



**REGIONAL
AUSTRALIA
INSTITUTE**

Regional Productivity Solutions



Intergovernmental Shared Inquiry Program

August 2026



ABOUT THE REGIONAL AUSTRALIA INSTITUTE

The Regional Australia Institute (RAI) is the nation's first and only independent think-tank dedicated to empowering Australia's regions. We are a not-for-profit organisation that undertakes research to inform, educate and activate our rural and regional communities.

RAI celebrates 15 years in 2026. We are proud of the vast array of research, data, and detailed insights the RAI has provided into many of the significant issues and challenges facing regional Australia. The work of the Institute is made possible through research partnerships with the Australian and state governments, the national Regions Rising event series, regional consultancy projects, membership, and philanthropic funding.

In 2022, the RAI launched the *Regionalisation Ambition 2032 - A Framework to Rebalance the Nation*. The Ambition is a 10-year plan for regional Australia that seeks balanced growth across our nation's regional towns and cities. It outlines key targets, actions and benefits that will contribute to building prosperous regional communities, and a stronger Australia.

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WE CARE ABOUT THE REGIONS, BECAUSE WHEN OUR REGIONS ARE STRONG, AUSTRALIA IS STRONG.

This research report was funded by the RAI's Intergovernmental Shared Inquiry Program. The program delivers an annual public interest research agenda focusing on topics of strategic importance to regional Australia through a partnership with the Australian, state, and territory governments.

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The Regional Australia Institute is dedicated to empowering Australia's regions, undertaking research to inform, educate and activate our rural and regional communities.



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METHODOLOGY AND AI TRANSPARENCY DECLARATION

This research project combined desktop research, statistical analysis, in-depth interviews and broader stakeholder consultation undertaken by the RAI and subcontractors. Artificial intelligence tools were also used to support aspects of the research and reporting process. See Appendix 1 for the full report methodology.

REFERENCE

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The RAI acknowledges the contributions of the Centre for Efficiency and Productivity Analysis (CEPA) at the University of Queensland, the National Institute of Economic and Industry Research (NIEIR) and Informed Decisions. CEPA conducted detailed analysis of regional productivity, including recommendations on improving regional productivity data gathering and measurement. NIEIR and Informed Decisions provided detailed economic data for small regions of Australia.

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ACKNOWLEDGMENT OF COUNTRY

The RAI acknowledges Traditional Owners throughout Australia and the continuing connections to land, waters, and community. We pay our respects to Elders past, present and emerging and extend that respect to all traditional custodians of this land.

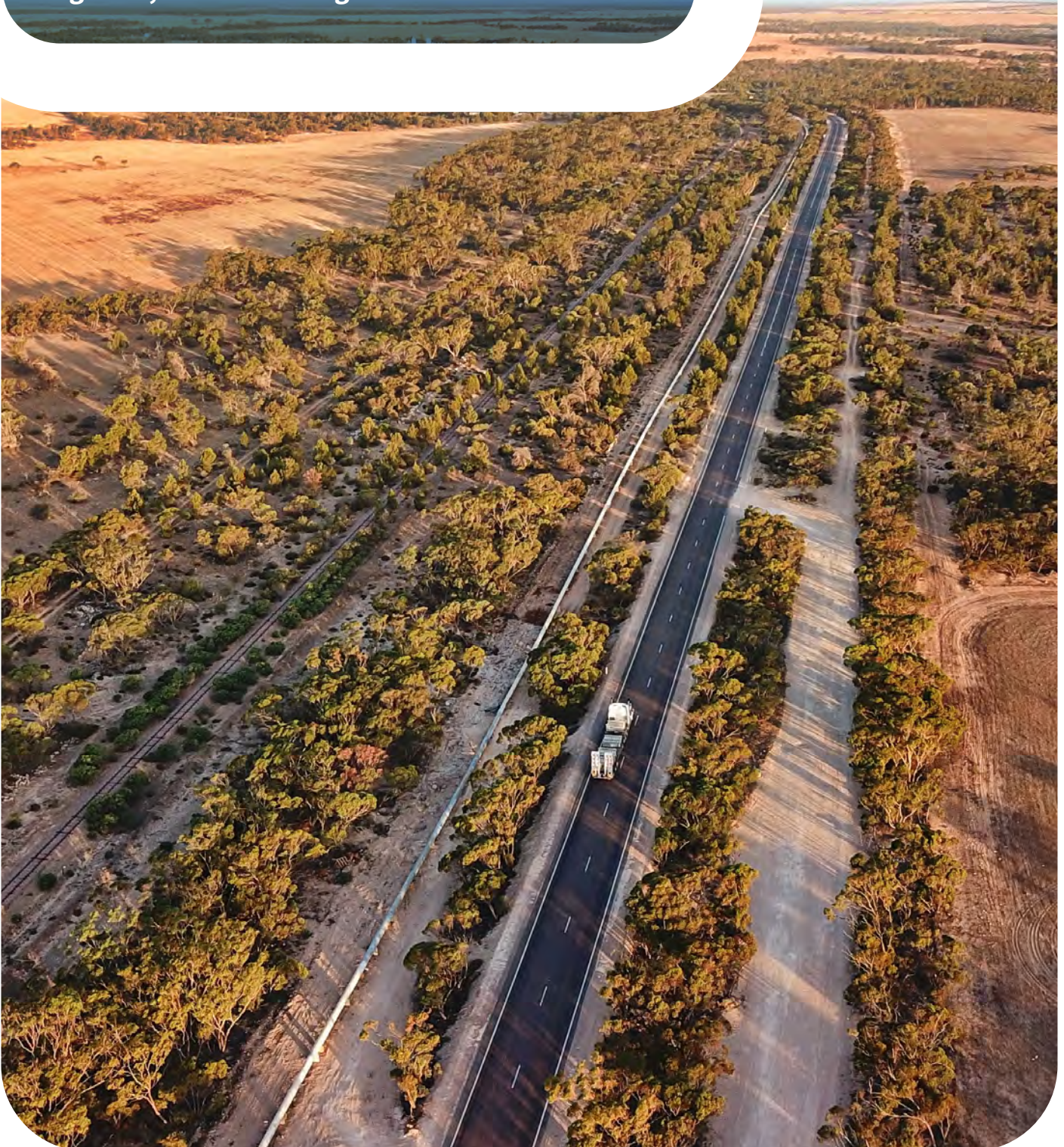


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Regional Australia accounts for around 37% of national output, driven by globally competitive industries including agriculture, mining, energy, logistics, manufacturing and tourism.





EXECUTIVE SUMMARY

Productive regions are fundamental to Australia's long-term economic prosperity. Regional Australia accounts for around 37% of national output, driven by globally competitive industries including agriculture, mining, energy, logistics, manufacturing and tourism. It is home to Australia's major exporting industries that underpin our high standard of living and the fiscal sustainability of government budgets.

Regional Australia generated higher output per hour worked (\$129.7) than metropolitan Australia (\$103.1) in 2024. Regional economies in Queensland, Western Australia and South Australia outperformed their capital cities, while regional Victoria and New South Wales trailed only slightly behind Melbourne and Sydney.

The regions with the highest labour productivity in Australia, by some margin, are rural and remote regions (like the Pilbara in Western Australia) which are home to Australia's highly productive mining, energy and agriculture sectors. Peri-urban connected regions record similar labour productivity results to capital cities. Regional cities record slightly lower levels of labour productivity.

Productivity performance across regional Australia is widely dispersed. Across Australia's 425 regional Local Government Areas (LGAs), the average headline productivity of the top five LGAs is 23 times higher than that of the bottom five, at \$1,192.1 per hour worked compared to \$51.4 per hour worked in 2024.

Australia has experienced a productivity slowdown since the mid-2000s. Key contributing factors include weaker private investment, declining economic dynamism, geopolitical tensions and emerging trade barriers, and the growing share of non-market sector services in the economy.

Lifting the productivity of all regional economies should be a priority for regenerating productivity at the national level. Many regions face persistent structural and place-specific constraints that limit productivity growth and which go largely unnoticed in the national productivity discussion. These constraints vary markedly by location and include infrastructure and service gaps, skills shortages, housing constraints, thin labour markets, and limited access to capital and innovation ecosystems.

Improving regional productivity will require place-based actions to remove binding constraints and invest in local productivity enablers. This means working with regional institutions and stakeholders to identify the specific mix of infrastructure, workforce, housing, services, innovation, regulatory and competition reforms needed in each place, rather than applying uniform solutions across diverse regional economies.

The next wave of productivity growth in Australia should be place-based and regional. Historically, Australia's productivity agenda has focused on economy-wide or sectoral reforms, with limited integration of regional or place-based perspectives. Regional Australia already does the heavy lifting in driving national income growth from exports and has further substantial and underutilised opportunities to unlock productivity growth.

Lifting regional productivity is not only an economic priority but also key to reducing spatial inequality and building resilient, inclusive and prosperous communities all over Australia. Integrating effective place-based approaches within national and state productivity agendas will help ensure that long-term investment in people, infrastructure and innovation capacity is aligned with local conditions, supporting a more productive, balanced and sustainable trajectory for Australia's future.



KEY FINDINGS

1. Australia has experienced a structural and long-term productivity growth slowdown



- Productivity growth has slowed since the mid-2000s, reflecting global trends but also domestic structural challenges.
 - Over the past 30 years, Australian annual labour productivity growth has slowed markedly, declining from 2.3% in 1995-2005 to 1.4% in 2005-2015, and further to 0.3% in 2015-2025.
- Key challenges include:
 - Flat private investment and weaker capital deepening
 - Declining economic dynamism and reduced labour mobility
 - Growth in non-market sectors, including the expansion of employment in care services
 - Housing constraints that divert capital from productive uses and limit workforce mobility.

2. Regional Australia, on average, delivers higher labour productivity than metropolitan Australia, but outcomes vary substantially across Australia



- Measured by headline labour productivity, regional Australia delivered higher output per hour worked of \$129.7 than metropolitan Australia, \$103.1 in 2023-24.
 - The regional economies in Queensland, Western Australia and South Australia recorded higher labour productivity than their capital cities, and regional Victoria and regional New South Wales only slightly trail Melbourne and Sydney.
- Using the RAI's regional typologies, the regions with the highest labour productivity are remote Heartland regions and Industry and Service Hubs. Connected Lifestyle Regions record similar labour productivity results to capital cities. Regional Cities record the lowest labour productivity.
- There is significant dispersion in productivity performance across Australia's regions, driven by differences in industry composition, scale, infrastructure, and access to labour and capital.
 - Across Australia's 425 regional LGAs, the average headline productivity of the top five LGAs is 23 times higher than that of the bottom five, at \$1,192.1 per hour worked compared to \$51.4 per hour worked in 2024.
 - Using 'local-industry' measures of regional output and productivity – which remove income flows leaving the region, such as taxes and dividends, and reduce the effects of commodity prices – the disparity narrows but remains significant, with a fivefold gap.
- Regions with highly capital-intensive industries (such as mining) often record very high productivity using headline measures, while metropolitan areas and many service-based regions tend to exhibit stronger productivity outcomes when assessed using local-industry measures.



KEY FINDINGS

3. Official measures do not adequately capture regional productivity performance



- Australia lacks official productivity measures at the regional level.
 - The ABS does not produce regional productivity measures below the national or state level.
 - Regional productivity estimates in this report are calculated as regional output divided by hours worked and are produced by the National Institute of Economic and Industry Research and Informed Decisions.
- The absence of official regional productivity measures can limit insight into the drivers of regional productivity differences and place-based policy development. National and sectoral averages mask substantial spatial variation and risk enforcing one-size-fits-all problem definitions and policy approaches.
- It would be beneficial to collect data and produce labour productivity and multi-factor productivity measures at the regional level to provide broader insights into the productive use of all factors of production - labour, capital, intermediate inputs, energy, etc. These measures and techniques can also allow for analysis of the impact of factors such as climate change and drought on productivity.

4. Productivity is fundamentally shaped at the regional level



- Regional economies and their industry mix is tied to local geography, resource endowment and comparative advantage. Productivity is generated within regional economies through the interaction of firms, workers, infrastructure, and institutions.
- Many of Australia's major income generating and globally traded industries – such as agriculture, mining, energy, tourism, manufacturing, logistics, as well as emerging industries - are heavily located in regional Australia. Lifting regional productivity growth in these regions and industries is critically important for growing Australia's national income. Productivity growth in regional Australia is also important for lifting living standards, for example, by improving service delivery.
- Effective policy requires recognising regions as a primary unit for understanding and improving productivity outcomes.

5. Regional productivity is shaped by a common set of drivers – but their effects are place-specific



- Core drivers include environmental conditions, distance to market, demographics, labour mobility, skills, industry structure, innovation systems, infrastructure, housing, education and care services, and regulatory settings.
- The strength, interaction, and constraints of these factors differ across regions, meaning productivity challenges are not uniform.



KEY FINDINGS

6. Current productivity policy frameworks do not sufficiently incorporate geographical dimensions



- National productivity growth can be accelerated by supporting growth in Australia's high productivity regions, as well as improving productivity performance in lower productivity regions.
- Australia's national and state productivity agendas have historically focussed on economy-wide and sectoral policies, with less focus on regional productivity.
- While regional development programs exist, they often do not explicitly target productivity or align with broader productivity policy objectives or programs.
- This creates a persistent gap between regional policy and productivity policy, with regional and place-based considerations rarely considered as priority areas for reform.

7. Place-based approaches are essential to lifting regional and national productivity



- Regional productivity should be embedded in national and state productivity agendas. Investment in regional productivity growth should be informed by locally collected data and evidence and developed in collaboration with regional stakeholders. Place-based policy allows interventions to be tailored to local conditions, targeting the specific drivers and barriers in each region. This has been emphasised by recent OECD and other international studies.
- Effective approaches require recognition of functional economic regions (rather than administrative boundaries), tailoring policy tools to local contexts, coordinating investments across different priority areas and different levels of government and empowering local and regional institutions and stakeholders.
- Case studies in this report provide examples of place-based productivity policy making:
 - **Cairns and Far North Queensland** – cultivated a vibrant innovation ecosystem by taking advantage of its natural endowments
 - **Eyre Peninsula in South Australia** – lived with decades of water scarcity but employed world-leading practices and research in dryland agriculture
 - **Peel in Western Australia** – building on existing strengths while developing new industries to become a food product manufacturing hub
 - **Wodonga in Victoria and Parkes in New South Wales** – regional logistics hubs developed through long-term planning, strong local government-industry partnerships, and targeted state infrastructure investment.



POLICY RECOMMENDATIONS

Governments should embed place-based productivity as a core pillar of Australia's productivity agenda and move beyond uniform national or state-based policy settings to establish a structured system that empowers regions, aligns investment, and rewards productivity outcomes. Australia's next wave of productivity reform should be place-based.

Recommendation 1: Improve regional productivity measurement

The Australian Government should task the Australian Bureau of Statistics (ABS) with providing measures and analysis of productivity by region to enable a deeper understanding of regional productivity performance.

This could require:

- An assessment of currently collected ABS data, including in the BLADE and PLIDA datasets, and analysis of gaps in data collection required for the estimation of regional labour productivity and Multifactor Productivity (MFP) measures by region
- Enhanced data collection to obtain required inputs by region: labour, capital, energy, materials, intermediate services
- Development of methodologies to calculate gross regional product, labour productivity and MFP by region
- Regular publication of regional labour productivity and MFP estimates by region (LGA or SA4), including by industry sector (potentially commencing as a pilot program).

Recommendation 2: Embed regional productivity growth as a core pillar of economic policy

The Australian, state and territory governments should embed regional productivity growth as a core pillar of economic policy and adopt place-based productivity policies to complement economy-wide reform.

Productivity growth in regional Australia should be a core objective of economic policy and productivity growth objectives should apply to every region. Australia's productivity reforms have typically prioritised economy-wide or sectoral productivity initiatives, with less consideration given to productivity issues by region and inconsistent integration of co-existing place-based development programs. Governments should implement structured systems that empower regions, align investment, and reward productivity outcomes. Drawing from OECD recommendations and international developments, regional, place-based initiatives should be implemented that unlock productivity at the local level, with regions empowered to identify local challenges and solutions.

Representatives from regional economies and industries should be engaged in national, state and territory productivity policy development. Place-based productivity should be explicitly incorporated into major national, state and territory economic reform inquiries and programs.

Recommendation 3: Establish funded, place-based regional productivity programs

The Australian, state and territory governments should implement Regional Productivity Solutions programs that fund the identification and delivery of locally tailored productivity solutions.

Regional entities and stakeholders should be invited to nominate priority productivity projects for program funding, tailored to the individual needs of their region. Regional entities and stakeholders may include regional local governments, joint organisations, RDA Committees and other regional development organisations, local business chambers, or local community groups.

Funding assessment criteria should ensure initiatives are demonstrated to lift productivity and provide long term benefits to a region's economic and social development. Initiatives should be aligned with building on local economic strengths.

Adopting the same principles as National Competition Policy, governments should provide regional productivity payments to fund regional productivity initiatives. Investments in regional productivity growth will lift Australia's economic competitiveness and grow the economy. Increases in tax revenues from productivity-enhancing measures should be used to pay for productivity investments and reforms in regional Australia.



Priority actions for increasing productivity in regional Australia

Actions for improving productivity in regional Australia that could be prioritised and funded by governments are set out below.

Environment

Strengthen regional resilience to climate risks

- Governments should prioritise building regional resilience to climate change, drought and environmental shocks through targeted investment in adaptation infrastructure, disaster preparedness, and climate-resilient technologies.
- This includes improving water security and supply, strengthening transport and energy systems to withstand extreme weather, and supporting industries and workers to adapt to changing environmental conditions.

Population

Grow regional cities to build scale and take advantage of agglomeration economies

- Regional cities and large regional centres are well placed to be major sources of productivity growth due to agglomeration economies, and less exposed to the costs of congestion than major cities.
- High growth regional centres should be supported with a broad range of enabling conditions: infrastructure, housing, jobs, training opportunities, lifestyle amenities.

Lift skilled migration to regional Australia

- To grow regional labour markets, address skills shortages and better align migrant settlement with national population dispersion, a greater share of overseas migrants should be encouraged or directed to settle in regional Australia, with a target of around one-third of new migrants settling outside major capital cities.

Industry structure

Build on regional strengths while expanding economic diversity

- Governments should continue to develop regional specialisation strategies, cluster precincts, and supply-chain development programs, tailored to a region's natural competitive advantages. This could include targeted investment in technology, skills, and modernisation in leading industries within the region.
- At the same time, policy settings should promote economic diversification to enhance resilience to external shocks and create new pathways for growth, particularly in regions exposed to structural or environmental risks.

Labour market

Strengthen regional skills pipelines with further investment in human capital

- The Australian and state governments should continue to strengthen regional education and training pathways aligned to regional workforce needs, including:
 - Expanding regional higher and vocational education pathways, including improved access to education through Regional University Study Hubs
 - Further investment and support for apprenticeships
 - Building lifelong learning infrastructure so that regional firms can access and develop high-skill workers
 - Expanding use of flexible delivery models such as employer-embedded training, mature age apprenticeships, online learning, micro-credentials, and specialist post-graduate qualifications.

Facilitate labour mobility allowing a better match between jobs and workers in regions

- Promote employment opportunities in regional Australia and encourage movement by workers to fill regional job vacancies.
- Governments to remove barriers to occupational licensing recognition between jurisdictions.
- Governments should support adequate provision of key worker housing in regions and consider stamp duty reform to reduce the costs of transferring home ownership associated with worker relocation (see additional housing recommendations below).
- Governments should review the enforceability of non-compete clauses (NCCs) across different regions and promote fair mobility rules.

Support workforce participation by vulnerable and disengaged cohorts through expanded pathways to work and training

- Expand place-based pathways that integrate training, employment and wraparound supports, tailored to the needs of vulnerable and disengaged cohorts in regional labour markets.
- Strengthen the role of community organisations and employers in delivering inclusive, flexible and supportive work environments that enable sustained workforce participation.



Knowledge infrastructure and innovation ecosystems

Support the creation and development of regional innovation ecosystems to facilitate collaboration and knowledge transfers between industry, university, and government

- Targeted investment into the development of regional innovation clusters has the potential to boost regional productivity through accelerated technology adoption, encouraging knowledge spillovers and enabling firms to move to higher-value business activities.
- Support may include targeted R&D incentives, physical hubs and business parks, technology extension services, collaboration with universities and research centres, secretariat support for region-wide collaboration bodies, digital capability uplift programs, and facilitation of industry-research partnerships.

Improve access to early-stage finance and capability support for regional innovators

- Policy should focus on expanding early-stage and risk-tolerant finance for regional firms, where reliance on traditional bank lending can constrain experimentation and scale-up.
- Relevant measures could include regionally tailored patient capital funds, co-investment and matched-funding schemes to crowd in private finance, and mechanisms to extend venture and angel investment into regional markets. These should be complemented by advisory support to strengthen investment readiness, managerial capability, and navigation of regulatory requirements during the innovation development phase.

Enhance regional market competition

- Encourage new market entrants in regional markets, whether through regulatory reform, improved infrastructure, reducing barriers to entry or targeted investments.
- Require competition policy reforms, such as those considered in the National Competition Policy review, to include explicit analyses of regional markets to ensure policies promote competition and increase consumer welfare.

Physical and social infrastructure

Strengthen transport infrastructure

- Invest in regional transport links and mobility infrastructure to reduce costs, improve efficiency and allow firms to scale up more efficiently and effectively by connecting markets, services, and workforces.
- Strengthen place-based planning and delivery, drawing on region-specific infrastructure gaps and opportunities to overcome structural disadvantages associated with distance and small markets.

Improve regional digital communications infrastructure and build regional capability for digital technology use

- Improve regional, rural and remote digital communications infrastructure and increase accessibility, reliability and affordability of digital communication services for regional communities and businesses.
- Implement the recommendations in the 2024 Regional Telecommunications Review, prepared by the Regional Telecommunications Independent Review Committee, which stresses the importance of ensuring all regional Australians can fully take part in the digital economy. The Review suggests the Australian Government:
 - Create a connectivity strategy for regional, rural, and remote areas
 - Establish a permanent Regional Telecommunications Commissioner or Advisory Panel
 - Build a national telecommunications data platform
 - Continue support for the First Nations Digital Inclusion Advisory Group.
- The regional connectivity strategy, as outlined in the report, should provide a coordinated, long-term framework to prioritise regional infrastructure investment, align funding programs, and target underserved areas. It should also incorporate investment in emerging and alternative technologies and support place-based solutions, recognising that standard commercial models may not meet the needs of smaller or remote communities.



Increase housing supply to align with regional economic growth and facilitate workers moving to regions where their skills are needed

- The National Housing Accord should incorporate a strong target for new housing in regional Australia within the national target of 1.2 million homes. Each state and territory should adopt commensurate regional housing supply targets.
- State and territory governments should support the rapid provision of key worker housing in regional and remote markets in response to need, using government financing support, modern methods of construction and investments in enabling infrastructure.
- The Australian and state governments to provide funding for enabling infrastructure for housing, with specific programs targeted to regions on a needs-based approach.

Strengthening education, care, and other services delivery in regional and remote communities

- Governments should prioritise improved access to and quality of education, care, and essential services in regional and remote communities as a foundation for workforce attraction, labour force participation and human capital and productivity growth.

