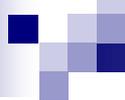


# Regional and industry changes in hours worked and local income: 2020-21 compared to 2014-19

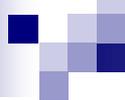
**Presented by Ian Manning**  
**National Institute of Economic and Industry Research**  
*Lower Ground, Unit 1A, 663 Victoria Street, Abbotsford, VIC 3262*  
*Phone: (03) 9488 8444; Email: [admin@nieir.com.au](mailto:admin@nieir.com.au)*



**The data base: began at Melbourne University, NIEIR since 1984.**

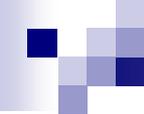
**Financed as a spinoff from consulting projects.**

**Available commercially at LGA level from [id.com.au](http://id.com.au); published at regional level in *State of the Regions* reports.**

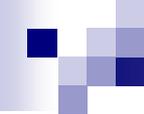


**Demographic data is projected, and National Accounts' variables are estimated, at LGA/SA2 level.**

**Data are updated quarterly and reconciled to ABS State Accounts.**



**Sources for interpolation include  
Census, taxation data, Centrelink,  
Labour Force and other surveys,  
major project lists.**

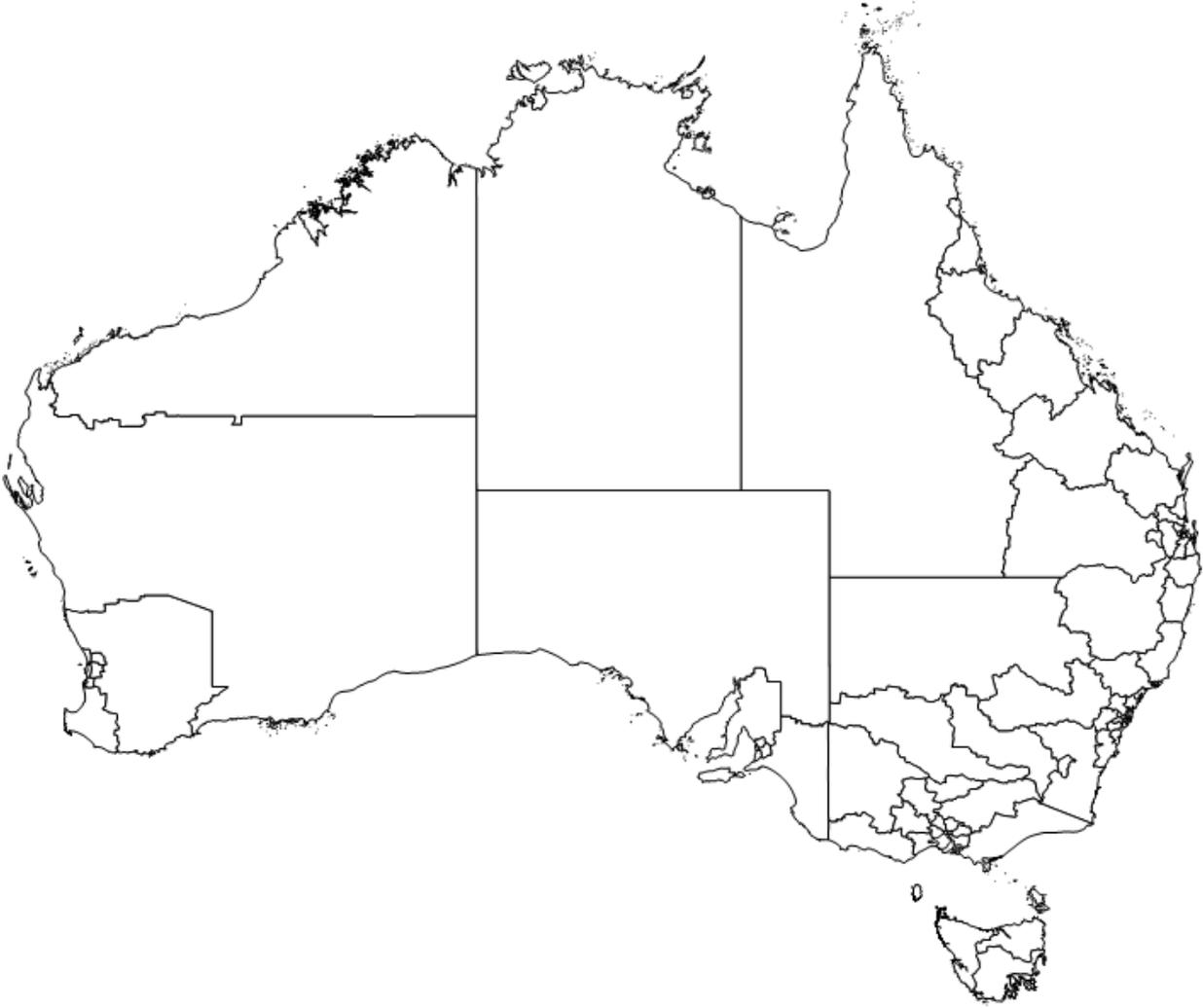


**Estimation involves reconciliation of sources and interpolation of missing data. For some variables microsimulation can assist, for others input-output tables, for some probabilistic estimations from column and row totals.**

