ANNUAL REPORT 2019













Australian Government Australian Research Council



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CONTACT DETAILS

CEPAR would like to acknowledge the generous financial and/or in-kind support of the following organisations:



	Australian Government	
	Department of Foreign Affairs and Trade	
	Department of Health	
	Department of Social Services	
	The Treasury	

















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INTRODUCING THE CENTRE

THE ARC CENTRE OF EXCELLENCE IN POPULATION AGEING RESEARCH (CEPAR) IS A UNIQUE COLLABORATION BETWEEN ACADEMIA, GOVERNMENT AND INDUSTRY, COMMITTED TO DELIVERING SOLUTIONS TO ONE OF THE MAJOR ECONOMIC AND SOCIAL CHALLENGES OF THE 21ST CENTURY.

The Centre is based at the University of New South Wales (UNSW Sydney) with nodes at the Australian National University (ANU), Curtin University, the University of Melbourne and the University of Sydney, and has high quality partnerships with influential organisations drawn from academe, government and business.

It aims to establish Australia as a world leader in the field of population ageing research through a unique combination of high-level, crossdisciplinary expertise drawn from Actuarial Science, Demography, Economics, Epidemiology, Psychology, Industrial Relations, Organisational Behaviour and Sociology.

Funded primarily by an initial seven-year grant from the Australian Research Council, with generous support from the collaborating universities and partner organisations, the Centre was established in March 2011 to undertake high-impact, independent, multidisciplinary research and build research capacity in the field of population ageing.

Renewed funding awarded for an additional seven-year term from 2017-2023 is supporting an exciting new research program which will deliver comprehensive outcomes with the potential to secure Australia's future as a well-informed nation with world-best policy and practice for an ageing demographic.

VISION

OUR VISION IS TO BE A GLOBALLY LEADING RESEARCH AUTHORITY ON POPULATION AGEING.

MISSION

OUR MISSION IS TO PRODUCE AND PROMULGATE RESEARCH OF THE HIGHEST QUALITY TO OPTIMISE SOCIAL AND ECONOMIC OUTCOMES FOR AN AGEING WORLD.

OBJECTIVES

THE OBJECTIVES OF THE CENTRE ARE TO:

EXECUTE A TRANSFORMATIONAL AND MULTIDISCIPLINARY RESEARCH PROGRAM THAT

- produces original research that advances knowledge globally, published in leading international journals
- harnesses expanded research capability to generate evidence and policy analysis to address the most critical issues identified by individuals, industry, government and community groups
- anticipates and responds constructively to rapid demographic transition in Australia and internationally

EFFECTIVELY ENGAGE WITH EXTERNAL STAKEHOLDERS AS AN INTEGRAL PART OF THE CENTRE'S RESEARCH ACTIVITY TO

- develop research goals and to share in project execution
- translate research to influence economic and social policy, business practice, and community understanding

BUILD NATIONAL RESEARCH CAPABILITY AND COLLABORATION BY

- creating new researcher cohorts devoted to ageing research and trained in crossdisciplinary skills
- developing the research leadership and end-user engagement skills of early and mid-career researchers
- taking a leadership role by connecting researchers in ageing throughout Australia, ensuring that benefits from CEPAR's inclusive culture are fully realised

ELEVATE CEPAR'S, AND BY EXTENSION AUSTRALIA'S, REPUTATION AS A GLOBAL LEADER IN POPULATION AGEING RESEARCH BY

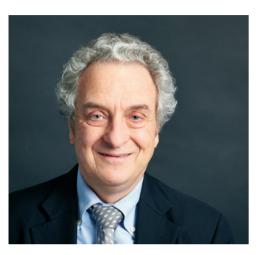
- strategically partnering with world-class institutions leading innovative research in the field
- connecting with researchers and centres focused on population ageing throughout the world.

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DIRECTOR'S REPORT

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PROFESSOR JOHN PIGGOTT

2019 WAS A VERY SUCCESSFUL YEAR FOR CEPAR. THROUGHOUT THE YEAR, THE CENTRE ENHANCED ITS OUTSTANDING RECORD OF JOURNAL PUBLICATIONS AND OTHER RESEARCH OUTPUTS; LED THE DEBATE ON IMPORTANT ISSUES, BOTH NATIONALLY AND INTERNATIONALLY; AND ENGAGED WITH GOVERNMENT, INDUSTRY AND COMMUNITY GROUPS TO HELP SHAPE FUTURE POLICY AND BUSINESS PRACTICE. Significant progress was made across the CEPAR research program. This ranges from the development of a global model of population ageing and the impact of demographic differentials on macro outcomes and trade. through experiments with decision-making among older cohorts, to analysis of the impact of climate change on mortality. Innovations in modelling and in survey development, such as the 'Mature Workers in Organisations Survey', have been particularly prominent, laying the foundation for future findings and insights in 2020 and beyond, on topics ranging from age-based taxation to decision making in relation to driving safety among older cohorts. Research grant funding has continued to accrue across the spectrum of CEPAR personnel, from Chief Investigators (CIs) to PhD students.

Cls have continued to shine – highlights include the award of a Laureate Fellowship to Kaarin Anstey, and a highly-cited researcher award to Sharon Parker. Kaarin's award means that we now have three Laureates in our team of 12 Cls. And Sharon is the second Cl to have been listed as highly cited, following Bob Cumming in 2016. She was one of only three academics in the Economics and Business category to be listed by the Web of Science in 2019 in Australia, and the only woman.

In other honours earned through the year by our senior researchers, CI Marian Baird was named for the second year in a row by *Apolitical* as one of the 100 most influential women in the world on gender equality; Partner Investigator (PI) Olivia S Mitchell was listed as one of *Worth* Magazine's '16 powerhouse female economists'; and Robert Holzmann, who for the last several years has served as a CEPAR Honorary Professor, was appointed as Governor of Austria's central bank. Strong research breeds a strong reputation, and that in turn leads to profile and impact, both nationally and internationally. CI Peter McDonald was tasked by Prime Minister Morrison to address the COAG meeting on issues relating to migration policy in December 2018, and Peter continues to have a major role on government committees relating to migration policy. As well, he, along with other CEPAR CIs including Warwick McKibbin, have been consulted by Treasury on the upcoming Intergenerational Report (IGR), scheduled for release in the first part of 2020. At a more academic level, CEPAR hosted the 2019 Economics of Ageing Conference, an annual event which has typically been based in Ivy League universities. The conference theme was 'Resources in Retirement'. Associate Investigator (AI) Isabella Dobrescu, and CIs Mike Keane and Alan Woodland, undertook the editing of a special issue of the Journal of the Economics of Aging, based on the conference.

Towards the end of 2019 CEPAR became heavily involved in the Retirement Income Review. The Retirement Income Research Briefs, released a year ago, are providing a major evidence base for this Review, as is the more recent Housing and Ageing Research Brief, released only in November, to coincide with the CEPAR Crawford Policy Dialogue on the same topic. Drawing on these briefs, and on our submissions to the Financial System Inquiry and Treasury, CEPAR plans a submission to the Review in early 2020, which will involve inputs from CI Alan Woodland and his team, as well as CIs Hazel Bateman and Michael Sherris and a range of researchers, including Senior Research Fellows Rafal Chomik and George Kudrna. Advisory Board Chair and UNSW Adjunct Professor, Marc de Cure is also part of the team. Already there have been consultations with Panel members and the secretariat.

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The link between health and ageing, and specifically healthy ageing, is gaining prominence as an issue in both developed countries and emerging economies, and is a new international focus for CEPAR. Earlier this year we were delighted when John Beard, who had run the Department of Ageing and Life Course for the World Health Organisation until his retirement in late 2018, joined CEPAR as a professorial fellow, on a fractional appointment. A workshop on Healthy Ageing early in 2020 brought together researchers and stakeholders focused on this area. John and I have both been appointed as Commissioners on a US National Academy of Medicine Commission on Healthy Longevity, a project which will run until late 2020.

Particularly pleasing has been our expanding involvement in Asia. This includes the Centre's role in the G20 task force on population ageing, hosted by Japan. As well, through 2019 we have spearheaded a conference jointly supported by the Korean Development Institute and the East West Centre at the University of Hawaii, focused on population ageing and economic growth. It had a Korean focus, but broader perspectives were provided by five CEPAR members, including CIs Mike Keane and Peter McDonald, PI Hanming Fang, Rafal Chomik, and me. Funding provided in 2018 by the UNSW Business School is allowing further development of our research in Asia, which includes the establishment of the Ageing Asia research hub, a worthy successor to the Australia-China Population Ageing Research Hub which has been operating in the UNSW node of the Centre for several years. This has been augmented by the award of four UNSW Scientia scholarships valued at \$200,000 each for students commencing in 2019 and 2020, all focused on topics related to ageing in Asia. We are currently seeking further funding for the Ageing Asia initiative.

Domestically, major policy-oriented conferences have included the CAMA CEPAR Treasury Workshop on the Global Implications of Population Ageing, organised by Warwick McKibbin; and the Pensions and Retirement Colloquium, organised by Hazel Bateman. As well we have run two workshops focused on data linkages, organised by Warwick McKibbin and CI Phil Clarke. Australia is seriously deficient in good data relating to older cohorts, and these workshops will go some way to addressing this shortfall. A full list of events and workshops appears on pages 85 to 89.

CEPAR's research and engagement activities are critically supported by its internal administration and governance. Director of Operations Anne Gordon and her team deliver extraordinary outcomes in this space. CEPAR is committed to equity, diversity and inclusion (EDI) in the workplace and has developed an Equity Plan outlining how CEPAR supports these concepts in practice. In 2019, on Anne's initiative, a number of new actions designed to strengthen EDI in the Centre were developed in collaboration with Marian Baird, and these have been approved by the CEPAR Management Committee. These include the appointment of Marian Baird as Interim Director of EDI. A full list of new initiatives is at page 16.

Joh Nog A

John Piggott

2019 HIGHLIGHTS

INTERNATIONAL PENSION RESEARCH ASSOCIATION (IPRA) ESTABLISHED WITH CHIEF INVESTIGATOR HAZEL BATEMAN APPOINTED AS INAUGURAL PRESIDENT AND CEPAR INVESTIGATORS JOHN PIGGOTT, OLIVIA S. MITCHELL AND MONIKA BÜTLER INCLUDED ON THE EXECUTIVE BOARD POLICY DIALOGUE ON HOUSING AND AGEING HELD IN CANBERRA IN COLLABORATION WITH THE CENTRE	GLOBAL ECONOMIC IMPLICATIONS OF POPULATION AGEING WORKSHOP HELD IN CANBERRA IN COLLABORATION WITH THE CENTRE FOR APPLIED MACROECONOMIC ANALYSIS AND COMMONWEALTH TREASURY	FORMER DIRECTOR OF THE WORLD HEALTH ORGANISATION'S DEPARTMENT OF AGEING AND LIFE COURSE, JOHN BEARD, APPOINTED A CEPAR PROFESSORIAL FELLOW
	27TH ANNUAL COLLOQUIUM ON PENSIONS AND RETIREMENT RESEARCH HOSTED BY CEPAR	CENTRE DIRECTOR JOHN PIGGOTT AND JOHN BEARD APPOINTED AS MEMBERS OF THE US NATIONAL ACADEMY OF MEDICINE'S INTERNATIONAL
	AND UNSW SCHOOL OF RISK AND ACTUARIAL STUDIES	COMMISSION ON CREATING A GLOBAL ROADMAP FOR HEALTHY LONGEVITY
FOR APPLIED MACROECONOMIC ANALYSIS (CAMA) AND CRAWFORD SCHOOL OF PUBLIC POLICY AT THE AUSTRALIAN NATIONAL UNIVERSITY	5TH ANNUAL WORKSHOP ON POPULATION AGEING AND THE CHINESE ECONOMY HELD IN SYDNEY	CENTRE DIRECTOR JOHN PIGGOTT CO-CHAIRED THE 2019 G20 TASK FORCE ON THE AGEING POPULATION AND ITS ECONOMIC IMPACT
WORKSHOP ON DATA LINKAGE FOR AGEING RELATED RESEARCH HELD IN CANBERRA IN COLLABORATION WITH CAMA AND THE TAX AND TRANSFER POLICY INSTITUTE IN THE ANU CRAWFORD SCHOOL OF PUBLIC POLICY ECONOMICS OF AGEING WORKSHOP HELD IN SYDNEY IN COLLABORATION WITH THE NEW WORLD PROGRAM AND THE UNSW BUSINESS SCHOOL	18TH NATIONAL EMERGING RESEARCHERS IN AGEING CONFERENCE HELD IN SYDNEY	CHIEF INVESTIGATOR KAARIN ANSTEY AWARDED AN ARC LAUREATE FELLOWSHIP
	LAUNCH OF RESEARCH BRIEF: 'HOUSING IN AUSTRALIA: NEST AND NEST EGG?'	CHIEF INVESTIGATOR KAARIN ANSTEY AND HER TEAM AWARDED \$1.9M IN BOOSTING DEMENTIA RESEARCH
	LAUNCH OF CEPAR REPORT: 'MAXIMISING POTENTIAL: FINDINGS FROM THE MATURE WORKERS IN AUSTRALIA SURVEY'	GRANT SCHEME FUNDING

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CHIEF INVESTIGATOR MARIAN BAIRD NAMED BY *APOLITICAL* AS ONE OF THE TOP 100 MOST INFLUENTIAL PEOPLE IN GENDER EQUALITY IN THE WORLD FOR THE SECOND TIME IN A ROW

CHIEF INVESTIGATOR PETER MCDONALD APPOINTED TO THE RESEARCH COMMITTEE OF THE SCANLON FOUNDATION'S INSTITUTE FOR APPLIED SOCIAL COHESION RESEARCH

CHIEF INVESTIGATOR SHARON PARKER NAMED IN THE 2019 WEB OF SCIENCE'S LIST OF HIGHLY CITED RESEARCHERS

HONORARY PROFESSOR ROBERT HOLZMANN APPOINTED AS NEW GOVERNOR OF THE AUSTRIAN CENTRAL BANK

PARTNER INVESTIGATOR OLIVIA S. MITCHELL LISTED AS ONE OF *WORTH* MAGAZINE'S '16 POWERHOUSE FEMALE ECONOMISTS' ASSOCIATE INVESTIGATOR KIM KIELY AWARDED A DEMENTIA AUSTRALIA RESEARCH FOUNDATION PROJECT GRANT

ASSOCIATE INVESTIGATOR RUTH PETERS AWARDED AN NHMRC GRANT TO UNDERTAKE THE 'LIFE-COURSE BLOOD PRESSURE AND COGNITION STUDY (LCBP-COG)'

CEPAR PHD STUDENT NICOLE EE AWARDED A 2019 WESTPAC FUTURE LEADERS SCHOLARSHIP

CEPAR HONOURS STUDENT LUKE ZHOU AWARDED A 2019 APRA BRIAN GRAY SCHOLARSHIP

CHAIR'S MESSAGE



MARC DE CURE

2019 HAS SEEN GREAT PROGRESS WITH CEPAR'S RESEARCH PROGRAM ACROSS ALL STREAMS, WITH MANY OF OUR RESEARCHERS BEING ACKNOWLEDGED FOR THEIR OUTSTANDING CONTRIBUTIONS, AND CEPAR'S BRAND AND RESEARCH REPUTATION CONTINUING TO GROW LOCALLY AND INTERNATIONALLY. THIS IS COVERED EXTENSIVELY IN THE DIRECTOR'S REPORT AND THROUGHOUT THIS ANNUAL REPORT. The key point is that all this progress is enabling CEPAR to achieve its desired impact – assisting Australia and the world to minimise the adverse consequences, and maximise the opportunities arising from, demographic change. Our engagement model continues to achieve this impact through relevant multidisciplinary research, performed by leading researchers with strong end-user, two-way engagement.

2019 ENGAGEMENT ACTIVITIES

Our engagement model is multi-faceted and includes:

- the CEPAR Advisory Board which has increased its focus on strategic guidance and oversight of the research and engagement priorities. Its members have also participated extensively in CEPAR conferences, workshops and roundtables.
- Stakeholder Reference Groups for each Research Stream which were established last year and have successfully increased the research engagement between end users and researchers at the coal face. This enhanced engagement model has worked extremely well, increasing end user touch points, effectiveness and the focus of our engagement activities, and ultimately impact.
- Workshops, conferences, roundtables and research briefs which provide opportunities to both share research and broader insights, receive feedback on research priorities, demonstrate the depth and breadth of our researchers' excellent work, and provide pathways to impact.

Specific examples of significant CEPAR engagement activities in 2019 all of which included a high level of partner organisation and board member participation were:

- the *Roundtable on Retirement Incomes* at UNSW with four board members present and a very high level of participation from partner organisations, particularly Treasury.
- the Workshop on Data Linkage for Ageing Related Research at ANU at which board member David Gruen was a speaker and many board members or their delegates attended.
- the 4th International Pension Research Association Conference: 'Developments in Pensions' hosted by the OECD, at which I presented a paper, with board members Robert Jeremenko and Mike Orszag attending along with other Treasury personnel and Australia's Ambassador to the OECD.
- the CAMA/CEPAR/Treasury Workshop: The Global Economic Implications of Population Ageing at ANU which had a very high level of attendance by board members and partner and affiliate organisations.
- the Policy Dialogue on Housing and Ageing at ANU with board members John Simon and Ian Yates participating as session commentators, me chairing a session, and representatives attending from partner and affiliate organisations DSS, DoH, NSW Treasury, PwC and COTA.
- the 27th Colloquium on Pensions and Retirement Research at UNSW with board members Ian Yates and Geoff Lloyd as panellists and me chairing the plenary session on retirement incomes, and at which four other board members attended alongside numerous partner and affiliate organisation representatives.
- the Data Linkage workshop hosted by partner organisation, the Department of Health.

We also had partner organisation representation at two CEPAR public lectures - one by Professor Fiona Matthews on the impact of education on dementia and the other by Dr Gwenith Fisher on ageing, work and work ability - and workshops on the Economics of Ageing, Population Ageing and the Chinese Economy, and Longevity Risk.

These events were all extremely well supported, high quality and highly relevant, covering a broad spectrum of CEPAR research and international collaborators; and provided a powerful forum to share research and for all to share their insights, knowledge gaps and priorities. They speak to the quality and relevance of CEPAR's research and our ability to share it with those that can use it most.

LOOKING FORWARD

Next year we will continue to spearhead research translation in the key areas where CEPAR's research can inform policy and product development, and social and political awareness. In addition to our ongoing input to the Commonwealth Treasury's Retirement Income Review, two key themes will be the focus of many of our events: Promoting mature workforce participation, and health and ageing.

Mature workforce participation is a new stream and its research is emerging, especially in relation to the role of organisations, which will be the subject of a policy dialogue, a roundtable, a research brief and a fact sheet. A number of CEPAR-organised symposiums are also planned at specialised conferences to focus on this issue, and particularly in relation to addressing care responsibilities. Another new area of research focus is Health and Ageing, which neatly coincides with the World Health Organisation's *Decade of Healthy Ageing*. Planned events include a forum on healthy ageing to be held at UNSW in January; a workshop to be held at 0xford University in March in collaboration with 0xford's Health Economics Research Centre, examining recent stalling of UK life expectancy improvement; a symposium on Indigenous ageing at the University of Melbourne later in the year; a symposium on cognitive ageing to be hosted in collaboration with the NHMRC Centre for Research Excellence in Cognitive Health; and the launch of CI Clarke's report on health poverty.

THANK YOU

On behalf of the Board I would like to thank the Centre Director, Chief Investigators and their research teams, and the CEPAR research and professional staff who have collectively put in a mammoth effort in 2019 publishing a Research Brief on Housing and Ageing and staging the conferences and events referred to above; all on top of the enormous amount of effort going into core research activities. CEPAR greatly appreciates the support of and engagement with its partner and affiliated organisations, and Advisory Board members and Stakeholder Reference Group representatives who generously give their time, insight and energy to assisting CEPAR address the challenges and the opportunities of population ageing. CEPAR would not be where it is today nor have had the same impact without these individuals and organisations.

Marc de Cure Chair CEPAR Advisory Board

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Marc de Cure

ACTIVITY PLAN FOR 20201

CEPAR ANNUAL REPORT 2019 • ACTIVITY PLAN FOR 2020

In 2020 CEPAR will undertake a range of activities which aim to provide Australia, the greater Pacific region, and the world, with crucial new knowledge to inform social and economic responses to one of the most important challenges of the 21st century: population ageing. We will produce high quality research on issues that matter and disseminate output to those that can use it to drive impact; contribute to key agendas, policy initiatives, and product development; expand global collaborative networks; engage with the community; and build research capacity and capability to ensure CEPAR's sustainability.

ENGAGEMENT AND OUTREACH

A number of events are planned in 2020 to stimulate discussion on the issue and raise community awareness; engage with industry, government and the global research community; and raise the profile of the Centre. These include:

- A policy dialogue focused on organisations and the mature workforce, to be hosted in collaboration with the Australian National University's Centre for Applied Macroeconomic Analysis (CAMA) in the Crawford School of Public Policy in Canberra in the latter part of the year;
- The annual Colloquium on Pensions and Retirement Research on 7-8 December in Sydney;
- A Healthy Ageing Forum to be held in Sydney on 28 January;
- Another workshop on Data Linkage for Ageing Research, to be held in Canberra in the second half of the year in collaboration with CAMA;

- A symposium on Indigenous Ageing to be held in Melbourne;
- The second annual workshop on Understanding and Overcoming Confusion in Consumer Financial Decision Making to be held in Sydney;
- Research symposiums on:
 - Carer responsibilities at the 2020
 Work and Family Researchers Network
 Conference in New York in June and at
 the 2020 Australian Institute of Family
 Studies in Melbourne in June;
 - Workplace ageing and age diversity at the 2020 Australia and New Zealand Academy of Management Conference in Perth in December; and
 - Cognitive ageing in collaboration with the NHMRC Centre for Research Excellence in Cognitive Health;
- A research highlights conference as part of the celebrations for the 21st birthday of the PATH Through Life Study;
- Roundtables with stakeholders on the topic of housing and ageing and organisational behaviour and the mature workforce;
- CEPAR's fortnightly seminar series on pensions, retirement and ageing; and
- Public talks featuring CEPAR personnel and distinguished visitors.

In addition, research briefs and fact sheets will be published on the following topics: mature age labour force participation trends; Indigenous ageing; HR management practices; and life expectancy.

NATIONAL AND INTERNATIONAL NETWORKS

CEPAR will continue to expand its international footprint in 2020, especially in the Asia-Pacific region. The Ageing Asia Research Hub will be instrumental in the development of further linkages between CEPAR and key institutions in Asia as well as connecting with national researchers focused on this area of research.

CEPAR will also remain a very active member of the Association of Pacific Rim Universities (APRU) Population Ageing Hub, having played a leading role in its establishment.

Joint workshops and conferences with international collaborators will also support the development of strong linkages. In 2020 these will include:

- An international workshop on health and ageing to be hosted in collaboration with Oxford University's Health Economics Research Centre on 31 March in the UK;
- A panel discussion on the Effective Management of an Age-Diverse Workforce during the Society for Industrial and Organisational Psychology conference in Austin Texas in April;
- The fifth annual conference of the International Pension Research Association to be co-organised by CEPAR in collaboration with Wharton, Netspar and Willis Towers Watson and hosted by the OECD in Paris in June;
- A workshop on addressing Population Ageing: Institutional and Public Policy Innovation to be held on 28-29 June in Shanghai in collaboration with ShanghaiTech University;

Distinguished visitors expected in 2020 include Professors Linda Duxbury (Carleton), Fabiola Gerpott (WHU-Otto Beisheim School of Management), Jong-Wha Lee (Korea), Olivia S.

¹ This Activity Plan was formulated in December 2019. COVID-19 developments will inevitably mean considerable rearrangement, and cancellation or postponement, of various events and international visits. In some cases, events and meetings may take place through IT platforms. We will keep this under review as the year progresses.

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Complete and submit for publication research paper 'Sustainable and Equitable Pensions with Means Testing in Aging Economies' Initiate research on a project on the interaction between housing decisions and the age pension in an overlapping generations (OLG) framework Continue development of the G-Cubed model with data update including new GTAP10 data and implement a Gertler (1997) four generation of

cohorts into the new model

RESEARCH

Specifically, we will:

ageing manuscript

projections project

manuscript

Continue testing model properties comparing Blanchard Yaari implementation from the new model with the proposed four cohort Gertler model

Research in 2020 will be advanced on a number of

topics consistent with the four research streams

Submit projections of Indigenous population

Initiate FEM microsimulation model for Australia

Complete projections of the ageing of the Australian population by birthplace and submit

identified in the CEPAR Strategic Plan.

1 Macro-demographic dynamics and

Progress small-area population

population ageing policy

Finalise special issue of the *Journal of Population Research* on Demographic Change and Intergenerational Equity

Investigate international collaboration on NTA accounts.

Mitchell (Wharton) and Hannes Zacher (Leipzig); Drs David Costanza (George Washington), Ulrike Fasbender (Oxford Brookes), Florian Kunze (Konstanz) and Cort Rudolph (St Louis); and Senior Research Fellow Erik Hernæs (Ragnar Frisch Centre for Economic Research, Oslo).

Visiting PhD students and Early Career Researchers (ECRs) include Rick Laguerre (Connecticut), Amadeus Malisa (Jonkoping), Adriana Ocejo Mong (North Carolina), and Zhen Wang (Fudan).

Our researchers will also promote the Centre and its research during international visits. For example, Anstey will visit the Centre for Research in Ageing and Cognitive Health at the University of Exeter; McKibbin will visit the Brookings Institution periodically throughout 2020 and discuss CEPAR research at the World Bank and the International Monetary Fund; Peter McDonald will visit the Vienna Institute of Demography, investigate international collaboration on NTA accounts, and progress international collaboration on the ageing of Indigenous populations in Canada, New Zealand, the US and Australia; Michael Sherris will present to meetings of the International Actuarial Association Mortality Working Group and the Living to 100 Symposium in Orlando in January 2020, and John Piggott will participate in meetings of the US National Academy of Medicine's International Commission on Creating a Global Roadmap for Healthy Longevity in Tokyo in June and Geneva in July.

MENTORING

The suite of mentoring programs developed by CEPAR to engage ECRs, Higher Degree Research (HDR) and undergraduate students will continue to be offered in 2020. A workshop will be organised in the latter part of the year offering CEPAR and non-CEPAR affiliated personnel the opportunity to learn state-of-the-art techniques from an international leader in quantitative methods. The Stakeholder Engagement Program will equip researchers with the skills necessary to effectively engage with stakeholders and communicate social science research. The CEPAR Industry and Government Fellowship Scheme will provide career development opportunities for members of CEPAR and its partner organisations as well as strengthen collaborative links. An academic exchange program will offer ECRs the opportunity to spend extended periods of time at other nodes or CEPAR partner institutions to advance the research program, expand their collaborations with Partner Investigators (PIs) or Associate Investigators (AIs) and to build their research networks. CEPAR will continue to support the Emerging Researchers in Ageing program. Summer scholarships will be offered to undergraduate students to offer a taste of life in a research centre.

In addition, CEPAR will offer the very successful Future Leaders in Ageing Program again in 2020.

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2 Decision making, expectations and cognitive ageing

Complete data collection for the PATH 40s cohort and clean and prepare data

Commence data collection for the PATH 60s cohort

Continue to analyse decision making and ageing, and identifying typologies of decision making using existing PATH data

Analyse decision making in relation to driving safety using existing data

Evaluate personality in relation to decision making using the PATH data and identify other psychosocial factors that are associated with decision making in the PATH study, including social relationships, social networks, financial hardship, health and cognitive function

Pilot a new assessment of shared decision making

Complete a literature review to inform the development of online training modules aimed at mitigating age-related bias among government and public service decision makers

Evaluate expectations of ageing in relation to other health and psychosocial outcomes in the PATH study

Apply the consumer typing algorithm developed in project 2.4 to new markets, such as superannuation, health insurance, and choice experiments. This will allow for violations of rational choice theory, and for welfare analysis to be conducted in more realistic environments.

3 Organisations and the mature workforce

Collect baseline organisation data using MWOS from participating organisations

Collect follow up data from one of the participating organisations

Launch online dashboard for presenting survey responses to participating organisations

Prepare manuscript for the systematic review of existing work design research in the context of an ageing workforce Prepare manuscript on cognitive ageing

Launch fact sheet on HR management practices

Pilot materials for age bias research

Collect data for research examining age bias in hiring practices

Prepare manuscript exploring care responsibilities using the data from the cross-sectional survey of Australian workers

Conduct policy audits in participating organisations.

4 Sustainable wellbeing in later life

Continue to analyse different approaches for incorporating systematic trends in mortality into multiple state models and linking models of heterogeneity with models of functional disability using Australian and/or US data

Complete the simulation models for life expectancy in patients with type 1 diabetes

Produce estimates of health poverty for Australia for public dissemination

Develop a framework for using evidence to promote healthy ageing by reducing cardiovascular disease among Indigenous Australians

Quantify trends in health inequalities using a 'top incomes' approach

Investigate the impact of peri-surgical opioid use on chronic opioid use

Complete CHAMP Wave 5 data collection by June and commence data analysis

Publish papers on social determinants of successful ageing, including papers on: socioeconomic status and mortality, home ownership and mental health and risk factors for driving cessation

Work on papers using combined data from CHAMP, PATH and ALSWH

Examine program substitution between pension programs and disability programs in light of changes in pension access age Initiate a healthy ageing research topic

Investigate social gradient in subnational life expectancy in Australia

Continue to work on developing and comparing retirement income products, e.g. with simulated cash flows based on financial, environmental, social and corporate governance factors with actuarial models (cohort) for Australia and incorporating recent developments in data analytics and machine learning

Continue to work on optimal design of health and aged care insurance products

Continue to work on the design of long-term care (LTC) insurance, cost to government expenditures and assess the impact of the design of private LTC insurance on public expenditures using Australian data to model functional disability incorporating systematic trends and uncertainty

Extend work on the impact of alternative information formats for superannuation balances to guide decumulation decisions

Extend research focused on the role of home purchase as a trigger for superannuation engagement by unpacking different responses from homeowners and investors in the context of mental accounting

Field a discrete choice experiment of reverse mortgage decisions to better understand reverse mortgage demand in Australia.

In addition, we will continue to focus on building cross-stream collaboration through workshops and joint projects and work closely with our partner organisations, especially through the Stakeholder Reference Groups, to enhance collaboration and facilitate access to data and other resources.

SECTION

GOVERNANCE & STRUCTURE

GOVERNANCE

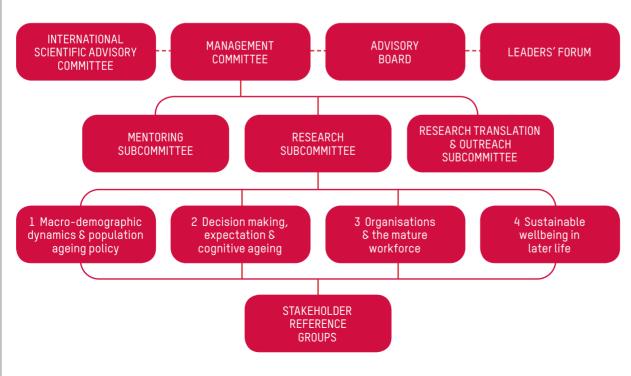
CEPAR ANNUAL REPORT 2019 · GOVERNANCE

Our governance structure is designed to ensure the efficient operation of the Centre, maximise performance and support strategic planning.

At its core are the Management Committee and the Centre Management Team, which are responsible for the execution of Centre activities.

Three external committees support strategic development as well as engagement between researchers, industry and government. The International Scientific Advisory Committee, Centre Advisory Board and the Leaders' Forum provide the Management Committee with external perspectives on the formulation of research programs, their implementation, and the dissemination of research outcomes. In addition, Stakeholder Reference Groups (SRGs) facilitate stakeholder interaction and provide opportunities for end users to shape the direction of the Centre's research program and activities.

CEPAR ORGANISATIONAL CHART



The International Scientific Advisory Committee, comprising international leaders in the area of population ageing, provides advice on the strategic direction of the Centre from a global perspective, with emphasis on research programs. Drawn from a range of fields, reflecting the Centre's multidisciplinary nature, and with influential positions in academe and policy, members of the Committee will also identify and facilitate linkage opportunities as well as act as ambassadors for the Centre, actively building its global profile.

The International Scientific Advisory Committee comprises:

INTERNATIONAL SCIENTIFIC

ADVISORY COMMITTEE

Richard Blundell, Professor of Political Economy, University College London, and Director, ESRC Centre for the Microeconomic Analysis of Public Policy, Institute for Fiscal Studies

Eileen Crimmins, Professor of Gerontology, University of Southern California, and Director, USC/UCLA Centre for Biodemography and Population Health

Cai Fang, Professor of Economics and Deputy Director, Chinese Academy of Social Sciences

Sarah Harper, Professor of Gerontology, University of Oxford, and Co-Director, Oxford Institute of Ageing

Ayse Imrohoroglu, Professor of Finance and Business Economics, USC Marshall School of Business

Ron Lee, Professor Emeritus of Economics and Demography, University of California, Berkeley

Carol Ryff, Professor of Psychology and Director of Institute on Aging, University of Wisconsin-Madison

Yasuhiko Saito, Professor, Nihon University

Merril Silverstein, Marjorie Cantor Chair in Aging Studies, Syracuse University

James P. Smith, Distinguished Chair in Labor Markets and Demographic Studies, RAND Corporation

Ursula Staudinger, Director, Robert N Butler Columbia Aging Centre and Professor of Sociomedical Sciences and Professor of Psychology, Columbia University

Mo Wang, Professor and Director of the Human Resource Research Centre, University of Florida

ADVISORY BOARD

The Advisory Board plays a critical role in supporting the realisation of the Centre's goals by providing an external perspective on the formulation of research programs, their implementation, and strategies for the translation of research findings to effectively influence economic and social policy, business practice, and community understanding. It facilitates two-way engagement between stakeholders and researchers and provides independent advice to the Management Committee with regard to strategy and external relations, as well as new opportunities for engagement.

The Board comprises delegates of organisations providing financial support to CEPAR, along with a broader membership representing research, policy and community groups. Members are appointed by the Director in consultation with the Chair and Management Committee, for a term of three years.

In 2019, the Board met as a group on 28 March and 23 August. Both meetings focused on engagement, research translation, dissemination and profile-raising, with members providing extremely valuable advice, particularly on how CEPAR could better utilise stakeholder networks for the dissemination of information, research and insights.

As well as the formal meetings, the Director and Chair met bilaterally with individual members on a number of occasions to discuss particular issues.

GOVERNANCE

CEPAR ANNUAL REPORT 2019 · GOVERNANCI

2019 ADVISORY BOARD MEMBERS Ν Ν S

MARC DE CURE	Chair
MICHELLE BAXTER	Chief Executive Officer, Safe Work Australia
SARAH BUTLER	NSW Government Leader and Global and Australia Health Services Leader, PricewaterhouseCoopers
DAVID GRUEN	then Deputy Secretary, Economic, Department of the Prime Minister and Cabinet
ROBERT JEREMENKO	Head, Retirement Income Policy Division, Commonwealth Treasury
GEOFF LLOYD	Chief Executive Officer, MLC Wealth
MARGOT MCCARTHY	Deputy Secretary, Ageing and Aged Care Group, Department of Health
PIP 0'KEEFE	Practice Manager, Social Protection and Jobs Global Practice, East Asia and Pacific, World Bank Group
MICHAEL ORSZAG	Head of Global Research, Willis Towers Watson
THE HON DR KAY PATTERSON AO	Age Discrimination Commissioner, Australian Human Rights Commission
JOHN SIMON	Head, Economic Research Department, Reserve Bank of Australia
LINDA SWAN	Chief Medical Officer, Medibank
STEPHEN WALTERS	Chief Economist, Macroeconomic Analysis Research & Strategy Division, NSW Treasury
IAN YATES AM	Chief Executive, Council on the Ageing

In addition, representatives of the Department of Social Services participated in Advisory Board meetings.



MARC DE CURE

BCom (Hons) UNSW, MWine Quality UWS, FCA CHAIR, ADVISORY BOARD

Marc de Cure has long recognised the social and economic significance of demographic change and the need to undertake and promulgate research to inform government policy, social awareness and commercial responses. He played a key role in establishing CEPAR and provides critical input to the development of the Centre's ongoing strategy, and engagement activities. He has chaired both the Advisory Board and the Leaders' Forum since inception.

Marc has been a member of the Business Advisory Council of the UNSW Business School since 2001 and was appointed as an Adjunct Professor at the UNSW Business School in 2015. He holds a Bachelor of Commerce (Honours) from UNSW, a Master of Wine Quality from UWS and is a Fellow of the Institute of Chartered Accountants in Australia.

Marc has been a non-executive company director and senior executive in financial and professional services groups across Australasia and Europe. He was AIA Group's Executive Vice President & CFO and AMP Group's CFO, Executive General Manager Strategy and Executive Director of its main operating entities.

In professional services Marc was a senior Partner with PwC, including Chair of its Australian Financial Services practice and Managing Partner of its Asia Pacific Risk Management practice, and was also a Principal Advisor with Bain & Company.

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CEPAR EX-OFFICIO REPRESENTATIVES ON THE ADVISORY BOARD

ANNE GORDON	Director of Operations
WARWICK MCKIBBIN	Director of Policy Engagement
JOHN PIGGOTT	Director
MICHAEL SHERRIS	Director of Industry Engagement

STAKEHOLDER REFERENCE GROUPS

The role of the Stakeholder Reference Groups (SRGs) is to facilitate stakeholder interaction with CEPAR researchers and promote research translation and knowledge transfer. SRGs also provide opportunities for end users to shape the direction of the Centre's research program and activities. Membership comprises the Stream Leader (as Chair), the Stream Coordinator, the leaders of each of the Stream's projects (or their nominees), representatives of CEPAR's partner organisations plus additional members drawn from business, government and community circles as appropriate.

In 2019, three of the four Research Streams held their annual meetings. The meetings provided an opportunity to review research output over the previous 12 months, identify opportunities and research gaps, and set goals for the next 12 months.

Schedule of meetings:

Stream 1 SRG: 28 October 2019 Stream 2 SRG: 5 December 2019 Stream 3 SRG: 14 October 2019 Stream 4 SRG: to be held on 21 February 2020

MANAGEMENT COMMITTEE

The Management Committee, together with the Centre Director, has overall responsibility for Centre performance and for ensuring that the Centre's activities are conducted in accordance with the Funding Agreement between UNSW Sydney and the ARC. Its role is to oversee all operational matters, including budget management, approval of specific major programs, staffing, approval of visitors and organisation of workshops. In strategic planning, the Committee seeks high level advice from the Centre Advisory Board, International Scientific Advisory Committee and Leaders' Forum.

The Committee is chaired by Chief Investigator Alan Woodland and comprises:

JOHN PIGGOTT	Centre Director
KAARIN ANSTEY	Deputy Director and Chief Investigator
HAZEL BATEMAN	Deputy Director, Chief Investigator and University of New South Wales Node Leader
ROBERT CUMMING	Chief Investigator and University of Sydney Node Leader
ANNE GORDON	Director of Operations
PETER MCDONALD	Chief Investigator and University of Melbourne Node Leader
WARWICK MCKIBBIN	Chief Investigator and Australian National University Node Leader
SHARON PARKER	Chief Investigator and Curtin University Node Leader

In 2019, the Committee met on 20 March, 26 June, 10 September and 25 November. Consultation also took place via email and teleconferencing and a number of informal meetings were held to handle research management decision making tasks.

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GOVERNANCE

The Management Committee is supported by three subcommittees:

RESEARCH SUBCOMMITTEE

Chaired by the Centre Director, the committee comprises all the Chief Investigators, the Stream Coordinators, the Director of Operations and the Senior Administrative Officer (Research and Mentoring Support). In 2019, the subcommittee met on 30 April, 14 August and 20 November. In addition, members of the research committee participated in CEPAR's two-day annual workshop on the 29th – 30th October which included Chief Investigator led strategic planning sessions focused on multidisciplinary collaboration, national and international linkages, stakeholder engagement, research capacity building and visibility and profile.

MENTORING SUBCOMMITTEE

The subcommittee comprises the two Directors of Mentoring, Sharon Parker and Marian Baird, the Centre Director, the Director of Operations and Emerging Researchers in Ageing (ERA) representative Matthew Carroll. In addition, the Centre's mid-career researchers were represented by Daniela Andrei, George Kudrna and Ruth Peters; early career researchers were represented by Inka Eberhardt, Sophie Yan and Natasha Ginnivan; and PhD students were represented by Cheng Wan and Md Mijanur Rahman. The subcommittee, chaired by Ruth Peters met on 25 March, 23 July and 23 October 2019.

RESEARCH TRANSLATION AND OUTREACH SUBCOMMITTEE

The subcommittee was chaired this year by the Director of Industry Engagement, Michael Sherris, and comprises the Director of Policy Engagement, Warwick McKibbin, the Centre Director, Deputy Director and Chief Investigator, Hazel Bateman, the Director of Operations, the Senior Research Fellow – Research Translation, the Senior Administrative Officer (Stakeholder Relations and Governance), and the Communications, Marketing and Events Coordinator. The subcommittee met on 16 April, 9 July and 12 November 2019.

CENTRE ADMINISTRATION AND OPERATION

Since its formal establishment on the 28th of September 2017, CEPAR has made significant inroads in the development of the organisational framework necessary to effectively administer and optimise the achievements of the Centre. Progress has been made in the six key domains prescribed by the Australian Research Council in the Funding Agreement:

STRATEGIC PLANNING

CEPAR's Strategic Plan is a living document shaped by ongoing consultation with a wide range of CEPAR personnel and its stakeholders. It is augmented and revised as new opportunities emerge, thus providing a roadmap and a structure that will assist CEPAR to continue to strive for excellence in population ageing research and enable it to achieve its full potential.

The strategic planning process involves regularly reviewing our progress towards fulfilling our objectives and vision for the Centre and discussing strategies for success to ensure the Centre is positioned to make the most of its capabilities and the opportunity provided by the collaborating universities, partners and the Australian Research Council.

In 2019, discussions have taken place at meetings of the Advisory Board, Management Committee and its subcommittees, as well as at CEPAR's annual workshop in October. A report prepared by the CEPAR International Scientific Advisory Committee (ISAC) also provided extremely valuable input and a subsequent videoconference held in December, involving keys members of ISAC and CEPAR, explored the Committee's recommendations for new research directions, international collaborations and profile raising.

EQUITY AND DIVERSITY PLANNING

CEPAR is committed to equity, diversity and inclusion (EDI) in the workplace and has developed an Equity Plan outlining how CEPAR supports these concepts in practice.

The document *Equity and Diversity at CEPAR*: *Principles, Policy and Practice* positions CEPAR as an equal opportunity employer committed to the principles of cultural diversity, disability inclusion, gender equality, and LGBTIQ inclusion. It is supported by workplace and diversity policies, as well as codes of conduct, in place at each of its collaborating universities.

In addition, it sets out CEPAR-specific policies and practices designed to engender a culture of equity and diversity, to further support equity and diversity within the Centre. These position the Centre as a flexible and family-friendly work environment. The document has been circulated to all CEPAR personnel, is available online on the CEPAR website, and is included in induction packs for new staff and students.

In 2019, the CEPAR Management Committee approved the implementation of a number of new initiatives designed to strengthen EDI in the Centre. These included:

- the appointment of Professor Marian Baird as Interim Director of EDI who will lead a Centre-wide network focused on supporting and enhancing EDI at CEPAR;
- the launch of a survey of CEPAR personnel designed to better understand the experiences of our members and provide indications of what actions need to be taken to enhance EDI;
- creation of the role of 'CEPAR EDI Champion' with the aim of having at least one at each node. Champions will promote EDI at their node; make suggestions for improvement of the CEPAR policy; and be part of the network convened by the Director;

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- the establishment of a pool of funds, to be accessed via application, for meeting expenses related to CEPAR personnel's child and elder care obligations to support attendance at CEPAR workshops and conferences;
- embedding EDI principles in CEPAR leadership and other research training and mentoring programs; and
- compiling a central list of EDI focused workshops available at each node for circulation among CEPAR personnel.

DISCRETIONARY FUNDING

CEPAR has set aside discretionary funds to support a number of schemes, including a Distinguished Visitors Program, an International Conference Travel Scheme for HDR students, and an HDR and ECR Travel Grant Scheme to support extended visits to other nodes and affiliated institutions for the purpose of research collaboration.

CENTRE COHESION

Strategies to support the cohesion of the Centre, across nodes and disciplines, are embedded in everything the Centre does. The governance framework and Centre structure are designed to ensure that personnel from all five nodes participate in the decision making of the Centre; that partners have an opportunity to shape the direction of the research program and activities through membership of the Advisory Board and Stakeholder Reference Groups; and that researchers regularly come together to discuss and plan research across nodes and disciplines, both informally through regular visits and formally at Research Stream meetings and annual workshops. Importantly, each of the nodes has a designated Node Leader who serves on the Centre Management Committee, and the Leadership team includes key positions based at the Australian National University (Director of Policy Engagement), Curtin University (Director of Mentoring – Mid-Career Researchers), the University of Sydney (Director of Mentoring – Emerging Researchers and Director of Equity, Diversion and Inclusion) and UNSW Sydney (Director and Deputy Directors, Director of Industry Engagement). Stream Leaders are based at the University of Melbourne, Curtin University and UNSW Sydney.

MENTORING AND PROFESSIONAL DEVELOPMENT

The Centre has developed a suite of programs designed to achieve its objective of creating new researcher cohorts devoted to ageing research, trained in cross-disciplinary skills, with the ability to engage with and respond to the needs of end users. The programs, which are tailored to students, postdoctoral researchers and mid-career researchers, are outlined in the Research Training and Mentoring Section on pages 75 to 80.

RESEARCH TRANSLATION, COMMUNICATION, EDUCATION AND OUTREACH

The CEPAR Research Translation, Communication, Education and Outreach Plan outlines a range of initiatives designed to translate Centre research, enhance the Centre's profile and address stakeholder needs. The plan is reviewed annually. Key to its development in 2019 were discussions at the CEPAR annual workshop, as well as at meetings of the Advisory Board and the Management Committee and its three subcommittees.

The Plan is embedded in the CEPAR Strategic Plan. In addition, a list of initiatives in this portfolio will be developed each year and included as an appendix to the Strategic Plan.

STRUCTURE

CEPAR ANNUAL REPORT 2019 • STRUCTURE

CEPAR is based at the University of New South Wales (UNSW Sydney) with nodes at the Australian National University (ANU), Curtin University, the University of Melbourne and the University of Sydney. It is strongly supported by a number of key government, industry and international university partners.

NODES

The UNSW Sydney node, led by Professor Hazel Bateman, is hosted by the UNSW Business School and includes teams of researchers based in the Business School and Neuroscience Research Australia.

The ANU node is based in the Crawford School of Public Policy under the leadership of Professor Warwick McKibbin.

Professor Sharon Parker leads the Curtin University node based in the Centre for Transformative Work Design.

Professor Peter McDonald leads the University of Melbourne node, based in the School of Population and Global Health.

The University of Sydney node consists of teams in the School of Public Health and the Business School. Professor Robert Cumming leads the University of Sydney node.

All 12 Chief Investigators (CIs) and many of the Centre's Associate Investigators (AIs) are based at one of the five nodes. Within Australia, Associate Investigators are also based at Macquarie University, National Seniors Australia, the University of Newcastle, and the University of Technology Sydney. Industry-based AIs are based at First State Super, Pacific Life Re and Taylor Fry.

PROGRAMS

The research program is organised into four interconnected streams:

Macro-Demographic Dynamics and Population Ageing Policy

Decision Making, Expectations and Cognitive Ageing

Organisations and the Mature Workforce

Sustainable Wellbeing in Later Life

INTERNATIONAL UNIVERSITY PARTNERS

Our Partner Investigators are drawn from three world-class research organisations:

The University of Manchester

The Wharton School

The University of Pennsylvania

Through our internationally based Associate Investigators and joint research initiatives we are connected to the following key research institutions:

College of William and Mary

Colorado State University

CPB Netherlands Bureau of Economic Policy Analysis

Durham University

Dutch Central Bank

Korea University

National Institute of Public Finance and Policy, New Delhi

Netspar

Newcastle University (UK)

Northern Illinois University

Portland State University

Ragnar Frisch Centre for Economic Research

Saint Louis University

South China Agricultural University

Tilburg University

Université Libre de Bruxelles

University of Bern

University of Duisburg-Essen

University of Exeter

University of Kent

University of Leipzig

University of Oxford

University of Parma

University of St. Gallen

University of South Florida

University of Trieste

University of Wuerzburg

WHU – Otto Beisheim School of Management

Zhejiang University

INDUSTRY AND GOVERNMENT PARTNERS

CEPAR is actively engaged with a range of influential government and industry partners to cooperatively deliver outcomes to meet the challenges and opportunities of population ageing. These include:

Australian Human Rights Commission

Department of Foreign Affairs and Trade

Department of Health

Department of Social Services

Medibank

MLC Wealth

NSW Treasury

PricewaterhouseCoopers

Reserve Bank of Australia

Safe Work Australia

The Treasury

The World Bank

Willis Towers Watson

In addition, the Centre is supported by Research Attraction and Acceleration Program (RAAP) funding from the NSW Department of Industry.



CENTRE PERSONNEL

20 CHIEF INVESTIGATORS



SCIENTIA PROFESSOR JOHN PIGGOTT BA Syd., MSc PhD Lond., FASSA CENTRE DIRECTOR

John Piggott is Scientia Professor of Economics in the UNSW Business School.

He has published widely on issues in retirement and pension economics and finance, and in public finance, and his research has appeared in the leading international economics and actuarial academic journals as well as in highly cited conference volumes.

His national policy experience includes membership of both the Henry Tax Review Panel (2008-2009) and the Australian Ministerial Superannuation Advisory Committee (2007-2011). Internationally, he worked with the Japanese government for nearly a decade from 1999 on pension and population ageing issues. In 2004, he was tasked with evaluating World Bank assistance on pension reform in the Asian region for the Bank's Operations Evaluation Department. In 2007 he was appointed Visiting Professor at Zhejiang University in China, an ongoing appointment, and was previously a Visiting Scholar at the Wharton School of Business. In 2018, he was awarded a Rockefeller Residency to work on issues in population ageing and inequality. In 2019, he was appointed as co-chair of the G20 Population Ageing Task Force, and as a commissioner on the US National Academy of Medicine on Healthy Longevity.



PROFESSOR KAARIN J. ANSTEY BA (Hons) Syd., PhD Qld., FASSA, FAPS CHIEF INVESTIGATOR AND DEPUTY DIRECTOR

Kaarin Anstey is Director of the UNSW Sydney Ageing Futures Institute focused on enabling optimal ageing for individuals and society and Senior Principal Research Scientist at Neuroscience Research Australia (NeuRA). She also leads an NHMRC Centre of Research Excellence in Cognitive Health and is a director of the NHMRC Dementia Centre for Research Collaboration.

Kaarin's research programs focus on the causes, consequences and prevention of cognitive ageing, dementia, and common mental disorders in adulthood. A second focus is on older drivers' risk assessment and safety. Kaarin has worked extensively with longitudinal studies, and since 2006 has led the PATH Through Life Project, a large cohort study focusing on common mental disorders and cognitive function, based in the ACT and surrounding regions.

Kaarin is the Chair of the International Research Network on Dementia Prevention, a Director of the Board of the Dementia Australia Research Foundation, a member of the World Health Organisation Group developing guidelines for risk reduction of cognitive decline and dementia, and a member of the Governance Committee of the Global Council on Brain Health.



PROFESSOR HAZEL BATEMAN BEC (Hons) Qld., PhD UNSW, GAICD CHIEF INVESTIGATOR, DEPUTY DIRECTOR AND UNSW SYDNEY NODE LEADER

Hazel Bateman is a Professor of Economics in the UNSW School of Risk and Actuarial Studies.

Hazel researches consumer financial decision making especially as it relates to retirement accumulation and decumulation. In particular, her work focuses on interventions to facilitate better retirement financial decisions; retirement product design in Australia and China; and the taxation and regulation of pension and superannuation funds.

She is the author of over 70 peer-reviewed publications and book chapters and has been Chief Investigator on over a dozen ARC funded projects. Hazel has consulted on retirement income issues to international organisations including the OECD, the World Bank, the Social Insurance Administration (China) and the Korean Institute of Health and Social Affairs. She is a member of Netspar's Scientific Council, the Steering Committee of the Melbourne Mercer Global Pension Index and the China Ageing Finance Forum. She is an editor of the Journal of Pension Economics and Finance and inaugural President of the International Pension Research Association (IPRA).