Policy and Regulation

Supplement economy-wide productivity policies with region-specific actions

- The Australian and state governments should assess and monitor the regional impacts of economy-wide productivity policies and consider adopting supplementary region-specific actions that respond to local challenges, opportunities, and capacities.

Reduce the cost of regulation for regional businesses

- Streamline regulations to allow regional businesses to operate more efficiently, reducing the time and cost associated with compliance and enabling firms to allocate resources to productive activities.

Strengthen funding and build capacity of regional local governments to support place-based productivity investments

- Strengthen long-term, flexible funding arrangements and revenue-raising capacity of regional local governments, alongside workforce, planning and data capabilities, to enable effective planning, coordination and investment in region-specific productivity-enhancing initiatives.

Strengthen coordinated planning and co-investment in cross-boundary regions

- Coordinate planning and investment in cross border infrastructure, particularly freight corridors, intermodal hubs, health access routes and telecommunications networks, and improve regulatory alignment and digital interoperability between jurisdictions to support better workforce mobility and service delivery.
- Support collaboration across local governments to develop and implement region-wide strategies for infrastructure, workforce development and economic growth, building on models such as NSW Joint Organisations and other cross-LGA regional partnerships.



The National Housing Accord should incorporate a strong target for new housing in regional Australia within the national target of 1.2 million homes.

1. INTRODUCTION

Productivity isn't everything, but, in the long run, it is almost everything.
(Krugman 1994)

As Paul Krugman alluded in his famous quote, productivity growth is the fundamental driver in building long-term economic prosperity. It supports higher incomes and living standards, government fiscal sustainability, and the capacity to invest in services, infrastructure, and future opportunities. Productivity growth matters at all levels of the economy from national performance to small remote regional economies.

Australia, like many advanced economies, has experienced a sustained slowdown in productivity growth since the mid-2000s. The Treasury's 2023 Intergenerational Report showed that Australia's labour productivity growth is the slowest in 60 years. This slow down mirrors international headwinds but also points to domestic challenges such as declining private investment, reduced economic dynamism, slower diffusion of new technologies, skills mismatches, housing constraints, and the growing share of nonmarket services.

In Australia there is a renewed focus on lifting productivity. An Economic Reform Roundtable was held in Canberra in August 2025, which brought together experts and community and industry representatives to discuss problems and solutions. Governments have introduced a range of measures in recent years to streamline regulation, invest in infrastructure, housing and skills and accelerate the net-zero transition.

Productivity growth is often discussed at the national, state, or sectoral level. However, as economists argue, a regional and place-based understanding of productivity and economic growth is critical:

There is no such thing as a 'national' macro-economy, but rather a system of city regions, and it is within these that the real everyday business of economic life – of production, consumption and trade – is conducted [...] national economic problems (such as low productivity) are quintessentially urban and regional problems, and if 'national' economic policies are to succeed they must necessarily be place based.
(Martin et al. 2017)

There are at least three main economic rationales for place-based policies. First, they can help to tackle a spatial mismatch between firms and workers that can create 'untapped potential' in local economies due to the underutilisation of local assets (e.g., human capital, physical capital). [...] Second, they can help to upgrade local public goods to create the foundations for local economic development and wellbeing. Third, they can help to respond to asymmetric shocks and transitions. (OECD 2025)

The Australian economy is made up of many different cities and regions with differing geographies, industry mix, scale and access to labour, capital, and knowledge inputs to production. While national, state, and sectoral productivity reforms are important and necessary, they are typically blind to differences between Australia's urban and regional areas, as well as within regions themselves. Such approaches also risk generating metro dominant problem definitions where the largest share of economic activity is concentrated in metropolitan areas.

However, regional Australia generates a substantial share of national output through globally traded industries such as agriculture, mining, manufacturing, and logistics, as well as emerging industries. Regional economies possess distinctive strengths including access to land and natural resources and deep sectoral expertise in export industries. At the same time, regional economies face geographical and structural factors that shape productivity outcomes and the distribution of economic gains in ways that differ from metropolitan areas, including distance from markets, smaller population bases, infrastructure constraints, industry concentration, housing availability, and restricted access to skills and capital. These mean productivity challenges and opportunities vary across regional Australia and are not well suited to one-size-fits-all policy solutions.



Improving regional productivity growth will be critical to Australia's future prosperity. OECD research finds that more regionalised economies – those less dominated by capital cities – tend to be associated with higher levels of economic prosperity (Brezzi and Veneri 2014). The current productivity agenda needs to move beyond metropolitan-centred and whole-of-economy perspectives to better recognise the role of regions in shaping productivity outcomes. In addition to national, state and sectoral reforms, place-based approaches are needed to address the specific challenges and opportunities facing different regions and to unlock their productivity potential.

This report supports a place-based approach to regional and national productivity by examining how productivity is measured, what constrains or enables productivity growth in different regions, and how policy can better respond to local conditions.

This report has three objectives:

- First, it **provides an assessment of productivity trends** across regions and industries to identify patterns of productivity strength and weakness across regional Australia. It explains how commonly used measures can both reveal and obscure productivity dynamics and the need for better regional productivity measurement.
- Second, the report **examines the key enablers** and barriers to productivity growth in regional economies including skills, infrastructure, innovation capacity, labour mobility, housing, regulation, governance, and digital connectivity – and importantly, how these enablers and barriers differ by place.
- Third, the report **outlines policy considerations and recommendations** for place-based approaches to lifting regional productivity.

Improving regional productivity growth will be critical to Australia's future prosperity. OECD research finds that more regionalised economies – those less dominated by capital cities – tend to be associated with higher levels of economic prosperity.





2. REGIONAL PRODUCTIVITY PERFORMANCE

Productivity Measures

Productivity is the efficiency with which an economy transforms inputs, such as capital and labour, into outputs - goods and services. In simple terms, productivity is defined as output per unit of input. As identified by the Australian Bureau of Statistics (ABS), there are several widely used productivity concepts and measures:

- Labour productivity is defined as output per hour worked. It is the most used productivity indicator for making historical, inter-industry and inter-region growth comparisons.

$$\text{Labour Productivity} = \frac{\text{Total output}}{\text{Total hours worked}}$$

- Capital productivity is defined as output per unit of capital used in production.
- Multifactor productivity (MFP) is defined as output per unit of combined inputs, typically including labour and capital. This is a more complex indicator to construct but can provide richer insights into productivity gains from improvements in technology and knowledge, management practices, network effects, spillovers, and economies of scale, which cannot be contributed to individual changes in labour, capital, or other inputs alone.

$$\text{Multifactor Productivity} = \frac{\text{Total output}}{\text{Labour+Capital+Intermediate Inputs}}$$

Labour productivity is widely regarded as a key indicator of improvements in living standards, reflecting the close long-term relationship between growth in output per hour worked and growth in labour earnings. High labour productivity growth may also reflect increased capital intensity, shifts away from lower-productivity employment, or broader gains in efficiency and innovation.

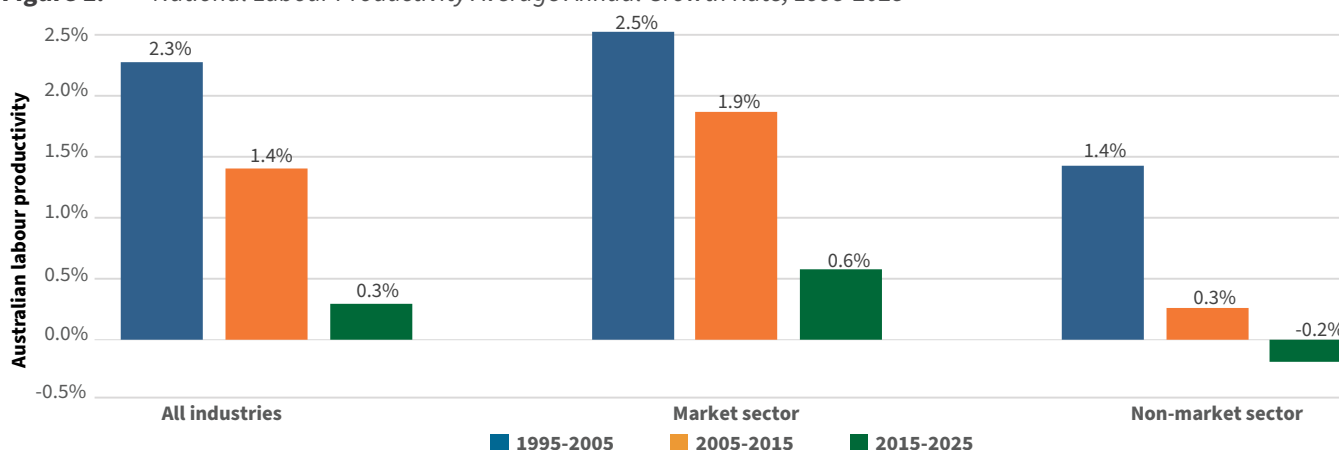
Multifactor productivity (MFP) is commonly used as a proxy for technological progress and knowledge accumulation. Changes in MFP capture the influence of factors such as management practices, organisational change, knowledge spillovers, network effects, adjustment costs, economies of scale, and imperfect competition (OECD n.d.). By contrast, it may not be especially useful to interpret improvements or declines in capital productivity in isolation since changes in capital productivity can be more than offset by those in labour productivity (ABS 2026). Therefore, this report examines Australia's national and state productivity performance primarily through the lenses of labour productivity and multifactor productivity. At the regional level, however, the analysis is limited to labour productivity due to data availability constraints.

National Productivity Performance

Over the past 30 years, Australian labour productivity growth has slowed markedly, declining from an annual average of 2.3% in 1995-2005 to 1.4% in 2005-2015, and further to 0.3% in 2015-2025 (Figure 1). The decline is evident across both market and non-market sectors, with the latter experiencing negative productivity growth over the most recent decade. Multifactor productivity, measured only for the market sector due to data availability, also slowed in the past two decades (Figure 2).

This productivity slowdown is a global issue, and not unique to Australia. Many advanced economies around the globe have experienced a similar decline in productivity over the last two decades (RBA 2025).

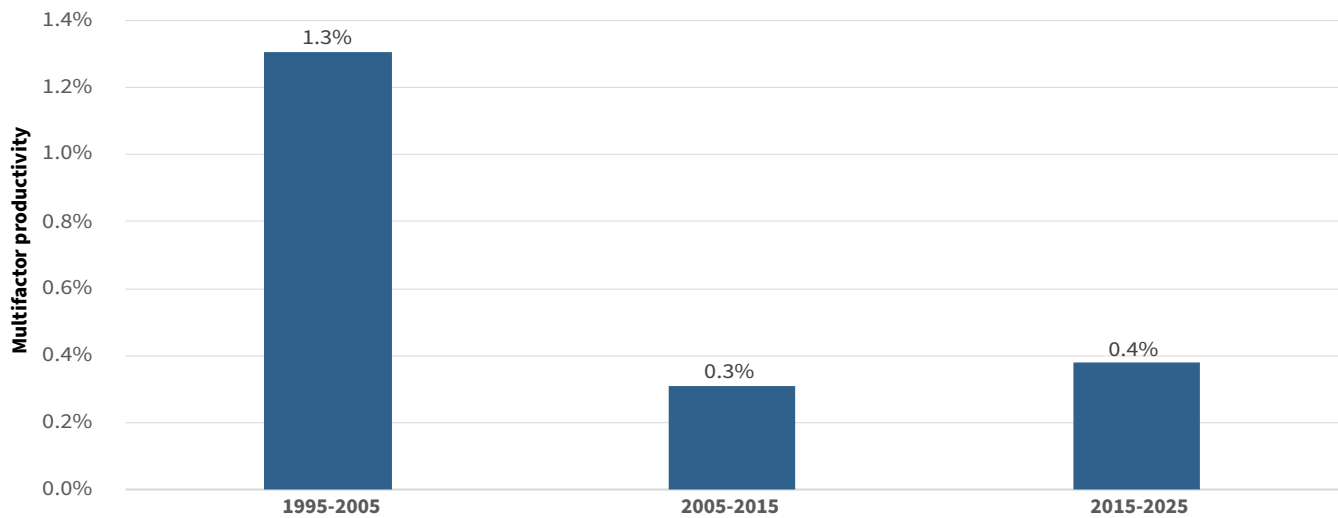
Figure 1. National Labour Productivity Average Annual Growth Rate, 1995-2025



Source: ABS Australian System of National Accounts 2024-25



Figure 2. *National Market Sector Multifactor Productivity Average Annual Growth Rate, 1995-2025*

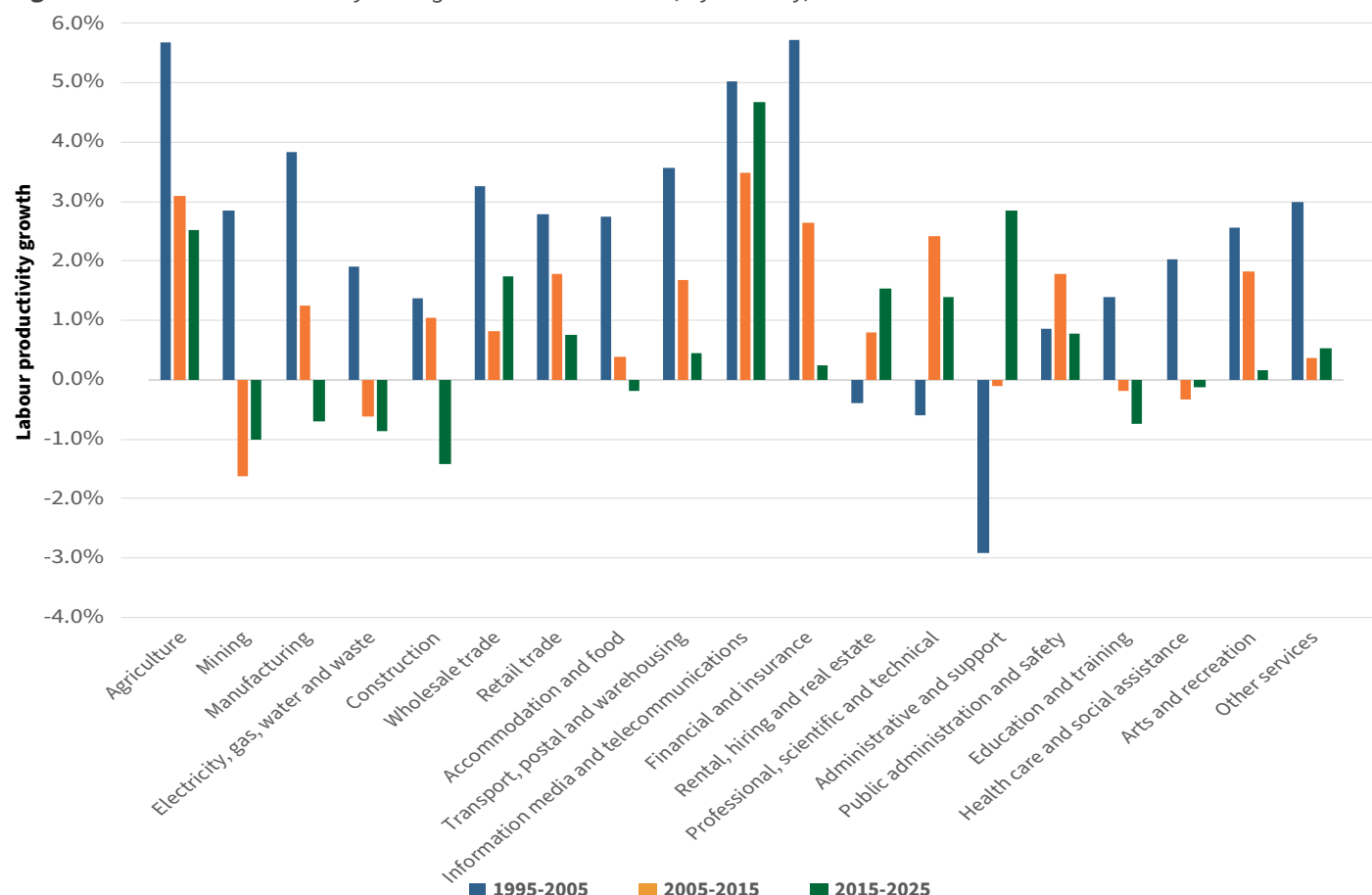


Source: ABS Australian System of National Accounts 2024-25



The slowdown in productivity growth has been widespread, affecting multiple sectors throughout the economy. Figure 3 shows the 10-year averages for labour productivity growth for different industries under ABS classifications. Across most industries, average productivity growth over the past decade has been weaker than in the preceding decades, indicating a broad slowdown, with notable exceptions in information media and communications, rental, hiring and real estate services, and administrative and support services. Productivity in sectors such as construction, mining, electricity, gas, water and waste services, manufacturing, education and training has fallen sharply over the last 10 years.

Figure 3. *Labour Productivity Average Annual Growth Rate, by Industry, 1995-2025*



Source: ABS Australian System of National Accounts 2024-25



Examining productivity growth cycles across all the 19 industries, this report finds labour productivity peaked for:

- Agriculture in 2025, with agriculture experiencing significant growth over the last three decades.
- Both construction and manufacturing in 2014.
- Mining in 2002, with another peak running from 2017 to 2020.

This report further finds that:

- Five out of 19 industries had their most productive year in 2025.
- Thirteen out of 19 industries had their most productive year in the last five years.
- Five out of 19 industries had their most productive year more than 10 years ago.

These results illustrate how productivity performance follows different patterns over time within individual sectors. They also demonstrate that productivity growth is increasingly becoming an issue to Australia as many industries are operating below their peak annual performance.

The RBA (2025) has highlighted several issues relevant to Australia's productivity performance:

- Diminished business and labour market dynamism, resulting in longer times for inputs to move to higher productivity firms.
- Slower technological diffusion, leading to extended periods for firms to reach the global technological frontier.
- Decreased competition, which has reduced the impetus for firms to expand, innovate, or exit the market.
- Regulatory barriers, particularly affecting the construction industry.

The Productivity Commission (2023) identified the growth in the services sector, in particular non-market services, which generally have lower levels of labour productivity, climate change and increasing barriers to trade as emerging 'headwinds' to productivity growth.

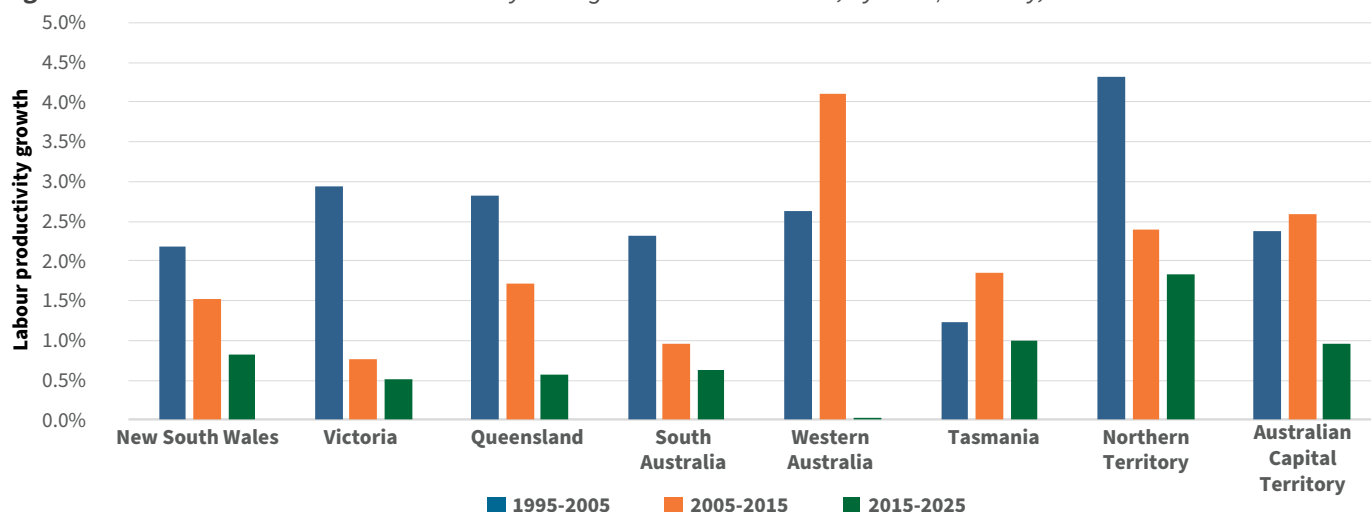
Taken together, these factors point to a set of deeply embedded structural constraints that have weighed on Australia's productivity performance over time.

State-level Productivity Performance

Productivity growth across state and territory jurisdictions broadly mirrors national trends, declining over recent decades, although outcomes vary due to differences in industry composition, economic scale and demographics. The analysis in this section draws from ABS experimental estimates of labour productivity that are limited to the market sector.

Most states, including New South Wales, Victoria, Queensland and South Australia, followed a similar downward trajectory, recording relatively strong labour productivity growth of around 2-3% per year during 1995-2005 before growth weakened markedly in 2005-2015 and slowed further in 2015-2025 (Figure 4). The consistency of this pattern across large and economically diverse states suggests that Australia's productivity slowdown is increasingly being driven by structural factors affecting the broader economy, including weaker gains from technological adoption, capital deepening and improvements in production efficiency.

Figure 4. Market Sector Labour Productivity Average Annual Growth Rate, by State/Territory, 1995-2025

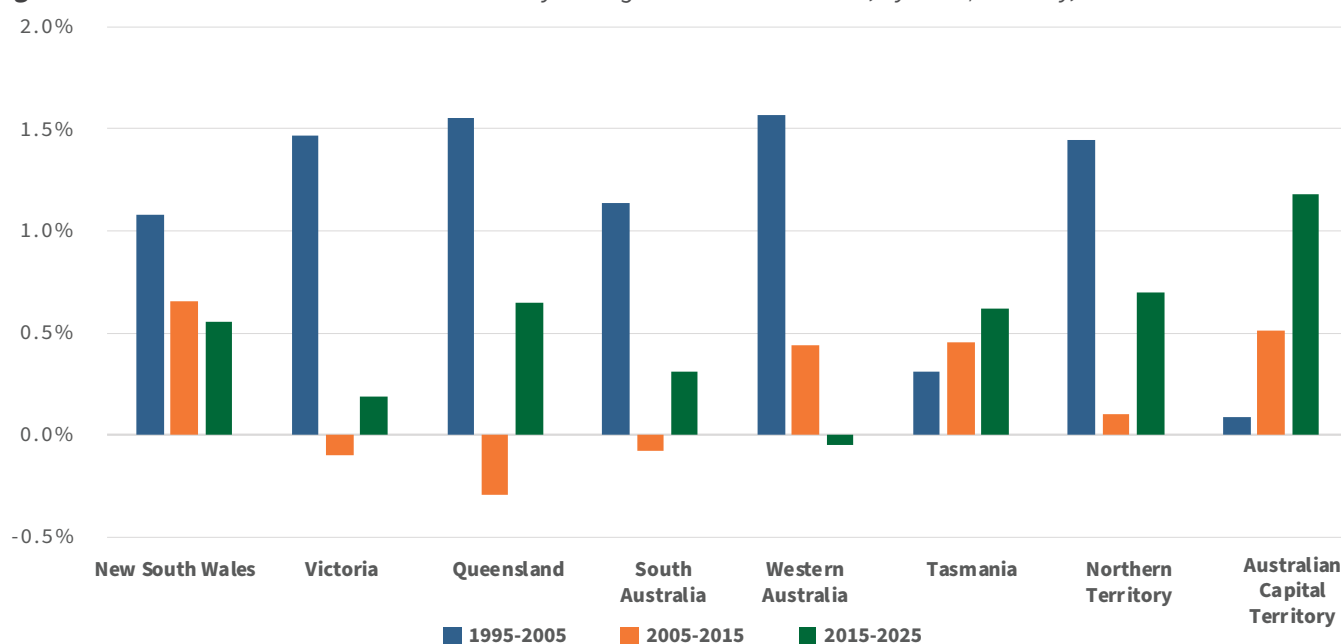


Source: ABS Experimental Estimates of State Productivity

In less diversified jurisdictions such as Western Australia and the Northern Territory, productivity performance appears more closely linked to resource-sector investment cycles. Western Australia recorded exceptionally strong growth during 2005-2015, at around 4.1% per year, likely reflecting the peak of the mining investment boom, before growth stalled in the following decade. By contrast, the Northern Territory emerged as the strongest performer in 2015-2025 despite a gradual moderation from earlier peaks, suggesting that large-scale resource developments continued to support productivity growth. Taken together, these results indicate that resource-intensive economies were better able to offset the broader productivity slowdown, but much of this advantage appears to have been driven by cyclical investment dynamics rather than sustained improvements in underlying productivity.

