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Foreword

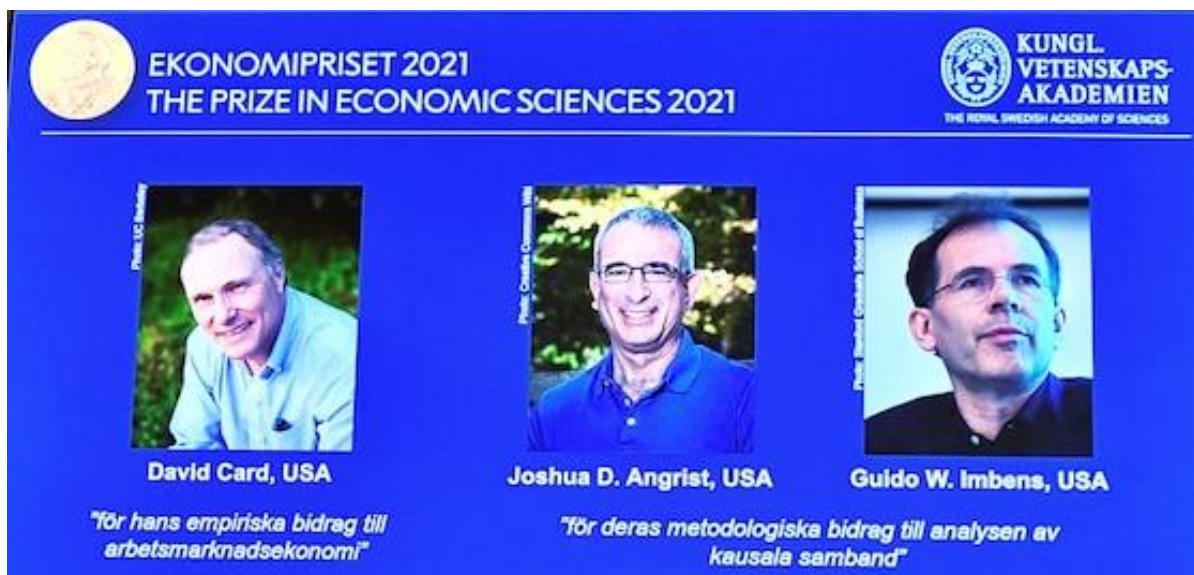
ANZRSAI 44th Annual Conference 2021

The 2021 ANZRSAI Conference (i.e. our 44th annual conference) was a hybrid conference hosted by Professor Bruce Wilson, RMIT University Melbourne, 6-7 December. The principal sponsor was the Department of Infrastructure, Transport, Regional Development and Communications. We thank Bruce and the Department for all their work for a successful conference.

The Award for Best Conference Paper was shared by Bernard Trendle and by Cliff Naudé. The Award for Best Conference Paper by a Current or Recent Student was presented to Tiffany McIntyre.

Our 45th annual conference will be hosted in November or December 2022 by the Data Science Research Unit at Charles Sturt University in Wagga Wagga, NSW 2650. Further details will be provided early next year.

The Nobel prize in economics 2021



[Source: www.abc.net.au]

“The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel 2021 (also called as the Nobel Prize in Economics) has been awarded to David Card (UC, Berkeley), Joshua Angrist (MIT) and Guido Imbens (Stanford). Prof. Card received the one half of the award for his distinctive empirical contributions to labour economics, while Profs Angrist and Imbens received equally the other half of the prize for their advanced methodological contributions to the analysis of causal relationships. These economists have provided us with new insights about the labour market and shown what conclusions about cause and effect can be drawn from natural experiments. Their approach has spread to other fields and revolutionised empirical research.

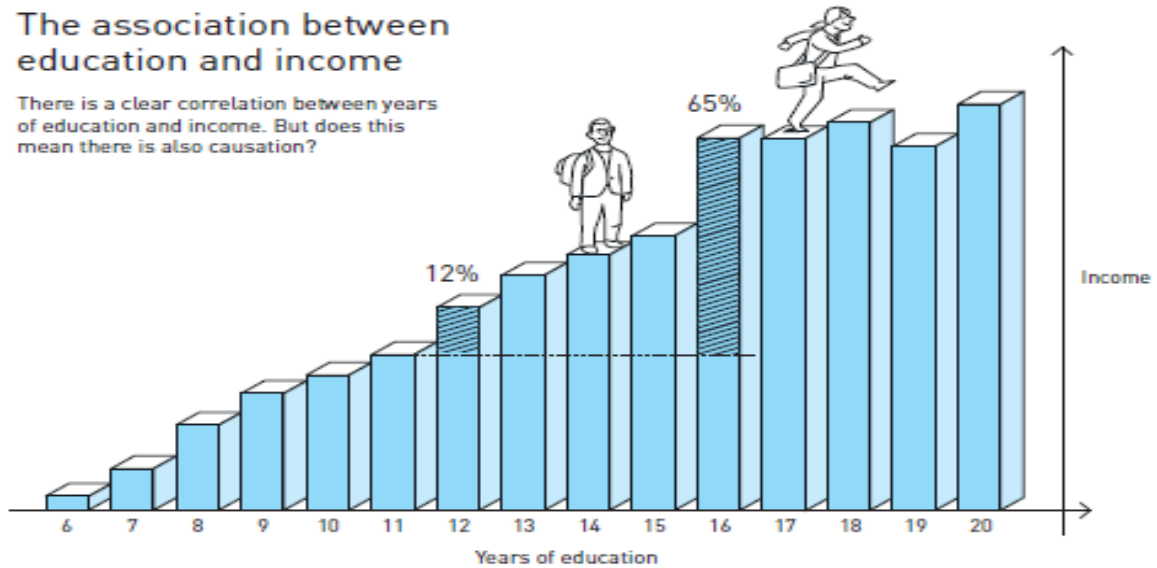
Unlike in medicine or other sciences, economists cannot conduct rigidly controlled clinical trials.

Instead, natural experiments use real-life situations to study impacts on the world, an approach that has spread to other social sciences, according to Economic Sciences Prize Committee chair Peter Fredriksson. Hence, Natural experiments help answer important questions for society.

One experiment by Professor Card (used by Biden administration), — on the impact on the fast-food sector of a minimum wage increase in the US state of New Jersey in the early 1990s — upended conventional wisdom in economics that such increases should always lead to job losses. His work on the topic — often in collaboration with prominent economist Alan Krueger, who died in 2019 — has been used as empirical evidence to push for legislation, including by the Biden administration, for a \$15 minimum wage in the United States.

The association between education and income

There is a clear correlation between years of education and income. But does this mean there is also causation?



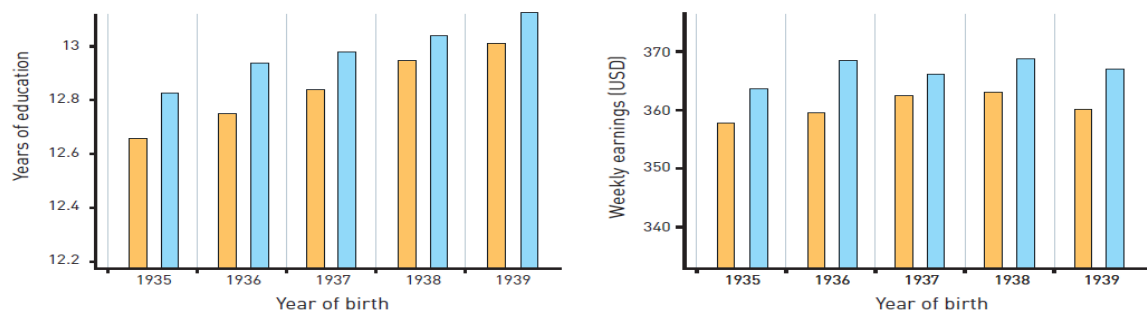
The figure uses data from Angrist and Krueger (1991). People with 12 years of education have incomes that are 12 per cent higher than those of people with 11 years of education. People with 16 years of education have 65 per cent higher incomes than people with 11 years of education.

©Johan Jarnestad/The Royal Swedish Academy of Sciences

People born late in the year have more years of education and higher incomes

Additional years of education have a positive effect on income. The figure uses data from Angrist and Krueger (1991).