PROFESSOR MARIAN BAIRD AO BEC (Hons) DipEd PhD Syd., FASSA CHIEF INVESTIGATOR, DIRECTOR OF MENTORING (EMERGING RESEARCHERS) AND INTERIM DIRECTOR OF EDI

Marian Baird is Professor of Gender and Employment Relations, Head of the Discipline of Work and Organisational Studies, and Co-Director of the Women, Work and Leadership Research Group in the University of Sydney Business School. She is also a Presiding Pro-Chancellor of the University of Sydney.

In 2019 she was named in Apolitical's Top 100 Most Influential People in Gender Equality list for the second year in a row. She was awarded an AO in 2016 for outstanding services to improving the quality of women's working lives and for contributions to tertiary education. She is one of Australia's leading researchers in the fields of women, work and family. Marian has received numerous grants from business and government to study gender equitable organisational change and work and family policy. She has contributed to a number of government advisory boards and reference groups relating to parental leave, gender equity and sexual harassment in the workplace. In 2017 Marian and colleagues edited a ground-breaking book, Women, Work and Care in the Asia Pacific.



PROFESSOR PHILIP CLARKE BEC N'cle (Aust), MEC Syd., PhD ANU, FASSA CHIEF INVESTIGATOR

Philip Clarke is Director of the Health Economics Research Centre at the University of Oxford, UK. Formerly, he was the Director of the Centre for Health Policy at the University of Melbourne and continues to maintain a fractional appointment with the Centre and strong links with the CEPAR research team based there.

He has contributed to health economic policy debates in Australia, particularly around the pricing of generic pharmaceuticals and more recently the need for better statistics on outcomes and cost in the Australian system. His research interests include developing methods to value the benefits of improving access to health care, health inequalities and the use of simulation models in health economic evaluation. Philip has been involved in the development of the UKPDS Outcomes Model, a health economic simulation model for type 2 diabetes. He has also undertaken policy relevant research for the World Bank, OECD, AusAID and the Department of Health. He has over 80 peerreviewed publications and has recently contributed to books on cost-effectiveness analysis and cost-benefit analysis published by Oxford University Press.



PROFESSOR ROBERT CUMMING MBBS UNSW, MPH PhD Syd. CHIEF INVESTIGATOR AND UNIVERSITY OF SYDNEY NODE LEADER

Robert Cumming is Professor of Epidemiology and Geriatric Medicine at the University of Sydney. He shares his time between the School of Public Health at the University of Sydney and the Centre for Education and Research on Ageing (CERA) at Concord Hospital.

He has an international reputation for his research on osteoporosis, falls and fractures. His research on falls prevention in older people has had major impact on policy and practice in this important field. Much of his research brings together biological, psychosocial and medical aspects of ageing. In recent years he has extended his work to the study of ageing and health in developing countries in Asia and sub-Saharan Africa.

He is a member of the Australian Institute of Health and Welfare's National Arthritis and Musculoskeletal Conditions Monitoring Advisory Group and serves on the editorial board of the *International Journal of Epidemiology*. He is a Life Member of the Australasian Epidemiological Association.



CENTRE PERSONNEL

CHIEF INVESTIGATORS



PROFESSOR MICHAEL KEANE BS MIT, MA PhD Brown, FES, FASSA CHIEF INVESTIGATOR

Michael Keane is an Australian Laureate Fellow and Professor of Economics in the UNSW Business School.

Several independent sources have placed Michael Keane among the top economists internationally in terms of citations and the impact of his work. Recently he was ranked as top economist in the 1990 PhD cohort by Research Papers in Economics (RePEc). He is considered to be a world leader in choice modelling and his expertise is sought both nationally and internationally. In 2009 he prepared a report on tax transfers and labour supply for the Australian Treasury's Commission on Australia's Future Tax System. He has been a visiting scholar at the International Monetary Fund at various times throughout his career.

He was elected a Fellow of the Econometric Society in 2005 and in 2018 was elected to the Econometric Society Council. He won the Kenneth Arrow Award in 2008, was named an Australian Federation Fellow in 2005 and was awarded an Australian Laureate Fellowship in 2011. He is an Associate Editor of the *Journal of Econometrics* and *Quantitative Marketing and Economics*.



PROFESSOR PETER MCDONALD AM BCom UNSW, PhD ANU, FASSA CHIEF INVESTIGATOR AND UNIVERSITY OF MELBOURNE NODE LEADER

Peter McDonald is Professor of Demography within the Centre for Health Policy at the University of Melbourne.

He was President of the International Union for the Scientific Study of Population for the years, 2010-2013. In 2015, he received the Irene B. Taueber Award from the Population Association of America which recognises an unusually original or important contribution to the scientific study of population. He is frequently consulted on the issue of population futures (causes, consequences and policies) by governments around the world, especially in Australia, Europe and East Asia.

In 2008, he was appointed as a Member of the Order of Australia. He is an inaugural ANU Public Policy Fellow and in 2014 was a member of the Independent Review into Integrity in the Subclass 457 Programme. He has worked previously at the Australian National University, the Australian Institute of Family Studies, the World Fertility Survey and the University of Indonesia.



PROFESSOR WARWICK MCKIBBIN AO BCom (Hons) UNSW, AM PhD Harvard University, FASSA CHIEF INVESTIGATOR AND DIRECTOR OF POLICY ENGAGEMENT

Warwick McKibbin is a Vice Chancellor's Chair in Public Policy and is Director of the Centre for Applied Macroeconomic Analysis in the Crawford School of Public Policy at the Australian National University. He is also a non-resident Senior Fellow at the Brookings Institution in Washington D.C.

He is internationally renowned for his contributions to global economic modelling and the theory of monetary policy. He has published more than 200 peer-reviewed academic papers and five books and is a regular commentator in the popular press. He has a wide range of policy experience. He has been a member of the Board of the Reserve Bank of Australia (2001 – 2011); the Prime Minister's Science, Engineering and Innovation Council (2005-2008); and the Advisory Board of the Prime Minister's Taskforce into Housing Affordability (2002-2003).

He regularly advises international institutions, central banks, governments and corporations across a range of developed and emerging economies.

Warwick serves on the Editorial/Advisory Boards of China & World Economy, Japan and the World Economy, and Asian Economic Papers.



PROFESSOR SHARON K. PARKER BSc (Hons) UWA, PhD Sheffield, FASSA CHIEF INVESTIGATOR, CURTIN UNIVERSITY NODE LEADER AND DIRECTOR OF MENTORING (MID-CAREER RESEARCHERS)

Sharon K. Parker is an ARC Laureate Fellow and a Professor at the Centre for Transformative Work Design within the Future of Work Institute at the Curtin Business School, Curtin University.

Sharon's research focuses particularly on job and work design, and she is also interested in employee performance and development. She has attracted competitive research funding worth over \$40,000,000, has published 100 academic articles, and is the author of a SAGE book on work design and a recent Routledge book on proactive behaviour.

Sharon is a recipient of the ARC's Kathleen Fitzpatrick Award and the Academy of Management OB Division Mentoring Award and is a Fellow of the Society for Industrial and Organisational Psychology. She also helped to develop the Good Work Design principles now used by Safe Work Australia and Comcare to foster the improved quality of work within Australian organisations.

Sharon is an Associate Editor for the Academy of Management Annals, a past Associate Editor of the leading organisational psychology journal, Journal of Applied Psychology, and has served on numerous editorial boards.



PROFESSOR MICHAEL SHERRIS BA Macq., MBA Syd., FIA, FIAA, FSA CHIEF INVESTIGATOR AND DIRECTOR OF INDUSTRY ENGAGEMENT

Michael Sherris is a Professor of Actuarial Studies in the UNSW Business School. His research sits at the intersection of actuarial science and financial economics and has attracted a number of international and Australian best paper awards. He has published in leading international risk and actuarial studies journals, including Journal of Risk and Insurance, Insurance: Mathematics and Economics, Scandinavian Actuarial Journal, ASTIN Bulletin, Journal of Economic Dynamics and Control, North American Actuarial Journal and Geneva Papers on Risk and Insurance. He is on the editorial board of the Annals of Actuarial Science and is a co-editor of the North American Actuarial Journal.

Prior to becoming an academic he worked in the banking and finance industry. He has been an active member of the Australian actuarial profession having served on the Council of the Institute of Actuaries of Australia. He was President (2008-2009) of the Asia Pacific Risk and Insurance Association and a Board and Executive Member of the Enterprise Risk Management Institute International. He was Chair of the AFIR-ERM Section of the International Actuarial Association until 2019. He was named Australian Actuary of the Year 2007 in recognition of his contributions to actuarial research and education both internationally and within Australia.



SCIENTIA PROFESSOR ALAN WOODLAND BA PhD UNE, FASSA, FES CHIEF INVESTIGATOR

Alan Woodland is Scientia Professor of Economics in the School of Economics within the UNSW Business School.

Alan's primary research interests and publications are in the areas of international trade theory, applied econometrics and population ageing. He has published in leading journals including *Econometrica, Review of Economic Studies, Journal of Econometrics, Journal of International Economics* and the *Journal of Economic Dynamics and Control.*

He is the recipient of the Distinguished Economist Award of the Economics Society of Australia. He is an Associate Editor of the *Review* of International Economics, a past editor of the Economic Record, and is currently on the editorial boards of the International Journal of Economic Theory and the Economic Record. Alan has been a Reserve Bank of Australia Fellow in Economic Policy and a Senior Fulbright Fellow. He is also on the scientific boards of the European Trade Study Group (ETSG), Asia Pacific Trade Seminars (APTS), Australasian Trade Workshop (ATW) and the Dynamics, Economic Growth, and International Trade (DEGIT) Research Centre.



CENTRE PERSONNEL

PARTNER INVESTIGATORS

Professor Hanming Fang Department of Economics UNIVERSITY OF PENNSYLVANIA

Professor Olivia S. Mitchell The Wharton School UNIVERSITY OF PENNSYLVANIA

Professor James Nazroo School of Social Sciences UNIVERSITY OF MANCHESTER

HONORARY PROFESSOR

Professor Robert Holzmann AUSTRIAN ACADEMY OF SCIENCES

PROFESSORIAL FELLOW

Professor John Beard UNSW Business School UNSW SYDNEY (FROM 3 JUNE 2019)

ASSOCIATE INVESTIGATORS²

Professor Julie Agnew Mason School of Business COLLEGE OF WILLIAM AND MARY

Dr Daniel Alai School of Mathematics, Statistics and Actuarial Sciences UNIVERSITY OF KENT

Professor Jennifer Alonso García Department of Economics, Econometrics and Finance UNIVERSITY OF GRONINGEN (UNTIL 31 OCTOBER 2019) AND Department of Mathematics

UNIVERSITÉ LIBRE DE BRUXELLES (FROM 1 NOVEMBER 2019)

² Not all Associate Investigators were actively involved in the research program in 2019 Professor Ross Andel College of Behavioural and Community Sciences, School of Aging Studies UNIVERSITY OF SOUTH FLORIDA

Professor Heather Booth School of Demography AUSTRALIAN NATIONAL UNIVERSITY

Brooke Brady UNSW Ageing Futures Institute UNSW SYDNEY

Dr Richard Burns Centre for Research on Ageing, Health and Wellbeing AUSTRALIAN NATIONAL UNIVERSITY

Professor Monika Bütler Department of Economics UNIVERSITÄT ST. GALLEN

Professor Julie Byles Research Centre for Generational Health and Ageing THE UNIVERSITY OF NEWCASTLE, AUSTRALIA

Dr Elena Capatina College of Business and Economics AUSTRALIAN NATIONAL UNIVERSITY

A/Professor Nicolas Cherbuin Centre for Research on Ageing, Health and Wellbeing AUSTRALIAN NATIONAL UNIVERSITY

Professor Linda Clare Centre for Research in Ageing and Cognitive Health UNIVERSITY OF EXETER

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Professor Emeritus Denise Doiron School of Economics UNSW SYDNEY Dr Patrick Dunlop Future of Work Institute CURTIN UNIVERSITY

A/Professor Joanne Earl Department of Psychology MACQUARIE UNIVERSITY

A/Professor Christine Eckert Marketing Department UNIVERSITY OF TECHNOLOGY SYDNEY

Professor Hans Fehr Department of Economics UNIVERSITY OF WUERZBERG

Professor Denzil Fiebig School of Economics UNSW SYDNEY

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Professor Fabiola H. Gerpott WHU-OTTO BEISHEIM SCHOOL OF MANAGEMENT

Dr Natasha Ginnivan The Kirby Institute and UNSW Art & Design UNSW SYDNEY

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Professor Alastair Gray Health Economics Research Centre UNIVERSITY OF OXFORD

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Professor Robert Gregory College of Business and Economics AUSTRALIAN NATIONAL UNIVERSITY

Professor Barbara Griffin Department of Psychology MACQUARIE UNIVERSITY

Dr Megan Gu Centre for the Health Economy MACQUARIE UNIVERSITY (FROM 14 OCTOBER 2019)

Dr Myra Hamilton Social Policy Research Centre UNSW SYDNEY

Dr Katja Hanewald School of Risk and Actuarial Studies UNSW SYDNEY (FROM 30 JUNE 2019)

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Dr Vasant Hirani School of Life and Environmental Sciences UNIVERSITY OF SYDNEY

Professor Andreas Hirschi Institute of Psychology UNIVERSITY OF BERN

Dr Diane Hosking NATIONAL SENIORS AUSTRALIA

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Dr Cagri Kumru Research School of Economics AUSTRALIAN NATIONAL UNIVERSITY

Professor Jong-Wha Lee Economics Department KOREA UNIVERSITY

Dr Han Li Department of Actuarial Studies and Business Analytics MACQUARIE UNIVERSITY

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Dr Ramona Meyricke SUNCORP (UNTIL 6 NOVEMBER 2019) AND Taylor Fry (FROM 7 NOVEMBER 2019)

Dr Moyra Mortby School of Psychology UNSW SYDNEY AND NEUROSCIENCE RESEARCH AUSTRALIA Professor Andreas Müller Institute of Psychology, Work and Organisational Psychology UNIVERSITY OF DUISBURG-ESSEN

Professor Ben R. Newell School of Psychology UNSW SYDNEY

Professor Annamaria Olivieri Department of Economics and Management UNIVERSITY OF PARMA

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Professor Andrew Palmer Menzies Institute for Medical Research

AND School of Population and Global Health UNIVERSITY OF MELBOURNE (FROM 30 AUGUST 2019)

Dr Collin Payne School of Demography AUSTRALIAN NATIONAL UNIVERSITY (FROM 7 NOVEMBER 2019)

Dr Ruth Peters NEUROSCIENCE RESEARCH AUSTRALIA

Professor Ermanno Pitacco Faculty of Economics UNIVERSITY OF TRIESTE

Dr Cort W. Rudolph Department of Psychology SAINT LOUIS UNIVERSITY

Dr Renuka Sane NATIONAL INSTITUTE OF PUBLIC FINANCE AND POLICY, NEW DELHI

Professor Anthony Scott Melbourne Institute of Applied Economic and Social Research UNIVERSITY OF MELBOURNE

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Dr Wenqiang (Adam) Shao MILLIMAN (UNTIL 15 JUNE 2019) AND

PACIFIC LIFE RE (FROM 16 JUNE 2019)

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Dr Ralph Stevens CPB NETHERLANDS BUREAU FOR ECONOMIC POLICY ANALYSIS

Professor Lucy Taksa Centre for Workforce Futures Macquarie Business School MACQUARIE UNIVERSITY

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Dr Federica Teppa Economic and Research Division DE NEDERLANDSCHE BANK (DUTCH CENTRAL BANK)

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Dr Iwu Utomo School of Demography AUSTRALIAN NATIONAL UNIVERSITY

Dr Andrés Villegas School of Risk and Actuarial Studies UNSW SYDNEY

Dr Pengyu Wei

Statistics and Actuarial Science UNIVERSITY OF WATERLOO (FROM 1 NOVEMBER 2019)

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Dr Chia-Huei Wu Business School DURHAM UNIVERSITY

Dr Shang Wu FIRST STATE SUPER

Dr Mingxu Yang Department of Labor and Social Security SOUTH CHINA AGRICULTURE UNIVERSITY

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Professor Hannes Zacher Department of Psychology UNIVERSITY OF LEIPZIG

Professor Zhongwei Zhao School of Demography AUSTRALIAN NATIONAL UNIVERSITY

Dr Jonathan Ziveyi School of Risk and Actuarial Studies UNSW SYDNEY

ASSOCIATE PROFESSOR OF ECONOMIC DEMOGRAPHY

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PRINCIPAL RESEARCH FELLOW

Dr Tom Wilson Medicine, Dentistry and Health Sciences UNIVERSITY OF MELBOURNE (FROM 16 MAY 2019)

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Rafal Chomik UNSW Business School UNSW SYDNEY

Dr George Kudrna UNSW Business School UNSW SYDNEY

Dr Katja Hanewald UNSW Business School UNSW SYDNEY (UNTIL 1 JULY 2019)

Dr An Tran Centre for Health Policy UNIVERSITY OF MELBOURNE

Dr Vasoontara Yiengprugsawan UNSW Business School UNSW SYDNEY (FROM 1 FEBRUARY 2019)

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Dr Yuanyuan Deng UNSW Business School UNSW SYDNEY (ON PARENTAL LEAVE FROM 15 JULY 2019)

Dr Héloïse Labit Hardy UNSW Business School UNSW SYDNEY

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Dr Andreea Constantin The University of Sydney Business School UNIVERSITY OF SYDNEY

Inka Eberhardt UNSW Business School UNSW SYDNEY

Dr Peyman Firouzi-Naeim UNSW Business School UNSW SYDNEY (FROM 15 JULY 2019)

Dr Meimanat Hosseini Chavoshi Centre for Health Policy UNIVERSITY OF MELBOURNE

Dr Saman Khalatbari-Soltani School of Public Health UNIVERSITY OF SYDNEY

Dr Josh Knight Centre for Health Policy UNIVERSITY OF MELBOURNE

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Dr Bei Lu UNSW Business School UNSW SYDNEY

Dr Timothy Neal UNSW Business School UNSW SYDNEY Dr Miguel Olivo-Villabrille UNSW Business School UNSW SYDNEY

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Dr Christopher Schilling Melbourne School of Population and Global Health UNIVERSITY OF MELBOURNE

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(FROM 14 OCTOBER 2019)

Dr Craig Sinclair NEUROSCIENCE RESEARCH AUSTRALIA (FROM 14 JANUARY 2019)

Dr Sophie Yan UNSW Business School UNSW SYDNEY

Dr Dandan Yu UNSW Business School UNSW SYDNEY (FROM 1 FEBRUARY 2019)

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Dr Ranmalee Eramudugolla NEUROSCIENCE RESEARCH AUSTRALIA

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RESEARCH ASSOCIATE

Alison Williams The University of Sydney Business School UNIVERSITY OF SYDNEY 27

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CENTRE PERSONNEL

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Kay Bowman UNSW SYDNEY (FROM 12 AUGUST 2019)

Alison Childs UNSW SYDNEY (FROM 12 AUGUST 2019)

Carmel Coady UNSW SYDNEY (FROM 12 AUGUST 2019)

Andrew Cracker UNSW SYDNEY (FROM 12 AUGUST 2019)

Dr Anurina Das Faculty of Medicine and Health UNIVERSITY OF SYDNEY (FROM 8 JANUARY 2019)

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Dr Nary Hong UNSW Business School UNSW SYDNEY

Ian Hosking UNSW SYDNEY (FROM 12 AUGUST 2019)

Stephen Lawton UNSW SYDNEY (FROM 12 AUGUST UNTIL 17 DECEMBER 2019)

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Tala Moradi School of Public Health UNIVERSITY OF SYDNEY

Catherine Muggleton UNSW SYDNEY (FROM 26 MARCH)

Manish Muthyam UNSW Business School UNSW SYDNEY (FROM 23 JULY – 13 SEPTEMBER 2019)

Augustus Panton Crawford School of Public Policy AUSTRALIAN NATIONAL UNIVERSITY

Elizabeth Parkes UNSW SYDNEY (FROM 26 MARCH)

Joseph Phillips School of Psychology UNSW SYDNEY (FROM 19 AUGUST 2019)

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Jesse Ruse UNSW SYDNEY (FROM AUGUST 2019)

Betty Smith UNSW SYDNEY (FROM 12 AUGUST 2019)

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Nicola Atkin Administrator UNIVERSITY OF SYDNEY NODE

Joanna Bayliss Senior Administrative Officer -Stakeholder Relationships & Governance UNSW SYDNEY NODE

Eliza Brockwell Administrative Assistant UNSW SYDNEY NODE (FROM 12 SEPTEMBER UNTIL 21 OCTOBER 2019)

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Wayne Davidson Operations Support UNIVERSITY OF MELBOURNE NODE

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CEPAR PERSONNEL AT ANNUAL WORKSHOP 2019

FUTURE LEADERS IN AGEING WORKSHOP

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RESEARCH & RESEARCH TRAINING

RESEARCH] STREAM

MACRO-DEMOGRAPHIC DYNAMICS AND POPULATION AGEING POLICY

STREAM LEADER / PETER MCDONALD

This stream brings together a multidisciplinary team comprising expertise in demography, economics and actuarial studies to develop a suite of models that will combine to place Australia at the forefront of macrodemographic modelling globally. Together they will generate greatly improved understanding of (i) the evolution of Australia's demography, (ii) the optimal policy settings required to support an ageing demographic, (iii) demographic changes in the region and its impact on Australia, and iv) how transfers between generations will change as populations age.

The stream comprises four projects:

- 1.1 DEMOGRAPHIC PROJECTION MODELS
- 1.2 DEMOGRAPHIC CHANGE AND OPTIMAL POLICY
- 1.3 REGIONAL MACRO MODELLING
- 1.4 THE NATIONAL TRANSFER ACCOUNTS (NTA)

RESEARCHERS

PETER MCDONALD JEROMEY TEMPLE MEIMANAT HOSSEINI-CHAVOSHI TOM WILSON COLLIN PAYNE HEATHER BOOTH

While substantial population ageing is inevitable in Australia, the speed and extent of future population ageing depend upon the course of the three demographic parameters: fertility, mortality and migration. Accordingly, monitoring and projection of the trends in these three parameters is a vital CEPAR activity and has been the focus of 2019 research.

Dr Tom Wilson joined the project at the University of Melbourne during 2019. As Dr Wilson is a world leader in methods and models of population projection, this greatly enhances the capacity of the project team to produce estimates of Australia's population futures. This has included projections of the Australian Indigenous population and projections of the Australian population by country of birth. Wilson and Temple have also begun work on small area population projections for Australia. These data will be publicly accessible upon completion.

Fertility

CEPAR research published in N-IUSSP in June shows that after a mini baby boom between 2004 and 2014. Australia's fertility rate has been falling in recent years, a result of lower fertility rates among women aged less than 25 years. This means that the very long historical trend towards later childbearing dating back to the 1970s has resumed after it had slowed during the mini baby boom years. This reflects a higher degree of control over fertility among women with lower levels of education as early childbearing has long been related to low education. The same trend has been observed in other countries such as the United States, the United Kingdom and Sweden. The trend will likely lead to a lower level of fertility for Australia in the longer term thus increasing the future level of population ageing. This is a trend that needs to be monitored closely to avoid fertility falling to very low levels that would lead to hyper-ageing of the population.

Migration

For 20 years, the Australian Government has sought to reduce the level of future population ageing through its immigration program. Immigration lowers population ageing because the immigrants themselves are young compared with the general population and, more importantly, because immigrants have their children and their grandchildren before they themselves grow old. Immigration has a very large impact on the number of births occurring in Australia not because immigrants have higher fertility rates but because immigrants substantially increase the population in the childbearing ages. CEPAR researchers, McDonald and Temple, have estimated that net migration between 160,000 and 220,000 has an 'optimal' effect on the growth rate of GDP per capita through the ensuing lowering of population ageing. The Australian immigration program has been set within this range for the past nine years.

Mortality

Mortality rates continue to fall in Australia at all ages and especially at the oldest ages. The recent rise in mortality rates in the middle ages observed in the United States and the United Kingdom has not been evident in Australia. Using a new measure, Lagged Cohort Life Expectancy, CEPAR Associate Investigator Collin Payne has shown that Australian men have the world's highest life expectancy and Australian women, the second highest (Guillot and Payne 2019). This implies that the future population at the oldest ages (80 and over) will grow rapidly in Australia.



DR MEIMANAT HOSSEINI-CHAVOSHI

BS (Public Health) Isfahan University of Medical Sciences, MA Population Studies PhD Demography ANU RESEARCH FELLOW Meimanat Hosseini-Chavoshi is a CEPAR Research Fellow in the School of Population and Global Health at the University of Melbourne mentored by Professor Peter McDonald. Prior to this, she worked at ANU's Crawford School of Public Policy and School of Demography (formerly the Australian Demographic and Social Research Institute) where she carried out her postdoctoral research on fertility regulation and abortion in Iran.

Before moving to Australia, she had a longstanding career with the Iran Ministry of Health and Medical Education as Head of the Population and Health Data Unit responsible for design, implementation and data analysis of several national surveys in the areas of reproductive health, fertility, adolescence and ageing. Over the past 10 years, she has collaborated in different research projects funded by agencies such as the Wellcome Trust, WHO, UNFPA, GDN and GERPA and the Australian Research Council.

Meimanat is currently working on demographic perspectives of ageing in Australia exploring spatial patterns of older Australians, and factors associated with their living arrangements and health conditions.

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More accurate estimates of Australia's population at the highest ages

Official population estimates for Australia are based on the census and at the highest ages are not always reliable. More accurate estimates in the nonagenarian and centenarian ages can be obtained indirectly from deaths data. This new study used the latest methods to estimate Australia's population by sex and single years of age from 85 to 110 based on deaths data. It results in far more plausible time series trends of nonagenarian and centenarian populations than official data, and more accurate denominators for demographic rates and other indicators using population as the denominator.

The future of Australia's older Culturally and Linguistically Diverse (CALD) population

Given that different birthplace groups in the population have different service needs as they age, projections of Australia's population for 48 countries of birth and world regions of birth were created from 2016 to 2066. The birthplace composition of Australia's older population is likely to shift substantially over the coming decades, reflecting past and future changes to immigration and emigration patterns.

The future ageing of Australia's Aboriginal and Torres Strait Islander population

The Indigenous population of Australia is currently very young, with only 4% aged 65 years and above (compared to 16% for the non-Indigenous population). New projections suggest rapid growth of the Indigenous population over coming decades, with very fast growth of the older Indigenous population. The growth will be highly variable geographically, with populations in the south-east of the country growing particularly fast, with slower growth expected in more remote areas.

The future of Australia's older non-heterosexual population

Projections of the non-heterosexual population have not been attempted for any country previously due to data and modelling limitations. A new model has been developed and the best survey data employed to create plausible scenarios of the future of Australia's nonheterosexual population. The key focus here is on older populations and their aged care needs. CEPAR researchers, McDonald and Temple, have estimated that net migration between 160,000 and 220,000 has an 'optimal' effect on the growth rate of GDP per capita through the ensuing lowering of population ageing.



BA (Hons) Leeds, MA Sussex, PhD Leeds PRINCIPAL RESEARCH FELLOW

DR TOM WILSON

Tom Wilson is Principal Research Fellow in the Demography and Ageing Unit at the University of Melbourne.

He is an applied demographer specialising in population and household projections, migration analysis, the indirect estimation of demographic data, Indigenous demography, very elderly demographic trends, migration analysis, subnational demographic change, and LGBT demography.

He obtained his PhD from the University of Leeds in 2001 for his work on multi-regional population projection methods. He is the founder and Editor of the open-access journal *Australian Population Studies*. In addition to academic research, Tom regularly works with government and has created population and household projection software for several state and territory government departments.

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1.2 DEMOGRAPHIC CHANGE AND OPTIMAL POLICY

CEPAR ANNUAL REPORT 2019 • RESEARCH

RESEARCHERS

ALAN WOODLAND GEORGE KUDRNA CHUNG TRAN HANS FEHR DAVID RODGERS DANIEL WHEADON

This research project commenced in 2018 under the leadership of CI Woodland. The primary motivations for the project are that there is significant demographic change in the form of population ageing in Australia and other countries and that appropriate policy responses on the part of governments include income taxation, age pension and retirement policy settings. These settings are likely to require adaptation over the course of the demographic change and so the broad objective of the research project is to identify dynamically optimal policy settings. More specifically, the aim is to construct optimal policy profiles for the first time for Australia by using overlapping generations (OLG) models that best capture the demographic change and policy impacts on both current and future generations' wellbeing. The project aims to provide new ways to evaluate policy recommendations.

During 2019, there has been significant progress on several specific sub-projects.

Means testing and the Australian Age Pension

The sub-project by Kudrna, Tran and Woodland investigates the extent to which the meanstested aspect of the Australian Age Pension system provides a strong automatic mechanism to keep public pensions in ageing economies both fiscally sustainable and equitable. In the context of population ageing with widening gaps in life expectancies, a means-tested pension system generates an automatic adjustment mechanism that mitigates fiscal costs of the age pension (fiscal stabilisation device) and redistributes pension benefits to those in need with shorter life expectancies (redistributive device). To evaluate this automatic adjustment mechanism, an OLG model with population ageing is used. During 2019 significant extensions of the previous modelling were undertaken regarding the model calibration, demographic ageing scenarios and means testing policy experiments. The results indicate that this novel mechanism plays an important role in containing the adverse effects of population ageing on the fiscal costs and enhancing the progressivity of a pension system. More pronounced ageing scenarios further strengthen the role of this mechanism.

A sub-project undertaken by Scientia PhD student, Daniel Wheadon, considers whether a non-linear taper rate for the means test for the Age Pension can be welfare improving. Means testing the Age Pension can create disincentives to work and save. Policymakers influence these outcomes by the choice of the constant taper rate of the means test. While previous research considers an optimal constant taper rate, Wheadon develops an OLG model of the Australian economy to investigate the effects of a pension function with a non-linear taper rate. He considers two alternative specifications to the linear pension function – a progressive function, where the taper rate increases as income rises, and a regressive pension function with a declining taper rate. While the linear means test vields an optimal taper rate of 1.0, the optimal non-linear income test is strongly regressive with a low average taper rate (0.4) and a high curvature. The optimal non-linear test generates a small improvement to expected lifetime welfare compared with the optimal linear test, despite being less restrictive than the optimal linear test. The progressive income test is not able to improve expected welfare.



MA Econ TUL Czech Republic, PhD Econ Syd. SENIOR RESEARCH FELLOW

DR GEORGE KUDRNA

George Kudrna is a CEPAR Senior Research Fellow, located in the UNSW Business School. He completed his undergraduate studies in economics and insurance management in the Czech Republic and received a PhD in Economics from the University of Sydney in 2009.

His research encompasses the areas of public economics, macroeconomics and population ageing. He develops and applies rigorous macroeconomic models to investigate the economic impacts of demographic change and retirement income policy reforms – with the ultimate aim of informing and influencing major policy decisions in this area. His research on pension and ageing related topics has been published in both national and international economics journals, including the *Economic Record*, the *Journal of Macroeconomics, Macroeconomic Dynamics* and *Economic Modelling*. He has also co-authored several government reports on pension and tax related issues, including commissioned reports for the Australian Treasury, for the US Social Security Administration and for the NSW Treasury. George is also a Fellow at the Global Labour Organization (GLO) and a Research Associate at the Centre for Applied Macroeconomic Analysis (CAMA).

The effect of World War II service on older-age male labour force participation in Australia

The sub-project undertaken by PhD student David Rodgers estimates the effect of World War II service on older-age male labour force participation in Australia. WWII veterans could access the service pension, which is similar in benefits and means tests to the Age Pension, but available five years earlier at the age of 60. A large share also accessed a non-means-tested disability pension provided by the Department of Veterans' Affairs. The primary approach to identification is to use the large differences in World War II service across single year birth cohorts of Australian men. Results suggest that WWII service significantly lowered participation, but only over the ages of 60 to 64. A 10-percentage point rise in the share of a cohort eligible for the service pension is estimated to have lowered participation of the cohort by 2.7 percentage points over these ages. Examination of the retirement expectations of WWII veterans when they were middle-aged reveals that individuals with service did expect to retire earlier, but again only over the ages of 60 to 64. The age distribution of these participation effects indicates the implicit taxation inherent in the pension means test was the likely driver.

The results also suggest that the service pension made a meaningful contribution to the dynamics of aggregate older age male participation in Australia in the late 20th century, though other factors must also have been at play.

Optimal progressivity of personal income taxes

In a sub-project, AI Chung Tran and co-author Jurgen Jung study the optimal progressivity of personal income taxes in an environment where individuals are exposed to idiosyncratic shocks to health and labour productivity over the life cycle. The analysis uses an OLG model calibrated to the US economy. Results indicate that the presence of health risk and health insurance has a strong effect on the amount of redistribution and social insurance provided by progressive income taxes. In an environment with a non-universal health insurance system, such as the US system, the optimal income tax system is highly progressive to provide enough redistribution to unhealthy low-income individuals. The total welfare gain is 5.6 percent in lifetime consumption. More inclusive health insurance systems lead to large decreases in the optimal level of tax progressivity. The findings highlight the quantitative importance of accounting for the interdependence of health insurance and income taxes when designing optimal income tax policies.

The results indicate that [means testing] plays an important role in containing the adverse effects of population ageing on the fiscal costs and enhancing the progressivity of a pension system.



BA Hanoi National Economics University, PhD Indiana University ASSOCIATE INVESTIGATOR

A/PROFESSOR CHUNG TRAN

Chung Tran is Associate Professor of Economics at the Australian National University and a CEPAR Associate Investigator.

His primary research interests lie in the areas of macroeconomics and public finance. Specific research topics include: evaluating trade-offs in designing social security and health insurance systems; analysing the dynamic effects of fiscal policy; and understanding the consequences of debt financing and fiscal austerity measures. His work appears in leading academic journals including *Review of Economic Dynamics*, the *Journal of Economic Dynamics and Control*, the *European Economic Review* and the *Journal of Development Economics*. 35

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RESEARCHERS

WARWICK MCKIBBIN LARRY LIU JOHN PIGGOTT **RAFAL CHOMIK** JONG-WHA LEE **TSENDSUREN BATSUURI** PHITAWAT POONPOLKUL

Extending the G-cubed multi-country model

The goal of the main project, involving a team comprising Warwick McKibbin and Larry Liu, is to extend the G-Cubed multi-country model to explore different demographic scenarios for Asian economies with a focus on the macroeconomic adjustment globally, in the region and in Australia.

During 2019 the ANU team has been continuing to build the global database and constructing the model for the countries included in the global model. They have successfully constructed the core model with countries including United States, Japan, Europe, Australia, Korea, Rest of Advanced Economies, China, India, Indonesia, Philippines, Vietnam, Thailand, Malaysia, Other Asia, Latin America, Africa, Middle East and North Africa,

and the Rest of the World. They have also introduced annual cohorts into all countries and modelled several demographic scenarios.

During 2019 the team successfully incorporated the demographics structures within this model to enable the core model to be developed further using the Blanchard/Yaari approximation to an overlapping generations (OLG) model. With the demographic model in place they were able to successfully generate a baseline projection of the model from 2015 to 2100, taking into account the annual changes in demographic features across countries and over time.

During 2020 the team plan to continue to further explore this version of the model using different demographic scenarios. They also propose to implement four types of cohorts into the model: children, young workers, older workers, and retirees. The approach to be followed builds on Gertler (1999).

Dr Larry Liu also has a number of new papers under way which are planned to be finalised in 2020. They include a survey of the macroeconomics of global demographic change and several papers on demographic change and international capital flows.

The impact of demographic change in Asia on macroeconomic and environmental outcomes

PhD student Tsendsuren (Tsegi) Batsuuri is focused on several research questions: (1) How does demographic change and population ageing affect carbon emissions when capital intensity and emissions intensity across sectors are different? (2) How does asymmetric demographic change across countries affect global and country emissions when countries are linked through trade and finance? (3) How does the interaction of different pension schemes with different demographic transition affect global emissions? (4) Can price based metrics be useful in comparing country efforts when there are spill-over impacts due to demographic change? This year Tsegi has completed a literature review, given a seminar on her research proposal and has formulated a small model to explore the research questions. During 2020 the OLG model will be developed to begin exploring the research questions.

DR LARRY LIU PhD ANU

BS MA Shanghai Jiao Tong, **RESEARCH FELLOW**

Larry Liu is a CEPAR Research Fellow at the Crawford School of Public Policy at ANU. He is also a Research Fellow at the Centre for Applied Macroeconomic Analysis (CAMA) at ANU. He joined CEPAR in December 2017 after working as a Research Fellow at CAMA since 2015. He completed his PhD in Economics at ANU and received his MA in Economics and BS in Computer Science both from Shanghai Jiao Tong University in China.

His current research focuses on macroeconomic effects of demographic changes in life cycle models. More specifically, he examines demographic effects on consumption and savings, economic growth,

structure change and financial markets in closedeconomy models, and also on international trade, capital flows and current account balances in open-economy models.

The link between demographic change, risk and the impact of monetary policy

PhD student Phitawat Poonpolkul is focused on the link between demographic change and the impact of monetary policy. His first paper on 'Risk-sensitive Preferences and Age-dependent Risk Aversion' has been published as a Centre for Applied Macroeconomic Analysis (CAMA) working paper. This paper investigates the macroeconomic implications of population ageing when households are assumed to be increasingly risk-averse in future utility when they age. The model incorporates risk-sensitive preferences used in Hansen and Sargent (1995), which are the only recursive preferences that can separate risk aversion and intertemporal elasticity of substitution while being monotonic, into a 16-generation discrete-time OLG model with undiversifiable income risk. Compared to a

time-additive counterpart, risk-sensitive preferences capture precautionary saving motive that exacerbates adverse responses of aggregate macroeconomic variables under a population ageing scenario through demographic reweighting and life cycle redistribution channels. Varying risk aversion also allows households to internalise future uncertainties when evaluating their welfare impacts of demographic change, resulting in non-monotonic welfare dynamics with higher welfare loss under a high-risk environment and vice versa. His second paper with Dr Larry Weifeng Liu, is on "Demographic Changes and Asset Allocations". This paper develops a closed economy OLG model in order to explore the link between demographic change and asset allocation decisions. The theoretical model has been formulated but is still being implemented in numerical simulation software.

The goal of the main project ... is to extend the G-Cubed multi-country model to explore different demographic scenarios for Asian economies with a focus on the macroeconomic adjustment globally, in the region and in Australia.

Demographic and technological change: Two megatrends shaping the labour market in Asia

Ageing demographic and technological changes are already transforming labour markets across Asia. Rafal Chomik and John Piggott, in the CEPAR Working Paper 2019/11, have mapped out (1) the interactions between technology, ageing and productivity; (2) the impacts these interactions have on employment, occupations, and industries; (3) how specific technologies interact with the immediate challenges of population ageing; and (4) what policy strategies and further research are required. This research was commissioned by the Asian Development Bank (ADB) for a workshop on the topic and formed the basis for an ADB report on the issue.



PROFESSOR JONG-WHA LEE

BA MA Korea, MA PhD Harvard ASSOCIATE INVESTIGATOR Jong-Wha Lee is a Professor of Economics at Korea University. He served as a senior adviser for international economic affairs to the former President of the Republic of Korea. He was also previously Chief Economist and Head of the Office of Regional Economic Integration at the Asian Development Bank and an economist at the International Monetary Fund. He has taught at Harvard University and Peking University.

He has published extensively on topics relating to human capital, growth, financial crises, and economic integration in leading academic journals. His most recent books include *Crisis and Recovery: Learning from the Asian Experience* (World Scientific, 2016) and *Education Matters: Global Schooling Gains from the 19th to the 21st Century*, co-authored with R. J. Barro (Oxford University Press, 2015). He is a regular columnist for *Project Syndicate*. He obtained his PhD and Master's degree in Economics from Harvard University.

CEPAR ANNUAL REPORT 2019 • RESEARCH

RESEARCHERS

PETER MCDONALD JEROMEY TEMPLE JAMES MAHMUD RICE

The CEPAR NTA team has produced and analysed six NTA accounts for Australia dating from 1980 to 2010 in five-year intervals. Work will soon commence on the account for 2015-16.

National Transfer Accounts, now estimated for over 90 countries, are designed to provide a unified view of population ageing and the economy in a way that is comparable across countries. The accounts measure age-specific labour income, asset income, consumption, transfers and saving, accounting for flows within households, between households, through the public sector and with the rest of the world. (United Nations Department of Economic and Social Affairs 2013: National Transfer Accounts manual: Measuring and analysing the generational economy.)

The Australian NTA accounts for 2002-04 and 2009-10 also include generational wealth accounts that provide detailed information of levels of wealth and debt for individuals by age.

Accounts for Australia are available publicly from the CEPAR website or www.ntaccounts.org. Important findings from the analysis of NTA accounts in 2019 include the following.

The growth in mature age labour force participation in the first decade of this century led to large increases in mature age labour income, the most important effect of which appears to have been a substantial increase in private saving by mature age Australians. These shifts enhanced the position in which mature age Australians found themselves as they faced and experienced retirement. These shifts suggest that mature age Australians are prepared to fund their increasing longevity at least in part by working longer. Importantly also, these shifts suggest that when mature age Australians increase their labour force participation, much of the additional labour income they receive is saved. As a result, increased mature age labour force participation helps not only to fund increases in current consumption, but also to build up assets that can be used to fund consumption later in life. However, in the second decade of this century, the increases in older age employment have been minimal.

The NTA estimates of assets and liabilities provide important data across public, private

corporation and household wealth. Household net worth is the aggregation of household net financial assets, household net property assets and household net other assets. On a per capita, cross-sectional basis, net worth increases from about age 20 to the mid-50s before flattening and slightly declining in later age. Real increases in net worth between 2003-04 and 2009-10 were only evident for Australians aged between 50 and 70 years with little increase in net worth for those aged under 50. This was due almost entirely to changes in net equity in housing.

When considered from the perspective of assets available at death, estimates derived from the NTA accounts are substantial, amounting to between 60 and 70 billion Australian dollars in 2003-04 and 2009-10. Most of the asset value was tied up in property, with about three guarters of total average assets held in property by those dying at ages 65 and over. Our estimates of net worth at death are subject to many caveats, most of which would tend to reduce the estimates. Nevertheless, the figures are very significant, noting that, in 2009/10, total government recurrent expenditure on aged care services was 7.3 billion dollars. In the same year, 29.3 billion dollars of the Federal budget was allocated to the Age Pension.



A/PROFESSOR JEROMEY TEMPLE

BA Population Studies (Hons) BCom PhD Demography ANU ASSOCIATE PROFESSOR OF ECONOMIC DEMOGRAPHY A/Prof Jeromey Temple is Head of the Demography and Ageing Unit at the University of Melbourne and Associate Professor of Economic Demography with the ARC Centre of Excellence in Population Ageing Research.

Temple is the head of the Australian National Transfer Accounts (NTA) project and in 2018 was elected as the Asia Regional representative on the global NTA Executive Council led from the University of California at Berkeley and the East West Centre. Temple's current work on the National Transfer Accounts seeks to improve our understanding of how changes in population age structure are affecting economic growth, the wellbeing of all age groups, and the sustainability of public and private systems that transfer resources between generations. Temple's further research focus includes quantitative studies of inequality and discrimination in the later life course.

FEATURED ASSOCIATE INVESTIGATORS

OTHER ASSOCIATE INVESTIGATORS INVOLVED IN STREAM 1 RESEARCH IN 2019 INCLUDED:



DR COLLIN PAYNE

BA Wisconsin, MA PhD Pennsylvania

Collin Payne is a Lecturer in the School of Demography at the Australian National University. He joined CEPAR in 2019 where he collaborates with the Demographic Projection Models project team.

He completed his PhD in Demography at the University of Pennsylvania in 2015, and from 2015-2017 he was a postdoctoral fellow at the Center for Population and Development Studies at Harvard University.

Payne's research focuses on two areas: exploring the dynamic relationships between lifespan and healthspan among older adults, and developing and advancing demographic methodologies to estimate population health. Recently, his focus has centred on developing new methodological techniques for exploring cohort patterns of health and longevity. Much of his research focuses on population ageing in low- and middle-income countries, including Eastern and South-Eastern Asia. His research is published in various journals across demography, epidemiology, and public health, including Demography, Population and Development Studies, PLoS Medicine, BMC Medicine, and the International Journal of Epidemiology



DR IWU DWISETYANI UTOMO

BA Psych University of Indonesia, MSc Demography Florida State University, PhD ANU

Iwu Utomo is a Fellow at the School of Demography at the Australian National University (ANU).

She graduated from the ANU School of Demography in 1998 and returned to the School as a Postdoctoral Fellow in 2000. Her first appointment at ANU was with the National Centre for Epidemiology and Population Health (2002-2008) where she worked on issues relating to gender, sexuality and health.

Iwu has been successful in gaining ARC funding for a number of studies including Meeting the Needs of Older People in Indonesian Villages (with Peter McDonald and Robert Sparrow, 2016-2019). She is the chief investigator in the Greater Jakarta Transition to Adulthood Longitudinal Survey which has received funding from the ARC, WHO (2008-2011); the Ford Foundation (2008-2020); and the National University of Singapore (2010).

In 2008, Iwu received an AusAID Australian Development Research Award for a project on Integrating Gender and Reproductive Health Issues in the Indonesian National Curriculum.



PROFESSOR HANS FEHR

MA Econ PhD Econ Regensburg

Hans Fehr is Professor of Economics at the University of Wuerzburg in Germany. As a CEPAR AI he collaborates with researchers on Project 1.2.

He joined the Centre in January 2018 after visiting the CEPAR UNSW Sydney node during his sabbatical.

His main research interests are in the field of quantitative public economics. In the past he has analysed the economic consequences of population ageing and various tax policy and social security reforms by means of computable general equilibrium models with overlapping generations. His research is published in various journals including the European Economic Review, Journal of Economic Dynamics & Control, Review of Economic Dynamics, and the Scandinavian Journal of Economics. Hans is also a Research Fellow at the Network for Studies on Pensions, Aging and Retirement (Netspar) in Tilburg and the Center of Economic Studies (CESifo) in Munich.



RESEARCH 2 STREAM

DECISION MAKING, EXPECTATIONS AND COGNITIVE AGEING

CO STREAM LEADER / KAARIN ANSTEY

This stream brings together for the first time the disparate areas of behavioural economics, neuroscience, and developmental and health psychology, to unify our understanding of life course choices and to transform policy perspectives.

By undertaking research which aims to fully capture the psychological and social factors that influence choice over the life course it seeks to enhance the wellbeing of people in old age. These include decisions about: (i) savings, retirement, home ownership, insurance, (ii) planning for the future in terms of active ageing and aged care, and (iii) choices about health behaviour and management of chronic conditions.

CO STREAM LEADER / MICHAEL KEANE

It will:

- develop a comprehensive model of ageing and decision making including identification of typologies of decision makers;
- develop multidisciplinary paradigms and predictive models of decision making and ageing;
- develop and evaluate interventions to increase positive expectations about ageing; and
- develop life cycle models that incorporate investments in health and housing as well as cognitive limitations in ageing.

The stream comprises four projects:

- 2.1 INDIVIDUAL DIFFERENCES IN FINANCIAL AND HEALTH DECISION MAKING: IMPACTS ON PRODUCTIVE AGEING
- 2.2 IDENTIFYING INDIVIDUAL AND SOCIAL INFLUENCES ON DECISION MAKING AT OLDER AGES
- 2.3 EXPECTATIONS AND THE AGEING EXPERIENCE
- 2.4 RATIONAL CHOICE THEORY AND CONSUMERS

2.1 INDIVIDUAL DIFFERENCES IN FINANCIAL AND HEALTH DECISION MAKING: IMPACTS ON PRODUCTIVE AGEING

RESEARCHERS

KAARIN ANSTEY HAZEL BATEMAN MICHAEL KEANE CRAIG SINCLAIR NICOLE EE RANMALEE ERAMUDUGOLLA **BROOKE BRADY** RICHARD BURNS LINDA CLARE ERIK HERNÆS FEDOR ISKHAKOV KIM KIFLY **BEN NEWELL** RUTH PETERS FEDERICA TEPPA SUSAN THORP

Decision making is shaped by age-related changes in cognition, affect, values and goals as well as expectations about ageing. Project 2.1 focuses on how individual differences in decision making impact productive ageing.

During 2019, the Anstey group team developed and implemented new decision-making measures for the 'PATH Through Life' (PATH) study that have been added to the long-term core measures. CEPAR is funding a fifth wave of assessment of the midlife cohort, who are now in their early sixties. New measures included a range of additional variables thought to be associated with decision making, including financial literacy, susceptibility to fraud, future planning, decision making styles and preferences for shared decision making.

Led by Dr Ruth Peters, the team has also undertaken a comprehensive systematic review on decision making and ageing. This review incorporates multiple domains of real-world decision making (i.e. health, safety, financial, social). Of the 41 studies deemed eligible, 15 studies of financial decision-making across the lifespan were eligible for meta-analysis. High heterogeneity and small numbers within social, health and safety domains made meta-analysis inappropriate. This review has revealed a paucity of research studies that accommodate the social and relational factors impacting on decision making, an area addressed in project 2.2.

New [PATH Through Life] measures included a range of additional variables thought to be associated with decision making, including financial literacy, susceptibility to fraud, future planning, decisionmaking styles and preferences for shared decision making.



BSc Reading, MSc Lond., PhD Imperial College London ASSOCIATE INVESTIGATOR

DR RUTH PETERS

Dr Peters is a Senior Research Scientist at Neuroscience Research Australia. Prior to moving to Australia she worked for several years at Imperial College London. As a CEPAR Associate Investigator she contributes to projects 2.1 and 2.2 of the CEPAR Research Program.

Dr Peters works to develop our understanding of the risk factors which increase our risk of cognitive decline and dementia and the ways in which we might act to reduce this risk. Alongside leading teams delivering high-profile, evidence synthesis work in the area of dementia risk reduction, she has a particular interest in hypertension and in the treatment of hypertension in older adults. She was the cognitive function lead for the award-winning multinational Hypertension in the Very Elderly Trial (HYVET, HYVET -COG) and both her work in hypertension and evidence synthesis are cited widely in the academic literature and by guidelines.

2.2 IDENTIFYING INDIVIDUAL AND SOCIAL INFLUENCES ON DECISION MAKING AT OLDER AGES

RESEARCHERS

KAARIN ANSTEY MICHAEL KEANE HAZEL BATEMAN CRAIG SINCLAIR BROOKE BRADY LINDA CLARE LORETTI I. DOBRESCU ERIK HERNÆS KIM KIELY MOYRA MORTBY BEN NEWELL RUTH PETERS FEDERICA TEPPA SUSAN THORP

External collaborator

RONG PENG GUANGDONG UNIVERSITY OF FINANCE & ECONOMICS

This project builds upon work in project 2.1 by considering the role of social factors in decision making in later life, including factors that impact the likelihood and success of shared decision making in older age. Social determinants of health are increasingly well-understood. Social determinants of decision-making processes have received less research attention.

CEPAR visitor Rong Peng (Guangdong University of Finance and Economics) collaborated with Professor Anstey on a longitudinal analysis of informal caregivers within the PATH study dataset. This research used generalised estimating equations and found that older adults engaged in volunteering or religious activities are more likely (28% and 34% respectively) to provide informal care than those who do not engage in such activities. Those in married or de facto relationships are 51% more likely to provide informal care than those who are not in such relationships. This research, published in the Australasian Journal on Ageing, provides a better understanding of the social context in which Australians are ageing and providing informal care, with implications for healthy ageing and involvement in shared decision making.

Dr Craig Sinclair published a paper in *Dementia* on the views of health, legal and care professionals regarding the emerging, rights-based practice of 'supported decision making', in the context of dementia care. This work showed the diversity of views among professionals regarding what constitutes appropriate support in a range of decision-making contexts, and illustrated practical techniques employed by professionals to enable greater involvement of people with dementia in decision making. While these techniques showed promise for future interventions, a competing theme in the study findings was the differing attitudes and expectations among professionals across different disciplines. This study has implications for the future implementation of supported decision making, which is a requirement under the United Nations Convention on the Rights of Persons with Disabilities.

Brooke Brady led the work on developing a new measure of shared financial decision making, which aims to address a significant gap identified in the literature through incorporating social and relational factors in research on the decisionmaking process. This work involves collaboration with Stream 4 investigators, who bring an economic lens to the analysis of financial decision making.

During 2020 this new measure will be piloted before being evaluated in a larger study.