The ABS's experimental estimates of multifactor productivity (MFP) provide additional context for these trends. Figure 5 shows that most jurisdictions experienced a decline in MFP growth over the past 30 years, with Tasmania and the ACT standing out as notable exceptions. This helps explain why both jurisdictions recorded stronger labour productivity growth in 2005-2015 than in 1995-2005 and maintained relatively stronger performance in 2015-2025 than many other states and territories. Victoria, Queensland, South Australia and the Northern Territory also recorded a rebound in MFP growth in the most recent decade, although growth remained below 1995-2005 levels. This suggests some improvement in underlying production efficiency, but not enough to reverse the longer-term decline in productivity growth.

Figure 5. *Market Sector Multifactor Productivity Average Annual Growth Rate, by State/Territory, 1995-2025*



Source: ABS Experimental Estimates of State Productivity

MFP reflects contributions to state and territory economic growth after changes in labour inputs (hours worked) and capital inputs (capital services) have been considered, so changes in MFP reflect gains largely attributable to improvements in the efficiency of production and technical progress. This report notes a scarcity of published analysis of the reasons for these variations across state and territory jurisdictions, and a need for more detailed research in this area (and at the regional level).

Variations in performance by jurisdiction will depend on a range of factors such as the MFP performance of the key industries in each jurisdiction and the extent of innovation, knowledge transfer and improvements in management practices, noting also the significant impacts of the COVID-19 pandemic and extreme weather events earlier this decade. The Productivity Commission (2025) identified a similar pattern in labour productivity, describing a 'pandemic bubble' whereby the shutdown of lockdown-affected, low-productivity industries (e.g., accommodation and food services) shifted employment towards more productive sectors. This phenomenon may have extended to MFP as well.

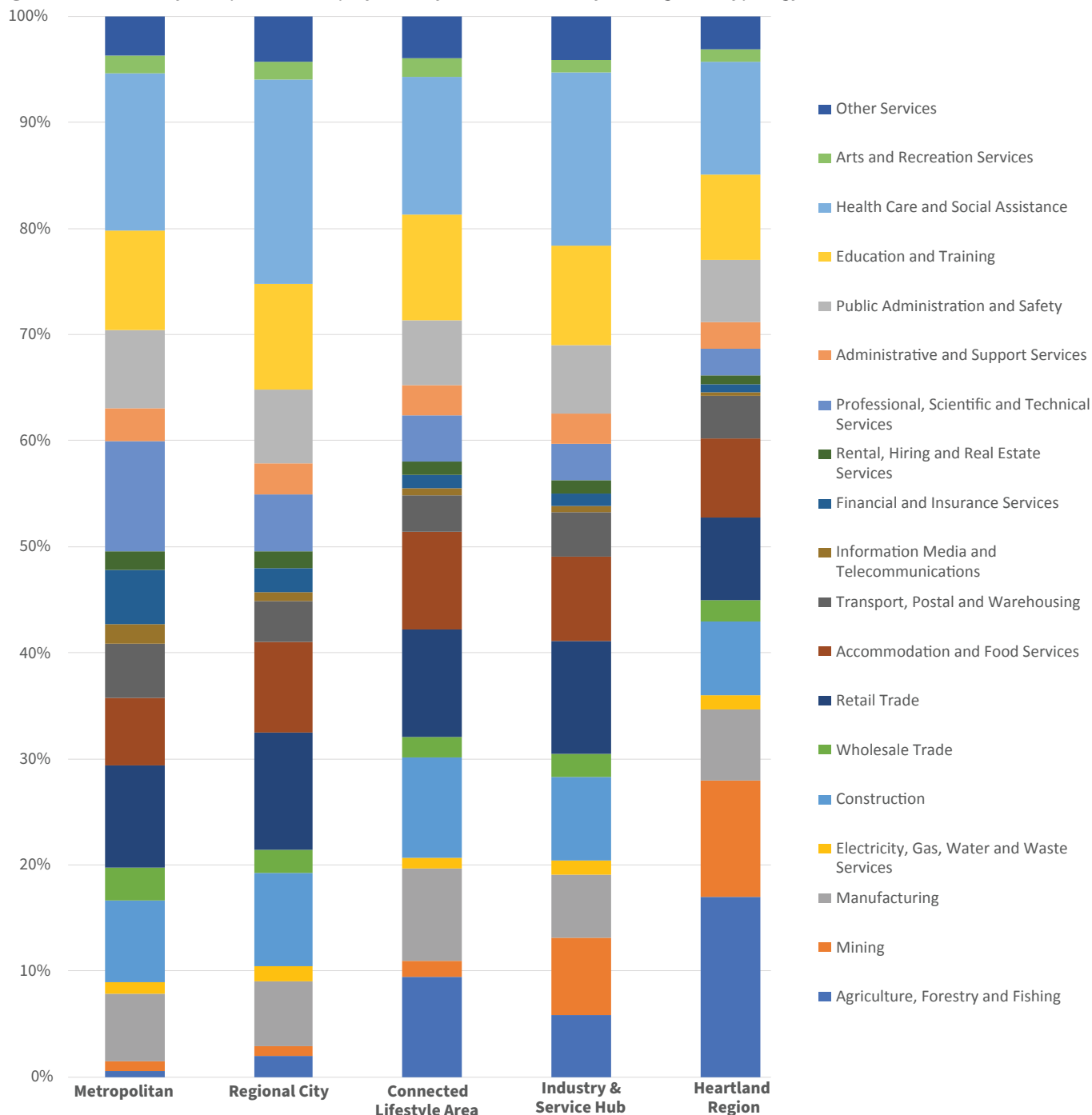
Regional Productivity Estimates

This section provides estimates of productivity at the regional level according to the RAI's regional typology framework (see *Appendix 3 RAI Regional Typologies*). The ABS does not produce estimates of labour productivity or multifactor productivity at the regional level in Australia. The regional productivity estimates in this section are drawn from regional datasets provided by the National Institute of Economic and Industry Research (NIEIR) which draw from ABS data.



Regional Australia generates about 37% of national output through globally traded industries such as agriculture, mining, manufacturing, logistics, and increasingly services (NIEIR 2025). Regional economies differ significantly by regional type. Figure 6 shows that while regional cities have a similar industry structure to metropolitan areas, with both heavily service-oriented, the other three typologies have greater shares of agriculture and mining with services making up a relatively smaller share. For instance, mining contributes 11% of employment in Heartland Regions and 7% in Industry and Service Hubs, compared with around 1% or less in other region types.

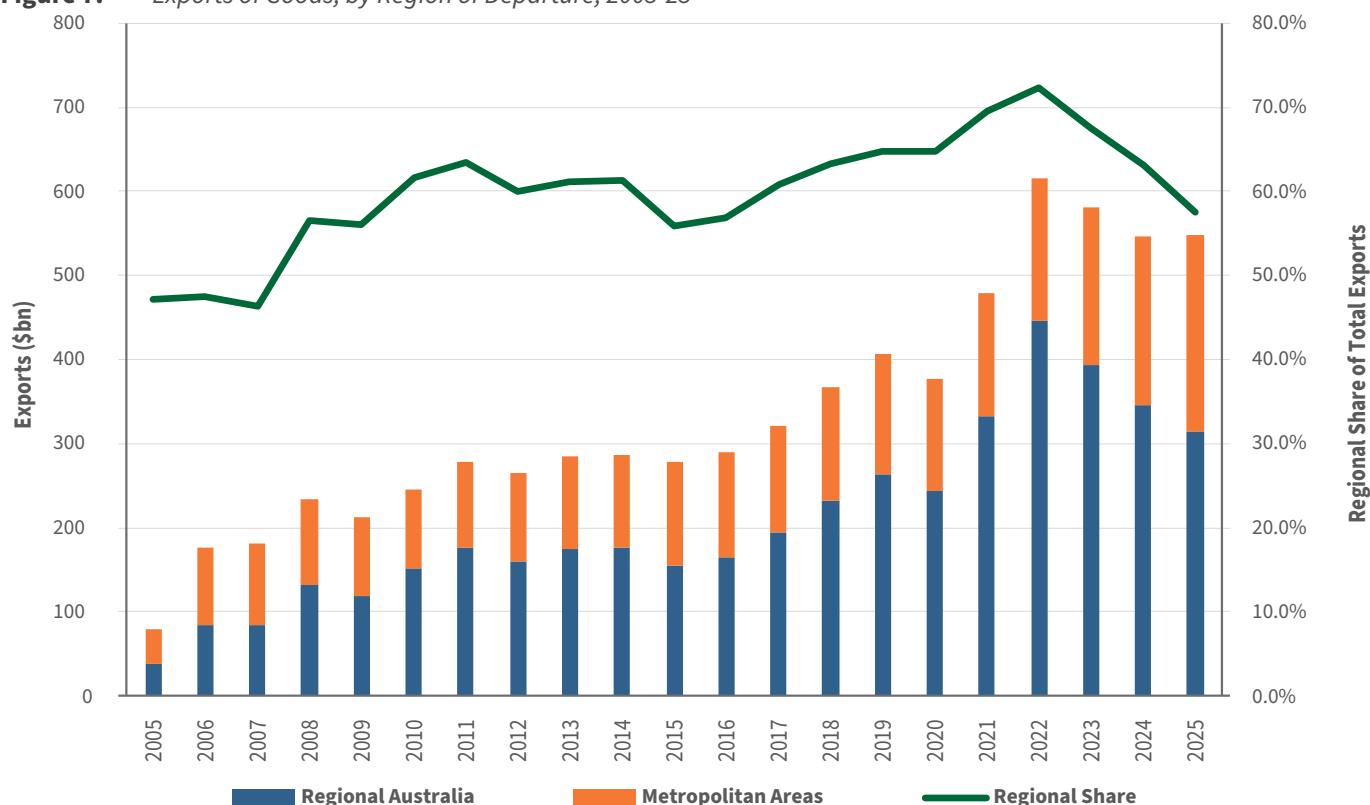
Figure 6. *Industry Composition (Employment by Place of Work), by RAI Regional Typology, 2021*



Source: ABS Census of Population and Housing 2021; RAI Calculations

Overall, Regional Australia’s industrial profile and proximity to Australia’s resource endowments means it consistently produces most of Australia’s goods exports as shown in Figure 7. In 2025, regional Australia was the source of 57.6% of Australia’s total goods exports of \$547.6 billion. Exports of Australian goods and services are a key driver of national income growth, generating substantial earnings from global markets that flow through the economy as wages, profits and government revenue.

Figure 7. Exports of Goods, by Region of Departure, 2005-25



Source: National Freight Data Hub Imports and Exports

Calculating regional labour productivity requires estimating output and hours worked for that region. NIEIR provides estimates of hours worked for every Local Government Area (LGA) in Australia and two estimates for Real Gross Regional Product (or regional output): a headline estimate and a local-industry estimate, which adjusts the headline output data for income flows leaving a region.

The headline output data is primarily used in this report. Using the headline output data allows for the calculation of regional labour productivity defined as total Real Gross Regional Product (RGRP) – expressed in 2022/23 base year dollar terms – divided by total hours worked in that region.

The NIEIR regional output and hours worked data are reported at the LGA level. To estimate labour productivity for larger regions, the RAI aggregates output and hours worked across all LGAs within a region and calculates productivity as total regional output divided by total hours worked.

Headline labour productivity reflects three key influences within a region: industry composition, industry scale, and within-industry economic performance. As a result, regions with a higher concentration of intrinsically high-value-added industries (e.g. mining) are likely to record higher headline RGRP per hour worked than regions dominated by lower-value-added activities.

Labour productivity using NIEIR’s ‘local-industry’ output data is presented in this report for comparison purposes and at the LGA level only. It is defined as total ‘local industry RGRP’ in a region divided by total hours worked in that region. Local-industry RGRP is designed to measure the value of economic activity which accrues to the local area after taxes and dividends are paid outside the area. Local-industry GRP better reflects the economic activity that is generated and retained within the local economy. Because of the removal of taxes and dividends, local-industry GRP is normally lower than headline GRP, particularly in regions where output is driven by mining or other capital-intensive industries with limited local employment and ownership, such that large amounts of income generated by the production flows outside the region. Thus, this local-industry measure may also be used to partially control for the overwhelming influence of capital-intensive industries on labour productivity.

Headline productivity indicator results

Table 1 presents headline productivity between 2019 and 2024 nationally and for each state and territory, split by metropolitan and regional results, as well as for the nation overall. For most states and regions, headline productivity reached its peak in 2021 or 2022, reflecting the temporary distortionary effects of the ‘pandemic bubbles’ identified by the Productivity Commission (2025).

Table 1. *Headline Labour Productivity (\$ output per hour worked), by region, 2019-2024*

States and Regions	2019	2020	2021	2022	2023	2024
New South Wales	108.4	109.4	111.8	115.5	109.4	110.0
Regional	103.0	102.7	103.9	105.4	100.8	101.9
Metropolitan	111.1	112.8	116.0	120.9	113.9	114.2
Victoria	95.1	96.8	99.1	101.6	97.2	96.8
Regional	91.5	92.5	96.1	99.7	95.4	94.7
Metropolitan	96.0	97.9	99.9	102.1	97.7	97.3
Queensland	109.9	110.8	111.3	113.2	110.4	111.2
Regional	125.4	125.8	125.2	127.6	122.9	124.4
Metropolitan	94.8	96.2	97.8	99.4	98.4	98.4
South Australia	88.5	90.6	92.9	93.2	91.6	92.1
Regional	95.2	96.9	100.9	101.2	103.5	105.2
Metropolitan	86.7	88.9	90.8	91.1	88.6	88.7
Western Australia	170.4	173.9	177.2	172.1	169.5	165.5
Regional	373.5	388.3	382.0	357.3	352.7	343.8
Metropolitan	101.6	102.1	107.6	108.4	106.5	104.5
Tasmania	88.8	90.7	90.1	89.6	87.1	88.7
Northern Territory	130.1	144.8	141.3	151.4	141.4	150.6
Australian Capital Territory	104.9	106.1	106.4	105.0	103.3	107.2
National	110.6	112.4	114.5	116.2	111.9	112.0
Regional	130.9	132.9	133.4	134.0	129.2	129.7
Metropolitan	100.8	102.4	105.0	107.3	103.3	103.1

Source: NIEIR data provided to the RAI by Informed Decisions; RAI calculations. The RAI's typologies are used to estimate regional and metropolitan productivity. RAI categorises all of Tasmania, Northern Territory and ACT as regional. Labour productivity is calculated using Gross Regional Product by LGA region at market prices, expressed in 2022/23 base year dollar terms.

Nationally, labour productivity in regional Australia exceeds labour productivity in metropolitan Australia – in 2024, the regions produced \$129.7 in output per hour worked compared to \$103.1 in major metropolitan areas. The regional economies in Queensland, Western Australia and South Australia recorded higher labour productivity than their capital cities, and regional Victoria and regional New South Wales only slightly trail Melbourne and Sydney.

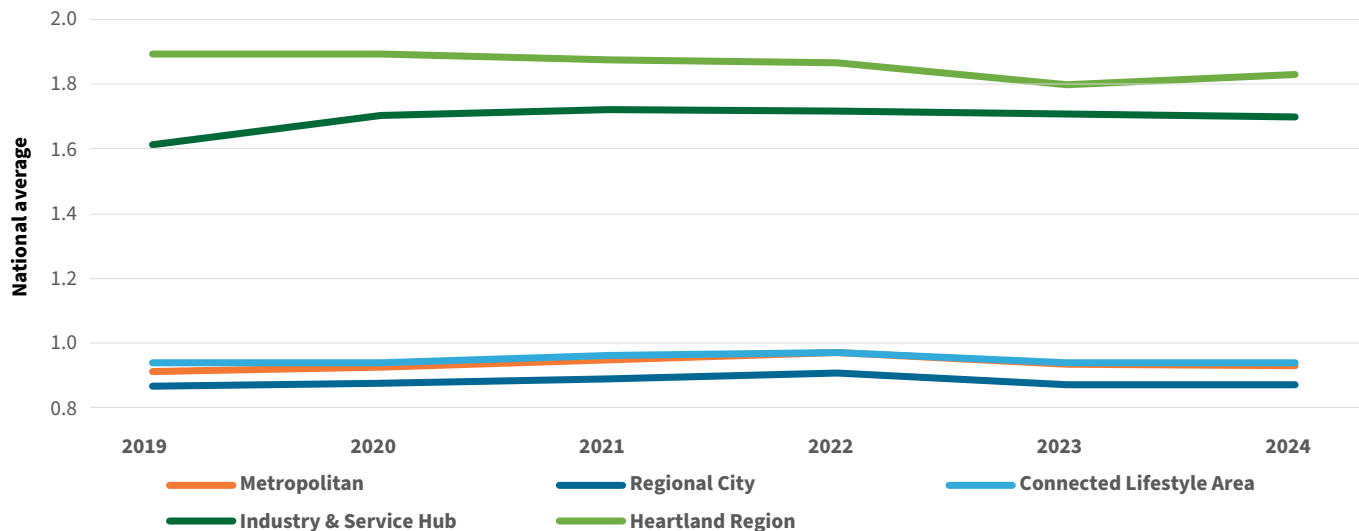
The headline data shows substantial variation in labour productivity levels across states and regions between 2019 and 2024, reflecting differences in industry structure, particularly the presence of highly productive, capital-intensive export sectors. Western Australia records by far the highest productivity levels, driven by exceptionally strong performance in regional areas, while the Northern Territory and Queensland also exhibit relatively high levels, reflecting the influence of large-scale resource activity.

New South Wales and Victoria exhibit more moderate productivity, with a clear metropolitan advantage reflecting the concentration of activity in major urban centres. These economies are less dominated by highly productive regional export sectors and instead derive productivity gains from agglomeration economies, a stronger concentration of higher-value services, larger business scale, and denser labour markets in metropolitan areas. South Australia and Tasmania remain at the lower end of the distribution, reflecting more limited exposure to higher-productivity industries and smaller economic scale, although regional South Australia performs relatively strongly compared with its metropolitan economy. The Australian Capital Territory records solid headline productivity, supported by its concentration of high-value public administration and service activities, albeit without the extreme values observed in resource-driven jurisdictions.



To further illustrate regional variations, Figure 8 presents the headline productivity index numbers for different RAI regional classifications. The index numbers compare the headline indicator for a given regional type and year with the national average in 2019. Values greater than one indicate above-average regional economic performance while values below one indicates below-average performance.

Figure 8. *Headline Labour Productivity Index Numbers, by Regional Type, 2019-2024 (National Average in 2019 = 1)*



Source: NIEIR data; RAI calculations

The figure proves that Heartland Regions and Industry and Service Hubs show higher labour productivity using the headline indicator than other cities and regions. This disparity can be attributed to industry composition, as many capital-intensive sectors are situated within these areas.

A comprehensive picture of labour productivity across LGAs is provided in the following maps showing data for 2019 and 2024. In these maps, deciles are computed separately for each year across the 543 LGAs. Accordingly, the colours indicate an LGA's position in the national LGA distribution in that year. The maps highlight substantial cross-sectional differences in headline RGRP per hour worked, as well as changes in relative regional positions over time. They suggest a spatial concentration of high-value-added LGAs in regional areas of WA, QLD, and SA, consistent with earlier findings.

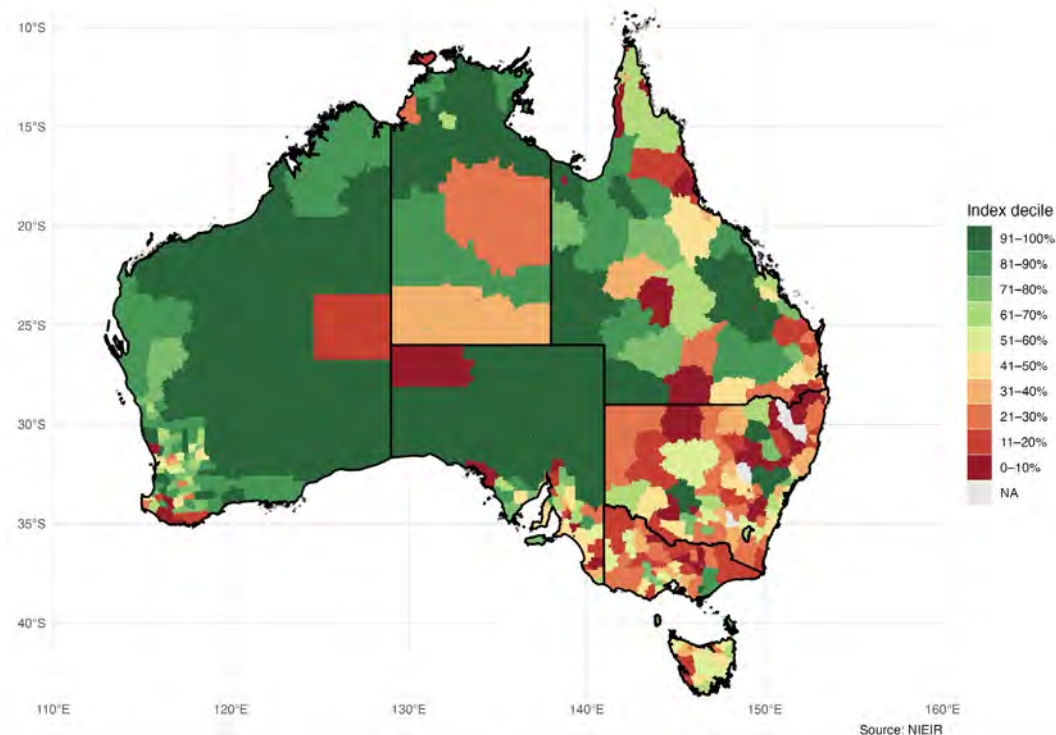


Nationally, labour productivity in regional Australia exceeds labour productivity in metropolitan Australia – in 2024, the regions produced \$129.7 in output per hour worked compared to \$103.1 in major metropolitan areas.



