or by scanning the QR code on the back page of this document.

We would like to thank everyone who has made this event possible, including the Australian Bureau of Statistics, the UK Office for National Statistics (ONS), the UNSW Business School and School of Economics, and Erwin and Virginia Diewert.

## Kevin Fox and Rebecca Riley, on behalf of the Scientific Committee

Scientific Committee:



**Kevin Fox**  
UNSW Sydney  
and ESCoE



**Rebecca Riley**  
King's College London  
and ESCoE



**Erwin Diewert**  
University of British  
Columbia, UNSW Sydney  
and ESCoE



**Michael Smedes**  
Australian Bureau  
of Statistics



# Keynotes



**Vipin Arora, Director of the U.S. Bureau of Economic Analysis, Monday 8 December, 10:00 - 11:15, Colombo Theatre A - "Progress in economic measurement at the U.S. Bureau of Economic Analysis"**

Vipin Arora is the Director of the U.S. Bureau of Economic Analysis (BEA). At BEA, he oversees the production of closely watched economic statistics that provide an objective and timely picture of the U.S. economy. Before joining BEA, Vipin served as Deputy Director of the U.S. National Center for Science and Engineering Statistics. In this keynote, he will discuss recent and planned data quality improvements at BEA, with a particular focus on the importance BEA's data users place on timeliness.



**Catherine de Fontenay, Commissioner of the Australian Productivity Commission, Monday 8 December, 14:15 - 15:30, Colombo Theatre A - "The new frontier: Measuring healthcare productivity in Australia"**

Catherine de Fontenay has been a Commissioner of the Australian Productivity Commission since 2019. She has led research on the measurement of productivity, productivity in services, innovation and trade, among other topics. She is a member of the Australian Statistics Advisory Council. This keynote will discuss recent advances in the measurement of productivity in healthcare. In Australia, the Productivity Commission has drawn together data on expenditure on healthcare and outcomes in healthcare in order to measure productivity growth from 2011 to 2018, for about a third of health conditions. The results show surprisingly strong productivity growth over a period where productivity growth has otherwise been anaemic.



**R. Quentin Grafton, Emeritus Professor at the Crawford School of Public Policy at the Australian National University, Tuesday 9 December, 10:00 - 11:15, Colombo Theatre A - "Is global human well-being peaking?"**

R. Quentin Grafton is Emeritus Professor at the Crawford School of Public Policy at the Australian National University. He is a former Australian Research Council Laureate whose work focuses on applied economic and public policy issues important to Australia and globally. This keynote will discuss estimates of human well-being for individual countries. Using post 1990 data and multiple trend analyses, it will examine whether and where average well-being, as measured by real GDP per capita and life expectancy at birth, is peaking and will provide insights on possible long-term convergence or divergence.

# Monday 8 December

09:00 - Registration: Tea and coffee (Colombo Building main foyer)

09:40 - Welcome to country (Colombo Theatre A)

09:45 - Opening: Professor Frederik Anseel (Dean, UNSW Business School) (Colombo Theatre A)

10:00 - Keynote I: Vipin Arora (Director, U.S. Bureau of Economic Analysis) - "Progress in economic measurement at the U.S. Bureau of Economic Analysis" (Colombo Theatre A)

11:15 - Break (Colombo Building main foyer)

11:45 - Contributed session A: Ecosystems and energy (Colombo Theatre A)

Contributed session B: Macroeconomics I (Colombo Theatre B)

Contributed session C: Housing (Colombo Theatre C)

13:15 - Lunch (Colombo Building main foyer)

14:15 - Keynote II: Catherine de Fontenay (Commissioner, Australian Productivity Commission) - "The new frontier: Measuring healthcare productivity in Australia" (Colombo Theatre A)

15:30 - Break (Colombo Building main foyer)

16:00 - Contributed session D: Firms (Colombo Theatre A)

Contributed session E: Macroeconomics II (Colombo Theatre B)

Contributed session F: Labour (Colombo Theatre C)

17:30 - Drinks reception and conference dinner (The Lounge)

\* Timings are all AEDT.

\*\* Entry to session rooms is on a first come basis.

## Contributed session details

### Contributed session A: Ecosystems and energy, 11:45, Colombo Theatre A:

- **Measuring and valuing Australia's ecosystems.** Jonathan Khoo, Koenraad Van Landeghem (Australian Bureau of Statistics).
- **Accounting for missing capitals: Approaches to shadow price valuation and an application to wind.** Diane Coyle, Julia Wdowin (ESCoE and University of Cambridge).
- **Improving energy hardship metrics for prepayment electricity customers – further exploration of the 'Right to power: Keeping people connected in remote communities' project.** Thomas Longden (Western Sydney University).