■ Born in first quarter ■ Born in fourth quarter



©Johan Jarnestad/The Royal Swedish Academy of Sciences

[Source: www.nobelprize.org]

"Most old-fashioned economists are very theoretical, but these days, a large fraction of economics is really very nuts-and-bolts," Professor Card said.

The Nobel committee noted that natural experiments were difficult to interpret, but that Professor Angrist and Professor Imbens had, in the mid-1990s, solved methodological problems to show that precise conclusions about cause and effect could be drawn from them.

At an online briefing arranged by MIT, Professor Angrist described a recent project on the hot-button issue of access to elite public schools in which he and fellow researchers found that the reason graduates of those schools tend to do well has more to do with selective admissions than with education. "So, essentially, we're arguing that access to that type of school should not be at the top of the list of the policy concerns for somebody who wants to improve public education," he said.

Professor Angrist said, he missed the Nobel committee's phone call and had to get the number from another Nobel laureate. "Initially, they didn't take my call," he said. "Eventually I found the right person."

"I was just absolutely stunned to get a telephone call, then I was just absolutely thrilled to hear the news," Professor Imbens said, adding he was delighted to share the prize with two of his good friends.

Professor Angrist was best man at Professor Imbens's wedding.

The news with some interesting conversations can be explored here:

<https://www.abc.net.au/news/2021-10-12/nobel-prize-economics-2021-winners/100531188>

<https://www.nobelprize.org/prizes/economic-sciences/2021/press-release/>

Omicron fears spark mass panic

With the emergence of Omicron and widespread distrust of state premiers, Aussies are flocking to cancel their flights this Christmas.

Australians are so nervous about Covid-19 this Christmas that they are cancelling their travel plans, as flight operators call on state premiers to "hold their nerve" and keep borders open amid a new Covid-19 challenge.

As a new survey reveals nearly three-quarters of Australians are wavering on their Christmas travel plans amid a surge of Covid cases and the new Omicron variant. Rex Airlines have already begun recording a spike in cancellations. Deputy chairman of Rex Airlines John Sharp said he was urging state premiers to "hold the line" and give Australian's confidence this holiday season.

According to a survey, conducted by the Tourism and Transport Forum, asked 1500 people about their travel plans over December and January – 74 per cent of whom said Omicron had "negatively impacted" their plans. More than half of the respondents said they were worried by the lack of consistency in rules and border restrictions between different states and territories.

The survey found only two per cent of Australians plan on heading overseas this summer, while 20 per cent will head interstate. More than three quarters of the respondents will travel within their own state. Chief executive Margy Osmond said the tourism industry, which had lost the last four school holiday periods in a row to travel restrictions and lockdowns, was in a state of concern. This current

December/ January holiday period setback will provide more pain just as operators and the aviation industry were preparing for a bumper summer and impact on driving recovery.

On the other hand, Covid-19-related hospitalisations are rising as case numbers grow in New South Wales. Health experts are ‘concerned’ about Omicron’s impact as it seems too early to predict, and political leaders continue to call for calm over skyrocketing case numbers.

Across Australia, attention is turning from the Covid case numbers to how many people end up in hospital and the ICU. Given Australia’s high vaccination rates, the prime minister, Scott Morrison, said on Monday the focus should be on the impact on the health system rather than the record case numbers.

Australasian College for Emergency Medicine (ACEM) president Dr Clare Skinner told the Guardian there is a nervousness among health experts as numbers continue to rise.

“It is too early to tell how Omicron will play out for the hospital system. We’re nervous, and we are treating the situation with caution. We’re concerned about potential overload on already overcrowded emergency departments, and we welcome conversations with health decision makers on how to create the best systems for optimal patient care.”

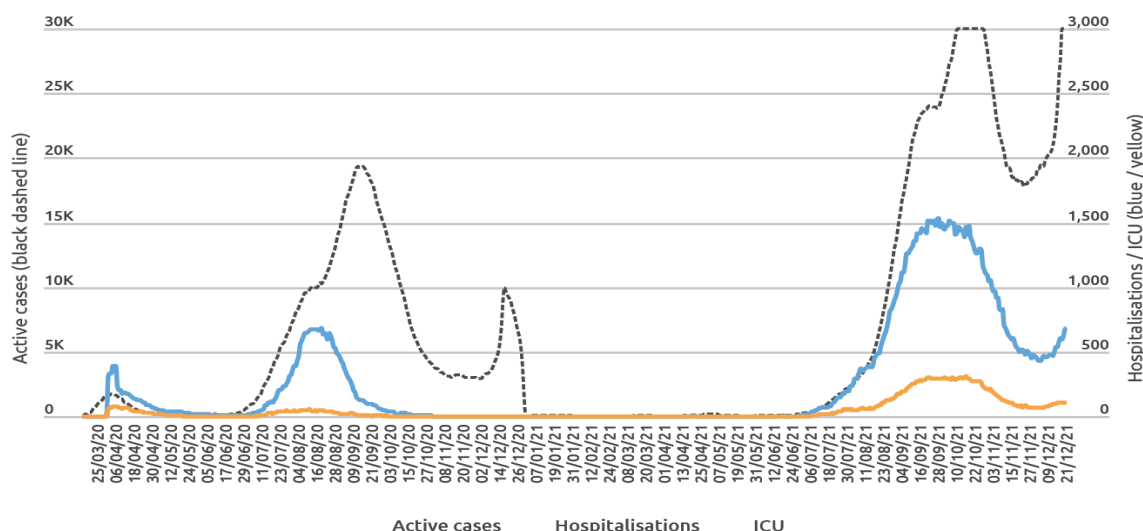
So what does the data on hospital admissions and ICU patients tell us so far?

Covid hospitalisation in Australia by States

Date	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
01-Dec	154	299	14	0	0	0	57	8
15-Dec	166	365	28	2	0	0	61	3
21-Dec	284	392	66	6	0	0	82	3

Active cases, hospitalisations and ICU in Australia

Chart uses 2 different y-axes. Ratio = 10:1.



[Source: <https://www.covid19data.com.au/hospitalisations-icu>]

Further information can be found at:

<https://www.news.com.au/national/rex-airlines-pleads-with-state-premiers-as-australians-cancel-christmas-travel-plans/news-story/b7dcd297e8d51295e46840123838fe3b>

<https://www.theguardian.com/australia-news/datablog/2021/dec/21/too-early-to-tell-health-experts-nervous-about-omicrons-effect-on-hospitalisation-rates>

Commentary

From the Regional Australia Institute

Regional Lifestyle Continues to Appeal

Australians continue to make the move to regional Australia, with those areas located within a three-hour drive of the capital cities proving most popular, according to new data.

New data from Commonwealth Bank and the Regional Australia Institute (RAI) has revealed a continued surge in the number of Australians moving from capital cities to regional centres.

According to the June quarter Regional Movers Index released today, there was an 11 per cent rise in the number of people moving from capital cities to regional areas compared with the June 2020 quarter.

Interestingly, the local government areas (LGAs) recording the largest growth in metro-movers over the 12 months the nation's longest COVID-19 related lockdowns.

The Victorian-based areas enjoying the biggest spike in population growth included: Moorabool (68 per cent increase), Mansfield (62 per cent increase) and Corangamite (52 per cent increase).

The Murray River area, located in NSW, was next in line (48 per cent increase), followed by Alpine in Victoria (47 per cent increase).

Victoria's Greater Geelong area – located one hour outside of Melbourne's CBD – also saw an influx in capital city movers, with an increase of 26 per cent during the full year to June 2021.

Commonwealth Bank's Executive General Manager for Regional and Agribusiness Banking, and Regional Australia Institute 2031 Council member, Grant Cairns said: "With house prices rising across the capital cities and flexible work options now more commonplace, the decision to make a lifestyle shift and move to a regional area has become a realistic option. "The experience of lockdowns is front of mind for Victorians, so the desire to seek a tree change is rapidly growing. It is positive to see the development of infrastructure – particularly in regional areas – is growing to meet the increased demand."

According to the Regional Movers Index, approvals for new housing in Geelong were 48 per cent higher in 2020/21 in comparison to the previous year. This uptick in residential developments has come at the same time as a surge in the number of building projects and industrial developments currently underway, including new offices, hotels and education facilities.