BA BSc (Hons), PhD Psychology UWA RESEARCH FELLOW

DR CRAIG SINCLAIR

Craig Sinclair is a Research Fellow in the Centre of Excellence in Population Ageing Research, based at the University of New South Wales node.

His research training is in psychology, and he works with Professor Kaarin Anstey on a range of projects relevant to decision making, cognitive ageing and expectations of ageing. He is particularly interested in interdisciplinary approaches that combine knowledge from different disciplines to improve the ageing experience for older people. Within the current policy environment, older adults are expected to actively engage in a range of high-stakes decisions relating to their finances, lifestyle, accommodation and healthcare. These decisions occur in the context of shifting personal and family priorities and responsibilities, and limited time to recover from decisions that turn out poorly. His recent research has focused on advance care planning and supported decision making, particularly in the context of cognitive ageing and dementia. This work aims to better understand the decision-support needs of older people (including those with dementia) to inform the design of decision-support interventions. He is also engaged in work to develop better assessments of shared decision making.

2.3 EXPECTATIONS AND THE AGEING EXPERIENCE

RESEARCHERS

KAARIN ANSTEY LINDA CLARE BROOKE BRADY KIM KIELY MOYRA MORTBY RUTH PETERS JANET MACCORA

External Collaborator

ROGER DIXON (UNIVERSITY OF ALBERTA)

Previous work by the Anstey group has found that negative self-perceptions of ageing are associated with poorer physical and mental health among older Australians. This project aims to better understand how expectations about ageing are related to decision-making processes and cognition in later life, and to develop and evaluate interventions to increase positive expectations about ageing.

During 2019, literature was collated and reviewed, to inform the design of interventions aimed at addressing age stereotypes and enabling better integration of the mature workforce. A systematic review undertaken by CEPAR investigators Professor Anstey and Professor Linda Clare on associations between 'Attitudes towards Age-Related Change' and physical and social outcomes was published in Gerontologist. Continuing work by PhD Candidate Janet Maccora on positive expectations about ageing and the characteristics of 'Super Agers' recently won best poster presentation at the 2019 Emerging Researchers in Ageing Conference, and is currently under review in The Journal of Applied Gerontology. Professor Anstey coauthored a chapter with Professor Roger Dixon (University of Alberta) for the Handbook of Psychology and Aging. This chapter reviewed the field of research in the area of mid-life and late-life resilience, identifying current gaps in research, including the need for future studies to leverage mature longitudinal data sets to better understand resilience from a multi-domain (i.e. physical, cognitive etc) and lifespan perspective. Dr Kim Kiely's work on 'Estimating the number of years older Australians live in financial hardship' was awarded best poster presentation at the 31st REVES Network on Health Expectancy (Barcelona) and has been published in the American Journal of Epidemiology. Dr Kiely continues work in this area through an ARC Discovery Project Grant on 'Healthy working life expectancies in an ageing Australia'.

During 2019, literature was collated and reviewed, to inform the design of interventions aimed at addressing age stereotypes and enabling better integration of the mature workforce.



PROFESSOR LINDA CLARE PhD, ScD, CPsychol, FBPsS, FAcSS ASSOCIATE INVESTIGATOR Linda Clare is Professor of Clinical Psychology of Ageing and Dementia at the University of Exeter. Trained as a clinical psychologist, she leads the University's Centre for Research in Ageing and Cognitive Health (REACH).

The Centre's research aims to improve the lives of older people and people with dementia through a focus on maintaining cognitive health in later life, living well with dementia, and supporting family care.

Linda has published over 200 peer-reviewed journal articles and book chapters, and is an Editor

for the Cochrane Collaboration and for the journal *Neuropsychological Rehabilitation*. She is a National Institute of Health Research Senior Investigator, and a Fellow of the British Psychological Society, the Academy of Social Sciences and the Gerontological Society of America, and serves on the Governing Boards of the Global Council on Brain Health and the Global Brain Health Institute.

In her capacity as a CEPAR AI she collaborates with Professor Anstey on Stream 2 projects.

2.4 RATIONAL CHOICE THEORY AND CONSUMERS

CEPAR ANNUAL REPORT 2019 • RESEARCH

RESEARCHERS

MICHAEL KEANE HANMING FANG TIMOTHY NEAL PEYMAN FIROUZI NAEIM ELENA CAPATINA FEDOR ISKHAKOV

The aim of this project is to develop and extend the methodologies that economists use to model the choices of older individuals. Rational Choice Theory is a prevailing framework used for formally modelling economic decisions, and relies on a number of assumptions relating to the rationality of individual decision making. There is good reason to believe that these assumptions are not appropriate for modelling the choice environments of older Australians, as they regularly need to make highly complex financial decisions using limited cognitive resources. Accordingly, this project will develop new choice models that incorporate cognitive limitations in decision making, as well as other deviations from rational choice behaviour. These models will be applied to help better understand observed behaviour in areas such as investments in health and financial decision making. These models will allow for heterogeneity in consumer preferences and choices, and lead to new methods that can isolate heterogeneity that arises from differences in preferences to those arising from confusion or irrationality. The application of this methodology will enable more realistic policy experiments that yield better insight into the role of government policy and how it influences individual wellbeing. Indeed, when we better understand the processes by which older individuals make complex choices, it facilitates more accurate predictions of how government intervention in a complex market will affect welfare on average as well as the distribution of this impact.

Four research papers were completed or significantly progressed in 2019. The first application was in the choice of Medicare Part D Prescription Drug Plans by retirees in the United States, which is a complex insurance market where we found strong evidence for widespread deviations from rational choice. The second was concerning the design of the pension system in Australia, where we used a life cycle model to conclude that a tightening of the tapering rate of pension benefits will lead to a significant improvement in general welfare. The third application incorporated complex health shocks and human capital into a life cycle model, and found new evidence for the multifaceted benefits that public health insurance has on labour markets. The fourth study analysed the health and welfare effects of a change in the US Medicare eligibility age (MEA) for elderly people using a dynamic discrete choice model. The finding suggests that raising MEA from 65 to 69 has a negative welfare effect with more negative effects for people with poorer health, but improves physical and mental health, mostly through working and health behaviours channels.



DR TIMOTHY NEAL BA BEC (Hons) Macq., PhD UNSW RESEARCH FELLOW Timothy Neal is a Postdoctoral Research Fellow in the UNSW Business School and CEPAR. He joined CEPAR in July 2016 after completing a PhD in Economics at the UNSW Business School. His primary research interests include choice modelling, panel data econometrics, and climate change economics. Thus far he has published in the *Journal of Econometrics*, the *Economic Record* and *The Stata Journal* in these areas. Alongside academic research, Tim has worked as an economic consultant at Ernst & Young where he supported the development of economic reports and business cases commissioned by government for a variety of transport infrastructure projects. Notable projects included the business case for the North West Rail Link and a study into Sydney's future aviation capacity.

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The first two projects are forthcoming for publication in *The Journal of Econometrics*, and received exposure in the form of short articles published in the VOX CEPR Public Policy Portal and the Australian Tax Policy Blog. The fourth project will be written up as a CEPAR Working Paper in 2020. Several research papers attached to this project remain ongoing, and will be progressed in 2020. These include work focused on optimal age-dependent taxation and the performance of the conditional choice method in a high dimensional environment. Forthcoming publications:

Keane, M.P., Ketcham, J., Kuminoff, N. and Neal, T. Evaluating Consumers' Choices of Medicare Part D Plans: A Study in Behavioral Welfare Economics. *Journal of Econometrics*, forthcoming.

Iskhakov, F. and Keane, M.P. Effects of Taxes and Safety Net Pensions on Life-cycle, Labor Supply, Savings and Human Capital: The Case of Australia. *Journal of Econometrics*, forthcoming.

...we used a life cycle model to conclude that a tightening of the tapering rate of pension benefits will lead to a significant improvement in general welfare.



DR PEYMAN FIROUZI-NAEIM

MA Mathematics East Carolina University, PhD Georgia State University RESEARCH FELLOW Peyman Firouzi-Naeim is a Research Fellow at CEPAR, located in the UNSW Business School. He is a labour and health economist and his research interests lie at the intersection of two important policy issues: health and retirement. He employs and develops the computational techniques in both structural estimation and reduced-form methods of causal inference to address big-data and highdimensional problems. This approach allows for a more comprehensive investigation of policyrelevant questions. His current research includes the effect of raising Medicare eligibility age on the health of people near retirement in the US; consistent incorporation of individual-level characteristics into models with health outcomes measured at an aggregate level; the effect of sleep on health of elderly people; and numerical optimal tax calculation with agedependent taxation.

Peyman holds a PhD in Economics from Georgia State University and an MA in Mathematics from East Carolina University.

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FEATURED ASSOCIATE INVESTIGATORS

CEPAR ANNUAL REPORT 2019 · RESEARCH

ASSOCIATE INVESTIGATORS INVOLVED IN STREAM 2 RESEARCH IN 2019 INCLUDED:



BROOKE BRADY BPsych (Hons) Western Syd.

Brooke Brady is an Interdisciplinary Research Fellow at the UNSW Ageing Futures Institute. As a CEPAR Associate Investigator she collaborates with the teams working on projects 2.1 – 2.3.

Brooke's doctoral research encompasses the areas of emotion regulation, mindfulness and ageing. Brooke is also interested in the interplay between other forms of cognition – including decision making and expectations about the ageing experience, socioemotional changes in ageing, and health-related outcomes. With support from a CEPAR Associate Investigator grant, Brooke is leading the development of a new assessment of shared financial decision making in collaboration with Stream 2 and Stream 4 investigators.

Brooke's research on ageing-related topics has been published in *Mindfulness*, the *British Journal* of Clinical Psychology, International Psychogeriatrics, Journals of Gerontology: Psychological Science, Maturitas, and PeerJ. Brooke has also co-authored government reports on social connectedness and individual and community resilience commissioned by the ACT Chief Minister, Treasury and Economic Development Directorate.



DR KIM KIELY

BLib (Hons) Syd., PhD ANU

Kim Kiely is a Senior Research Fellow within the UNSW School of Psychology with a conjoint appointment at NeuRA. He currently holds an NHMRC Early Career Fellowship entitled 'Estimating and Alleviating the Impacts of Age-Related Sensory Decline'. He is the Lead Investigator on an ARC funded 'Healthy and Working Life Expectancies in an Ageing Australia' study, and the Dementia Australia funded 'Auditory Ageing and Cognitive Impairment Study (AUDACIOUS)'.

Kim's research is orientated by a contextualised perspective to human development and spans the fields of life course epidemiology, social psychiatry, and geropsychology. His interests encompass aspects of healthy and productive ageing, focusing on the social, functional and cognitive impacts of sensory ageing. Current work includes analyses of the determinants and outcomes of successful sensory aid use, and identifying mechanisms underlying sensoryrelated cognitive decline. He is also developing a research program investigating social determinants and inequalities in health and working life expectancies.

Kim is involved in projects 2.1, 2.2 and 2.3 of the CEPAR research program.



DR ELENA CAPATINA

BA Econ MA PhD University of Toronto

Elena Capatina is a Lecturer in the Research School of Economics at the Australian National University and an Associate Investigator at CEPAR where she collaborates with Michael Keane on project 2.4.

Her research is at the intersection of macroeconomics, labour, and health economics. Her main expertise lies in the economic modelling of individual decisions with respect to precautionary savings, labour supply and insurance decisions in the face of health risk. In particular, she has worked extensively on developing a life cycle model of health risk and earnings inequality with CEPAR Chief Investigator Michael Keane. She has published papers in the *Journal of Monetary Economics* and *Labour Economics*.

research 3 stream

ORGANISATIONS AND THE MATURE WORKFORCE

STREAM LEADER / SHARON PARKER

This stream is undertaking research to identify work designs and other organisational practices to attract and retain mature workers in organisations, thus enhancing their performance and improving growth and productivity. It is at the vanguard of new research focused on the impact of various work designs on worker wellbeing at older ages, especially cognitive capital. It investigates barriers to mature workforce participation, especially age discrimination and the accommodation of caring responsibilities, to inform workplace policy and practice.

The stream comprises four projects:

- 3.1 MATURE WORKERS IN ORGANISATIONS SURVEY
- 3.2 PROMOTING SUCCESSFUL AGEING IN THE WORKPLACE
- 3.3 PROMOTING SUCCESSFUL TEAMS AND ORGANISATIONS
- 3.4 PROMOTING EFFECTIVE CARE OUTSIDE OF WORK

3.1 MATURE WORKERS IN ORGANISATIONS SURVEY (M-WOS)

CEPAR ANNUAL REPORT 2019 • RESEARCH

RESEARCHERS

SHARON PARKER MARIAN BAIRD DANIELA ANDREI ANDREEA CONSTANTIN GRETCHEN (GIGI) PETERY ALISON WILLIAMS LUCINDA ILES SHANNON CHEN LEAH ZOSZAK GWEN FISHER FABIOLA GERPOTT BARBARA GRIFFIN MO WANG

The goal of this stream is to conduct several longitudinal and multi-level organisational studies to investigate how to attract and retain mature workers in the workplace. To better understand how organisations can improve mature worker attraction and attention, the project team has sought to develop the Mature Workers in Australia Survey (M-WOS) and Policy Audit instrument, as well as a range of other supporting tools and resources (such as a website, brochures and social media). The survey and policy audit instrument underpin the research in most projects in Stream 3, and this year the team made excellent progress with their development, both in terms of the content of these instruments (e.g., valid measures, etc.) and in terms of the systems for administering these instruments (e.g., the development of a dynamic feedback platform system that organisations can use to interpret their findings). The instruments and tools have been piloted, refined, and are now ready for use. Crucially, a conceptual framework for organising the information across the survey and the audit (the Include, Individualise, and Integrate model) has been developed and published (Parker & Andrei, 2019).

A further key component of this stream has been to secure the participation of organisations in longitudinal and intervention studies. Workshops that introduced the project were held in Perth and Sydney in 2019 and were well attended and received by industry and organisation representatives. As a result, we have set up partnerships in multiple organisations across a range of industries, with progress at various stages of development according to when the projects started. These partnerships have involved activities such as strategy planning, education about age diversity, collation of objective organisational data, audits of relevant work policies and practices, surveys of employees' experiences, and feedback. One of our partners, for example, has been nominated for an industry award as a result of its work with us. We will now further build these projects over time, encouraging organisations to adopt (and then track, with our help) interventions that improve the experiences of mature workers. The resulting research will be published in both academic and practitioner outlets.

> Crucially, a conceptual framework for organising the information across the survey and the audit (the Include, Individualise, and Integrate model) has been developed and published.



DR DANIELA ANDREI

MSc Human Resources, Psychology and Marketing, PhD Psychology UBB Romania RESEARCH FELLOW Daniela Andrei is a CEPAR Research Fellow, located in the Centre for Transformative Work Design at Curtin University. She joined CEPAR in March 2018 after working for five years as a Postdoctoral Fellow for the UWA School of Psychology and UWA Business School. She completed her undergraduate and postgraduate studies in Psychology at the Babes-Bolyai University (UBB) in Romania, where she also worked as an Assistant Professor before receiving a G08 European Scholarship and moving to the University of Western Australia.

Daniela's research interests revolve around work design, with a focus on the multilevel antecedents of work design as well as on work design

consequences for performance, wellbeing and safety. Within CEPAR, Daniela focuses on understanding how work design can support successful ageing of the mature workforce and the effects of work design related interventions. Daniela's research has been published in journals such as *Journal of Applied Psychology, Safety Science*, and *Journal of Organizational Change Management*. She has co-authored several research reports for industry and government, including the Australian Maritime Safety Authority (AMSA) and the International Mining for Development Centre (IM4DC). Daniela serves as CEPAR stream coordinator for Stream 3.

3.2 PROMOTING SUCCESSFUL AGEING IN THE WORKPLACE

RESEARCHERS

SHARON PARKER KAARIN ANSTEY DANIELA ANDREI GRETCHEN (GIGI) PETERY ALISON WILLIAMS LUCINDA ILES SHANNON CHEN LEAH ZOSZAK ROSS ANDEL JOANNA EARL GWEN FISHER ANDREA HIRSCHI DORIEN KOOIJ CHIA-HUEI WU HANNES ZACHER

Some individuals age more positively than others. For example, some people are able to maintain or improve their physical wellbeing over time, experience a lower probability of disease, and maintain physical and cognitive functioning until older ages. In this project, we focus on how work factors (as well as demographic, family, and personality variables) affect such 'successful ageing'.

Work factors that we consider map onto the model above, such as 'Include' (a supportive age climate in which people are respected irrespective of age), 'Individualise' (work designs such as flexible working that accommodate different needs and preferences that emerge as people age), and 'Integrate' (knowledge sharing amongst peers, irrespective of age). To support organisations to make appropriate decisions about these aspects, we developed a research brief about legal protections for mature workers. Beyond legal protections, however, there are further positive practices that organisations can engage in. We are currently working on a systematic review of work design research to help identify this comprehensive set of factors that shape ageing successfully.

Several project-related presentations and collaborations occurred during 2019. Lead CI Professor Sharon Parker presented research on how good work design can promote worker wellbeing at international (e.g., European Association of Work and Organization Psychology in Turin, Italy; Academy of Management in Boston, Massachusetts) and domestic (e.g., Queensland Injury Prevention and Return to Work Conference in Townsville, QLD; Future of Work in Perth, WA) conferences. She also presented to several national government committees (e.g., the Community Services Directorate, and the Treasury and Economic Development Directorate). Researcher Dr Gretchen Petery presented her research in April at the 2019 Society for Industrial and Organizational annual conference in National Harbor, Maryland on the potential influence age stereotypes and subjective age has on successful ageing. In July, Associate Investigator Professor Gwenith Fisher (Colorado State University) spent several weeks at Curtin University in Perth collaborating on research with Lead CI Professor Sharon Parker on cognitive ageing, and with researcher Dr Gretchen Petery on subjective ageing. During her visit she gave public talks in Perth and Sydney discussing the implications cognitive ageing, work, and retirement have for organisations and the ageing workforce. Professor Fisher will also co-chair (with researcher Dr Gretchen Peterv) and be a panellist (chaired by researchers Dr Daniela Andrei and Dr Gretchen Petery) for two CEPARcentered sessions at the 2020 Society for Industrial and Oranizational Psychology conference in Austin, Texas: one on 'The future

ageing and age diverse workforce', and the other on 'Organisational approaches to effective management of an age-diverse workforce'. In addition, Professor Fisher was part of symposia at two USA-based conferences, and authored three journal articles and one book chapter.

Other Associate Investigators were also productive in 2019. For instance, Professor Hannes Zacher, who will visit the research team at Curtin University in September 2020, published five chapters and nine journal articles, co-edited one book, and presented at conferences in Switzerland and Germany. Professor Dorien Kooij authored one journal article and presented at conferences in Switzerland and the USA.

> We are currently working on a systematic review of work design research to help identify this comprehensive set of factors that shape ageing successfully.

3.3 PROMOTING SUCCESSFUL TEAMS AND ORGANISATIONS

RESEARCHERS

SHARON PARKER MARIAN BAIRD DANIELA ANDREI ANDREEA CONSTANTIN GRETCHEN (GIGI) PETERY BEI LU ALISON WILLIAMS LUCINDA ILES SHANNON CHEN PATRICK DUNLOP LISA FINKELSTEIN MARYLENE GAGNE ANDREAS MULLER CORT RUDOLPH DONALD TRUXILLO

This project is concerned with how an inclusive, individualised, and integrative approach to mature workers can promote not only successful ageing for individuals, but also productive and high performing teams and organisations. A key achievement with respect to this project has been the application of M-WOS to a largescale Australian sample. More than 2000 workers (N = 2009) from many Australian organisations completed this survey, and we successfully released the results of this research as an Industry Report, attracting considerable media attention.

We found in this research that workers of 55 to 64 years of age, as well as working men older than 65, especially perceive their organisations' policies as less age-inclusive than younger workers. For example, these workers reported that these organisations are less likely to provide fair access to promotions and training, irrespective of age. The research also showed that women who have remained working beyond the age of 65 had largely positive experiences, with higher reports of inclusive, individualised and integrative work practices. This latter finding offers considerable hope because it shows that the actions taken by the organisations employing these women have created positive and agesupportive organisational contexts, highlighting it is possible to create positive work and workplaces for mature workers.

Interestingly, the research also challenged the misconception that older workers are less adaptive than younger individuals, with mature workers reporting high levels of adaptivity to change, and higher levels compared to younger workers. We intend to repeat this survey at least every two years to continue to provide a snapshot perspective on how Australian mature workers are treated within their workplaces.

The research staff and associate investigators gave a multitude of presentations covering stream-related research during 2019. Lead CI Professor Sharon Parker spoke to national government committees (e.g., Justice and Community Safety Directorate) and organisations, and at seminars (e.g., at National University Singapore) and conferences (e.g., European Association of Work and Organizational Psychology in Turin, Italy) about the importance of work design in creating innovative and productive work groups. Researcher Dr Daniela Andrei was part of a panel discussion on workplace diversity and inclusion hosted by the Diversity Council of Australia in Perth. In addition, Dr Andrei's research was presented at the European Association of Work and Organizational Psychology and to



DR GRETCHEN (GIGI) PETERY

BSc Psychology Washington State, MA PhD Industrial-Organizational Psychology UConn RESEARCH FELLOW Gigi Petery joined CEPAR as a Research Fellow in June 2018 and works within the Future of Work Institute at Curtin University, Perth.

She completed her education in the United States, including her undergraduate studies in Psychology at Washington State University, and a master's (2015) and PhD (2018) in Industrial-Organizational Psychology at the University of Connecticut. Gigi also holds university certificates in Human Resource Management and Occupational Health Psychology.

Gigi specialises in issues central to an ageing workforce. Her research focuses on workplace age bias and discrimination, successful ageing at work, alternative measures of age, and worker health and wellbeing and has been published in international journals. She has presented her research internationally, including at conferences for the Society of Industrial and Organizational Psychology; European Association of Work and Organisational Psychology; European Association of Occupational Health Psychology; Gerontological Society of America; and Society for Occupational Health Psychology. In addition to her formal education and research skills, Gigi has over 20 years of work experience, including management roles and as a business owner.

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organisations within Australia. Researcher Dr Gretchen Petery collaborated with Stream 4 researcher Bei Lu working with an organisation in China. Dr Petery also gave invited talks to local councils in Western Australia and at the University of Connecticut in the USA, and presented findings from the MWOS national survey at the CEPAR co-sponsored Age in Workplace Meeting in St. Gallen, Switzerland.

Our associate investigators have also been productive. For example, Professor Donald Truxillo gave presentations at conferences and seminars in Ireland, Italy, Switzerland, and the USA, and published eight journal manuscripts and three book chapters. In addition, Associate Professor Cort Rudolph presented at conferences in Germany, Italy, Switzerland, and the USA, and to the National Academies of Science, Engineering, and Medicine in the USA. He authored six journal manuscripts, four book chapters, and was editor of the book *Work Across the Lifespan*. Dr Rudolph is preparing to visit the Curtin University research team in late 2020 to collaborate on related research. Interestingly, the research also challenged the misconception that older workers are less adaptive than younger individuals, with mature workers reporting high levels of adaptivity to change, and higher levels compared to younger workers.

DR BEI LU BA Tsinghua, MBA S. Aust., PhD UNSW

RESEARCH FELLOW

Bei Lu is a CEPAR Research Fellow located at the UNSW Business School and a Research Fellow with Tsinghua University and Zhejiang University, China. She is Director of Engagement for the CEPAR Ageing Asia Research Hub, a member of the project team for 4.4 Retirement Policy Issues, and a collaborator on Project 3.3.

Bei returned to academia in 2002 to undertake a PhD in Economics at UNSW after working as an international trader for 12 years. Her research focuses on demographics, health, pensions and population ageing related social welfare and economic issues.

Bei has been very successful in developing international linkages over the past ten years with

organisations such as the provincial government of Zhejiang, China, the World Bank China as well as academic institutions. She is currently participating in a Chinese Key National Science Project.

She has presented her research at a number of international conferences including the Stanford-Harvard Population Ageing Conference and the London School of Economics Long-Term Care Conference. Her research has appeared in the International Social Security Review, the Journal of the Economics of Aging, Population Review, CESifo Economic Studies and the Journal of Aging and Social Policy. She also has published in Chinese newspapers, journals and books.

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3.4 PROMOTING EFFECTIVE CARE OUTSIDE OF WORK

CEPAR ANNUAL REPORT 2019 • RESEARCH

RESEARCHERS

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External Collaborator

BRIONY DOW (UNIVERSITY OF MELBOURNE)

Promoting effective care outside work is critical to retaining mature workers in the Australian workforce. Older Australians are more likely to be undertaking primary care for elders and persons with disabilities than their younger counterparts (ABS, 2015) and may have other care responsibilities such as for children, grandchildren and partners. These care demands constrain their ability to participate in the labour market – with primary carers having a participation rate 20% lower than the general population (ABS, 2015). This takes on a gendered dimension as women are more likely to have carer responsibilities (WGEA, 2016), and an analysis by a CEPAR cross-stream team resulted in a research publication on this topic: Temple, J., Dow, B., Baird, M. (2019), 'Special working arrangements to allow for care responsibilities in Australia: availability, usage and barriers', *Australian Population Studies*, 3(1), 13-29. Further cross stream collaboration and data analysis is planned for 2020.

Caring is often stressful and unpredictable. As a result, mature workers who have care responsibilities are more likely to consider early retirement (Schroeder, MacDonald, & Shamian, 2012). Critical to whether they are able to remain in the workforce is their ability to access support from their employers, such as flexible work and carer's leave. Organisations that actively encourage their workers to use these supports are rewarded with increased worker commitment, retention of talent and higher performance (Beauregard & Henry, 2009).

The focus on gender, work and care within this project is linked to the growth in employment participation rates of mature women, one of the most significant changes in the Australian labour market over the past four decades. Federal government announcements also encourage more older workers to stay in the labour market.

While this project seeks to analyse how mature workers are navigating their working lives in Australian and international workplaces while simultaneously caring for dependants, it also aims to recommend robust policy and practical solutions for both organisations and workers which would allow them to meet their needs for high performance and employee retention. In order to achieve this, in 2019 the research team commenced field work and undertook policy analysis.

In February 2019, Professor Marian Baird cohosted with Professor Sue Yeandle (University of Sheffield) an international symposium on organisational responses to work and care. Prof Yeandle leads the ESRC-funded *Sustainable Care: Connecting People and Systems* project with CEPAR as an international partner. This symposium featured leading international researchers Professor Peter Berg (Michigan State University, USA) and Professor Soren Anderson (University of Copenhagen, Denmark). CEPAR researchers Kate O'Loughlin, Alison Williams and Andreea Constantine also presented.



DR ANDREEA CONSTANTIN

MSc Bucharest, MSc KU Leuven, Dr. rer. pol. Koln RESEARCH FELLOW Dr Andreea Constantin is a postdoctoral research fellow based at the University of Sydney node of CEPAR.

She received her PhD degree in Economics and Social Sciences from the University of Cologne, Germany. She has two master's degrees in Social Policy Analysis and Statistics and Advanced Sociological Research from the Catholic University Leuven and the University of Bucharest respectively. Her main research interests are work-life balance policies, mature workers, outside-work care, and gender roles within and outside organisations. She has contributed to analysing links between social policies and individual behaviour and attitudes, and to testing and developing cross-cultural comparative survey measures. Andreea's research interests also include big data, survey methodology and cross-cultural studies.

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Collaborative research connections have been made with their respective research teams. Additionally, A/Prof Kate O'Loughlin and Dr Matthew Lariviere (University of Sheffield) co-hosted a symposium on 'Technology and Care' which brought together senior and early career researchers associated with the Sustainable Care project's work package on *Combining work and care: how do workplace support and technologies contribute to sustainable care arrangements?*

The CEPAR Fact Sheet *Legal Protections for Mature Workers* was produced in 2019. This fact sheet focuses on the legislation in all state and federal jurisdictions that protects mature workers in Australia from discrimination, injury and poor health at work and their right to seek flexible work arrangements. The team have also since reviewed the HR policies of two organisations involved in our research, in line with these legislative provisions.

Lead CI, Marian Baird, spoke at a number of conferences in 2019. These included the ILO Debating the Future of Work conference at the University of Sheffield, on 'Work, Caring and Wellbeing'. Other topics presented at various conferences were 'The future of work and family in Australia', 'Gender, age and housing', 'Women, work and ageing', and 'Work/life concerns of mature workers'. Other highlights included Kate O'Loughlin's presentation, 'How flexible is flexible? Australia's flexible work policies to support working carers' at the Transforming Care conference in Copenhagen in June.

To gauge the extent of the challenge of combining informal care with work, specific questions about work and care were included in our national survey of mature workers in Australia, the results of which are reported in 'Maximising Potential: Findings from the Mature Workers in Organisations Survey (MWOS)'. Analysis of the work and care items will be undertaken in 2020.

> To gauge the extent of the challenge of combining informal care with work, specific questions about work and care were included in our national survey of mature workers in Australia... Analysis of the work and care items will be undertaken in 2020.



ASSOCIATE PROFESSOR KATE O'LOUGHLIN BA (Hons) Macq., PhD Syd ASSOCIATE INVESTIGATOR Kate O'Loughlin is an Associate Professor in Health Sociology, and a member of the Ageing, Work and Health Research Unit in the Faculty of Medicine and Health at the University of Sydney.

Her research interests and expertise are in population ageing with a particular focus on the baby boom cohort and workforce participation, and ageing-related health and social care policies in Australia and globally. Her current research projects investigate the interplay between paid work and carer responsibilities and its relationships with health and wellbeing; behaviours and exposures across the life course and their effect on health in later life; attitudes to ageing and age discrimination; and technology and ageing-in-place.

She has published widely in the gerontology/ ageing and sociology literature and has a record of successful supervision and mentoring of higher degree students; she is primary supervisor of four CEPAR-affiliated students from the Faculty of Medicine and Health.

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FEATURED ASSOCIATE INVESTIGATORS

ASSOCIATE INVESTIGATORS INVOLVED IN STREAM 3 RESEARCH IN 2019 INCLUDED:



ASSOCIATE PROFESSOR CORT W. RUDOLPH

BA DePaul, MA PhD Wayne State

Cort W. Rudolph is an Associate Professor of Industrial & Organizational Psychology at Saint Louis University and a CEPAR Associate Investigator.

His research program focuses on a variety of issues related to the ageing workforce, including applications of lifespan development theories, wellbeing and work-longevity, and ageism/generationalism.

He also has interests in statistical and methodological advancements, particularly in meta-analysis, and emerging topics in open science practices. His work has been published in various well-regarded journals, including the *Journal of Applied Psychology*, the *Journal of Organizational Behavior*, the *Journal of Occupational Health Psychology*, and *Leadership Quarterly*. Cort is an associate editor of the *Journal of Vocational Behavior* and serves on the editorial review boards of the *Journal of Managerial Psychology* and the *Journal of Occupational and Organizational Psychology*. His recent co-edited book, *Work Across the Lifespan*, is available from Academic Press.



PROFESSOR HANNES ZACHER

BA MA Technical University of Braunschweig, PhD University of Giessen

Hannes Zacher is a Professor of Work and Organizational Psychology at Leipzig University in Germany and a CEPAR Associate Investigator. He previously held academic positions in Australia (University of Queensland, Queensland University of Technology) and the Netherlands (University of Groningen). In his research program, he investigates successful ageing at work, career development, and occupational wellbeing; proactivity, leadership, and entrepreneurship; and employee pro-environmental behaviour. In 2015, he edited a special issue of the journal *Work, Aging and Retirement* on 'work, ageing, and retirement in Australia'.

In 2012, he received a Discovery Early Career Research Award from the Australian Research Council. His research activities are well supported by competitive national grants and funding from industry partners. He has published over 100 peer-reviewed articles in leading international journals, including the Academy of Management Review, the Journal of Applied Psychology, and Psychology and Aging. He is on the editorial board of several renowned journals, including the Journal of Vocational Behavior, The Leadership Quarterly, and the Journal of Occupational Health Psychology.



PROFESSOR FABIOLA H. GERPOTT

BSc Ruhr University, MA Corporate Mgt & Econ Zeppelin University, PhD Jacobs University, PhD Vrije Universiteit

Fabiola H. Gerpott is a Professor of Leadership at the WHU – Otto Beisheim School of Management in Germany. She joined CEPAR in July 2018 after conducting a research stay at the Future of Work Institute with Chief Investigator Sharon K. Parker.

Within CEPAR, Fabiola focuses on understanding how organisational interventions can improve knowledge transfer and learning between age-diverse employees and in doing so contribute to successful ageing of the mature workforce. Furthermore, she contributes to the Mature Workers In Organisations Survey.

Fabiola's research has been published in journals such as Academy of Management Journal, Academy of Management Learning & Education, Human Relations, and the Journal of Personality & Social Psychology. Fabiola also uses her research skills to develop intervention programs for managing an age-diverse workforce for organisations, particularly in the automotive industry. She has attracted grants from national foundations as well as industry funding for her work.

RESEARCH 4

SUSTAINABLE WELLBEING IN LATER LIFE

STREAM LEADER / MICHAEL SHERRIS

This stream undertakes research to provide businesses, households, and governments with new knowledge and expanded options on a range of policy and practice issues confronting ageing societies. It will take the macrodemographic projections of Stream 1, the insights about cognitive ageing and decision making from Stream 2, and the evidence concerning organisation behaviour from Stream 3, to build a comprehensive evidence base for strategies and actions to enhance wellbeing in later life.

The stream comprises six projects:

- 4.1 MORTALITY AND MORBIDITY RISK
- 4.2 MACRO-HEALTH OUTCOME SIMULATIONS
- 4.3 SOCIAL DETERMINANTS OF SUCCESSFUL AGEING
- 4.4 RETIREMENT POLICY ISSUES
- 4.5 FINANCIAL AND INSURANCE PRODUCT DESIGN
- 4.6 GUIDING FINANCIAL DECISION MAKING

CEPAR ANNUAL REPORT 2019 • RESEARCH

RESEARCHERS

MICHAEL SHERRIS HÉLOÏSE LABIT HARDY MENGYI XU PENGYU WEI YULONG LI MICHELLE VHUDZIJENA ADAM WENQIANG SHAO ANDRÉS VILLEGAS JONATHAN ZIVEYI ZHIPING HUANG YU CRYSTAL FU

This project undertakes modelling on mortality and morbidity risk to support research on retirement policy issues (Project 4.4) and on financial and insurance product design (Project 4.5). The research group has been developing models for health status and functional disability as well as for systematic longevity risk. The models are developed to assess the design and pricing of financial and insurance products to finance or insure post-retirement risks, from both an insurer/pension fund perspective and an individual perspective. In 2019, this project produced four journal articles and two working papers. In addition, several works are in progress and fifteen subprojects have been presented at local and international actuarial conferences or related events.

Mortality modelling

Research this year assessed and compared multifactor continuous-time affine mortality models. This is applied to age-cohort mortality curves and well-suited for theoretical and practical application in finance and insurance. In particular, the Gaussian Arbitrage-Free Nelson-Siegel (AFNS) mortality model has been introduced, incorporating level, slope and curvature factors. The models have appealing features including efficient estimation and computation. Importantly, the research showed that the Gaussian independent factor AFNS model performs very well in explaining and forecasting cohort mortality.

Research has also covered the modelling of aggregated mortality considering health status heterogeneity, which is one of the key heterogeneity factors in mortality. The stochastic development of aggregated mortality has been directly modelled considering the stochastic development of mortality risk in each health status at the same time. The model has been calibrated to Australian population mortality data and cross-sectional health data. Based on the model projection results, the following insights have been highlighted: (i) individuals starting from a healthier status will have a relatively lower mortality rate and therefore have a longer life expectancy; (ii) people tend to transfer faster and faster from a healthier status to a worse health status when ageing, and this trend will be accelerated as an individual's health status deteriorates.

The research is also currently assessing more accurate mortality models with socioeconomic factors using machine learning techniques and Australian individual level data. Incorporating explanatory methods can potentially yield more accurate forecasts and result in much fairer pricing of annuities and life insurance products due to mortality heterogeneity.

> The research is also currently assessing more accurate mortality models with socioeconomic factors using machine learning techniques and Australian individual level data.



DR PENGYU WEI BSc BEc PKU, DPhil Oxon. ASSOCIATE INVESTIGATOR Pengyu Wei is an Assistant Professor at the University of Waterloo. He is also an Associate Member of the Oxford-Man Institute of Quantitative Finance at the University of Oxford. Previously he was a CEPAR Senior Research Associate, located in the UNSW Business School until September 2019. He joined the Centre in March 2018 after obtaining his DPhil in Mathematics from the University of Oxford. His current research interests include actuarial science, quantitative finance, risk management and insurance. He has published in leading journals such as Mathematical Finance, the European Journal of Operational Research, Insurance: Mathematics and Economics, and the North American Actuarial Journal.

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Future research will cover prediction of health status in a multiple-state functional disability model using machine learning and individual-level data to determine health status. This will improve product design of long-term care (LTC) products, premium setting and solvency assessments.

Mortality tables for developing countries will also be constructed. Indeed, very limited research exists on mortality modelling where data are unreliable, scarce and unavailable; and most extrapolative methods fail when they are applied on datasets from developing countries. A new technique that provides reliable mortality forecasts using available empirical data and socioeconomic determinants of mortality is expected to be developed.

Morbidity modelling

This project also covers morbidity modelling to inform LTC insurance design and policy development. The research focuses on functional disability models to include trends and uncertainty in morbidity, as well as the possibility to include health status. Using US data, the research has assessed the impact of health status, trends, and uncertainty on life expectancy and time spent in the disabled state. This research suggested that insurers should pay

great attention to health status, trend, and systematic uncertainty in disability/mortality modelling and insurance pricing. Using Chinese data alongside US data, the research showed that both countries experienced decreasing disability rates. Both countries show longevity improvement. In the US this was mainly driven by declining mortality among healthy individuals, while in China this was mainly due to decreasing disabled mortality. The analysis is currently being extended to the Australian environment using longitudinal data from survey and administrative sources. This will enable highlighting disability trends in Australia and also prove useful in the design and pricing of LTC insurance products, particularly to improve estimation of government expenditures and assess the impact of the design of private LTC insurance in Australia.

This research suggested that insurers should pay great attention to health status, trend, and systematic uncertainty in disability/ mortality modelling and insurance pricing.



BCom (Hons) PhD UNSW, FIAA SENIOR RESEARCH

DR MENGYI XU

ASSOCIATE

Mengyi Xu joined the UNSW Business School node of CEPAR as a Senior Research Associate in September 2017 after completing a PhD in Actuarial Studies at UNSW Sydney.

Her PhD thesis studies pre-retirement investment strategies and the role of housing in retirement planning. Before starting her PhD, she obtained a Bachelor of Commerce (Honours) degree in Actuarial Studies from UNSW Sydney. She is a Fellow of the Institute of Actuaries Australia. Her research interests include retirement financial products, pension fund management and longevity modelling. Her current research projects involve modelling health transitions and designing innovative retirement income products.

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4.2 MACRO-HEALTH OUTCOME SIMULATIONS

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RESEARCHERS
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ALASTAIR GRAY
ANTHONY SCOTT
ANDREW PALMER
MICHELLE TEW
CHRISTOPHER SCHILLING

The focus in 2019 has been on making use of administrative health data to look at the impact of chronic disease on health care costs, productivity and health outcomes, particularly among older cohorts. A prime focus has been the use of computer simulation models focusing on populations which are at a significant disadvantage (e.g. lower life expectancy than the general population). We have also looked at the emerging issue of opioid dependence in Australia and examined its inter-relationship with surgery for chronic conditions such as osteoarthritis, which is most prevalent among the aged. A principal aim has been to translate the findings of research to inform policy analysis through two workshops held in Canberra.

Our national analysis of health costs using New Zealand linked administrative data was published in the journal *PLOS Medicine*. Beyond providing a set of disease costs for New Zealand, the analysis was able to quantify the impact co-morbidities have on expenditures. This study attracted attention in both regional press and the medical media. We are currently extending the analysis to look at the impact of diseases on income using linked national New Zealand taxation data. In addition, the project has focused on the use of simulation modelling and analysis of large administrative health data to understand the health of disadvantaged populations.

This has included:

- Developing a simulation model for Indigenous Australians based on data from the Well Person's Health Check (WPHC), a communitybased survey that has been linked to administrative health and mortality data. This simulation model is being used to look at evidence-based ways to close the gap in Indigenous life expectancy;
- Continuing to develop simulation models of diabetes and its complications, including a model for people with type 1 diabetes, and organising the first simulation modelling conference on diabetes held in the Asian region (diabetes and other chronic diseases have been identified as one of the emerging challenges across Asia, especially as the populations in these countries age³); and
- Understanding the use of opioids pre and post-surgery using linked administrative data involving a 10% sample of Medicare and pharmaceutical data.



DR AN DUY TRAN

BSc Hue, MSc PhD Wageningen SENIOR RESEARCH FELLOW Dr An Duy Tran joined CEPAR in February 2018. He is a Senior Research Fellow in Health Economics at the Centre for Health Policy, Melbourne School of Population and Global Health, University of Melbourne.

His research focuses on the development of simulation and prediction models to capture the impact of heath policy and interventions on resource utilisation and quality of life of patients with chronic diseases including diabetes, cardiovascular disease and rheumatic diseases.

Dr Tran is also a Senior Advisor to the Melbourne Clinical and Translational Sciences research platform at the University of Melbourne where he has been providing support in health economics for clinical studies.

Before joining the University of Melbourne, he was a Postdoctoral Researcher at Maastricht University and Assistant Professor at the University Medical Centre, Utrecht, where he conducted research in Health Technology Assessment and Clinical Epidemiology for a total duration of nearly eight years. His work has been published in high impact journals such as *PharmacoEconomics, Value in Health, Annals of the Rheumatic Diseases, Alzheimer's & Dementia, Clinical Gastroenterology and Hepatology,* and *Journal of Internal Medicine.*

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Finally, this project has also focused on the development of a measure of health poverty which uses an index to quantify the proportion of the population in poor health. Preliminary results indicate that an increasing proportion of the population have characteristics that would predict them having a reduced life expectancy of four years or more when compared with the average Australian. This study, which was published in the international journal *Social Science and Medicine*⁴ has attracted media attention, including on the ABC radio's Health Report (abc.net.au/radionational/programs/healthreport/designing-a-health-poverty-line/11779588]

Preliminary results indicate that an increasing proportion of the population have characteristics that would predict them having a reduced life expectancy of four years or more when compared with the average Australian.

> ³ World Bank (2011). Toward a Healthy and Harmonious Life in China: Stemming the Rising Tide of Non-Communicable Diseases. Report Number 63426.

⁴ Clarke P. and Erreygers 6. (2020). Defining and Measuring Health Poverty. Social Science & Medicine, Volume 244, January 2020, 112633.

DR JOSH KNIGHT

BSc Bio Sc PhD Epidemiology Auckland RESEARCH FELLOW Dr Josh Knight joined CEPAR in November 2018 and is a Research Fellow in Health Economics at the Centre for Health Policy, Melbourne School of Population and Global Health, University of Melbourne.

His research focuses on development of risk equations and simulation models for chronic diseases including cardiovascular disease (CVD) and diabetes. The focus of Josh's PhD, in epidemiology, was the modelling of CVD in a primary prevention population. A synthetic population was used to test the comparative impact of the two risk estimation methods on events and cost-effectiveness outcomes. The research findings have subsequently been translated into policy in New Zealand.

In addition to CVD, he is involved in a range of research areas including: diabetes modelling, the cost-effectiveness of genomic testing and the development of risk equations for the Indigenous Australian population. Dr Knight has published in international journals such as the Journal of the American Heart Association, Allergy, Health Policy, Scientific Reports, PLoS One and Genetics in Medicine. His work has also been reported on in the nonscientific literature, including the New York Times, Washington Post and TIME Magazine.

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RESEARCHERS

PROBERT CUMMING KAARIN ANSTEY JULIE BYLES SAMAN KHALATBARI-SOLTANI KATE MILLEDGE JAMES NAZROO RICHARD BURNS VASANT HIRANI FIONA STANAWAY

External Collaborators

FIONA BLYTH DAVID HANDELSMAN DAVID LE COUTEUR VASI NAGANATHAN MARKUS SEIBEL LOUISE WAITE CLIVE WRIGHT (ALL FROM UNIVERSITY OF SYDNEY) This CEPAR project mainly uses data from three large Australian panel studies: The Concord Health and Ageing in Men Project (CHAMP), the Path Through Life Study (PATH) and the Australian Longitudinal Study of Women's Health (ALSWH). CHAMP is led by CEPAR CI Cumming; PATH is led by CEPAR CI Kaarin Anstey; and CEPAR AI Julie Byles is co-director of ALSWH.

Much of the work in 2019 involved conducting a 14-year follow-up (Wave 5) of CHAMP. CHAMP started in 2005, when 1705 men aged 70 years and over were recruited from the community around Concord Hospital in Sydney. Three hundred and eighty men have participated so far in CHAMP Wave 5 and it is anticipated that the final sample will comprise about 450 men.

Much of the CHAMP research in 2019 was directly concerned with social determinants of health. For example, Dr Fiona Stanaway found that older Italian-born men have similar mortality rates to Australian-born men, despite the Italian-born men tending to smoke more and being of lower socioeconomic status and overweight or obese. CEPAR Research Fellow Saman Khalatbari-Soltani showed that low socioeconomic status is strongly associated with higher mortality in older men, with about 50% of this excess mortality explained by higher rates of smoking and depression and lower levels of social support.

Nutrition is another social determinant of health. Associate Professor Vasant Hirani leads the nutrition component of CHAMP. Dietary data were collected from CHAMP men at Wave 3 in 2012-2013. Several CHAMP papers in 2019 were concerned with the relationship between nutrition and the development of various health problems during follow-up. PhD student Arpita Das found that men with low intakes of antioxidant vitamins (particularly vitamin E) were at greater risk of becoming frail over three years of follow-up. Another PhD student, Mavil Cervo, found that men who ate a proinflammatory diet (including salami, biscuits, white bread and animal fats) were at increased risk of falling. CHAMP researchers are currently investigating the influence of eating a Mediterranean diet on the health of older Australian men.

Oral health is related to nutrition and to general health. Comprehensive oral health assessments were conducted in Wave 4 of CHAMP in 2015-2016. The CHAMP oral health team produced several papers in 2019. Professor Clive Wright, who leads the oral health component of CHAMP, published a paper in collaboration with a number of co-

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DR SAMAN KHALATBARI-SOLTANI

MSc Nutritional Science UPM, PhD Life Sciences Lausanne, PhD Epidemiology and Public Health SSPH+ RESEARCH FELLOW Saman Khalatbari Soltani is a CEPAR Research Fellow, located in the School of Public Health at the University of Sydney. She joined the Centre in September 2018 after working for one year as a Postdoctoral Fellow at the Department of Internal Medicine, University of Lausanne, Switzerland. She holds a PhD in Life Sciences (University of Lausanne, Switzerland), a PhD in Epidemiology and Public Health (Swiss School of Public Health) and a Master of Science in Nutritional Science (University Putra Malaysia). During a one-year Fellowship at the University of Cambridge, she trained in Nutritional Epidemiology. Her current research encompasses the areas of social determinants of successful ageing, social inequalities and health, and the role of behavioural, psychological, and biological factors in the genesis of social disparities in health at older ages – with the ultimate aim of improving perceptions of and indicating possibilities for future health policy.

Prior to joining CEPAR, her projects mainly focused on the link between diet and chronic diseases, undernutrition, and drivers of and barriers to healthy eating. Her research has been published in international journals, including *BMC Medicine*, the *American Journal of Clinical Nutrition*, and *Clinical Nutrition*.

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authors which included CEPAR researchers, on the relationship between chewing function, discomfort when eating and general health. He found that men who were unable to eat hard foods had higher levels of physical disability and cognitive impairment. Another CHAMP oral health paper reported that the majority of CHAMP men had favourable oral health behaviours: nearly 60 per cent of the men visited a dentist at least once a year and most brushed their teeth at least twice a day. In another paper the CHAMP team reported that frail men were much more likely than robust men to have dental caries.

CEPAR CI Kaarin Anstey and AI Richard Burns evaluated the determinants of healthy late-life ageing in 685 people aged 85 and over drawn from several Australian longitudinal surveys as part of the Dynamic Analyses to Optimize Aging (DYNOPTA) project. They found that groups of older people with shorter survival had higher levels of depression and dementia. Importantly, the data suggest that medical conditions may only confer mortality risk when coupled with poor mental health. CEPAR AI Julie Byles leads research involving the 12,432 women in the 1921-26 birth cohort of ALSWH. These women were aged 70 to 75 years at baseline in 1996 and survivors are now in their 90s. Using traditional measures of successful ageing that include absence of disease, about 30% of women in their 70s were classified as successful agers, declining to just 1% of women in their 90s. Julie and her team are now using ALSWH data to test the new World Health Organisation Healthy Ageing Framework.

> ...low socioeconomic status is strongly associated with higher mortality in older men, with about 50% of this excess mortality explained by higher rates of smoking and depression and lower levels of social support.



PROFESSOR JAMES NAZROO

BSc MB BS Lond., PhD UC Lond. PARTNER INVESTIGATOR James Nazroo is Professor of Sociology at the University of Manchester, UK. He also serves as co-Director of the Manchester Institute for Collaborative Research on Ageing and Deputy Director of the Centre on Dynamics of Ethnicity. His research focuses on issues of inequality, social justice and underlying processes of stratification, particularly in relation to ageing and ethnicity. He works on the social determinants of health and wellbeing in later life, social inequalities over the life course, and longitudinal surveys of health and retirement. He was the lead investigator for the six year interdisciplinary research programme 'Frailty, Resilience and Inequalities in Later Life (fRaill)' (2011-2017); is a Chief Investigator on the ongoing 'English Longitudinal Study of Ageing (ELSA)'; and was a Partner Investigator on the ARC Discovery grant 'Socioeconomic determinants and health inequalities over the life course' conducted in collaboration with CEPAR Investigators Kendig, Loh, Byles and 0'Loughlin.

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4.4 RETIREMENT POLICY ISSUES

RESEARCHERS

JOHN PIGGOTT MARIAN BAIRD HANMING FANG MICHAEL KEANE OLIVIA S. MITCHELL MICHAEL SHERRIS ALAN WOODLAND ROBERT HOLZMANN RAFAL CHOMIK GEORGE KUDRNA BELLU MIGUEL OLIVO VILLABRILLE SOPHIE YAN DANDAN YU ERIK HERNÆS FEDOR ISKHAKOV **CAGRI KUMRU** RAMONA MEYRICKE ANDRÉS VILLEGAS PETER WHITEFORD

External Collaborators

BINGWEN ZHENG (CHINESE ACADEMY OF SOCIAL SCIENCES)

ZHIYANG JIA TROND CHRISTIAN VIGTEL (BOTH STATISTICS NORWAY) CEPAR researchers continue to undertake various projects relating to retirement policy issues, policy dialogue, and dissemination.

In 2019, our team contributed to broader international issues on retirement policy. For example, John Piggott and John Beard served as Commissioners for the US National Academy of Medicine Global Roadmap for Healthy Longevity; Ramona Meyricke and Rafal Chomik co-led research on the impact of climate change on mortality and retirement income; and John Piggott was a guest editor for 'Population Ageing and Sustainable Growth' based on papers presented at the East-West Center and Korea Development Institute 2019 annual conference.

Arising from the 2019 CEPAR Economics of Ageing Workshop, John Piggott initiated, and Alan Woodland led, the editorial for an upcoming special issue on 'Resources in retirement' for the *Journal of the Economics of Ageing*. The team also contributed to the CEPARsponsored International Pension Research Association (IPRA) Conference hosted by the OECD in Paris 2019 with a follow-up conference scheduled for June 2020.

Aging, fiscal sustainability and adequacy of social security systems

Rafal Chomik, John Piggott, and Sophie Yan completed a policy brief for the Think20 (T20) Task Force for G20 countries that convened in Japan 2019 (co-chaired by John Piggott) on ageing populations, economic impact and immigration. In addition to highlighting broad perspectives on these challenges, further policy focus was centred on the analysis of retirement income, the first frontier in reforming social security systems in an ageing world.

Flexible pensions and labour force withdrawal

CEPAR Working Paper 2019/3 was published in May 2019 by Erik Hernæs, Zhiyang Jia, John Piggott and Trond Christian Vigtel. This paper studied the effects on labour supply decisions of senior workers in reducing the eligibility age of retirement combined with actuarial neutrality, based on one particular group of private sector workers. The 2011 Norwegian pension reform had a fixed pension access age of 67 replaced by a flexible access age from 62 with constant present value of benefits. In a non-linear difference-in-difference approach, this study found that the distribution of earnings changed after the reform, although there was no

DR GAOYUN (SOPHIE) YAN BS Econ. PhD UNSW

RESEARCH FELLOW

Sophie is a CEPAR Research Fellow based at the UNSW Business School. She joined CEPAR after completing her PhD in Economics at UNSW Sydney.