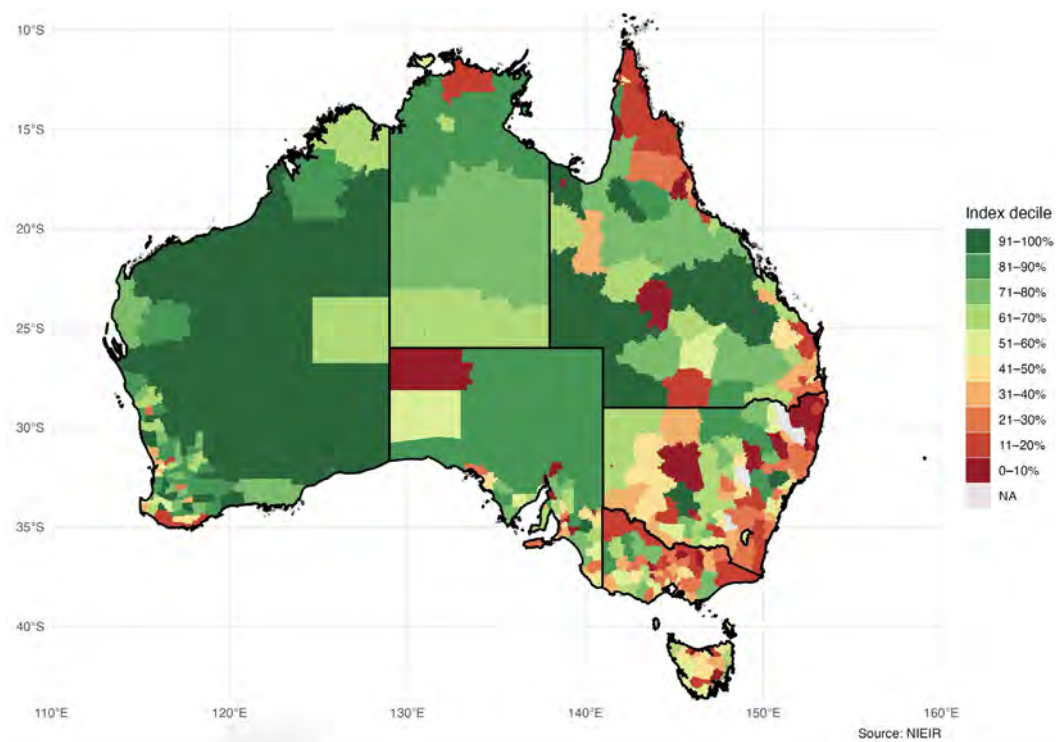


Figure 9. *Headline Labour Productivity Indicator by LGA, Indexed – 2019*



Source: NIEIR data; RAI calculations

Figure 10. *Headline Labour Productivity Indicator by LGA, Indexed – 2024*



Source: NIEIR data; RAI calculations

There is a significant disparity across regions. For example, the average productivity of the top five regional LGAs is \$1,192.1 per hour worked, compared with \$51.4 per hour worked in the bottom five – a factor of 23. Table 2 lists the top 5 regional LGAs by headline productivity in 2024.

Table 2. *Top 5 Regional LGAs by Headline Labour Productivity (\$ output per hour worked) in 2024*

LGA	State	2019	2020	2021	2022	2023	2024
Murchison	WA	121.3	103.7	114.5	459.9	1480.8	1655.8
Karratha	WA	1083.1	1292.7	1411.8	1395.3	1460.5	1446.9
Ashburton	WA	1378.0	1438.9	1404.2	1241.4	1113.4	1069.8
Croydon	QLD	602.3	632.5	654.3	941.1	985.2	1067.3
Barcaldine	QLD	110.1	94.0	92.4	112.9	264.3	720.8

Source: NIEIR data; RAI calculations

As shown in the maps, many of the higher-productivity LGAs are concentrated in regional Western Australia, Queensland, and South Australia. These areas are typically characterised by capital-intensive mining and energy activities or large pastoral holdings, which generate high levels of output per worker. Such LGAs often have small resident populations and limited local workforces – sometimes only a few hundred employees – meaning that a single major project or construction phase can significantly inflate output relative to employment.

In contrast, the lowest-productivity LGAs are predominantly remote communities where economic activity is structurally oriented toward essential service delivery rather than high-output production. This results in persistently lower measured labour productivity that reflects underlying economic structure rather than performance inefficiency.

These patterns highlight the need to interpret regional productivity indicators in context, including environmental conditions, industry composition, technological change, and broader socio-economic factors. For example, Murchison exhibits considerable volatility due to its small population base and highly concentrated economy. While employment has largely been centred on agriculture and public administration, recent increases in measured productivity are primarily driven by capital-intensive investment associated with the Square Kilometre Array-Low telescope, which generates substantial output with minimal local labour input.

By contrast, in Barcaldine, recent productivity growth is more closely linked to infrastructure investment and recovery activity, including road construction and flood restoration, alongside emerging clean energy developments. These differing dynamics illustrate that similar patterns of productivity growth can arise from distinct economic structures and local conditions, reinforcing the importance of place-based analysis.

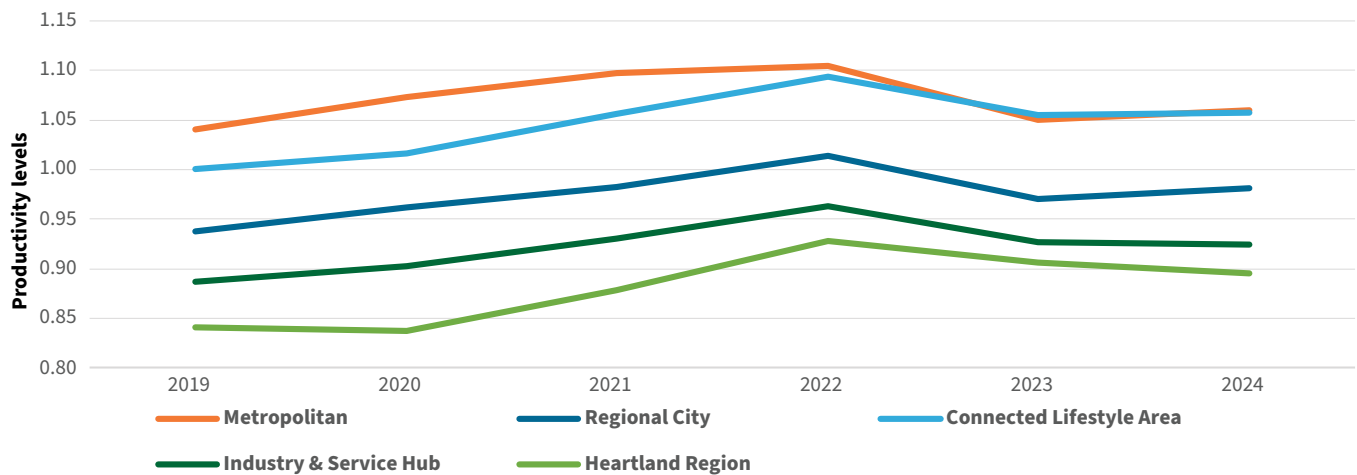
Finally, traditional economic measures such as headline productivity have important limitations in remote contexts. In many areas, community viability, access to essential services, and broader social outcomes need to be prioritised alongside economic productivity.



Local-Industry productivity results

Unlike the findings based on the headline indicator, Metropolitan and Connected Lifestyle Areas exhibit higher productivity levels compared to other regions. This pattern reflects the partial removal of the mechanical influence of capital-intensive activities, such as mining, that elevate headline values in many regional areas.

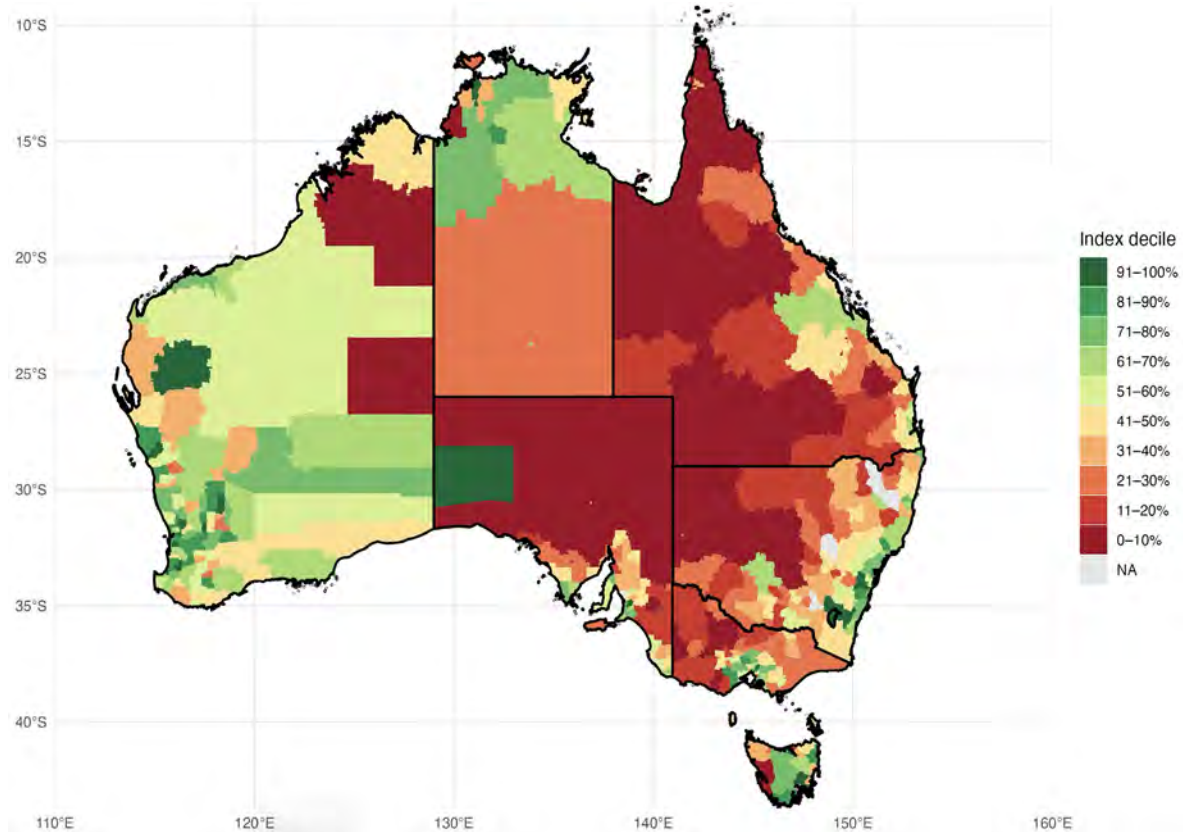
Figure 11. *Local-industry Labour Productivity Index Numbers, by Regional Type, Indexed, 2019-2024 (National Average in 2019 = 1)*



Source: NIEIR data; RAI calculations

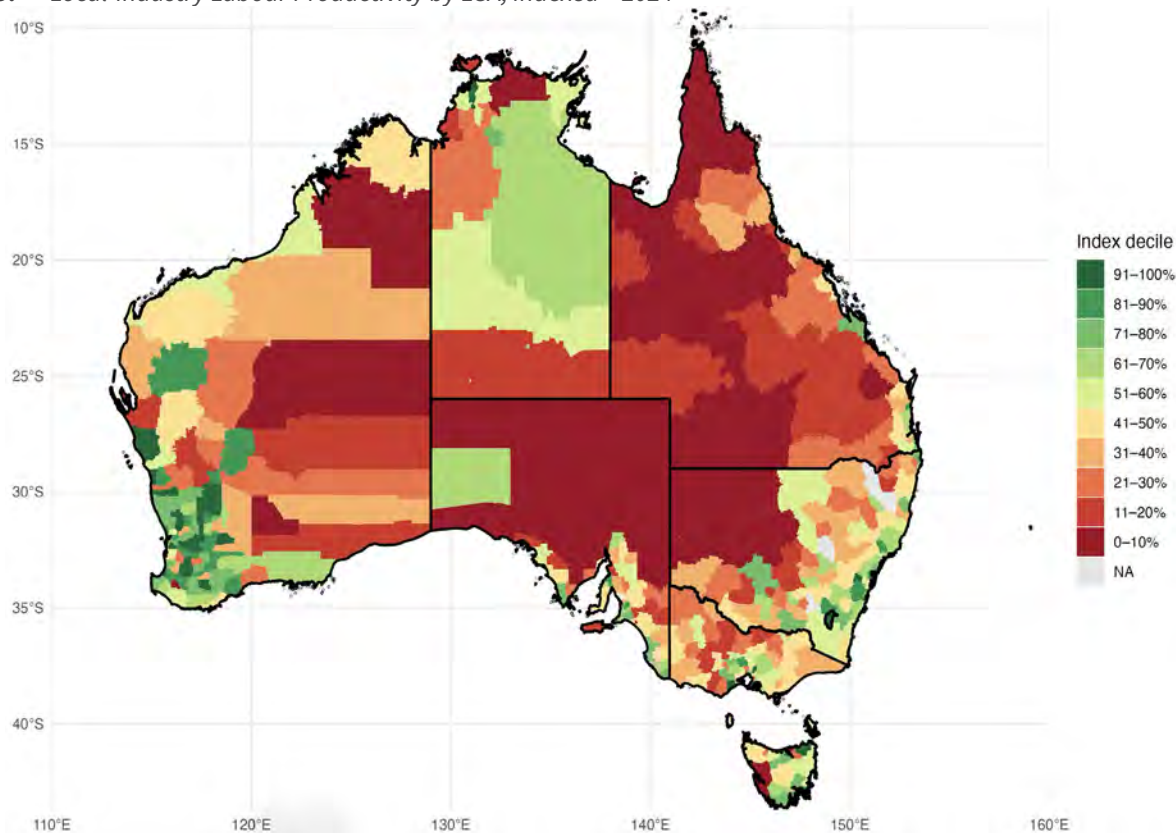
A more comprehensive picture of local-industry economic performance is provided in the following map. In contrast to the headline indicator maps, the local-industry maps suggest that many regional LGAs record lower RGRP per hour worked than metropolitan LGAs.

Figure 12. *Local-industry Labour Productivity by LGA, Indexed – 2019*



Source: NIEIR data; RAI and CEPA calculations

Figure 13. Local-industry Labour Productivity by LGA, Indexed – 2024



Source: NIEIR data; RAI and CEPA calculations

Despite the presence of some areas with capitalintensive industries, many of the higher-productivity LGAs are predominantly Metropolitan or Connected Lifestyle areas, where productivity is driven by diversified economic structures, high human-capital intensity, and agglomeration effects. By contrast, the lowest-productivity LGAs broadly mirror the pattern observed in the headline indicator, remaining concentrated in remote and structurally constrained regions. Importantly, again, regional economic performance must be understood within its local context.

Compared with the headline indicator, the disparity across regions is smaller. For example, the average local industry productivity of the top five regional LGAs is \$165.9 per hour worked, compared with \$33.1 per hour worked in the bottom five – a difference of approximately five times. Table 3 lists the top 5 regional LGAs by local-industry labour productivity in 2024.

Table 3. Top 5 Regional LGAs by Local-industry Labour Productivity (\$ output per hour worked) in 2024

LGA	State	2019	2020	2021	2022	2023	2024
Wagait	NT	181.0	177.3	152.9	221.1	224.8	227.6
Tammin	WA	140.8	123.3	164.0	218.0	234.3	210.8
Mukinbudin	WA	112.6	109.4	124.7	151.8	157.2	141.9
Coomalie	NT	97.2	96.7	101.2	116.1	120.6	129.5
Kiama	NSW	103.8	103.4	106.1	113.8	112.5	119.4

Source: NIEIR data; RAI calculations



Limitations of Current Labour Productivity Measures

Measuring regional differences in productivity performance is a first and essential step towards addressing productivity growth slowdown as a national and regional issue. The labour productivity indicators presented in the previous section provide useful insight into regional economic performance. It is also important to acknowledge that the calculation of GRPs and hours worked are estimates and are subject to certain assumptions and limitations.

Indicators based on RGRP per hour worked should be interpreted as measures of real value added per hour worked, rather than a quantity measure of output per unit of labour input.

Also, labour productivity as a measure can mask the impact of other inputs on productivity – for example, capital, energy, and material inputs. Labour productivity is simply calculated as output per hour worked, so it effectively reflects the combined influence of all labour, capital, intermediate goods, and technology inputs. Labour productivity therefore does not necessarily even reflect the productivity performance of workers. For instance, labour productivity may increase if a worker is provided with faster machinery. In this case, the measured productivity has not risen due to the worker becoming more productive, it has risen due to the improved machinery. We would ideally like to get a better understanding of productivity performance across all the main inputs in the production process.

For these reasons, Multi-Factor Productivity (MFP), or Total-Factor Productivity (TFP), which captures the combined efficiency with which all inputs are used in the production process, is widely regarded as a more comprehensive measure of productivity over labour productivity.

Future Directions

As noted earlier, the ABS do not provide labour productivity estimates by region, either by local government area or by SA4 (Statistical Area Level 4). The ABS currently provides experimental MFP estimates by industry and state and territory, but not by region.

Developing regional Labour Productivity and MFP measures would provide rich analysis of productivity performance, and its drivers and enablers, by place and would significantly strengthen the evidence base for place-based productivity policy. It would allow for comparisons of industry performance in various parts of Australia and the key factors. However, estimating LP and especially MFP at the regional level is difficult and complex, and requires more data and changes to measurement practices. Nevertheless, these indicators are produced in other countries, for example, the Office for National Statistics in the United Kingdom produces labour productivity estimates at the regional and sub-regional level.

The RAI commissioned the Centre for Efficiency and Productivity Analysis at University of Queensland to explore options for measuring Labour Productivity and Multifactor Productivity at the regional level in Australia. *Appendix 4: Improving Regional Productivity Measurement* sets out experimental results from the measurement of LP and MFP in the agriculture sector at the state level and discusses the possibility of extending this type of analysis to the regional level (by LGA or equivalent regional unit).

The analysis identifies how patterns of labour productivity differ from changes in patterns of MFP. In both cases, productivity differences in the agriculture sector across states are shown to reflect differences in environmental conditions, the scale of operations, and the input mix, rather than failures by the sector to adopt best-practice production techniques. The analysis demonstrates the benefit of calculating productivity measures that can recognise the impact of environmental conditions, inputs mix and economies of scale for designing effective productivity policy.

Recommendation: Improve Regional Productivity Measurement

The Australian Government to task the Australian Bureau of Statistics (ABS) with providing measures and analysis of productivity by region to enable a deeper understanding of regional productivity performance. This might require:

- An assessment of currently collected ABS data, including in the BLADE and PLIDA datasets, and analysis of gaps in data collection required for the estimation of regional labour productivity and MFP measures by region
- Enhanced data collection to obtain required inputs by region: labour, capital, energy, materials, intermediate services
- Development of methodologies to calculate gross regional product, labour productivity and MFP by region
- Regular publication of regional labour productivity and MFP estimates by region (LGA or SA4), including by industry sector.



3. DRIVERS, ENABLERS AND BARRIERS OF REGIONAL PRODUCTIVITY

DRIVERS OF PRODUCTIVITY GROWTH

The OECD's 2022 report *Identifying the Main Drivers of Productivity Growth* reviews recent literature on how productivity growth is driven by:

- Improvements in labour (e.g. skills improvements) and capital inputs (e.g. better public infrastructure) and,
- Multifactor productivity, which captures efficiency gains from technological progress, innovation, better management and organisation, knowledge diffusion, and spillovers.

Sustained productivity growth depends on investment in physical and intangible capital, continual upgrading of workforce skills, and economic dynamism that allows labour and capital to move toward more productive firms and activities.

Capital deepening, creative destruction, and agglomeration economics are three core long-term mechanisms shaping (labour) productivity growth (Aghion and Howitt 1992; Glaeser 2010).

- Capital deepening raises productivity by increasing the amount and quality of capital – such as machinery, technology, and infrastructure – available to each worker, enabling higher output per hour.
- Creative destruction drives sustained productivity growth by allowing new firms, technologies, and business models to replace less productive incumbents, reallocating labour, and capital to higher value uses despite short-term disruption.
- Agglomeration economics explains how the geographic concentration of firms, workers and related industries boosts productivity through shared infrastructure, more specialised labour force, knowledge spillovers, and more efficient supply chains.

The effectiveness of these mechanisms depends on their being embedded within broader regional socioeconomic systems that enable firms and workers to deploy capital, adopt innovative technologies, and reallocate resources efficiently.

Access to land and natural resources, including water, energy resources and environmental assets, is a foundational element of productivity, shaping industry location, scale, input costs, and long-term growth potential. Industry structure shapes the scope for productivity gains by influencing scale, diversification, and exposure to innovation, while efficient and well-functioning labour markets are critical for matching skills to jobs, supporting worker mobility and facilitating firm growth and exit.

Good physical and social infrastructure – including transport, energy, housing, education, health, and care services – underpins access to markets, labour and essential services, reduces frictions associated with distance and scale, and supports workforce participation and retention. Well-functioning innovation ecosystems that link firms, research institutions, training providers, and intermediaries support the creation, diffusion, and adoption of new ideas, while supportive policy and regulatory settings help lower barriers to investment, competition, and experimentation.

In some sectors, particularly agriculture and other land and resource-based industries, productivity outcomes are also strongly conditioned by environmental factors such as climate variability, water availability, and exposure to extreme weather, which can amplify or constrain the effectiveness of capital investment, innovation, and scale over time. Because agriculture is deeply interconnected with other sectors (e.g. food and beverage manufacturing, transport, logistics and storage, and wholesale and retail trade), changes in agricultural productivity propagate across the economy, influencing measured productivity, employment, income, and liveability.

COMPARISON OF METROPOLITAN AND REGIONAL PRODUCTIVITY DRIVERS

The Australian Housing and Urban Research Institute (AHURI) summarised the dynamics of urban and regional productivity growth as such in its 2021 report:

Agglomeration productivity benefits begin in Australia at a fairly small scale – in metropolitan regions with more than 100,000 people – and increase disproportionately thereafter. Population density is also important, but the effects are stronger in larger sub-metropolitan areas. This suggests that agglomeration effects operate most strongly below the scale of ‘the whole city,’ but above the scale of ‘within a neighbourhood.’

Analysis of successful regional, satellite and growth-centre cities suggest there are some common characteristics: historic connections to primary industries; recent restructuring of economies; diversification into health and social care, retail and education; economic development initiatives targeting technology sectors; and the influence of having a local university campus.
(Leishman et al 2021)



The factors of productivity growth are broadly consistent regardless of geography, however, the extent to which and how these drivers operate varies across locations. The following table summarises the metropolitan advantages alongside the regional advantages in terms of core productivity factors (NIEIR 2023).