RAI's Chief Economist Dr Kim Houghton said: "The Index identifies regional areas which are emerging as desirable destinations for capital city residents, enabling local leaders and business owners to prepare for a burst of population growth. It also shows us places that are coming off the boil in the June quarter, such as Noosa (QLD) and Mildura (VIC). We can also see that the number of regional residents choosing to stay put has increased, which is likely to be contributing to the housing squeeze in some areas.

Key migration patterns by state in 2020/21:

- Melbourne saw its share of net capital city outflows increase to 47 per cent, from 39 per cent a year earlier;

- Sydney still had the highest share of net capital city outflows at 49 per cent and regional NSW picked up the largest share of net migration into regional Australia (34 per cent);
- Regional Queensland's share of net migrants from capital cities grew to 28 per cent, while the shares of both regional NSW and regional Victoria shrank;
- Tasmania and South Australia each saw an increase in regional settlement with a four per cent and six per cent share, respectively; and
- Perth was the only capital to see more people moving into the city than leaving, while regional WA's share of net regional migration rose to three per cent from one per cent a year earlier.

Detailed information can be found at: <http://www.regionalaustralia.org.au/home/regional-lifestyle-continues-to-appeal/>

The Love Games with Forget the Great Resignation

Australians are increasingly subscribing to the motto, "live where you love." But what is it that makes a regional town not only liveable, but loveable? And with a record 74,300 regional job vacancies, how do country and coastal towns attract and retain the workforce they need?

On Wednesday, 15 December 2021 the Regional Australia Institute (RAI) will host a panel discussion with key players from local government areas (LGAs) which are experiencing strong population growth.

Tune in to hear how the Surf Coast (VIC) is riding the incoming wave of capital city relocators, with its population expected to grow 40 percent over the next five years. Learn from the success stories and the challenges faced by Moree Plains (NSW) and Douglas (QLD), which have experienced some of the largest annual increases in net regional migration of any LGA across the country.

The Regional Australia Institute (RAI) is calling on Australian leaders across society to seize the opportunity created by COVID to shape a truly equitable, sustainable, and prosperous nation.

Speaking at the RAI's Regions Rising event in Wodonga today, RAI CEO Liz Ritchie said more Australians than ever have been voting with their feet on the type of future they want – more time, more space, more connection to community and to nature. All the things regional Australia has to offer. "The time for regionalisation is now! We can rebalance the nation away from a future of megacities by ensuring that regional residents and communities have access to the resources and services they need to reach their full potential. Only then, can we as a nation reach ours," Liz Ritchie said.

The Regional Australia Institute – which has provided research, analysis and independent advice to the country's policy makers, businesses, and regional communities over the past decade – is working on a draft framework to be released at its Regions Rising National Summit in June 2022. The National Farmers Federation and Business Council of Australia are also firmly focused on the importance of our regions.

Further information can be found at the links:

www.regionalaustralia.org.au

<http://www.regionalaustralia.org.au/home/regional-movers-index/>

From Brookings

A Roadmap to Developing Inclusive Regional Economic Indicators

Alan Berube and Nicole Bateman (October 2021)

<https://www.brookings.edu/wp-content/uploads/2021/10/Roadmap-report.pdf>

In 2020, Brookings Metro ran an Inclusive Economic Indicators Lab to help three regions—Indianapolis, Memphis, and Orlando—develop compelling and influential indicators projects that use metrics to drive more inclusive local economic outcomes. Like their counterparts in an increasing number of U.S. cities and metro areas, Lab participants embraced a vision of economic success defined by not only the quantity of economic growth, but also the distribution of that growth among a region’s residents—particularly those who have historically faced economic exclusion.

This roadmap distills experiences and lessons from the Lab, offering a flexible framework and case-study examples that can help interested regions develop an inclusive indicators project and understand the choices inherent in that process. The framework identifies three phases, beginning with steps to set the conditions for success by identifying key stakeholders and agreeing on shared definitions and motivations for pursuing inclusive economic growth. Regional leaders then create the indicators project, honing a shared vision, identifying indicators and metrics, and testing and refining each iteratively. From there, they put the indicators to work by strategically communicating the results and embedding the indicators into as many organizational strategies as possible.

Overview of the inclusive indicators roadmap:

PHASE 1: SET THE CONDITIONS FOR SUCCESS	PHASE 2: CREATE THE INDICATORS PROJECT	PHASE 3: PUT THE INDICATORS TO WORK
<ul style="list-style-type: none">• Commit to inclusive economic growth• Identify key stakeholders and roles• Establish the purpose of the indicators project	<ul style="list-style-type: none">• Develop a shared vision and framework• Identify indicators• Test and iterate	<ul style="list-style-type: none">• Communicate continuously• Coalesce around ambitious but achievable goals• Drive goals into organizational plans

This paper reports that economic inclusion is a long-term process, not a one-time project and how the process can be integrated with continued progress and policy measures. The same could be said of successful inclusive indicators efforts. It is critically important for core organizations to identify a compelling vision and framework, select clear and reliable indicators that represent a path to regional success, and continuously communicate progress to stakeholders. As this roadmap makes clear, however, embedding inclusive economic indicators into a region’s DNA is much more of an exercise in civic muscle-building than a sprint for empirical exactitude. While every region may approach the exercise from a unique starting point, the Brookings Metro Inclusive Economic Indicators Lab revealed experiences and best practices that we believe are relevant for any region considering using metrics to drive more inclusive growth. We hope the roadmap provides interested organizations with valuable tools for building high-impact indicators efforts that help extend robust economic opportunity to more people and communities.

This paper’s findings have implications for regional development in Australia. ANZRSAL may be able to develop policy for regional cities in Australia.

US economic statecraft adrift as China seeks to join mega Asian trade deal

Joshua Meltzer (September 2021)

China's decision to formally seek to join the Comprehensive and Progressive Trans-pacific Partnership (CPTPP), the world's most important Asian trade deal, presents the U.S. with an enormous set of economic and diplomatic challenges. China joining CPTPP would deal a significant blow to U.S. economic statecraft and further strengthen Chinese leadership in the Indo-Pacific. Taiwan's recent announcement that it also wants to join CPTPP further complicates the picture.

The CPTPP is what was left of the original U.S.-led 12 nation deal the Trans-pacific Partnership (TPP) that was a priority under Presidents Bush and Obama, but which President Trump pulled the U.S. out of in his first week in office.

It is increasingly clear that China's request to join CPTPP needs to be taken seriously and may happen sooner than expected. For one, China is the largest export market for nine of the current 11 CPTPP countries. Second, it may be less difficult than generally thought for China to meet many CPTPP standards. China could also lean into the agreements broad exceptions to justify non-compliance. Where China has justified trade restrictions as being about national security, there is also a very broad national security carve out that China could rely on.

Second, in order for many developing countries such as Vietnam to join the agreement, full compliance with various rules needed to be delayed as these governments undertook domestic reforms. This sets the precedence for China to argue that where it is unable to meet CPTPP standards today, similar flexibilities should be extended to China and not delay it becoming a party to the agreement.

A key question for many governments will be whether they can be convinced of China's eventual compliance with the CPTPP. The Australian trade minister when asked about China joining the CPTPP noted the need for China to demonstrate a track record of compliance with trade agreements. This speaks not only to China's recent restrictions on Australia's exports that are inconsistent with the China-Australia FTA, but also well-documented ways China has avoided its WTO commitments.

Read the whole article here at:

<https://www.brookings.edu/opinions/us-economic-statecraft-adrift-as-china-seeks-to-join-mega-asian-trade-deal/>

Australia's nuclear submarines and AUKUS: The view from Jakarta

Natalie Sambhi Foreign Policy, Center for East Asia Policy Studies (September 2021)

Australia's plans to pursue nuclear-powered submarines and the launch of AUKUS — a new security grouping between Australia, the United Kingdom, and the United States aimed at promoting information and technology sharing as well as greater defence industry cooperation — will be serious considerations for Canberra's neighbours and key strategic partners, particularly Indonesia. Despite the periodic disruptions, Australia-Indonesia ties have continued to deepen. Both sets of foreign and defence ministers met in Jakarta on September 9 for the seventh "2+2" meeting, upgrading existing bilateral agreements, announcing new initiatives, and pledging to uphold regional order. In light of this seemingly positive trajectory, how are these developments being viewed in Jakarta?