Sophie's work before 2019 mainly contributed to the CEPAR research briefs and other policy briefs, including topics like relative poverty among the elderly, retirement incomes, pension systems and labour market for seniors. Starting from early 2019, she has been also affiliated with the UNSW Ageing Futures Institute. Her research studies people's behaviour in health economics and labour economics, with a focus on policy evaluation. Sophie's current projects include long-term care for the elderly and housing in Australia. significant effect on labour force participation. This indicated that for the group studied, the reform facilitated phased retirement.

Joint labour supply and retirement of Australian couples

Alan Woodland and Miquel Olivo Villabrille continued research on the joint labour supply and retirement of Australian couples. These labour supply and retirement decisions by married couples are affected by family variables such as ages, assets and wage rates, but also, importantly, by government policy settings such as the income taxation schedule, Age Pension and superannuation rules. The aim is to estimate these effects and to examine alternative policy settings. The focus during 2019 was to update our previously constructed database to the latest Household, Income and Labour Dynamics in Australia (HILDA) panel data set on Australian households and to the latest taxation and pension policy settings. With this updated database in hand, new empirical analyses will then be undertaken.

The notional and the real in the China's pension reforms

Published as part of the World Bank Social Protection & Jobs Discussion Paper series (No. 1921, April 2019), Bei Lu, John Piggott, and Bingwen Zheng led discussions on the potential expansion of the role of the notional defined contribution (NDC) paradigm and the ongoing reforms of retirement provision in China. The study found that mature age life expectancy is remarkably uniform among formal sector workers at the time of retirement, although greater heterogeneity exists for Rural and Urban Residents Pension Scheme members, concluding that increased presence of the NDC paradigm has the potential to raise aggregate welfare.

Climate change and population ageing

While Australians are increasingly aware of the physical and transition risks associated with the economy moving to a lower carbon footprint, we have a much lower understanding of what climate change could mean for us personally, especially in terms of health and living standards. There is also a lack of thought about the interactions between an ageing population and a warming climate. Research by Meyricke and Chomik looked at two aspects, the effect of heatwaves on health and mortality and the potential impact of accumulated climate-induced economic shocks on retirement incomes. They martial evidence that excess mortality from heat will double for all-ages and at least quadruple for over-65s and that greater numbers of older people will mean greater numbers of deaths. The effects of climate change could also extend to lower superannuation balances at retirement, with illustrative scenario modelling suggesting reductions of 11-18%.

> The effects of climate change could also extend to lower superannuation balances at retirement, with illustrative scenario modelling suggesting reductions of 11-18%.



DR MIGUEL OLIVO-VILLABRILLE

BA Pontificia Universidad Catolica Madre y Maestra, MA Mathematics Instituto Tecnologico de Santo Domingo, MA Economics New York University, PhD Economics University of Calgary RESEARCH FELLOW Miguel Olivo Villabrille is a CEPAR Research Fellow at UNSW Sydney. He is also a Research Affiliate at the Tax and Transfer Policy Institute at ANU's Crawford School of Public Policy.

Miguel's interests lie in labour economics, particularly in family and demographic economics. He employs dynamic structural methods to model decision making over the life cycle to propose and evaluate policies. Those methods can be applied to study educational choices, labour supply and retirement decisions, savings and asset accumulation, and also divorce. He is interested in studying how changes in marriage formation can lead to more macro outcomes like household income inequality. In addition, he is interested in tax policies, evaluating the effect they have on labour supply and tax-evading behaviour at higher levels of income.

MICHAEL SHERRIS HÉLOÏSE LABIT HARDY MENGYLXU PENGYU WEI DANIEL ALAI ANNAMARIA OLIVIERI FRMANNO PITACCO ADAM WENQIANG SHAO ANDRÉS VILLEGAS JONATHAN 7IVEYI XIAO XU YULONG LL DOREEN KABUCHE **KEVIN KRAHE** SHIANNA LI LUKE ZHOU YUXIN ZHOU

RESEARCHERS

This research aims to analyse and develop sustainable, cost-effective products, allowing both individuals and institutions to manage longevity, health, and aged-care risks. In 2019, this project produced four journal articles, six working papers and one book chapter. In addition, several works are in progress and nineteen subprojects have been presented at local and international actuarial conferences or related events.

Retirement income products

Research this year covered a range of retirement income products proposed in the academic literature and in industry and explored designs for new retirement income products. These include the traditional life annuity, as well as more innovative products which incorporate longevity risk sharing. A structured investigation of retirement income products has been developed to offer a systematic comparison of these products, with differing guarantee and payout structures. The differences in longevity and financial guarantee structures in various retirement income products are compared through a modelling framework and an evaluation framework is developed to gauge the desirability of the products from the perspective of the policyholder and provider. The research has found that the guarantee structure of the product makes a significant difference to both the capital required by the provider as well as the product desirability for the policyholder.

As part of this area of research, a new longevity bond has been proposed to address several impediments to annuitization, including high loadings, the need for bequests and loss aversion. The bond is designed as a postretirement investment product that combines lifetime income and a death benefit. Customers have the flexibility to mix different levels of death benefit with income, and the provider can benefit from natural hedging.

A new retirement income product is under development to provide partial guarantees as part of retirement benefits in a group-self annuitization (GSA) scheme. The proposed product divides pension savings between two accounts: a GSA account and a surplus account. The GSA account provides lifelong retirement benefits while the surplus account is used to adjust such benefits over time. Australian population-mortality data and interest rate data are used in setting up the product. Moreover, to determine the fair fee allowing for both financial and longevity participation, the development of a joint stochastic model for interest rates and mortality rates is explored.

Research has also included health and disability status into retirement planning. Research has assessed the public and private impact of retirement income products (CIPRs) allowing for health heterogeneity in order to increase its efficiency, using Australian data including aggregate mortality and cross-sectional health status surveys. Research has also studied retirement planning for a retiree in the presence



DR HÉLOÏSE LABIT HARDY

BActScFin, MActScFin ISFA Lyon, PhD Lausanne SENIOR RESEARCH ASSOCIATE Héloïse Labit Hardy commenced work as a Senior Research Associate in the ARC Centre of Excellence in Population Ageing Research at the UNSW Business School in September 2016. She completed her PhD at the University of Lausanne in the department of Actuarial Science. She graduated from the French actuarial school *Institut de Science Financière et d'Assurances*. She works with CI Michael Sherris on mortality and morbidity modelling, specifically on heterogeneity in mortality, cause-of-death mortality and longevity risk management.

evolve under various modelling assumptions, and

The research has found that the quarantee structure of the Iretirement income] product makes a significant difference to both the capital required by the provider as well as the product desirability for the policyholder.

of systematic disability and mortality risk using US data. Systematic trend and uncertainty affect a retiree's demand for long-term care insurance (LTCI) and life annuities, as well as their welfare. Finally, a foundation for designing affordable LTCI products is under development for the first time in the Australian context. Systematic trends and uncertainty are incorporated in the design and pricing of products for the Australian LTCI market.

Longevity indexes

A value-based longevity index has also been developed and assessed for hedging retirement income portfolios. It closely tracks the value of longevity-linked liabilities with the potential to significantly lower the costs and improve the efficiency of index-based longevity hedging techniques relative to standard mortality rate indices, currently referenced to financial markets. Using US economic and population data, the research demonstrated that hedging with the proposed index generates a material reduction in basis risk relative to indices based purely on mortality rates.

Portfolio insurance strategies

Research has also covered portfolio insurance strategies for a target annuitization fund. The performance of option-based and constant-

proportion portfolio insurance strategies for a defined contribution fund that targets a minimum level of inflation-protected annuity income at retirement has been evaluated. The research demonstrated how both portfolio insurance strategies provide strong protection against downside equity risk in financing a minimum level of retirement income. The option-based strategy often leads to higher accumulated savings at retirement and is also shown to provide a more robust level of protection when equity markets are more volatile and when contributions to the pension fund are lower.

Variable annuities

Several works within this project also cover research on variable annuities. A variable annuity contract embedded with a guaranteed minimum accumulation benefit has been studied considering taxation and policyholder behaviour. Research has also devised a numerical technique for pricing guaranteed minimum benefit riders embedded in variable annuities. Moreover, the efficiency of a variety of Fourier-based numerical methods in generating fair guarantee fees for variable annuities when the underlying fund dynamics evolve under various assumptions have been compared. Research has also compared the fair quarantee fees for variable annuities

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PROFESSOR ERMANNO PITACCO ASSOCIATE INVESTIGATOR

Ermanno Pitacco is Professor of Actuarial Mathematics and Life Insurance Techniques at the University of Trieste, and Academic Director of the Master in Insurance and Risk Management at the MIB School of Trieste

His current research interests lie in the area of life and health insurance mathematics and techniques, focusing in particular on longevity risk, life annuity and life insurance portfolio valuations and solvency assessment. He is an author and co-author of textbooks and has published in leading international risk and actuarial studies journals. He was awarded

the 2011 Bob Alting von Geusau Memorial Prize, together with Annamaria Olivieri. He serves as vice co-chairman of the Mortality Working Group of the International Actuarial Association (IAA) and Treasurer of the AFIR/ERM Committee of the IAA.

embedded with guaranteed lifetime withdrawal

benefits when the underlying fund dynamics

the efficiency of pricing with the cosine and

wavelet-based transform methods.

Ermanno is editor of the Springer Actuarial series, co-editor of the European Actuarial Journal and associate editor of a number of international journals.

RESEARCHERS

HAZEL BATEMAN INKA EBERHARDT KATJA HANEWALD LORETTI I. DOBRESCU CHRISTINE ECKERT BENJAMIN R. NEWELL SUSAN THORP TIN LONG HO GEORGE SMYRNIS

The aim of this project is to contribute to the understanding of how people make retirement saving and spending decisions and to identify the means to facilitate the best possible decisions.

In 2019 research associated with this project focused on four key areas – retirement benefit estimates, prescribed information disclosure for retirement incomes, life events as triggers for engagement with superannuation, and behavioural impediments to reverse mortgage demand. Output from these studies was presented at key international conferences including the Netspar International Pension Workshop, the Boulder Summer Conference on Consumer Financial Decision Making and the ICPM Discussion Forum.

Retirement benefit estimates

Australian workers rely on information from their superannuation funds to work out if they are saving enough for retirement. Until recently, most funds gave members only their current balance, leaving to the member the tough problem of translating that balance into a future lump sum or income stream. In 2019 a team comprising Chief Investigator Hazel Bateman, Associate Investigators Loretti I Dobrescu, Ben R Newell and Susan Thorp, and CEPAR PhD student George Smyrnis worked with superannuation fund Cbus lone of the first super funds to provide benefit estimates) to analyse the impact of presentation of the lump sum and income stream estimates on the behaviour of their members. By comparing carefully matched groups of Cbus members who received the estimates and an (observationally) identical group who did not, the impact of the projections information could be assessed. The impact was large: the proportion of Cbus members making salary sacrifice contributions was 33% higher among those who received the benefit estimates, the number of members interacting with Cbus increased by 46% and there was a small adjustment in investment choices towards more aggressive options (Symrnis et al., 2019). In 2020 the team will analyse later years of Cbus data to investigate the impact of alternative information

formats and confirm whether the behavioural change has been sustained over time.

Prescribed information for retirement Income products

The Australian government has proposed a one-page, simplified and standardised Fact Sheet for retirement income products, with the aim of assisting retirement income product decisions. In this context Chief Investigator Hazel Bateman and Research Fellow Inka Eberhardt designed and implemented an online discrete choice experiment with around 1000 pre-retirees to test the impact of the prescribed information items - average annual income, product rating, potential income shape, access to capital and death benefit – on benefit choices. From a product menu comprising a lifetime annuity, an account-based pension (ABP), an annuity/ABP hybrid and a deferred annuity/APB hybrid, the most popular products were the life annuity and a hybrid life annuity/account-based pension, with average income amount and product rating the most important information items. Findings suggest that the Fact Sheet composition, especially the context and derivation of the prescribed Product Rating drives decision making so must be carefully designed.



INKA EBERHARDT MSc Econ Utrecht RESEARCH FELLOW Inka Eberhardt is a CEPAR Research Fellow, located in the UNSW Business School. She joined the Centre in October 2018.

She completed her undergraduate studies in political studies and economics in the Netherlands, and is to receive a PhD in Finance from Maastricht University in 2020. In 2017, she also visited Professors Michael Norton and John Beshears at Harvard Business School. Inka is interested in the interface between behavioural economics and pension systems. For her dissertation, Inka worked together with the *Bedrijfstakpensioenfonds Detailhandel*, the pension fund of the Dutch retail sector. She uses field experiments and online surveys to research the effectiveness of pension communication on savings behaviour and retirement decisions. The aim of her research is to improve communication and to enable consumers to make better choices.

Life events as triggers for superannuation engagement

Major life events and financial decisions like marriage, childbirth, buying a home, divorce or changing jobs have the potential to act as 'triggers' for changes in expectations and behaviour. Using matched samples of superannuation member data merged with mortgage commencement data, Chief Investigator Hazel Bateman and Associate Investigators Christine Eckert and Susan Thorp investigated the role of home purchase as a trigger for engagement with superannuation. Findings indicated that super fund members who took out a new residential mortgage did indeed change their superannuation contribution behaviour in the three years before and /or after mortgage commencement, as compared with those who did not, with significant differences in timing and impact by mortgage type and demographics (Bateman et al., 2019). In 2020 this work will be extended to unpack the different responses from homeowners and investors.

Reverse mortgage demand in Australia

Households hold a large part of their wealth in the form of housing and reverse mortgages allow households to access this wealth without having to sell and move. While economic theory suggests that these products should be popular, reverse mortgage markets are small internationally. In 2019 Chief Investigator Hazel Bateman together with Associate Investigator Katja Hanewald and CEPAR PhD student Tin Long Ho commenced a project to investigate the role of mental accounting and framing in explaining this 'reverse mortgage puzzle'. A discrete choice experiment of reverse mortgage decisions will be fielded in early 2020.

2019 industry reports

Bateman, H., J. Brownlow, B. Culbert, C. Chu, C. Eckert, B. Fu and S. Thorp (2019). *New residential mortgages and superannuation engagement*, CEPAR Industry Report 2019/2.

Smyrnis, G., H. Bateman, L. I. Dobrescu, B. R. Newell and S. Thorp (2019). *The impact of projections on superannuation contributions, investment choices and engagement*, CEPAR Industry Report 2019/1.

In 2019 [the research team] worked with superannuation fund Cbus to analyse the impact of presentation of the lump sum and income stream estimates on the behaviour of their members.



PROFESSOR BENJAMIN R. NEWELL

BSc Nottingham, PhD UNSW ASSOCIATE INVESTIGATOR Benjamin Newell is Professor of Cognitive Psychology and Deputy Head of the School of Psychology at UNSW Sydney and a CEPAR Associate Investigator.

His research focuses on the cognitive processes underlying judgment, choice and decision making and the application of this knowledge to environmental, medical, financial and forensic contexts. He has published over 100 journal articles and book chapters and is the primary author of the leading text, *Straight choices: The psychology of decision making*. Ben has worked with industry and government partners on projects including climate change communication, retirement wealth-planning and child protection. His work adopts experimental and computational methods to assess how people make decisions.

Within CEPAR, Ben brings a psychological perspective to research on superannuation and retirement. His work has been discussed in various media outlets including TIME Magazine, The Guardian, BBC, ABC, SMH, Chicago Tribune and WIRED Magazine. He is currently an Associate Editor at *Psychonomic Bulletin & Review* and on the editorial boards of *Decision, Judgment and Decision Making*, and *Journal of Behavioural Decision Making*. He is also a member of the inaugural Academic Advisory Panel of the Behavioural Economics Team of the Australian Government.

FEATURED ASSOCIATE INVESTIGATORS

CEPAR ANNUAL REPORT 2019 · RESEARCH

OTHER ASSOCIATE INVESTIGATORS INVOLVED IN STREAM 4 RESEARCH IN 2019 INCLUDED:



PROFESSOR JULIE BYLES

B Med PhD N'cle (NSW), FAAHMS

Professor Julie Byles is Global Innovation Chair in Responsive Transitions in Health and Ageing at the University of Newcastle, Director of the Priority Research Centre for Generational Health and Ageing, and a Director of the Australian Longitudinal Study on Women's Health. She collaborates with Professor Cumming as an Associate Investigator on Project 4.3.

As a clinical epidemiologist, Julie's interests are in risk determination, health assessment, other health care evaluation, and measurement of health outcomes. As a gerontologist and Fellow of the Australian Association of Gerontology, her research interests in ageing include the role of health services, preventive activities, and treatments in maintaining quality of life for older people, and in determining physical, psychological and social factors associated with optimal physical and mental health of men and women as they age.

Julie is also Head of the International Longevity Centre - Australia (ILC-Aus), Chair of the International Association of Gerontology (Asia Oceania) Social Research and Planning sub-committee, and a frequent advisor to the World Health Organisation, assisting with translation of evidence on health and ageing.



DR ANDRÉS VILLEGAS

BSc Mathematical Engineering Eafit University, MSc Industrial Engineering University of Los Andes, PhD ActuarSc Cass Business School, City University of London

Andrés Villegas is a Senior Lecturer at the School of Risk and Actuarial Studies and an Associate Investigator at CEPAR where he was previously a Research Fellow. He completed his doctoral studies at Cass Business School in London focusing on the modelling and projection of mortality. Andrés's research interests include mortality modelling, longevity risk management and the application of analytics techniques in actuarial science and finance. His recent research has focused on assessing the trends and financial implications of socioeconomic differences in mortality. Andrés is also committed to the development of tools that can help make academic research more accessible to industry and to the wider actuarial community. He is the developer and maintainer of the R Package StMoMo for stochastic mortality modelling which has achieved 23000+ downloads and is now being used by researchers, risk managers, insurance supervisors and students around the world.

Andrés collaborates with Professor Sherris and his team on projects 4.1 and 4.5.



ERIK HERNÆS

Cand Oecon Oslo

Erik Hernæs is a Senior Research Fellow at the Ragnar Frisch Centre for Economic Research at the University of Oslo, one of Norway's leading economics research centres. Erik's primary research interests are related to pension economics and he is currently leading a project on evaluating the labour market effects of Norwegian pension reform.

After working at Statistics Norway, he became the inaugural Director of the Frisch Centre in 1999. He was one of the first researchers to organise administrative register data and use these for econometric analysis. This is now a major research focus of the Frisch Centre.

Erik has published on productivity, education, unemployment and retirement, in the Scandinavian Journal of Economics, Oxford Bulletin of Economic Research, Journal of Pension Economics and Finance, Journal of Health Economics, Journal of Public Economics, Journal of Labor Economics and in volumes published by the NBER, Kluwer, Edward Elgar and Routledge.

Erik collaborates with Professor Piggott on Project 4.4.



PROFESSOR ANNAMARIA OLIVIERI

Degree in Business Economics University of Parma, Degree in Actuarial Science and Statistics University of Florence, PhD University of Brescia

Annamaria Olivieri is Professor of Mathematical Methods for Economics, Actuarial Science and Finance in the Department of Economics at the University of Parma.

Her areas of research include life and health insurance modelling and risk management. She is an actuary and full member of the Istituto Italiano degli Attuari (Italy) and Associate Editor of the European Actuarial Journal. In 2011 she was awarded the Bob Alting von Geusau Memorial Prize, together with Ermanno Pitacco, for the best paper published in the ASTIN Bulletin on an AFIR related topic. She has presented in continuous professional development courses and masters programmes (in Italy and abroad) for both actuaries and non-actuaries, in the field of actuarial mathematics and risk management techniques. She is an author and co-author of many research articles and the textbooks. Introduction to Insurance Mathematics: Technical and Financial Features of Risk Transfers, 2nd edition (2015) with Ermanno Pitacco, and Modelling Longevity Dynamics for Pensions and Annuity Business (2009) with Pitacco, Denuit and Haberman.



ASSOCIATE PROFESSOR LORETTI I. DOBRESCU

BA (Hons) Nottingham Trent University, MSc West University of Timisoara, PhD University of Padua

Loretti I. Dobrescu is an Associate Professor in the School of Economics, UNSW Sydney. She is also an Associate Investigator in CEPAR where she collaborates with the Guiding Financial Decision Making team.

Loretti is an established researcher with expertise in developing structural models and using panel data and bounds methods to study various issues related to savings and cognition in older age. She has published significantly in top international journals of economics and mathematical modelling and is generally active in the field of microeconometrics, with particular emphasis on the Economics of Ageing and Health Economics. Loretti was also part of the backbone team that developed the first comprehensive dataset of ageing in Europe – the Survey of Health, Ageing and Retirement in Europe.



ASSOCIATE PROFESSOR JONATHAN ZIVEYI

BSc (Hons) Applied Mathematics NUST Zimbabwe, PhD Quantitative Finance UTS, GradCert University Learning and Teaching UNSW

Jonathan Ziveyi is an Associate Investigator at CEPAR based at the UNSW Business School where he is an Associate Professor, Honours Program Coordinator and Postgraduate Research Coordinator in the School of Risk and Actuarial Studies.

He received his PhD in Quantitative Finance from the University of Technology Sydney where his thesis was on the evaluation of early exercise exotic options.

His current research interests include longevity risk management, retirement income product design, valuation of guarantees embedded in variable annuities and option pricing under stochastic volatility. His research output has been published in quantitative finance and actuarial journals such as *Insurance: Mathematics and Economics* and *Quantitative Finance*, among others, and has been presented at various international conferences.

Jonathan collaborates with Professor Sherris and his team on projects 4.1 and 4.5.

HAZEL BATEMAN ROBERT CUMMING JOHN PIGGOTT HANMING FANG JOHN BEARD BEI LU

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External Collaborators

FIRMAN WITOELAR (ANU) TESS STAFFORD (UNSW) FIONA STANAWAY (UNIVERSITY OF SYDNEY) PU LIAO (CENTRAL UNIVERSITY OF FINANCE AND ECONOMICS, BEIJING) RUO JIA ZINING LIU YOUJI LYU WEI ZHENG (ALL PEKING UNIVERSITY) QIAN LU XIAOJUN WANG (BOTH RENMIN UNIVERSITY) XIAOYUN ZHANG (SOUTH CHINA NORMAL UNIVERSITY) HONG MI GUANGGANG FENG (BOTH ZHEJIANG UNIVERSITY)

The Ageing Asia Research Hub, in transition from the Australia-China Population Ageing Research Hub which it is replacing, has advanced research in three main streams in 2019: Healthy ageing, long-term care and retirement income.

HEALTHY AGEING

Dynamics of pain and impacts on functional limitations among middle-aged and older Indonesians

Pain is an increasingly common experience as people age, whereby persistent pain can affect physical function and quality of life. Yiengprugsawan, Piggot and Cumming investigated the impacts of persistent pain on health. Preliminary analyses revealed that persistent pain had adverse impacts on daily activities and physical performance, after adjusting for socioeconomic and health attributes. Early detection and management of avoidable persistent pain could mitigate functional limitations in later life.

Rural-urban migration and the health of elderly parents in China

Stafford, Hanewald and Zhang studied the effects of adult children's labour migration on the health of their elderly parents in rural China, using the 2011 and 2013 waves of the China Health and Retirement Longitudinal Study (CHARLS). Villages that received a higher number of urban sentdown youths during the Cultural Revolution had higher rates of migration back to urban areas in 2011–2013. Results show a positive effect of children's migration on their elderly parents'

> Results show a positive effect of children's migration on their elderly parents' health.



DR SISI YANG

MA CASS, PhD Macq. & CASS. SENIOR RESEARCH ASSOCIATE Sisi Yang is a CEPAR Senior Research Associate, located in the UNSW Business School. She joined the Centre in July 2018. She completed her master's degree in Demography at the Chinese Academy of Social Sciences (CASS), and received PhDs in Demography from Macquarie University and CASS in 2017.

Sisi's research interests focus on issues relating to ageing, wellbeing, migrant workers and employment, including subjective wellbeing of older adults, migrant workers' wellbeing, and health inequality, mainly based on data from large scale surveys, censuses and interview data.

Her current research examines the life satisfaction of older adults in China, permanent

settlement intentions of China's rural-urban migrants, informal care and wellbeing of caregivers and the related theoretical and policy implications of ageing and migration in China, Australian and the international context. Her research has been published in both national and international academic journals, including *Urban Studies, Urban and Environment Studies* and the *Chinese Journal of Population Science.* She has also co-authored reports and books on health and migration related issues, such as The Annual Report on Chinese International Migration. She has been a reviewer for several academic journals, such as *Urban Studies, China Economic Review,* and *Population, Space and Place.* health. Children's migration increases older parents' ability to perform activities of daily living (ADL) and increases their mental health scores.

Falls are a significant mortality risk indicator: Evidence from the China Health and Retirement Longitudinal Survey

Stanaway, Lu, Mingxu Yang and Cumming examined the impact of falls on transition to disability, mortality and healthy life expectancy in China, using the 2011 and 2013 waves of CHARLS. They found that about 20% of adults aged 60 years and over had fallen in the previous two years. Compared to non-fallers, those who fell were three times more likely to develop ADL disability in the following two-year period. The large impact of falls emphasised the importance of targeting falls prevention and falls research in China.

Life satisfaction of older adults: The role of health and health insurance

Sisi Yang and Hanewald studied the life satisfaction of older Chinese people in order to gain a deeper understanding of the health insurance system and its impacts on the wellbeing of older adults. They used data from the 2011, 2013 and 2015 waves of CHARLS and different statistical models to understand the impact of health insurance on the life satisfaction of older adults. With coverage of high-quality health insurance (e.g. government health insurance), older adults tend to be more satisfied with life, controlling for other potential confounding variables (e.g. health status, occupation, education) and demographic variables. The study provides an important evidence base for policymakers addressing the economic and social challenges arising from population ageing in China.

Internet use and cognition among middle-aged and older adults in China: A cross-lagged panel analysis

Yu and Fiebig examined the reciprocal relationship between Internet use and cognitive function over time among middle-aged and older populations in China. They used data from the first three waves of CHARLS, where participants provided information on Internet use and cognitive function measures at the baseline in 2011 as well as two follow-ups in 2013 and 2015. Cross-lagged panel models were fitted to test the reciprocal association over these four years. Middle-aged and older individuals with higher cognitive function were more likely to be regular Internet users. After controlling for the effects of cognition two years prior, Internet users tended to score higher on cognitive tests than nonusers. These findings survived across alternative subsamples and model specifications. The results suggest that cognitive decline in later life may explain the lower technology adoption rate among older individuals. Meanwhile, Internet use could serve as a protective factor against cognitive decline in mid-life and older adulthood.

> Internet use could serve as a protective factor against cognitive decline in mid-life and older adulthood.



DR DANDAN YU BEcon M Econ Peking, PhD UNSW RESEARCH FELLOW Dandan Yu is a CEPAR Research Fellow located in the UNSW Business School.

She has a PhD in Economics from UNSW. Her PhD thesis studies the sharing of resources within the family. Before starting her PhD, she obtained a Bachelor's and a Master's degree in Economics from Peking University. Dandan's main research interests lie in health decisions and social involvement in later life. She also has expertise in econometric modelling and STATA programming. Her current research focuses on health behaviours and social activities for seniors in China.

CEPAR ANNUAL REPORT 2019 • RESEARCH

LONG-TERM CARE

Household economic impacts of family caregiving: Longitudinal findings in Indonesia

Family care is a large part of an informal workforce and there is increasing demands in ageing populations. Yiengprugsawan, Piggott and Witoelar used the Indonesian Family Life Survey to investigate family care giving among households with at least one care recipient aged 50 years and over. Primary caregivers were most often daughters and sons followed by spouses. An increasing number of care recipients was associated with lower household economic status.

Long-term care insurance financing using home equity release: Evidence from an experimental study

Long-term care (LTC) insurance protects against future unexpected LTC costs. Ho, Bateman, Fang and Hanewald developed a new financial product which allows individuals to use their housing wealth to fund LTC insurance premiums. To ascertain the demand for this new product, they conducted and analysed an experimental online survey that focused on Chinese homeowners aged 45-64. This approach was shown to be a viable solution to both the LTC insurance and the reverse mortgage puzzles.

An experimental study of the demand for bundled longevity and health insurance products

Wan, Bateman, Fang and Hanewald conducted an online experimental survey to elicit and analyse preferences for bundled longevity and health insurance products in China. The study provides empirical evidence of the interaction between longevity and health insurance products, the impact of having access to hybrid annuity/critical illness/long-term care insurance products on the demand for longevity insurance, as well as insights about the preferences for product attributes.

Substitutional effect of long-term care to medical health expenditure

In China, most long-term care is provided by top and second tier hospitals, which are already overcrowded. Bei Lu, Feng, Yan and Hong studied the implementation of the Comprehensive Care Insurance for Disabled Elderly (CCIDE) which began as a pilot in Qingdao in 2006. Our findings suggest that from a cost perspective, overall, there is a reduction to costs. Given the reduction in costs and admission, this does indicate some level of success with the program.

RETIREMENT INCOME AND MORTALITY MODELLING

Public pensions and consumption: Evidence from China

Zheng, Lyu, Jia and Hanewald analysed the relationship between the pension system and working-age adults' consumption from two perspectives: the pension enrolment and the expected protection level of the pension system as measured by expected replacement rate, based on data from the China Health and Retirement Longitudinal Study (CHARLS). Their results indicate that the pension system can serve as the promoter of working-age adults' consumption only when working-age adults' expected protection level of the pension system is high enough.

> [The team] developed a new financial product which allows individuals to use their housing wealth to fund LTC insurance premiums.



DR VASOONTARA YIENGPRUGSAWAN

BA Thammasat University, MA Maxwell School of Syracuse University, PhD ANU

SENIOR RESEARCH FELLOW

Dr Yiengprugsawan is a CEPAR Senior Research Fellow at the UNSW Business School, UNSW Sydney.

Her research focuses on life course determinants of health and wellbeing, risk factors relating to non-communicable diseases and chronic care management, and the role of primary health care and universal health coverage in Asia.

Vasoontara has been affiliated with CEPAR since 2014 and is currently investigating health-wealth dynamics in later life and long-term care policy in emerging economies (including Indonesia, Thailand, and Vietnam).

She previously led analyses for over a decade of the Thai Cohort Study (2005-2014), held a fellowship from the World Health Organization's Asia-Pacific Observatory on Health Systems and Policies (2014-2016), and coordinated the Australian Research Council Discovery Project on ageing, health and productivity in China and Australia (2016-2019).

She has been collaborating on international ageing cohort studies, including the English Longitudinal Study of Ageing and the Pelotas Brazil Birth Cohort. Vas previously worked in policy and research at the United Nations International Organization for Migration and was awarded a PhD in 2009 from the Australian National University in epidemiology, economics, and population health.

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Coherent mortality modelling for China's provinces in a Bayesian framework

Qian Lu, Hanewald and Wang studied provincial mortality in China. Alternative modelling approaches generate differing results, suggesting that researchers should choose the forecast process carefully when modelling mortality in China.

Delay the pension age or reduce the pension benefit? Implications for labour force participation and individual welfare

The Chinese Government has announced plans to gradually increase the retirement age from between 50 to 60 to age 65. In this project, Hanewald, Deng, Fang and Wu developed a life cycle model of labour supply to quantify the predicted implications of this reform for labour force participation and individual welfare. The agents in the model are heterogeneous in skill and have different earnings profile, health dynamics, and out-of-pocket healthcare expenditures. They calibrated the model using data from CHARLS and the Chinese Longitudinal Healthy Longevity Survey (CLHLS). Using the calibrated model, they then performed policy simulations to investigate the impact of the policy change on labour force participation and consumption decisions and assess the welfare implications for the two skill groups. A key finding was that the planned reform creates incentives for both skill types to work longer but also reduces welfare, especially for low-skilled workers. Such results are relevant for other developing countries grappling with pension reform.

Independent fundraising initiatives for the Hub are already underway. A total of four Scientia PhD scholarships have been awarded to projects in the Hub over the last two rounds, with a total value of \$800,000, plus fee waivers. More initiatives are under review, and planned for 2020.

> A key finding was that the planned [pension] reform creates incentives for both skill types to work longer but also reduces welfare, especially for low-skilled workers.



MA PhD SUNY-SB SENIOR RESEARCH ASSOCIATE

DR YUANYUAN DENG

Yuanyuan Deng is a CEPAR Senior Research Associate, located in the UNSW Business School. She joined the Centre in July 2018 after working for two years as a Visiting Assistant Professor for the Singapore Management University School of Business.

She received an MA and PhD in Economics from the State University of New York-Stony Brook in the United States. During her PhD study, she received a grant from the Michigan Retirement Research Center and a Dissertation Fellowship from the Center for Retirement Research at Boston College. Her research encompasses the areas of public economics, health economics and social insurance. Her current research investigates the impact of delaying the public pension age on individual financial decisions using a life cycle model for two types of Chinese urban workers: high-skilled and low-skilled. She is also working on projects that analyse the effects of health insurance, working decisions and Medicare buy-in on individuals' Medicare enrolment decisions, as well as the effects on Medicare costs of work, delayed enrolment and buy-in.

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FEATURED HUB RESEARCHERS

OTHER INVESTIGATORS INVOLVED IN THE HUB IN 2019 INCLUDED:



DR KATJA HANEWALD

MSc Econ PhD Humboldt-Universität zu Berlin

Katja Hanewald is a Senior Lecturer in the UNSW School of Risk and Actuarial Studies. She is also a CEPAR Associate Investigator and the Director of Research of the Ageing Asia Research Hub.

Her research addresses risk management and insurance aspects of population ageing with a focus on China. Her current research investigates optimal retirement financial decisions of older households in China and the design of retirement financial products such as reverse mortgages, long-term care insurance, and annuities.

Katja held academic positions at Humboldt-Universität zu Berlin, Germany (2008-2010), and at the University of New South Wales (2011-2013) and worked at the German Federal Ministry of Finance (2013-2015). She obtained her doctoral degree in Economics from Humboldt-Universität zu Berlin in November 2010.



PROFESSOR JOHN BEARD

MBBS Adel., PhD USyd

John Beard is a Professor at CEPAR in the UNSW Business School. In this role, he shapes the development and growth of the Centre's research program, especially projects focused on Asia.

John Beard is a former Director of WHO's Department of Ageing and Life Course, a position he held from 2009 to 2018. During his time at WHO he was also the Director of the Department of Gender, Women and Health from 2010 to 2012. He was a lead writer and editor of the first WHO *World Report on Ageing and Health* (2015), and oversaw the development of the Global strategy and action plan on ageing and health, adopted by WHO Member States in May 2016.

In 2010, he launched the Global Network of Age-friendly Cities and Communities. John Beard works closely with the World Economic Forum and is a past chair of their Global Agenda Council on Ageing and a current member of the Global Council on the Future of Human Enhancement.



PROFESSOR HANMING FANG

BA Fudan, MA Virginia, PhD Pennsylvania

Hanming Fang is Class of 1965 Term Professor of Economics at the University of Pennsylvania and a Research Associate at the National Bureau of Economic Research, where he served as the Acting Director of the Chinese Economy Working Group from 2014-2016. He is also a Research Associate of the Population Aging Research Center, a Senior Fellow at the Leonard Davis Institute of Health Economics, and an Executive Committee Member of the Center for the Study of Contemporary China, all at the University of Pennsylvania. He is also a Senior Fellow of the Asian Bureau of Economic and Finance Research in Singapore, and a Research Fellow of the IZA in Germany.

He is an applied microeconomist with broad theoretical and empirical interests focusing on public economics. His current work focuses on issues related to insurance markets, particularly the interaction between health insurance reform and the labour market. He also studies the Chinese economy, particularly in relation to population ageing and social security.

He has been a co-editor for leading economics journals, including the *Journal of Public Economics* and the *International Economic Review*. He was elected as a Fellow of the Econometric Society in 2018.

Before joining the Penn faculty, he held positions at Yale University and Duke University.

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RESEARCH TRAINING AND MENTORING

THE CEPAR RESEARCH ENVIRONMENT IS UNIQUE GLOBALLY IN ENCOURAGING RESEARCHERS AT ALL CAREER STAGES TO DRAW ON DEEP KNOWLEDGE OF THEIR OWN DISCIPLINES WHILE ENGAGING WITH COLLEAGUES FROM DIFFERENT COGNATE BACKGROUNDS.

Our initiatives are aimed at developing researchers not only affiliated with CEPAR but also those affiliated with other national, and in some cases international, groups focused on the issue. In this way, we plan to continue playing a major role in national capacity building and networking, and to ensure impact in the longer term. We are continuing with our initiatives that were developed in the first term of funding as well as introducing new initiatives, reflecting our aim to continue to enhance the experience of researchers in our four targeted groups: mid-career (MCR), early career (ECR), PhD students, and undergraduates.

CEPAR ANNUAL WORKSHOP

CEPAR's all staff workshop provided an opportunity for our researchers and students to gain an in-depth understanding of the entire CEPAR research program, including progress-to-date and future research directions. Participants also had the opportunity to network with their peers as well as take part in a poster presentation session.

EARLY AND MID-CAREER RESEARCHER MENTORING AND TRAINING

ECRs and MCRs are mentored by CEPAR senior researchers and have opportunities to interact with experts within the five collaborating universities, as well as international leaders in the field who visit the Centre during the year. A range of events held throughout 2019 also provided frequent occasions to engage with our industry and government partners. Our ECRs and MCRs participate in Centre activities such as workshops and seminars, serve on CEPAR subcommittees and Stakeholder Reference Groups, contribute to the Centre's working paper series, and have opportunities to develop a range of skills.

CEPAR MENTORING SCHEME

The formal CEPAR Mentoring Scheme, launched in 2018, matches senior researchers with ECRs and MCRs to support the professional and personal growth of the mentees.

The program supports the development of leadership and relationship skills which mentees will require to go on to independently establish and manage large, complex multidisciplinary projects that are firmly engaged with national and international partners in academe, government and industry.

Mentees may use the scheme to seek advice on career and goal planning; work/life balance; the development of skills and leadership capabilities; publication or grant application strategies; or strategies for engaging with or translating research for stakeholders and/or the media. Networking or other opportunities may also be facilitated through the mentor's connections.

The Scheme also enhances connection and collaboration within and across nodes as well as with other institutions where our mentors are based. A survey of participants was conducted in 2019 to gain further insight into the program and its benefits as well as support the development of the program.



CEPAR PERSONNEL AT Q STATION SYDNEY FOR THE ALL STAFF WORKSHOP

RESEARCH TRAINING AND MENTORING

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FUTURE LEADERS IN AGEING PROGRAM

In 2019, CEPAR ran its inaugural Future Leaders Workshop at the Q Station, Manly. The program was developed by CIs Sharon Parker and Marian Baird with the facilitation of the program and its preceding activities and exercises carried out by Denise Weinreis, who specialises in coaching for leadership and teamwork. The program aims to develop the skills of CEPAR's mid-career researchers, providing them with experience and training to support the next steps in their careers. Eleven people participated in the program which ran for a day and a half with attendees commencing the activities several weeks prior to the workshop. One-on-one video conferences were established with the participants and Denise who discussed a project or identified an area or skill that the attendee wanted to work on. On the first day of the workshop, participants presented their projects to their peers for feedback. Before the workshop concluded, the participants were tasked with taking their newly developed skill into their workplace and followed up via video conference with Denise a month later to track their progress.

EARLY CAREER RESEARCHER METHODOLOGY WORKSHOP

A training workshop, 'Advanced Longitudinal Data Analysis in Ageing Research' was hosted by the CEPAR UNSW node in December 2019. Convened by CEPAR CI Kaarin Anstey and presented by Dr Andrew Kingston, a Chartered Statistician and a Research Fellow from Newcastle University's Institute for Ageing in the UK. The workshop explored why heterogeneity in health outcomes exist, to better understand the ageing process and how interventions can be deployed to increase healthy life expectancy. The workshop covered some statistical techniques that allowed the participants to quantify the impact of person-specific factors on competing health outcomes and how they impact healthy life expectancy, providing training in the use of data sets and statistical software.



ECR METHODOLOGY WORKSHOP PARTICIPANTS WITH WORKSHOP FACILITATOR ANDREW KINGSTON



MEGAN GU Research Fellow and ECR Methodology Workshop participant MACQUARIE UNIVERSITY

'The workshop offered an excellent opportunity for me to learn about advanced analytical techniques in ageing research and apply these to my own research areas. The workshop was well structured with a good mix of theory and practical application. The latter allowed us to put the theoretical techniques into practice using R. Andrew is an engaging presenter and very passionate about research and statistics which made the sessions very enjoyable'.

MEDIA AND COMMUNICATIONS TRAINING WORKSHOP

In August 2019, a one-day Media and Communications Training Workshop was jointly hosted in Sydney by the ARC Centres of Excellence for Climate Extremes (CLEX), Mathematical and Statistical Frontiers (ACEMS). Convergent Bio-Nano Science and Technology (CBNS), Quantum Computation and Communication Technology (CQC²T) and CEPAR. The workshop aimed to provide interested PhD students and Early Career Researchers, based at the five Centres, with skills to develop confidence during interviews with the media and communicating their research to a wider audience. The skills developed are also valuable in preparing for job interviews, fellowship applications, delivering presentations or writing articles.



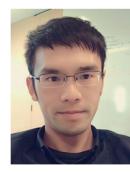
CEPAR PHD STUDENTS AND EARLY CAREER RESEARCHERS PARTICIPATING IN A MEDIA AND COMMUNICATIONS TRAINING WORKSHOP

NATIONAL AND INTERNATIONAL NETWORKING OPPORTUNITIES

Creating opportunities for young researchers to develop their international networks and communicate the results of their research to international peers continued to be an area that the Centre invested significant resources.

The Centre's visitors' program also provided students, ECRs and MCRs with opportunities to expand their international networks. This included international experts who were distinguished speakers at 2019 CEPAR or CEPAR-sponsored events such as the 27th Colloquium on Pensions and Retirement Research and the Longevity Risk Workshop. Many of the Centre's visitors spent extended periods of time at the Centre meeting with CEPAR personnel to discuss CEPAR research and the development of joint projects. For our junior researchers, this provided an excellent opportunity to exchange ideas and perspectives with a range of multidisciplinary experts in an informal setting.

Hosting visiting ECRs and PhD students from institutions with which CEPAR is building a collaborative research program, also expanded the networks of its young researchers and fostered the development of collaborative research relationships. As an example, Mingxu Yang visited the CEPAR UNSW Sydney node to work on a joint paper with Dr Bei Lu. The paper focused on the significant mortality risk indicators associated with falls using evidence from the China Health and Retirement Longitudinal Survey (CHARLS) in China. Yang visited CEPAR from the School of Public Management, South China Agricultural University from 1 July to 2 September to prepare the joint working paper.



MINGXU YANG Research Fellow and international visitor SOUTH CHINA AGRICULTURAL UNIVERSITY

'My two month visit to CEPAR as an Early Career Researcher was very valuable to my research. Before this visit I collaborated with Dr Bei Lu and published a paper about changes in morbidity prevalence and morbidity-free life expectancy of the elderly in China. We continued to collaborate on ageing and health related research papers during my stay.

I also made much progress in the field of multistate life-table models. Under the guidance of CEPAR Research Fellow Pengyu Wei, I worked on a working paper about healthy life expectancy for the Chinese elderly, with a focus on chronic diseases and morbidities for old age smokers. I plan to submit the paper in 2020.

In addition, I enjoyed interactions with other CEPAR personnel and visitors and established new networks with researchers in ageing'.

Five international PhD students from China were hosted by the UNSW CEPAR node in 2019. The students visited for extended periods of time to work with CEPAR Research Fellows and Chief Investigators on their PhD projects and the visits provided them with the opportunity to attend many of CEPAR's events and workshops during their stay.

International visiting PhD students in 2019 included:

Xuemeng Ding

University of International Business and Economics, China 1 September 2018 – 3 September 2019

Willem Eichelbroom

Erasmus University Medical Center, the Netherlands 22 July – 20 September 2019

Chen Fan

School of Economics and Management, Tsinghua University, China 3 September 2018 – 3 September 2019

Yu Crystal Fu

China Institute for Actuarial Science, Central University of Finance and Economics, Beijing, China 28 February – 20 September 2019 77

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RESEARCH TRAINING AND MENTORING

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Qian Lu

School of Statistics, Renmin University, China 21 January – 31 December 2019

Qiqi Wang

School of Statistics, Renmin University, China 22 August 2019 – 22 August 2020



QIAN LU Visiting PhD Student RENMIN UNIVERSITY

'I visited CEPAR at the UNSW Sydney node as a PhD student as part of the UNSW Study Abroad Research Practicum Program under the supervision of CEPAR Senior Research Fellow and Associate Investigator Katja Hanewald. The twelve-month visit allowed us to successfully complete our joint project "Bayesian hierarchical multi-population mortality modelling for China's provinces" and start a new project on the mortality of the oldest old in China's provinces in collaboration with CEPAR Associate Investigator Dr Andrés Villegas. CEPAR provided an ideal environment to do research and various opportunities to attend workshops, seminars, and conferences, which were very helpful to my work. It was a wonderful experience to work with the CEPAR research team and professional staff."

CEPAR students were also encouraged to present their research at international conferences and CEPAR provided funding to assist with travel expenses.



KOFI AWUVIRY-NEWTON PhD Student and

HDR Student Conference Travel Recipient UNIVERSITY OF NEWCASTLE

'Attending the 48th Canadian Annual Scientific Meeting Conference in Moncton in Canada would have been difficult without the funding support that was awarded to me under the CEPAR HDR Student Conference Travel Scheme. At the conference, I had the opportunity to present my paper, "Activities of Daily Living, Instrumental Activities of Daily Living, and Toileting Difficulties among Older Adults in Ghana: An Application of World Health Organisation International Classification of Functioning, Disability and Health (ICF) Framework". This conference provided me with the opportunity to expand my research collaboration networks and alerted me to exciting project topics which I could conduct in the future in the Ghanaian context. I really appreciate the support I received from CEPAR as it has given me the opportunity to take my academic research to the next level.

HIGHER DEGREE RESEARCH TRAINING

42 HDR students were enrolled under the supervision of CEPAR Investigators and working on topics aligned with the Centre's research agenda in 2019. Details of their research theses are provided on pages 81 – 83. These students have the opportunity to participate in a range of Centre activities, including conferences and workshops and meetings with international visitors.

The Centre contributes to the development of national research capacity more generally through support for Emerging Researchers in Ageing (ERA), an initiative which aims to bring together students interested in ageing research and provide them with opportunities to form networks and undertake collaborative endeavours. In 2019, ERA membership continued to grow, with over 900 registered members, primarily graduate students drawn from a wide range of disciplines but also key professionals, industry stakeholders and representatives from peak bodies in the ageing field keen to play a role in supporting emerging researchers.

ERA members have the opportunity to participate in the annual conference, as well as take advantage of other opportunities, for example, the ERA travel exchange scheme. With funding support from CEPAR, in 2019 ERA awarded one international exchange (Kristie Weir from the University of Sydney who will be travelling to the University of California, San Francisco and the University of Rochester Medical Centre) and two domestic exchanges (Kylie Crnek-Georgeson from the University of Sydney who will be undertaking an exchange at the University of New England and Jeanie Boon from Swinburne University who will be working with colleagues at the University of Tasmania). CEPAR's funding support also allows the ERA administrative team to coordinate educational and mentoring activities for research students in the ageing field. The key annual ERA activity is the ERA National Conference. In 2019 the conference, now in its 18th year, was hosted by CEPAR. The theme was 'Equity and Diversity', and featured keynote presentations from CI Marian Baird and Prof Renae Ryan, both from the University of Sydney. The conference featured 45 oral presentations and five poster presentations that addressed various aspects of ageing, including ageing in the community; cognitive health; diversity in dementia care; equity and diversity in ageing, finance and work: mental health: models of care: pharmaceutical care; physical activity and falls prevention; predicting health outcomes; service use and planning; and technology in ageing. ERA provided 16 bursaries to student presenters to support their attendance at the conference.



JANET MACCORA PhD Student and ERA Conference Participant UNSW SYDNEY

What I love about the ERA conference is that it enables researchers from very different fields to come together to share their common interest in ageing. Because of this shared interest and the fact that everyone is at a similar career stage, from the very beginning you feel like you're among friends, and by the end of the day, you really are. Everyone else is just as nervous as you are, tentatively presenting the work they have laboured over for months to a real live audience for the very first time. For that reason, you're pretty much guaranteed a warm reception for your own work and you get to extend that warmth to other researchers – it just feels like there is a whole lot of kindness in the room, a lovely thing to experience in academia. I also enjoyed CEPAR Chief Investigator Marian Baird's keynote encouraging emerging researchers to contribute and become part of the change in terms of gender statistics at universities'.

ERA participants had the opportunity to attend two post-conference workshops, focused on bringing researchers and the community together, and disseminating research to the community:

- 'Working with Diverse Populations in Ageing Research' – an interactive workshop providing an overview of working with diverse populations in ageing research, including aspects of the value of inclusive research, ethical issues, and practicalities. Presented by Dr Kylie Radford, Dr Louise Lavrencic, and Belinda Ducker from Neuroscience Research Australia (NeuRA), featuring guest presenters Dr Karen Croot from the Centre for Healthy Brain Ageing (CHeBA), UNSW Sydney, Zara Page from UNSW Sydney, and Prof Elizabeth Fernandez from the School of Social Sciences, UNSW Sydney, and facilitated by Dr Matthew Carroll from Monash University.
- *Knowledge Translation: Turning Research into Action'* – an interactive workshop providing participants with an understanding of the core principles of knowledge translation. Presented by Dr Lidan Zheng and Kim Burns from the Dementia Centre for Research Collaboration (DCRC), UNSW Sydney, and Dr Natasha Ginnivan from The Kirby Institute, UNSW Sydney, and facilitated by Jane Hwang also from UNSW Sydney.

RESEARCH TRAINING AND MENTORING

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This year's ERA-Australian Association of Gerontology (AAG) joint conference workshop focused on 'Career Pathways in Ageing', featuring A/Prof Marguerite Bramble from Charles Sturt University, Dr Diane Hosking from National Seniors Australia, and Sue McGrath from The Benevolent Society. They each spoke about their diverse career pathways, highlighting the challenges and opportunities of developing and maintaining a rewarding career in ageing. The session was well attended and generated strong discussion.

ERA also collaborated with the AAG to host a joint webinar on how to build a strong online presence and increase the visibility of participants and their research, presented by Penny Presta and Anne Young from Monash University, and facilitated by Saliu Balogan from the University of Tasmania and Dr Matthew Carroll from Monash University. This webinar provided participants with information about techniques to increase the visibility and reach of researchers and their research outputs, including the pros and cons of online social and academic networks, and 'altmetric' tracking. The session was very well attended with over 70 registered participants.

UNDERGRADUATE STUDENT ENGAGEMENT SUMMER SCHOLARSHIP PROGRAM

The CEPAR Summer Scholarship Program is now in its fourth year. The program provides successful applicants with the opportunity to work under the supervision of CEPAR Research Fellows for up to a six-week period over the summer break. The program generated a great deal of interest from undergraduate students in Economics, Psychology and Actuarial Studies who competed for five awards. The successful students and their research projects were:

Carina Stone and David Jinsong Wu

An examination of the effects of demographic changes on national savings and current accounts using a panel VAR model

Nora Ngoc Thao Nguyen Truong

Risky decision making among older adults with and without cognitive impairment

Raisa Islam

Expectations regarding ageing and cognition among older adults

Yao Xiao

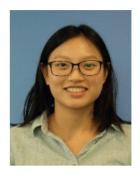
Life satisfaction of older Chinese: Understanding the regional variations

The program is designed to provide students with a taste of working in a research centre and inspire them to pursue research studies.



RAISA ISLAM BPsych (Hons) UNSW SYDNEY

'As a Summer Research Scholar, I was given the privilege of having my own project to work on, centring on healthcare outcomes for older individuals and how this might be influenced by age stereotypes. I was fortunate to work with research fellows who navigated me through my work. They were genuinely amazing mentors who were generous with their time and guidance. As a research scholar, I gained invaluable insight into research as a career and developed skills that will ease the transition into my PhD commencing 2020'.



NORA TRUONG BPsych/Law UNSW SYDNEY

The Summer Research Scholarship provided me with the unique opportunity to be part of a multidisciplinary project focusing on cognitive ageing and dementia. The CEPAR Research Fellows allowed me the freedom to explore and develop my own research questions while offering insightful feedback and guidance at every stage of the project. The six-week experience has broadened my understanding of collaborative research and sparked further interests in ageing research'.