Table 4. *Comparison of Metro and Regional Productivity Drivers*

Core Factors of Productivity Growth	Metro Advantages Over Regional Australia	Regional Advantages Over Metro Australia
Long-term mechanisms - Capital deepening - Creative destruction (innovation) - Agglomeration economics Environmental conditions - Climate change and extreme weather (especially for some sectors such as agriculture) - Access to land and natural resources Geographical issues - Distance and isolation Regional Socio-economic systems - Demographics - Industry structure - Labour and skills - Innovation ecosystems - Physical and social infrastructure (including housing) - Policy and regulation	- Agglomeration: dense networks of firms and spillover effects - Labour market depth allowing better job matching - Greater infrastructure - Greater digital connectivity - Higher access to capital	- Access to land and natural resources - Sectoral concentration (e.g. agriculture, mining) - Less congestion - Lower costs of living - Lower operating costs (in some regions)

Regional and remote areas often benefit from abundant land and natural resources, allowing them to avoid many of the congestion pressures faced by large cities.





Metro regions typically benefit from stronger enabling conditions due to scale and economic density. These structural advantages include:

- Greater provision of both hard and soft infrastructure.
- Higher levels of digital connectivity.
- A larger population and economic size, leading to:
 - Economies of scale and scope from being close to large numbers of suppliers and customers
 - Knowledge spillovers and knowledge exchange, as well as a greater number of potential collaborators
 - A large job market supporting better job matching and pools of specialised workers.
- Improved access to capital.

These structural advantages are explained by agglomeration economies. However, agglomeration benefits are limited. In large or poorly designed cities, congestion, high land prices, and environmental pressures can reduce the benefits associated with urban concentration with longer travel times, higher operating and costs and declining liveability due to congestion which can discourage population growth and labour mobility.

By contrast, regional and remote areas often benefit from abundant land and natural resources, allowing them to avoid many of the congestion pressures faced by large cities. These conditions can support lower costs of living – an increasingly attractive feature for workers – as well as lower production and operating costs for firms through cheaper land, lower rents, and fewer capacity constraints. These advantages are particularly pronounced in land intensive and resource-based activities, contributing to the significant concentration of agriculture and mining in many regional economies. Given the scale and capital intensity of these industries, improvements or declines in their productivity performance can have an outsized influence on regional productivity, income growth,

and long-term economic activity.

At the same time, many other businesses in regional areas operate with lower levels of industry concentration and therefore capture fewer agglomeration and scale benefits. This can result in higher input costs due to greater transport distances, limited infrastructure provision, and fewer opportunities for collaboration, reducing overall business efficiency. These constraints extend to labour markets, where regional firms often face greater difficulty attracting and retaining workers – particularly specialists – and accessing specialised training and skills development services.

After excluding the influence of some extremely capital-intensive industries such as mining, regional Australia also tends to exhibit lower levels of capital intensity than metropolitan areas, in terms of both private (non-dwelling) capital held by firms and public capital embodied in infrastructure and service provision. More limited access to finance reinforces these patterns, with regional businesses relying more heavily on traditional bank lending and facing greater constraints in accessing private funding sources such as venture capital or owner equity. Reflecting these structural conditions, regional businesses exhibit lower overall innovation activity than those in capital cities, and a greater tendency to adopt existing technologies rather than develop new ones.

Together, these factors shape regional productivity outcomes in ways that differ from metropolitan areas. The next section further examines the factors that influence regional productivity in detail.



FACTORS AFFECTING REGIONAL PRODUCTIVITY

Environmental conditions

Climate change and extreme weather

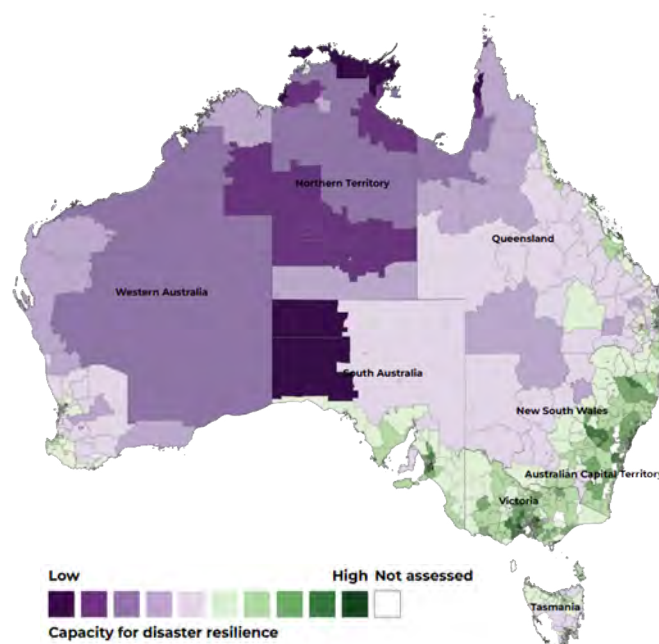
The latest Productivity Commission inquiry into Investing in Cheaper, Cleaner Energy and the Net Zero Transformation shows tackling climate change and cutting pollution is fundamental to Australia's productivity performance and long-term economic prosperity (Productivity Commission 2025). Climate change and extreme weather (e.g. heatwaves, heavy precipitation, drought, tornadoes, and tropical cyclones) will directly impact productivity in industries such as agriculture, fisheries, tourism, and transportation through both influencing environmental conditions and labour performance.

For example, evidence from the Millennium Drought indicated that the severe droughts experienced between 2002 and 2010 reduced agricultural multifactor productivity in Australia by approximately 18% during this period (Sheng and Xu 2019). Similarly, using the Australian data between 1978 and 2014, another study found that a flood each year, on average, could reduce agricultural output by 5.6% in the current year and 6.2% in the subsequent year. This research also found negative impacts of floods on the output of mining, construction, retail trade, and even financial and insurance services sectors (Ulubaşoğlu et al 2019).

The case study on the Eyre Peninsula in this report shows how water scarcity and climate variability can constrain regional productivity, while also demonstrating the role of dryland agricultural innovation, regional research capability and coordinated infrastructure investment in sustaining economic performance under difficult environmental conditions.

The Australian Disaster Resilience Index indicates that rural and remote areas exhibit lower levels of disaster resilience than metropolitan areas, suggesting that these challenges are likely to be more acute in regional contexts.

Figure 14. Australian Disaster Resilience Index



Source: Australian Disaster Resilience Index 2

Access to land and natural resources

Access to land and natural resources offers important productivity advantages, particularly for regional economies, by enabling land intensive and resource-based industries such as agriculture, mining, energy and manufacturing to operate at scale, lower average costs, and exploit natural comparative advantages. Abundant land availability can support expansion, clustering of related activities and investment in capital intensive infrastructure, while access to fertile soils, water, minerals, and renewable energy resources underpins high value production and export competitiveness.

At the same time, reliance on land and natural resources also presents structural disadvantages and risks. In addition to vulnerability to environmental constraints and shocks, resource-based specialisation can also limit economic diversification, amplify boom-and-bust cycles, and reduce incentives for innovation if growth is driven primarily by endowments rather than efficiency gains (Gunton 2003). One prominent example is water security, which has emerged as an increasingly urgent challenge for many agriculture-dependent regional communities (see Case Study: Water Scarcity in the Eyre Peninsula).

Recommendation: Strengthen regional resilience to climate risks

- Governments should prioritise building regional resilience to climate change, drought and environmental shocks through targeted investment in adaptation infrastructure, disaster preparedness, and climate-resilient technologies.
- This includes improving water security and supply, strengthening transport and energy systems to withstand extreme weather, and supporting industries and workers to adapt to changing environmental conditions.



GEOGRAPHICAL ISSUES

Distance and isolation

Many regional and remote areas suffer from a persistent ‘tyranny of distance’ (Blainey 1983) and isolation, not only in their remoteness from major markets and service centres, but also in the vast internal distances within regions themselves. Large geographic distances increase transport and logistics costs, raising the price of moving goods to domestic and export markets and of sourcing essential inputs such as machinery, intermediate goods, and services. For firms running in remote locations, these higher input and distribution costs compress profit margins and weaken incentives to invest.

Distance and isolation also make it more difficult to access labour, skills, and services. Thin labour markets, combined with challenges in attracting workers from other regions, constrain effective matching between employers and employees. At the same time, limited access to specialised services – such as finance and research and development – reduces firms’ capacity to adopt innovative technologies and improve efficiency.

Distance further interacts with agglomeration effects. Productivity gains associated with clustering – such as knowledge spillovers, shared infrastructure, and dense supply chains – are harder to realise in geographically (and demographically) dispersed regions. As a result, remote areas could miss the cumulative advantages that underpin higher productivity in cities and well-connected regions. This emphasises the importance of strong physical and digital connectivity in overcoming the constraints imposed by distance and isolation.

DEMOGRAPHICS

Population

Compared with metropolitan areas, many regional and remote areas have smaller populations, limiting the scale benefits that underpin productivity. Larger populations support deeper labour markets, greater specialisation, denser supply chains, and more frequent interactions that facilitate innovation. They also create larger local consumer markets, strengthening demand and enabling firms to achieve scale, invest more, and adopt more productive business models. Regions with smaller populations therefore capture fewer of these agglomeration and demand side benefits.

Beyond size, population structure also matters. Age profiles, skills composition, household formation, and migration patterns shape labour force participation, occupational mix, firms’ access to skills, and productivity growth. For example, regions with ageing populations may face tighter labour supply, slower technology adoption, and demand skewed towards lower productivity sectors such as health and care. By contrast, regions attracting younger or more highly skilled workers tend to support higher rates of innovation, entrepreneurship, and knowledge intensive activity (Mahlberg et al. 2006).

These demographic effects interact with industry structure. For example, some regions with small populations nevertheless exhibit high productivity levels because they host capital-intensive industries, such as mining, where output is less dependent on labour scale or local demand conditions. However, many regions will struggle to reach the population scale and economic momentum needed for productivity uplift. These economies face persistent job vacancies, especially in professional roles, which have high industry demand coupled with low workforce supply. In highly remote and sparsely populated areas, where maintaining regional viability and access to essential services is the primary concern, economic productivity is often not the foremost consideration.

RAI (2019) research finds that a more balanced population distribution – involving a greater share of growth directed to regional centres – would deliver benefits for both metropolitan and regional areas. The analysis indicates that regional centres can accommodate additional growth without compromising economic opportunity, while also showing that the benefits of agglomeration in large cities diminish as they become more congested and costly. For metropolitan areas, a more distributed settlement pattern can ease pressures on housing affordability and congestion; while for regional centres, population growth can support higher income growth, stronger labour market outcomes, and improved economic performance.



Migrants

Skilled migrants play a critical role in supporting productivity, service delivery, and economic resilience in many regional and remote areas, where labour markets are typically smaller, skills shortages are more persistent, and local training pipelines alone are often insufficient to meet demand. Many regional industries, including agriculture, health and care, construction, mining, manufacturing and professional services, rely on skilled migration to fill specialist roles, sustain business operations, and enable expansion. Skilled migrants also contribute to population stability, entrepreneurship, and knowledge diffusion, strengthening local innovation capacity and helping regions capture the benefits of scale and agglomeration.

Overseas migrants settle in
regional Australia
17.3%



Regional Australia proportion
of national population
36.4%

Source: ABS Regional Population March 2026 Release

Despite this importance, fewer than one-in-five overseas arrivals settle in regional Australia, with the majority gravitating toward metropolitan areas. This imbalance limits regions' ability to alleviate skills shortages, constrains productivity growth, and reinforces existing spatial inequalities. Expanding place-based migration pathways – particularly for regional and remote employers and critical sectors such as health and education – presents a clear opportunity, especially where migrant skill profiles align with local workforce needs. This would support more balanced population distribution and improve the sustainability of essential services and long-term social and economic outcomes.

Improving migrant skills recognition processes will enable migrants living in regional Australia to utilise their skills to address regional skill shortages and contribute to higher productivity. Skills recognition processes should be faster and less costly for regional migrants and businesses.

Recommendation: Grow regional population centres to build scale and take advantage of agglomeration economies

- Regional cities and large regional centres are well placed to be major sources of productivity growth due to agglomeration economies, and less exposed to the costs of congestion than major cities.
- High growth regional centres should be supported with a broad range of enabling conditions: infrastructure, housing, jobs, training opportunities, lifestyle amenities.

Recommendation: Lift skilled migration to regional Australia

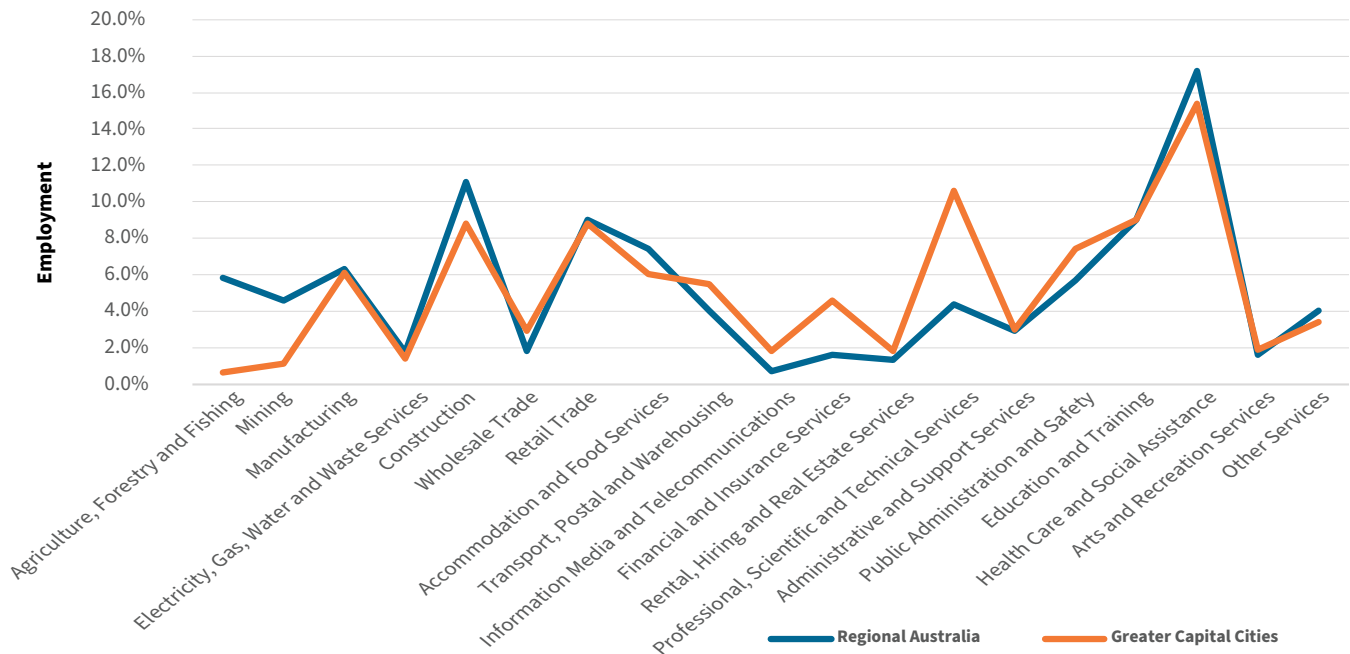
- To grow regional labour markets and better align migrant settlement with national population dispersion, a greater share of overseas migrants should be encouraged or directed to settle in regional Australia, with a target of around one-third of new migrants settling outside major capital cities.

Industry structure

Regional economies tend to be less diversified than metropolitan economies. They tend to have a greater share of mining, agriculture, and health and social assistance services, and a smaller share of knowledge-intensive industries such as telecommunications and internet, computer, professional, scientific, and administrative services. The share of knowledge industries, in terms of GRP generated is about 16% in metropolitan regions compared with 9% in regional cities and even less throughout smaller regional communities (NIEIR 2023).



Figure 15. *Employment by Industry, Regional vs Metro, 2024-25*



Source: National Institute of Economic and Industry Research (NIEIR). Compiled by Informed Decisions.

These structural differences account for much of the current productivity levels as well as future productivity growth potential. Despite its exceptionally high labour productivity compared to other industries, the mining sector has experienced a pronounced productivity downturn in recent years, with productivity declining by around 20% over the past five or so years (RBA 2025).

Improvements in agricultural technology, precision farming, and resource extraction methods, for example, can lead to significant gains in output and competitiveness that ripple through the broader local economy. Yet agriculture can also be subject to great volatility from changes in commodity prices and climate, which makes it challenging to maintain a sustainable productivity growth. The non-market sector, including the health care, education and public administration industries, dominates the employment in many regions but has low measured productivity and productivity growth (RBA 2025).

Recommendation: Build on regional strengths while expanding economic diversity

- Governments should continue to develop regional specialisation strategies, cluster precincts, and supply-chain development programs, tailored to a region's natural competitive advantages. This could include targeted investment in technology, skills, and modernisation in leading industries within the region.
- At the same time, policy settings should promote economic diversification to enhance resilience to external shocks and create new pathways for growth, particularly in regions exposed to structural or environmental risks.



Labour and skills

Workforce development is a critical issue for matching skilled workers to jobs and improving productivity and economic resilience in regional Australia. Regional labour markets are experiencing lower unemployment rates and lower labour force participation rates than metropolitan labour markets, demonstrating the difficulty in hiring workers for many regional employers. The unemployment rate in regional Australia was 3.8% in May 2026 compared to 4.6% for the major capital cities, and regional job vacancies rose by 2% over the 12 months to May 2026 compared to a 2% fall for metropolitan job vacancies. Community and personal service workers, labourers, machinery operators and drivers, technicians and trades workers and professionals are all in high demand in regional Australia (RAI 2026).

Many regional economies face persistent and broad skill shortages. While there has been strong net internal movement from cities to regions in recent years, mobility and information barriers remain in attracting skilled workers from other parts of Australia. Regional Australia receives a much lower share of overseas migration than its share of the national population, as discussed earlier. Regional higher education, vocational education, and other training systems are facing difficulties in producing the workforce needed in growing and changing regional economies.

Training models generally rely on scale, which limits their viability in regional and remote areas. As such, greater support for flexible, place-based training approaches is essential. This includes models such as mobile delivery – already being expanded by TAFE – which are increasingly important given ongoing challenges in recruiting and retaining lecturers in regional areas.

There is also an opportunity to further develop and promote employer-led training models, where training is embedded within local industries and tailored to specific workforce needs. These approaches are particularly well suited to regional and remote contexts, where traditional institutional delivery is less practical and where employers play a central role in workforce development.

The relationship between the local labour market and local productivity is complex and multi-faceted. In the short term, higher participation can draw less-skilled or lower-productivity workers into employment, which may reduce average productivity in a static sense. Over the long run, however, higher participation supports productivity growth by improving the matching between workers and jobs, and by underpinning capital deepening and innovation (Mahlberg et al. 2006).

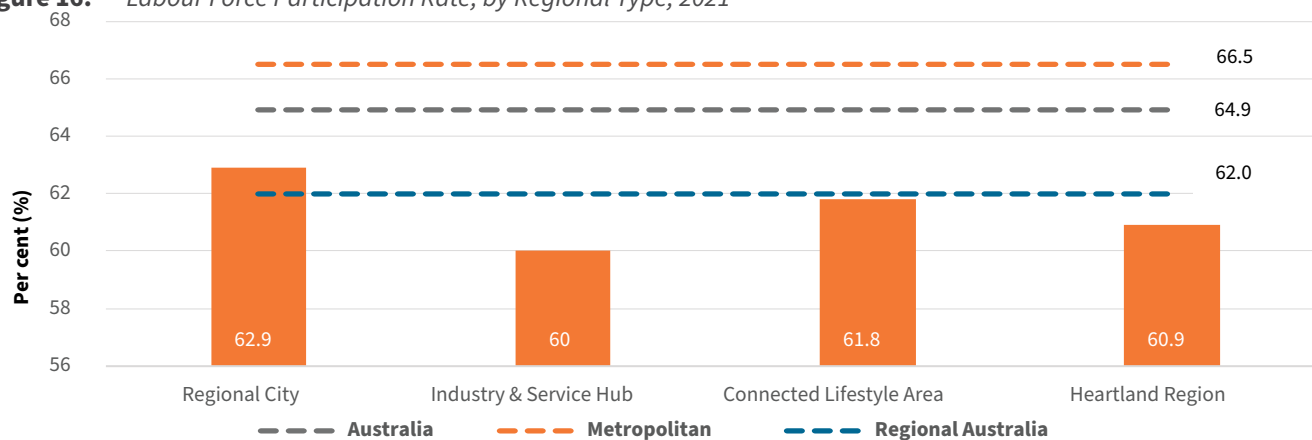
Persistent nonparticipation or unemployment can lead to skills erosion and labour market mismatch between workers and employers, making workers less productive when they re-enter the workforce. It is also indicative of a skills mismatch between the needs of local businesses and skills of local workers – with obvious negative implications for future productivity growth without intervention. High unemployment or a low participation rate in a region will cause aggregate productivity growth to slow as there are fewer workers contributing to production. This also influences business confidence: firms may delay machinery upgrades or limit the adoption of innovative technology which requires new skillsets in uncertain labour markets.

Conversely, high labour force participation and low unemployment foster continuous skill development and knowledge transfer between workers, enhancing productivity. Whilst in one respect, a tight labour market represents a handbrake for businesses which struggle to find skilled workers, it is a boon for business confidence. Stable employment markets and local conditions typically provide a more attractive environment for investment, with the potential to drive productivity gains. Regions with larger labour markets and lower relative unemployment tend to have higher levels of productivity and productivity growth.

Many regional and remote communities have a great share of vulnerable and disadvantaged groups, such as Aboriginal and Torres Strait Islanders, migrants, individuals with disabilities, young people between 15 and 24, older adults aged 55 and above, and families with dependent children. These populations are often less engaged in the workforce and experience higher rates of unemployment because of long-term physical and social infrastructure deficits and community and workplace discrimination (RAI 2023), which contributes to a lower participation rate in many regional and remote communities (Figure 16). How to bring these vulnerable and disadvantaged cohorts into the labour force, as well as improve and expand their skills, has been one of the key hurdles faced by very remote communities where economic sustainability relies on increasing participation to simply maintain basic service provision and business continuity.¹

¹ For further discussion on this issue please refer to the RAI (2023) research on regional workforce participation – *Against the odds: Realising Regional Australia's Workforce Potential*.

Figure 16. Labour Force Participation Rate, by Regional Type, 2021



Source: ABS Census 2021

Jobs and Skills Australia's 'Regional Roadmap' (2025) is an important initiative that explores these key workforce challenges in detail and provides a framework for enhancing workforce development, education, and skill-building across regional communities. The next phase of the roadmap, the provision of tailored regional roadmaps, will need to be prioritised and adopted by governments as well as the education and training sector to align regional workforce development with productivity and economic growth.

Recommendation: Strengthen regional skills pipelines with investment in human capital

The Australian and state governments should continue to strengthen regional education and training pathways aligned to regional workforce needs, including:

- Expanding regional higher and vocational education pathways, including improved access to education through Regional University Study Hubs
- Further investment and support for apprenticeships
- Building lifelong learning infrastructure so that regional firms can access and develop high-skill workers
- Expanding use of flexible delivery models such as employer-embedded training, mature age apprenticeships, online learning, micro-credentials, and specialist post-graduate qualifications.

Recommendation: Facilitate labour mobility allowing a better match between jobs and workers in regions

- Promote employment opportunities in regional Australia and encourage movement by workers to fill regional job vacancies.
- Governments to remove barriers to occupational licensing recognition between jurisdictions.
- Governments should support adequate provision of key worker housing in regions and consider stamp duty reform to reduce the costs of transferring home ownership associated with worker relocation (see additional housing recommendations below).
- Governments should review the enforceability of non-compete clauses (NCCs) across different regions and promote fair mobility rules.