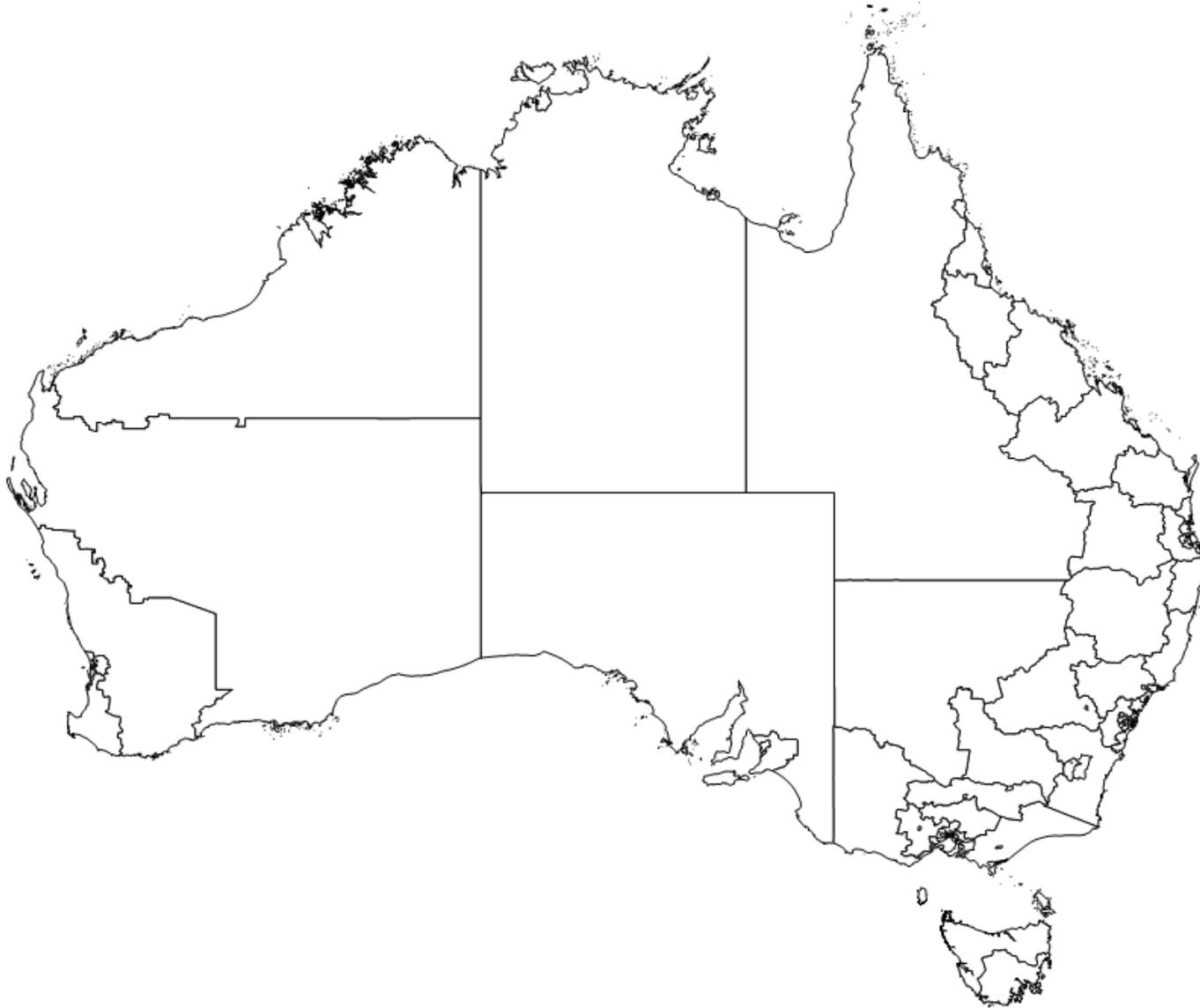


**Current and recent past data are estimated from lead indicators and revised as source data are published.**

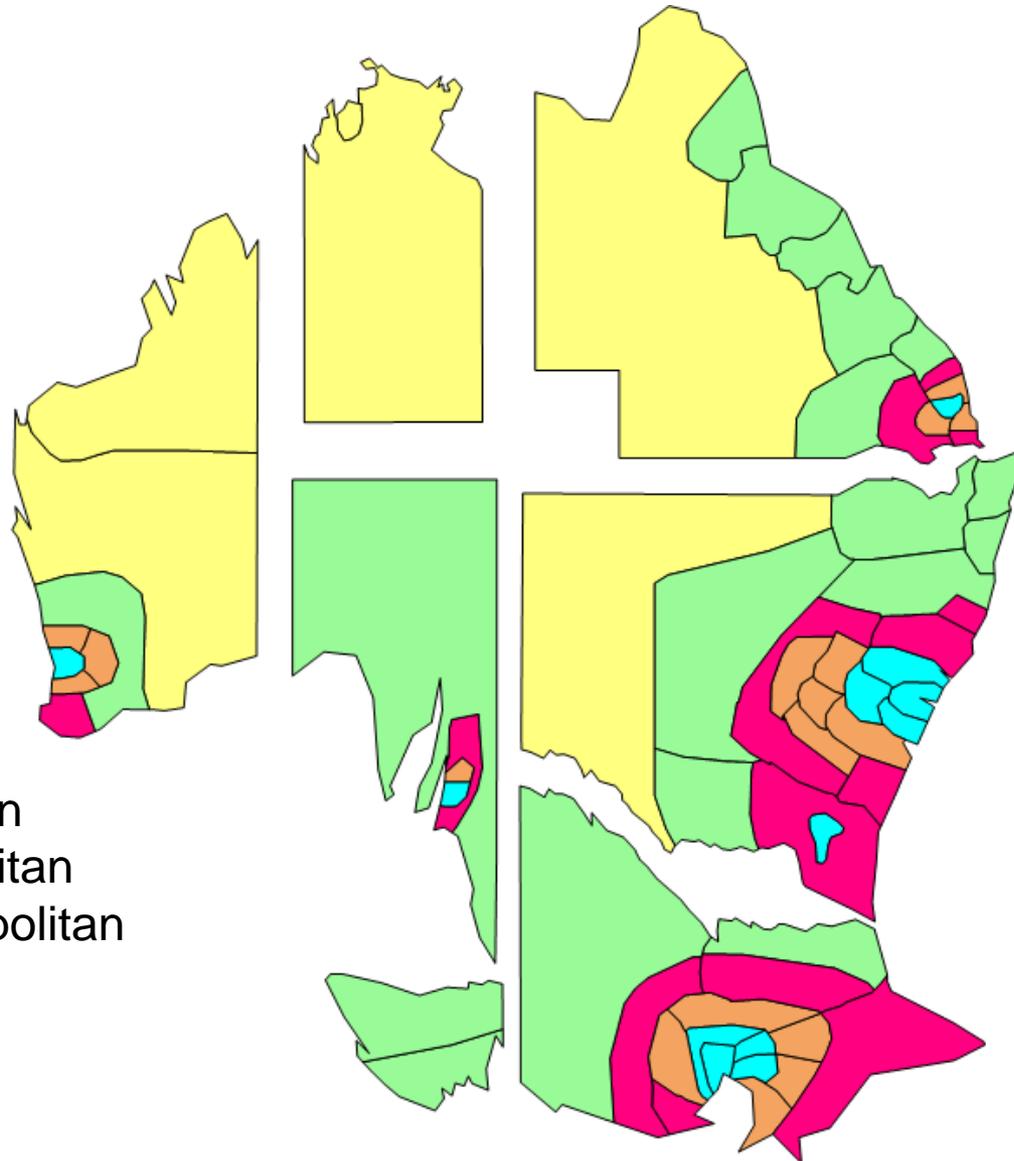
# ABS SA4s



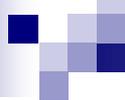
# NIEIR regions



# NIEIR regions: Kindergarten version



Blue = Inner metropolitan  
Brown = Outer metropolitan  
Red = Peripheral metropolitan  
Green = Rural  
Yellow = Remote



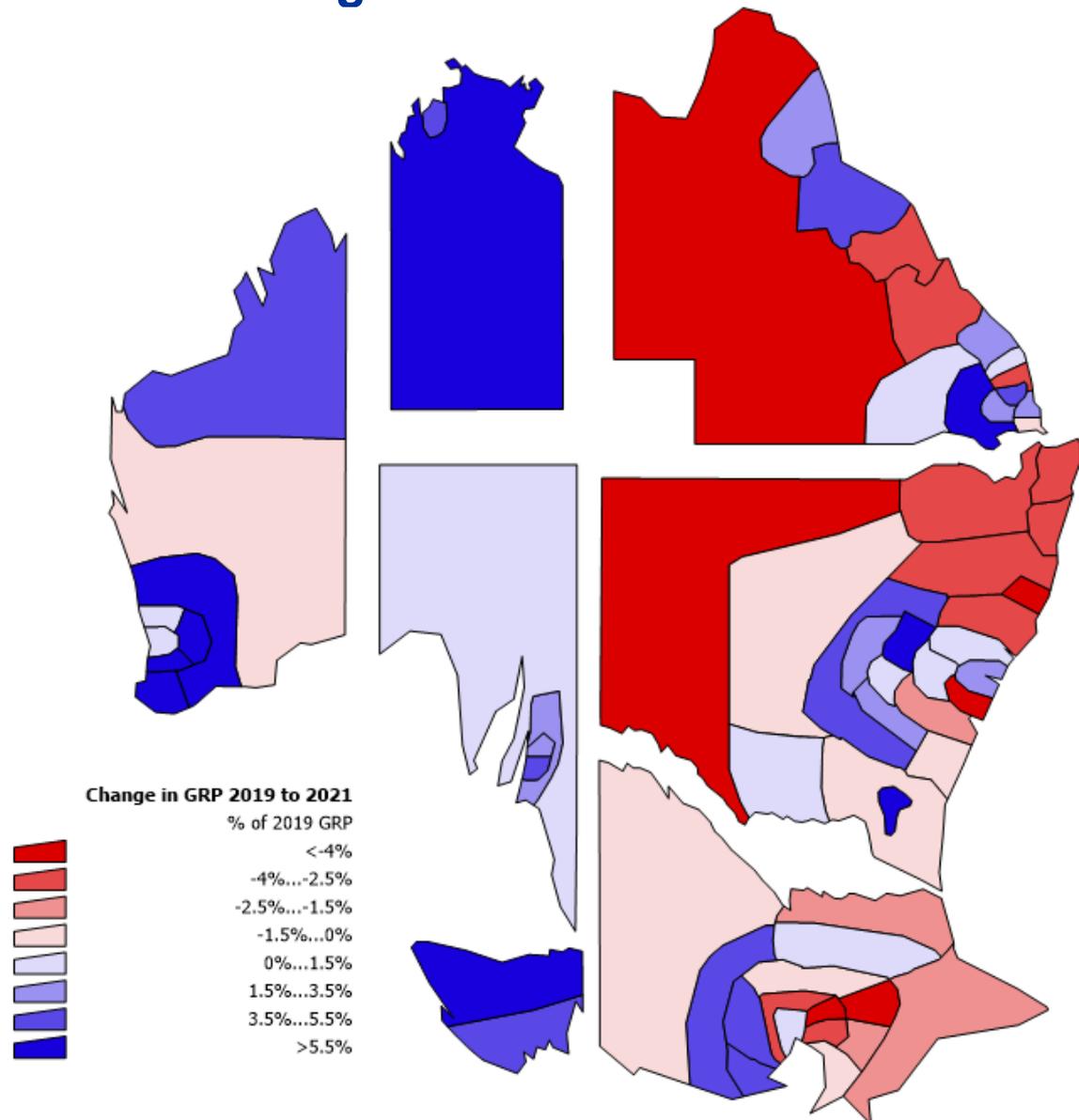
**GRP is non-dwelling GDP distributed to regions.**