### Contributed session B: Macroeconomics I, 11:45, Colombo Theatre B:

- **The young and the restless: The contribution of young firms to the economy.** Rachel Lee, Ewan Rankin, Lachlan Vass (e61).
- **Macroeconomic impact of the remote work revolution.** Petr Sedlacek (UNSW Sydney).

### Contributed session C: Housing, 11:45, Colombo Theatre C:

- **Improving housing price inflation statistics: Developing methods and using new data sources.** Aimee North (UK Office for National Statistics).
- **Decomposing residential resale house prices into structure and land components.** Erwin Diewert (University of British Columbia, UNSW Sydney and ESCoE), Ning Huang (Statistics Canada).
- **Nowcasting transaction-based house price indices using web-scraped listings and MIDAS regression.** Luke Hartigan (The University of Sydney), Radoslaw Trojanek (Poznań University of Economics and Business), Norbert Pfeifer, Miriam Steurer (University of Graz).

#### Contributed session D: Firms, 16:00, Colombo Theatre A:

- **Non-neutral technology and within-firm heterogeneity in multi-product firms.** Yi Lee (National Tsing Hua University), Shengyu Li (UNSW Sydney), Mark Roberts (Pennsylvania State University).
- **Evidence on productivity growth from Value Added Tax data for UK companies, 2006-2024.** Russell Black (ESCoE, King's College London and Department for Business and Trade, UK).
- **Product commercialization and uncertainty.** Leo Liu, Elvira Sojli, Wing Wah Tham (UNSW Sydney).

#### Contributed session E: Macroeconomics II, 16:00, Colombo Theatre B:

- **The aggregate consequences of default risk: Evidence from firm-level data.** Peter John Lambert, Tim Besley (London School of Economics), Isabelle Roland (Bank of England), John Van Reenen (London School of Economics).
- **The macroeconomic effects of AI uncertainty.** Juan Reyes (ESCoE and King's College London).

#### Contributed session F: Labour, 16:00, Colombo Theatre C:

- **Measuring effective searchers with quantity indexes.** Martin McCarthy (Reserve Bank of Australia).
- **The construction of an experimental gender-based account for Australia.** Ting Li (Department of Infrastructure, Transport, Regional Development, Communications, Sports and the Arts), Mary Farrugia (Department of Health, Disability and Ageing).
- **The changing nature of work: What can we learn from Time Use Diaries?** Rebecca Riley (ESCoE and King's College London), Francesca Foliano (Stockholm School of Economics and ESCoE), Lynsey Brown (UK Office for National Statistics).

# Tuesday 9 December

09:00 - Registration: Tea and coffee (Colombo Building main foyer)

10:00 - Keynote III: R. Quentin Grafton (Australian National University) - "Is global human well-being peaking?" (Colombo Theatre A)

11:15 - Break (Colombo Building main foyer)

11:45 - Contributed session G: Productivity (Colombo Theatre A)

Contributed session H: Prices I (Colombo Theatre B)

Contributed session I: Digital (Colombo Theatre C)

13:15 - Lunch (Colombo Building main foyer)

14:15 - Plenary session: Panel Discussion on the UN System of National Accounts 2025 and IMF Balance of Payments version 7 (Colombo Theatre A)

15:45 - Break (Colombo Building main foyer)

16:15 - Contributed session J: Innovations in national statistics (Colombo Theatre A)

Contributed session K: Prices II (Colombo Theatre B)

Contributed session L: Topics in measurement (Colombo Theatre C)

17:50 - Close: Rebecca Riley (ESCoE and King's College London) (Colombo Theatre A)

\* Timings are all AEDT.

\*\* Entry to session rooms is on a first come basis.

## Contributed and plenary session details

### Contributed session G: Productivity, 11:45, Colombo Theatre A:

- **Trade and productivity in British firms: 2005 to 2022.** Kyle Jones (UK Office for National Statistics), Christina Palmou (OECD).
- **Financial development and rural transformation: Evidence from county-level data in China.** Yu Sheng (Australian National University), Xuerong Wang (Peking University), Xinpeng Xu (Hong Kong Polytechnic University).
- **The 'multi-speed' industry: Dairy productivity in the spotlight.** Will Chancellor, Jared Greenville (Department of Agriculture, Fisheries and Forestry).

### Contributed session H: Prices I, 11:45, Colombo Theatre B:

- **Scanner data, product churn and quality adjustment.** Chihiro Shimizu (Hitotsubashi University), Erwin Diewert (University of British Columbia, UNSW Sydney and ESCoE).
- **Constructing price indexes from web-scraped data: Clustering versus hedonic regression.** Kevin Fan (Australian Bureau of Statistics), Jan de Haan (ESCoE).
- **Model-based multilateral methods for estimating quality-adjusted price indexes.** Jan de Haan (ESCoE).