Starting with the submarines, one of Jakarta's major concerns will be the impact on the region's military balance. Not only will Australian nuclear-powered submarines be able to undertake long-endurance, high-speed, stealth operations, but they could be equipped with upgraded missile systems. The Indonesian government issued a statement on Friday saying that it was viewing the submarine decision "cautiously" and was "deeply concerned over the continuing arms race and power projection in the region."

To be clear, the long-range operations that Australia is likely to pursue won't be in the seas directly to its north. And while strategic trust and communication have improved in recent years, suspicions arising from Australia's involvement in East Timor's independence ballot and revelations of Australian spying remain. These open the door for hawkish figures in Jakarta to call for more muscular military capabilities in light of a potentially threatening southern neighbour. As Evan Laksmana, questions will be asked about whether Australia will take its new subs further down the nuclear road, going quickly from nuclear-propelled to nuclear-armed.

Also of concern to Indonesia is how Australia's enhanced ability to conduct long-range operations, particularly alongside the U.S. and other Indo-Pacific partners, will factor into Beijing's strategic calculus. The Indonesian government's statement reiterated Foreign Minister Retno Marsudi's declaration after the recent 2+2 joint press conference that both Australia and Indonesia were committed to be a part of an "effort to maintain peace and stability in the region."

Canberra's decision to power up its maritime capability, in addition to the assets of other allies and partners, increases the costs for China to engage in conflict. However, this could equally provoke China into developing more sophisticated anti-submarine options and expanding its operating areas, both of which would generate anxiety not just in Jakarta but in other Southeast Asian capitals.

Read the whole article here at:

<https://www.brookings.edu/blog/order-from-chaos/2021/09/21/australias-nuclear-submarines-and-aucus-the-view-from-jakarta/>

Note: While it's early days for AUKUS, the pact will bring a number of key technological benefits for Australia — in cyber capabilities, artificial intelligence, and quantum computing, among others. And there is comfort in that. However, it's worth remembering that what helps some in Canberra sleep better may keep others in the region up at night, writes Natalie Sambhi. This piece originally appeared in ASPI's "The Strategist". (Ed.)

From University of Sydney, the Warren Centre for Advanced Engineering

Researchers develop low-cost, long-range, high-data WiFi system

Luisa Low, The Warren Centre (December 2021)

Fast, effective long-range WiFi in development

Researchers from the Centre for Internet of Things and Telecommunications are developing a long-range WiFi system that can be integrated into existing WiFi infrastructure to achieve long-range communication, high data rates and low latency for the mining industry.

In a boon for the mining industry and internet users everywhere, University of Sydney telecommunications researchers are developing a safe and cost-effective technology that could be a wireless internet game changer. They are developing an industrial long-range WiFi system that transmits signals to hard-to-reach places while maintaining high data rates.

Supported by an \$800,000 grant from the NSW Physical Sciences Fund, the system is being created for mission-critical applications in underground mines that require remote monitoring of workers and control of sensitive mining equipment, with signals extending as far as several kilometres underground. The system could also be used in places such as airports, shopping centres, university campuses and large industrial or agricultural settings.

Existing WiFi systems have mainly been designed for indoor applications and therefore have short communication ranges of less than 100 metres, as well as random and high latency. This makes them unsuitable for mission-critical applications.

Latency, in computing, electrical and information engineering, is the delay between a user's action and the time it takes to be transmitted or reproduced.

The Centre for IoT and Telecommunications researchers have designed long-range WiFi systems for ultra-low latency and high data rates, which allow wireless signals to travel several kilometres, while carrying more data without dropping out or experiencing lag.

Australian Internet of Things company Roobuck will manufacture and certify the low-cost, ready-to-use WiFi system, which is expected to be available within the next two years.

Further details are available at:

<https://www.sydney.edu.au/news-opinion/news/2021/12/17/researchers-develop-low-cost--long-range--high-data-wifi-system.html>

From the Institute for Land, Water and Society (CSU)

Hume Workforce Development Plan Refresh

For the analysis, the Hume region (Victoria) comprises of the Alpine Shire, Benalla Rural City; City of Wodonga; Greater Shepparton City; Indigo Shire; Mansfield Shire; Mitchell Shire; Moira Shire; Murrindindi Shire; Strathbogie Shire; Towong Shire; and Wangaratta Rural City in North East. Four strategic directions were proposed in the Hume Workforce Development Plan 2015-2018 which were (1) to attract and retain talent; (2) upskilling those in employment; (3) enabling access to employment; and (4) strengthening collaboration between industries and education providers.

Actions: The project was undertaken in three stages. Stage One was an in-depth review of the 2015-2018 plan to identify achievements related to the plan. The researchers found, with some exceptions, there had been meaningful progress towards achieving the stated outcomes, although there was some way to go before they are fully achieved. They found in the Hume region:

- It generally experienced good employment growth. Employment in agriculture grew, but slower than expected. Generally the manufacturing industry exhibited a decline. While transport was a strong area of employment growth, the failure to attract a significantly younger and skilled workforce continued. Employment in health care grew but at a rate lower

than considered necessary to meet the growth in local demand. The defence industry has grown substantially as a regional employer. The prospects and performance of tourism was mixed.

- Workforce participation for most age groups, except for those aged 30-34 years, fell. A major issue continues to be attracting workers aged 20-44 years.
- While the education of the workforce is improving, it still lags behind the State's performance.
- While improvements have been made to the Indigenous community's experience in the labor market, much more needs to be done.
- The proportion of the population of working age in the CALD and disabilities communities appear to be increasing with more action needed to meet their needs
- Data suggests that the expected results from interaction between industry and education providers is starting to appear.

Stage Two looked at what modifications or additions needed to be made to the goals, expected outcomes and proposed actions of the 2015-2018 Plan taking into account changes since 2015 in terms of the economic development, Government policy and theoretical and applied labor market development policy, including the concept of smart specialisation. Stage Three was the development of a new Hume Region Workforce Development Plan beyond 2018, drawing on the findings from Stage One and Two. The researchers have recommended that the original plan's four strategic directions continue, with some modifications, and that an additional three strategic actions be included, namely:

- initiating the introduction of labour market strategies to support Smart Specialisation
- build amenity to attract people to the region and to retain current population
- ensure the existence of implementation strategies.

Output: Hicks, J., Morrison, M., Forbes, P. (2020). Hume Workforce Development Plan Refresh Report prepared for the RDA/RDV Hume. *The report has been presented to the funding body: The State of Victoria, Department of Jobs, Precincts and Regions.

Water for the Environment: Monitoring, Evaluation and Research in the Edward/Kolety - Wakool River System

By Professor Robyn Watts and Dr Nicole McCasker

ILWS researchers have been examining ecosystem responses to environmental watering in the Edward/ Kolety-Wakool (EKW) river system since 2010, initially funded through several one-year projects, then under the Australian Government's Long-Term Intervention Monitoring program (2014-2019) and currently through the Monitoring, Evaluation Research Program (Flow-MER) (2019-2022) (<https://flow-mer.org.au/>). These programs have sought to understand how water for the environment is helping maintain, protect and restore water-dependent ecosystems and native species across the Murray-Darling Basin (MDB), inform adaptive management and support environmental water decision making.

The Flow-MER program is being undertaken in seven areas in the MDB, one of which is the Edward/Kolety Wakool river system. The project in the EKW system, led by Professor Robyn Watts from ILWS, is a collaborative partnership between researchers, water managers and community. Team members are from Charles Sturt University, NSW Department of Primary Industries (Fisheries), NSW Department of Planning, Industry and Environment, La Trobe University,

Streamology, and three local community organisations: the Edward-Wakool Angling Association, Yarkuwa Indigenous Knowledge Centre and The Western Murray Land Improvement Group.

The EKW River system is a large anabranch system of the Murray River in the southern Murray-Darling Basin. It is a complex network of interconnected perennial rivers, ephemeral creeks, floodplain forests and wetlands. The area has a rich and diverse Indigenous history, supports a productive agricultural community and supports many recreational uses such as fishing, birdwatching and bushwalking. The flow regimes of rivers in the EKW river system have been modified due to river regulation. Environmental water is being delivered in this river system to provide refuge habitat, spawning cues and connected flows to link the Edward/Kolety-Wakool system to the MidMurray. The EKW river system plays a key role in the operations and ecosystem function of the Murray River and the southern MDB, connecting upstream and downstream ecosystems in the mid-Murray River. The multiple streams and creeks in this system provide important refuge and nursery areas for fish and other aquatic organisms, and adult fish regularly move between this system and the Murray River

We are using an integrated ecosystem approach to evaluate the responses to Commonwealth environmental watering. The indicators monitored are hydrology, water quality and carbon characterisation, stream metabolism, riverbank and aquatic vegetation, and fish (spawning, recruitment and adult populations). Applied research is also taking place, including projects investigating community perceptions of environmental water in the region, freshwater turtle movement and condition, and the utility of novel eDNA techniques to identify presence and spatial distribution of threatened, uncommon and iconic species. What we've learned Environmental watering actions over multiple years have supported the long-term recovery of aquatic and riverbank plants, fish recruitment and recovery of the fish community.