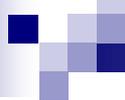
- **The labour-related element of GDP can readily be allocated to regions by the workplace and residential address of employed people, but the capital element requires assumptions (e.g. do mineral rents belong to the mine location or do they really accrue to the Cayman Islands?)**
- **2021 National Accounts estimates are, to varying degrees, dependant on leading indicators. COVID has disrupted lead indicator relationships, but how much?**

Nationally, GDP in 2021 was 1.2% greater than in 2019. Some regions experienced growth and others decline.

- Some of the changes in GRP resulted from COVID negatives and positives, but global and national dynamics continued.
- The map is on a historical place-of-work basis – hence continued growth in metro centres (COVID work-at-home is uncharted territory).
- Low growth in suburban Melbourne and coastal NSW more or less fits COVID expectations.
- Note particularly low growth in Sydney Inner East – the Kingsford Smith effect. In Outer North Melbourne a collapse of activity at Tullamarine was offset by warehousing and construction.
- Among the regions, the star performer was WA SW, thanks to bauxite and alumina.

## Change in GRP 2019 to 2021





**Hours worked is anchored in the Census but recent estimates depend on the Labour Force and other surveys.**

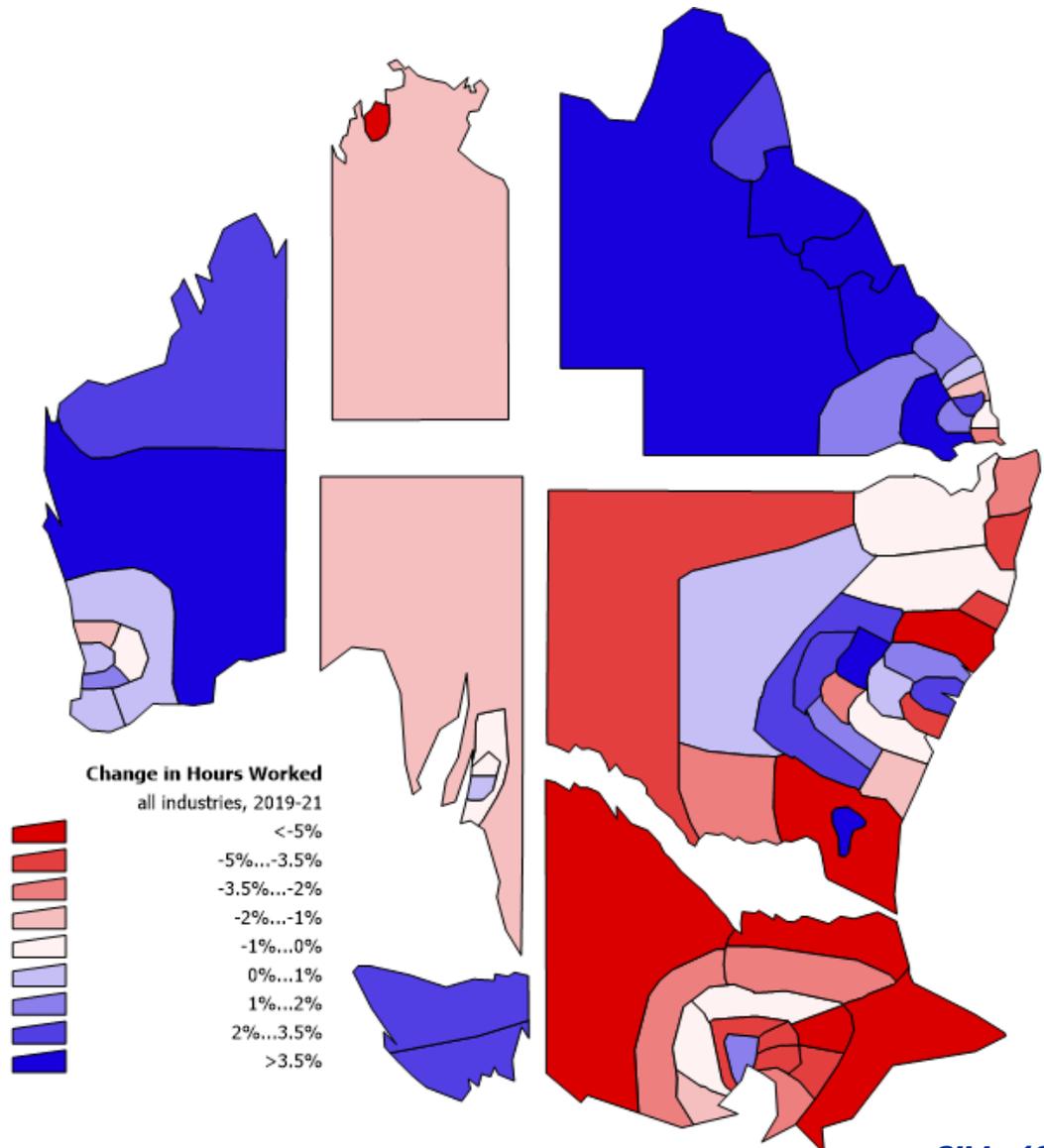
- **Since people, not capital, are locked down, the effects of COVID should be apparent primarily in hours worked.**
- **Regional employment data are firmly based in Census, Centrelink and taxation, but 2021 data including hours worked come mainly from the Labour Force Survey and can have significant standard errors.**

## Change in hours worked – All industries, 2019-21

This map is on a historical place-of-work basis.

Nationally, hours worked were the same in 2021 as they were in 2019.

- Hours worked grew in all metro centres AND in Parramatta, at least on a usual place-of-work basis.
- Grew in some mining/pastoral regions and in Tasmania.
- Declined in rural regions elsewhere.