CEPAR RESEARCH STUDENTS

CEPAR affiliated students work under the supervision of CEPAR Investigators on topics aligned with the Centre's research agenda. In 2019 a total of 42 PhD students and three Honours students were affiliated with the Centre.

HDR COMPLETIONS

This year four PhD CEPAR affiliates submitted their theses for examination and/or graduated:

RICHARD ARTHUR

Thesis: Supervisor: Advisors:	Is anxiety a risk factor in cognitive ageing? Professor Kaarin J. Anstey Dr Richard A. Burns, Dr Moyra E. Mortby and Professor Richard O'Kearney
MIJANUR RAHMAN	Modelling trajectories to aged care service use
Thesis:	among older Australian women
Supervisor:	Professor Julie Byles
Co-supervisor:	Associate Professor Liz Holliday
LYNDA WOODWARD	The experience of older men and women on falling, recovery
Thesis:	and participation in a long-term management program
Supervisor:	Professor Lindy Clemson
Co-supervisors:	A/Professors Cathie Sherrington and Karen Willis
DANDAN YU Thesis: Supervisor: Co-supervisor:	Three essays on household decision-making Professor Denzil Fiebig Professor Denise Doiron

PHD STUDENTS

In addition to those who submitted their PhD theses in 2019 the students listed below were also affiliated with CEPAR:

Md MUHAMMAD ABSOR

Thesis:	Inequality in later life in rural Indonesia: Why gender, ethnicity, region and social class matters
Supervisor:	Dr Iwu Utomo
Co-supervisors:	Professor Peter McDonald, Dr Arianne Utomo and Dr Brian Houle
TSENDSUREN BATSU	URI
Thesis:	Economic and carbon emissions implication of asymmetric global demographic transition
Supervisor:	Professor Warwick McKibbin

Dr Larry Liu

JACINTA BORILOVIC	Evaluating the use of technologies
Thesis:	to support older Australians to age in place
Supervisor:	A/Professor Kate OʻLoughlin
Co-supervisors:	Professor Lindy Clemson and Dr Meryl Lovarini
MENGXUE CHEN	Health inequalities in China with its rapid demographic
Thesis:	and socioeconomic changes
Supervisor:	Professor Zhongwei Zhao
Co-supervisors:	A/Professor Vladimir Canudas-Romo and Dr Adrian Hayes
JENNIFER CULPH Thesis:	Health organisations and innovation: The implementation of a community dementia care program
Supervisor:	Professor Lindy Clemson
Co-supervisors:	Dr Kate Laver and Dr Justin Scanlan
ARPITA DAS Thesis:	Nutrient intake and its effects on health outcomes and mortality among older men living in Australia: The Concord Health and Ageing in Men Project
Supervisor:	Dr Vasant Hirani
Co-supervisor:	Professor Robert Cumming
DANIEL DINALE Thesis:	Varieties of gendered capitalism:
Supervisor: Co-supervisor:	Understanding variations in cross-national patterns of female employment in post-industrial nations Professor Marian Baird Dr Chris F Wright
DOROTHY DUDLEY Thesis:	Understanding personal goals in retirement
Supervisor: Co-supervisors:	and their relationship with life satisfaction - An Australian perspective A/Professor Kate O'Loughlin Dr Vanessa Loh and Dr Sophie Lewis
NICOLE EE	The impact of social engagement on cognitive health
Thesis:	and wellbeing in older adulthood: An investigation of
Supervisor: Co-supervisors:	barriers, enablers and mechanisms Professor Kaarin Anstey Dr Ruth Peters and Dr Fiona Matthews
LISA GULESSERIAN Thesis:	'Uber daddies', Gig work, flexibility and workplace engagement across the lifecycle: A case study of work organisation and Uber drivers, experiencing fatherhood, job change and retirement
Supervisor:	Professor Marian Baird
Co-supervisor:	Dr Alex Veen

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Supervisor: Co-supervisor:

RESEARCH TRAINING AND MENTORING

TIN LONG HO			
Thesis:	Retirement financial planning: The role of housing and new retirement financial products		
Supervisors: Co-supervisor:	Professor Hazel Bateman and Dr Katja Hanewald Professor Hanming Fang		
ALIZA HUNT			
Thesis:	Ageing well in Indonesia: Meeting the mental health needs of elderly Indonesians		
Supervisors:	Professors Peter McDonald, Phil Batterham and		
Co-supervisor:	Zachary Steel Dr Steve McEachern		
HOÀNG THỊ NHẬT HƯ	YÈN		
Thesis:	Modelling Policy toward Ageing in Emerging Economies: Indonesia and beyond		
Supervisor: Co-supervisor:	Professor John Piggott Dr George Kudrna and A/Prof Isabella Dobrescu		
Thesis:	Attitudes to ageing: Factors contributing to		
	optimal mental health in older persons		
Supervisor:	A/Professor Kate O'Loughlin A/Professor Lynda Matthews		
Co-supervisor: Advisor:	A/Professor Adrian Hayes		
XIAOGUANG JIA			
Thesis:	An agent-based model of life course: Adaptive mating		
Supervisor:	process embedded in dynamic social networks Professor Zhongwei Zhao		
Co-supervisor:	Professor Heather Booth		
DOREEN KABUCHE			
Thesis:	Longevity risk: Retirement income product innovation		
Supervisors:	and risk management strategies Professor Michael Sherris and A/Professor Jonathan Ziveyi		
Co-supervisor:	Dr Andrés Villegas		
SALVATORY KESSY			
Thesis:	Longevity risk models and actuarial applications		
Supervisor:	with data analytics techniques Professor Michael Sherris		
Co-supervisors:	Dr Andrés Villegas and A/Professor Jonathan Ziveyi		
TRANG LE			
Thesis:	Modelling Policy toward Ageing in Emerging Economies:		
Supervisor:	Indonesia and beyond Professor John Piggott		
Co-supervisors:	Dr George Kudrna and A/Prof Loretti I. Dobrescu		

YULONG LI Thesis: Supervisors:	Health status, mortality heterogeneity and implications for post-retirement product innovation Professor Michael Sherris and A/Professor Jonathan Ziveyi
Co-supervisor:	Dr Andrés Villegas
JANET MACCORA Thesis:	Interrogating the association between education and older-age cognition
Supervisor: Co-supervisors:	Professor Kaarin J. Anstey Dr Ruth Peters and Professor John McCallum
MITCHELL MCMAST	ER
Thesis:	A randomised controlled trial of multidomain dementia risk reduction for cognitive decline (BBL-CD)
Supervisor: Co-supervisors:	Professor Kaarin J. Anstey Professor Linda Clare, Dr Sarang Kim and A/Professor Nicolas Cherbuin
KATE MILLEDGE	
Thesis:	Study of the inter-relationships between dietary intake, oral health, and frailty among older Australian men
Supervisor: Co-supervisors:	Dr Vasant Hirani Professor Robert Cumming and Dr Fiona O'Leary
CATHY MONRO Thesis: Supervisor:	The changing nature of aged care in Australia: A qualitative description study of the current aged care reforms and the experiences of residential aged care providers, their clients and families A/Professor Kate O'Loughlin
Co-supervisors:	A/Professor Lynette Mackenzie and Dr Sanetta Du Toit
KOFI AWUVIRY NEW	ITON
Thesis:	Older adults' functional engagements, caregivers lived experiences, and social workers role in the lives of older adults in Ghana
Supervisor: Co-supervisors:	Professor Julie Byles Dr Meredith Tavener, Dr Kylie Wales and Dr Paul Kowal
THI MINH HANG NGU	IYEN
Thesis:	Machine learning tools for nested simulations
Supervisor: Co-supervisors:	A/Professor Jonathan Ziveyi Dr Andrés Villegas and Professor Michael Sherris
PHITAWAT POONPOI	LKUL
Thesis:	Essays on demographic changes and macroeconomic implications
Supervisor: Co-supervisors:	Professor Warwick McKibbin Dr Larry Liu and Professor Renee McKibbin

MAATHUMAI RANJAN Thesis:	The impact of disability schemes on the outcomes
	of people living with a disability
Supervisors: Co-supervisor:	A/Professor Bernard Wong and Dr Katja Hanewald Professor Michael Sherris
JAMES MAHMUD RICE	
Thesis: Supervisor:	Extensions to the Australian National Transfer Accounts A/Professor Jeromey Temple
Co-supervisor:	Professor Peter McDonald
ABUL RIZVI	
Thesis: Supervisor:	Evolution of Australian immigration policy Professor Peter McDonald
Co-supervisor:	A/ Professor Jeromey Temple
DAVID RODGERS	
Thesis: Supervisor:	Demographic change and optimal policy responses Professor Alan Woodland
Co-supervisor:	Dr George Kudrna
DINBERU SHEBESHI	
Thesis:	Understanding the Australian Women Hospital use Dynamics in Later Life: The Australian Longitudinal Study
	on Women's Health
Supervisor:	Professor Julie Byles
Co-supervisor:	Dr Xenia Dolja-Gore
GEORGE SMYRNIS Thesis:	Essays on improving retirement engagement
Supervisor:	Professor Susan Thorp
MICHELLE TEW	
Thesis:	Advancing health economic evaluation methodologies for health policy design in vulnerable populations
Supervisor:	Professor Philip Clarke
MICHELLE KUNDAI VH	
Thesis:	Mortality and morbidity predictive modelling with socio-economic factors
Supervisors:	Professor Michael Sherris and Dr Andrés Villegas
Co-supervisor:	A/Professor Jonathan Ziveyi
CHENG WAN	The design of feathers all of the second backlike in some
Thesis:	The demand for bundled longevity and health insurance products in China
Supervisor:	Professor Hazel Bateman
Co-supervisors:	Dr Katja Hanewald and Professor Hanming Fang
DANIEL WHEADON Thesis:	Demographic change and optimal policy response
Supervisor:	Professor Alan Woodland
Co-supervisor:	Dr George Kudrna

BEFIKADU L. WUBISH			
Thesis:	Health care utilisation and health economics of diabetes among Australian women		
Supervisor:	Professor Julie Byles		
XIAO XU			
Thesis:	Variable annuity guarantee benefits - An integrated study of financial and actuarial valuations		
Supervisor:	Professor Michael Sherris		
Co-supervisors:	Professor Jennifer Alonso García and A/Professor Jonathan Ziveyi		
HONOURS STUDEN	TS		
In 2019 the followin	g Honours students were affiliated with CEPAR:		
In 2019 the following MICHELLE ROYTERS	g Honours students were affiliated with CEPAR:		
	Continuous time valuation framework of home equity		
MICHELLE ROYTERS	Continuous time valuation framework of home equity release products A/Professor Jonathan Ziveyi, Dr Andrés Villegas, Professor		
MICHELLE ROYTERS Thesis:	Continuous time valuation framework of home equity release products		
MICHELLE ROYTERS Thesis:	Continuous time valuation framework of home equity release products A/Professor Jonathan Ziveyi, Dr Andrés Villegas, Professor		
MICHELLE ROYTERS Thesis: Supervisors:	Continuous time valuation framework of home equity release products A/Professor Jonathan Ziveyi, Dr Andrés Villegas, Professor		
MICHELLE ROYTERS Thesis: Supervisors: LUKE ZHOU Thesis:	Continuous time valuation framework of home equity release products A/Professor Jonathan Ziveyi, Dr Andrés Villegas, Professor Michael Sherris and Dr Pengyu Wei A structured investigation of retirement income products Dr Héloïse Labit Hardy, Dr Andrés Villegas and A/Professor		
MICHELLE ROYTERS Thesis: Supervisors: LUKE ZHOU Thesis: Supervisors:	Continuous time valuation framework of home equity release products A/Professor Jonathan Ziveyi, Dr Andrés Villegas, Professor Michael Sherris and Dr Pengyu Wei A structured investigation of retirement income products Dr Héloïse Labit Hardy, Dr Andrés Villegas and A/Professor		

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EXTERNAL LINKAGES

Case study. Mortality by depresation in England

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CEPAR RESEARCHERS ANDRÉS VILLEGAS (THIRD FROM LEFT) AND INVITED SPEAKERS PARTICIPATING IN THE INTERNATIONAL PENSION RESEARCH ASSOCIATION (IPRA) CONFERENCE, CO-HOSTED BY CEPAR AT THE OECD HEADQUARTERS IN PARIS, FRANCE

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INDUSTRY & GOVERNMENT LINKS

IN 2019, CEPAR ORGANISED A WIDE RANGE OF EVENTS DESIGNED TO PROVIDE PLATFORMS FOR DISCUSSION BETWEEN RESEARCHERS, POLICYMAKERS AND INDUSTRY PRACTITIONERS.

EVENTS

WORKSHOPS ON DATA LINKAGE FOR AGEING RELATED RESEARCH

In 2019, CEPAR hosted two workshops on data linkage for ageing related research, led by CEPAR Chief Investigators Warwick McKibbin, Philip Clarke and John Piggott. The first workshop was held on April 10, 2019, at ANU in Canberra, in conjunction with ANU Crawford School's Centre for Applied Macroeconomic Analysis (CAMA) and Tax and Transfer Policy Institute (TTPI). This workshop aimed to bring together leading scholars, policymakers and data experts to explore how routinely collected data could be used to address policy-relevant questions, particularly related to population ageing research. The workshop was held under Chatham House Rule and over 75 delegates participated in an open discussion about ways in which Australian data could be used to enhance Australian policy-related ageing research.

Speakers comprised academics and public servants who are involved with data linkage or public policy, including David Gruen, then Department of the Prime Minister and Cabinet (now Australian Bureau of Statistics (ABS); David Kalisch (ABS); Tony Blakely and Ximena Camacho, (both University of Melbourne); Fiona Stanley, (University of Western Australia); Sally Pearson, (UNSW Sydney); Robert Breunig, (ANU); Anne Kelso, (National Health and Medical Research Council);



THE FORMER PRIME MINISTER OF NEW ZEALAND, SIR WILLIAM ENGLISH, BROUGHT AN INTERNATIONAL PERSPECTIVE TO THE WORKSHOP ON DATA LINKAGE FOR AGEING RELATED RESEARCH.

as well as CEPAR Chief Investigators Warwick McKibbin (ANU), Philip Clarke (University of Melbourne), and Kaarin Anstey (UNSW Sydney).

The former Prime Minister of New Zealand, Sir William English, brought an international perspective by presenting the New Zealand experience.

Following the workshop, Warwick McKibbin and workshop co-chair Robert Breunig, Director of TTPI, published an opinion piece in the Australian Financial Review explaining how greater use of administrative data could 'dramatically and rapidly deepen our understanding of issues and of what and how policies are working'. In recognition of the importance of this topic, CEPAR, in collaboration with the Department of Health, co-convened a second workshop on data linkage on December 6, 2019. Over 40 delegates from the Department of Health participated, as well as representatives from the Australian Institute of Health and Welfare (AIHW) and the NHMRC. The workshop provided an opportunity to highlight examples of recent data linkage work undertaken by CEPAR and to discuss future research possibilities and links.

Speakers comprised CEPAR Chief Investigator Philip Clarke and CEPAR researchers Josh Knight, An Duy Tran (both University of Melbourne), Kim Kiely (UNSW Sydney), as well as academics Ximena Camacho, Nicholas Biddle, and Tony Blakely (all University of Melbourne). CEPAR ANNUAL REPORT 2019 · INDUSTRY & GOVERNMENT LINKS



INDUSTRY & GOVERNMENT LINKS

POLICY DIALOGUE ON HOUSING AND AGEING

On November 18, CEPAR and Chief Investigator Warwick McKibbin's Centre for Applied Macroeconomic Analysis (CAMA) in the ANU Crawford School of Public Policy co-hosted the Housing and Ageing Policy Dialogue. More than 100 leading Australian and international experts including policymakers, researchers and commentators participated in the Dialogue to consider current and future challenges for this important policy area. The Dialogue was timed to coincide with the release of CEPAR's latest research brief – Housing in an ageing Australia: Nest and nest egg? (See page 118.)

The Dialogue began with presentations by CEPAR Director John Piggott and CEPAR research brief lead author Rafal Chomik, covering salient features of the current Australian housing market with an ageing demographic. The presentations were followed by comments from University of Sydney Professor Judith Yates and Dr John Simon from the Reserve Bank of Australia.

Professor Hans Fehr, CEPAR Associate Investigator and Professor of Economics at the University of Wuerzburg, Germany, and Christine Whitehead, Professor at the London School of Economics, UK, discussed international developments and explored ideas for reform coming out of Europe. They were joined on stage by commentators Brenton Philp from the Department of Social Services, and Luke Maguire from NSW Treasury.

CEPAR Advisory Board Chair Marc de Cure led a session focused on housing transitions in light of population ageing and its challenges, featuring presentations by Curtin University's Professor Rachel Ong ViforJ and CEPAR Chief Investigators Peter McDonald and Marian Baird. Zac Hatzantonis from PwC provided additional perspectives.

The Dialogue concluded with a panel session focused on issues and responses for policy development and implementation, chaired by CEPAR Chief Investigator Warwick McKibbin. The panel comprised CEPAR Associate Investigator Professor Julie Byles, who is based at the University of Newcastle, CEPAR Chief Investigator Michael Sherris, and CEPAR Advisory Board member and COTA Australia CEO Ian Yates.

27 TH COLLOQUIUM ON PENSIONS AND RETIREMENT RESEARCH

The Colloquium, convened by CI Hazel Bateman and co-hosted by CEPAR and the School of Risk and Actuarial Studies in the UNSW Business School, is a unique annual event, bringing together academics and government and industry representatives to discuss the latest research on pensions, superannuation and retirement.

In 2019, the Colloquium took place on 2-3 December at UNSW Sydney with over 120 participants and included a range of presentations about new developments in pensions and retirement.

Especially topical was a Panel focused on the Government's Retirement Income Review. The Panel was chaired by CEPAR Advisory Board Chair Marc de Cure, and Review Commissioner Deborah Ralston joined as one of the panellists, along with Geoff Lloyd, CEO at MLC Wealth; Robbie Campo, Group Executive Brand, Advocacy, Marketing and Product at Cbus Super Fund; and CEPAR Advisory Board member and COTA Australia CEO Ian Yates.

Plenary sessions featured talks by CEPAR Associate Investigators Ermanno Pitacco (University of Trieste, Italy) on 'Health-linked Life Annuities: Combining Protection and Retirement Income'; Erik Hernæs (Frisch Centre of Economic Research, Norway) on 'Program Substitution – Old Age Pension or Disability Benefit'; and Susan Thorp (The University of Sydney) on 'Defaults, Disclosures, Advice and Calculators: One size does not fit all'.

Twelve additional CEPAR personnel presented their research findings on retirement systems, incomes and products; investments; health and aged care; as well as behaviour and engagement.

JOHN SIMON (RBA), JOHN PIGGOTT (CEPAR), RAFAL CHOMIK (CEPAR) AND JUDITH YATES (UNIVERSITY OF SYDNEY) PARTICIPATING IN AN AUDIENCE QSA AT THE POLICY DIALOGUE





DEBORAH RALSTON (MONASH UNIVERSITY), GEOFF LLOYD (MLC WEALTH), ROBBIE CAMPO (CBUS SUPER FUND) AND IAN YATES AM (COTA) PARTICIPATING IN A PANEL AT THE COLLOQUIUM, CHAIRED BY CEPAR ADVISORY BOARD CHAIR MARC DE CURE

CAMA-CEPAR-TREASURY WORKSHOP

Over 90 delegates participated in the CAMA– CEPAR–Treasury Workshop convened by Chief Investigator Warwick McKibbin at ANU in Canberra on 26 and 27 August. The theme was *Global Implications of Population Ageing*.

Presenters comprised CEPAR Chief Investigators Peter McDonald, Warwick McKibbin and John Piggott, as well as CEPAR Senior Research Fellows George Kudrna and Rafal Chomik and Research Fellow Larry Liu. They presented CEPAR research on demographics; ageing and technology; economic wealth and international equity; ageing and social protection; and macroeconomic effects from demographic trends.

The workshop also featured presentations by international experts Kent Smetters (Wharton School, University of Pennsylvania), Sarah Harper

CBE (University of Oxford), Jong-Wha Lee (Korea University, CAMA and CEPAR), Anna Shabunina (International Monetary Fund), Wing Thye Woo (University of California, Davis) and Australianbased researchers Ligang Song (ANU) and Bruce Bradbury (UNSW Sydney).

MATURE WORKERS IN ORGANISATIONS STAKEHOLDER WORKSHOPS

Two events in April and July 2019 brought together representatives from industry, not-for-profits and government organisations to introduce CEPAR's research focused on *Organisations and the Mature Workforce*.

At separate events in Sydney and Perth, Chief Investigators Sharon Parker and Marian Baird as well as CEPAR researchers Daniela Andrei (Curtin University) and Andreea Constantin (University of Sydney) presented practical insights into the



CEPAR RESEARCHERS SHARON PARKER AND DANIELA ANDREI PRESENTED AT THE MATURE WORKERS IN ORGANISATIONS STAKEHOLDER WORKSHOP AT CURTIN UNIVERSITY IN APRIL 2019

challenges associated with an increasingly mature workforce. Delegates were also introduced to opportunities for future collaborations, including tailored policy reviews, data collection, analysis, feedback, and intervention support.

Mature workers' use of technology, creativity, work design, and age diversity were some of the topics discussed, both in relation to the challenges currently faced by organisations as well as the positives that workforce diversity can bring.

At the Sydney event in July 2019, the researchers were also able to share some preliminary results from their national benchmark survey on mature aged workers. The final report and research results were released in December 2019. [See page 120.]



INDUSTRY & GOVERNMENT LINKS

CEPAR ANNUAL REPORT 2019 · INDUSTRY & GOVERNMENT LINKS

RETIREMENT INCOMES ROUNDTABLE

In 2019, CEPAR hosted the second of its roundtables - moderated by CEPAR Advisory Board Chair Marc de Cure - on 29 April. The theme was retirement incomes and featured presentations from Chief Investigators Alan Woodland, Hazel Bateman and Michael Sherris and Senior Research Fellows George Kudrna and Rafal Chomik. Representatives from Treasury, Reserve Bank of Australia, COTA, NSW Treasury, Willis Towers Watson, MLC Wealth, Department of Social Services, PM&C and PwC participated in a discussion designed to identify issues of particular concern to government and industry, knowledge gaps and possible future research directions.

LONGEVITY RISK WORKSHOP

The Longevity Risk Workshop was convened by CEPAR Chief Investigator Michael Sherris on 27 November and was held in conjunction with the 27th Colloquium on Pensions and Retirement Research at UNSW Sydney.

The workshop covered the latest developments in longevity risk for early career researchers and practitioners. International visitor Runhuan Feng. Associate Professor of Mathematics and Director of Actuarial Science at the University of Illinois at Urbana-Champaign, USA, delivered a talk on 'Fundamentals of the variable annuity market, product designs and latest technical developments'. The workshop also featured presentations by CEPAR Chief Investigator Michael Sherris, CEPAR Associate Investigators Ermanno Pitacco (University of Trieste, Italy), Andrés Villegas and Jonathan Ziveyi (both UNSW Sydney). They covered frailty models and mortality heterogeneity, data analytics techniques applied to mortality, continuous time mortality models designed for practical application, developments in variable annuities and computational techniques, as well as hedging longevity risk with value-based longevity indices.



JOHN PIGGOTT DELIVERING A KEYNOTE ADDRESS AT THE INTERNATIONAL ORGANISATION OF PENSION SUPERVISORS CONFERENCE IN NEW DELHI, INDIA, IN MARCH 2019

INFLUENCING POLICY AND PRACTICE

In addition to participating in CEPAR outreach events, CEPAR personnel contributed to the development of government policy and business and community practice in a number of ways in 2019.

Highlights included presentations by CI Kaarin Anstey to the World Health Organisation Meeting on the Burden of Dementia on assessing dementia risk factors and to the United States Transport Research Bureau Workshop on evidence for interventions as well as policy variation within Australia. She was also invited to join the Advisory Board for 'Stay Sharp', the American Association of Retired Persons (AARP) Brain Health Platform, and the National Steering Committee for the Australian Dementia Network.

CI Marian Baird presented on work life concerns for mature workers to a number of groups including Sydney Trains, Carers NSW and CEDA. She also delivered the keynote address to the International Labour Organisation's Conference celebrating the 100th Anniversary of Maternity Protection, where she discussed the transformative effects of parental leave in Australia and South east Asia; and discussed strategies for increasing female labour force participation at the Malaysia-Australia Gender Policy Dialogue in Kuala Lumpur.

CI Hazel Bateman participated in a forum conducted by the International Centre for Pension Management - a global, research-based network of pension organisations that stimulates leading-edge thinking and practice about pension design and management - and was a keynote speaker at the Defined Contribution Institutional Investor Association Forum in New York.

CI Michael Keane met with representatives of the Commonwealth Treasury providing expert advice on improving their life cycle models used to evaluate tax/transfer policy.



CEPAR RESEARCHERS KAARIN ANSTEY, JOHN PIGGOTT, CRAIG SINCLAIR AND BEI LU HOSTED A MALAYSIAN ACADEMIC AND GOVERNMENT DELEGATION

CI Peter McDonald presented to the Commonwealth Treasury on fertility trends, the Department of Social Services on Australian tax policy and the Urban Task Force on Australian population policy. Internationally he met with the Special Advisor to the Japanese Prime Minister and delivered a keynote presentation to the Indonesian Ministry of Finance on Demography and Economic Development in Indonesia.

CI Warwick McKibbin met with the Treasurer Josh Frydenberg to discuss policy related to macroeconomics, demographics and climate change. In addition, he met with several members of the US Federal Board of Governors to discuss CEPAR's demographic modelling.

CI Sharon Parker presented to a number of groups on the future of work including the Petroleum Women's Network; the Justice and Community Safety Directorate; and Transport Canberra and City Services (TCCS) in Canberra. Additionally, she presented on generational diversity and mature workers at the GHD Global Diversity & Inclusion Council Meeting.

CI John Piggott co-chaired the T20 Aging Population and its Economic Impact + Immigration Taskforce which included participating in its Global Solutions Summit in Berlin. He was also appointed a member of the US National Academy of Medicine's International Commission on Creating a Global Roadmap for Healthy Longevity, along with CEPAR's John Beard and fifteen other thought leaders, from both the public and private sectors. In New Delhi, he delivered the keynote address to the International Organisation of Pension Supervisors Conference on 'Options for Creating Sustainable Pension Systems' in Emerging Markets in March, and later in the year in Washington he presented on social protection and pension policies to the US National Academy of Medicine.

Senior Research Fellow George Kudrna provided valuable advice to the Australian Treasury (Macroeconomic Group) both as a member of the steering committee overseeing the development of their OLG model and as a technical advisor on the modelling.

Research Fellow Craig Sinclair and A/Professor Jeromey Temple were invited to provide evidence to the Royal Commission on Quality and Safety in Aged Care: Temple on the aged care workforce; and Sinclair on the role of advance care planning and supported decision making. In addition, the Royal Commission released a background paper on Advance Care Planning in Australia, which cites research evidence by Sinclair. Sinclair was also invited to join the National Institute of Dementia Research (NNIDR) Consumer Involvement Program Reference Group.

Kaarin Anstey, John Piggott, Craig Sinclair and Bei Lu presented CEPAR work to a Malaysian academic and government delegation who were visiting Australia to understand more about Australian models of long-term care.

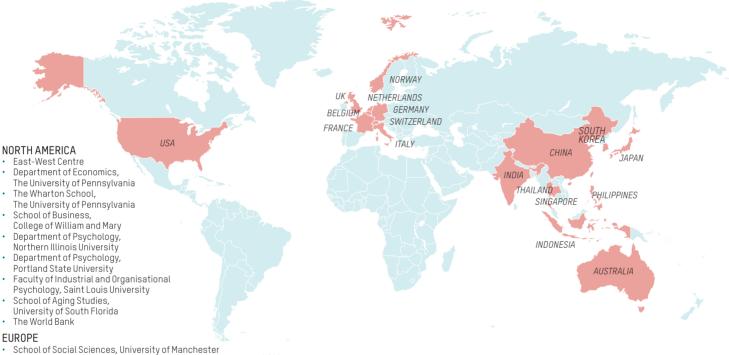
Complete details of contributions in 2019 are listed on pages 128 to 131.

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NATIONAL & INTERNATIONAL LINKS

CEPAR'S CONNECTIONS WITH SPECIALIST GROUPS AND NETWORKS, BOTH NATIONALLY AND INTERNATIONALLY, ARE EXTENSIVE.



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- CESifo
- CPB Netherlands Bureau for Economic Policy Analysis .
- School of Business, Durham University .
- Dutch Central Bank .
- . Netspar
- Institute for Ageing, Newcastle University
- Organisation for Economic Co-operation and Development
- Ragnar Frisch Centre for Economic Research
- Department of Mathematics, Université Libre de Bruxelles
- Institute of Psychology, University of Bern
- Institute of Psychology, University of Duisburg-Essen School of Mathematics, Statistics and Actuarial Sciences, University of Kent
- Department of Psychology, University of Leipzig Health Economics Research Centre, University of Oxford
- Department of Economics, University of Parma
- Department of Economics, University of St. Gallen
- Department of Human Resources Studies, Tilburg University
- Faculty of Economics, University of Trieste
- Management Group, WHU Otto Beisheim School of Management
- Department of Economics, Wuerzburg University

ASIA

- Asian Development Bank
- Asia-Pacific Economic Cooperation
- Brookings-Tsinghua Centre for Public Policy
- Chinese Academy of Social Sciences
- Centre for Employment and Social Security, Fudan University
- Indonesian National Population and Family Planning Board
- Keio University
- Korea Development Institute
- Asiatic Research Institute, Korea University
- National Institute of Public Finance and Policy, New Delhi Institute of Population and Research and Centre for
- Ageing and Health Services, Peking University
- School of Entrepreneurship and Management, ShanghaiTech University
- Department of Labor and Social Security, South China Agriculture University
- Statistics Indonesia
- United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP)
- College of Public Administration, Zhejiang University

AUSTRALIA

- The University of New South Wales
- Australian National University
- Curtin University
- The University of Melbourne
- The University of Sydney
- Department of Psychology, Macquarie University
- National Seniors Australia
- Emerging Researchers in Ageing Initiative, Monash University
- Research Centre for Generational Health and Ageing, The University of Newcastle, Australia
- Economics Discipline Group,
- The University of Technology Sydney

CEPAR ANNUAL REPORT 2019 NATIONAL & INTERNATIONAL LINKS

THROUGHOUT 2019, CEPAR EMPLOYED A NUMBER OF STRATEGIES TO FORGE AND STRENGTHEN BOTH NATIONAL AND INTERNATIONAL LINKS. THESE INCLUDED JOINT PROJECTS AND INITIATIVES AS WELL AS INTERNATIONAL VISITS. THE ESTABLISHMENT OF THE INTERNATIONAL PENSION RESEARCH ASSOCIATION WITH CEPAR CI HAZEL BATEMAN AS INAUGURAL PRESIDENT AND CEPAR INVOLVEMENT IN THE ORGANISATION OF A NUMBER OF SPECIALISED CONFERENCES ATTRACTING INTERNATIONAL LEADERS IN THE FIELD DEMONSTRATES THE CENTRE'S GROWING INTERNATIONAL PROFILE.

NATIONAL LINKAGES

Our Chief Investigators and Australian-based Associate Investigators (AIs) connect us with premier research groups around the country and our national outreach and engagement programs are designed to provide opportunities for all researchers focused on the issue of population ageing to come together to share research findings.

Our CEPAR Affiliates Scheme aims to widen CEPAR's reach by providing a mechanism for researchers not eligible to become Als to engage with CEPAR. In particular, it provides a way for researchers based in industry and government to connect with the Centre.

A number of initiatives and events in 2019 served to strengthen our links with key researchers and research groups nationally as well as provide opportunities for emerging researchers to come together. The Annual Colloquium on Pensions and Retirement Research, the Workshop on Data Linkage for Ageing Research, the Policy Dialogue on Housing and Ageing and the Workshop on the Global Economic Implications of Population Ageing attracted participants from a range of Australian and international universities as well as government, industry and the wider community (see pages 85 to 87 for further details).

CEPAR's Workshop on Understanding and Overcoming Confusion in Consumer Financial Decision Making served to bring researchers from around the nation together to share research on this important topic. The workshop, held in Sydney on 5-6 September, attracted delegates from UNSW, the University of Sydney, the University of Technology Sydney, Western Sydney University, Queensland University of Technology, the Australian National University, La Trobe University and the University of Western Australia as well as the College of William and Mary in the US. Demonstrating the importance of this topic to our stakeholders, the workshop also included representatives from Super Consumers Australia, Colonial First State, ASIC and Capacity Australia. The workshop featured 10 presentations organised under five research themes: the underpinnings of learning and confusion; market and consumer factors that contribute to confusion in financial decision making; models to measure confusion and its impact on consumer decision making; evidence-based ways to overcome confusion and its effects on financial decision making; and facilitating decision making in the fintech era.

The Pension and Superannuation Seminar Series, jointly hosted by CEPAR and the School of Risk and Actuarial Studies at UNSW Sydney, attracted participants from a variety of national and international universities in 2019, including the CEPAR nodes as well as Macquarie University, the University of Technology Sydney, Philipps University of Marburg, SGH Warsaw School of Economics, the University of Le Mans and Peking University. Industry representatives also participated in the fortnightly seminars.

INTERNATIONAL LINKAGES

Our Partner and Associate Investigators provide exceptional opportunities for CEPAR to engage with leading international groups. Our strong links with specialist groups working on a range of issues pertinent to the challenges of population ageing provide the foundation for joint workshops, grant applications to fund collaborative research programs, and other initiatives.

In 2019 our expertise in long-term care was sought by the Malaysian Government, which sent a delegation from multiple government departments to meet with CEPAR researchers working in the field. Their aim was to build a knowledge base for the development of longterm care policy in Malaysia. During their

NATIONAL & INTERNATIONAL LINKS

fact-finding mission, they heard from CEPAR specialists John Piggott, Kaarin Anstey, Craig Sinclair and Bei Lu who presented findings from their latest research. Conversation was animated with both sides seeing value in future research collaboration.

Regionally, we remain strongly committed to expanding our linkages. In 2019 CEPAR established the Ageing Asia Research Hub to expand the work previously undertaken by the Australia-China Population Ageing Research Hub and to build connection between the UNSW Sydney node of CEPAR and leading research institutions in Asia. The Hub's research and linkage programs are partially supported by a large grant from the UNSW Business School.

To support the expanding research program, John Beard, the former director of the World Health Organization's Department of Ageing and Life Course, has been appointed to a fractional professorial fellowship within the Hub and we have also been successful in securing four new Scientia PhD scholars. Two of these commenced in 2019 on projects focused on Indonesia; the other two will commence in 2020 and focus on population ageing in China. In addition, a potential collaboration with the World Bank and the Indonesian Ministry of Development Planning, Bappenas, focused on policy modelling for ageing in emerging economies, formed the basis for an ARC Linkage Grant application in 2019.

Several CEPAR researchers were involved in the organisation of the first Mt Hood Challenge Conference held in Asia which served to promote the use of health economics and diabetes simulation models across the Asian region as well as highlight CEPAR's expertise in this field. In addition, our membership of the Steering Group of the Association of Pacific Rim Universities (APRU) Population Ageing Research Hub strongly positions us to lead regional collaborative initiatives in ageing research.

LEADERSHIP OF INTERNATIONAL ASSOCIATIONS AND HUBS THE INTERNATIONAL PENSION RESEARCH ASSOCIATION (IPRA)

In July, the OECD formally announced the establishment of the International Pension Research Association (IPRA) with CEPAR Chief Investigator Hazel Bateman as its inaugural President.

The association has as its mission the promotion and advancement of high-quality social science research on pensions, ageing, and retirement. With the OECD serving as the Secretariat, IPRA aims to organise a global annual research meeting; disseminate research through working papers, journals, and other media; elect IPRA Fellows in recognition of their contributions to the field; support and facilitate the development of junior researchers; develop a website highlighting resources in the area as well as social networks; and seek to develop affiliations with organisations, including policy groups, interested in pension research.

The inaugural Executive Board includes founding members and leading economists, CEPAR Associate Investigator Professor Monika Bütler of the University of St. Gallen and the Network for Studies on Pensions, Aging, and Retirement (Netspar); CEPAR Partner Investigator Professor Olivia S. Mitchell, Director of the Pension Research Council at the Wharton School of the University of Pennsylvania; Scientia Professor John Piggott, Director of CEPAR; and Dr Michael Orszag, Head of Research at Willis Towers Watson, a CEPAR Partner Organisation.

Australia @ OECD 🥑

At @OECD today attending the International Pension Research Association Conference, together with @Treasury_AU & @APRAinfo officials. Great speakers on pension schemes, including presentation by @CEPAR_research & @UNSW's @amvillegasr. bit.ly/2KnmXfs



OVER 160 PARTICIPANTS FROM ACROSS THE GLOBE PARTICIPATED IN THE IPRA CONFERENCE, INCLUDING THE AUSTRALIAN AMBASSADOR TO THE OECD, DR ALEXANDER ROBSON WHO TWEETED THIS IMAGE

The Association takes over the annual global meeting previously organised by the International Network for Pensions, Aging and Retirement Research (INPARR) which was spearheaded by the four founding members of IPRA. In 2019 the event took place on June 5 at the OECD Headquarters in Paris, with over 160 participants from across the globe coming together to hear from pension experts and explore the theme of 'Developments in Pensions'.

2019 speakers included: Steven Haberman (Cass Business School, City, University of London), Michel Vellekoop (University of Amsterdam) and Andrés Villegas (CEPAR), on the Implications of Morbidity and Mortality Forecasts for Pension Programs; Sita Slavov (George Mason University, National Bureau of Economic Research), Jeremias Prassl (Institute of European and Comparative Law, Oxford) and Albert Park (Institute for Emerging Market Studies, Hong Kong University of Science and Technology) on Non-standard Work Arrangements and Retirement Income; and Sarah Brooks (Ohio State University), Marc de Cure (CEPAR and UNSW Business School) and Aleksandar Andonov (University of Amsterdam) on Clean Pensions: Factors Impeding Effective Delivery of Retirement Income.

The keynote address, 'Global Opportunities for Retirement Plan Innovation', was delivered by Robert C. Pozen from the MIT Sloan School of Management and the Brookings Institution.

THE APRU POPULATION AGEING RESEARCH HUB

Launched in 2015 at UNSW Sydney, The Association of Pacific Rim Universities' (APRU) Population Ageing Research Hub brings together world-class researchers from different disciplines and provides opportunities for increased research collaboration on the topic of population ageing in the region.

Hosted by CEPAR/UNSW Sydney for the period 2015 -2017, with John Piggott acting as Chair and CIs McDonald and Cumming serving as two of ten members on the Steering Group, the Hub has been a key component of CEPAR's international linkages strategy.

From 2018 the Hub has been hosted by Keio University in Japan with Professor Atsushi Seike taking over the duties of Steering Group Chair. CEPAR remains actively involved in the Hub with CIs Piggott, Cumming and McDonald all remaining on the Steering Group. APRU remains an important conduit to connection in the region with John Piggott representing CEPAR at the 2019 annual conference held in Tokyo.

AGEING ASIA RESEARCH HUB

Driving our engagement with Asia is CEPAR's Ageing Asia Research Hub which builds on the research program and connections established by CEPAR's former Australia-China Population Ageing Research Hub.

The Hub pursues a multidisciplinary research program in three key areas which will deliver new insights into priority reform areas, and the policy strategies to best suit the changing economic and demographic structure. The research topics addressed by the Hub include: healthy ageing, resources in retirement, and long-term care needs and services.

Led by John Piggott as the Hub's Director and Drs Katja Hanewald and Bei Lu as Directors of Research and Outreach respectively, the Hub also comprises six research fellows/senior research associates and four PhD students. Two professorial fellows, John Beard and Hanming Fang, shape the development and growth of the Hub's research program and facilitate linkages with high quality organisations in the region.

5th Annual Workshop on Population Ageing and the Chinese Economy

The Australia-China Population Ageing Research Hub at CEPAR hosted its 5th Annual Workshop on Population Ageing and the Chinese Economy at UNSW in July.

The workshop focused on the economic health implications of population ageing in China. Hanming Fang delivered the keynote address on 'Property Rights and the Housing Market' and a range of papers prepared by Australian and Chinese researchers were delivered under the key themes of Wellbeing; Policies and Inequality; and Long-term Care.

The annual workshop plays an important role in bringing together Australian and Chinese academics to share research findings, identify future research directions, and contribute to the policy debate in China.

THOUGHT LEADERSHIP

CEPAR had a major involvement in the organisation of three international events in 2019.

ECONOMICS OF AGEING WORKSHOP

In 2018 CEPAR was approached by the Next World Program to co-host the 2019 Economics of Ageing Workshop and provide guest editors for a special issue of the *Journal of the Economics of Ageing*.



Three fruitful days of meetings on economics of aging @CEPAR_research. My team presented three papers on social security expansion, pension choices, and life course health. Great discussants with Insightful comments. Will address them for final publication in the special issue



YALE PROFESSOR XI CHEN WAS ONE OF THE PARTICIPANTS TO PRESENT AT THE CEPAR HOSTED WORKSHOP ON ECONOMICS OF AGEING AND PUBLISHED THIS TWEET

The Next World Program is a joint initiative of Harvard University's Program on the Global Demography of Aging, the WDA Forum, Stanford University's Asia Health Policy Program and Fudan University's Comparative Aging Societies. These institutions organise an annual workshop and a special issue in the *Journal of the Economics of*



NATIONAL & INTERNATIONAL LINKS

Ageing on an important economic theme related to ageing societies.

Focused on the theme of 'Resources in Retirement', the workshop, held at UNSW on 24-25 June, featured keynote presentations from CEPAR's Michael Keane and UCLA's Kathleen McGarry; and a special lecture by CEPAR's Peter McDonald. The workshop covered a wide range of topics and included presentations on retirement savings and real estate purchases, long-term care, the influence of retirement on health, and the role of childhood circumstances on health inequalities in later life, among others. Work presented featured findings from research using data from Australia, China, Finland, Germany, Korea, Singapore, Switzerland and Thailand.

The special issue of the *Journal of the Economics* of Ageing, to be published in 2020, will be edited by CEPAR CIs Keane, Piggott and Woodland and Associate Investigator Dobrescu and feature papers presented at the workshop.

EAST-WEST CENTRE/KOREA DEVELOPMENT INSTITUTE CONFERENCE ON POPULATION AGING AND SUSTAINABLE GROWTH

CEPAR's John Piggott was invited to identify high profile speakers for this 2019 event and co-edit a special volume, based on the conference, to be published in 2020. Speakers at the conference, held on 14 -15 November in Hawaii, included CEPAR's Rafal Chomik, Hanming Fang, Michael Keane, Peter McDonald and John Piggott as well as UCLA's Kathleen McGarry among others.

The conference also included a public seminar focused on a chapter of the Asian Development Bank's Asian Economic Integration Report, 2019/2020: Demographic change, productivity and the role of technology. The chapter was heavily based on a report submitted to the ADB last year by CEPAR's Rafal Chomik and John Piggott. John Piggott was one of four panel members participating in the seminar.

The conference was a great success and is expected to form the basis for ongoing collaboration between CEPAR, the East-West Centre and the Korea Development Institute.

ECONOMICS, SIMULATION MODELLING AND DIABETES: MOUNT HOOD ASIA CHALLENGE

CEPAR Chief Investigator Philip Clarke, Associate Investigator Andrew Palmer and PhD student Michelle Tew were key members of the organising committee charged with delivering the first Mount Hood Challenge conference held in Asia, hosted by Chung-Ang University in Korea on 30 November – 1 December. The Mount Hood Challenge conference is a meeting of diabetes modelling groups who aim to present recent studies on economic aspects of diabetes and its complications, discuss simulation techniques and compare the results. Conventionally, the challenges are developed collectively by an international group of researchers engaged in the development of diabetes simulation models for health economic evaluation. In 2019, the challenge was developed to promote the use of health economics and diabetes simulation models across the Asian region. The conference attracted participation of diabetes modelling groups from Hong Kong, Taiwan, China, UK, USA, Netherlands, Belgium and Australia, and academics as well as researchers based in industry from other countries such as Japan, Korea and Vietnam.

In this inaugural Mount Hood Challenge Asia, Dr An Duy Tran, a CEPAR Senior Research Fellow, delivered a talk about a comprehensive outcomes simulation model for type 1 diabetes (COSMO-T1D) that he has developed together with other CEPAR members including Dr Josh Knight, Professor Andrew Palmer and Professor Philip Clarke. Using the COSMO-T1D, Tran demonstrated how life expectancy and quality-adjusted life expectancy in male and female patients at different



ANDREW PALMER BMedSci, MBBS UTas. ASSOCIATE INVESTIGATOR

PROFESSOR

Andrew Palmer heads the Menzies Institute for Medical Research Health Economics Research Group and is Professor of Health Economics at Melbourne School of Population and Global Health. As a CEPAR Associate Investigator he collaborates with Philip Clarke on Project 4.2 research and played a key role in the organisation of the Mount Hood Asia Challenge.

He has extensive experience in health economics and outcomes research, and is a widely published and internationally respected health economist.

Following a career as a general practitioner, he moved to Switzerland in 1994, where he was researcher and Medical Director of the Institute for Medical Informatics and Biostatistics. In 2000 he co-founded the Center for Outcomes Research (CORE), in Basel, Switzerland and was Medical Director and CEO until 2005. He was responsible for several major research projects at CORE, including the development of the CORE Diabetes Model, a computer simulation model of the onset and progression of complications of types 1 and 2 diabetes mellitus, which has become the world's most widely published diabetes health economics model. He has developed user-friendly interfaces to make models accessible to other users with a broad range of perspectives. He was the Chairman of the International Diabetes Federation Taskforce on Health Economics, and a member of the National Diabetes Strategy Advisory Group.

ages and with a wide range of risk factors could be estimated, and how the impact of diabetes interventions on life expectancy could be captured.

A major focal point of the conference was a comparison of health economic diabetes models in terms of both their structure and performance. The 2019 conference built on nine previous diabetes simulation modelling conferences that have been held since 2000.

A modelling workshop held on day two and led by Palmer and Clarke, highlighted helpful and practical approaches to all aspects of diabetes simulation modelling, with a specific focus on Asia.

INTERNATIONAL VISITORS

The Centre hosted 43 international visitors in 2019. These visitors ranged from experts with distinguished reputations in their fields to early career researchers interested in developing research programs in the area of population ageing. They participated in a range of CEPAR events and activities, contributed to the development and execution of research projects, and brought an international perspective to bear on the research program.

CEPAR hosted visits from the following researchers in 2019:

DR JULIE AGNEW College of William & Mary, United States 5 September – 6 September

PROFESSOR SEVERINE ARNOLD University of Lausanne, Switzerland 14 July – 19 July

DR BRIAN BEACH International Longevity Centre (ILC), United Kingdom 2 November – 10 November

PROFESSOR PETER BERG Michigan State University, United States 17 February – 24 February

PROFESSOR CAROL BRAYNE University of Cambridge, United Kingdom 11 June

DR WAI CHONG NG International Longevity Centre (ILC) Singapore 2 November – 7 November

LIA DAICHMAN International Longevity Centre (ILC) Argentina 1 November – 10 November

PROFESSOR GUDIO ERREYGERS University of Antwerp, Belgium September – October

PROFESSOR HANS FEHR University of Wuerzberg, Germany 21 June – 27 June

A/PROFESSOR RUNHUAN FENG University of Illinois at Urbana-Champaign, United States 27 November – 19 December

PROFESSOR GWENITH FISHER Colorado State University, United States 22 July – 2 August

PAUL GERRANS University of Western Australia, Australia 13 May – 15 May

MARGARET GILLIS International Longevity Centre (ILC) Canada 1 November -10 November

KARLA GIOCOMIN International Longevity Centre (ILC) Brazil 31 October – 9 November

BARONESS SALLY GREENGROSS International Longevity Centre (ILC) United Kingdom 2 November – 10 November

SUSAN HARDING International Longevity Centre (ILC) Singapore 2 November – 7 November

DR MICHAEL HENDRYX Indiana University, United States 1 February – 30 July

ERIK HERNÆS Ragnar Frisch Centre for Economic Research, Norway 18 January – 10 April and 15 November – 17 December

ARUN HIMAWAN International Longevity Centre (ILC), UK 2 November – 10 November

DR CHECK HOOI WONG International Longevity Centre (ILC) Singapore 2 November – 7 November DR CAROL JAGGER Newcastle University, United Kingdom 4 March – 21 March

SARAH KAAKAI University of Le Mans, France 1 April – 17 April

SEBASTIAN KALULA International Longevity Centre (ILC), South Africa 1 November – 10 November

DR ANDREW KINGSTON Newcastle University, United Kingdom 7 December – 12 December

PROFESSOR JONG-WHA LEE Korea University, South Korea 21 August – 30 August

ASSOCIATE PROFESSOR JUHUA LUO Indiana University, United States 29 March – 4 July

PROFESSOR FIONA MATTHEWS Newcastle University, United Kingdom 4 January – 8 February

MOSHE MILEVSKY York University, Canada 14 May

TAEKO NAKASHIMA International Longevity Centre (ILC) Japan 2 November – 9 November

SHINICHI OGAMI International Longevity Centre (ILC) Japan 2 November – 9 November

PROFESSOR LEOKADIA OREZIAK Warsaw School of Economics, Poland 30 March – 7 April

DR MIKE ORSZAG Willis Towers Watson, United Kingdom 25 March – 2 April and 2 November – 6 November

DR ROSY PEREYRA International Longevity Centre (ILC) Dominican Republic 2 November – 8 November

PROFESSOR ERMANNO PITACCO University of Trieste, Italy 27 November – 4 December

DR RAFAEL RODRIGUEZ International Longevity Centre (ILC) Domincan Republic, Domincan Republic 2 November – 8 November

DAVID SINCLAIR International Longevity Centre (ILC) United Kingdom 2 November – 10 November



NATIONAL & INTERNATIONAL LINKS

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PROFESSOR TOMAS SOBOTKA

Vienna Institute Demography, Austria 1 February - 15 February

RAYNE STOEBEL

International Longevity Centre (ILC) South Africa 1 November - 10 November

YASUYUKI TAKAI International Longevity Centre (ILC) Japan 2 November - 9 November

JAYANT UMRANIKAR International Longevity Centre (ILC) India 1 November - 9 November

TROND VIGTEI Ragnar Frisch Centre for Economic Research, Norway 22 February - 22 March

PROFESSOR MO WANG University of Florida, United States 9 September - 11 September

A/PROFESSOR CHIA-HUEI WU Durham University, United Kingdom July and 21 October - 25 October

INTERNATIONAL VISITS

CEPAR investigators, fellows and students were invited to visit a number of leading research institutions in 2019:

KAARIN ANSTEY

Transportation Research Board, Washington D.C., United States January Global Council on Brain Health, Washington D.C., United States

March

American Association of Retired Persons and World Dementia Council, Los Angeles, United States July

MARIAN BAIRD

Sheffield University, Sheffield, United Kingdom 28 May - 29 May

University of Manchester Equalities Institute, Manchester, United Kingdom 31 May - 4 June

University of Copenhagen, Copenhagen, Denmark 29 August - 5 September

JULIE BYLES

United Nations Open Ended Working Group on Ageing, New York, United States 15 April – 19 April

World Health Organisation, Geneva, Switzerland 23 April – 3 May

IAGG-EU Congress, Gothenburg, Sweden 23 May - 25 May

Kaoshiung Medical University, Kaoshiung, Taiwan 21 October

YUANYUAN DENG

Stony Brook University, Stony Brook, United States 13 May - 24 May University of Pennsylvania, Philadelphia, United States 27 May – 7 June

DANIEL DINALE University of Copenhagen, Copenhagen, Denmark 27 August - 4 September

ALIZA HUNT Universitas Gadjah Mada, Yogyakarta, Indonesia 1 July – 27 July

DOREEN KABUCHE University of Parma, Parma, Italy 17 September – 20 November

JOSH KNIGHT University of Oxford, Oxford, United Kingdom 2 March - 30 March

HÉLOÏSE LABIT-HARDY University Le Mans, Le Mans, France 29 June – 8 July University of Lausanne, Lausanne, Switzerland 14 July – 19 July

HAN LI

University of Lausanne, Lausanne, Switzerland 1 July – 5 July University of Hawaii, Honolulu, Hawaii 16 September - 20 September

BEI LU Lvkang Medical HR, Hangzhou, China 2 June – 6 June

SHARON PARKER

University of Singapore, Singapore, Malaysia 12 March - 13 March

Curtin University, Singapore, Malaysia 14 March

GIGI PETERY Zhejiang Lvkang Group 2 June – 6 June

JOHN PIGGOTT

National Academy of Medicine (NAM), Washington D.C., United States 6-8 December

ERMANNO PITACCO University of Ljubljana, Ljubljana, Slovenia April

AN DUY TRAN University of Oxford, Oxford, United Kingdom 2 March - 18 March

CHENG WAN Renmin University China and Peking University, China 22 April – 3 May

JONATHAN ZIVEYI University of Parma, Parma, Italy 30 June – 7 July



CEPAR RESEARCHERS GIGI PETERY AND BEI LU VISITED THE ZHEJIANG LVKANG GROUP AND WERE GREETED WITH THEIR NAMES ON THE MARQUE AT THE ENTRANCE

Dr. Bei Lu and I are having a fascinating trip in Hangzhou, China doing @CEPAR_research on the ageing workforce and being treated like celebrities! Our names on the marque and



Curtin University

SYDNEY

Australian Government

Australian Research

PERFORMANCE INDI 8 EINANCIAL STATEME **()**

Curtin University



MELBOURNE

KEY PERFORMANCE INDICATORS

CEPAR ANNUAL REPORT 2019 • KEY PERFORMANCE INDICATORS

MEASURE	2019 TARGET	2019 RESULT
Refereed journal articles	120	167
Book chapters	8	23
Working papers	20	24
Percentage appearing in top tier journals ⁵	30%	47.9%
Training courses held/offered by the Centre		
Research ethics and compliance workshop	1	1
 Gender equity and diversity workshop⁶ 	1	0
ECR methodology workshop	1	1
Emerging Researchers in Ageing workshop(s)	1	3
Workshops/conferences held/offered by the Centre	3	13
Additional researchers working on Centre research		
Postdoctoral researchers	0	5
Honours students	5	3
• PhD students	10	12
Masters by research students	0	0
Masters by coursework students	0	0
Associate Investigators	2	9
Postgraduate completions	4	4
Mentoring programs	4	5
Presentations/briefings		
• Public	15	21
Government (parliamentarians and departments/agencies at both state and federal level)	37	59
Industry/business/end users	15	48
New organisations collaborating with, or involved in, the Centre	2	18
Students mentored through the ERA program	800	900
Translational documents published	5	7

⁶ A workshop was not held in 2019. Instead, a range of new EDI initiatives was introduced and a Centre-wide survey undertaken to inform future planning.