Recommendation: Support workforce participation by vulnerable and disengaged cohorts through expanded pathways to work and training

- Expand place-based pathways that integrate training, employment and wraparound supports, tailored to the needs of vulnerable and disengaged cohorts in regional labour markets.
- Strengthen the role of community organisations and employers in delivering inclusive, flexible and supportive work environments that enable sustained workforce participation.



Knowledge infrastructure and innovation ecosystems

Regional universities

Many regional economies are supported by regional universities that tailor research and teaching to local industry needs. However, by comparison to metropolitan areas, they may face disadvantages in knowledge creation capacity due to smaller innovation ecosystems, few research institutions and lower concentrations of knowledge intensive industries. Of Australia's 42 universities, only ten are headquartered in regional Australia:

- CQUniversity Australia (Rockhampton, Queensland)
- Charles Sturt University (Bathurst, New South Wales)
- Federation University Australia (Ballarat, Victoria)
- Southern Cross University (Lismore, New South Wales)
- University of New England (Armidale, New South Wales)
- University of Southern Queensland (Toowoomba, Queensland)
- University of the Sunshine Coast (Sippy Downs, Queensland)
- James Cook University (Townsville, Queensland)
- Charles Darwin University (Darwin, Northern Territory)
- University of Tasmania (Hobart, Tasmania).²

RAI analysis of Department of Education statistics shows that universities headquartered in regional Australia account for only around 10% of total university research staff full-time equivalent (FTE) nationally. This indicates a gap in R&D capacity between regional and metropolitan areas.

The presence of a regional university or university campus is also one of the most significant differentiators among regions: Regions with a university benefit from a local anchor institution that supports human capital development, applied research, knowledge transfer and collaboration with industry, government and community organisations (See Case Study: Innovation Ecosystems in Cairns and FNQ). Universities can strengthen regional innovation ecosystems by supplying skilled graduates, facilitating research partnerships, supporting startups and spinoffs, and attracting external research funding and investment. For example, The Regional Universities Network finds that tertiary students educated in regional areas are more likely to remain in the regions for work, highlighting the important role regional universities play in building and retaining human capital and skills locally (RUN 2025). In contrast, regions without a university often face thinner innovation systems, limited access to research capability and fewer opportunities for firms to engage in structured knowledge exchange, constraining their capacity to adopt and adapt innovative technologies.

Furthermore, while knowledge creation is a foundational driver of long-term productivity growth, it does not translate into economic outcomes automatically. Effective innovation requires multiple complementary factors working together:

workers must be receptive to new ideas and technologies, firms need the skills and managerial capability to implement change, and organisations must be willing to invest in deployment and scaling. As a result, the capacity of regional innovation ecosystems varies widely across Australia, shaped by differences in industry structure, institutional presence, connectivity, population scale, workforce skills, and local leadership.

Regional business innovation

The ABS Innovation in Australian Business survey shows that innovation activity is lower in regional areas, and that regional firms more likely to adopt existing innovations rather than pioneer new ones.

Structural differences in funding and capability underpin these patterns, including constrained access to finance, as well as comparatively fewer highly innovative firms and highly skilled knowledge workers. Regional businesses rely more heavily on traditional bank finance and have less access to private finance, such as owner funds and venture capital. Regional firms face greater barriers during the development phase of innovation, especially skills shortages, access to finance and regulatory complexity, although they report fewer barriers at the commercialisation stage.

However, the same survey also finds that once innovations were developed and commercialised, regional businesses reported similar rates of achieved outcomes comparable to those in capital cities, with regional firms recording slightly higher outcomes in environmental benefits, revenue growth, and productivity gains. (See Spotlight: Understanding Regional Business Innovation)

Recommendation: Support the creation and development of local innovation ecosystems to facilitate knowledge transfers between industry, university, and government

- Targeted investment into the development of regional innovation clusters has the potential to boost regional productivity through accelerated technology adoption, encouraging knowledge spillovers and enabling firms to move to higher-value business activities.
- Support may include targeted R&D incentives, physical hubs and business parks, technology extension services, collaboration with universities and research centres, secretariat support for region-wide collaboration bodies, digital capability uplift programs, and facilitation of industry-research partnerships.

² According to the RAI definition, Darwin and Hobart are also part of regional Australia.



Recommendation: Improve access to early-stage finance and capability support for regional innovators

- Policy should focus on expanding early-stage and risk-tolerant finance for regional firms, where reliance on traditional bank lending can constrain experimentation and scale-up.
- Relevant measures could include regionally tailored patient capital funds, co-investment and matched-funding schemes to crowd in private finance, and mechanisms to extend venture and angel investment into regional markets. These should be complemented by advisory support to strengthen investment readiness, managerial capability, and navigation of regulatory requirements during the innovation development phase.

Market competition

Declines in business investment and economic dynamism in Australia over a long period, partly linked to declining competition, are associated with reduced productivity (Hambur & Andrews 2023). Owing to ‘thin markets’ (fewer buyers and sellers) and lower economies of scale and scope, remote and smaller regional markets are more likely to experience lower levels of competition in many sectors. Increasing competition in regional markets can stimulate firms to improve efficiency, invest in productive assets and adopt new technologies, and create an environment where new entrants can challenge incumbents. Regional consumers can benefit from increased competition through improved goods and services and lower prices.

Competition can also contribute to regional productivity growth through improving the functioning of local labour markets and enabling more efficient allocation of skills. The OECD (2023b) notes that regions with greater diversity in firms and industries tend to have stronger labour productivity outcomes, partly because competitive, multi-firm environments support better job matching, higher wages, and stronger incentives for skill development.

RAI’s 2022 research on innovation and productivity in regional Australia reveals regions already lead in sectors such as mining, logistics and manufacturing, but continued productivity growth depends on maintaining pressure for firms to innovate rather than relying on natural advantages alone (Basset et al 2022). Competition fosters a dynamic environment where workers can more easily move to higher productivity firms and where businesses must continually improve to retain talent and market share (Basset et al 2022).

Heightened competition also facilitates regional economies becoming more diversified and resilient – a crucial component of long-term productivity growth. As discussed previously, regional economies are often less diversified and have limited knowledge intensive industries compared to metropolitan areas, this makes them more susceptible to shocks and less exposed to innovation driven competitive pressures. Encouraging new market entrants – whether through regulatory reform, improved infrastructure, reducing barriers to entry or targeted investment – helps expand the base of firms, increasing local supply chain depth and enabling knowledge spillovers that drive productivity.

Recommendation: Enhance regional market competition

- Encourage new market entrants in regional markets, whether through regulatory reform, improved infrastructure, reducing barriers to entry or targeted investments.
- Require competition policy reforms, such as those considered in the National Competition Policy review, to include explicit analyses of regional markets to ensure policies promote competition and increase consumer welfare.



Public investment into common infrastructure can facilitate technical efficiency within firms, such as smart infrastructure that reduces traffic congestion and lowers transport costs and times.



Physical and social infrastructure

Infrastructure

Investment in infrastructure is central to lifting productivity in regional Australia by addressing the structural disadvantages associated with distance, smaller local markets, limited access to services, and lower levels of agglomeration.

Regional infrastructure plays a critical role connecting regional communities, supporting the movement of goods to and from regions, enabling accessibility to essential services and supporting resource exports, food production, tourism, and freight connectivity (Infrastructure Australia 2026). High-quality transport and energy infrastructure can lower business costs, strengthen supply chains, and expand the effective labour market by making it easier for workers and firms to connect across regions (APH 2010). Public investment into common infrastructure can facilitate technical efficiency within firms, such as smart infrastructure that reduces traffic congestion and lowers transport costs and times.

By contrast, infrastructure constraints can negatively impact the labour supply and reduce the effective labour force catchment area (by increasing commute times to undesirable levels). Likewise, with infrastructure reducing business investment potential, limited connectivity and infrastructure negatively impacts the desirability and liveability of region to potential migrants. Infrastructure constraints can also create a vicious cycle which deters both business investment and labour mobility, hampers economic activity, and reduces the case for expanded infrastructure.

While infrastructure deficits are a widespread challenge across regional Australia, the nature of these deficits varies between regions. Different places face distinct constraints, needs and priorities shaped by their economic structure, geography and population characteristics. For many smaller communities, even modest improvements in local connectivity – such as better road maintenance – can deliver immediate productivity gains. In contrast, larger regional centres may require stronger inter-regional transport links to support market access, workforce mobility and business scale. Infrastructure Australia's 2022 Regional Strengths and Infrastructure Gaps gives a strong example of a place-based approach, naming region-specific infrastructure challenges and opportunities. Well targeted infrastructure can help regional communities overcome structural barriers, create new opportunities for industry diversification, and support more inclusive national productivity growth (OECD 2023b).

Recommendation: Strengthen transport infrastructure

- Invest in regional transport links and mobility infrastructure to reduce costs, improve efficiency and allow firms to scale up more efficiently and effectively by connecting markets, services, and workforces.
- Strengthen place-based planning and delivery, drawing on region-specific infrastructure gaps and opportunities to overcome structural disadvantages associated with distance and small markets.

Digital connectivity

Digital technology is increasingly recognised as a core factor of production, reshaping productivity across Australia's economy and offering benefits for regional, rural, and remote areas by reducing the constraints of distance, scale, and density. Digital infrastructure enables access to markets, services, employment, and knowledge that has traditionally been concentrated in metropolitan areas, supporting what has been described as 'virtual agglomeration'. Findings from the Australian Government Treasury (2023) show digital infrastructure such as high-speed broadband enables regional firms to adopt advanced technologies, participate in new markets, and integrate into national and global value chain. The growth in technology-enabled remote working since the COVID-19 pandemic is also changing workplaces and settlement patterns across Australia and creating new opportunities for regional living.

However, these productivity opportunities are unevenly realised. Persistent gaps in broadband and mobile connectivity, affordability and digital capability remain across regional Australia, particularly in very remote communities and among First Nations Australians, contributing to social exclusion, constrained business innovation, and lost productivity. Digital exclusion both reflects and reinforces broader socioeconomic disadvantage, limiting access to essential services, skills development, and labour market participation.

Emerging technologies such as AI, data analytics and automation are transforming regional industries but remain under adopted by many businesses, with skills shortages, access to finance, legacy systems and cybersecurity risks posing challenges for small and regional firms. (See Spotlight: Digital Technology, Inclusion and Regional Productivity).

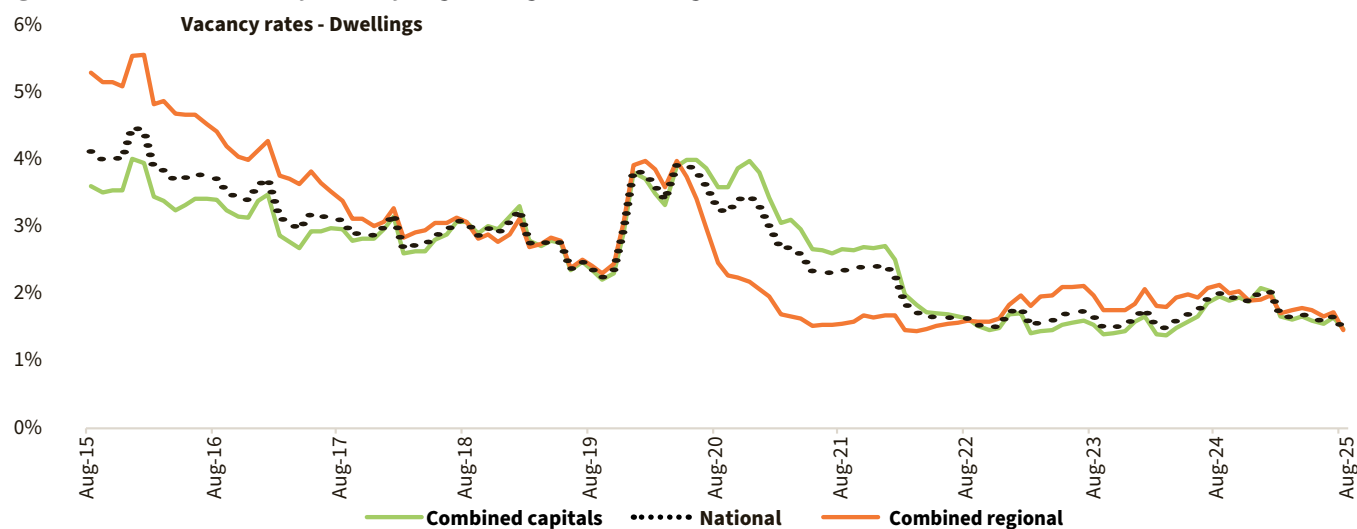
Recommendation: Improve regional digital communications infrastructure and build regional capability for digital technology use

- Improve regional, rural and remote digital communications infrastructure and increase accessibility, reliability and affordability of digital communication services for regional communities and businesses.
- Implement the recommendations in the 2024 Regional Telecommunications Review, prepared by the Regional Telecommunications Independent Review Committee, which stresses the importance of ensuring all regional Australians can fully take part in the digital economy. The Review suggests the Australian Government:
 - Create a connectivity strategy for regional, rural, and remote areas
 - Establish a permanent Regional Telecommunications Commissioner or Advisory Panel
 - Build a national telecommunications data platform
 - Continue support for the First Nations Digital Inclusion Advisory Group.
- The regional connectivity strategy, as outlined in the report, should provide a coordinated, long-term framework to prioritise regional infrastructure investment, align funding programs, and target underserved areas. It should also incorporate investment in emerging and alternative technologies and support place-based solutions, recognising that standard commercial models may not meet the needs of smaller or remote communities.

Housing

While housing in regional areas typically remains more affordable than in metropolitan markets, an increasing shortage of affordable housing supply is emerging across many rural and regional communities (RAI 2025; Beer et al. 2024). Many regional and remote housing markets have lower rental vacancy rates than metropolitan housing markets. When housing supply fails to keep pace with demand, limited availability and rising costs restrict labour mobility, making it harder for workers to relocate to regional areas with stronger job matching and higher-value employment.

Figure 17. Rental Vacancy Rate, by Region, August 2015 to August 2025



Source: Cotality

This misallocation of labour reduces aggregate productivity by preventing firms from accessing the workforce and skills they need and by locking workers into suboptimal job matches. At a regional level, housing shortages can cap population growth in economically dynamic areas, limiting agglomeration economies that underpin innovation, knowledge spillovers, and scale efficiencies. In this case, housing constraints are not merely a social or affordability issue, but a structural brake on economic and social development (RAI 2025).

Therefore, boosting housing supply in regional Australia can play a significant role in enabling labour mobility and population growth and spurring investment. This includes both business investment seeking to capitalise on a larger pool of skilled workers, as well as public infrastructure investment – particularly in transport and communications infrastructure. There are also initial economic gains during the construction phase of the public and private investment (NIEIR 2023).

The RAI's 2025 report *Answering the Call for Regional Housing* discussed the regional housing issue in detail and provided a suite of recommendations for growing regional housing supply.

While more housing is urgently needed in regional Australia, housing alone is not sufficient to attract and retain workforce - other important factors include relative wages, career progression, and employment opportunities, as well as nonfinancial considerations including perceived quality of life.

Recommendation: Increase the housing supply in a manner which is aligned with regional economic growth and facilitates workers moving to where they are needed

- The National Housing Accord should incorporate a strong target for new housing in regional Australia within the national target of 1.2 million homes.
- State and territory governments should support the rapid provision of key worker housing in regional and remote markets in response to need, using government financing support, modern methods of construction and investments in enabling infrastructure.
- The Australian and state governments to provide funding for enabling infrastructure for housing, with specific programs targeted to regions on a needs-based approach.

Education, care, and other services

As industries, education, care, and other non-services are typically characterised by low measured productivity growth, reflecting both their inherently labour-intensive nature and longstanding limitations in productivity measurement. Outputs in sectors such as education, health and care are difficult to value, prices are often administratively set or zero, and quality improvements - such as better learning outcomes, improved health, or enhanced wellbeing - are only imperfectly captured in standard productivity statistics.

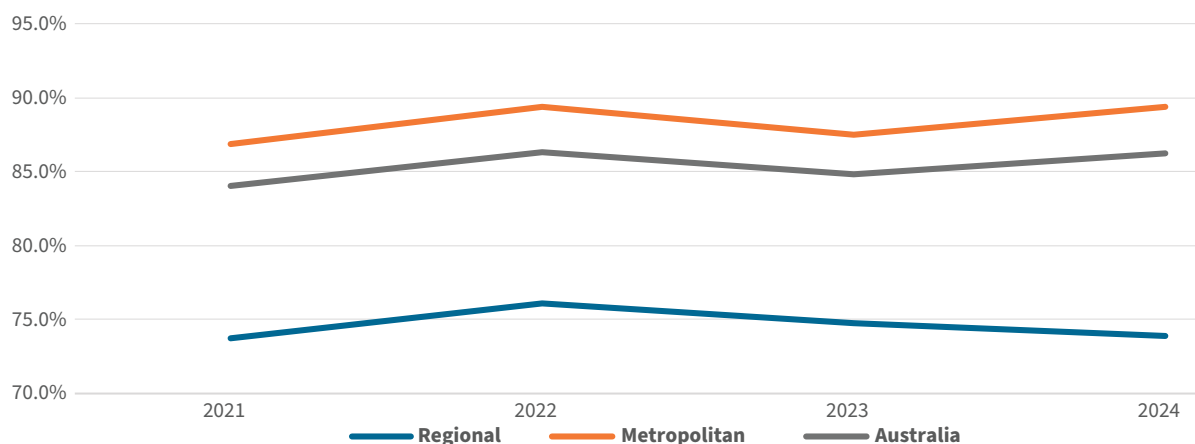
However, focusing solely on their direct productivity performance understates their broader economic contribution. As social infrastructure, education, care, and other essential services play a significant role in shaping regional productivity, labour market participation, and long-term economic resilience. Education systems - from early childhood through schools, vocational education, and universities - build human capital, support skills development aligned to local industry needs and underpin regions' capacity to adopt innovative technologies and innovate over time. Cognitive skills development directly results in higher long-term productivity growth for both regional and national economies (Hanushek et al. 2012).

Care services, including health, aged care, disability support and childcare, are equally critical economic enablers: they support workforce participation, facilitate labour mobility, improve population retention, and sustain liveability, while also functioning as major employers and sources of stable demand in many regional economies.

Importantly, these sectors generate substantial indirect productivity benefits by enabling labour force participation, strengthening human capital, improving job matching and supporting the functioning of local labour markets. These issues are well recognised in the Productivity Commission's two most recent inquiries *Building a Skilled and Adaptable Workforce* and *Delivering Quality Care More Efficiently*.

In regional and remote contexts, constraints in the availability, accessibility or quality of education and care services can act as binding constraints on business expansion, population growth, and productivity across the wider economy. For example, Figure 18 shows that young people aged 20-24 in regional areas have significantly lower levels of educational attainment than their metropolitan counterparts. Mitchell Institute (2024) research also indicates that more than 30% of the regional population live in a 'childcare desert', compared with just 12% in capital cities. Strengthening education, care and related services should be understood not as a trade-off with productivity, but as a foundational investment - one that underpins productivity growth in market sectors, supports more resilient regional economies, and helps ensure that the benefits of economic growth are shared across all Australians (SAPC 2024a).

Figure 18. School Attainment Rate of Young People (20-24 years), by region, 2021-24



Source: ABS Education and Work November 2025

Recommendation: Strengthening education, care, and other services delivery in regional and remote communities

- Governments should prioritise improved access to and quality of education, care, and essential services in regional and remote communities as a foundation for workforce attraction, labour force participation and human capital and productivity growth.

Improving liveability in regional communities – including infrastructure, digital connectivity, affordable and accessible housing, and essential services – extends beyond social policy and has wide-ranging direct and indirect implications for regional economies. Addressing these factors can strengthen productivity by supporting a more balanced distribution of population growth across regional and metropolitan areas and enabling long-term regional settlement. When people are better able to choose where they live and work, productivity gains arise not only through increased labour supply and skills utilisation, but also through reduced commuting times, stronger community engagement, and improved wellbeing. This underscores the importance of integrating service provision with workforce development and connectivity strategies.



Education systems – from early childhood through schools, vocational education, and universities – build human capital, support skills development aligned to local industry needs and underpin regions' capacity to adopt innovative technologies and innovate over time.



Policy and regulation

Economy-wide policies

Many RAI consultations over recent years have consistently highlighted the inefficiencies associated with assuming transferable conditions across regions, particularly through the implementation of economy-wide policies that are uniformly rolled out across diverse regional contexts.

While standardised policy frameworks may offer administrative simplicity and consistency at the national or state level, they often fail to account for the substantial differences that exist between regions in terms of economic structures, demographic composition, institutional capacity, labour market conditions, infrastructure access, and social characteristics. Such approaches tend to overlook the economic, institutional, and social realities that shape how policy operates on the ground, even though policies interact differently with local conditions and therefore produce uneven outcomes across places.

By not accurately reflecting regional disparities and place-specific dynamics, these approaches risk not only mis-estimating the impacts and effectiveness of policy interventions, but also overlooking opportunities to harness local comparative advantages, existing capabilities, and community knowledge. As a result, centrally designed policies can inadvertently reinforce regional inequalities, constrain innovation, and limit the ability of regions to respond flexibly to local challenges and opportunities.

Recommendation: Supplement economy-wide productivity policies with region-specific actions

- Governments should assess and monitor the regional impacts of economy-wide productivity policies and consider adopting supplementary region-specific actions that respond to local challenges, opportunities, and capacities.

Regulatory costs

Unnecessarily complex and burdensome regulations can reduce productivity by increasing both the cost and time firms must spend on compliance rather than innovation and productivity gains. On a macro scale, International Monetary Fund (IMF) research highlights that excessive regulatory barriers reduce allocative efficiency limiting the ability of economies to allocate labour and capital to their most productive uses (Nan 2024).

Regulatory burdens can also inhibit business growth and scaling potential. These constraints disproportionately impact smaller firms, which are the backbone of regional economies, and which typically have fewer resources available to manage regulatory requirements. Complex approval processes and regulatory uncertainty may discourage both domestic and foreign investment particularly in new or expanding enterprises. IMF research notes that structural reforms addressing regulatory burdens are essential to ending stagnant productivity growth across the globe (Nan 2024).

Recommendation: Reduce the cost of regulation for regional businesses

- Streamline regulations to allow regional businesses to operate more efficiently, reducing the time and cost associated with compliance and enabling firms to allocate resources to productive activities.

Local government capacity

Local government capability is critical to effective engagement with other levels of governments in supporting regional productivity, particularly in relation to performance monitoring, stakeholder coordination, identifying local needs, and planning and delivering projects. However, many regional and remote councils face constraints in financial and administrative capacity, limiting their ability to design and implement productivity-enhancing initiatives. The RAI surveyed 35 local governments across regional Australia to better understand the challenges they face, including changing state legislation, geographical constraints, workforce limitations, revenue-raising capacity, financial sustainability, and population change.

Survey respondents reflected a wide spectrum of circumstances, ranging from councils with relatively strong financial positions seeking greater autonomy to those struggling to maintain core operations and requiring additional support. Nonetheless, a consistent finding across respondents was a high level of dissatisfaction with the current state of local government funding (RAI 2024).