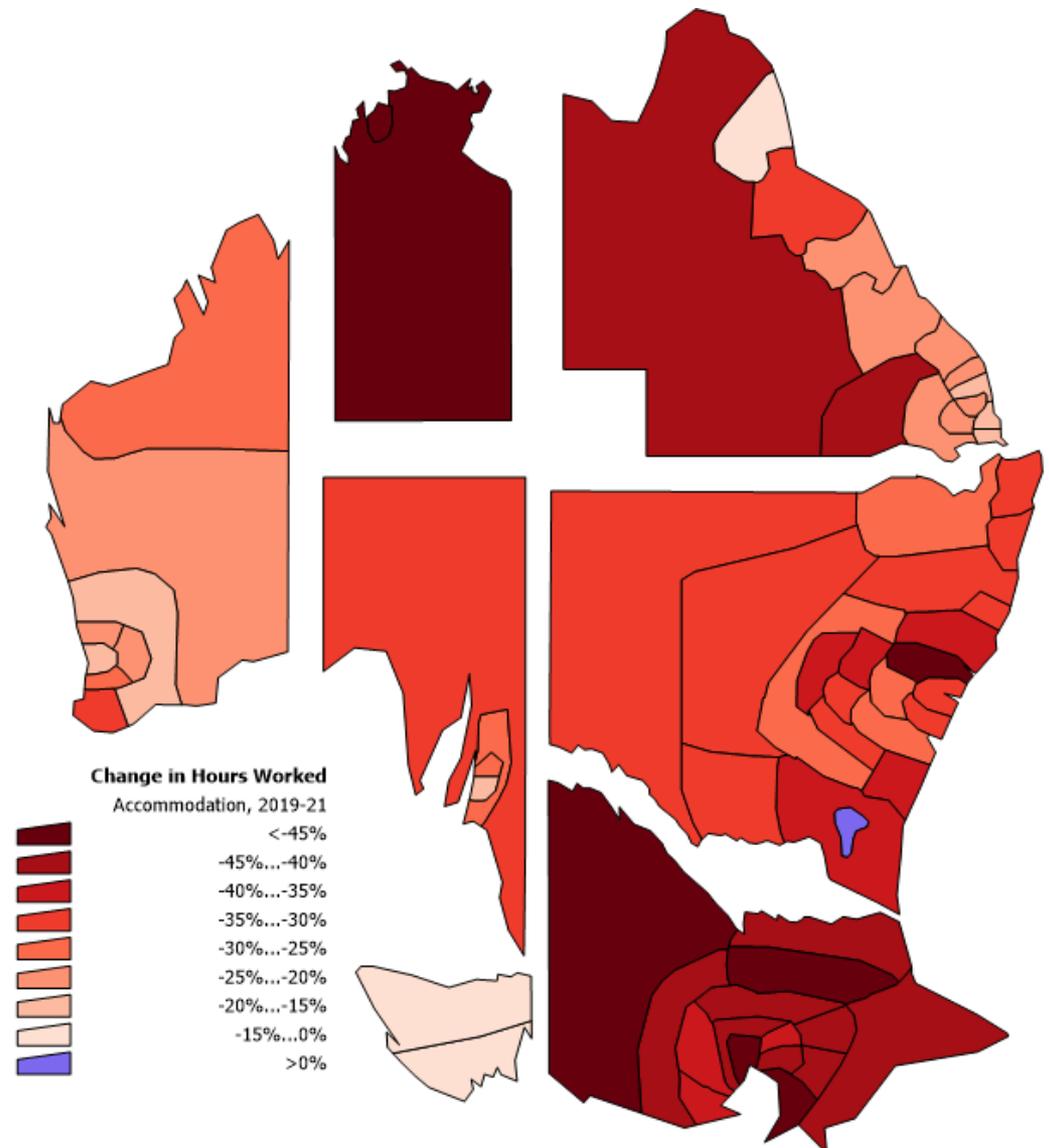


# **Now for a selection of ANZSIC 2-digit industries**

## Change in hours worked – Accommodation 2019-21

Curtailement of travel affected a number of industries, notably air travel. Accommodation provides an example.

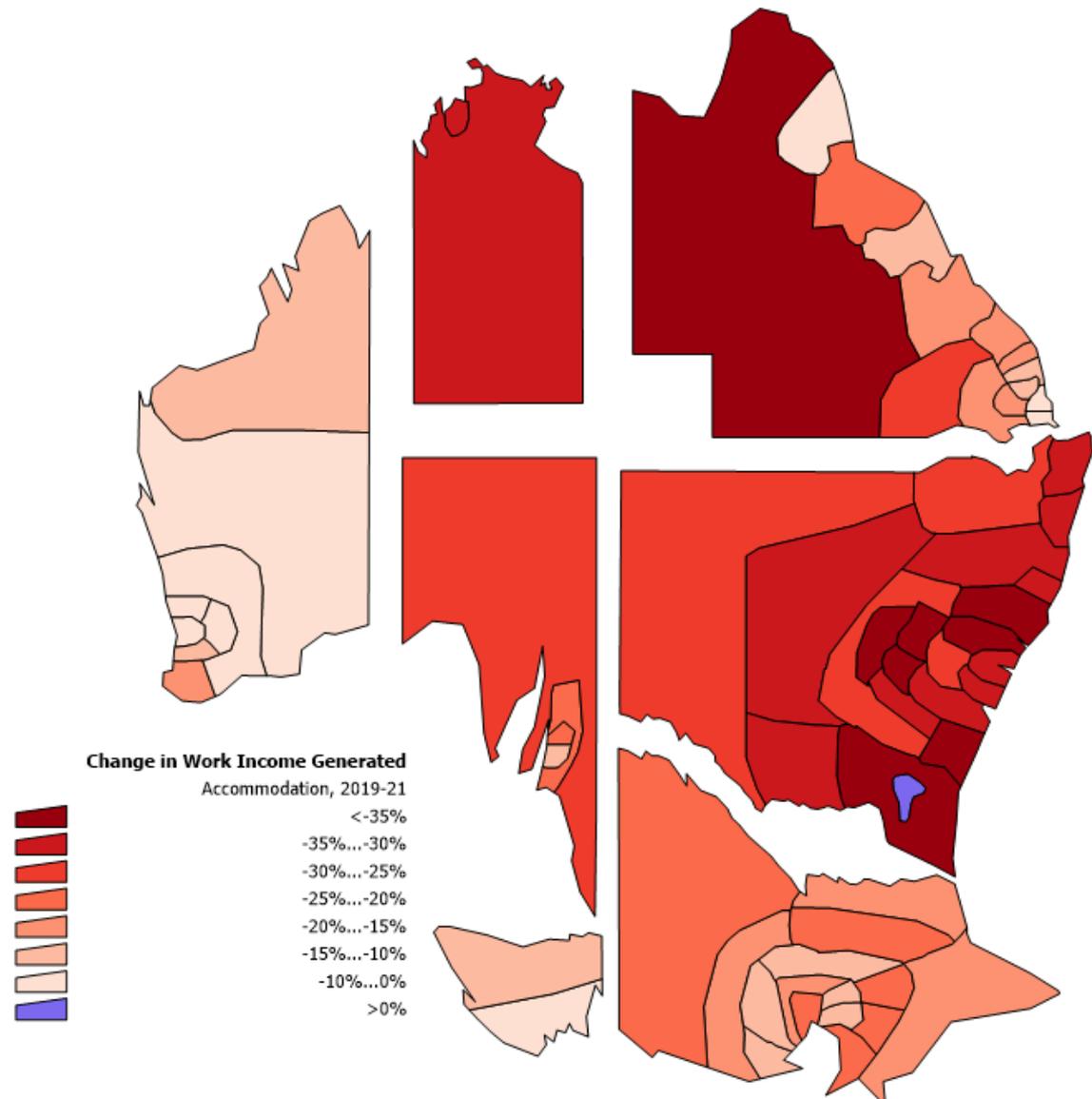
- Nationally, hours worked in accommodation in 2021 were 30% below 2019.
- In some regions, notably NT and Melbourne central, hours worked are estimated to have halved.
- In others, notably ACT and Tasmania, reductions appear to have been much less.



## Change in work income generated – Accommodation 2019-21

Work income comprises employee income broadly defined plus the mixed income of locally-owned business.