⁵ Percentage of publications, indexed in Scopus and/or the Australian Business Deans Council (ABDC) Journal Quality List, included in the top 10% of journals by Scopus SciVal CiteScore Percentile or ranked by the ABDC as A or A*.

RESEARCH OUTPUTS

A4 EDITED BOOKS

- 1 Agnew, J. and Mitchell, O.S., (2019). *The Disruptive Impact of FinTech on Retirement Systems*. Oxford University Press.
- 2 Pond, D., Phillips, J., Day, J., McNeill, K., Evans, L., Troller, J., Anstey, K.J. and Peters, R., (2019). People with Dementia: A care guide for General Practice.

B BOOK CHAPTERS

- 1 Agnew, J. and Mitchell, O.S., (2019). How FinTech is Reshaping the Retirement Planning Process. In Agnew, J. and Mitchell, O.S. *The Disruptive Impact of FinTech on Retirement Systems*. Oxford University Press.
- 2 Alonso-García, J., (2019). Pension Systems. In Gu, D. and Dupre, M.E. Encyclopedia of Gerontology and Population Aging. New York: Springer.
- 3 Bauer, T. N., Truxillo, D. M., Jones, M. and Brady, G., (2019). Privacy and cybersecurity challenges, opportunities, and recommendations: Personnel selection in an era of online application systems and big data. In Woo, S.E., Tay, L. and Proctor, R. Big Data Methods for Psychological Research: New Horizons and Challenges. Washington, DC: APA Books.
- 4 Byles, J., (2019). Housing for older Australians: Changing capacities and constrained choices. In Lane, A.P. Urban Environments for Healthy Ageing: A Global Perspective. Routledge, New York.
- 5 Cadiz, D. M., Rineer, J. R. and Truxillo, D. M., (2019). Lifespan perspectives on job and work design. In Baltes, B., Rudolph, C. and Zacher, H. Work Across the Lifespan. London: Academic Press.
- 6 Chomik, R., Piggott, J. and Yan, S., (2019). Aging, Fiscal Sustainability and Adequacy of Social Security Systems. In Kim, C.J. Ageing Societies: Policies and Perspectives. Asian Development Bank Institute.
- 7 Deng, D., (2019). Medicare for people with disabilities. In Gu, D. and Dubre, M.E. *Encyclopedia of Gerontology and Population Aging*. New York: Springer.
- 8 Denuit M., Lucas N. and Pitacco E., (2019). Pricing and Reserving in LTC Insurance. In Dupourqué, E., Planchet, F. and Sator, N. Actuarial Aspects of Long Term Care. Springer Actuarial. Springer.
- 9 Dobrescu, I., Andries, A. and Börsch-Supan, A. (2019). (2019). The Link to the Past and the Post-Communist Welfare State. In Börsch-Supan, A., Bristle, J., Andersen-Ranberg, K., Brugiavini, A., Jusot, F., Litwin, H. and Weber, G. Health and Socioeconomic Status over the Life Course: First Results from SHARE Waves 6 and 7, 187–196. Berlin, Germany: De Gruyter. doi: 10.1515/9783110617245-019.

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- 10 Fisher, G. G., Chacon, M., and Chaffee, D. S., (2019). Theories of cognitive aging. In Baltes, B., Rudolph, C. and Zacher, H. Work Across the Lifespan. London, UK: Elsevier.
- 11 Gerpott, F.H. and Fasbender, U., (2019). Intergenerational learning in age-diverse meetings: A social comparison perspective. In Meinecke, A.L., Allen, J.A. and Lehmann-Willenbrock, N. Managing Meetings in Organizations (Vol. 20 of the Research on managing groups and teams book series). Bingley, UK: Emerald.
- 12 Gerpott, F.H., Halvorsen, C.J., and James, J.B., (2019). Self-employment and aging. In Gu, D. and Dubre, M.E. Encyclopedia of Gerontology and Population Aging. New York, USA: Springer.
- 13 Holzmann, R., Alonso-García, J., Labit-Hardy, H. and Villegas, A., (2019). NDC schemes and heterogeneity in longevity: proposals for redesign. In Holzmann, R., Palmer, E., Palacios, R. and Sacchi, S. Progress and Challenges of Nonfinancial Defined Pension Schemes – Volume 1: Addressing Marginalization, Polarization, and the Labor Market. The World Bank, Washington DC.
- 14 Hunt, A., (2019). Dari Data Menuju Klinik: Memahami Depresi Di Indonesia (From Data to the Clinic: Understanding Depression in Indonesia). In Pols, H., Good, M.J., Good, B., Manchira, C. and Suci, T. Jiwa Sehat, Negara Sehat (Healthy Minds, Strong Nation). Jakarta: Kompas.
- 15 Kudrna, G. and Piggott, J., (2019). Means-tested public pensions: Designs and impact for an ageing demographic. In Bloom, D.E. Live Long and Prosper? The Economics of Ageing Populations. Centre for Economic Policy Research Press.
- 16 Liu, W. and McKibbin, W.J., (2019). Global demographic changes and international capital flows. In Bloom, D.E. *Live Long and Prosper? The Economics of Ageing Populations*. Centre for Economic Policy Research Press.
- 17 Nikolaou, I, Georgiou, K., Bauer, T. N. and Truxillo, D. M., [2019]. Applicant reactions in employee recruitment and selection: The role of technology. In Landers, R. The Cambridge Handbook of Technology and Employee Behavior. Cambridge, UK: Cambridge University Press.
- 18 Rauvola, R. S., Rudolph, C. W., and Zacher, H., (2019). Career counseling for middle-aged and older adults. In Maree, J.G. Handbook of innovative career counselling. New York: Springer.
- 19 Rauvola, R., & Rudolph, C. W. (2019). Multigenerational workforce. In D. Gu & M. E. Dubre (Eds.): *Encyclopedia of Gerontology and Population Aging*. New York: Springer.

- 20 Rudolph, C. W., Zacher, H., and Baltes, B. B., (2019). Looking forward: A new agenda for studying work across the lifespan. In Baltes, B., Rudolph, C. and Zacher, H. *Work Across the Lifespan*. New York, USA: Academic Press.
- 21 Zacher, H. and Kunzmann, U., (2019). Wisdom in the workplace. In Sternberg, R. J., Nusbaum, H. C. and Glück, J. Applying wisdom to contemporary world problems. Cham, Switzerland: Palgrave Macmillan.
- 22 Zacher, H., Rudolph, C. W., and Baltes, B. B., (2019). An invitation to lifespan thinking. In Baltes, B., Rudolph, C. and Zacher, H. Work Across the Lifespan. New York, USA: Academic Press.
- 23 Zacher, H., Rudolph, C. W., and Rauvola, R. S., (2019). Career counseling for middle-aged and older adults. In Maree, J.G. *Handbook of innovative career counselling*. New York: Springer.

C1 JOURNAL ARTICLES: ARTICLES IN SCHOLARLY REFEREED JOURNALS

- 1 Alai, D., Ignatieva, K. and Sherris, M. (2019). The Investigation of a Forward-Rate Mortality Framework. *Risks*, 7(2).
- 2 Alessandri, G., Truxillo, D., Tisak, J., Fagnani, C. and Borgogni, L. (2019). Within-individual Age-related Trends, Cycles, and Event-driven Changes in Job Performance: A Career-span Perspective. Journal of Business and Psychology. In press [available online August, 2019]. doi:10.1007/s10869-019-09645-8.
- 3 Alonso-García, J. and Devolder, P. (2019). Continuous Time Model for Notional Defined Contribution Pension Schemes: Liquidity and Solvency. *Insurance: Mathematics & Economics*, 88, 57–76. doi: 10.1016/j.insmatheco.2019.06.001.
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- 5 Andrews, S., Goate, A. and Anstey, K.J. (2019). Association Between Alcohol Consumption and Alzheimer's Disease: A Mendelian Randomization Study. *Alzheimers and Dementia*. doi: org/10.1016/j.jalz.2019.09.086.
- 6 Andrews, S.J., McFall, G.P., Booth, A., Dixon, R.A. and Anstey, K.J. (2019). Association of Alzheimer's Disease Genetic Risk Loci with Cognitive Performance and Decline: A Systematic Review. Journal of Alzheimer's Disease. 69(4), 1109-1136. doi: org/10.3233/JAD-190342.

RESEARCH OUTPUTS

- Andrews, S.J., McFall, G.P., Dixon, R.A., Cherbuin, N., Eramudugolla, R. and Anstey, K.J. (2019). Alzheimer's Environmental And Genetic Risk Scores are Differentially Associated with General Cognitive Ability and Dementia Severity. *Alzheimer Disease and Associated Disorders*, 33(2), 95-103. doi: 10.1097/WAD.0000000000292.
- 8 Anstey, K.J. and Peters, R. (2019). Dementia, Risk, Risk Reduction, and Translation into Practice: An International Research Network for Dementia Prevention (IRNDP) Special Issue. Journal of Alzheimer's Disease. doi: org/10.3233/JAD-190506.
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- 10 Arriaga, M.E., Vajdic, C.M., Canfell, K., MacInnis, R.J., Banks, E., Byles, J.E., Magliano, D.J., Taylor, A.W., Mitchell, P., Giles, G.G., Shaw, J.E., Gill, T.K., Klaes, E., Velentzis, L.S., Cumming, R.G., Hirani, V. and Laaksonen, M.A. (2019). The Preventable Burden of Breast Cancers for Premenopausal and Postmenopausal Women in Australia: A Pooled Cohort Study. International Journal of Cancer. doi: 10.1002/ijc.32231.
- 11 Arriaga, M.E., Vajdic, C.M., MacInnis, R.J., Canfell, K., Magliano, D.J., Shaw, J.E., Byles, J.E., Giles, G.G., Taylor, A.W., Gill, T.K., Hirani, V., Cumming, R.G., Mitchell, P., Banks, E., Marker, J., Adelstein, B. and Laaksonen, M.A. (2019). The Burden of Pancreatic Cancer in Australia Attributable to Smoking. *Medical Journal Australia*, 210(5), 213–220. doi: 10.5694/mja2.12108.
- 12 Auret, K., Sinclair, C., Thomas, J., Price, D. and Wilkinson, A. (2019). A Quality Improvement Project to Improve Storage, Access and Incorporation of Advance Care Plans in a Regional Australian Hospital. Australian Journal of Rural Health, 27(1), 104–110. doi: 10.1111/ajr.12467.
- 13 Aw, J.Y.H., Yiengprugsawan, V. and Gong, C.H. (2019). Utilization of Traditional Chinese Medicine Practitioners in Later Life in Mainland China. *Geriatrics*. 4(3), 49. doi:10.3390/geriatrics4030049.
- 14 Aye, S.K.K., Hlaing, H.H., Htay, S.S. and Cumming, R.G. (2019). Multimorbidity and Health Seeking Behaviours among Older People in Myanmar: A Community Survey. *PLoS ONE*, 14(7). doi: 10.1371/journal.pone.0219543.
- 15 Beard, J.R., Jotheeswaran, A.T., Cesari, M. and de Carvalho, I.A. [2019]. The Structure and Predictive Value of Intrinsic Capacity in a Longitudinal Study of Ageing. BMJ Open, 9: e026119. doi: 10.1136/bmjopen-2018-026119.

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- 12 Chomik, R., Williams, A. and Baird, M. (August 2019). Legal Protections for Mature Workers. CEPAR Fact sheet.
- 13 Chomik, R., Yan., S. and Piggott, J. (2019). Aging, Fiscal Sustainability and Adequacy of Social Security Systems. CEPAR Policy Brief for the T20 Task Force on Aging Population and its Economic Impact + Immigration.

- 14 Clancy, R. L., Fisher, G. G., Daigle, K. L., Henle, C. A., McCarthy, J., and Fruhauf, C. A. (April 2019). Poster. Eldercare & Work: A Multidisciplinary Review and Recommendations for Future Research. Annual Conference of the Society for Industrial/Organizational Psychology. Maryland, USA.
- 15 Das, A., Cumming, R.G., Naganathan, V., Blyth, F. and Hirani, V. (May 2019). Poster. Association of Sarcopenia Definitions with Nutrient Intakes and Dietary Patterns in Older Men: The Concord Health and Ageing in Men Project. International Association of Gerontology and Geriatrics European Region Congress. Gothenburg, Sweden.
- 16 DeBruin, R., Finkelstein, L. and Barber, L. (April 2019). Poster. Does Age Influence Judgments of Workplace Electronic Multitasking? 34th Annual Meeting of the Society for Industrial and Organizational Psychology, Maryland, USA.
- 17 Ferdinand, A., Massey, L., Cullen, J., Temple, J., Chamravi, D., Meiselbach, K., Paradies, Y., Baynam, G., Savarirayan, R. and Kelaher, M. (May 2019). Understanding Disability through the Lens of Aboriginal and Torres Strait Islander People – Challenges and Opportunities. Lowitja Institute, Report.
- 18 Han, J.S. and Lee, J.W. (2019) Demographic Change, Human Capital, and Economic Growth in Korea. CAMA Working Paper Seires 39/2019.
- 19 Holzmann, R., Alonso-Garcia, J., Labit-Hardy, H. and Villegas, A. (2019). NDC Schemes and Heterogeneity in Longevity: Proposals for Redesign. Social Protection and Jobs Discussion Paper, No. 1913.
- 20 Iles, L., Andrei, D., Petery, G., Constantin, A., Parker, S. and Baird, M. (October 2019). Poster. Organisational Meta Strategies for Managing Age Diversity. CEPAR All Staff Workshop, Sydney, Australia.
- 21 Kaakai, S., Labit Hardy, H., Arnold, S. and El Karoui, N. How a Cause-of-Death Reduction can be Compensated in Presence of Heterogeneity? A Population Dynamics Approach. Workshop on Dynamic models for Human Longevity with Lifestyle Adjustments (LoLitA).King's College London Financial Mathematics Department. London, England, June 2019 and the International Workshop on Subnational Life Tables. The Australian National University, Canberra, Australia, October 2019.
- 22 Keane, M. Better Targetting of Australia's Age Pension. Austax Blog post.
- 23 Kiely, K. [May 2019]. Poster. Estimating the Number of Years Older Australian's Live in Financial Hardship. 31st REVES Network on Health Expectancy. Barcelona, Spain.

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- 24 King, E., Finkelstein, L. Thomas, C., & Corrington, A. (2019). Generational Differences at Work are Small; Thinking They're Big Affects our Behavior. Harvard Business Review Blog post.
- 25 Klonek, F., & Parker, S. K. (2019). Self-managing Team or Tayloristic Production Chain? What Can We Learn from Simulation-based Work Design Trainings. Group Interaction (German HR Management Publication for Practitioners).
- 26 Kunz, J., Fisher, G. G., and Grosch, J. K. (November 2019). Poster. Predictors of Participation in Workplace Health Promotion Programs: A Review and Recommendations for Research and Practice. 13th International APA/ NIOSH/SOHP Work, Stress & Health Conference. Philadelphia, USA.
- 27 Li, H., Hanewald, K., and Pu, L. (2019). Constructing Occupation-specific Life Tables for China. Report prepared for the Society of Actuaries.
- 28 Lu, B., Piggott, J. and Zheng, B., (2019). The Notional and the Real in China's Pension Reforms. Social Protection Discussion Paper No 1921. Washington DC. World Bank Group.
- 29 Meyricke, R. and Chomik., R. (September 2019). The Impact of Climate Change on Mortality and Retirement Incomes in Australia. The Dialogue, Actuaries Institute.
- 30 Mishra, G., Byles, J., Dobson, A., Chan, H.W., Tooth, L., Hockey, R., Townsend, N. and Loxton, D. (February 2019). Policy Briefs from the Australian Longitudinal Study on Women's Health. Report prepared for the Australian Government Department of Health.
- 31 Oselinsky, K., Kunz, J., Fisher, G.G., and Graham, D. (November 2019). Poster. Workplace Physical Activity and Cognitive Performance. 13th International APA/ NIOSH/SOHP Work, Stress & Health Conference. Philadelphia, USA.
- 32 Oxendahl, T., Brady, G., Truxillo, D. and Bauer, T. N. (2019). Poster. Individual Differences, Work Demands, and Workplace Eco-Driving Behaviors. SIOP Conference, Washington D.C., United States.
- 33 Parker, S. K., Andrei, D. and Van den Broeck, A. (June 2019). Who Designs Boring Jobs and Who Designs Enriching Ones. Harvard Business Review Blog post.
- 34 Peters, R., Kiely, K.M., Lipnicki, D.M., Ancelin, M., Anstey, K.J., Brodaty, H., Costa, E., Guaita, A., Haan, M., Katz, M.J., Kim, K.W., Lipton, R.B., Rodriguez, J.J.L., Ritchie, K., Scarmeas, N. and Sachdev, P.S. (July 2019). Poster. Cardiovascular Risk Factor Clusters and Cognitive Decline. Alzheimer's Association International Conference. California, USA.

- 35 Petery, G. A., Andrei, D. and Parker, S. (2019). Poster. Include, Integrate, Individualise: A Framework to Guide Effective Managerial Practices for an Age Diverse Workforce. Age in the Workplace Meeting, St. Gallen, Switzerland.
- 36 Rahman, M. (May 2019). Poster. Trajectories of Older Australian Woman in the Residential Settings: A Multi-Trajectories Modelling Approach. American Geriatric Society conference, Portland, USA.
- 37 Rudolph, C. W., Kunze, F., & Zacher, H. (2019). Getting Objective about Subjective Age: Introduction to a Special Issue. Work, Aging and Retirement, 5(4), 265-272.
- 38 Sinclair, C. (June 2019). Poster. Health Professional Judgements Regarding Decision-making Involvement among People Living with Dementia. NHMRC National Institute of Dementia Research Australian Dementia Forum, Hobart, Australia.
- 39 Smyrnis, G., Bateman, H., Dobrescu, I., Newell, B. and Thorp, S. (2019). The Impact of Projections on Superannuation Contributions, Investment Choices and Engagement. CEPAR Industry Report 2019/1.
- 40 Tran-Duy, A., Knight, J., Palmer, A., Petrie, D., Lung, T., Herman, W., Eliasson, B., Svensson, A. and Clarke, P. (2019). A patient-level model to estimate lifetime health outcomes of patients with type 1 diabetes.
- 41 Voyles, E. and Finkelstein, L. (April 2019). Poster. Reactions to Age Metastereotypes in the Workplace. 34th Annual Meeting of the Society for Industrial and Organizational Psychology, Maryland, USA.
- 42 Vu, M., Carvalho, N., Clarke, P., Buchbinder, R. and Tran-Duy, A. [May 2019]. Poster. Impact of Comorbid Conditions on Health Care Expenditure and Workrelated Outcomes in Patients with Rheumatoid Arthritis: A Retrospective Analysis using the Medical Expenditure Panel Survey in the Period 2006-2015. Annual Meeting of the Professional Society for Health Economics and Outcomes Research (ISPOR). Copenhagen, Denmark.
- 43 Williams, A. (2019). Policy Review. Shire of Gnowangerup, Report.
- 44 Work Design. EAWOP Small Group Meeting on the Antecedents of Work Design. Vrije Universiteit, Amsterdam, Netherlands.
- 45 Yang, S. (April 2019). Poster. Inequality in the Health Status of Elderly Chinese in Cities: A Multilevel Analysis of Migrants and Local Residents. Annual Conference of Population Association of American (PAA), Austin, TX, USA.

E4 UNPUBLISHED CONFERENCE PRESENTATIONS

- Absor, M. (November 2019). Social Welfare Policy at the Crossroads: Inequality in Accessing Social Rights among Rur al Older People. Indonesian Council Open Conference IICOC), The Australian National University, Canberra, Australia.
- 2 Absor, M. (September 2019). Health Inequalities among Rural Indonesian Elderly: Why Gender Matters? The EuroSEAS Conference. Humbold University, Berlin, Germany.
- 3 Agnew, J., Hung, A., Montgomery, N. and Thorp, S. (June 2019). White-Labels, Brands and Trust: How Mutual Fund Labels Affect Retirement Portfolios. 2019 Teachers Insurance and Annuity Association (IAA) Institute Fellow Symposium, Putting Behavioral Finance to Work: Insights and Solutions for Better Retirement Outcomes, New York, USA.
- 4 Alonso García, J. and Devolder, P. (March 2019). Guarantee valuation in notional defined contribution pension systems. Fair Valuation in Insurance Workshop, Brussels, Belgium.
- 5 Alonso García, J. and Tang, Q. (July 2019). Utility Indifference Pricing of a Coupon-yielding Bond. 23rd International Congress of Insurance: Mathematics and Economics. Munich, Germany.
- 6 Alonso García, J., Sherris, M., Thirurajah, S. and Ziveyi, J. Incorporating Taxation in the Valuation of Variable Annuity Contracts: The case of the Guaranteed Minimum Accumulation Benefit Rider. Actuarial and Financial Mathematics Conference (AfMath). Brussels, Belgium, February 2019 and Risk Management Strategies. Australasian Actuarial Education and Research Symposium. University of Melbourne, Melbourne, Australia, November 2019 and 27th Annual Colloquium on Pensions and Retirement Research, Sydney, Australia, December 2019.
- 7 AlonsoGarcía, J., Bateman, H. and Stevens, R. (January 2019). Behavioral Economics and the Bequest Motive in Presence of Illiquid Savings. Netspar International Pension Workshop. Leiden, The Netherlands.
- 8 Andrei, D., Wenzel, R. and Parker, S.K. (May 2019). Organisational Level Antecedents of High-Quality Work Design. European Association of Work and Organisational Psychology. Turin, Italy.
- 9 Anstey, K. (July 2019). World Health Organisation Risk Reduction Guidelines - Cognitive Decline and Dementia. Alzheimer's Association International Conference. Los Angeles, USA.

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- 10 Anstey, K.J. (2019). Plenary. The Relative Importance of Cognitive Reserve for Risk of Late-life Cognitive Ageing, Cognitive Impairment and Dementia. Global Summit on Cognitive Research, International Federation on Ageing. Copenhagen, Denmark.
- 11 Awuviry-Newton, K. (2019). The lived experience of older adults engaging in Activities of daily living and instrumental activities of daily living (IADL): An interpretative phenomenological analysis. 18th Emerging Researchers in Ageing Conference. Sydney, Australia.
- 12 Baird, M. (April 2019). Young Women and Men and the Future of Work and Family Formation. Future of Work Conference. Curtin University, Perth, Australia.
- 13 Baird, M. (May 2019). Keynote. A Creative Tension: Life as a Policy Activist and an Academic. 8th International Community, Work and Family Conference. Valletta, Malta.
- 14 Baird, M. (November 2019). Keynote. Reading Between the Lines: My Experiences of Translating Research into Policy. 18th National Conference of Emerging Researchers in Ageing: Equity and Diversity. Sydney, Australia.
- 15 Baird, M., Constantin, A. and Williams, A. Mature Workers and Unpaid Care: Preliminary Results from the MWOS Benchmark Survey. Debating the Future of Work: Challenges and Prospects Conference. Sheffield University, UK, May 2019 and the University, May 2019. of Sheffield and International Labour Organization, National Debate on the Future of Work, Laos, Lao People's Democratic Republic.
- 16 Barnett, A., Tran-Duy, A., Stiles, J. and Clarke, P. (October 2019). Using Politicians' Relative Survival to Examine the History of Income-related Health Inequalities. Australian Epidemiology Association Annual Scientific Meeting. Brisbane, Australia.
- 17 Bateman, H. (May 2019). Learning to Value Annuities: the Role of Information and Engagement. Conference on Consumer Financial Decision Making. Boulder, Colorado, USA.
- 18 Bateman, H. (November 2019). Keynote. Defined Contribution Institutional Investor Association, Academic Forum. New York, USA.
- 19 Bauer, R., Eberhardt, I., Smeets, P. (December 2019). A Fistful of Dollars - Financial Incentives Improve Retirement Information Search. 27th Colloquium on Pensions and Retirement Research. Sydney, Australia.
- 20 Brady, B., Gonsalvez, C., Wufong, E., Kneebone, I. and Bailey, P. [April 2019]. Age-Related Differences in Fear Regulation Using Positive Reappraisal and Mindful Attention Strategies. Australasian Society for Social Psychologists, Sydney, Australia.

- 21 Brady, G., Cadiz, D., Rineer, J., and Truxillo, D. (2019). The Influence of Age and Job Characteristics on Disability Intentions and Citizenship. 2019 SIOP Conference, Symposium: When Age Matters and Why: Crucial factors for success and well-being at work. Washington, USA.
- 22 Byles, J. (November 2019). Presentation at the Australian Longitudinal Study of Women's Health (ALSWH) Symposium. (ALSWH), Canberra, Australia.
- 23 Byles, J. (October 2019). Integrating Prevention in Policy (Australian perspective). IAGG 11th IAGG Asia/Oceania Regional Congress 2019. Taipei, Taiwan.
- 24 Byles, J. (October 2019). Promoting Prevention across the Life Course: The Role of Policymakers and Civil Society. Prevention in an Ageing World – G20 Side Event. Okayama, Japan.
- 25 Byles, J. (October 2019). Six Essential Aspects for LTC: An Evidence-based Evaluation of the Australian LTC system. 2019 Asia-Pacific Policy Forum for Long-term Care in Aging: Facing the Aged Society and Future of Long-term Care. Kaohsiung Medical University, Taiwan.
- 26 Byles, J., Rahman, M., Princehorn, E., Holliday, E. and Jagger, C. (November 2019). Successful Ageing from old to very old: Findings from a Longitudinal Study of 12432 Women from Australia. 52nd AAG conference, Sydney, Australia.
- 27 Byles, J., Rahman, M., Princehorn, E., Holliday, E. and Jagger, C. (May 2019). Successful Ageing from old to very old: Findings from the Australian Longitudinal Study on Women's Health. IAGG-ER 9th European Congress of the International Association of Gerontology and Geriatrics, Gothenburg, Sweden.
- 28 Cadiz, D. M., Brady, G., Truxillo, D. M. and Rineer, J. (2019). Work Ability as a Mechanism between Resources and Performance, Absence, and Attitudes Toward Aging. The European Association for Work and Organizational Society Congress, Turin, Italy.
- 29 Cadiz, D., Finkelstein, L., and Saelinger, A. (November 2019). SOC and Career Development Online Intervention. Age in the Workplace Conference. St. Gallen, Switzerland.
- 30 Capatina, E. and Keane, M. Health Shocks and the Evolution of Consumption and Income over the Life-Cycle. Canadian Economics Association Annual Conference. Banff, Canada, June 2019 and Midwest Macroeconomics Meetings. Georgia, USA, May 2019.
- 31 Chung, T. (June 2019). Health risk, Insurance and Optimal Progressive Income Taxation. 2019 Society of Economic Dynamics (SED) Conference. St Louis, USA, June 2019 and 2019 Asian Meeting of Econometrics Society (AMES), Xiamen, China, June 2019.

- 32 Clarke, P. and Erreygers, G. (July 2019). Defining and Measuring Health Poverty. International Health Economics Association (iHEA). Basel, Switzerland.
- 33 Clarke, P., Stiles, J., Tran-Duy, A., Roope, L., and Barnett, A. (July 2019). When do we Die in the Long-run? The Relative Survival of Politicians Over the 20th Century. Health Economists' Study Group. East Anglia, United Kingdom.
- 34 Constantin, A. (February 2019). Mature Workers in Organisations Research Framework and Instruments. Work and Care Symposium. Sydney, Australia.
- 35 Dinale, D. (February 2019). Understanding the Role of Comparative Capitalist Settings in Mediating the Nexus Between Production and Reproduction. 29th Association of Industrial Relations Academics of Australia and New Zealand AIRAANZ Conference. Melbourne, Australia.
- 36 Dinale, D. (November 2019). More Female Jobs, More Babies: Understanding How Developed Englishspeaking Nations Combine Relatively High Female Employment and Fertility Despite a High Cost of Childcare. 18th National Conference of Emerging Researchers in Ageing. Sydney, Australia.
- 37 Fehr, H. (June 2019). Tenure Choice, Portfolio Structure and Long-Term Care - Optimal Risk Management in Retirement. CEPAR Economics of Ageing Workshop. Sydney, Australia.
- 38 Feng, G., Lim, J., Lu, B. and Yan, G. (July 2019). Substitutional Effect of Long-term Care to Medical Health Care. 5th Annual Workshop on Population Ageing and the Chinese Economy. Sydney, Australia.
- 39 Fisher, G. (November 2019). Conducting interdisciplinary research. 13th International American Psychological Association: Work, Stress & Health Conference. Philadelphia, USA.
- 40 Fong, J.H. (June 2019). Taking Control: Active Investment Choice in Singapore's National Defined Contribution Scheme. CEPAR Economics of Ageing Workshop. Sydney, Austrlaia.
- 41 Fu, Y. and Sherris, M. (September 2019). Health Status and Function Disability with Systematic Trends: A Comparison Between China and the US. 15th International Longevity Risk and Capital Markets Solutions Conference. Washington, USA.
- 42 Gerpott, F.H., and Fasbender, U. (September 2019). Age-specific HR-Practices as a Means to Combat Discrimination Towards Older Workers. Exploring Justice, Equity, and Inclusion for Older Workers in the Changing Context of Aging & Work, Sloan Research Network on Aging & Work, Fall Institute. Harvard University, Boston, USA.

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- 43 Gong, C. et al (October 2019). Comparison of Dual Sensory Loss among older Chinese and Australians: Prevalence an its impact on wellbeing. IAG6 Asia/ Oceania Regional Congress. Taipei, Taiwan.
- 44 Gong, C. et al (October 2019). Does Education and Interrupted Work Experience Help To Explain Why Childhood Health Is Related To Later Life Quality: Evidence from CHARLS. International Alliance of Research Universities (IARU). The Australian National University. Canberra, Australia.
- 45 Hanewald, K. (August 2019). Income Inequality among the Elderly: Evidence from China. Annual Meeting of the American Risk and Insurance Association (ARIA). San Francisco, USA, August 2019 and 5th Annual Workshop on Population Ageing and the Chinese Economy, Sydney, July 2019.
- 46 Hanewald, K. (July 2019). Is There a Demand for Reverse Mortgages in China? Evidence from Two Online Surveys. Annual Conference of the Asia-Pacific Risk and Insurance Association (APRIA). Seoul, South Korea.
- 47 Hay, G., Parker, S. K. and Luksyte, A. (August 2019). Failure and blame in Organizational Change. Academy of Management Annual Meeting. Boston, USA.
- 48 Ho, T. (July 2019). Long Term Care Financing Using Home Equity Release: Evidence from an Experimental Study. International Congress on Insurance: Mathematics and Economics. Munich, Germany, July 2019 and 5th Annual Workshop on Population Ageing and the Chinese Economy. Sydney, July 2019.
- 49 Holzmann, R., Alonso García, J., Labit-Hardy, H. and Villegas, A. (May 2019). NDC Schemes and Heterogeneity in Longevity: Proposals for Redesign. 17th International Conference on Pensions, Insurance and Savings. Paris, France, May 2019 and 2019 IAA Colloquium (ASTIN, IAAHS, IAALS, IACA, PBSS). Cape Town, South Africa, April 2019.
- 50 Hsu, B. et al. (October 2019). Frailty and Dementia and Risk of Cause-specific Non-elective Hospitalisation in Community-dwelling Older Men. International Association of Gerontology and Geriatrics, Asia/ Oceania Regional Congress. Taipei, Taiwan.
- 51 Hunt, A. (October 2019). From Data to the Clinic: Understanding Indonesian Depression. The Future of Mental Health Services in Indonesia. Sydney University.
- 52 Hunt, A., Batterham, P. and Steel, Z. (July 2019). Late Life Depression in Indonesia. International Convention on Common Mental Disorders. Universitas Gadjah Mada, Yogyakarta, Indonesia.
- 53 Hunt, A., Batterham, P. and Steel, Z. (November 2019). Four Multilevel Models of Distress: Understanding Predictors of Mental Illness Symptoms In Indonesia's Ageing Population. 18TH National Emerging Researchers in Ageing Conference. Sydney, Australia.

- 54 Hussain, R. and O'Loughlin, K. (November 2019). Healthcare Professionals and Ageism: Has Anything Changed. Australian Association of Gerontology Conference. Sydney, Australia.
- 55 Kabuche, D. (November 2019). Longevity Risk: Retirement Income Product Innovation. Tenth Australasian Actuarial Education and Research Symposium. University of Melbourne, Melbourne, Australia.
- 56 Keane, M. Keynote. A Proposal to Streamline the Age Pension. CEPAR Economics of Ageing Workshop. Sydney, Australia, June 2019 and Keane, M and Iskhakov, F. (June 2019). Effects of Taxes and Safety Net Pensions on life-cycle Labor Supply, Savings and Human Capital: the Case of Australia. Tiomkin School Annual Workshop In Honor of Zvi Eckstein's 70th Birthday, June 2019.
- 57 Keane, M. (November 2019). Keynote. Effects of Taxes and Safety Net Pensions on Life-cycle Labor Supply, Savings and Human Capital. 2019 EWC/KDI Conference on Population Aging and Sustainable Growth. Honolulu, Hawaii.
- 58 Keane, M. and Iskhakov, F. Effects of Taxes and Safety Net Pensions on Life-cycle Labor Supply, Savings and Human Capital: The Case of Australia. Econometric Society Summer School on Dynamic Structural Econometrics in Chicago Booth, Chicago, USA, July 2019 and the Australian Conference Economists (ACE2019) in Melbourne, Australia, July 2019.
- 59 Keane, M. and Neal, T. (August 2019). Implementing the Keane and Runkle Approach for Fitting Dynamic Panel Data Models in Stata Using xtkr. Oceania Stata Conference. Sydney, Australia.
- 60 Khalatbari Soltani, S. et al.. Socio-economic Status, Health Behaviours, and All-cause Mortality: The Concord Health and Aging in Men Project. Theo Murphy Frontiers of Science "Redefining Healthy Ageing Together" Symposium, Adelaide, Australia, April 2019; the International Association of Gerontology and Geriatrics Asia/Oceania Regional Congress, Taipei, Taiwan, October 2019; and the Australian Association of Gerontology Conference, Sydney, Australia, November 2019.
- 61 Knight, C., Parker, S.K. and McLarnon, M. (May 2019). The Work Design Profiles of Employees in the Australian Not-for-profit-sector: A Person-centered Perspective. European Association of Work and Organisational Psychology. Turin, Italy.
- 62 Kooij, D. (May 2019). Two Job Crafting Intervention Studies: Increasing Person-job Fit and Work Engagement of Aging and Busy Employees. 31st International Convention of Psychological Sciences. Paris, France.

- 63 Kröner, F. and Müller, A. (May 2019). Those Who Need it the Most get it the Least: Age Specific Reciprocal Effects Between Social Support and Mental Strain. 19th Congress of the European Association of Work and Organizational Psychology. Turin, Italy.
- 64 Kudrna, G. (2019). Establishing multi-pillar pension system through the role-sharing between public and private pensions: The case of Australia. 14th Pension Experts Meeting in The Asia-Pacific Region. Seoul, Korea.
- 65 Labit Hardy, H. and Sherris, M. (July 2019). Long Term Care Insurance Incorporating Systematic Trends and Uncertainty: Design and Pricing for Australian Markets. 23nd International Congress on Insurance: Mathematics and Economics. Munich, Germany.
- 66 Lee, J.W. (August 2019). Keynote. Demographic Change, Human Capital, and Economic Growth in Korea. Asia-Pacific Economic Association 2019 Annual Meeting. Fukuoka, Japan.
- 67 Li, H. and Hyndman, R.J. (September 2019). Assessing Longevity Inequality in the U.S.: What can be said about the Future? The 15th International Longevity Risk and Capital Markets Solutions Conference. Washington, USA.
- 68 Li, H. and Tang, Q. (2019 June). Analyzing Mortality Bond Indexes via Hierarchical Forecast Reconciliation. The 39th International Symposium on Forecasting, Thessaloniki, Greece.
- 69 Li, H., Li, H., Lu, Y. and Panagiotelis, A. A Forecast Reconciliation Approach to Cause-of-death Mortality Modeling. The 23rd International Congress on Insurance: Mathematics and Economics, Munich, Germany, July 2019 and L2 Conference, University of Lausanne, Switzerland, July 2019.
- 70 Li, Y., Sherris, M., Villegas, A.M. and Ziveyi, J. (April 2019). Assessing the Public and Private Impact of Retirement Income Products (CIPRs). Allowing for Health Heterogeneity PARTY 2019. Sibiu, Romania.
- 71 Li, Y., Sherris, M., Villegas, A.M. and Ziveyi, J. (August 2019). Assessing the Public and Private Impact of Retirement Income Products (CIPRs) Allowing for Health Heterogeneity. Actuarial Research Conference 2019. Indianapolis USA.
- 72 Liu, Y., Ward, M.K. and Parker, S.K. (May 2019). The Buffering Effects of Future Time Perspective on the Relationship Between Workload and Well-being: Evidence from a 20-year Longitudinal Study. European Association of Work and Organisational Psychology. Turin, Italy.
- 73 Lu, Q., Hanewald, K. and Wang, X. (November 2019). Coherent mortality modeling for China's provinces in a Bayesian framework. Australasian Actuarial Education and Research Symposium, Melbourne, Australia.

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RESEARCH OUTPUTS

- CEPAR ANNUAL REPORT 2019 RESEARCH OUTPUTS
- 74 Lu, Q., Hanewald, K. and Wang, X. (November 2019). Coherent Mortality Modeling for China's Provinces in a Bayesian Framework. Australasian Actuarial Education and Research Symposium, Melbourne, Australia.
- 75 McDonald, P. (February 2019). The Global Fertility Transition. International Conference: Fertility Transitions: Past and Present. Canberra, Australia.
- 76 McDonald, P. (June 2019). Australian Population Policy. Australian Financial Review Conference. Melbourne, Australia.
- 77 McDonald, P. (June 2019). Fertility: International Perspective and Impacts on Population Ageing/ Economic Growth. CEPAR Economics of Ageing Workshop. Sydney, Australia.
- 78 McDonald, P. (October 2019). Australia: Impacts of Immigration on the Population and the Economy. Ambitions for Japanese Immigration Symposium. Tokyo, Japan.
- 79 McDonald, P. and Hosseini-Chavoshi, M. (November 2019). Alternative Pathways for Fertility in Selected Asian Countries. EWC/KDI Conference on Population Ageing and Sustainable Development. Hawaii, USA.
- 80 McDonald, P. and Hosseini-Chavoshi, M. (October 2019). Fertility and Economic Development in Selected Asian Countries. Second Asian Population Forum. Shanghai, China.
- 81 McKibbin, W. (February 2019). Global Demographic Dilemmas and the Future of Retirement Disruption and Development: Alternative Futures of the Global Economy. Brookings Institution Conference. Washington, USA.
- 82 O'Loughlin, K., Black, D. & Hussain, R. (October 2019). Attitudes to Ageing and Age Discrimination in Australian Workplaces. 'International Perspectives on Extending Working Lives: Barriers, Opportunities and Future Challenges'. 11th IAGG Asia-Oceania Regional Congress. Taipei, Taiwan, China.
- 83 O'Loughlin, K., Triandafilidis, Z., Saich, F. and Judd-Lam, S. (June 2019). How Flexible is Flexible? Australia's Flexible Work Policies to Support Working Carers. Symposium Innovation for sustainable care: International Perspectives from Industry and Practice Symposium. Transforming Care Conference. Copenhagen, Denmark.
- 84 Parker, S. (April 2019). The Future of Work: How Should we Prepare for Tomorrow's World? Bankwest Curtin Economic Centre and the Future of Work Institute's Future of Work Workshop. Perth, Australia.
- 85 Parker, S. K. (August 2019). For Better or Worse? The Impact of Proactivity on Well-being. Academy of Management Annual Meeting. Boston, MA, USA.

- 86 Parker, S. K. (August 2019). Keynote. The 4th Industrial Revolution and the Impact on the Workplace of the Future. Bankwest Curtin Economic Centre and the Future of Work Institute's Future of Work Workshop. Perth, Australia.
- 87 Parker, S. K. (September 2019). Keynote. Designing Work that Works: Future Directions. A0W 2019: Neue Formen der Arbeit in der digitalisierten Welt: Veranderungskompetenz Starken. TU Braunschweig, Germany.
- 88 Parker, S.K. (June 2019). Digitalisation and Other New Technologies as an Antecedent of
- 89 9Parker, S.K. (May 2019). Exciting Times in Work Design Theory and Research: Some New Discoveries and Directions. European Association of Work and Organisational Psychology. Turin, Italy.
- 90 Petery, G. A., Andrei, D., and Parker, S. (2019). Mature Workers in Organisations: Insights from CEPAR's Benchmarking Survey of the Australian Workforce. Age in the Workplace Meeting, St. Gallen, Switzerland.
- 91 9Petery, G.A., Laguerre, R., Burch, K. and Barnes-Farrell, J. (April 2019). Age Stereotypes and Subjective Age: Influences and Indicators of Successful Ageing? When Age Matters And Why. Symposium, 34th Annual Conference of the Society for Industrial-Organisational Psychology. National Harbor, USA.
- 92 Piggott, J. (November). Designing and Implementing Social Protection and Pension Policies: Can Equity, Income Adequacy, and Sustainability all be Achieved? National Academy of Medicine. Washington, USA.
- 93 Piggott, J. (November). Population Aging: Challenges and Policy Options. Korean Institute of Public Finance and the East-West Center Conference. Honolulu, Hawaii.
- 94 Piggott, J. (October 2019). The Impact of Demographic Change on Labour Supply and Economic Growth: Can APEC Meet the Challenges Ahead? Nikkei Super Active Aging Society Conference. Tokyo, Japan.
- 95 Piggott, J. and Chomik, R. (February 2019). Population Aging, Inequality and Fiscal Sustainability: The Challenge for Social Security Design. Inclusive Growth and Fiscal Policy Conference. Korean Institute of Public Finance and the East-West Center, Honolulu, Hawaii.
- 96 Pitacco, E. (2019 May). ERM & QRM in Life Insurance: An Actuarial Primer. AFIR-ERM AFIR-ERM Colloquium, Florence, Italy.
- 97 Pitacco, E. (June 2019). Teaching Life Insurance Mathematics and Techniques: Does "Tradition" Comply with Current Scenarios? European Congress of Actuaries, Lisbon, Portugal.

- 98 Pitacco, E., Tabakova, D.Y. and Valente, M. (July 2019). Allowing for Uncertainty, Observable and Unobservable Heterogeneity: From the Binomial Assumptions to More General Models. 23rd International Congress on Insurance Mathematics and Economics. Munich, Germany.
- 99 Shebeshi, D., Dolja-Gore, X. and Byles, J. (October 2019). Unplanned Readmission Within 28 days of Hospital Discharge in a Longitudinal Population-based Cohort of Older Australian Women. Annual Scientific Meeting of the Australian Epidemiological Association. Brisbane, Australia, October 2019 and 18th National Conference of Emerging Researchers in Ageing. Sydney, Australia, November 2019.
- 100 Sherris, M. (August 2019). The Application of Affine Processes in Cohort Mortality Risk Models. ARIA Annual Meeting. San Francisco, USA.
- 101 Sherris, M. (May 2019). Application of Affine Processes in Multi-Cohort Mortality Modelling. AFIR-ERM International Colloquium. Florence, Italy.
- 102 Sherris, M. (May 2019). Investment Strategy for Pooled Annuity Products. AFIR-ERM International Colloquium. Florence, Italy.
- 103 Sinclair, C. (June 2019). Supported Decision-making: Policy, Practice and Lived Experience in Dementia Care. University of Tasmania 'Ethics and Dementia' Satellite Symposium. Tasmania, Australia.
- 104 Temple, J. (October 2019). Keynote. Food Insecurity and Social Assistance Payments. 2019 World Food Day Symposium. Melbourne, Australia.
- 105 Temple, J. (October 2019). Stressful Events and Food Insecurity. 2019 World Food Day Symposium. Melbourne, Australia.
- 106 Thorp, S. (May 2019). Defaults, Disclosures, Advice and Calculators: One Size Does Not Fit all. Conference on Consumer Financial Decision Making. Boulder, Colarado, USA.
- 107 Timms, M., Andrei, D. and Parker, S.K. (May 2019). When Do Others Support Employee Job Crafting: A Job Design Simulation Task. European Association of Work and Organisational Psychology. Turin, Italy.
- 108 Tordera, N., Peiro, J. M., Ayala, Y., Villajos, E., and Truxillo, D. M. (August 2019). The Interaction Between HR Practices and Age for Sustainable Careers Across the Lifespan. Academy of Management Annual Meeting. Boston, USA.
- 109 Tran-Duy, A., Knight, J., Palmer, A., Petrie, D., Lung, T., Herman, W., Eliasson, B., Svensson, A.M. and Clarke, P. (December 2019). COSMO-T1D: A Comprehensive Outcomes Simulation Model for Type 1 Diabetes Economics, Simulation Modelling and Diabetes. Mount Hood Asia Challenge Conference. Seoul, Korea.

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- 110 Tran-Duy, A., Knight, J., Palmer, A., Svensson, A.M., Eliasson, B., and Clarke, P. (May 2019). Poster. Modelling Progression of Risk Factors in Patients with Type 1 Diabetes: Towards the Most Appropriate Functional Forms for a Simulation Model of Long-term Health Outcomes. Annual Meeting of the Professional Society for Health Economics and Outcomes Research (ISPOR). New Orleans, USA.
- 111 Truxillo, D. M., Rineer, J., Cadiz, D. M., and Brady, G. (May 2019). Team Cohesion Buffers Against Negative Effects of Poor Health on Work Ability. 19th Congress of the European Association of Work and Organizational Psychology. Turin, Italy.
- 112 Villegas (June 2019). Socio-economic Differences in Mortality: Recent Trends and Implications for Pension Programmes. Development in Pensions International Pension Research Association Conference, Paris, France.
- 113 Voyles, E. and Finkelstein, L. (April 2019). Reactions to Age Metastereotypes in the Workplace. 34th Annual Meeting of the Society for Industrial and Organizational Psychology. Maryland, USA.
- 114 Wan, C. An Experimental Study of the Demand for Hybrid Longevity and Health Insurance Products. The 23rd International Congress on Insurance: Mathematics and Economics (IME), Munich, Germany, July 2019; the Annual Meeting of the American Risk and Insurance Association (ARIA), San Francisco, USA, August 2019, and the 5th Annual Workshop on Population Ageing and the Chinese Economy. Sydney, Australia, July 2019.
- 115 Ward, M.K., Tay, J. and Parker, S.K. (May 2019). Leveraging Work Design to Prevent Careless Responding During Online Surveys. European Association of Work and Organisational Psychology. Turin, Italy.
- 116 Weber, J., Angerer P., Borchart D., Hasselhorn, H. M., and Müller, A. (May 2019). Maintaining the Work Ability in Older Employees with Health Problems: The Impact of the Adaptation Of Job Demands and Job Resources. 19th Congress of the European Association of Work and Organizational Psychology. Turin, Italy.
- 117 Weber, J., Angerer P., Borchart D., Hasselhorn, H. M., and Müller, A. (March 2019). Arbeitsfähig trotz Depressionen im Alter: Moderieren psychosoziale Arbeitsbedingungen den negativen Zusammenhang zwischen Depressionen und Arbeitsfähigkeit? 59. Wissenschaftliche Jahrestagung der Deutschen Gesellschaft für Arbeitsmedizin und Umweltmedizin. (Translation: Work Ability Despite Depression in Old Age: Do Psychosocial Labour Conditions Moderate the Negative Correlation between Depression and Work Ability? 59th Annual Scientific Meeting of the German Society for Occupational Medicine and Environmental Medicine.)

- 118 Wei, P. and Sherris, M. (August 2019). Retirement Planning with Systematic Disability and Mortality Risk. 54th Actuarial Research Conference. Indiana, USA.
- 119 Yang, S. (July 2019). Life Satisfaction of Older Chinese: The Role of Health and Health Insurance. 5th Annual Workshop on Population Ageing and the Chinese Economy. Sydney, Australia.
- 120 Yeo, G., Parker, S. K. and Celestine, N. A. (August 2019). Making time for Slack Time. Academy of Management Annual Meeting. Boston, MA, USA.
- 121 Yiengprugsawan, V. (June 2019). Functional Limitations and Life Satisfaction Dynamics among Asian-born Migrants and Australian-born Participants in the HILDA Study. The 5th International Conference on Ageing in a Foreign Land. Adelaide, Australia.
- 122 Yiengprugsawan, V. Healy, J., Karunapema, P. And Kasemsup, V. (October 2019). Investigating the Role of Primary Health Care and Chronic Care Management: Findings among Older People in Sri Lanka and Thailand. International Alliance of Research Universities (IARU) Ageing in Asia Symposium. Canberra, Australia.
- 123 Zacher, H. and Rudolph, C. W. (September 2019). Altersinklusive HR Praktiken, Altersdiversitätsklima und Arbeitszufriedenheit: Ergebnisse einer Längsschnittstudie. Fachgruppentagung Arbeits- und Organisationspsychologie. (Translation: Age-inclusive HR Practices, Age Diversity and Job Satisfaction: Results of a Longitudinal Study. Conference on Work and Organisational Psychology).