Some examples of outcomes from specific environmental water actions in the EKW river system include:

- Spring environmental flow pulses increased lateral connectivity, resulting in increased primary productivity, increased germination and flowering of riverbank plants, and increased fish spawning of some fish species
- Base flows during hot weather in summer and autumn maintained good water quality (especially dissolved oxygen concentrations) to support native fish populations
- Environmental flows delivered during winter (when there would have otherwise been the operational shutdown in of some tributaries) maintained the longitudinal connectivity of habitats, increased opportunities for movement of fish, and has supported the survival of aquatic plants
- Delivery of environmental water via the irrigation network system during hypoxic blackwater events created refuge habitat (areas with good dissolved oxygen concentration) that supported the survival of fish.

A key aspect of the engagement strategy of this project is to partner with community organisations on collaborative projects including:

- A research project on turtle populations in the Edward/Kolety River in partnership with the Yarkuwa Indigenous Knowledge Centre.
- A research project on fish spawning research in partnership with the Edward-Wakool Angling Association

- A community field day at Werai Forest and several school workshops which gave the local community an opportunity to see how monitoring is done, learn about the findings and share their experiences and knowledge.

For more information please read at:

https://cdn.csu.edu.au/_data/assets/pdf_file/0009/3908160/Connections-Issue-62.pdf

For Reports, newsletters and other information on the Edward/Kolety-Wakool Monitoring, Evaluation and Research Program is available on these websites:

<https://flow-mer.org.au/selected-area-edward-koletywakool/>

<https://www.csu.edu.au/research/ilws/research/environmental-water/edwardkolety-wakool-mer>

From CEDA

More Australian Children Condemned to Poverty without urgent Action

www.nationaltribune.com.au (Dec 2021)

Australia is committing between 280,000 to 550,000 young Australians born in the next decade to future poverty unless urgent action is taken to tackle disadvantage, a new report by CEDA has found.

The report, *Disrupting Disadvantage*, finds that Australia needs to fundamentally change how it supports and identifies people in disadvantage, using data to act earlier to prevent children being locked in a cycle of poverty.

“We are still waiting to see the full impacts of the COVID-19 pandemic, but there is already evidence the pandemic has further exacerbated the financial, employment and health hardships of Australia’s most vulnerable,” says CEDA Chief Economist Jarrod Ball.

Unless Australia addresses these issues now, we will be entrenching the next generation of poverty and disadvantage. In 2015, as part of Australia’s commitment to the UN Sustainable Development Goals, Australia committed to halve the proportion of men, women and children living in poverty by 2030. Six years on, Australia has made no progress against this commitment with the proportion of Australians living in poverty remaining above 13 per cent.

“What is of most concern is that despite making no progress towards this commitment to significantly reduce poverty, governments have set no intermediate targets, milestones, reform actions or reporting frameworks to change course,” says Mr Ball.

Today, 17.7 per cent of Australian children under the age of 15 are living in poverty. Research shows that children who grow up in poverty are three times more likely to experience poverty in adulthood.

“By choosing to do nothing and ignoring the need to change Australia’s piecemeal social support system, we are making a choice as a society to commit too many young Australians into entrenched disadvantage,” says Mr Ball.

Australia’s systems to support disadvantaged individuals and families are fragmented and disconnected, spread between Federal and State governments with too little information sharing

between programs. This all too often means families and individuals, especially those who are not in regular contact with support services, slip between the cracks.

CEDA recommends using shared data across levels of government to address this problem and identify those most at risk, enabling early intervention strategies to break the cycle of disadvantage.

Making this happen requires some clear and tangible reform commitments by government set out in an overarching National Agreement to reduce disadvantage and poverty. This agreement should focus on two actions to build momentum for a data-led approach:

To establish a consolidated linked national human services data asset by 2025, creating a more holistic picture of children and families most at risk of future poverty and the effectiveness of different policies; and

Pilot new early interventions based on predictive analytics, moving to a ‘we find you’ approach rather than waiting for families to be in crisis or leaving behind those outside the system.

“We have an obligation to use all the tools at our disposal to overcome entrenched disadvantage,” says report co-author CEDA Senior Economist Cassandra Winzar.

“The use of data to identify and assist our most vulnerable is an underdeveloped yet crucial tool which must be invested in across all levels of government. It also enables governments to take a proactive approach to consistently identifying those most at risk. We also know that intervention and tailored comprehensive support and services in early childhood is key to breaking the cycle of disadvantage.”

The national human services data asset would leverage the new Intergovernmental Agreement on Data Sharing to link data from the federal government (such as Medicare and Centrelink) and state governments (such as health, child protection and justice data), working in a similar way as New Zealand’s Integrated Data Infrastructure.

The human services data asset would be de-identified and designed with strong privacy safeguards that mitigate against harmful and unethical interventions. It would provide the basis for designing and evaluating the effectiveness of policies developed to prevent the onset of child poverty.

An integrated data approach to support early childhood intervention has been used overseas, illustrating how the use of data can make significant inroads into entrenched disadvantage.

Access the full report here:

https://cedakenticomedia.blob.core.windows.net/cedamediacontainer/kentico/media/researchcatalogue/documents/research%20and%20policy/pdf/ceda_disadvantage_report_final.pdf

From the Productivity Commission

Working from home: What’s next?

Michael Brennan, The Productivity Commission (October 2021)

If an alien came to Earth, what would they make of the daily commute? Millions of people getting up each day, going from one building to another in the morning, then doing the opposite at night.

A time traveller from the 1700s would also find it odd. Back then, most people worked from home: as farmers, weavers, blacksmiths, and other self-employed artisans; or doing backbreaking household chores – fetching water, washing clothes, cutting firewood or making candles.

It was the rise of the factory, and then the office, that brought workers together on mass (helped by cheap transport). This turbo-charged productivity and prosperity.

Are we at another turning point? COVID-19 forced a mass experiment in working from home. Before COVID, around 8 per cent of Australian employees worked from home some of the time. On any given day it was more like 2 per cent. In 2020, it shot up to 40 per cent and in future, will probably settle somewhere between those extremes.

We estimate that about two thirds of jobs in the Australian economy cannot be done reliably from home (think nurses, hairdressers and construction). The other third can, but probably won't all the time. Avoiding the commute (now averaging 67 minutes per day in capital cities) is of great value to workers but getting together in the office still has its benefits (for collaboration, creativity and social interaction). Hence the emerging popularity of the 'hybrid' model.

Here is a conservative scenario: If half of those who can work from home do so two days a week, around 7 per cent of the hours worked on any given day would be done from home.

That would be a big change – three times as much remote work as before COVID, and nearly one in five employees working from home some of the time. From another angle, it's modest – a 5 per cent fall in the number of people commuting to work on any given weekday.

Some worry about productivity. Are we really that efficient working from home? The general view from workers and bosses is that it has worked better during COVID than they previously would have thought. Survey evidence suggests some feel more productive, some less, but mainly it's about the same. Across the economy, if an extra 5 or even 10 per cent of work is done remotely, it will tend to be done by those who are relatively productive, since bosses have to agree to the arrangement.

Nor is it the death of the CBD. Yes, offices will need to adapt. Their core role could be redefined around creating space for collaboration and sharing ideas. If there is a bit less demand for office space overall, we would expect rents to fall slightly which could encourage new businesses into the central city for the first time. The attraction of a central location is strong, and Australian cities have proven resilient to past shocks.

Sadly there is limited evidence that working from home will solve traffic congestion. Remote workers tend to make more non-work car trips; and for the commute they disproportionately use public transport.

Working from home can also have a downside. Many people find it hard to switch off, working extra hours and blurring the distinction between work and family time. Overseas evidence suggests remote workers miss out on an average of around 20 minutes of incidental exercise each day.