Financial pressures were closely linked to structural constraints within the funding system. Participants reported that rate caps, and the difficulty of securing variations, have limited councils' ability to increase revenue in line with inflation. Cost shifting from the Australian and state governments was also a recurring concern. This occurs, for example, where responsibilities are devolved without commensurate funding, where legislative requirements impose additional compliance costs, or where councils step in to address gaps in essential services within their communities (RAI 2024).



Local governments are established under state and territory legislation, with governance and management residing within those jurisdictions. The Australian Government's primary lever of influence is financial assistance, including Financial Assistance Grants (FA Grants). While all councils rely on FA Grants to some extent, regional, rural and remote councils tend to be more dependent due to their weaker revenue bases.

In addition to FA Grants, local governments rely on multiple funding sources, each with distinct rules, reporting requirements, and timelines. Some grants are tied to specific projects or outcomes and are highly competitive, limiting councils' flexibility to respond to local priorities. Smaller councils and remote communities are often disadvantaged under these competitive, project-based funding models due to capacity constraints.

Taken together, these trends raise broader questions about the financial sustainability of local government (RAI 2024). In this context, the House of Representatives Standing Committee on Regional Development, Infrastructure and Transport has commenced the Inquiry into Local Government Funding and Fiscal Sustainability, which remains ongoing as of July 2026.

Beyond funding, councils also face broader institutional and operational challenges. Survey respondents reported that managing legislative and planning relationships with state governments can be complex, particularly in relation to environmental regulations such as biodiversity offsets and waste levies. Local governments also face barriers in accessing and using data to inform planning and investment decisions. These challenges are further compounded by political and departmental changes, which can undermine long-term planning and funding certainty (RAI 2024).

Workforce shortages represent an additional critical constraint on local government capability. Councils reported significant difficulty attracting and retaining skilled workers, particularly in essential service occupations. These challenges reflect both financial limitations and structural disadvantages relative to metropolitan areas, including constraints in offering competitive remuneration and broader liveability pressures (RAI 2024).

Accordingly, efforts to build local government capacity should be more closely linked to broader workforce attraction and retention strategies, ensuring regions not only have funding and frameworks in place, but also the skilled workforce needed to deliver on productivity outcomes.

Recommendation: Strengthen funding and build capacity of regional local governments to support place-based productivity investments

- Strengthen long-term, flexible funding arrangements and revenue-raising capacity of regional local governments, alongside workforce, planning and data capabilities, to enable effective planning, coordination and investment in region-specific productivity-enhancing initiatives.



Regulatory burdens can also inhibit business growth and scaling potential. These constraints disproportionately impact smaller firms, which are the backbone of regional economies.



Cross boundary challenges

In many parts of Australia, functional economic regions extend across state or local government administrative borders, sharing labour markets, infrastructure assets, and service systems. Productivity growth cannot be effectively addressed at national, state, or local government levels alone; it is best understood and acted upon at the regional scale.

Recognising regions that cross state borders as shared economic systems is important when designing place-based productivity responses (e.g. Albury-Wodonga, Echuca-Moama, Mildura-Wentworth, Tweed Heads-Coolangatta). Familiar challenges for these regions include duplicated licensing and compliance requirements, non-portable workforce credentials, inconsistent payroll tax thresholds, separate infrastructure planning processes, and limited digital interoperability between government systems. These frictions increase operating costs, delay projects, and reduce workforce flexibility, particularly for small and medium sized enterprises and essential service providers. Addressing these barriers represents a practical opportunity to lift regional productivity through better alignment of existing systems, without requiring major new investment. (See Spotlight: Productivity Issues in Cross Border Regions)

Beyond regions that span state borders, productivity challenges in rural and remote Australia often extend across local government boundaries, reflecting the spatial scale of labour markets, supply chains, infrastructure networks, and service catchments. Economic activity in these areas is rarely confined to a single local government area; instead, firms and workers operate within functional regions that cut across administrative boundaries. Addressing productivity challenges therefore requires collaborative governance arrangements that support coordination across local governments, align national, state, and regional priorities, and enable integrated investment in infrastructure, skills, and industry development at an appropriate functional scale.

Recommendation: Strengthen coordinated planning and co-investment in cross-boundary regions

- Coordinate planning and investment in cross border infrastructure, particularly freight corridors, intermodal hubs, health access routes and telecommunications networks, and improve regulatory alignment and digital interoperability between jurisdictions to support better workforce mobility and service delivery.
- Support collaboration across local governments to develop and implement region-wide strategies for infrastructure, workforce development and economic growth, building on models such as NSW Joint Organisations and other cross-LGA regional partnerships.

Discussion

The table below summarises key factors affecting regional performance and associated policy directions. Rather than adopting a one-size-fits-all approach, it provides a structured framework to guide place-based analysis of regional productivity, whereby these factors need to be analysed and interpreted within local and regional contexts.

Productivity challenges in rural and remote Australia often extend across state and local government boundaries, reflecting the spatial scale of labour markets, supply chains, infrastructure networks, and service catchments.

Table 5. *Summary Table for Factors Affecting Regional Productivity and Policy Directions*

Factor	Mechanism	Key Regional Constraints	Policy Directions
Environmental conditions	Directly shapes output, labour performance and capital effectiveness, especially in agriculture and resource sectors	Exposure to climate variability and extreme weather; lower disaster resilience in regional areas	Invest in climate adaptation, water security, resilient infrastructure, and transition pathways
Access to land and natural resources	Enables scale economies and global competitiveness in agriculture, mining and energy	Resource dependence, market volatility, and boom-bust cycles	Balance specialisation with diversification; invest in value-adding and resource management
Distance and isolation	Increases transaction, transport and input costs; limits agglomeration and service access	Thin markets, weak service access, limited labour pools, and reduced knowledge exchange	Improve transport and digital connectivity to reduce 'distance penalty'
Population size and structure	Larger, younger, and skilled populations support agglomeration, innovation, and labour market depth	Small populations limit scale; ageing reduces labour supply and adoption of innovation	Support population growth in regional cities
Skilled migration	Fills persistent skills gaps; supports business expansion and innovation	Low share of migrants settling in regions; persistent shortages in key occupations	Strengthen regional migration pathways and incentives for settlement
Industry structure	Determines productivity levels through scale, capital intensity and exposure to innovation	Over-specialisation in resource sectors; limited diversification; dominance of low-productivity sectors	Build on comparative advantage while promoting diversification and new industries
Labour and skills	Productivity depends on participation, skills matching, and labour mobility	Skills shortages, mismatch, low participation among vulnerable groups, and labour mobility barriers	Strengthen skills pipelines, improve mobility (e.g. licensing reform), and expand inclusive workforce pathways
Knowledge infrastructure and innovation ecosystems	Drives productivity through technology adoption, knowledge diffusion, and R&D	Smaller innovation ecosystems, few research institutions, and lower R&D capacity	Build regional innovation ecosystems, strengthen industry-university links, and expand R&D investment
Access to finance and business innovation	Enables investment, scaling and innovation activity	Heavy reliance on bank finance; limited venture capital and early-stage funding	Expand patient capital, co-investment models, and innovation capability support
Market competition	Encourages efficiency, innovation, and resource reallocation to productive firms	High concentration, thin markets, and limited entry	Strengthen competition policy, improve market transparency, and support new entrants
Physical infrastructure	Reduces costs, strengthens supply chain, expands markets, and supports labour mobility	Infrastructure gaps, poor connectivity, and uneven access across regions	Targeted, place-based infrastructure investment aligned to regional needs
Digital connectivity	Enables 'virtual agglomeration' and provides access to services, markets, and innovation	Digital Connectivity gaps, affordability issues, and lower digital capability, especially in remote areas	State digital strategy for regions; invest in access, capability and adoption
Housing supply	Facilitates labour mobility, population growth, and job matching	Housing shortages constrain workforce attraction and mobility	Incorporate regional targets for housing within state targets; invest in key worker housing and enabling infrastructure
Education, care and other services	Builds human capital, and supports participation and liveability	Limited access/quality in regional areas; childcare deserts; lower educational attainment	Improve service access; treat social infrastructure as productivity-enabling investment
Policy and regulation	Shapes incentives, costs, and business operating environment	One-size-fits-all policies, regulatory burden, and weak regional targeting	Tailor policies to place; reduce compliance costs; integrate regional impacts
Local government capacity	Enables coordination, planning, and delivery of productivity initiatives	Limited funding, short-term grants, and fragmented planning capacity	Strengthen long-term funding and institutional capacity of local governments
Cross-boundary issues	Affects labour mobility, supply chains, and infrastructure efficiency	Regulatory misalignment, non-portable licenses, duplicated systems, and poor coordination	Improve cross-border alignment, shared planning, and digital interoperability



Productivity barriers and enablers are not evenly distributed. They are spatially concentrated and deeply rooted in local economic structures, institutions, and capabilities. Persistent productivity gaps are driven by social regional disparities, with regions outside the metro areas facing entrenched deficiencies in skills alignment, business dynamism, innovation ecosystems, and infrastructure. While different regions are affected by these issues to a greater or lesser degree, they have different resources, capacities, constraints, and priorities and thus require (and have already designed) different solutions. This is why national, one-size-fits-all productivity reforms are insufficient: place-based policies are crucial to solving productivity challenges, which examine these challenges and opportunities from a local and regional perspective, understanding how they unfold in specific places (British Academy 2016).

Likewise, different regions require different policy levers: in some cases, this involves strengthening foundational skills and innovation systems, while in others it requires overcoming geographic isolation. Place-based policies allow governments to respond directly to these distinctive barriers rather than treating national averages as representative (Westpac 2025). While this chapter has outlined a suite of recommendations, these should not be interpreted as uniformly applicable across all regions. Rather, they are intended to highlight key enablers of regional productivity. Effective implementation requires these general principles to be adapted and applied through genuinely place-based approaches that reflect the unique characteristics, constraints, and opportunities of each region.

Furthermore, improvements in technology and infrastructure, upskilling of workers and managers, and increasing innovation capacity all depend heavily on the strength of local institutions, such as links between universities, innovative workers and firms, and councils (South Australia Productivity Commission 2023b). Local institutions are also best placed to understand and respond to the issues that directly affect their communities. A place-based policy must acknowledge and leverage these strengths.

Coordination amongst different levels of government is necessary to create integrated, well-sequenced productivity strategies and to manage trade-offs between different regional priorities (South Australia Productivity Commission 2023b). The issues outlined above – environment, population, industry, labour and skills, infrastructure, and liveability – are inherently interdependent. For example, regions cannot solve workforce or productivity challenges without addressing population distribution and liveability factors. A more balanced national settlement pattern enables government and industry to plan infrastructure, housing, and services more efficiently, reducing bottlenecks and creating conditions for sustainable growth. This, in turn, facilitates resilience by diversifying regional age profiles and strengthening the working age population pipeline. For productivity-focussed policies to be effective, governance structures must coordinate investments across sectors, particularly transport, housing, skills, and innovation – all of which are inherently spatial.

The next chapter examines the current national and state productivity policy agenda, highlighting that while economy-wide and sector-wide policies are necessary and important, place-based policymaking is even more critical.



Coordination amongst different levels of government is necessary to create integrated, well-sequenced productivity strategies and to manage trade-offs between different regional priorities.

Spotlight: Understanding Regional Businesses Innovation

The ABS regularly releases a data series called Innovation in Australian Business. This is an important national dataset providing detailed breakdowns of survey responses by location, industry, size, and innovation activity. This survey provides much needed data on the differences in innovation practice between Australia's capital cities and regions.

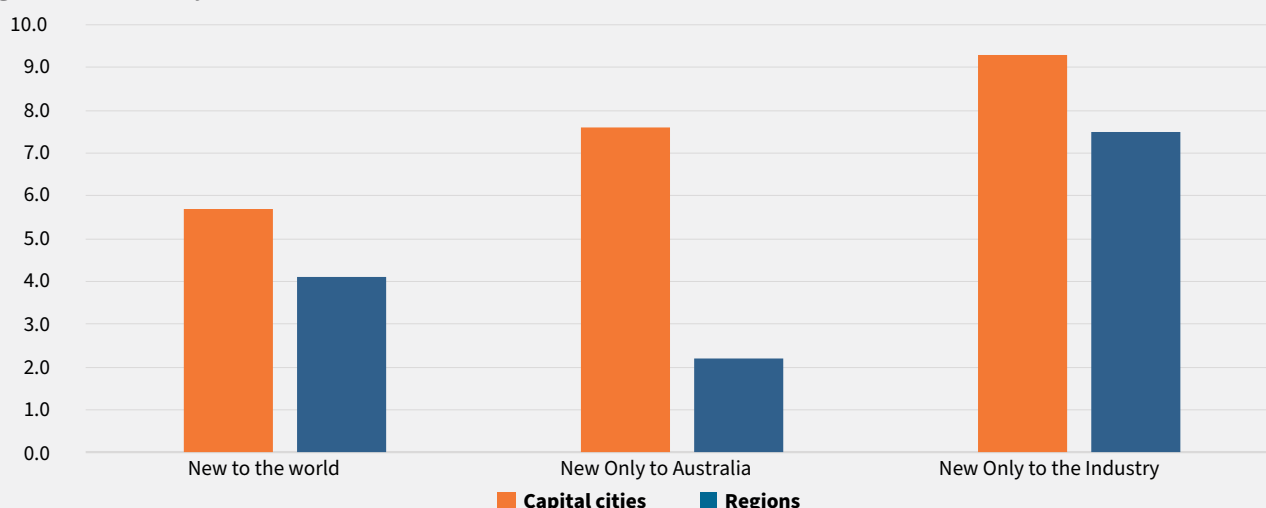
The most recent release (June 2024) shows 46% of survey respondents reported being inactive, with innovation rates lower in regional areas. This gap in innovation activity between regions and capital cities extends to the novelty of innovation with regional businesses more commonly adopting existing innovations rather than pioneering – particularly evident for innovations originating from overseas, which are typically introduced to the Australian economy through capital cities before diffusing in regional areas.

Regional businesses reported lower rates of innovation that were:

- 'New to the world.'
- 'New only to Australia but not the world.'
- 'New to the industry, but not Australia or the world.'

However, this gap was noticeably smaller in innovations 'new to the world' and innovations 'new to the industry', suggesting regional firms can still play a significant role in developing novel inventions and learning from other industries. Foreign innovations coming to Australia for the first time appear to channel through capital cities first, before being adopted by the regions.

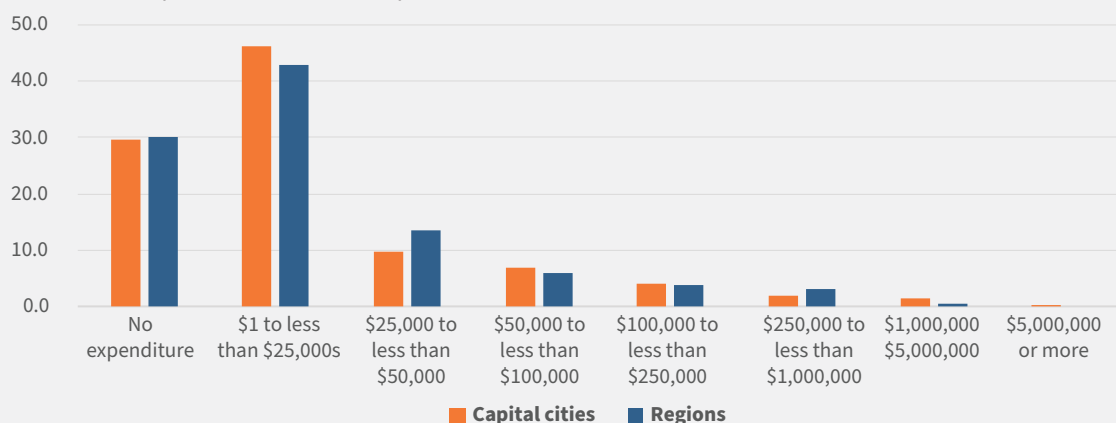
Figure 19. *Novelty of Innovation, Innovation in Australian Business, 2022-23*



Source: ABS Innovation in Australian Business (June 2024)

Across both capital cities and regions, three quarters of businesses spent less than \$25,000 on innovation and less than one in 10 businesses spent more than \$100,000. Although capital cities have a higher proportion of businesses with innovation expenditure exceeding \$1 million, these businesses make up less than 2%.

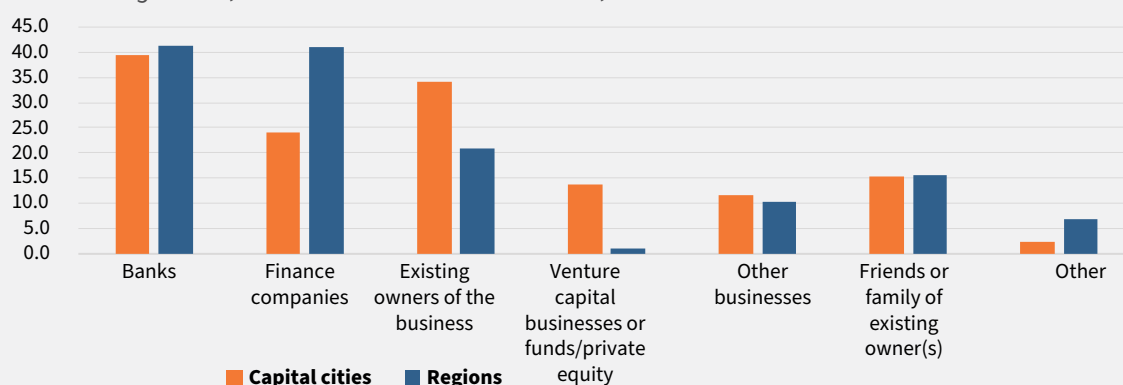
Figure 20. *Amount Spent on Innovation Expenditure, Innovation in Australian Business, 2022-23*



Source: ABS Innovation in Australian Business (June 2024)

There is a significant difference in innovation funding sources between Australia's capital cities and regions. Regional businesses had a much greater reliance upon formal financial institutions, such as banks, with 82.2% of businesses choosing to use them. There is a notable gap in private finance – the use of business owner's funds and venture capital: in capital cities this accounts for funding almost half of innovations (47.8%), compared to just over one-fifth (21.9%) in the regions.

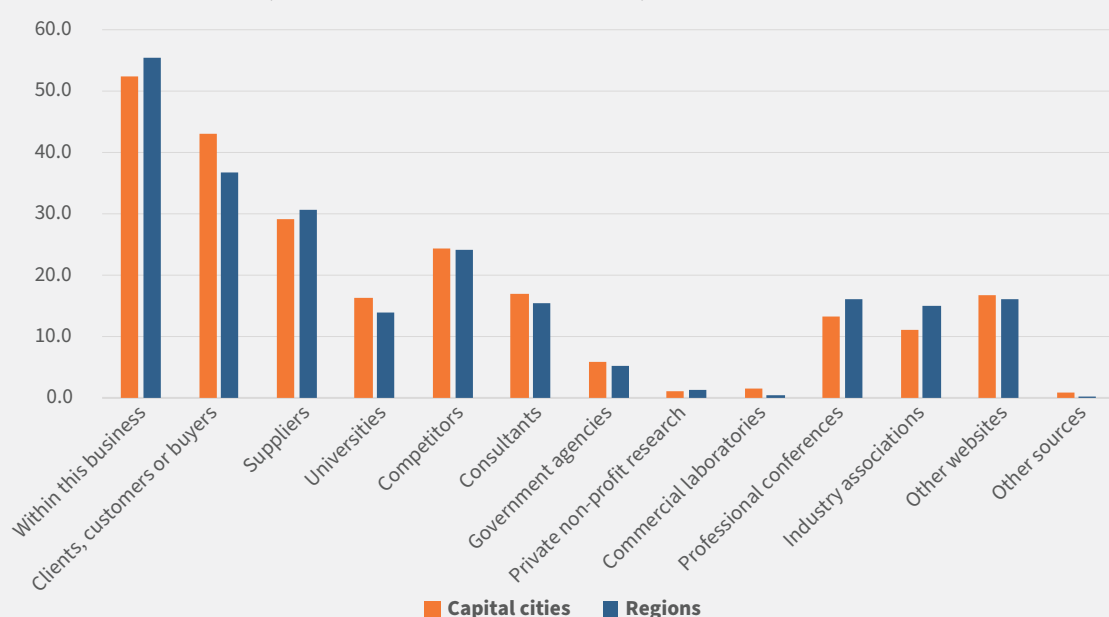
Figure 21. *Funding Source, Innovation in Australian Business, 2022-23*



Source: ABS Innovation in Australian Business (June 2024)

There were only minimal differences between the capital cities and the regions regarding the original idea source for the innovation. Sources came primarily from: internal ideas, clients, suppliers, and competitors. Professional conferences and industry associations were another important source of ideas, particularly for regional businesses: with 31.1% of respondents in regions compared to 24.4% in capital cities citing them as an important source of idea generation. This highlights the outsized impact of these activities in regional areas, and the importance of connecting industry professionals and forming communities of practice in regional and remote areas. Academia (including publications and conferences) and government were reported as providing comparatively little innovation inspiration. This highlights the importance of word-of-mouth, informal networks, and professional communities of practice in the innovation process.

Figure 22. *Source of Innovation, Innovation in Australian Business, 2022-23*

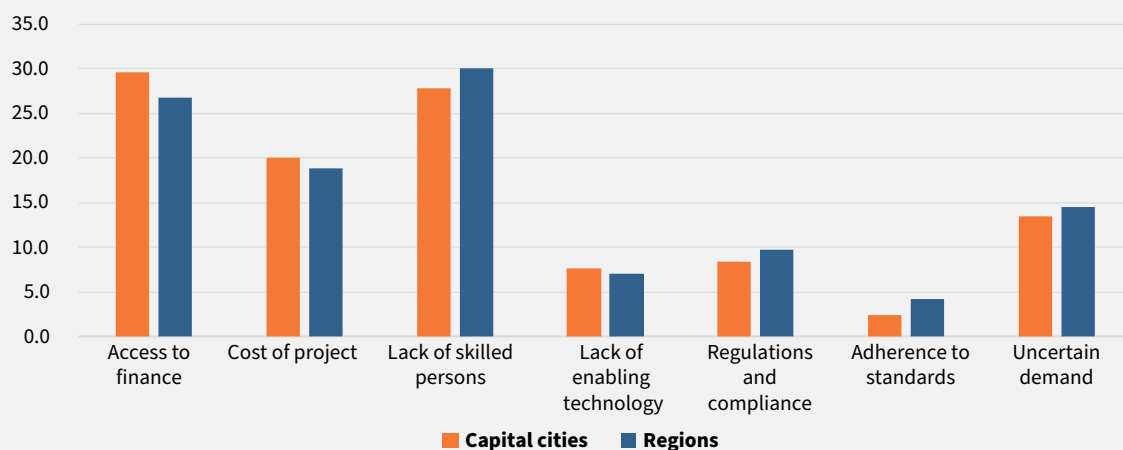


Source: ABS Innovation in Australian Business (June 2024)

In terms of barriers, this can be broken down into two components: developing the original idea and the subsequent commercialisation into the market. Whilst still developing the innovation, regional businesses reported facing greater barriers, particularly regarding a lack of skilled persons and navigating compliance standards.