SEMINAR PRESENTATIONS

- Andrei, D. and Petery, G. (2019 March). Mature Workers in Organisations - Challenges and Opportunities for an Organisational-Based Approach. MBA Engage Series for Students and Alumni, Perth, Australia.
- 2 Anstey, K. (2019 April). Dementia Prevention: A Critique of Evidence from Randomised Controlled Trials. South Australian Medical Research Institute Seminar, Adelaide, Australia.
- 3 Anstey, K. (2019 October). An Overview of the Evidence on the Impact of Medication Use, Alcohol and Smoking on Late-life Cognitive Function and Risk of Dementia. National Drug and Alcohol Research Centre Seminar, Randwick, Australia.
- 4 Batsuuri, T. (January 2019). Impact of Demographic Change on Macroeconomic and Environmental Ou tcomes. Canberra, Australia.
- 5 Baird, M. (2019 February). Comparative analysis and Collaboration Opportunities. Sustainable Care CEPAR/ CIRCLE Forum, Sydney, Australia.
- 6 Baird, M. (2019 September). Current Context for Women's Human Rights to and at Work in the Asia-Pacific Region. United Nations Working Group on Women's Human Rights and The Changing World of Work, Sydney, Australia.
- 7 Baird, M. and Dinale, D. (2019 December). Comparing Australia's Work and Care Regimes to the Nordic Countries. Australia Institute Nordic Policy Centre and Centre for Future of Work Workshop. Sydney, Australia.
- 8 Baird, M. (2019 December). Women & Men in Australia - the Future of Work, Family & Care. EMCR Workshop, NHMRC Centre of Research Excellence in Fetal Alcohol Spectrum Disorder. Future Careers, Sydney, Australia.
- 9 Baird, M. Young Women and Men and Attitudes to the Future of Work and Family Formation. Manchester Equalities Institute, University of Manchester, Manchester, UK, June 2019 and Sociology Department, University of Copenhagen, Copenhagen, Denmark, September 2019.
- 10 Bateman, H. (2019 November). Learning to Value Annuities: The Role of Information and Engagement. BIBaP Research Network Luncheon Series, Sydney, Australia.
- 11 Bateman, H. and Eberhardt, I. (2019 November). Follow the Rating: How Disclosure Affects Retirement Income Product Choices in a Discrete Choice Experiment. BIBaP Research Network Luncheon Series, Sydney, Australia.
- 12 Batsuuri, T. (2019 January). Impact of Demographic Change on Macroeconomic and Environmental Outcomes. CAMA Seminar. Australian National University, Canberra, Australia.

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RESEARCH OUTPUTS

- 13 Bauer, R., Eberhardt, I., Smeets, P. (2019 June). A Fistful of Dollars - Financial Incentives Improve Retirement Information Search. CEPAR & UNSW RAS Pensions, Retirement and Ageing Seminar Series, Sydney Australia.
- 14 Brady, B. (2019 July). LGBTIQA+ Diversity in Research and Academia. Neuroscience Research Australia Seminar, Randwick, Australia.
- 15 Byles, J. (2019 April). It takes a Village Working Together for Wellbeing. Symposium on Social Connection in Older Age, Brisbane, Australia.
- 16 Byles, J. (2019 March). Longevity and Healthy Aging among Women in Australia. Healthy Ageing – A lifelong Process. AAG Hunter Chapter Seminar, HMRI, Newcastle.
- 17 Byles, J. (2019 November). Six Essential Aspects for LTC: An Evidence-based Evaluation of the Australian LTC System. International Longevity Centre Global Alliance Long-term Care and Care Giving Symposium, Glebe, Australia.
- 18 Byles, J. (2019 September). The Things you Choose to do. Aged Care 2.0 New Ways of Knowing and Acting, Macquarie Park, Australia.
- 19 Capatina, E. and Keane, M. Health Shocks and the Evolution of Consumption and Income over the Life-Cycle. University of Pennsylvania, Pennsylvania, USA April 2019; Monash Business School, Centre for Health Economics, Melbourne, Australia, August 2019 and Health Shocks and the Evolution of Consumption and Income over the Life-Cycle. University of Connecticut. Connecticut, USA, February 2019.
- 20 Clarke, P. (2019 Dec). How Long do Politicians Live in the Long-run. Crawford School, Australian National University, Canberra, Australia.
- 21 Constantin, A. (2019 February). Mature Workers in Organisations Research Framework and Instruments, Work and Care Symposium. Sustainable Care CEPAR/ CIRCLE Forum, Sydney, Australia.
- 22 Dinale, D. (2019 September). Varieties of Gendered Capitalism: Explaining Cross-national Variations in Female Labour Market Outcomes. The University of Sydney Discipline of Work and Organisational Studies HDR Symposium, Sydney, Australia.
- 23 Duy Tran, A., Knight, J. and Clarke, P. (2019 March). Modelling Work on Type 1 Diabetes. Health Economics Research Centre, University of Oxford, Oxford, UK.
- 24 Firouzi Naeim, P. (2019 October). The Effect of Changing the Medicare Eligibility Age on the Health of the Near-Retirement Population. ANU: Applied Micro Series, Canberra, Australia.

- 25 Holzmann, R., Alonso-García, J., Labit-Hardy, H. and Villegas, A. (2019 February). NDC Schemes and Heterogeneity in Longevity: Proposals for Redesign. CASRI Seminar, University of Kent, UK.
- 26 Hunt, A., Setiyawati, D. and Guth, R. (2019 July). Evaluating the Free Pasung Movement in Indonesia: Stopping the Physical Restraint of Mentally Ill in Rural Java. Mental Health Advocacy Summer School, Universitas Gadjah Mada, Yogyakarta, Indonesia.
- 27 Hunt, A., Setiyawati, D. and Guth, R. (2019 July). From Research to Practice: Doing Evidence Based Advocacy in Indonesia. Mental Health Advocacy Summer School, Universitas Gadjah Mada, Yogyakarta, Indonesia.
- 28 Hunt, A., Setiyawati, D. and Guth, R. (2019 July). Indonesian Psychiatric Epidemiology: A Closer Look at Depression. Mental Health Advocacy Summer School, Universitas Gadjah Mada, Yogyakarta, Indonesia.
- 29 Keane, M and Iskhakov, F. (2019). Effects of Taxes and Safety Net Pensions on Life-cycle Labor Supply, Savings and Human Capital: the Case of Australia. Institute for Fiscal Studies, London, UK.
- 30 Kudrna, G. (June 2019). The Macroeconomic and Distributional Effects of Private Pensions. School of Economics, Adelaide, Australia.
- 31 Lee, J.W. (2019 February). Can Older Workers Stay Productive? Role of ICT and Training in Korea. Economics Department, Korea University, Seoul, South Korea.
- 32 Lee, J.W. (2019 February). Demographic Change, Human Capital, and Economic Growth in Korea. Research School of Economics, Australian National University, Canberra, Australia.
- 33 Li, Y., Sherris, M., Villegas, A.M. and Ziveyi, J. (2019 July). Health Status Mortality Modelling Based on A Multiple-state Markov Ageing Model. School of Risk and Actuarial Studies PhD Seminar, UNSW Business School, Sydney, Australia.
- 34 O'Loughlin, K. (2019 February). The Rights of Carers in the Context of Work. Sustainable Care CEPAR/CIRCLE Forum, Sydney.
- 35 Parker, S. K. (2019 March). Centre for Transformative Work Design and the SMART model. Research seminar, Centre for Transformative Work Design, National University, Singapore.
- 36 Peters, R. (2019 August). Systematic Reviews: How to Plan and Deliver Quantitative Reviews in 2019. NeuRA Seminar Series, Neuroscience Research Australia.
- 37 Petery, G. (2019 January). What the heck is CEPAR? Research Seminar, Centre for Transformative Work Design, Curtin University, Perth, Australia.

- 38 Petery, G. (2019 March). Mature Workers in Organisations: Challenges and Opportunities for an Organisational Based Approach. I-O Research Seminar, University of Connecticut, Storrs, USA.
- 39 Petery, G., Iles, L., and Andrei, D. CEPAR updates and Benchmark Survey Insights. Research seminar, Center for Transformative Work Design, Future of Work Institute, Curtin University, Perth, Australia, October and November 2019.
- 40 Petery, G.A (2019 August). This Old Stereotype: Age-based Worker Stereotypes and stereotypic work performance. Research seminar at the Centre for Transformative Work Design, Curtin University, Perth, WA.
- 41 Pitacco, E. (2019 April). Quantitative Risk Management in Life Insurance. AFIR-ERM Bulgarian Actuarial Society Seminar, Sofia, Bulgaria.
- 42 Pitacco, E. (2019 March). Longevity and Long-term Care Risks: Innovations in Insurance Product Design. St. Petersburg Spring School in Risk Management, Insurance, and Finance, St Petersburgh, Russia.
- 43 Poonpolkul, P. (2019 August). Risk-sensitive Preferences and Age-dependent Risk Aversion. CAMA Macroeconomic Brown Bag Seminar, Australian National University, Canberra, Australia.
- 44 Rudolph, C.W. (November 2019). Lifespan developmental perspectives on aging and work: Theoretical and empirical advancements. University of Konstanz, University of Konstanz, Germany.
- 45 Sinclair, C. (2019 August). Supported Decision-making for People Living with Dementia. HammondCare Dementia Centre, Greenwich Hospital, Greenwich, Australia.
- 46 Villegas, A., Sridaran, D., Sherris, M. and Ziveyi, J. (2019 January). A Data Analytics Paradigm for the Construction, Selection, and Evaluation of Mortality Models. Faculty of Actuarial Science and Insurance Seminar Series, Cass Business School, London, UK.
- 47 Williams, A. (2019 February). Australian Policy Frameworks. Sustainable Care CEPAR/CIRCLE Forum, Sydney, Australia.
- 48 Yang, S. (2019 March). Life Satisfaction of Older Chinese: The Role of Health and Health Insurance. University of Melbourne, Melbourne, Australia.

30,354

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WEBSITE HITS IN 2019 84,943 PAGE VIEWS MEDIA ARTICLES IN PRINT, RADIO, TV & ONLINE MEDIA

16

MEDIA RELEASES IN 2019

2,581

SOCIAL MEDIA FOLLOWERS ON TWITTER, LINKEDIN, YOUTUBE & FACEBOOK

IN 2019 THE CENTRE CONTINUED TO ENGAGE IN AN ONGOING DIALOGUE WITH, AND TRANSLATE ITS RESEARCH IN FORMS ACCESSIBLE TO, GOVERNMENT, INDUSTRY, ACADEMIA AND THE COMMUNITY.

WEBSITE

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CEPAR's website continued to be a key element of the Centre's public profile, with website traffic growing steadily. In 2019, 19,379 people visited cepar.edu.au for 30,354 sessions. This represents an 11% increase in website hits compared to 2018 figures. The largest proportion of visitors was from Australia, with those from the US following at 29%. 62 news items were published on the webpage. People, Events and Publications were the top three most visited subpages of the site in 2019.

SOCIAL MEDIA AND NEWSLETTER

Another channel of communication with the Centre's external stakeholders and the wider community is via CEPAR's online presence. The newsletter is designed to provide subscribers with a regular update on CEPAR's activities in population ageing research. In 2019, 10 newsletter campaigns were sent out to over 1.5k subscribers (up from 1.3k subscribers in 2018). The Centre has a social media presence on Twitter, LinkedIn, YouTube and Facebook. CEPAR is most active on Twitter and LinkedIn and is steadily increasing its communications on these platforms.

MEDIA

In 2019, CEPAR's media strategy continued to focus on promoting the Centre's research findings and activities as well as providing expert commentary on public policy issues, particularly in the areas of retirement income, macroeconomics, housing, and migration policies, as well as mature workforce participation.

The Centre also promoted its publicly available research briefs, which synthesise knowledge about a particular issue drawing on the latest research findings, and fact sheets which provide up-to-date information on ageing-related issues. In addition, CEPAR introduced an industry report series in 2019, with three reports released during the year. [See pages 118 to 120.]

In 2019, nine media releases were issued by CEPAR and seven media releases were issued by the university nodes and partners covering Centre research, resulting in CEPAR researchers being featured in national and global print and broadcast media. A full list of media mentions is provided on pages 123 to 131. Regular appearances and op-eds in the media, such as The Australian Financial Review and The Sydney Morning Herald, and commentary in online publications, such as The Conversation and Austaxpolicy, raised the profile of the Centre and its researchers as well as the issue of population ageing. [See page 116.]

MEDIA FOCUS

MACRO-DEMOGRAPHIC DYNAMICS & POPULATION AGEING POLICY

CI Peter McDonald was featured in national news outlets, speaking on Australia's population growth and migration, including *The Canberra Times, ABC, SBS*, and *The Australian*. His research about falling fertility rates for low educated women in Australia was featured heavily in the media including in *The National Tribune, The Financial Standard*, and by *Radio 2SM*. McDonald's research on life expectancy was also featured in HCF's member magazine and website.

Major national news outlets interviewed CI Warwick McKibbin throughout the year about public policy and macroeconomic analysis, including *The Australian Financial Review*, *The Australian, The Sydney Morning Herald*, and *Sky News*.

CIs Warwick McKibbin and Peter McDonald were interviewed and featured by a number of major media outlets in the lead-up to the federal election, as well as afterwards for post-election analysis. These included articles in The Australian Financial Review, The Australian, The Sydney Morning Herald, The Queensland Times, ABC, Nine News, The Daily Telegraph, and Crikey, among others.

DECISION MAKING, EXPECTATIONS AND COGNITIVE AGEING

Research by CI Kaarin Anstey and AI Diane Hosking on dietary patterns in older Australians, based on PATH study results, was featured on the ABC TV Weekend breakfast program. Several other national and global media outlets reported, including *Nine News, The Sun, Malay Mail*, and *Outlook India*. Anstey and her research on cognitive ageing as well as on older driver risk assessment and safety, was featured in *The New York Times, The Saturday Paper, The Sydney Morning Herald, The Sun Herald*, and *ABC's Drive*, among others.

CI Michael Keane's work on a new research model that evaluates consumers' choices was featured by *VoxEU*, the Centre for Economic Policy Research's (CEPR) policy portal.

ORGANISATIONS AND THE MATURE WORKFORCE

CI Marian Baird and her research on organisations and the mature workforce was mentioned in several articles published in *The Sydney Morning Herald, The Australian Financial Review, ABC,* as well as regional newspapers such as *The National Tribune* and *The Morning Bulletin.*

CI Sharon Parker's and Research Fellow Daniela Andrei's research on how employers benefit from the growing mature workforce was featured by several media, including Harvard Business Review, Money Magazine, The Globe and The Mail, 2SM and Senior AU.

SUSTAINABLE WELLBEING IN LATER LIFE

CI Hazel Bateman's and AI Katja Hanewald's research project examining reverse mortgages was featured in special interest media, including *The Financial Standard, Money Management* and *Reverse Mortgage Daily*.

CI Philip Clarke and his research on health economic inequality was featured in *The Saturday Paper*. He was also interviewed on *ABC Radio National's Health Report* about his research on health poverty.

CI Robert Cumming was featured in The Sydney Morning Herald in relation to Sydney's population trends towards 2030. In addition, his research on falls prevention was featured in the Community Care Review Magazine.

Cl John Piggott's research focused on China's ageing population was featured in BusinessThink, Senior AU, 2GB, and several regional newspapers including the Townsville Bulletin. He was also featured in The Australian Financial Review, Forbes, Nikkei Newspaper, The Financial Times, Nikkei Asian Review and SuperGuide. CI Michael Sherris was featured in several media reports, including by the *ABC* and *Insurance News*, discussing the UNSW Business School's success in the *Global Research Rankings of Actuarial Science* and *Risk Management & Insurance*.

CEPAR's retirement income research briefs were featured in a number of pieces published by *SuperGuide*, Australia's leading website on super and retirement planning with more than 4.5 million web visits per year.

Several CEPAR research findings were cited by *The Actuaries Institute* in Green and Dialogue Papers, as well as in a pre-Budget submission document to Commonwealth Treasury.

SRF Rafal Chomik and Al Ramona Meyricke published an *Actuaries Institute Dialogue Paper* about the impact of climate change on mortality and retirement incomes in Australia. Several media organisations reported, including the *ABC, The Australian Financial Review, Seven News, the Financial Standard, Insurance News, Your Life Choices,* and *The Adviser.*



SATURDAY PAPER

NEWS OPINION CULTURE LIFE FOOD PUZZLES SPORT THE BRIEFING PODCAST PAST EDITIONS

Edition No. 261 JULY 13 - 19, 2019

As we age, so does our brain. But new research shows healthy lifestyle choices can dramatically slow the process and reduce the risk of diseases such as dementia. By Sophia Auld.

Dementia and the ageing brain



rofessor Kaarin Anstey, a senior principal research scientist at Neuroscience Research Australia. CREDIT: NEURA

REGULAR APPEARANCES IN THE MEDIA RAISED THE PROFILE OF THE CENTRE AND ITS RESEARCHERS CEPAR ANNUAL REPORT 2019 • COMMUNICATIONS, EDUCATION & COMMUNITY OUTREACH



LEADING THE DEBATE

CEPAR RESEARCHERS PUBLISHED FOUR ARTICLES IN THE CONVERSATION:

- Superannuation: Why we stick with the duds
 Susan Thorp 14 January 2019
- Budget 2019 boosts aged care and mental health, and modernises Medicare: health experts respond
 Philip Clarke 2 April 2019
- How English-speaking countries upended the trade-off between babies and jobs without even trying Daniel Dinale and Marian Baird 26 June 2019
- We're delaying major life events, and our retirement income system hasn't caught up Rafal Chomik 25 November 2019

CEPAR RESEARCHERS PUBLISHED TEN OP-EDS AND COMMENTARIES:

- Is superannuation working for women? Marian Baird and Susan Thorp The Sydney Morning Herald 1 March 2019
- The theory that's too good to be true Warwick McKibbin The Australian Financial Review 12 March 2019
- Investing in care key to boosting economic growth Marian Baird East Asia Forum 19 March 2019
- The demand for reverse mortgages in China
 Katja Hanewald, Hazel Bateman, Hanming Fang and Shang Wu
 VoxChina 15 May 2019
- Who's looking after the children and elderly if more women work? Marian Baird Channel News Asia 18 May 2019

- This is why Australia's macroeconomic policies need a shakeup. Fast.
 Warwick McKibbin The Australian Financial Review
 8 June 2019
- Expanding paternity leave in Southeast Asia
 Marian Baird
 East Asia Forum 14 June 2019
- Poor ranking on paternity leave highlights need for a rethink Marian Baird The Sydney Morning Herald 28 June 2019
- The mature age workforce, time to care Marian Baird RM Magazine (AHRI) August 2019
- Good policy needs good data. So why is it locked up?
 Warwick McKibbin The Australian Financial Review 28 October 2019

Good policy needs good data. So why is it being kept locked up?

Governance

Crunching official data helps evaluate policies. Potential embarrassment is the wrong reason to keep it under wraps.



Robert Breunig



Warwick McKibbin

As the engines of economic growth slow, there is a need for innovative policy changes to both raise economic growth and to improve the wellbeing of Australia more generally. Design of good policy depends on a solid foundation of good odtat.

A workshop at ANU convened by the Centre for Applied Macroeconomic Analysis (CAMA), the Centre of Excellence in Population Aging Research (CEPAR) and the ANU Tax and Transfer Policy Institute explored this issue in great depth. Governments hold vast banks of

administrative data which if mobilised, can be a potent force for policy development. In the hands of non-political quality research institutions, this data can fundamentally change the quality of policy design.

It's not an outlandish proposition. Private companies routinely identify patterns from big data to pinpoint just about every concelvable aspect of consumer decisions. In Australia, there is a reluctance to put government data to better use outside of government. This reluctance causes valuable lost opportunities.

Some examples are useful. Australian administrative data reveals small businesses did make new hires following reductions in company tax rates. This evidence files in the face of surveys suggesting they would not.

And as the Australian automotive industry declined, data revealed that younger individuals laid off by Mitsubishi did better than those who stayed on with other auto companies in the late 2000s. Such insights help design and target assistance programs. In the United States, a more pro-active approach called Opportunity Insights produces high-quality evidence about inequality, upward mobility and public policy. Top researchers given access to government administrative data sets generate insights about poverty and inequality that improve lives.

Making administrative data similarly accessible in Australia could dramatically and rapidly deepen our understanding of issues and of what and how policies are working.

Privacy concerns can be mitigated through careful procedures like de-identifying data and vetting research.

Analysis of administrative health data already benefits Australians. There needs to be a similar approach to childcare, education, employment, welfare, taxation and business assistance.

Why is it that Australia, unlike Denmark and other successful developed economies, makes little administrative data available to researchers? In part, it is because of reasonable concerns about privacy. These concerns can be mitigated through careful procedures, like de-identifying data and vetting research and researchers. There is also a more problematic reason for the inaccessibility of administrative data in Australia. Engagement with the data by qualified and impartial researchers will likely reveal that many of Australia's public policies fail to meet their objectives. Such findings will embarrass governments and bureaucrats. But they would improve outcomes for all Australians by reallocating taxpayer funds to policies that work and reducing government waste.

Is it possible to have the analysis done by experts within the government without engaging the wider research community? Possibly, but there are reasons why this is a problem.

First, in-house analysis is expensive. Making administrative data available to researchers increases policy-relevant research at low cost. In Denmark, an explosion of quality research on tax, education, immigration and policy followed the sharing of government administrative data, with little or no financial burden on the Danish government.

Second, academic researchers are subject to more rigorous and accurate standards than government researchers. High-quality analysts employed by governments are often capable of excellent analysis, but the breadth of expertise in academia, the incentives academics face, and the scholarly process of peer review encourage highquality work.

Third, bureaucratic analysis is not transparent. In the absence of public oversight, politicians and administrators can and will claim that programs are working, Giving researchers access to administrative data provides a check on government.

Michael Barber famously established the Delivery Unit' for Tony Blair's UK government in the early 2000s. The unit, which required all facets of government to test the quality of policy implementation against the policy's stated aims, was extremely successful.

But politicians, bureaucrats and administrators soon learned to game the system. Sir Michael today advocates data outside a government's control as the best defence of good policy. And, if recent empirical evidence is correct and as much as 80 per cent of government interventions fail to achieve their outcomes, such data is the best defence against bad policy.

Transparent, crowd-sourced policy evaluation from the research community will raise awareness of how hard it is to design and implement effective policies.

We know Australians want better governance. Widespread access to the insights of administrative data will improve policy processes, with large and sustained benefits to Australian society.

Robert Breunig is director of the Tax and Transfer Policy Institute at the Crawford School of Public Policy at The Australian National University. Warwick McKibbin AO is the director of the Centre for Applied Macroeconomic Analysis in the ANU Crawford School of Public Policy and director of Policy Engagement in the ARC Centre of Excellence in Population Aging Research. MIRMANS

FOLLOWING THE DATA LINKAGE WORKSHOP, CI WARWICK MCKIBBIN AND WORKSHOP CO-CHAIR ROBERT BREUNIG (TTPI) PUBLISHED AN OP-ED IN THE AUSTRALIAN FINANCIAL REVIEW

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FACT SHEETS AND RESEARCH BRIEF

Research briefs and fact sheets integrate research findings to present a synthesis of evidence pertaining to a particular area of knowledge or policy issue. Informed by a multidisciplinary knowledge base, the briefs are written and presented in a format accessible to academia, business, the media and government. Fact sheets are designed to provide short informative summaries of key issues relevant to population ageing targeted at a general audience. These are not advocacy documents - instead they seek to be authoritative in their discussion of relevant research findings and provide a knowledge base for decision makers.

In 2019, one research brief and two fact sheets were published.

A brief titled Housing in an ageing Australia: Nest and nest egg? was released in November, providing an overview of research that touches on many different areas of housing-related policy and featuring findings from over 20 CEPAR researchers. The research brief was officially released on the day of the Policy Dialogue on Housing and Ageing, held in Canberra on 18 November. CEPAR Director John Piggott and

research brief lead author Rafal Chomik presented some of the key research findings published in the brief to more than 100 representatives from government, the wider scientific community, media and the general public. Major national and special interest media outlets reported on the research insights, including The Sydney Morning Herald. The Brisbane Times. The Sun Herald. ABC. Money Magazine, nestegg, The New Daily, Mortgage Business Magazine, and Senior AU.

CEPAR also released two fact sheets, in January and August. Aged Care Policy, Provision, and Prospects takes stock of recent changes in aged care policy, industry, and labour force, and highlights research seeking to address its challenges. Special interest media reported on the fact sheet, including the Australian Ageing Agenda. The Actuaries Institute released a green paper on retirement incomes, which cites the CEPAR fact sheet as well as the 2018 CEPAR research briefs on retirement incomes in Australia.

The fact sheet Legal Protections for Mature Workers outlines the national and state legislation that protects mature workers from discrimination and upholds their right to seek flexible work arrangements. It also addresses the way workplace health and safety laws can be uniquely relevant to older Australians. Several media outlets and organisations reported on the fact sheet, including The Australian Financial Review, Senior AU, The National Tribune, Industry Update Magazine, ABC Radio, Safety Culture, National Seniors Australia, and COTA as well as regional newspapers, such as the *Townsville* Bulletin, the Daily Examiner Grafton, and the Centralian Advocate Alice Springs.



BEcFin UWA, MEc London Metropolitan SENIOR RESEARCH FELLOW

Rafal Chomik is a Senior Research Fellow at CEPAR. located in the UNSW Business School. He joined CEPAR in April 2012.

Rafal has worked in public administration and policy analysis for over a decade, initially as a project manager in economic regeneration and subsequently as an economist focusing on social policy.

He has experience in economic and business consulting in the private sector, working as an economic advisor for the British Government and as a pensions economist at the Organisation for Economic Cooperation and Development in Paris.

He specialises in social policy design, public and private pension analysis, static microsimulation modelling of the tax-benefit system, and poverty and income measurement.

His current work at CEPAR is centred on producing policy related briefing papers, summarising existing CEPAR and external research and assisting the secretariat in producing technical content for conferences and the media. He is also undertaking a research project on the interactions between demography and inequality.

INDUSTRY REPORT SERIES

CEPAR introduced its industry report series as another means of highlighting the impact of the Centre's innovative research. In 2019, CEPAR researchers released three industry reports, which resulted in significant media coverage and stakeholder interest.

In August 2019, research undertaken by CEPAR researchers Hazel Bateman, Susan Thorp, Isabella Dobrescu, Benjamin Newell and George Smyrnis, in collaboration with industry partner Cbus Super Fund, was published in an industry report about the impact of retirement income projections on superannuation contributions, investment choices and member engagement. The results showed that retirement wealth projections raised member engagement and investment choices, suggesting that superannuation member disengagement can be partly improved by clearer communication.

In October 2019, CI Hazel Bateman released another industry report about superannuation engagement, in collaboration with CEPAR Associate Investigators Christine Eckert and Susan Thorp and researchers based at UNSW Sydney, the University of Sydney, University of Technology Sydney and industry partner Colonial First State (CFS). The report showed that super fund members who took out mortgages increased their interactions with their financial service providers, providing valuable insights for policymakers and super funds. Major news outlets and special interest media, including *The Australian Financial Review, The Sydney Morning Herald, WA Today, The Money Magazine, Money Management, Business Acumen Magazine, The Financial Standard,* and *nestegg* reported on these two industry reports.

In December 2019, CEPAR CIs Sharon Parker and Marian Baird, and CEPAR researchers Daniela Andrei, Andreea Constantin, Lucinda Iles, Gretchen Petery, Leah Zoszak, Alison Williams and Shannon Chen published an industry report highlighting findings from the Mature Workers in Organisations Survey (M-W0S). The researchers conducted a large-scale national benchmarking survey of Australian workers aged 18 to 81, to understand how organisations might better manage and harness the benefits of an ageing workforce. Their report shows that many mature workers across Australia feel excluded in today's workforce, reporting limited development opportunities and limited access to flexible working arrangements. The new research aims to identify and develop successful work policies and practices that support the attraction, retention and engagement of mature workers. The findings from the industry report were featured by several media outlets, including The Sydney Morning Herald, ABC, 2SM radio and Workplace Express.

Cepar ARC CENTRE OF POPULATION APPLICATION

Maximising Potential: Findings from the Mature Workers in Organisations Survey (MWOS)



CEPAR ANNUAL REPORT 2019 • COMMUNICATIONS, EDUCATION & COMMUNITY OUTREACH

PUBLIC TALKS

Public lectures and forums are designed to communicate key messages to the wider community and enhance community understanding of critical issues. Several CEPAR researchers presented public talks and were invited to participate as panel members in discussion forums. Highlights are provided below.

FIONA MATTHEWS PUBLIC LECTURE

In February 2019, CEPAR international visitor Fiona Matthews, Professor of Epidemiology at Newcastle University, UK, delivered a public lecture at CEPAR's UNSW Sydney node about the impact on dementia in the population from changes in education. She told over 60 attendees that educational policies in the UK have been to extend the amount of time that is spent in formal education, and that over the past two decades population based studies have shown a decrease in the prevalence and incidence of dementia. Using data from these studies conducted since the early 1990s, the talk investigated the relationship between education and dementia and discussed what impact this could have on the health of the older population in the future.

GWEN FISHER PUBLIC LECTURE

Addressing groups at CEPAR's UNSW Sydney and Curtin University nodes in August 2019, international visitor and CEPAR Associate Investigator Gwen Fisher, who is an A/Professor of Industrial/Organisational Psychology at the Colorado State University, USA, discussed ageing and cognitive functioning and its implications for organisations and an ageing workforce. Additionally, her talk provided background on work and retirement trends and discussed practical and policy implications for the labour force at societal, organisational and individual levels.

URBAN TASKFORCE AUSTRALIA

CI Peter McDonald was invited by the Urban Taskforce Australia to participate in a panel on population growth in Australian cities at an industry lunch in April. Over 100 of Australia's top property developers attended this event, which was featured in several news outlets including The Australian Financial Review, Government News, and The Daily Telegraph. Peter McDonald discussed population policy with fellow panellists, the Minister for Cities, Urban Infrastructure and Population, The Hon Alan Tudge MP, demographer Dr Shane Geha and economist Brian Haratsis.

GLOBAL ROADMAP FOR HEALTHY LONGEVITY

For the launch of the US National Academy of Medicine's International Commission on Creating a Global Roadmap for Healthy Longevity, CEPAR Director John Piggott was invited to join a panel discussion with experts Elena Glinskaya (World Bank), Liat Ayalon (Bar-Ilan University) and Laia Becares (Sussex University), held in Washington DC, in November. Moderated by Paul Irving (Milken Institute Center for the Future of Aging), the panellists discussed social, behavioural and environmental enablers for healthy longevity.

A full list of public talks is provided on page 128.



L-R: PAUL IRVING, ELENA GLINSKAYA, JOHN PIGGOTT, LIAT AYALON, AND LAIA BECARES IN DISCUSSION ABOUT A GLOBAL ROADMAP FOR HEALTHY LONGEVITY (CREDIT: ERWIN TAN @DOCTORTANMD TWITTER)

OUTREACH

Girls do the Maths Day

In September, three CEPAR researchers, Inka Eberhardt and Drs Mengyi Xu and Héloïse Labit Hardy, participated in the Girls Do the Maths Day, which is hosted annually by the UNSW School of Mathematics and Statistics for female students finishing their high school studies. This year the event drew over 120 high school students from 15 schools across New South Wales. Through interactive and poster displays, the CEPAR researchers discussed and showcased their population ageing research. By talking about their career paths and the use of mathematics and statistics within their research work in actuarial studies and economics, they highlighted career opportunities for mathematics students.

Journalists visit CEPAR headquarters

In May 2019, the Walkley Foundation for Journalism and journalists from Korea visited the CEPAR headquarters to learn about and report on policies and trends for ageing and retired Australians. Delegates included media representatives from The Hankyoreh, The Kyungnam Shinmun, Joongang Ilbo and Aju Business, as well as representatives from the Australia-Korea Foundation (DFAT), and the Korea Press Foundation. Centre Director John Piggott briefed them on data and trends in Australia's ageing population, including Australia's retirement income system, and how policy is serving older Australians and future challenges.



CEPAR RESEARCHERS INKA EBERHARDT, MENGYI XU AND HÉLOÏSE LABIT HARDY SHOWCASED THEIR POPULATION AGEING RESEARCH TO HIGH SCHOOL STUDENTS





REPRESENTATIVES FROM THE WALKLEY FOUNDATION FOR JOURNALISM AND KOREAN MEDIA VISITED CENTRE DIRECTOR JOHN PIGGOTT

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PRINT (NEWSPAPERS AND MAGAZINES)

ScoMo's song just a repeat of Liberal battle hymns past The West Australian 11 January 2019 – featuring Peter McDonald

The grey boom changing the face of Australia's young capital The Canberra Times 12 January 2019 - featuring Peter McDonald

Sucky superannuation: Why we stick with the duds

The West Australian 14 January 2019

– featuring Susan Thorp

The elderly and driving: When is it time to hit the brakes?

The New York Times 18 January 2019

– featuring Kaarin Anstev

Expert comment on hypertension and dementia Australian Aged Care Insite Magazine 19 January 2019 - featuring Ruth Peters

Call to better support older women to remain at home Australian Ageing Agenda 25 January 2019

-featuring Mijanur Rahman

Migrants key to labour force as home-grown workers dwindle The Australian 30 January 2019 – featuring Peter McDonald

Fact sheet outlines aged care policy and prospects Australian Ageing Agenda 30 January 2019 - featuring CEPAR research

The fall quys

Community Care Review Summer 2018/19 - featuring Robert Cumming

How long can we live well?

- HCF magazine 1 February 2019
- featuring Peter McDonald

Study debunks 'one size fits all' approach to home care

Community Care Review 11 February 2019 - featuring Mijanur Rahman

\$1 million in funding for dementia research

Australian Ageing Agenda 19 February 2019 - featuring Kim Kiely

Key changes urged to Age Pension means test Money Management 26 February 2019

- featuring CEPAR research

Is superannuation working for women? The Sydney Morning Herald 1 March 2019 - by Marian Baird and Susan Thorp

The new, true costs of ageing prisoners Brisbane Seniors 4 March 2019 – featuring Natasha Ginnivan

Diet and dementia

Neo Cosmos Magazine March 2019 - featuring Kaarin Anstey

Weight loss - drink wine, shed pounds AND cut risk of dementia with the MIND diet The Sun 8 March 2019 - featuring Kaarin Anstey

'MIND diet' may reduce dementia risk: Study Outlook India 8 March 2019 – featuring Kaarin Anstey

Is there such a thing as a 'right' amount of maternity leave to take? The Sydney Morning Herald 10 March 2019 - featuring Marian Baird

Could the brain-boosting MIND diet reduce the risk of dementia? Malay Mail 11 March 2019 - featuring Kaarin Anstey

'MIND diet' may reduce dementia risk Hindustan Times 11 March 2019 – featuring Kaarin Anstey

Brain-boosting MIND diet appears to reduce the risk of dementia Free Malaysia Today 11 March 2019 – featuring Kaarin Anstey

The theory that's too good to be true The Australian Financial Review 12 March 2019 by Warwick McKibbin

PM's own expert slams plan to cut migrant numbers The New Daily 19 March 2019 - featuring Peter McDonald

So, hey, is Australia an example to follow for mandating employer retirement benefits? Forbes 20 March 2019 - featuring John Piggott and Hazel Bateman

Migration cuts won't harm economy: PM assures business The Australian Financial Review 20 March 2019 - featuring Peter McDonald

Scott Morrison to push forward plan to tackle congestion The New Daily 20 March 2019 - featuring Peter McDonald

The looming tradie crisis: Fears slashing immigration could leave thousands of construction workers struggling to find jobs Daily Mail 22 March 2019 - featuring Peter McDonald

Religious belief linked to carer roles Community Care Review 3 April 2019 - featuring Kaarin Anstey

Shorten admits superannuation mistake Merimbula News 17 April 2019 – featuring Warwick McKibbin

Interview with Warwick McKibbin The Weekend Australian 20 April 2019

Congestion 'a spurious argument' for curbing migrant intake The Australian Financial Review 23 April 2019 - featuring Peter McDonald

Planning expert says Sydney needs 10 million people to compete on world stage The Daily Telegraph 24 April 2019 – featuring Peter McDonald

Increasing super to 12 per cent will deliver \$20 billion hit to wages: Grattan Institute

Brisbane Times 2 May 2019 – featuring Warwick McKibbin

Bob Hawke and Paul Keating reunite for the first time in 28 years to endorse Labor's economic plan The Sydney Morning Herald 7 May 2019 - featuring Warwick McKibbin -

Hordes of women, like Bill Shorten's mum, had to delay a dream

The Sydney Morning Herald 8 May 2019 - featuring Marian Baird

Federal election 2019, campaign Day 29: Shorten forced to clarify immigration policy The Australian 9 May 2019 - featuring Warwick McKibbin

Parent visa 'could see 200,000 applications' The Australian 10 May 2019 – featuring Peter McDonald

Dodaina the parent trap The Australian 15 May 2019 – featuring Peter McDonald

Disengagement costing super members a fortune featuring CEPAR research The Australian Financial Review 16 May 2019

Why immigration has disappeared from the election campaign The Australian Financial Review 16 May 2019 - featuring Peter McDonald

Expert comment on air pollution and dementia

Australian Aged Care Insite Magazine 19 May 2019 - featuring Ruth Peters

I'm young, why should I care about superannuation? The National Tribune 22 May 2019 – featuring John Piggott

A sophisticated nation at foot of Asia shouldn't relv on cheap money The Australian Financial Review 5 June 2019 - featuring Warwick McKibbin

Possible 'link' between menopause and Alzheimer's is scaring women, including me

The Sydney Morning Herald and Stuff NZ 7 June 2019 - featuring Kaarin Anstey

This is why Australia's macroeconomic policies need a shakeup. Fast.

The Australian Financial Review 8 June 2019 - by Warwick McKibbin

University to probe reverse mortgages Financial Standard 11 June 2019

- featuring Hazel Bateman and Katja Hanewald

UNSW Business School to examine reverse mortgages Money Management 11 June 2019 - featuring Hazel Bateman and Katja Hanewald

'We should have kept higher immigration quota'

The Australian Financial Review 12 June 2019 – featuring Peter McDonald

You, me, car park now: Government ready to stimulate The Australian Financial Review 12 June 2019 – featuring Peter McDonald

Cracks appear in infrastructure boom The Australian Financial Review 14 June 2019 - featuring Peter McDonald

EDUCATION & COMMUNITY OUTREACH

Old and inside

Australasian Science Magazine 21 June 2019 – featuring Natasha Ginnivan

Poor ranking on paternity leave highlights need for a rethink

The Sydney Morning Herald 28 June 2019 – by Marian Baird

Dementia and the ageing brain The Saturday Paper 13 July 2019 – featuring Kaarin Anstey

More sponsors cut a break on 401(k) loan repayment Pensions & Investments 22 July 2019 – featuring Olivia S. Mitchell

The mature age workforce, time to care HRM Magazine (AHRI) August 2019 – by Marian Baird

Newstart doesn't work for over-55s

The Australian Financial Review 1 August 2019 – featuring Marian Baird and CEPAR fact sheet

'Dementia: How big is the ageing tsunami? It's a best guess scenario'

The Sydney Morning Herald 5 August 2019 – featuring Kaarin Anstey

Association created for global study of pensions Pensions & Investments 5 August 2019 – featuring Olivia S. Mitchell and Hazel Bateman

Fact sheet on legal protections for mature workers Industry Update Magazine 6 August 2019 – featuring Marian Baird

Economic 'uncertainty is rising sharply'

Sky News and The Gold Coast Bulletin 10 August 2019 – featuring Warwick McKibbin

The nightmare that's been waiting to hit Australian women The Sydney Morning Herald 13 August 2019 – featuring Marian Baird

Time to end age discrimination Centralian Advocate Alice Springs 13 August 2019 – featuring CEPAR fact sheet

Global threat is our chance to improve within The Australian Financial Review 16 August 2019 – featuring Warwick McKibbin

Workers save more after eyeing future The Australian Financial Review 16 August 2019 – featuring CEPAR research

How retirement wealth projections impact the behaviour of super fund members Business Acumen Magazine 16 August 2019 – featuring CEPAR research

Super members salary sacrifice more with retirement estimates Money Management 19 August 2019 – featuring CEPAR research

Wealth projection boosts super fund engagement The Financial Standard 19 August 2019 – featuring CEPAR research

Retirement income projections 'good motivator' for super engagement

The Sydney Morning Herald 20 August 2019 – featuring Hazel Bateman

Paid parental leave for dads a key to narrowing gender pay gap

The Sydney Morning Herald 22 August 2019 – featuring Marian Baird

Ageing population happening much faster in China Townsville Bulletin, Ipswich Advertiser, Daily Mercury, Gladstone Observer 23- 25 August 2019 – featuring John Piggott

Dementia data still a best-guess scenario Sun Herald 25 August 2019 – featuring Kaarin Anstey

Age issue sped up in China Maroochy Weekly 29 August 2019 – featuring John Piggott

Study helps employers benefit from growing mature workforce Senior AU 4 September 2019 – featuring Sharon Parker

Air pollution could be behind the 20% year-on-year rise in dementia cases, scientists warn The Daily Mail 4 September 2019 – featuring Ruth Peters

MIND over Mediterranean The Village Observer 10 September 2019 – featuring Kaarin Anstey

Greek Australians living with dementia have specific needs Neo Kosmos 11 September 2019 – featuring Kaarin Anstey

Prestige funding awards have real world applications The Australian 13 September 2019 – featuring Kaarin Anstey

The Sydney suburbs going grey The Sun Herald 15 September 2019 – featuring Rafal Chomik

Where Sydney's suburbs are greying The Sydney Morning Herald, Brisbane Times 15 September 2019 – featuring Rafal Chomik

Good news for older workers Townsville Bulletin 16 September 2019 – featuring Marian Baird

Fevers, rashes and three months of illness: the health risks facing a growing Sydney The Sydney Morning Herald 17 September 2019 – featuring Robert Cumming

Air pollution linked to higher dementia risks Community Care Review Magazine 18 September 2019 – featuring Ruth Peters

Good news for older workers Daily Examiner Grafton, Morning Bulletin 18-19 September 2019 – featuring Marian Baird

Review on retirement cut back The Australian Financial Review 23 September 2019 – featuring John Piggott **Review on retirement income reined in** The Australian Financial Review 24 September 2019

– featuring John Piggott
 Climate change will make us poorer in retirement: Report

The Australian Financial Review 25 September 2019 – featuring Rafal Chomik and Ramona Meyricke

Climate change to damage returns: Report Financial Standard 26 September 2019 – featuring Rafal Chomik and Ramona Meyricke

Super review strikes at the heart of political divide The Australian Financial Review 30 September 2019 – featuring John Piggott

Business welcomes probe into retirement incomes The Australian 1 October 2019 – featuring Warwick McKibbin

InFocus: Addressing diminishing capacity Money Management 3 October 2019 – featuring Kaarin Anstey

Make friends with your fund: Money launches SuperBooster project Money Magazine 3 October 2019 – featuring CEPAR industry report

Are unconventional monetary policies the right option for Australia? The Sydney Morning Herald 11 October 2019 – featuring Warwick McKibbin

Older Australians forced to postpone retirement Money Magazine 23 October 2019 – featuring Sharon Parker

Good policy needs good data. So why is it locked up? The Australian Financial Review 28 October 2019 – by Warwick McKibbin

Planning early will stop young Aussies going grey over retiremen

Money Magazine 1 November 2019 – featuring Hazel Bateman

The fatal cost of Australia's rising inequality The Saturday Paper 2 November 2019 – featuring Philip Clarke

CEPAR research shows taking a mortgage triggers superannuation link-up Business Acumen Magazine 3 November 2019 - featuring Hazel Bateman

Soccer and brain risks The Sydney Morning Herald 3 November 2019 – featuring Kaarin Anstey

Home loans shape Aussies' super contributions Your Mortgage 4 November 2019 – featuring CEPAR research

New resource supports better dementia care Australian Ageing Agenda 8 November 2019 – featuring Kaarin Anstey



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Superannuation and new mortgages link

St George & Sutherland Shire Leader, Launceston Examiner, Murray Valley, Milton Ulladulla Times, Wimmera Mail Times, Horsham 13-29 November 2019 – featuring Hazel Bateman

Would you take a money-back guarantee from a 401(k)? (The answer should be no) Market Watch 14 November 2019 - featuring Olivia S. Mitchell

Nikkei SAAS conference

Nikkei newspaper; The Financial Times; Nikkei Asian Review 14 November, 5 & 9 December 2019 – featuring John Piggott

Migration a lifeline for drought-stricken Dubbo

The Canberra Times 16 November 2019

– featuring Peter McDonald

Is it ever too late to enter the property market? Money Magazine 18 November 2019

– featuring Rafal Chomik, John Piggott

Employer secrecy around staff pay is fuelling gender pay gap, says expert The Guardian 19 November 2019 – featuring Marian Baird

This age-old question gets up voters' noses unless there's an answer The Sydney Morning Herald 22 November 2019

– featuring Jeromey Temple Delay risks retirement

Lauriceston Examiner, Burnie Advocate, Border Mail, Albury-Wodonga 28 - 30 November 2019 – featuring Rafal Chomik

Buying a house is not the only major milestone Australians are delaying

The Sydney Morning Herald, The Brisbane Times 30 November 2019 – featuring Rafal Chomik

Putting off the Australian dream Sun Herald 1 December 2019 – featuring Rafal Chomik

The time of our lives Sunday Age 1 December 2019 – featuring Rafal Chomik

MLC boss says super intra-fund advice model in need of overhaul The Australian Financial Review 4 December 2019 – featuring CEPAR Colloquium

Delaying risks retirement

Manning Great Lakes Extra 4 December 2019 – featuring Rafal Chomik

Mia knew 'something had to give' on work-life balance, she's not alone

The Sydney Morning Herald 15 December 2019 – featuring Marian Baird

It's a generational shift': Top tier firms offering dads more time off on full pay The Sydney Morning Herald 29 December 2019 – featuring Marian Baird

RADIO AND TELEVISION

Interview with Susan Thorp about superannuation funds ABC Radio Central West NSW 14 January 2019

Ageing populations, a huge challenge for policymakers Radio New Zealand 7 February 2019 – featuring John Piggott

MIND diet reduces the risk of dementia ABC News, Weekend Breakfast 9 March 2019 – featuring Kaarin Anstey

The Mediterranean diet, plus brain-healthy tweaks, may protect against dementia 9Honey 11 March 2019 – featuring Kaarin Anstev

Will your super be enough for retirement? Part 1 ABC 7.30 Report 8 April 2019 – featuring Susan Thorp

Is your super in safe hands? Part 2 ABC 7.30 Report 9 April 2019 – featuring Susan Thorp

Is self-managing your super the retirement of the future? Part 3 ABC 7.30 Report 10 April 2019 – featuring Susan Thorp

Is it possible to balance career and family? ABC Radio On Drive 21 May 2019 – featuring Marian Baird

James Valentine interview with Kaarin Anstey ABC Radio and ABC Newcastle 12 June 2019

How family friendly are Australian workplace policies? ABC 19 June 2019 – featuring Marian Baird

Professor John Piggott on Australia's population Money News with Ross Greenwood 20 June 2019

Ross Greenwood interview with John Piggott 2GB Radio, and broadcasted to 1071 AM (Kingaroy), 2BS (Bathurst), 2CC (Canberra), 2NM (Muswellbrook),

20N (Deniliquin), 3AW (Melbourne), 4BC (Brisbane), 4VL (Charleville), 42R (Roma), Zinc 666 (Mt Isa) 20 June 2019

Professor Warwick McKibbin speaks to Elysse ABC TV 2 July 2019

Interview with Peter McDonald 2SM Radio 4 July 2019

Interview with Michael Sherris ABC Radio 5 July 2019

Is Australia's population growth mostly the result of migration, and is that underpinning the budget? ABC News 1 August 2019 – featuring Peter McDonald

Behind the Markets Podcast: Professor Hanming Fang Wharton Business Radio 2 August 2019

Interview with Marian Baird ABC Radio 13 August 2019

How people can live longer ABC Radio 27 August 2019 – featuring Kaarin Anstey Interview ahead of Science Week Event, How people can live longer Eastside Radio August 2019 – featuring Kaarin Anstey

Interview with Daniela Andrei 2SM Radio 3 September 2019

New age ideas to tackle an ageing workforce 6PR 882 News talk 3 September 2019 – featuring Daniela Andrei

Interview with Daniela Andrei Curtin FM9 September 2019

Air pollution and dementia interview ABC Radio, 2SM Radio, BBC World 12 September 2019 – featuring Ruth Peters

New GP guidelines have been released as it could help reduce the occurrence dementia 2SM Radio 26 September 2019 – featuring Kaarin Anstey

Guidelines for GPs on dementia risk reduction 2GB Radio 26 September 2019 – featuring Kaarin Anstey

Climate change threatens elderly: Report 7News 26 September 2019 – featuring Rafal Chomik and Ramona Meyricke

Dementia prevention research The Daily Edition Channel 7 30 September 2019 – featuring Ruth Peters

IMF downgrades Australia's economic growth 2GB Radio 16 October 2019 – featuring Warwick McKibbin

Survey reveals working parents neglect mental, physical health ABC radio 29 October 2019 – featuring Marian Baird

Money News Ross Greenwood interview with Professor John Piggott

2GB Radio 19 November 2019 Greenwood says Treasurer Josh Frydenberg is set to deliver a speech to the community

2GB Radio 19 November 2019 – featuring John Piggott

Breakfast, Sandy Presland, Interview with Rafal Chomik ABC News 19 November 2019

Designing a health poverty line ABC News Radio 9 December 2019 – featuring Philip Clarke

Work age discrimination study finds surprise gender differences ABC radio The World Today 12 December 2019 - featuring Marian Baird

ONLINE

Superannuation: Why we stick with the duds The Conversation 14 January 2019 – by Susan Thorp

Migration cut looms as obstacle for Government's pledge to create 680 jobs per day ABC News 29 January 2019 – featuring Peter McDonald

Younger migrants key to Morrison's pre-election job pledge, expert says SBS News 30 January 2019 – featuring Peter McDonald

Life expectancy: How long can you live? Health Agenda online 1 February 2019 – featuring Peter McDonald

Gender inequality in retirement income SuperGuide 15 February 2019 – featuring CEPAR research

Why financial literacy is vital for a good retirement SuperGuide 15 February 2019 – featuring CEPAR research

Age Pension: Is it alleviating poverty? SuperGuide 16 February 2019 – featuring CEPAR research

The financial and health benefits of working into retirement SuperGuide 16 February 2019 – featuring CEPAR research

Retirement income in Australia: An overview SuperGuide 18 February 2019 – featuring CEPAR research

The older Australians who are doing it tough Your Life Choices 21 February 2019 – featuring CEPAR research

Study suggests MIND diet reduces the risk of dementia MDLinx 7 March 2019 – featuring Kaarin Anstey

Healthy diets may protect against dementia News Medical 8 March 2019 – featuring Kaarin Anstey

'Brain Health' diet linked to reduced risk for dementia and other disorders Devdiscourse News Desk 8 March 2019 - featuring Kaarin Anstey

MIND diet protects against cognitive impairment and dementia Vaaju 11 March 2019 – featuring Kaarin Anstey

Ageing prisoners are challenging the system inside and out Seniors News 14 March 2019 – featuring Natasha Ginnivan

Ageism rife in Australian health systems National Seniors 14 March 2019 – featuring Neil Jeyasingam

The theory that's too good to be true APPS Policy Forum 15 March 2019 – by Warwick McKibbin Investing in care key to boosting economic growth

East Asia Forum 19 March 2019 – by Marian Baird

Budget 2019 boosts aged care and mental health, and modernises Medicare: Health experts respond The Conversation 2 April 2019 – by Philip Clarke Being financially literate can help you save more, retire better

TODAYonline 6 April 2019 – featuring Oliva S Mitchell

'Old and inside': How prisons are coping with an ageing inmate population HelloCare 15 April 2019 – featuring Natasha Ginnivan

Megacities the new 'global economic engines' Government News 23 April 2019 – featuring Peter McDonald

Can annuities help grow your retirement nest egg? Knowledge@Wharton 2 May 2019 – featuring Olivia S. Mitchell

UNSW Business School ranked 1st in the world for Risk and Actuarial studies UNSW Newsroom, Insurance News, Mid Daily News 10 May 2019 – featuring Michael Sherris

The demand for reverse mortgages in China VoxChina 15 May 2019 – by Katja Hanewald, Hazel Bateman, Hanming Fang and Shang Wu

Commentary: Who's looking after the children and elderly if more women work? Channel News Asia 18 May 2019 – by Marian Baird

Podcast: The Auspolicy issue – what the country voted for APPS Policy Forum 24 May 2019 – featuring Warwick McKibbin

The cost of complexity in the Medicare Part D market VOX CEPR Policy Portal 26 May 2019 – featuring Michael Keane

16 Powerhouse Female Economists Worth Magazine 30 May 2019 – featuring Olivia S. Mitchell

Thousands of Philadelphia-area Acme workers, retirees at risk of losing their pension The Philadelphia Inquirer 31 May 2019 – featuring Olivia S. Mitchell

World 100 most influential gender equality list features Marian Baird, Libby Lyons & Julia Gillard Women's Agenda 31 May 2019 – featuring Marian Baird

Leading academic on list of world's top gender policy influencer The University of Sydney 31 May 2019 – featuring Marian Baird

Worth Magazine cites Wharton's Olivia Mitchell's Work – *Penn LDI 6* June 2019

What should the federal government's super and retirement planning priorities be? SuperGuide 11 June 2019 – featuring John Piggott and Rafal Chomik