But in general, remote working is part a long tradition of technological progress which expands choice and opportunity. As with other uptake of digital technology, it took the pandemic to force us to experiment.

As restrictions ease, that experimentation will continue – but this time with businesses and employees trying out different models to see what works best.

At some level working from home is likely here to stay. But it is unlikely that the daily commute will be completely foreign to future generations as much as it would to those of the distant past.

Access the full paper here: <https://www.pc.gov.au/research/completed/working-from-home/working-from-home.pdf>

From the Business Insider Australia

Regional Housing Crisis: Locals say They have Nowhere to Live

The work from home revolution has helped trigger a migration to the regions. Now, locals say they have nowhere to live

- Pandemic-induced uptake of hybrid and remote work has seen “knowledge workers” migrate to the regions in droves, pricing locals out of the market both as renters and buyers.
- Experts say it isn’t just the rate of homelessness that’s alarming, but that it has become more prevalent among middle income earners.
- The Greens and the federal Labor Party have each presented election policies to address the problem, but industry advocates say action is needed sooner.

Affordable housing has drifted far out of reach for many Australians. But for residents of regional Australia, housing supply is being suffocated by a pandemic-induced migration and steepening construction costs.

Complex lending processes and unaffordable risk premiums are suppressing much of the regional housing market, experts say, while workers on as much as \$86,000 are on the brink of homelessness, pushed out of a rental market swarmed by remote “knowledge workers”.

Michele Adair, the CEO of one of NSW’s largest community housing providers, Housing Trust, and chair of the peak body for community housing in the state, said the circumstances are as much of a human crisis as climate change is.

“We have such a shortfall in affordable rental housing now, really, our government should be having a conversation, ‘Well, if we don’t fix it, who are we going to leave homeless?’” Adair told Business Insider Australia.

“It’s really that dire. It really is.”

Adair said the situation is at its worst in Australia’s coastal areas, where the strain added to the local housing market by remote workers is being compounded by homeowners looking to cash in while the housing market runs red hot.

“Many parts of New South Wales have effectively zero rental vacancies. So, we’ve got renters having homes sold out from underneath them, because, you know, somebody is going to make a windfall,” Adair said.

“So that situation is making the rental crisis even worse,” she said. “And typically, in the past, we used to see worse social housing waiting lists in metropolitan Sydney. But that is no longer the case. Now we are seeing [waiting lists as long as] five to 10-years, plus.”

Further details are available at: <https://www.businessinsider.com.au/regional-migration-leaves-pushes-regional-australians-out-of-housing-market>

THE CONVERSATION

COVID has changed students' needs and expectations. How do universities respond?

Misha Ketchell (December 2021)

One could be forgiven for thinking moving lectures online is the only change to the higher education experience to come from the COVID-19 pandemic. Barely a day goes by without a headline that another university will conduct “lectures” in online mode only. But there is so much more potential for change in the wake of the pandemic. Our experiences in Australia and the UK have shown one significant change is that university decision-making has become more student-centred in response to students' demands for flexibility.

Flexibility is often understood as student preferences for modes of learning. Some students see benefits in fully online learning and may decide to continue in that mode. The majority, though, have expressed a strong desire to return to campus. But they want to retain the flexibility of online learning.

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How can universities meet these expectations?

Let's take timetabling as one example. For decades, timetables have been produced to maximise the use of expensive campus infrastructure. Students had to fit their complex lives around that.

During emergency remote teaching many students were able to choose an online class or watch a recording at a time that suited them. Having experienced this flexibility, there is increasing evidence of a demand for 24/7/365 access to learning. Or is there? Have we really understood students' “demands” for flexibility and are we making decisions in their best interests?

Such 24/7 flexibility involves a significant trade-off for students. For one thing, it means they lose consistent contact with the same peers as they dip in and out of different classes.

Current timetables mean students sometimes travel significant distances for a single one-hour class. It's not surprising these students would prefer to access a class remotely or at a later time.

But could we use technology to build timetables that cluster classes over fewer days to reduce students' total travel time? In this way, a student-centred approach would fit in with students' lives rather than the other way around. At the same time, it would protect the essential elements of the on-campus experience.

Consider what kind of post-COVID, on-campus experiences students want. Students enrolled at campus-based institutions often said they missed the social environment during lockdown. So it is no surprise they now seek social opportunities to make new friends, build new networks through social activities like clubs and societies, engage with different perspectives and be physically located within the academic community.

More on this story is available at: <https://theconversation.com/covid-has-changed-students-needs-and-expectations-how-do-universities-respond-172863>

CONFERENCES and STUDY OPPORTUNITIES

ANZRSAl 2022 Conference

The ANZRSAl 45th Annual Conference will be held in Charles Sturt University, Wagga Wagga Campus. Further details will be available in early 2022 on ANZRSAl website.

Regional Studies Blog

Professor Paul Dalziel, Executive Officer, ANZRSAl has recommended the Regional Studies Association Blog, which has been running since 2010. Each post is an easy-to-read piece between 500 and 750 words on a topical issue in regional studies.

The link is https://www.regionalstudies.org/category_news/rsa-blog/. A recent contribution that is relevant to ANZRSAl as we plan for the new post-CoVID normal is the following item: [Moving towards a new conference model? The rocky road to virtual conferencing](#), by Daniela Carl and Alex Holmes. Ashleigh Weeden talks about the 'right to be rural' during the CoVID epidemic in a contribution entitled [COVID-19 and Cottage Country: Exploring place, power, and policy in the 'right to be rural'](#).

CURRENT RESEARCH ABSTRACTS

ANZRSAL Abstract Alerts

To contribute to ANZRSAL Abstract Alerts email the editors a title, abstract, and citation.

Joseph Drew:

Joseph.Drew@uts.edu.au

Yogi.Vidyattama

Yogi.Vidyattama@canberra.edu.au

We would like to draw your attention to the abstracts from Australasian Journal of Regional Studies and a YouTube Channel 'Professor Joseph Drew's World of Local Government'

For the latter it can be found in:

<https://www.youtube.com/channel/UCXn5CI2x5h1cgEsaT8nLK9g/videos>

The whole purpose of the channel is to help local government help other people. So, please consider subscribing and sending the link on to colleagues.

In a few weeks' time Prof. Joseph Drew will start uploading videos by some of his colleagues from around the world which will provide people with new global insights into what can be done to make LG even stronger.

A review of COVID-19 modelling strategies in three countries to develop a research framework for regional areas

Azizur Rahman, Md Abdul Kuddus, H.L. Ip, & Michael Bewong

Abstract: At the end of December 2019, an outbreak of COVID-19 occurred in Wuhan city, China. Modelling plays a crucial role in developing a strategy to prevent a disease outbreak from spreading around the globe. Models have contributed to the perspicacity of epidemiological variations between and within nations and the planning of desired control strategies. In this paper, a literature review was

conducted to summarise knowledge about COVID-19 disease modelling in three countries—China, the UK and Australia—to develop a robust research framework for the regional areas that are urban and rural health districts of New South Wales, Australia. In different aspects of modelling, summarising disease and intervention strategies can help policymakers control the outbreak of COVID-19 and may motivate modelling disease-related research at a finer level of regional geospatial scales in the future.

To Cite: Rahman, Viruses, 13(2185), 1-23.

DOI:

<https://doi.org/10.3390/v13112185>

Tailoring immunisation programmes in Lismore, NSW; the thing we want our children to do is be healthy and grow well and immunisation really helps that

Susan Thomas, Virginia Paden, Carolyn Lloyd, Jacqueline Tudball & Paul Corben

Abstract: In Lismore, NSW 175 children were overdue for scheduled vaccinations, with 11% being Aboriginal (2018). This study aimed to gain a deeper understanding of the reasons for low coverage. Parents and service providers were invited to interviews and focus groups. Open ended questions were asked about immunisation barriers and enablers and what strategies may be effective in improving coverage in Lismore. We interviewed 35 participants. Six themes were developed; i) Childhood immunisation in Lismore is limited by access barriers to health services, ii) Some families may need additional support to access immunisation services, iii) Health services need to ensure that Aboriginal families feel safe and comfortable when accessing their service, iv) Parents valued reminders and recalls to keep their children's immunisations up to date, v) Parent's views influence their

decisions to immunise their children, vi) Reliable information about immunisation needs to be available in ways that are meaningful and appropriate for parents. Access barriers and vaccine hesitancy were contributing to children falling behind in their scheduled immunisations in Lismore. More flexible health services, culturally safe and appropriate care and more practical support can help overcome structural barriers to health services. Tailored health messages for both Aboriginal and non-Aboriginal parents can assist parents in making wise vaccination choices. More consistent analysis and reporting of routinely available data can identify pockets of low coverage. Publicly funded health services and ACCHS are well placed to provide flexible immunisation services for those families who may struggle with access barriers.