### Contributed session I: Digital, 11:45, Colombo Theatre C:

- **The digital welfare of nations: New measures of welfare gains and inequality.** Avinash Collis (Carnegie Mellon University).
- **Using new sources of data to understand skill demand and supply: A regional analysis.** Larissa Marioni (NIESR and ESCoE), Mary O'Mahony, Augustin de Coulon, Patrick Serberis (King's College London and ESCoE), Francesco Venturini (University of Urbino).
- **Measuring consumer surplus at scale.** David Nguyen (ESCoE and Stanford University), Erik Brynjolfsson (Stanford University), Avinash Collis (Carnegie Mellon University), Sophia Kazinnik (Stanford University).

### Plenary session: Panel Discussion on the UN System of National Accounts 2025 and IMF Balance of Payments version 7, 14:15, Colombo Theatre A:

- **Chair:** Rebecca Riley (ESCoE and King's College London).
- **Panellists:** James Benford (UK Office for National Statistics), David Gruen (Australian Bureau of Statistics), André Loranger (Statistics Canada), Vipin Arora (U.S. Bureau of Economic Analysis).
- **Commentator:** Paul Schreyer (ESCoE).

### Contributed session J: Innovations in national statistics, 16:15, Colombo Theatre A:

- **From transactions to trends: Enhancing the monthly household spending indicator.** Ahmed Shuja, Sam Anastassiades (Australian Bureau of Statistics).
- **Measuring productivity: ABS' medium term work aspirations – Australian Bureau of Statistics.** Jason Annabel, Derek Burnell, Thai Nguyen, Tom Lay, Jacqui Vitas, Michael Smedes (Australian Bureau of Statistics).
- **New measures of public service productivity: Lessons and results from the United Kingdom.** Richard Heys (UK Office for National Statistics).

### Contributed session K: Prices II, 16:15, Colombo Theatre B:

- **Reconciling price indices of different frequencies: Applications to the housing market and consumer inflation.** Alicia Rambaldi (University of Queensland), Robert Hill (University of Graz), Daniel Melser (Monash University), Michael Scholz (Graz University of Technology).
- **Why is Japan's Engel Coefficient the highest in the world? An international comparison of food prices using price-to-income data.** Yasuyuki Komaki (Osaka University of Economics).
- **The curious case of an exploding GEKS index.** Kevin Fox (UNSW Sydney and ESCoE).

### Contributed session L: Topics in measurement, 16:15, Colombo Theatre C:

- **Distributional National Accounts: Measuring material living standards and the cost-of-living by income.** Paul Schreyer (ESCoE), Joseph Grilli, Jorrit Zwijnenburg (OECD).
- **The large-scale estimation of flexible preferences: Examining the gains from product variety.** Daniel Melser (Monash University).
- **Improving estimates of mean welfare and uncertainty in developing countries.** Joshua Merfeld (University of Queensland).

# Venue information

## **Colombo Building Gate 4 (Fig Tree Lane), High St UNSW Sydney Kensington campus Sydney**

Sessions will take place in Colombo Theatre A (LG03), Colombo Theatre B (LG04) and Colombo Theatre C (LG05). All rooms are located on the lower ground floor and are accessible from the main foyer. You can view the venue location on the campus map by typing the following link into your browser: [link.mazemap.com/DZoo2fj6](https://link.mazemap.com/DZoo2fj6)

### **Public transport**

UNSW Sydney Kensington campus is located in the eastern suburbs and is easily accessible by public transport with numerous bus and light rail options. Please visit [transportnsw.info/trip](https://transportnsw.info/trip) to plan your journey.

### **Cycling**

UNSW Sydney Kensington campus is easy to get to and around by bicycle and now has around 1,000 bicycle parking spots, multiple shower facilities, and water stations. Please visit [estate.unsw.edu.au/getting-here/cycling](https://estate.unsw.edu.au/getting-here/cycling) for further information on cycling.

### **Parking**

All-day parking is available to visitors at the top level of Botany Street multi-storey carpark, entry via Gate 11. Payment can be made through the Pay-by-Plate meter (located next to the lift) or by downloading the CelLOPark app by scanning the QR code found on the sign. Payment is required on arrival. Visitor parking is also available on level 1C of Barker Street multi-storey carpark, entry via Gate 14. Payment can be made through Pay-by-Plate meter (located next to the lift) on the ground floor or meter found at the top level of the Barker Street carpark. Alternatively, payment can be made by downloading the CelLOPark app by scanning the QR code found on the sign. Payment is required on arrival. Both car parks are equidistant to the venue. For further on campus parking information and rates, please visit [estate.unsw.edu.au/getting-here/parking-campus](https://estate.unsw.edu.au/getting-here/parking-campus)