Why is the demand for reverse mortgages low? UNSW BusinessThink 11 June 2019 – featuring Hazel Bateman and Katja Hanewald

Why are Australians rejecting popular loan options? nestegg 11 June 2019 – featuring Hazel Bateman and Katja Hanewald University to probe reverse mortgages Your Life Choices, Mortgage Business 12 June 2019 – featuring Hazel Bateman and Katja Hanewald

UNSW Business School to examine reverse mortgages AdviserVoice 12 June 2019 – featuring Hazel Bateman and Katja Hanewald

Expanding paternity leave in Southeast Asia East Asia Forum 14 June 2019 – by Marian Baird

What should the government's super and retirement planning priorities be? Cuffelinks 14 June 2019 – featuring John Piggott and Rafal Chomik

Australian university to study slow reverse mortgage adoption Reverse Mortgage Daily 18 June 2019 – featuring Hazel Bateman and Katja Hanewald

Aging populations threaten 620 fiscal sustainability, says taskforce BusinessThink, Senior Australian news and research, Mirage News 24–28 June, 15 July 2019 – featuring John Piggott

How English-speaking countries upended the trade-off between babies and jobs without even trying The Conversation 26 June 2019 - by Daniel Dinale and Marian Baird

National immigration cut could see Adelaide's skill workers desert the city news.com.au 27 June 2019 – featuring Peter McDonald

Buckle up: The economy is weak and heading down – here's what will happen next The AlterNet 30 June 2019 – featuring Warwick McKibbin

Buckle up. 2019–20 survey finds the economy weak and heading down, and that's ahead of surprises The Conversation 1 July 2019 – featuring Warwick McKibbin

Aging populations threaten G20 fiscal sustainability, says taskforce Parsseh.com 1 July 2019 – featuring John Piggott

New International Pension Research Association announced The National Tribune, Austaxpolicy 2 July 2019 – featuring John Piggott and Hazel Bateman

How financial literacy courses are helping Reading residents The Reading Eagle 2 July 2019 – featuring Olivia S. Mitchell

In Australia fertility is falling significantly for low educated women The National Tribune 4 July 2019 – featuring Peter McDonald

Upskilling a key to workplace longevity for older workers Senior News 4 July 2019 – featuring Gigi Petery

How China's ageing population will impact on the rest of us BusinessThink 8 July 2019 – featuring John Piggott

Interview with Peter McDonald The Financial Standard 10 July 2019



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Budget relying on overestimated population growth figures, leading expert says ABC 12 July 2019 – featuring Peter McDonald

Dementia research receives \$21 million in Federal funding Aged Care Guide 22 July 2019 – featuring Kaarin Anstey

How China's ageing population will impact on the rest of us Perspectives at Singapore Management University 31 July 2019 – featuring John Piggott

APRA awards finance research scholarships Investor Daily 1 August 2019 – featuring Luke Zhou

Is Australia's population growth mostly driven by migration? Crikey 1 August 2019 – featuring Peter McDonald

Legal protections for mature workersSenior AU, The National Tribune 1 August 2019 – featuring Marian Baird and CEPAR fact sheet

Have employers over the age of 55? You need to read this Ragtrader 1 August 2019 – featuring Marian Baird and CEPAR fact sheet

CEPAR researchers appointed to international commission The National Tribune 1 August 2019 – featuring John Piggott and John Beard

Creating a global roadmap for healthy longevity Senior AU 2 August 2019 – featuring John Piggott and John Beard

How poor design of job leads to boredom and lack of engagement The Globe and Mail 3 August 2019

- featuring Sharon Parker and Daniela Andrei

Podcast interview with Marian Baird – Women with Clout 7 August 2019

Legal protections for mature workers: Know your rights National Seniors Australia 8 August 2019 – featuring CEPAR fact sheet

Fact sheet on legal protection for mature workers released Safety Culture 15 August 2019 – featuring Marian Baird

How retirement wealth projections impact the behaviour of super fund members First 5000 16 August 2019 – featuring CEPAR research

The impact of projections on superannuation contributions, investment choices and engagement APO 16 August 2019 – featuring CEPAR research

Why our trains and roads are likely to remain congested, despite immigration freeze ABC Fact Check 16 August 2019 – featuring Peter McDonald

Meet Margaret the Super Ager, whose brain is defying the ageing process

ABC News 22 August 2019 – featuring Kaarin Anstey

Legal protections for mature workers

The Drop, Seniors News 27 August 2019; 9 September 2019 – featuring Marian Baird

Age and Work

COTA Queensland 28 August 2019 – featuring CEPAR fact sheet

Discrimination, flexibility and safety laws for older workers Industry Update 29 August 2019 – featuring CEPAR fact sheet

Super funds should develop advice models: Rice Warner Investor Daily 29 August 2019 – featuring CEPAR

Funds fail on advice outcomes Super Review 30 August 2019 – featuring CEPAR

New insights: Dementia, risk, risk reduction, and translation into practice MedicalXpress 3 September 2019 – featuring Kaarin Anstey

The key steps everyone should take to find real joy in retirement startsat60.com 6 September 2019 – featuring CEPAR research

Helping employers to benefit from a growing mature workforce Senior AU 9 September 2019 – featuring Sharon Parker and Daniela Andrei

ARC Laureate Fellows announced Campus Morning Mail 13 September 2019 – featuring Kaarin Anstey

Do chess players live longer? Chessbase News 14 September 2019 – featuring Philip Clarke

Investing in ground-breaking researchers Get STEM 16 September 2019 – featuring Kaarin Anstey

Seven major trends affecting Australians in retirement Fitzpatricks Private Wealth 25 September 2019 – featuring CEPAR research

New guidelines to help GPs spruik dementia prevention Aged Care Insite 26 September 2019 – featuring Kaarin Anstey

Dementia prevention guidelines to reduce dementia rates Senior AU 26 September 2019 – featuring Kaarin Anstey

Climate change could slash retirement income by tens of thousands of dollars Startsat60.com 26 September 2019 – featuring Rafal Chomik and Ramona Meyricke

Dementia on track to become leading cause of death Australian Ageing Agenda 26 September 2019

– featuring Kaarin Anstey

This is how much climate change will cost your retirement savings The New Daily 26 September 2019 – featuring Rafal Chomik and Ramona Meyricke

Climate change: deadly heatwaves set to soar Insurance News 26 September 2019 – featuring Rafal Chomik and Ramona Meyricke

Climate change and ageing population creating 'a perfect storm'

Your Life Choices 27 September 2019 – featuring Rafal Chomik and Ramona Meyricke

More Australians to die from climate change; lower investment returns, and lower retirement savings likely The Adviser Voice 27 September 2019 – featuring Rafal Chomik

GPs better equipped to reduce dementia risks Retail Pharmacy Magazine 29 September 2019 – featuring Kaarin Anstey

New GP guidelines could reduce Aus dementia rates Hospital Health Magazine 1 October 2019 – featuring Kaarin Anstey

5 questions productive employees ask In the Black Mag 1 October 2019 – featuring Sharon Parker

FINRA Foundation awards 2019 Ketchum Prize to Dr Olivia S. Mitchell Mondovisione 3 October 2019 – featuring Olivia S. Mitchell

Many minds better than one: meet the dementia scientist collaborating for cognitive ageing breakthroughs UNSW newsroom 15 October 2019 – featuring Kaarin Anstey

New GP guidelines could significantly reduce dementia rates in Australia UNSW newsroom 17 October 2019 – featuring Kaarin Anstey

Labor and the Coalition are arguing about asylum seekers coming by plane. Here are the facts ABC 19 October 2019 – featuring Peter McDonald

Young dads get why work/care policies matter, but not ahead of time Women's Agenda 29 October 2019 – featuring Marian Baird

Kids, not gender, the biggest influence on work/care policy attitudes phys.org 29 October 2019 – featuring Marian Baird

Impact of a mortgage improves engagement with super nestegg 30 October 2019 – featuring Hazel Bateman

Taking out a mortgage triggers engagement with superannuation The National Tribune 30 October 2019 – featuring Hazel Bateman

Struggling to balance work and family? You're not alone say Sydney researchers The Sector 30 October 2019 – featuring Marian Baird

Impact of a mortgage improves engagement with super SMSF Adviser 30 October 2019 – featuring Hazel Bateman

Engagement of loan applicants show differing intentions nestegg 31 October 2019 – featuring CEPAR research

Member advice gets 'appy' Super Review 1 November 2019 – featuring CEPAR

Home ownership changes with the generational shift Real Estate Business 18 November 2019 – featuring Rafal Chomik, John Piggott Australians not buying houses until much later in life Savings 18 November 2019 – featuring Rafal Chomik, John Piggott

Housing inequality could ignite the death tax debate nestegg, Accounts Daily 18–20 November 2019 – featuring Rafal Chomik, John Piggott

Delaying home purchase can have consequences Mortgage Business; Smart Property Investment 19–20 November 2019 – featuring Rafal Chomik

Are Aussies delaying their home purchases? Your Mortgage 19 November 2019 – featuring Rafal Chomik, John Piggott

Men in Australia still earning \$25k a year more than women, 50 years after equal pay ruling SBS News 19 November 2019 – featuring Marian Baird

How important is home ownership? FN Arena 19 November 2019 – featuring CEPAR research

Report reveals the retirees facing the greatest disadvantage Your Life Choices 19 November 2019 – featuring Rafal Chomik

Ageing population a time bomb, only if policy makers don't anticipate it

UNSW Newsroom, Senior AU 20–29 November 2019 – featuring John Piggott

Declining home ownership amongst Australia's older population

Architecture & Design 20 November 2019 – featuring Rafal Chomik, John Piggott

Appetite for property approaching record high

Your Investment Property Mag 21 November 2019 – featuring Rafal Chomik

Retirement income is safe as houses – for some InDaily 25 November 2019 – featuring Rafal Chomik

We're delaying major life events, and our retirement income system hasn't caught up

The Conversation 25 November 2019, republished at UNSW Newsroom, New Investor, SeniorAU, AlterNet – by Rafal Chomik

We're delaying major life events, and our retirement income system hasn't caught up

Property Observer 26 November 2019 – by Rafal Chomik

Delay risks retirement

St George & Sutherland Shire Leader 27 November 2019 – featuring Rafal Chomik



L-R: CEPAR RESEARCHERS RAFAL CHOMIK AND RAMONA MEYRICKE WERE INTERVIEWED BY VANESSA BEENDERS FOR AN EPISODE OF THE ACTUARIES INSTITUTE PODCAST SERIES TO DISCUSS THEIR PAPER 'THE IMPACT OF CLIMATE CHANGE ON MORTALITY AND RETIREMENT INCOMES IN AUSTRALIA'

Older Australians have the highest rate of rental poverty in the OECD

The New Daily 27 November 2019 – featuring Rafal Chomik

Elderly homeless numbers on the rise Savings 28 November 2019 – featuring Rafal Chomik

Rental crisis: Vital action needed to house retirees Startsat60.com 30 November 2019 – featuring Rafal Chomik

Home ownership being delayed longer as population ages: CEPAR report Property Observer 30 November 2019

– featuring Rafal Chomik

We're delaying major life events, and our retirement income system hasn't caught up Super Guide 1 December 2019 – featuring Rafal Chomik

New guidelines could significantly reduce dementia rates AMA Victoria's website 4 December 2019 – featuring Kaarin Anstey *How a woman's 'glam' appearance affects her career ABC Life* 12 December 2019 – featuring Marian Baird

New report highlights challenges for mature workers in Australia Curtin Newsroom 12 December 2019 – featuring Marian Baird and Sharon Parker

Mature workers are struggling to find work in Australia Aged Care Guide 12 December 2019 – featuring Marian Baird and Sharon Parker

The key problems reported by older workers Your Life Choices 17 December 2019 – featuring Marian Baird and Sharon Parker

Employers must do better to accommodate older workers Hello Care Mail 17 December 2019 – featuring CEPAR research

END USER LINKS

PRESENTATIONS/BRIEFINGS

PUBLIC

- 1 Andrei, D. (September 2019). Panel discussion. Change At Work: Designing Diversity and Inclusion Differently to Achieve Organisational Change. Curtin & Diversity Council Australia Event, Perth, Australia.
- 2 Andrei, D. and Petery, G.A. (March 2019). Mature Workers in Organisations: Challenges and Opportunities for an Organisational Based Approach. Meet the Researchers, Curtin Graduate Business School - Public Talk, Perth, Australia.
- 3 Anstey, K. (2019). Keeping our brain healthy. Local Community of Little Bay, Sydney, Australia.
- 4 Anstey, K. (April 2019). Dementia prevention: a critique of the evidence on risk factors from observational studies. Theo Murphy Frontiers of Science Symposium, Academy of Science, Adelaide, Australia.
- 5 Anstey, K. (September 2019). A healthy brain in later life? Science Week: Science in the Bookshop event, Sydney, Australia.
- 6 Baird, M. (2019). Transformative effects of parental leave in Australia and South-East Asia. Labour Organisation (ILO), 100th Anniversary of Maternity Protection, Geneva, Switzerland.
- 7 Brady, B. (October 2019). Guest Lecture. Pathways to early career research engagement and success. Western Sydney University, Sydney, Australia.
- 8 Byles, J. (February 2019). Opening statement on behalf of the Australian Epidemiological Association (AEA).
 Inquiry into sleep health awareness in Australia.
 Sydney Public Hearing. Sydney, Australia.
- 9 Byles, J. (June 2019). Acceptable ageing. University of the Third Age, Adamstown, Australia.
- 10 Fisher, G. Cognitive aging and work: Implications for an aging workforce. RAND Corporation. Santa Monica, CA, USA, May 2019; Future of Work Institute, Perth, Australia, July 2019 and CEPAR, UNSW, Sydney, Australia, August 2019.
- 11 Keane, M. (August 2019). How to become known in the world, and how to get your research recognised. Scientia fellows UNSW/Academics and young researchers, Sydney, Australia.
- 12 McDonald, P. (April 2019). Australian Population Policy. Urban Task Force (top 100 property developers in Australia). Sydney, Australia.
- 13 McDonald, P. (March 2019). Australian population policy. Rotary Melbourne, Melbourne, Australia.

- 14 McDonald, P. (November 2019). Economic effects of immigration. Australian Davos Connection, Brisbane, Australia
- 15 McDonald, P. (September 2019). Australian population policy. Athenaeum Club, Melbourne, Australia.
- 16 Parker, S.K. (2019). Keynote. Digital transformation: How emerging technologies are changing the future of work design. Petroleum Women's Network Event, hosted by ConocoPhillips; Woodside; BP; Shell; Chevron & INPEX Perth, Australia.
- 17 Parker, S.K. (July 2019). From smart workers to smart work: Creating a positive future in the digital age. 2019 Prescott Lecture at Monash University, Melbourne, Australia.
- 18 Peters, R. (June 2019). An up to date overview of blood pressure, blood pressure lowering and risk of dementia. Imperial College, London, United Kingdom.
- 19 Peters, R. (May 2019). Dementia prevention, what do we know? And where do we go from here? Australian Dementia Centre for Research Collaboration live public-facing webinar, Sydney, Australia.
- 20 Truxillo, D. (September 2019). Supporting workers, organizations, and society: Interventions from work psychology. Kemmy Business School, University of Limerick, Inaugural Lecture. University of Limerick.
- 21 Zhou, L., Labit-Hardy, H., Villegas, A. and Ziveyi, J. (June 2019). A structured investigation of retirement income products. UNSW Business School Research Fair, Sydney, Australia.

GOVERNMENT

- Andrei, D. (September 2019). Mature Workers in Organisations. Meeting of the City of Joondalup Executive Board, Joondalup, Australia.
- 2 Anstey, K. (April 2019). Data Linkage for Ageing Research. CEPAR Symposium on Data Linkage, ANU Crawford School, Canberra, Australia.
- 3 Anstey, K. (May 2019). Expert panel member. Dementia, Ageing and Aged Care workshop, Commonwealth Department of Health. Canberra, Australia.
- 4 Anstey, K.J. (April 2019). Enhancing Research Through Data Linkage: The PATH Through Life Example. CEPAR workshop on Data Linkage, Crawford School, Australian National University. Canberra, Australia.
- 5 Baird, M. (2019 November). Gender, Age and Housing. CEPAR Policy Dialogue on Housing and Ageing, Canberra, Australia.
- 6 Baird, M. (May 2019). Increasing Female Labour Force Participation. Malaysia-Australia Gender Policy Dialogue. Kuala Lumpur, Malaysia.

- 7 Baird, M. (November 2019). Housing Transitions. CEPAR Policy Dialogue on Housing and Ageing. Canberra, Australia.
- 8 Bateman, H. (April 2019). Member Engagement: How do we meet the Challenge of Member Engagement with Superannuation? What Role do Defaults Play? CEPAR Roundtable on Retirement Incomes. Sydney, Australia.
- 9 Bei, L. (2019). CEPAR Research and Collaboration on Long-term Care. Malaysian government and academic delegation to CEPAR, Sydney, Australia.
- 10 Byles, J. (February 2019). Aged care use by women in the Australian Longitudinal Study on Women's Health. Australian Institute of Health and Welfare (AIHW), Canberra, Australia.
- 11 Byles, J. (March 2019). Community, Pre-diagnosis and Diagnosis as well as Post Diagnostic and Ongoing Support. Dementia Policy Co-Design Workshop: Dementia and Supported Ageing Branch, Department of Health. Sydney, Australia.
- 12 Byles, J. (November 2019). Housing for Older Australians: Changing Capacities and Constrained Choices. CEPAR Policy Dialogue on Housing and Ageing. Canberra, Australia.
- 13 Capatina, E. and Keane, M. (June 2019). Health Shocks and the Evolution of Consumption and Income over the Life-Cycle. Federal Reserve Bank of Atlanta, Atlanta, USA.
- 14 Chesterman, J., Sinclair, C., Lonie, J. and Connolly, H. (July 2019). Practical Models: Decision-Making and Choice. National Elder Abuse Conference. Brisbane, Australia.
- 15 Chomik, R. (April 2019). An Overview of Retirement Income Outcomes: Who Wins; Who Loses? CEPAR Roundtable on Retirement Incomes. Sydney, Australia.
- 16 Chomik, R. (June 2019). Technology and Ageing. The Global Economic Implications of Population Ageing. Canberra, Austalia.
- 17 Chomik, R. (November 2019). Housing in an Ageing Australia: Nest and Nest Egg? CEPAR Policy Dialogue on Housing and Ageing. Canberra, Australia.
- 18 Chung, T. (2019). Sustainable Pensions with Means Testing in Aging Economies. Australia Taxation Office and the department of Prime Minister and Cabinet, Canberra, Australia.
- 19 Clarke, P. (2019). Healthy Poverty Overview. Victorian Department of Health and Human Services. Melbourne, Australia.
- 20 Clarke, P. (2019). Overview of recently published research. Workshop on Data Linkage for Ageing Related Research. Department of Health, Canberra, Australia.

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- 21 Clarke, P. (2019). Data-linkage in Australia: Story so far. Data Linkage for ageing related research: How far have we come? How much further to go? Canberra, Australia.
- 22 Clarke, P. (December 2019). Defining and Measuring Health Poverty. Workshop on Data Linkage for Ageing Related Research. Department of Health, Canberra, Australia.
- 23 Fehr, H. (November 2019). Home Ownership and Housing Policies in Germany. CEPAR Policy Dialogue on Housing and Ageing. Canberra, Australia.
- 24 Hunt, A., Batterham, P. and Steel, Z. (July 2019). Late Life Depression in Indonesia. Presentation to the representatives of the Governor of Yogyakarta. Yogyakarta, Indonesia.
- 25 Keane, M. (2019). Improving Life-cycle Models used to Evaluate Tax and Transfer Policy. Treasury, Canberra, Australia.
- 26 Knight, J. (December 2019). Pre- and Post- Operative Prescribing of Opioid and the Association with Long Term Opioid Use. Workshop on Data Linkage for Ageing Related Research. Department of Health, Canberra, Australia.
- 27 Kudrna, G. (August 2019). Economic Impacts of Population Ageing. Global Economic Implications of Population Ageing. ANU, Canberra, Australia.
- 28 Kudrna, G. (June 2019). Establishing a Multi-pillar Pension System through the Role-sharing between Public and Private Pensions: The Case of Australia. 14th Pension Experts Meeting in Asia-Pacific Region, Seoul, South Korea.
- 29 Lee, J.W. (August 2019). Aging Population and Productivity—Evidence from Korean data. The Global Economic Implications of Population Ageing. ANU, Canberra, Australia.
- 30 McDonald, P. (April 2019). Demography and Security. Australian Defence College, Canberra, Australia.
- 31 McDonald, P. (August 2019). Fertility and Economic Development in Selected Asian Countries. The Global Economic Implications of Population Ageing. ANU, Canberra, Australia.
- 32 McDonald, P. (August 2019). Meeting. Directions of the Centre. Director, Centre for Population, Treasury, Canberra, Australia.
- 33 McDonald, P. (July 2019). Australian fertility trends. Department of the Treasury. Canberra, Australia.
- 34 McDonald, P. (July 2019). Australian population policy. Department of Social Services. Canberra, Australia.
- 35 McDonald, P. (March 2019). Demography and Economic Development in Indonesia. High Level Policy Dialogue. Ministry of Finance, Jakarta, Indonesia.



CEPAR SENIOR RESEARCH FELLOW GEORGE KUDRNA PRESENTING AT THE 14TH PENSION EXPERTS MEETING IN THE ASIA-PACIFIC REGION, HELD IN SEOUL IN JUNE 2019

- 36 McDonald, P. (March 2019). Keynote presentation. Demography and Economic Development in Indonesia Ministry of Finance. Indonesian Government, Jakarta, Indonesia.
- 37 3McDonald, P. (November 2019). Home Ownership Futures: An Alternative Approach to Measurement. CEPAR Policy Dialogue on Housing and Ageing. Canberra, Australia.
- 38 McDonald, P. (October 2019). Discussion of 30th International Population Conference. Centre for Population, Treasury, Canberra, Australia.
- 39 McDonald, P. (October 2019). Discussion of Population Issues in Japan with Mr Kenya Akiba, Special Adviser to the Prime Minister of Japan. Melbourne, Australia.
- 40 4McKibbin, W. (2019). Discussion of Policy Related to Macroeconomics, Demographics and Climate Change with the Treasurer Josh Frydenberg. Canberra, Australia.
- 41 McKibbin, W. (April 2019). How Far Have We Come? How Much Further to Go? Workshop on Data Linkage for Ageing Related Research. ANU, Canberra, Australia.
- 42 McKibbin, W. (August 2019). Introduction and Overview. The Global Economic Implications of Population Ageing. ANU, Canberra, Australia.
- 43 McKibbin, W. (August 2019). Macroeconomic Impact of Global Demographic Change. The Global Economic Implications of Population Ageing. ANU, Canberra, Australia.

- 44 McKibbin, W. (November 2019). Discussion of the demographic modeling project with several members of the US Federal Board of Governors, Canberra, Australia.
- 45 McKibbin, W. (October 2019). Discussion about a potential role for CEPAR and the G-Cubed model in the IGR2020 and CSIRO report on the Australian National Outlook 2020. Treasury officials, Canberra, Australia.
- 46 Parker, S.K. From Smart Workers to Smart Work: Creating a Positive Future of Work. Health and Wellbeing and WHS staff, the Treasury and Economic Development Directorate (CMTEDD), and Community Services Directorate (CSD), Canberra, Australia; Justice and Community Safety (JACS) Directorate senior executives and statutory office holders, and senior executives from Transport Canberra and City Services, Canberra, Australia and Justice and Community Safety Directorate, Canberra, Australia, September 2019.
- 47 Petery, G.A. (May 2019). The Ageing Workforce: Implications and Opportunities for Local Governments. Workforce Risk Forum. Burswood WA, Australia.
- 48 Piggott, J. (August). Ageing and Social Protection. The Global Economic Implications of Population Ageing. The Global Economic Implications of Population Ageing. ANU, Canberra, Australia.
- 49 Piggott, J. (March 2019). Keynote. What are the Supervisory Challenges with Regard to Current and New Retirement Products? IOPS International Conference on Pension Supervision and Regulation 2019: Options for Creating Sustainable Pension Systems in Energy Markets Conference. New Delhi. India.

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END USER LINKS

- 50 Piggott, J. (November 2019). Nest and Nest Egg? CEPAR Policy Dialogue on Housing and Ageing. ANU, Canberra, Australia.
- 51 Piggott, J., Bateman, H., de Cure, M. and Kudrna, G. (December 2019). Retirement Incomes Review Briefing. Panel Members, Treasury. Sydney, Australia.
- 52 Piggott, J., Chomik, R. (2019). Long Term Care Concepts, Trends and Reforms: A View from Australia. Malaysian government and academic delegation to CEPAR, Sydney, Australia.
- 53 Sherris, M. (April 2019). Risks and Products: How Should we Better Encourage the use of Innovation and Design of Longevity Insurance Products? Are CIPRs the Answer? CEPAR Roundtable on Retirement Incomes. Sydney, Australia.
- 54 Sherris, M. (November 2019). Policy, Practice and Research: Issues and Responses. CEPAR Policy Dialogue on Housing and Ageing. Canberra, Australia.
- 55 Sinclair, C. (2019). Care Planning and Decision-Making in Australian Long-term Care. Malaysian government and academic delegation to CEPAR, Sydney, Australia.
- 56 Sinclair, C. (June 2019). Oral evidence. Royal Commission into Aged Care Quality and Safety. Commonwealth Law Courts, Perth, Australia.
- 57 Tran-Duy, A. (December 2019). Using Linked Data to Inform Decision on Strategies for Closing the Gap in Life Expectancy Between Indigenous and Non-Indigenous People. Workshop on Data Linkage for Ageing Related Research. Department of Health, Canberra, Australia.
- 58 Weifeng Liu, L. (August 2019). Global Demographic Change and International Capital Flows. The Global Economic Implications of Population Ageing. ANU, Canberra, Austalia.
- 59 Woodland, A. (April 2019). Macro Impacts of Superannuation Reform: What Impact Might Alternative Pension/Superannuation Reforms have on Economic Growth and Welfare? CEPAR Roundtable on Retirement Incomes. Sydney, Australia.

INDUSTRY/BUSINESS/END USERS

- Andrei, D., Parker, S. and Baird, M. (April 2019). Mature Workers in the Organisation - Challenges and Opportunities for an Organisational-Based Approach. CEPAR Engagement Workshop. Perth, Australia.
- 2 Anstey, K.J. (April 2019). Dementia Prevention: A Critique of the Evidence from Trials. South Australia Medical Research Institute, Adelaide, Australia.
- 3 Anstey, K.J. (January 2019). Evidence for Interventions. United States Transport Research Bureau Workshop. Washington D.C., USA.

- 4 Anstey, K.J. (January 2019). Policy Variation within Australia. Workshop on International Perspectives on Older Drivers. United States Transport Research Bureau Annual Meeting, Washington D.C., USA.
- 5 Anstey, K.J. (2019). Assessing Dementia Risk factors Geneva World Health Organisation (WHO) Meeting on Dementia Burden Estimation. Geneva, Switzerland.
- 6 Anstey, K.J. (June 2019). Evidence for the WHO Dementia Risk Reduction Guidelines. Alzheimer's Disease International Webinar.
- 7 Anstey, K.J. and Peters R. (2019). Dementia Risk Reduction. Dementia Centre on Research Collaboration Webinar.
- 8 Baird, M. (2019). The Future of Work and Family in Australia. Committee for Economic Development of Australia (CEDA) lunch event, Brisbane, Australia.
- 9 Baird, M. (2019). Women & Men in Australia The Future of Work, Family and Care. Institute for Muscular Skeletal Health, Planning Day 2020 and Beyond, Sydney, Australia.
- 10 Baird, M. (March 2019). What Women Want, What Women Need to 'Balance for Better'. Sydney Trains. Sydney, Australia.
- Baird, M. (October 2019). Women, Work and Ageing. Finance Sector Union National Conference. Melbourne, Australia.
- 12 Baird, M. (October 2019). Keynote. All the Cares in the World: Work/Life Concerns of Mature Workers. Carers NSW Conference. Sydney, Australia.
- 13 Baird, M. and Gulesserian, L. [September 2019]. Australian Women's Financial Decision-Making and Other Factors Influencing the Superannuation Gap. Cate Wood, Board Member, Women in Super, Sydney, Australia.
- 14 Baird, M., Constantin, A., Elgood, J. and Gulesserian, L., (2019). Mature Age Employment. Council On The Ageing (COTA) and Challenger, Sydney, Australia.
- 15 Bateman, H. (June 2019). Motivated Saving: The Impact of Projections on Retirement Saving Intentions. Actuaries Summit. Sydney, Australia.
- 16 Bateman, H. (October 2019). Discussion Forum. International Centre for Pension Management. Sydney, Australia.
- 17 Byles, J. (August 2019). Expressed and Expected Needs for Aged Care: A Comparative Analysis of Two Generations of Australian Women. Aged Care Sit-Down, Sydney, Australia.
- 18 Byles, J. (August 2019). Health Care Use in later Life: Questions and Data. Agency for Clinical Innovation, Sydney, Australia.

- 19 Byles, J. (August 2019). Presentation to RSL LifeCare. NeW Space, University of Newcastle, Newcastle, Australia.
- 20 Byles, J. (November 2019). Healthy Ageing. Friends for the Future. Hunter Medical Research Institute. Lambton, Australia.
- 21 Gulesserian, L. (September 2019). Australian Women's Financial Decision-making and Other Factors Influencing the Superannuation Gap. Zonta International Sydney East Board, Sydney, Australia.
- 22 Iles, L. and Butcher, S. (November 2019). Employee Survey Results. Presentation to Diversity & Inclusion team at GHD. GHD, Perth, Australia.
- 23 Iles, L. and Chen, S. (November 2019). Policy and Practice Review. Workshop with representatives of City of South Perth, Perth, Australia.
- 24 Iles, L. and Williams, A. (November 2019). Workshop with representatives of City of Stirling, Perth, Australia.
- 25 Kiely, K. (March 2019). Lifecourse Perspectives on Hearing Loss and Cognitive Decline. Audiology Australia State Conferences. Queensland and Victoria, Australia.
- 26 Kooij, D. (2019). Module "Duurzaam personeelsbeleid" [Sustainable HR policy]. Strategic Human Resource Management in secondary education. Amsterdam, Netherlands.
- 27 Labit-Hardy, H. (June 2019). How a Cause-of-Death Reduction can be Compensated in Presence of Heterogeneity? A Population Dynamics Approach. Workshop on Dynamic Models for Human Longevity with Lifestyle Adjustments (LoLitA), Kings College London Financial Methematics Department, London, United Kingdom.
- 28 Lee, J.W. (September 2019). Can Older Workers Stay Productive? Role of Information and Communications Technology and Training in Republic of Korea. Asian Development Bank Institute. Tokyo, Japan.
- 29 McDonald, P. (October 2019). Economic Outcomes of Australian Immigration. Asia Pacific Initiative/ANU: Ambitions for Japanese Immigration. Tokyo, Japan.
- 30 McKibbin, W. (October 2019). Keynote presentation. The Global Economic Outlook: Vulnerabilities and Opportunities. CPA Australia Annual Congress, National Convention Centre, Canberra, Australia.
- 31 Mortby, M., Beattie, E., Lautenschlager, N., Doyle, C. and Anstey, K.J. (June 2019). Practical issues in intervention research in residential aged care facilities: Insights from the BPSD PLUS Project. Australian Dementia Forum. Hobart, Australia.

- 32 Parker, S.K. (August 2019). Keynote. The 4th Industrial Revolution and the Impact on the Workplace of the Future. The Future of Work industry event hosted by Curtin University and Optu., Perth, Australia.
- 33 Parker, S.K. (March 2019). Transformative Work Design: The SMART Work Model. Queensland Injury Prevention and Return to Work Conference. Townsville, Australia.
- 34 Parker, S.K. [September 2019]. Generational Diversity and Mature Workers in Organisations. GHD Global Diversity δ Inclusion Council Meeting, Virtual.
- 35 Parker, S.K. (September 2019). Keynote Address. Designing Work that Works: Future Directions. AOW 2019: Neue Formen der Arbeit in der digitalisierten Welt: Veranderungskompetenz starken, TU Braunschweig, Germany.
- 36 Pitacco, E. (November 2019). From Gompertz to Frailty Models: Mortality Modeling for Actuarial Applications. CEPAR Longevity Risk Workshop. UNSW, Sydney, Australia.
- 37 Rudolph, C.W. (September 2019). The Cognitive and Emotional Contributions of Older Workers to Workplaces. National Academies of Science, Engineering, and Medicine Committee on Population. Washington, USA.
- 38 Sherris, M. (2019). Developments in Multi-factor Continuous Time Mortality Modelling. CEPAR Longevity Risk Workshop. Sydney, Australia.
- 39 Sherris, M. (March 2019). Modelling Health Status and Functional Disability with Applications to Life Annuities and Long-Term Care Insurance. Macquarie University Financial Risk Day, Sydney, Australia.
- 40 Sinclair, C. Supported Decision-making. NHMRC National Institute of Dementia Research Lecture Tour Roadshow, NeuRA, Sydney, Australia, March 2019 and Dementia Australia Client Services Staff Training Day, Sydney, Australia, May 2019.
- 41 Sinclair, C. (August 2019). Supported Decision-making, Substitute Decision-making and Advance Care Planning. Advance Care Planning Australia, Victorian Seminar. Melbourne, Australia.

- 42 Sinclair, C. (June 2019). Supported Decision-making for People Living with Dementia. Ethics and Dementia Satellite Symposium, University of Tasmania, Hobart, Australia.
- 43 Sinclair, C. (March 2019). Maximising the Participation of People With Decision-making Disabilities in Guardianship Proceedings: Illusory or Achievable? Australian Guardianship Association Conference. Canberra, Australia.
- 44 Sirdaran, D., Sherris, M., Villegas, A. and Ziveyi, J. (June 2019). A Data Analytics Paradigm for the Construction, Selection, and Evaluation of Mortality Models. Actuaries Summit. Sydney, Australia.
- 45 Rudolph, C.W. (October 2019). Unpacking Theories of "Generations." Committee on the Consideration of Generational Issues in Workforce Management and Employment Practices. National Academies of Science, Engineering, and Medicine Committee on Population. Washington, USA.
- 46 Villegas, A. (2019). Developments in the application of data analytics techniques to mortality modelling. CEPAR Longevity Risk Workshop. Sydney, Australia.
- 47 Yiengprugsawan, V. Seubsman, S. and Sleigh, A.C. (October 2019). Health-risk Transition: Thai Cohort Study. EcoHealth Approach to Developments in Health Workshop organised by Australian National University, Commonwealth Scientific and Industrial Research Organisation and Asian Development Bank. Canberra, Australia.
- 48 Ziveyi, J. (2019). A Value-based Longevity Index: A Consistent Framework for Valuation of Longevitylinked Products and Basis Risk Quantification. CEPAR Longevity Risk Workshop. Sydney, Australia.

CENTRE FINANCE

CEPAR ANNUAL REPORT 2019 · CENTRE FINANCE

INCOME		2017(\$)	2018(\$)	2019(\$)
ARC Centre Grant distributed as follows:		(;	(_0_0(0)
University of New South Wales	NOTE 1	2,579,024	2,820,862	2,238,139
Australian National University		-	461,452	295,734
University of Sydney		255,732	792,658	703,982
University of Melbourne		420,305	509,529	432,930
University of Western Australia	NOTE 2	246,688	-	-173,105
Curtin University	NOTE 1	-	-	963,965
University of New South Wales		548,551	719,196	633,874
Australian National University		-	138,396	70,375
University of Sydney		83,839	114,522	147,239
University of Melbourne		73,980	145,975	100,797
University of Western Australia		54,260	-50,677	-
Curtin University	NOTE 3	-	-	286,562
NSW Department of Industry (Research Attraction and Acceleration Program)	NOTE 4	66,000	153,915	165,834
Department of Foreign Affairs and Trade		30,000	-	-
Department of Health	NOTE 5	50,000	50,000	50,000
Department of Social Services		50,000	50,000	50,000
Medibank	NOTE 6	50,000	50,000	50,000
National Wealth Management Services Limited		50,000	50,000	50,000
NSW Treasury		50,000	50,000	50,000
PwC		40,000	40,000	40,000
Reserve Bank of Australia		50,000	50,000	50,000
Willis Towers Watson		65,000	65,000	65,000
Commonwealth Treasury		-	50,000	50,000
UNSW Contestable Funds / Strategic Funds / UNSW Business School Funds		-	379,153	521,927
Superannuation Colloquium Registration Fees		-	21,650	34,876
Long-term Care Directors Conference Registration Fees		-	12,038	-
Economics of Ageing Workshop Sponsorship		-	-	13,394
ERA Conference Registration Fees		-	-	7,817
International Network for Pensions, Aging and Retirement Research Conference Sponsorship		-	33,902	54,290
Total Income		4,763,379	6,707,571	6,953,630

EXPENDITURE	2017(\$)	2018(\$)	2019(\$)
Salaries	61,325	3,239,416	5,142,693
Scholarships	-	158,812	210,442
Travel	2,872	336,156	519,799
Emerging Researchers in Ageing initiative: annual contribution	-	80,000	70,000
Events	335	124,216	120,642
Other research related expenses	581	45,035	179,712
Recruitment and relocation expenses	3,034	22,753	27,597
Centre administration, consumables and I.T. maintenance	145	27,837	63,321
Equipment	-	19,855	49,398
Website, branding and marketing	4,978	50,190	59,317
Total Expenditure	73,270	4,104,270	6,442,922
Opening balance at the beginning of the year		4,690,109	7,293,409
Closing balance as at year end	4,690,109	7,293,409	7,804,117

NOTE 1:	Reflects delayed distribution of 2018 ARC
	funding allocation to Curtin University following
	the finalisation of a variation to the Eligible
	Organisation Agreement in 2019 as a result of
	CI Parker's move from UWA to Curtin in 2018.

NOTE 2: Consistent with the variation described in Note 1, \$173K in unspent ARC funds held by UWA were clawed back and redistributed to Curtin in 2019, forming part of the \$963K reported below.

- NOTE 3: Consistent with the variation described in Note 1, 2018 internal contributions by Curtin were made in 2019.
- NOTE 4: A total of \$1,000,000 was received in 2017, covering the period 2017-2023. \$165K is reported for 2019 and includes annual interest payments of \$19K.
- NOTE 5: A total of \$100K fund was received in 2018, covering the period 2018-2019. \$50K is reported for 2019.
- NOTE 6: A total of \$150,000 was received in 2017, covering the period 2017-2019. \$50K is reported for 2019.

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CEPAR ANNUAL REPORT 2019 · CENTRE FINANCE

ESTIMATES OF FUTURE INCOME AND EXPENDITURE

CEPAR ANNUAL REPORT 2019 · CENTRE FINANCE

INCOME

The Centre's main source of funds in 2020 will be the Australian Research Council (ARC). The administering and collaborating organisations, as well as the partner organisations will make contributions at their contracted rates. The UNSW Business School will provide in 2020 an additional \$318,000 to support the hiring of research personnel associated with new research on developing policy and business responses to Asia's ageing demographic. In total, we estimate 2020 Centre income to be around \$5.9 million.

EXPENDITURE

In 2020 the Centre plans to fund a range of initiatives as detailed in the 2020 activity plan provided on pages 8 to 10. Salaries for ECRs will continue to account for a large portion of the Centre budget. We anticipate that we will spend about \$7.8 million in total, of which approximately \$6.5 million will be allocated to salaries and scholarship stipends.

PERSONNEL

It is anticipated that the Centre will spend approximately \$5.4 million in 2020 on research personnel, most of whom will be ECRs.

It is expected that 31 students will be supported by CEPAR scholarships in 2020 at a total cost of \$346,000. This includes scholarships for undergraduate and PhD students.

MENTORING OPPORTUNITIES FOR ECRS AND STUDENTS

CEPAR will continue to support the Emerging Researchers in Ageing (ERA) initiative in 2020 as well as offer workshops for ECRs and PhD students. Funds will be made available to support PhD student conference participation and provide opportunities for both research fellows and PhD students to spend time at one of our international partner organisations with the aims of enhancing their career experience and building links between these key international hubs of ageing research and the next generation of researchers.

The anticipated cost of these initiatives in 2020 is approximately \$213,000.

COLLABORATION, OUTREACH AND DISSEMINATION OF RESEARCH FINDINGS

Conferences and workshops showcase the Centre's research, increase our international footprint, and provide opportunities for our industry partners to engage with the Centre. Our research briefs and fact sheets translate research for a wider audience.

Leading international experts will visit the Centre under CEPAR's Distinguished Visitor Program and funds will be available for CEPAR personnel to visit international collaborators and present research findings at major conferences. Funds will be also made available to support the involvement of our partner and associate investigators in the research program and outreach activities. It is expected that these activities will be supported by a combination of industry and collaborating university funds. Total estimated expenditure for these activities in 2020 is \$717,000.

OTHER

Approximately \$855,000 will be spent on supporting the operation of the Centre. This includes salaries for administrative personnel, equipment, materials and other costs associated with the running of the Centre.

An estimated additional \$301,000 will be spent on other research related activities including surveys.

NEW GRANTS

NEW GRANTS AWARDED TO RESEARCH TEAMS WHICH INCLUDED CEPAR CHIEF INVESTIGATORS

ANSTEY, K.J., WOOD, J., DELBAERE, K., BEDARD, M., BROWN, J., KIELY, K., CLARE, L, AND LUNG, T. NHMRC Project Grant:

Driving Longer and Better: Evidence-Based Interventions for Older Drivers

Total amount awarded: \$918,549

ANSTEY, K.J.

ARC Laureate Fellowship:

Contemporary Life Engagement and Cognitive Resilience in Ageing

Total amount awarded: \$3,232,000

ANSTEY, K.J. NHMRC Boosting Dementia Research Joint Program:

Joint Program on Neurodegenerative Disease (EU), Self-Management and Health Promotion in Early-Stage Dementia with E-learning for Carers – A Randomised Controlled Trial

Total amount awarded: \$746,997

ANSTEY, K.J.

NHMRC National Institute for Dementia Research:

Holistic Approach in Primary Care for Preventing Memory Impairment and Dementia (Happy Mind)

Total amount awarded: \$1,999,499

ANSTEY, K.J., FLICKER, L., COMANS, T., WALLER, M., NGUYEN, K.H., MUNIS TERRERA, G., MASTER, C., MISHRA, G., EYNSTONE-HINKINS, J., DE CRESPIGNY, F, AND FERGUSON, M.

NHMRC National Institute for Dementia Research:

Improving Australia's Dementia Statistics

Total amount awarded: \$2,154,096

ANSTEY, K.J. 2019-2022 NHMRC Project Grant:

Preventing Falls in Older Age with Yoga-Based Exercise: Effectiveness, Cost-Effectiveness and Implementation

Total amount awarded: \$930,103

ANSTEY, K.J., CRAWFORD, T., HAMILTON, M., YUN-HEE, J., ZHICHENG, L., THOMSON, D.K. AND JUDD-LAM, S. 2019-2020 LISVIG-LINSW Seed Euroding School

2019-2020 USyd-UNSW Seed Funding Scheme:

Mental Health and Wellbeing – Early Intervention and Prevention (Older People)

Total amount awarded: \$20,000

ANSTEY, K.J., DELBARE, K., BALDWIN, P., LIM, M., RADFORD, K., VAN SCHOOTEN, K., O'DEA, B., LORD, S., DRAPER, B., CLOSE, J., HILL, T., UPTON, D., RISSEL, C., LOVITT, L., TAY, T., ROBINSON, K., COCKAYNE, N. AND RIXT, Z.

2019-2020 Mindgardens Neuroscience Network:

Clinical Translation Program

Total amount awarded: \$150,000

ANSTEY, K.J., DELBARE, K., RADFORD, K., GARVEY, G., DRAPER, B., MURU-LANNING, M., KERSE, N., CUMMING, R., LUNG, T, AND LAVRENCIC, L. 2019-2022 NHMRC TCR Healthy Ageing of ATSI Peoples:

Standing Tall – with our Mob: A Holistic Approach Towards Active and Healthy Age

Total amount awarded: \$990,165

ANSTEY, K.J., PETERS, R., LAUTENSCHLAGER, SHAW, J., ANDERSON, C., JORM, L., KIELY, K., WHITMER, R., MATTHEWS, F, AND KIVIPELTO, M. NHMRC National Institute for Dementia Research:

Translating the Evidence on Dementia Risk Reduction to Generate Assessments, Advice and Training for Health Professionals, Policy makers, Patients and Public

Total amount awarded: \$1,995,480

ANSTEY, K.J., KIELY, K. AND JAGGER. C

Australian Research Discovery Project:

Healthy Working Life Expectancies in an Ageing Australia

Total amount awarded: \$404,293

ANSTEY, K.J., KIELY, K.M., MCMAHON, C. AND ERAMUDUGOLLA, R. 2019-20 Dementia Australia Research

Foundation Project Grant:

Making Sense of Hearing-Related Neurocognitive Impairment: The Auditory Ageing and Cognitive Impairment Study

Total amount awarded: \$75,000

ANSTEY, K.J., PETERS, R. AND TULLY, P. 2019-2021 NHMRC Project Grant:

Life-course Blood Pressure and Cognition Study

Total amount awarded: \$312,032

BATEMAN, H., DOBRESCU, L.I., NEWELL, B. AND THORP, S. 2019-2020 UNSW Business School Seed Linkage Grant:

Wellbeing in Retirement: Evaluating Cbus' Retirement Income Estimate Campaigns

Total amount awarded: \$39,998



NEW GRANTS

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BATEMAN, H. AND HANEWALD, K.

UNSW Business School Seed Linkage Grant:

Reverse Mortgage Demand: The Role of Mental Accounting

Total amount awarded: \$40,000

CUMMING, R., NARANGOA, L., LINDSKOG, B. AND AO, W. ARC Discovery Project:

Mongolian Medicine: Different Modes of Knowledge Transmission

Total amount awarded: \$433,000

MARTINS, R., ANSTEY, K.J., NAISMITH, S., BAKER, L., KIVIPELTO, M., SOHRABI, H., BURNHAM, S., VILLEMAGNE, V., GRIEVE, S. AND YATES, P. NHMRC MRFF Clinical Trial:

The Australian-Multidomain Approach to Reduce Dementia Risk by Protecting Brain Health with Lifestyle Intervention

Total amount awarded: \$3,115,063

NEW GRANTS AWARDED TO TEAMS INCLUDING CEPAR RESEARCHERS AND ASSOCIATE INVESTIGATORS ON TOPICS RELATED TO POPULATION AGEING

DOBRESCU, L.I., DOIRON, D., FIEBIG, D., KOHN, R. AND PANCHENKO, V.

UNSW Business School Strategy 2020 Network:

Big Data Modelling for Policy Evaluation

Total amount awarded: \$25,000

FLICKER, L., BESSARAB, D., CURNOW, V., LOGIUDICE, D., MALAY, R., SMITH, K., ATKINSON, D., STRIVENS, E., DOW, B. AND TEMPLE, J. NHMRC Targeted Research:

Defining and Predicting Healthy Ageing in Aboriginal and Torres Strait Island Populations

Total amount awarded: \$931,119

WILSON, T., TEMPLE, J., ALEXANDER, M. AND BAKER, J. ARC Discovery Project:

Developing Robust Small Area Population Forecasts for Planning and Policy

Total amount awarded: \$348,536

SHEN, Y.

ARC Discovery Early Career Researcher Award:

Demystifying Puzzles in Retirement Planning

Total amount awarded: \$420,039

THORP, S., ECKERT, C., ISKHAKOV, F. AND AGNEW, J. ARC Discovery Project:

Understanding and Overcoming Confusion in Consumer Financial Decisions

Total amount awarded: \$660,000

WILSON, T., BERNARD, A. AND ARGENT, N. ARC Discover Project:

Where Migrants Go: A Study of Immigrants' Post Arrival Moves in Australia

Total amount awarded: \$220,31

AWARDS, PRIZES & RECOGNITION

MARIAN BAIRD

Included in Apolitical's Top 100 Most Influential People in Gender Policy for 2019

NICOLE EE

Westpac Future Leaders Scholarship: Global Inequality in Dementia Risk, Pathways to Prevention: Social Engagement, Wellbeing and Neuropsychological Health

LISA GULESSERIAN

Jane M. Klausman Women in Business Scholarship

KIM KIELY

31st REVES Network on Health Expectancy Poster Prize for Presentation: Estimating the Number of Years Older Australians Live in Financial Hardship

ROBERT HOLZMANN, JENNIFER ALONSO GARCIA,

HÉLOÏSE LABIT HARDY AND ANDRÉS VILLEGAS PBSS Best Paper Prize in the IAA Section Colloquium 2019: NDC Schemes and Heterogeneity in Longevity: Proposals for Redesign

LUCINDA ILES

Annual CEPAR Workshop People's Choice Poster Award for 'Organisational Meta-strategies for Managing Age Diversity'

LARRY LIU

Annual CEPAR Workshop Best Poster Prize for 'Demographic Changes and Global Imbalances'

PETER MCDONALD

Appointed to the Research Committee of the Scanlon Foundation's Institute for Applied Social Cohesion Research

JANET MACCORA

Annual CEPAR Workshop People's Choice Poster Award for 'Gender differences in SuperAgers: Longitudinal memory resilience in an Australian cohort'

Awarded Best Presentation by an AAG member at the 18th Emerging Researchers in Ageing Conference for 'Should we talk about gender differences in cognition in later life?'

OLIVIA S. MITCHELL

Included in Worth Magazine's list of 16 Powerhouse Female Economists

Awarded the 2019 FINRA Ketchum Prize recognizing outstanding service and research to advance investor protection and financial capability

AUGUSTUS PANTON

2019 Vice-Chancellor's Award for Excellence in Education

Adam Smith Fellowship Recipient

SHARON PARKER, PATRICK DUNLOP, LEON STRAKER AND SANA BHARADWAJ

European Association of Work and Organisational Psychology Conference Best Poster Award for 'An Investigation of Work-Design and Individual Differences as Antecedents of Employee Moral and Disengagement'

SHARON PARKER, MEREDITH CARR, DANNIELLE FINNERTY, MARK GRIFFIN, LUCINDA ILES, KARINA JORRITSMA, MEGAN ORCHARD, KIMBERLEY PARKER, AND JENNIFER WARR

Curtin Innovation Award: Thrive At Work Inititative

SHARON PARKER

Web of Science Group 2019 Highly Cited Researchers List

Top Five Media Commentator Award, Curtin University Faculty of Business and Law

MIJANUR RAHMAN

Arthur Everitt Award for a High Quality Abstract at the Australian Association of Gerontology



PROFESSOR OLIVIA S. MITCHELL BA Harvard, MA PhD Wisconsin-Madison PARTNER INVESTIGATOR Dr Olivia S. Mitchell is International Foundation of Employee Benefit Plans Professor, and Professor of Business Economics/Policy and Insurance/Risk Management, at the Wharton School of the University of Pennsylvania. At Wharton, she is also the Executive Director of the Pension Research Council and the Boettner Center on Pensions and Retirement Research and a Fellow of the Wharton Financial Institutions Center and the Leonard Davis Institute; she also sits on the Board of the Penn Aging Research Center. Concurrently Dr Mitchell is a Research Associate at the National Bureau of Economic Research and a Co-Investigator for the Health and Retirement Study at the University of Michigan. Dr Mitchell's main areas of research and teaching are international private and public insurance, risk management, public finance, and compensation and pensions. Her extensive publications (32 books and over 200 articles) analyse pensions and healthcare systems, wealth, health, work, wellbeing, and retirement. She served on President Bush's Commission to Strengthen Social Security and the US Department of Labor's ERISA Advisory Council. She has spoken for groups including the World Economic Forum; the International Monetary Fund; the Investment Company Institute; the White House Conference on Social Security; and the President's Economic Forum.

In 2019 Professor Mitchell was listed as one of Worth Magazine's 16 Powerhouse Female Economists.

AWARDS, PRIZES & RECOGNITION

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JEROMEY TEMPLE

Invited to join the NHMRC National Institute for Dementia Research (NNIDR)

Invited to join the National Ageing Research Institute (NARI) advisory group

DANIEL WHEADON

Third place in the UNSW Business School 3 Minute Thesis Competition

DANDAN YU UNSW Dean's Award for Outstanding PhD Thesis

LUKE ZHOU 2019 APRA Brian Gray Scholarship

Best Higher Degree Research Poster for 'A structured investigation of retirement income products' at the UNSW Business School Student Research Fair



AUGUSTUS PANTON RECEIVED THE 2019 VICE-CHANCELLOR'S AWARD FOR EXCELLENCE IN EDUCATION

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