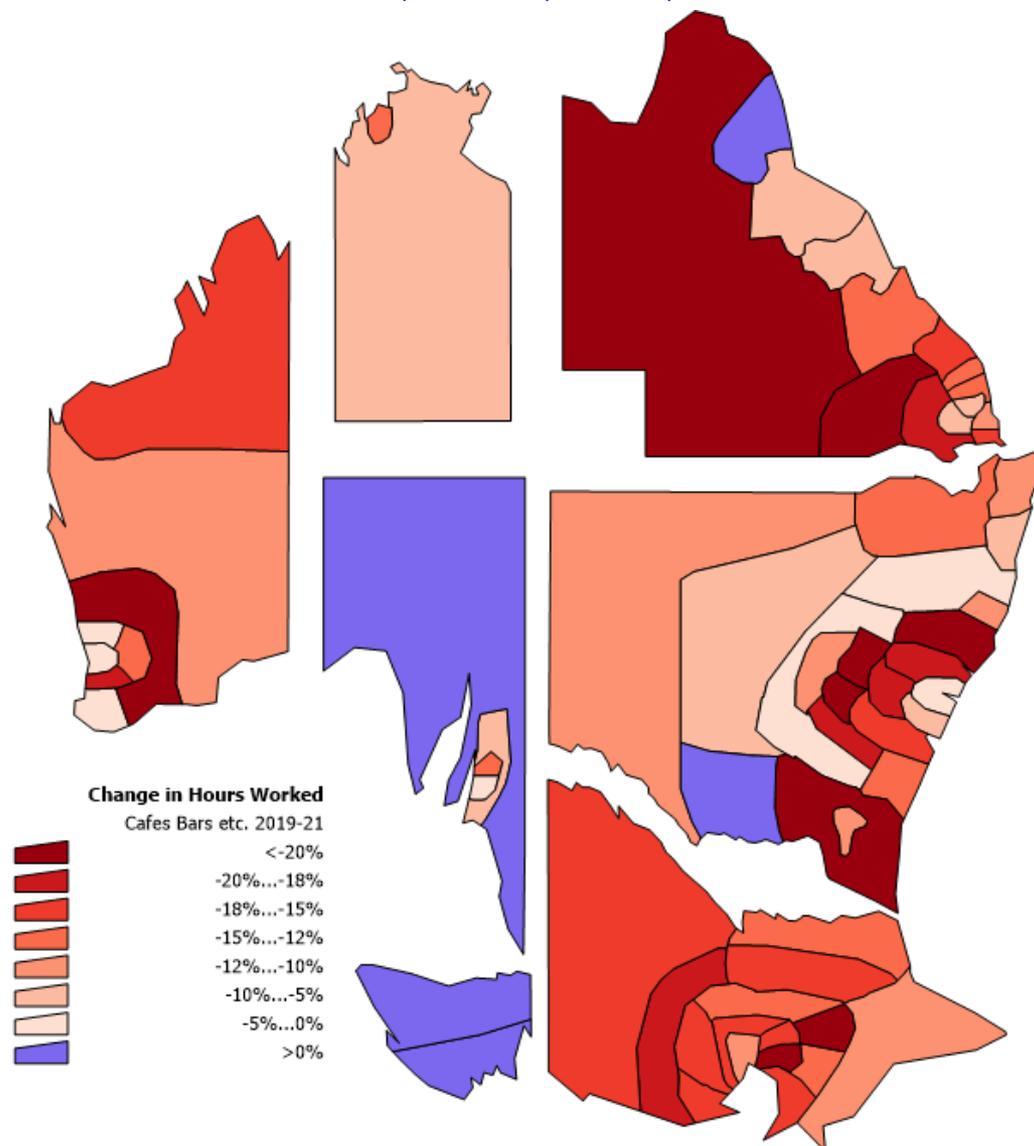
The regional distribution is strongly influenced by ABS state/territory control totals. According to these, the income consequences of COVID appear to have been severe in NSW and Tasmania; much less so in Victoria and WA.



Lockdowns also affected local-demand industries.

- Not as severe a reduction as in accommodation: indeed, hours worked appear to have increased in Tasmania and Cairns.
- Tourism-related reductions in NSW SE, Qld outback (?).
- As with accommodation, the income consequences appear to have been severe in NSW and Tasmania, much less so in Victoria and WA. (Did Tasmanians maintain hours at the expense of earnings?)

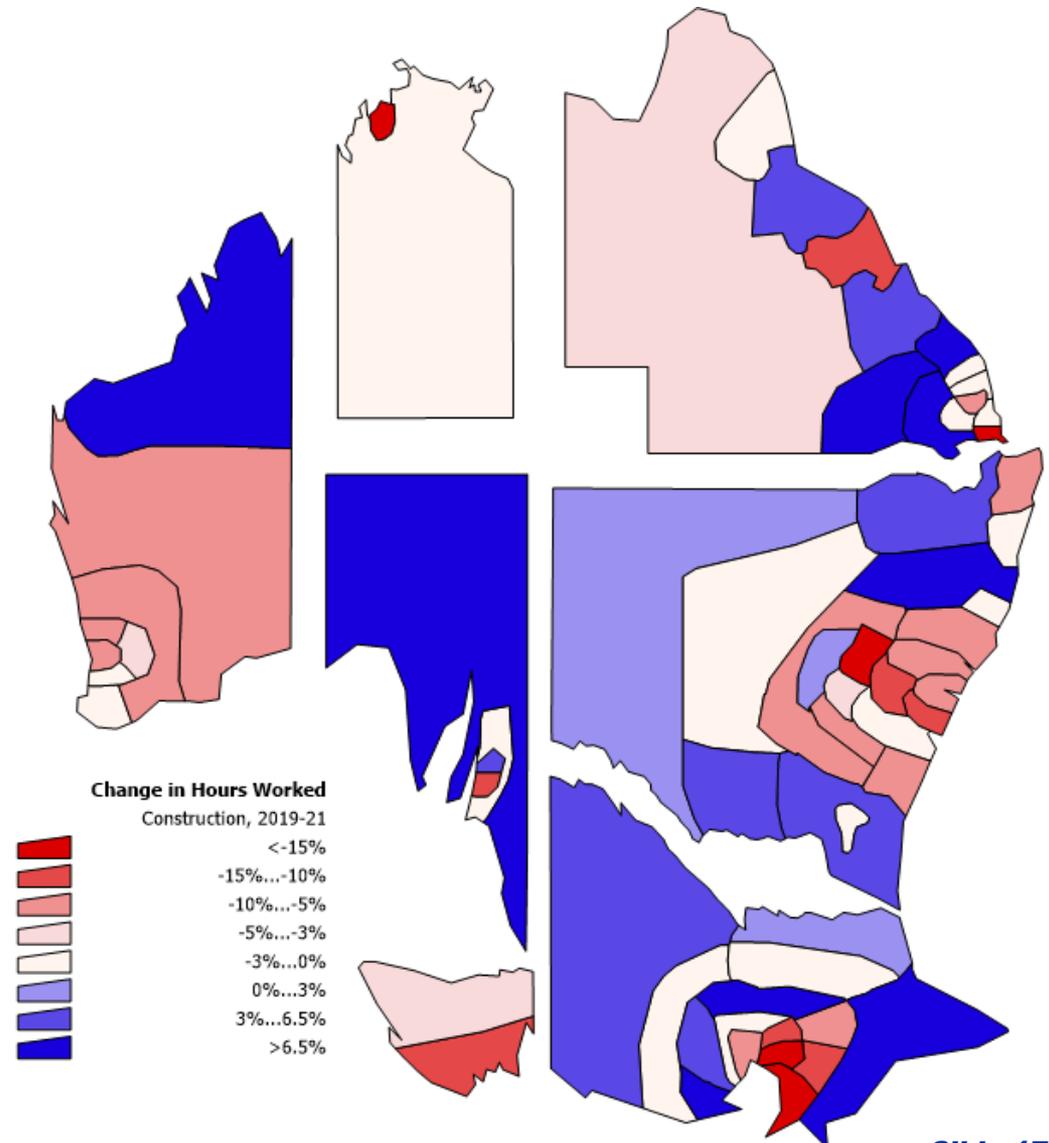
## Change in hours worked – Cafes, bars, etc., 2019-21



## Change in hours worked – Construction, 2019-21

The construction industry claimed that it was adversely affected by COVID, and nationally hours worked in 2021 were 2% below 2019. However:

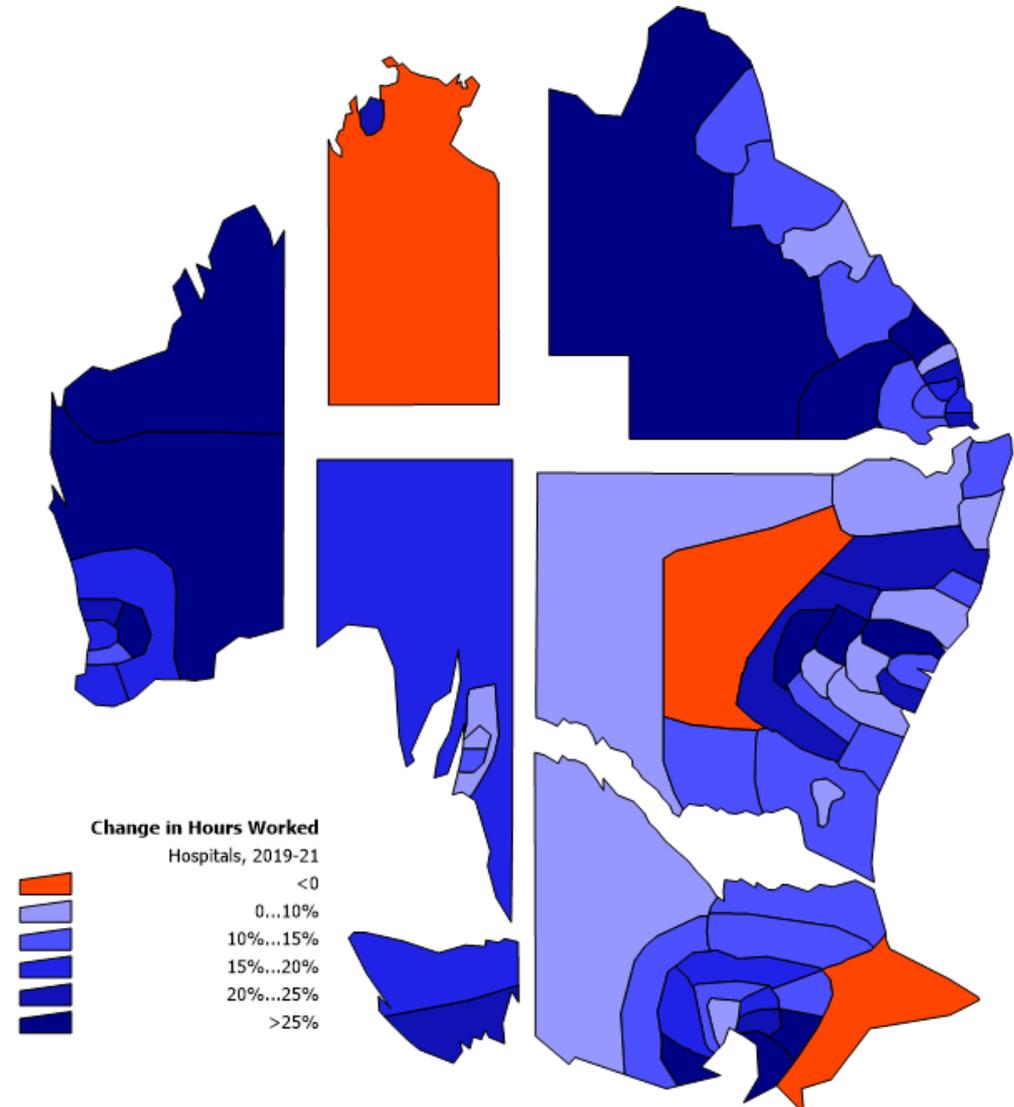
- residential construction was depressed by high household debt and civil construction buoyed by government debt;
- the usual cycles appeared as regions became overbuilt (Mackay, Gold Coast, Parramatta) or were perceived as underbuilt (SA Outer, Wide Bay, Geelong).



## Change in hours worked – Hospitals, 2019-21

**COVID increased the hospital workload. Nationally hours worked in 2021 were 16% more than in 2019.**

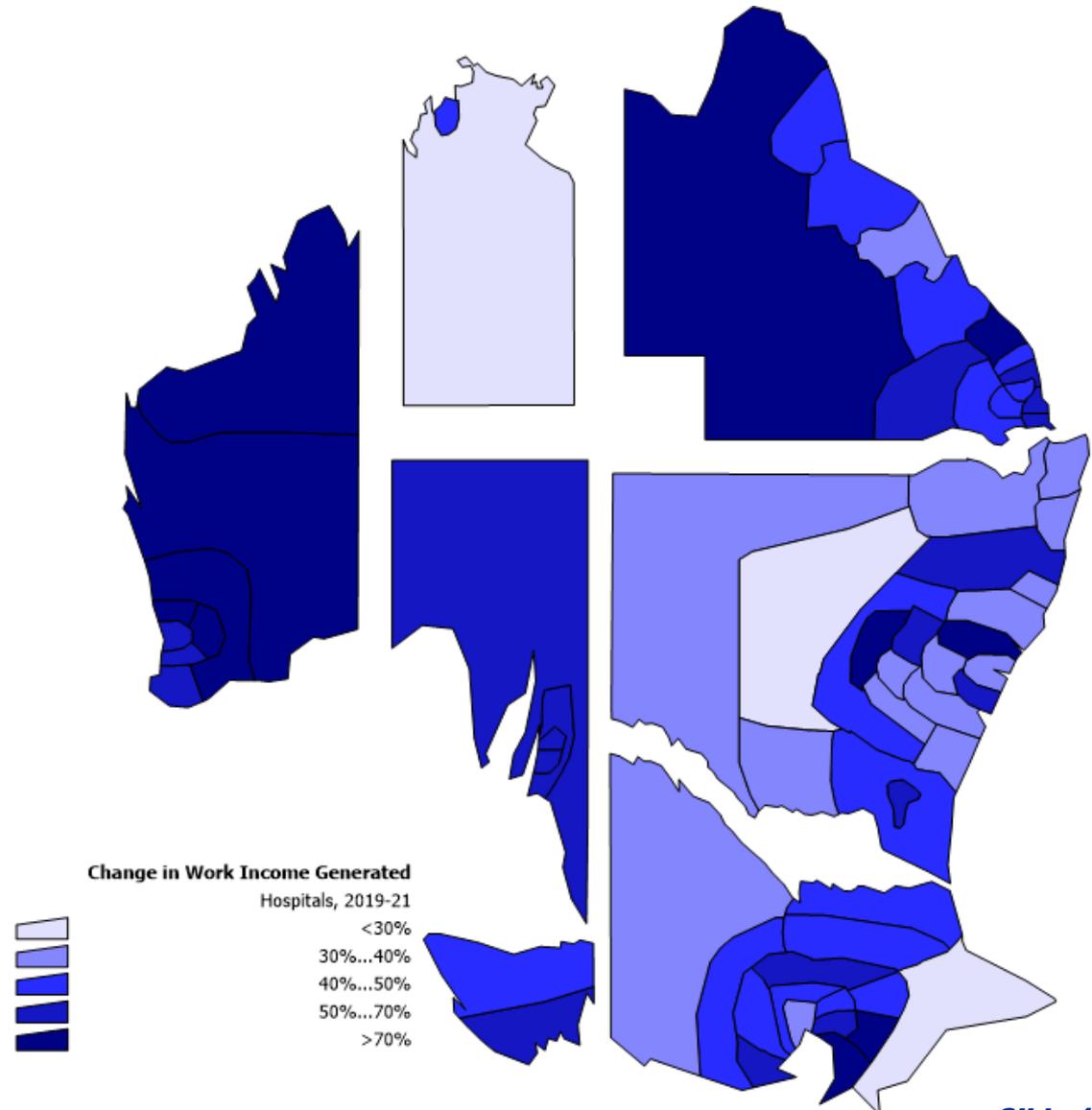
- Major increases in the outer suburbs of Sydney, Melbourne and Perth.
- Also, one or two remote regions, though here the numbers are small.
- Decreases (or low increases) in some rural regions.



## Change in work income generated – Hospitals, 2019-21

The increase in hours worked in hospitals was accompanied by a 33% increase in income/hour. Presumably due to:

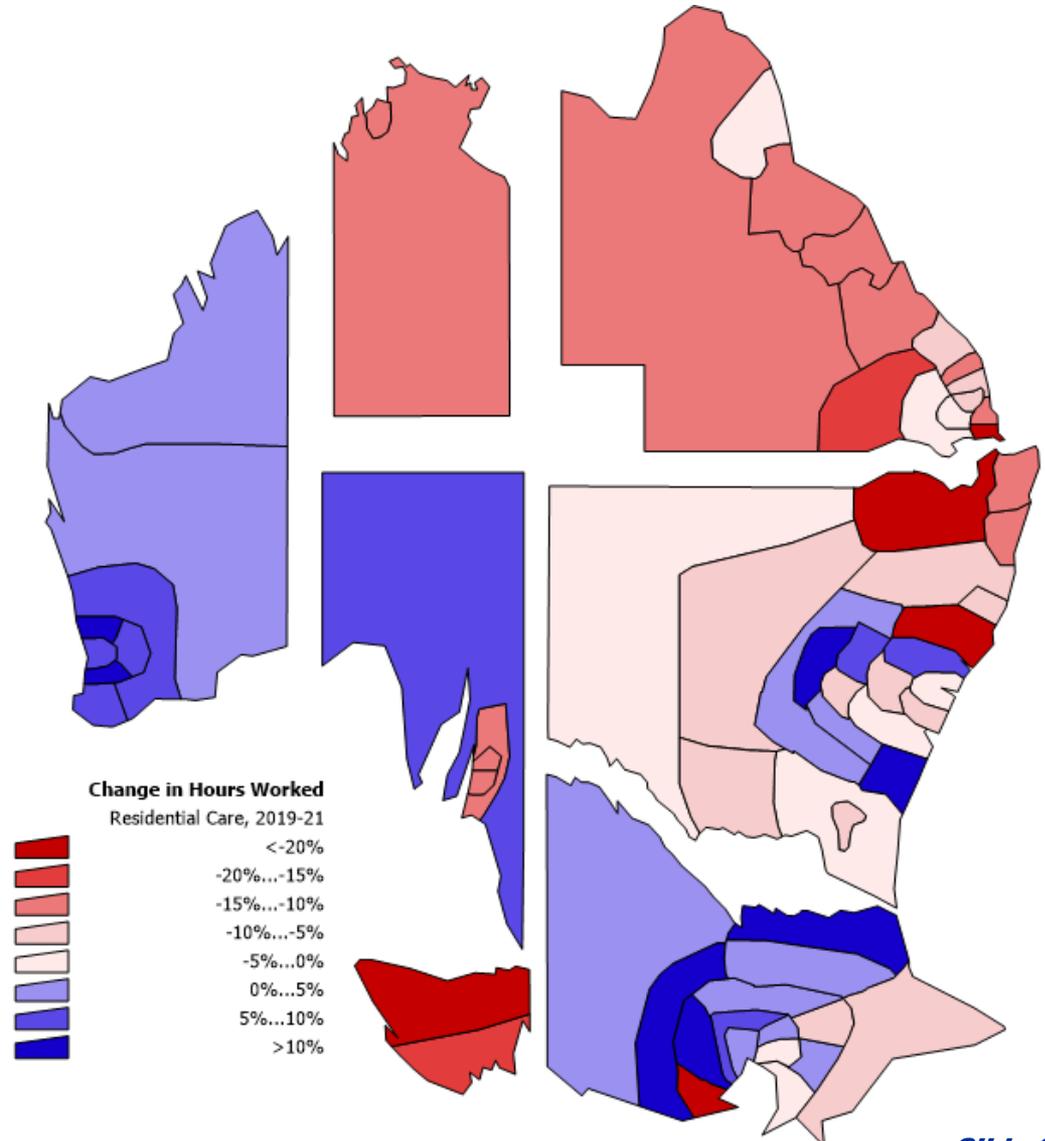
- increased pay rates (?);
- increased overtime;
- increased hours for high-paid staff;
- the increases in income/hour appear to have been particularly high in WA and ACT; low in NSW and NT.



## Change in hours worked – Residential care, 2019-21

A national decrease of 4.5%: were the hospitals raiding residential care for staff? Was demand falling due to adverse publicity, financial changes?

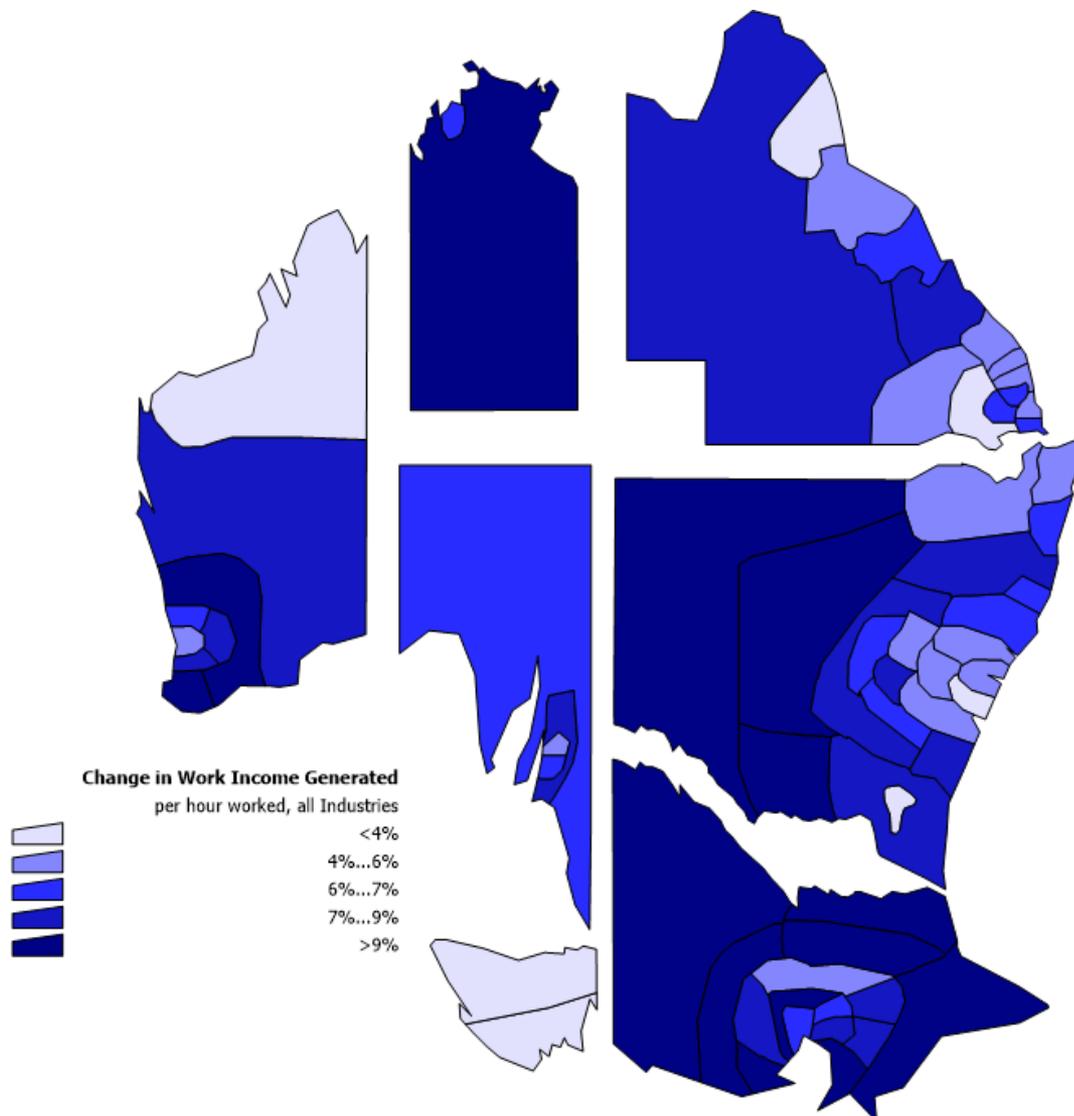
- Pronounced state patterns: hours up in WA, down in Qld, NT, Tas.
- Hours down in particular regions: Gold Coast, Central Coast, N. Tas, Geelong.



Nationally, real (cvm) income per hour worked in 2021 was about 6% over 2019.

- Victorians seem to have been well compensated for falls in hours worked.
- Productivity or unsustainable transfers?
- SW WA would be a productivity case.
- In Hobart, the ACT and Cairns above-average growth in hours was associated with below-average growth in income/hour.