### **Wi-Fi - UNSW Guest network**

- **Step 1:** From your home screen, navigate to the Wi-Fi Settings page.
- **Step 2:** On the Wi-Fi Settings page, select UNSW Guest, then select Connect. A pop-up screen will then appear.
- **Step 3:** In the Captive Wi-Fi pop-up screen: (i) Type your Full Name and Email Address in the fields provided; (ii) Tick the checkbox to accept the terms and conditions; (iii) Tap Submit. You will then see a welcome screen confirming your temporary access to the UNSW Guest Network.
- **Step 4:** An email from 'guestwireless@unsw.edu.au' will be sent to the email address that you entered in Step 3. Navigate to your email to access the email message. If you cannot find the email in your inbox, please check your junk or spam folder.
- **Step 5:** In the email, select click here.
- **Step 6:** You will then be prompted to confirm or reject access. Select confirm.

## Multifaith prayer space

Multifaith prayer space is available between 8am and 10pm on Level 3 of the Square House building (E4). The space is located at the lower campus and is within walking distance from the venue. It includes separate male (capacity: 35pp) and female (capacity: 12pp) prayer rooms and washing facilities. You can view the space location on the campus map by typing the following link into your browser: [link.mazemap.com/FOiC4yqa](https://link.mazemap.com/FOiC4yqa)

## Health and safety

Please note that UNSW Sydney is a Smoke Free Campus. All incidents and safety hazards should be immediately reported to the onsite venue supervisor. In an emergency, call UNSW security on 02 9385 6666. If required, call 000.

### Evacuation alarms

Beep...Beep...prepare to evacuate:

- Check for any signs of immediate danger.
- Shut down equipment.
- Collect any nearby personal items.

Whoop...Whoop...evacuate the building:

- Follow the EXIT signs.
- Do not use lifts.
- Proceed to the Evacuation Assembly Point which is located at the quadrangle lawn.

### First aid

A first aid kit is available with the onsite venue supervisor. All onsite security guards serve as first aid officers and can be contacted on 9385 6000.

## Photography

Please be aware that photographs and video footage will be taken throughout the event. These materials will be used by ESCoE and UNSW Sydney for marketing and publicity purposes and may be published on our websites and social media channels. Please contact a member of the organising committee or [info@escoe.ac.uk](mailto:info@escoe.ac.uk) if you have any concerns or wish to be kept out of photos or videos.

## Feedback and code of conduct

We would be grateful for any feedback you may have on the organisation of the conference. You can complete the feedback form by typing the following link into your browser: [forms.office.com/e/ga37ari1zi](https://forms.office.com/e/ga37ari1zi)

Harassment or disrespectful behaviour towards others will not be tolerated and will be dealt with by the organisers. Please read UNSW Sydney's code of conduct and values at [tinyurl.com/you9xhkuu](https://tinyurl.com/you9xhkuu), and ESCoE's code of conduct at [tinyurl.com/3jy5bta7](https://tinyurl.com/3jy5bta7) by typing the links into your browser.

## About ESCoE



**The Economic Statistics Centre of Excellence (ESCoE) brings a research-led approach to measuring the economy.**

Established in 2017 with the support of the UK Office for National Statistics (ONS), ESCoE is a hub of world-leading expertise supporting cultural change in the delivery of economic statistics. The Centre fosters collaboration between statistics producers, academia, policymakers and other data users, and raises the profile of economic measurement issues. ESCoE is hosted by King's Business School (King's College London).

Visit [escoe.ac.uk](https://escoe.ac.uk) for more information.

## About the Centre for Applied Economic Research (CAER)



UNSW  
Centre For Applied  
Economic Research

**CAER's primary emphasis is on applied economic research relevant to policy issues.**

Through thought leadership, the Centre aims to be a champion of informed policy, engaging with government and industry to translate leading academic research into real-world impact. Founded in 1976, CAER is one of the oldest centres in the University and the first centre to be established in the former Faculty of Commerce and Economics (now the UNSW Business School).

Since its inception, CAER's mission has been to encourage and facilitate applied economic research, to foster links between the academics at UNSW Sydney and the business and public sector communities, and to raise the applied research profile of the School of Economics more generally.

Visit [unsw.edu.au/business/our-research/research-centres-institutes/centre-for-applied-economic-research](https://unsw.edu.au/business/our-research/research-centres-institutes/centre-for-applied-economic-research) for more information.



Scan to view the conference webpage

Or visit:

[escoe.ac.uk/events/unsw-escoe-conference-on-economic-measurement-2025](https://escoe.ac.uk/events/unsw-escoe-conference-on-economic-measurement-2025)

# #EconStats2025

[escoe.ac.uk](https://escoe.ac.uk)  
[unsw.edu.au](https://unsw.edu.au)



@ESCoEorg