Rural and Remote Health (Online).

DOI:
https://www.rrh.org.au/journal/early_abstract/6803

Regional Studies

Vol. 55, Issue 12, 2021

Making blockchain real': regulatory discourses of blockchains as a smart, civic service

Maral Sotoudehnia

Pages 1857-1867
<https://doi.org/10.1080/00343404.2021.1882671>

Abstract: Policymakers across Canada are considering the blockchain to enable smart(er) governance. Despite the technology's infancy, jurisdictions perceive smart tools as one of many ways to govern efficiently. Critical geographers, however, remain circumspect of datafication as a value-making process, and have traced myriad ways data-driven

technologies participate in the materialization of smart policy mobilities and governance. This article uses autobiography to highlight discourses positioning blockchain technology as a data-driving and -producing civic service. Empirical findings suggest that Canadian policymakers draw on entrepreneurial discourses of digital leadership, transparent data management and digital empowerment to justify their plans in 'making blockchain real'. These regulatory discourses promote datafication through blockchains to improve government services.

Fragmented governance, the urban data ecosystem and smart city-regions: the case of Metropolitan Boston

Rob Kitchin & Niamh Moore-Cherry

Pages 1913-1923
<https://doi.org/10.1080/00343404.2020.1735627>

Abstract: Through an empirical focus on Metropolitan Boston, this paper examines the effects of territorial politics and fragmented metropolitan governance on an urban data ecosystem and endeavours to enact a smart city-region. The fragmented governance of Metro Boston reduces scales of economy and produces interjurisdictional data incompatibilities that limit spatial intelligence, foster back-to-back planning and stifle the benefits of open data. Highlighted is the irony that in order to address fragmented governance, there is a need for greater information-sharing, but that very activity is stymied because of a deeply rooted localist agenda that resists more collaborative, metro-regional governance arrangements.

Regions in Covid-19 recovery

David Bailey, Riccardo Crescenzi, Elisa Roller, Isabelle Anguelovski, Ayona Datta & John Harrison

Pages 1955-1965

<https://doi.org/10.1080/00343404.2021.2003768>

Abstract: Covid-19 is undoubtedly a regional crisis, spatially uneven in its impacts. While it is too soon to talk about a transition ‘from pandemic to recovery’, with attention switching to regional development priorities and the implications of Covid-19 on regional policy, planning and development, increasingly we will need to focus on regions in their recovery phase. In this article we ask four leading researchers what this recovery phase will mean for regions. Opening the way for future discussion perspectives on regional economic recovery, resilience planning, building healthy and just places, and overcoming the ‘shadow’ pandemic indicate how this recovery phase is unfolding and what we would benefit from doing differently to ‘build back better’ and overcome ‘wicked problems’ preventing more inclusive, just and sustainable regional futures.

The Review of Regional Studies

Vol. 51, Issue 2, 2021

How Many Members of the Creative Class Should a City Seek to Attract?

Amitrajeet Batabyal

Pages 161–169

<https://rrs.scholasticahq.com/issue/3579>

Abstract: In this paper, we focus on the decision problem faced by a city authority (CA) who seeks to attract members of the creative class to her city by providing a local public good (LPG). We construct a stylized model of this interaction and shed light on three questions. First, we determine the optimal number of creative class members to attract when the CA maximizes the utility of each member who chooses to reside in the city. Second, assuming the CA provides the LPG optimally given the total number of

resident members, we compute the loss borne by this CA from having a suboptimal number of members living in the city. Finally, we ascertain what number of members living in the city maximizes the total utility obtained by the CA and then compare this answer with our answer to the first question stated above.

Place Prosperity and the Intergenerational Transmission of Poverty

Nebiyou Tilahun, Joseph Persky, Jaeyong Shin & Moira Zellner

Pages 208–220

<https://rrs.scholasticahq.com/issue/3579>

Abstract: Much new work in urban and regional economics has emphasized the importance of place prosperity. This study focuses on the determinants of adult poverty and the contribution of place prosperity in damping the intergenerational transmission of poverty. Childhood poverty is a major predictor of adult poverty. We consider how such intergenerational transmission is affected by metropolitan and neighborhood (census tract) prosperity. To capture the temporal dynamics of this process, the model explored here is recursive in nature. We use longitudinal microdata from the Panel Study of Income Dynamics. Location variables at the census tract and metropolitan levels, family variables, and poverty status are observed for our subjects over multiple years both in childhood and adulthood. Neighborhood and metropolitan prosperity are measured in terms of average incomes adjusted for purchasing power parity differences. The standardized neighborhood prosperity direct effect on adult poverty is strongly significant and its total effect is twice as large. On the other hand, the standardized direct effect of metropolitan prosperity and its total effect are small and insignificant. But even neighborhood effects are modest compared to standardized effects of childhood poverty, race, mother’s education and own education. At least with respect to

these data, the recent emphasis on place variables would seem to be overstated.

Regional Science Policy and Practice

Volume 13, Issue 6 (December 2021)

Regional convergence and spatial dependence across subnational regions of ASEAN: Evidence from satellite nighttime light data

Carlos Mendez & Felipe Santos-Marquez

Pages: 1750–1777

<https://doi.org/10.1111/rsp3.12335>

Abstract: Satellite nighttime light data are increasingly used for evaluating the performance of economies in which official statistics are non-existent, limited, or non-comparable. In this paper, we use a novel luminosity-based measure of GDP per capita to study regional convergence and spatial dependence across 274 subnational regions of the Association of South East Asian Nations (ASEAN) over the 1998–2012 period. Specifically, we first evaluate the usefulness of this new luminosity indicator in the context of ASEAN regions. Results show that almost 60 percent of the differences in (official) GDP per capita can be predicted by this luminosity-based measure of GDP. Next, given its potential usefulness for predicting regional GDP, we evaluate the spatiotemporal dynamics of regional inequality across ASEAN. Results indicate that although there is an overall (average) process of regional convergence, regional inequality within most countries has not significantly decreased. When evaluating the patterns of spatial dependence, we find increasing spatial dependence over time and stable spatial clusters (hotspots and cold spots) that are located across multiple national boundaries. Taken together, these results provide a new and more disaggregated perspective of the integration process of the ASEAN community.

Regional competitiveness of a post-mining city in tourism: Ombilin coal mining heritage of Sawahlunto, Indonesia

Roni Armis & Hidehiko Kanegae

Pages 1888-1910

<https://doi.org/10.1111/rsp3.1240>

Abstract: This paper explores the role of mining heritage tourism attributes on a destination's overall performance, and examines its competitiveness with other cities within the same regional boundary. Relevance-determinance analysis (RDA) and competitive-performance analysis (CPA) were used to achieve these objectives. The data were obtained from a simple random sampling questionnaire survey of tourists visiting the Sawahlunto old coal mining town, an UNESCO World Heritage Site in Indonesia. The study results indicate that mining heritage and natural beauty were not major determinants in the overall performance of the destination. Although these core attributes were considered very important in destination choice, they each had a relatively low influence on overall experience offered by the destination. Instead, the study found that three attributes, namely sport and recreational opportunities, shopping, and cuisine, were higher-impact drivers of competitiveness. Because Sawahlunto's performance is below average, policies to enhance these three attributes while retaining the unique experience offered by the post-mining context should be at the forefront of planning by local decision-makers and destination managers.

Papers in Regional Science

Volume 100, Issue 6 (December 2021)

Regional characteristics and the decision to innovate in a developing country: A multilevel analysis of Ecuadorian firms

Fernando Bruna & Juan Fernández-Sastre

Pages 1337-1354

<https://doi.org/10.1111/pirs.12632>

Abstract: This is the first study that uses multilevel modelling to analyse regional influence on the decision to invest in innovation activities of firms in a single developing country, Ecuador. Our results indicate that the decision to invest in R&D and in other innovation activities are conditioned by the region in which the firm is located. Regional loan volume, orientation towards knowledge exploitation and intra-regional-sectorial R&D spillovers are positively associated with both types of innovation activities, while regional levels of co-operation and inter-regional R&D spillovers are only positively associated with the probability of investing in other innovation activities.