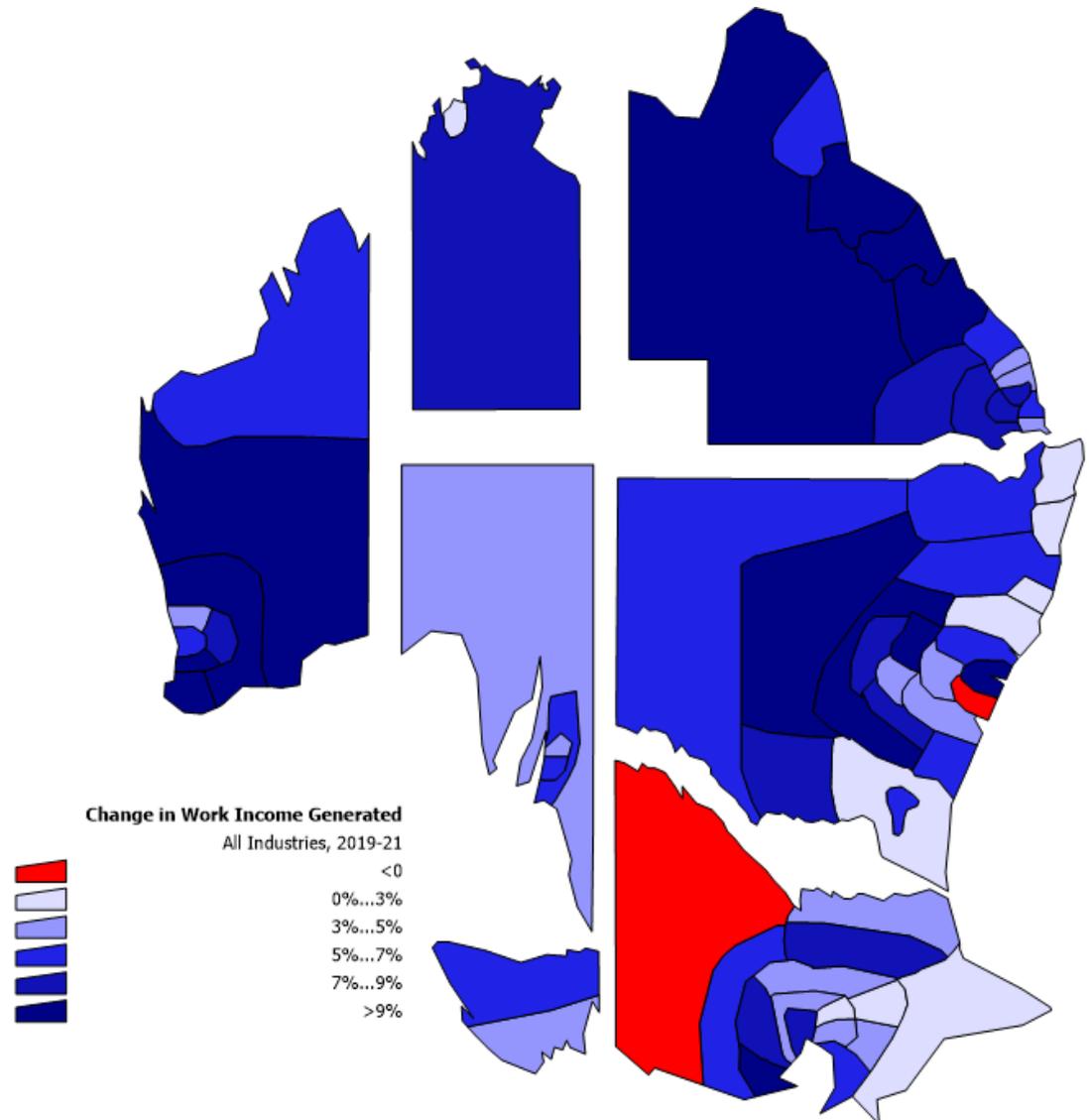
## Change in work income generated – Per hour worked, all industries



## Change in work income generated – All industries, 2019-21

The aggregate level in 2021 was roughly the same as in 2019.

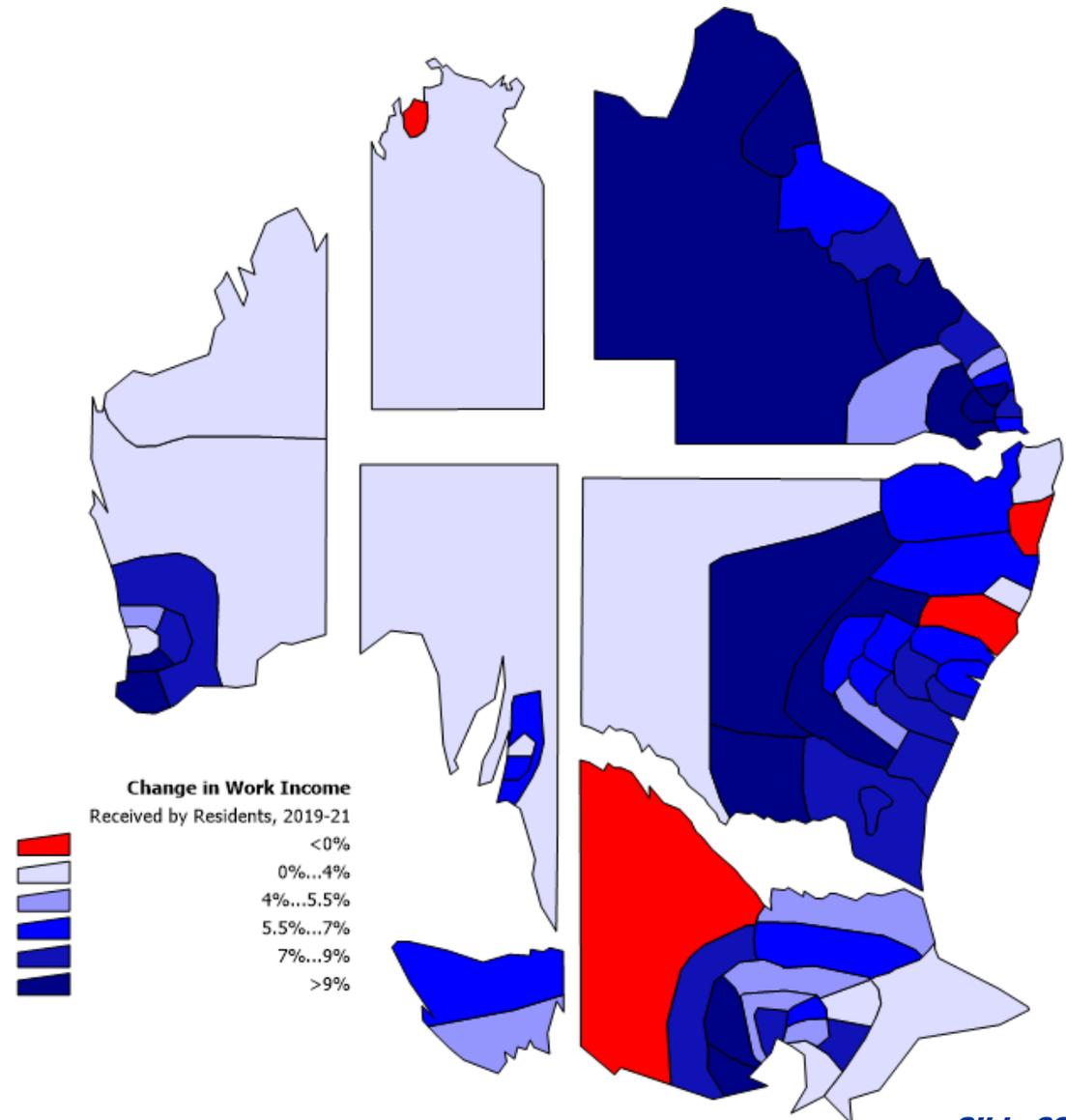
- The greatest gains were in mining/pastoral regions led by Qld Outback and Gascoyne Goldfields.
- The metropolitan leaders were Parramatta and Perth South Coast.
- Income generated in Sydney East declined, also in rural Outer West Victoria.



Commuting accounts for the difference between income received on a place-of-work basis and on a residential basis.

- In the long boom 1994-2019 income generation grew rapidly in central metro regions and spread out into the suburbs, while rural regions were fairly self-contained.
- There are remnants of these patterns (e.g. from Central Sydney and Parramatta to other Sydney suburbs, and the lack of commuting between Tasmanian regions).
- However, 2019-2021 was marked by an increase in FIFO, with net flows from the mining regions of WA, NT and Qld to the NSW coast.

## Change in work income – Received by residents, 2019-21



Work-related income excludes nearly all capital-related income and also excludes transfer incomes and deductions.

In 2021 work-related income per capita averaged \$46,000 nationally, ranging from \$27,000 (NSW Mid North Coast) to \$78,000 (Central Sydney).

The changes from 2019 to 2021 may have seemed significant, but the regional income distribution remained stable.

Given the uncertainties in the data, it's too early to say whether the trend to increased regional inequality recorded from 1994 to 2019 persisted. (For that trend, see NIEIR's *State of the Regions Report 1994-2019*, posted on the NIEIR website.)

## Residents' work income – Per capita, 2021