Are old regions less attractive? Interregional labour migration in a context of population ageing

Paula Prenzel

Pages 1429-1447

<https://doi.org/10.1111/pirs.12627>

Abstract: Regional demographic change is often conceptualized as a circular process, where out-migration continuously worsens conditions of population ageing and shrinkage. Thus, if migration acts as a consequence as well as cause of ageing, migration patterns should be influenced by the age structure of origin and destination regions. This paper analyses individual-level migration decisions of full-time employees across 326 German regions between 1997 and 2013 using binary choice models. The results show that individuals are more likely to migrate out of and less likely to migrate towards ageing regions. Moreover, the identified patterns are consistent with age-selective migration reinforcing ageing processes and polarization of demographic structure.

Australasian Journal of Regional Studies

Vol. 27, No. 2, 2021 (November)

GEOGRAPHY MATTERS FOR SMALL ADVANCED ECONOMIES: IMPLICATIONS FOR ECONOMIC STRATEGY

CAROLINE SAUNDERS, PAUL DALZIEL & ANDREW MCCALLUM

Abstract: New Zealand is a small advanced economy in the South Pacific Ocean. Policy advisors often compare New Zealand's economic performance with those of other successful small advanced economies. These comparisons generally recognise that New Zealand is uniquely distant from the world's largest and highest-income markets. Nevertheless, it has become commonplace for policy advisors to say "Geography is not destiny: New Zealand can do better". This paper draws on standard regional economic development analysis to conclude that geography matters for economic strategies. It draws on endogenous growth theory to explain how the properties of knowledge mean that knowledge can sustain increasing returns to scale and hence productivity growth. The paper draws on that theory to introduce a mission-oriented innovation research programme that has contributed to creating and capturing greater value from New Zealand food and fibre exports.

MODELLING THE DESTINATION CHOICE OF NEWCASTLE COMMUTERS USING LOCAL REGRESSION TECHNIQUES

BERNARD TRENDLE

Abstract: Frequently, studies exploring the determinants of commuting flows have adopted global modelling techniques. These techniques estimate a single set of coefficients, implicitly assuming that the same relationship applies across the entire study area. This paper tests that notion, estimating a global spatial

interaction model to explain commuting outflows from Newcastle, using census 2016 journey to work data. Results from this model are compared to the information generated using a count data version of a local regression model. Finally, a spatial clustering technique is applied to the estimated coefficients of the local models to identify spatial regimes in the relationship between commuting outflows from Newcastle and the model's estimated parameters.

THE FUTURE GROWTH OF THE HEALTHCARE AND SOCIAL ASSISTANCE WORKFORCE AND ITS SKILLS BASE: THE CASE OF GIPPSLAND IN AUSTRALIA

MALCOLM ABBOTT & ALEXIS ESPOSTO

Abstract: The purpose of this article is to identify the current and future of healthcare and social assistance workforce needs in Gippsland, a region of the State of Victoria in Australia. In doing so, it uses a range of data sources to illustrate the nature of the anticipated future workforce, based on the government forecasts of future population changes. It then uses data from the O*NET database to identify the types of skills and knowledge required. This analysis focuses on the present and future workforce of Gippsland. In Gippsland, the healthcare and social assistance sectors together employ 14,000 people as well as an additional 4,000 in related administration, clerical duties, and allied duties. Gippsland has fewer healthcare professionals per capita than Australia overall (except for nurses) and has a disproportionate number of professionals that are older or recruited from overseas. Numbers employed will rise from around 14,000 to reach nearly 19,000 by 2036. As well as growing numbers, the skill intensity of the work has risen over the years. Also, the technical complexity of many jobs has changed, which means people will need to undertake life-long learning. Tertiary education providers will need to modify and expand their offerings in these

fields to cope with the changes in skill and knowledge requirements of many occupations.

BUILDING COMMUNITY CONNECTIONS: SUPPORTING ENTERPRISE DEVELOPMENT IN REGIONAL AUSTRALIA POST-COVID-19

JANINE WILLIAMSON, NAJMEH HASSANLI, CRISTINA RODRIGUES, SKYE AKBAR & HARITHA WEDATHANTHIRIGE

Abstract: To examine the realities of COVID-19 on enterprise development in regional Australia, this paper discusses the findings of a study which examined the capacity of a remote community to exploit changes occurring in the marketplace. The study identified that barriers to entrepreneurship which existed pre-COVID-19 remain, with COVID-19 acting as a driver and barrier. To exploit changes in the marketplace, experienced entrepreneurs have higher levels of entrepreneurial self-efficacy (ESE) connected to innovating and adapting. However, nascent and experienced entrepreneurs require support to develop other areas of ESE. A conceptual framework is developed to support enterprise development.

SOCIAL DISRUPTERS: CONSTRUCTING A NEW WAY TO DELIVER PRIMARY HEALTH SERVICES IN A RURAL SETTING

LISA CAFFERY, OLAV MUURLINK & ANDREW TAYLOR-ROBINSON

Abstract: In this paper, we investigate the role of social enterprise in bridging a gap in health provision that is experienced commonly in rural Australia. Drawing on an exploratory case study conducted in the small town of Emerald in Central Queensland, we use primary interview data to understand better how one, wholly community-owned, not-for-profit, social enterprise has moved beyond the traditional primary health care model and constructed a new way to deliver services in a

rural setting. This case study provides an example of a community-driven response that endeavors to transform health service challenges into opportunities. This research identifies key strategies, strengths and business factors that have contributed to a locally responsive health service. We also focus on the business model and examine how innovation has shaped the operation. Key findings are presented as ten critical actions that helped the business establish itself as a thriving social enterprise in rural Australia.

***PLACE ATTACHMENT AND
DISPOSSESSED HOMEOWNERS IN
QUEENSLAND INFRASTRUCTURE
PROJECTS: THEIR HOME IS THEIR
STORY***

JOHN STURGEON & VINCE MANGIONI

Abstract: The acquisition of land undertaken for public purposes has left many residential property owners deprived of their homes and meaningful opportunity to rehouse. The response and subsequent framework developed by government have been to address such loss by payment of market value with other heads of compensation for incidental loss, with a top-up of solatium for good measure in some states. This form of compensation does not recognise that dispossessed owner's homes are their story. The absence of understanding their loss has led to gross dissatisfaction towards government and the public purposes for which land is acquired. This paper defines the meaning of place attachment and the factors that impact dispossessed property owners in Brisbane and the Gold Coast Queensland. Interviews with acquiring officers and dispossessed homeowners demonstrate the complexity of cases, the lack of preparation and the limitation of skilled professionals within the acquisition process. It illuminates the underlying budgetary blindness of government by substituting place attachment with monetary compensation. It sets out the factors that account for loss and the equivalence needed through a dispossessed

owner's lens. It defines the factors that government has recognised should be reformed, but yet to be adopted in achieving acquisition by agreement.

ABOUT ANZRSAL

ANZRSAL Council Notes

Council is planning for the 2022 conference in Wagga Wagga at Charles Sturt University, and improving access to and ranking of AJRS and the website. Conference participants gain access to support, encouragement, and relevant experience. AJRS offers an opportunity for publication. Council acknowledges Tony O'Malley's contributions to ANZRSAL and proposes his name as a lifetime member of ANZRSAL.

Roles of Council Members

Membership Secretary: Delwar Akbar
Council Secretary: Rolf Gerritsen
Correspondence Secretary: Yogi Vidyattama
Publications: Vince Mangioni or Lee Pugalis.
Conference Secretary: Paul Dalziel
Webmaster: Paul Dalziel
Conference Awards: Volunteer required.
Convenor: Contributed Paper: Paul Dalziel

Editors:

Conference Proceedings:
TBA assisted by Rolf Gerritsen

Australasian Journal of Regional Studies:
Mike Hefferan,
Bruce Wilson,
Rolf Gerritsen,
Khorshed Alam &
Vincent Mangioni

Sustaining Regions - Azizur Rahman

Accounts – Greg Jones

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