For regional businesses, the greater barriers were a lack of skilled persons (30.0% of businesses reporting difficulty), access to finance (26.7%), cost of the project (18.8%) and uncertain demand for the final product or process (14.5%).

Figure 23. *Barriers to Innovation, Innovation in Australian Business, 2022-23*

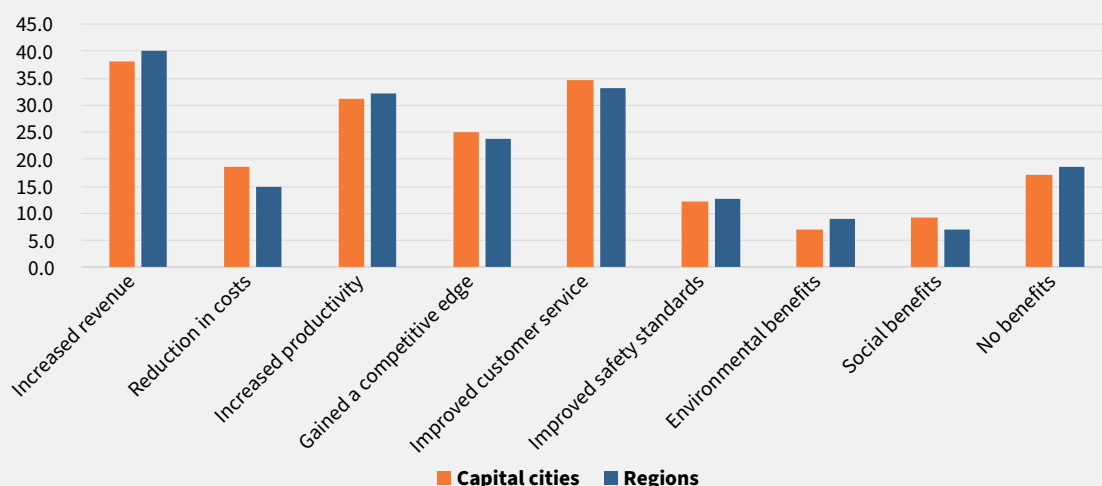


Source: ABS Innovation in Australian Business (June 2024)

In terms of commercialising a developed innovation, regional businesses reported facing comparatively fewer barriers than businesses in capital cities. The single largest barrier, as large as the other barriers put together, was access to finance. 23.9% of regional businesses reported access to finance as the greatest barrier, followed by lack of skilled persons (8.0%), lack of knowledge (7.9%), and regulations and compliance (6.9%).

Once the innovation had been developed and commercialised, regional businesses reported similar rates of achieved outcomes compared to businesses in capital cities, with only marginal differences in the type of benefit that eventuated. Compared to cities, regional businesses more frequently experienced: environmental benefits (two percentage point difference), increased revenue (1.9 percentage point difference), increased productivity (0.9 percentage point difference), improved safety standards (0.5 percentage point difference).

Figure 24. *Realised Benefits of Innovation, Innovation in Australian Business, 2022-23*



Source: Australian Bureau of Statistics Innovation in Australian Business (June 2024)

Conclusion

In summary, regional businesses exhibit lower overall innovation activity than those in capital cities, and a greater tendency to adopt existing technologies rather than develop new ones. Structural constraints shape these patterns: regional businesses rely more heavily on bank finance and face greater barriers during the development phase of innovation, particularly skills shortages, access to finance and regulatory complexity. However, once innovations are implemented, regional firms achieve outcomes comparable to, and in some cases better than, metropolitan firms, including productivity, revenue, and environmental benefits – highlighting that the key constraint on regional innovation lies less in capability and more in ecosystem conditions.

Spotlight: Digital Technology, Inclusion and Regional Productivity

Digital technology and productivity

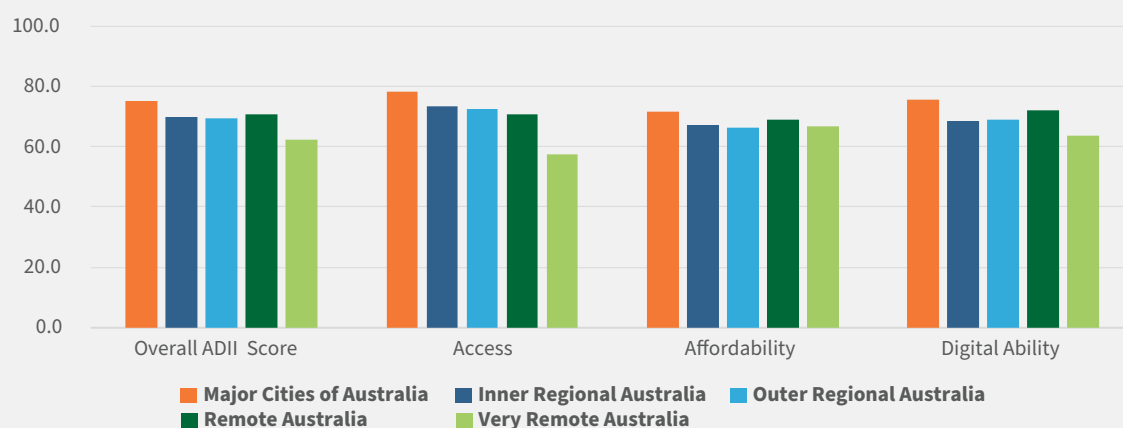
Digital technology is a cross-cutting, enabling input reshaping productivity across the economy, including agriculture, mining, tourism, care, services, government, and knowledge industries (Fulgenzi 2024). Automation, decision-support systems, and data-driven tools can reduce business production costs, raise output per worker, and improve product quality and consumer choice (Productivity Commission 2022a). For example, the Bureau of Communications, Arts and Regional Research (BCARR) estimates that broadband supported technologies could provide additional productivity benefits to Australia's agricultural sector – increasing economic activity in the sector to be between 4.7% and 16.9% higher in 2030 than would otherwise be the case without ubiquitous high-speed broadband (BCARR 2021).

Globally, digital technology and data are increasingly recognised as a factor of production – alongside land, labour, and capital – that are central to international competitiveness (Diebold 2023). In rural and remote contexts, the productivity impact is amplified as digital technology partially substitutes for scale, proximity, and density that many remote communities often lack in traditional brick-and-mortar businesses (Panori 2025). Through reducing the constraints of distance, digital infrastructure enables local access to markets, services, knowledge, and employment opportunities that would otherwise be only available at metropolitan areas or more densely populated regional centres (World Economic Forum 2025). It replaces the traditional economic agglomeration model based on geographical nearness with 'virtual agglomeration,' allowing metropolitan and regional market participants to achieve proximity and economies of scale in digital space (Zhang 2025). Emerging technologies such as generative AI and data-hungry streaming services are creating even more opportunities, as well as challenges, for regional and rural areas (Austrade 2025).

Barriers to digital inclusion in regional communities

Yet Infrastructure Australia reports that almost half of Australia's regions face broadband and mobile connectivity infrastructure gaps, failing to meet user, business, and industry needs (Infrastructure Australia 2022). The Australian Digital Inclusion Index 2025 shows that a clear gap persists between major cities and regional and remote areas in overall levels of digital inclusion. Whilst this gap is clear across all nonmetropolitan areas, it is most pronounced in very remote Australia, where digital inclusion outcomes are lower than in metropolitan areas (index scores of 62.5 vs. 75.1). Alongside differences in access and affordability, significant gaps in digital ability also remain, increasingly constraining effective digital participation – particularly in very remote communities. These digital gaps have wide-ranging impacts, contributing to social exclusion in rural and remote communities and economic and productivity losses arising from limited access to health and education, inefficient government service delivery, and unreliable emergency communications (Productivity Commission 2022b).

Figure 25. Overall Australian Digital Inclusion Index (ADII) 2025 scores and dimensions, by remoteness



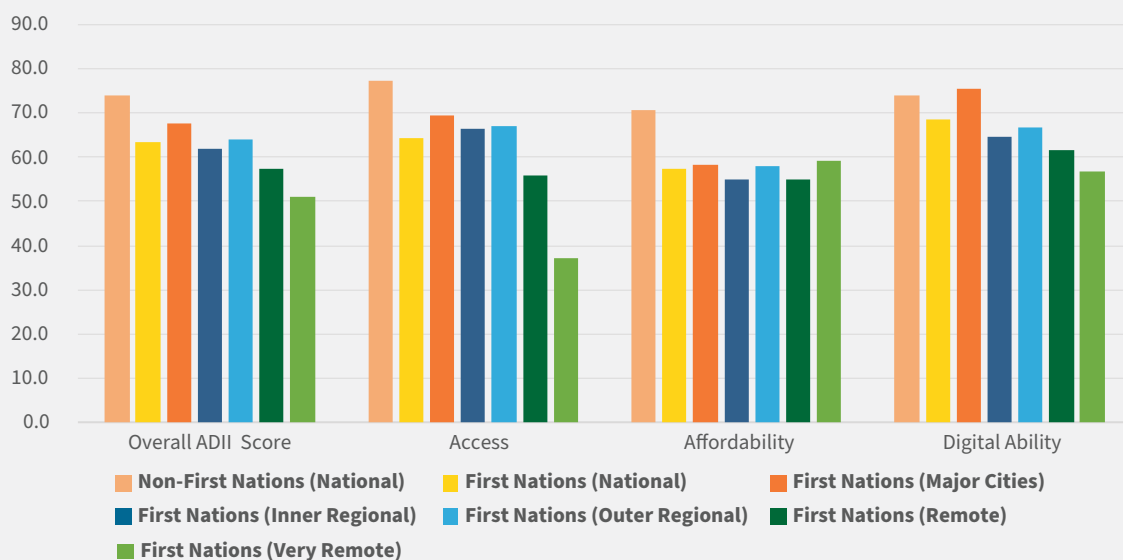
Source: ADII 2025

Persistent digital disparities are also present amongst a variety of demographic groups, including differences by age, gender, culture, education, employment status, and income level, which has been professionally researched by BCARR's Digital Exclusion in Australia report.

Barriers to digital inclusion in regional First Nations communities

One of the most pronounced disparities occurs between First Nations and non-First Nations Australians. These gaps widen with increasing remoteness, particularly in relation to access – with First Nations Australians living in very remote areas recording an access score of 37.3, compared with the national non-First Nations score of 77.2.

Figure 26. *Figure 25 Overall ADII scores and dimensions, by Indigenous status*



Source: ADII 2025

The Mapping the Digital Gap 2025 Outcomes Report shows First Nations people are highly digitally engaged, with 89% using the internet constantly or daily (compared with 95% of non-First Nations Australians) – but they experience digital exclusion at twice the rate of other Australians (41% compared with 20%). This reflects persistent socio-economic barriers that limit access to quality, affordable and reliable connectivity and devices, alongside insufficient support to build digital skills and confidence (Featherstone et al 2025).

Limited and unreliable connectivity, often characterised by mobile only access, low fixed broadband uptake, constrained access to computers, and congested, slow, or unstable services, remains the largest contributor to the digital inclusion gap for First Nations people, particularly in remote and very remote communities. These access challenges are reinforced by significant affordability pressures, with widespread reliance on costly prepaid mobile services and households often cutting back on essentials to stay connected. Innovative technologies such as Starlink have improved connectivity for some agencies and higher income households but excessive costs keep them out of reach for most households, furthering the digital divide within communities.

While digital ability has improved alongside increased online engagement, persistent gaps in skills, confidence and cybersafe awareness remain, especially for elders, people with disability, non-English primary language speakers, and those with lower educational attainment. There is a shortage of sustained, place based digital support, leaving community organisations to shoulder much of the burden of assisting residents to access online services (Featherstone 2025).

These barriers, infrastructure and market failures, skills and capacity limitations, and institutional and policy constraints, not only restrict First Nations people's digital participation but are also factors that constrain digital participation across regional and remote communities more broadly.

Impacts of digital exclusion

Digital exclusion is intricately linked to broader socioeconomic factors, including low household incomes, excessive cost of living, overcrowded and substandard housing, lower educational attainment, language barriers, and disability (Featherstone 2025). These factors shape not only whether people living in regional and remote communities can connect, but how effectively they can use digital technologies. At the same time, low levels of digital inclusion constrain access to essential services that are increasingly delivered online, including government services, banking, health, and education. It can restrict participation in online learning and skills development, reduce access to labour market opportunities, and increase dependence on intermediaries or under resourced community organisations for basic administrative tasks.



Digital exclusion also limits opportunities to support social and cultural connections online and access trusted information and media. This two-way relationship highlights that digital exclusion is both a symptom and a driver of socio-economic disadvantages. It also underscores the importance of digital inclusion as a foundational enabler of regional Australians' social, economic, cultural, and emotional outcomes, with broader implications for productivity and wellbeing in remote and very remote communities.

Importance of digital technology to regional businesses

Telecommunications and digital technology are critical to businesses across regional Australia, helping engagement with domestic and global markets, access essential online resources, improve operational efficiency, and grow their customer base (Australian Government 2024). The technological advancement of digital information and communication technologies has transformed entire industries.

However, despite their potential to deliver substantial productivity gains, emerging technologies such as AI, the internet of things (IoT), robotic automation and big data analytics are still underused in Australia (Productivity Commission 2023). The 2024 Business Technology Report finds Australian businesses lag their Asia Pacific counterparts in AI adoption and the development of digital strategies. Only 22% of Australian businesses have adopted AI to a moderate to significant extent, and 53% have a digital strategy, compared with 41% and 69%, respectively, among businesses based outside of Australia (CPA Australia 2024). Productivity Commission (2022) notes that major barriers to technology and data adoption for businesses include inadequate internet access, legacy systems, excessive costs, skills shortages, limited awareness and uncertainty about benefits and risks. The Reserve Bank of Australia also finds that cyber security risks and the loss of human interactions and connection are commonly cited concerns in Australia which restraints the adoption of AI (Fernando, McLoughlin & Ratnayake 2025).

These challenges are particularly pronounced for small or medium sized businesses (SMBs), which underpin regional and rural economies (SGS Economics and Planning 2021). A recent report published by Deloitte Access Economy (2025) finds that while two thirds of SMBs are using AI solutions in their business, many of them have only a basic to intermediate level of AI adoption. The research further estimates that an improvement in AI adoption among just one in ten SMBs in the basic and intermediate tiers – sufficient to realise a boost to their margins – could generate an economic uplift of approximately \$44 billion.

Digital technology opportunities in regional Australia

The Productivity Commission's 5-year Productivity Inquiry (2023) calls for faster, more reliable internet to boost productivity and increase social inclusion in regional, rural, and remote communities across Australia. Similarly, the 2024 Regional Telecommunications Review, prepared by the Regional Telecommunications Independent Review Committee, also stresses the importance of ensuring all regional Australians can fully participate in the digital economy. The Australian Government has launched a Better Connectivity Plan for Regional and Rural Australia, which includes \$656 million committed over five years in the 2022–23 October Budget to boost mobile and broadband connectivity and network resilience in rural and regional Australia. Beyond upgrading broadband and mobile networks, boosting affordability, and expanding connectivity literacy, the 2024 Regional Telecommunications Review suggests that the Australian Government:

- Create a connectivity strategy for regional, rural, and remote areas.
- Establish a permanent Regional Telecommunications Commissioner or Advisory Panel.
- Build a national telecommunications data platform.
- Continue support for the First Nations Digital Inclusion Advisory Group.

The recommendations outlined in the Review present an opportunity to shift from fragmented, program-based responses towards a more strategic, targeted, and data-driven approach. This is particularly important for remote communities, where improved connectivity can deliver substantial economic and social benefits – including increased workforce participation, improved access to services, and strengthened regional resilience – even where projects may not meet traditional economic thresholds but generate strong community outcomes. In its 2025 response, the Australian government welcomed the Review, detailed current initiatives and stated that the fourteen recommendations are being used to inform policies and programs to improve connectivity in rural, remote and regional areas.

A greater focus on growing opportunities for regions to participate in Australia's existing and emerging digital industries is warranted. The Geography of Australia's Digital Industries report, published by the Commonwealth Scientific and Industrial Research Organisation (CSIRO), identifies 36 regional niche digital technology industry clusters outside capital cities, including locations in Gold Coast (Qld), Sunshine Coast (Qld), Wollongong (NSW), Newcastle (NSW), and regional Victoria. Each of these regional clusters has meaningful specialisation



in particular digital occupations such as software development, ICT support and graphic design. Although capital city clusters dominate overall digital employment growth, the report shows regional Australia can host specialised, competitive digital activity.

Another opportunity comes from the dramatic growth in demand for data centres driven by the rapid uptake of AI across the world. Sydney and Melbourne account for 90% of Australia's built data centre capacity, and their total capacity is expected to double within the next decade (CBRE 2024). Yet this expansion of data centres in metropolitan areas is placing significant strain on land, water, and energy – intensifying competition for essential resources with other residential and commercial development. In this situation and noting that limited access to water is also a key challenge for many regions, regional Australia appears as a compelling alternative location for investments with abundant land and renewable energy capacity (Carillo 2025). This is particularly relevant as Australia aims to become Asia-Pacific's hub for green data centres, using synergies between data centre development and renewable energy. These linkages were emphasised in the Australian Government's Expectations of Data Centres and AI Infrastructure Developers, released in March 2026.

Policy considerations should re-examine the role of regional Australia in shaping the next digital wave, recognising regions not merely as recipients of improved connectivity, but as strategic locations for digital infrastructure, innovation, and energy-intensive digital activity.

Conclusion

Digital technology is an increasingly important driver of productivity across Australia's economy and offers particularly strong potential benefits for regional, rural, and remote areas. However, persistent gaps in digital access, affordability and capability remain between metropolitan and nonmetropolitan Australia, with the most acute digital exclusion experienced in very remote and First Nations communities. These gaps constrain business innovation, workforce participation, service delivery, and social inclusion, reinforcing broader socioeconomic disadvantage and limiting productivity growth. At the same time, the emergence of AI and data driven industries presents new opportunities for regional Australia. Realising this potential will require not only continued investment in regional connectivity and digital inclusion, but also a shift in policy perspective that recognises regions as strategic locations for digital infrastructure, innovation ecosystems, and energy intensive digital industries.





Spotlight: Productivity Issues in Cross Border Regions

Several of Australia's regional economies work across state and territory borders. These cross-border regions make a significant contribution to national productivity, particularly in agriculture, health, logistics, manufacturing, and tourism. Cross border regions also give clear examples of how structural barriers can influence productivity.

Productivity outcomes in these areas are often constrained not by local capability or scale, but by interjurisdictional differences in regulation, infrastructure planning, workforce rules, and service delivery systems. Where labour markets, supply chains and service catchments work seamlessly across borders, inconsistent policy settings can impose avoidable costs, reduce labour mobility, and delay investment.

In cross border regions, workers regularly live in one jurisdiction and work or train in another, particularly in health, education, construction, agriculture, and transport. Productivity growth in these shared labour markets is constrained when qualification recognition, skills accreditation, training access, and workforce incentives are not portable across borders.

Transport, energy and digital infrastructure often serve shared catchments but is planned, funded, and prioritised separately by jurisdictions. This can result in gaps at borders, under investment in connecting links, and limited network redundancy.

Digital fragmentation is also most visible in cross border communities, where residents and businesses rely on services delivered by more than one jurisdiction. Limited interoperability between state and national digital systems can result in duplicated data entry, inconsistent records, and slower service responses.

In addition, regional productivity measurement is often constrained by administrative boundaries that do not reflect functional economic regions. As economic activity, labour supply, and service use are split across jurisdictions, this can lead to partial or misleading productivity indicators in cross border areas.

Addressing these productivity constraints in cross border regions through improved policy alignment, infrastructure coordination and system interoperability is an opportunity to lift regional and national productivity.

Through their feedback to this report, the Victorian Cross Border Commission further suggests that

- Improving alignment between jurisdictions would support better job matching, increase workforce participation, and allow skills to be used more efficiently, particularly in regions experiencing persistent shortages.
- Coordinated planning and co-investment in cross border infrastructure, particularly freight corridors, intermodal hubs, health access routes and telecommunications networks, can deliver productivity benefits that exceed those achieved through isolated investments within a single jurisdiction.
- Improving digital interoperability across jurisdictions would support productivity by reducing administrative burden, enabling workforce mobility, and improving the efficiency of service delivery in health, education, and emergency services, particularly in border regions.
- Future improvements to regional productivity measurement would receive help from approaches that better reflect shared labour markets and cross border economic interactions, supporting accurate analysis and more targeted policy responses.

Addressing productivity constraints in cross border regions through improved policy alignment, infrastructure coordination and system interoperability is an opportunity to lift regional and national productivity.





4. REGIONAL PRODUCTIVITY POLICY IN AUSTRALIA

Background

Major economic reform programs in Australia since the 1980s have historically been established in response to declining productivity or economic performance. They have adopted national economy-wide approaches to increasing market competitiveness. Deliberate place-based approaches have not been a design feature of these programs to date.

The 1980s economic reforms were designed to shift from a protected, highly regulated economy into an open, market-oriented system through the removal of industry protection, floating the dollar, reductions in tariffs and financial sector deregulation. These reforms are credited with making Australian industries more productive and lifting Australia's economic competitiveness.

Australia's original National Competition Policy reform program commenced in 1995 and is credited with delivering substantial productivity gains in the later part of the 1990s and into the 2000s. The reform areas included: systematic reviews of regulation to remove restrictions on competition, structural reform of public monopolies (e.g. electricity, gas), third-party access to essential infrastructure and extending competition law to government businesses and implementing competitive neutrality to remove undue advantages for government businesses.

A Productivity Commission review of the National Competition Policy found it to be a 'highly innovative' national economic reform program with the following success factors:

- Recognition by all governments of the need for reform.
- Broad agreement on priority areas.
- A solid conceptual base and information base to guide policy decisions.
- Highly effective procedural and institutional mechanisms to implement reform.
- Flexibility in reform implementation and progress monitoring by jurisdiction.

The program was underpinned by reward payments to the states and territories for implementing reforms.

In response to concerns about productivity performance in the 2010s, the 'Harper' Competition Policy Review, chaired by Professor Ian Harper, was established and reported in 2015. It identified reforms to competition law to increase competition, competition policy to extend competition into a range of sectors of the economy including health care and infrastructure, and competition governance by streamlining regulatory institutions.

Around the same time, the Productivity Commission was tasked with providing five-yearly productivity inquiries and reporting to the Australian Government. The first of these reviews, *Shifting the Dial*, was released in 2017 and the second: *Keys to Growth* in 2023. The reports adopt an economy-wide

and systems-focussed approach to lifting productivity and do not include a place-based productivity agenda.

Current Productivity Agenda

Lifting productivity is critical to growth in real wages, incomes, jobs, and overall living standards. It needs to be done in a sustainable and inclusive way to ensure all Australians can benefit.

-Commonwealth of Australia, Economic Reform Roundtable, 2025

In response to the slowing productivity growth, the Australian Government convened an economic roundtable in 2025 and has revitalised the National Competition Policy establishing a 10-year agenda supported by a National Productivity Fund. Key reforms include commercial planning and zoning, occupational licensing, construction methods, heavy vehicle productivity, non-compete clauses, health practitioner scope of practice, and right-to-repair. The agenda also places a strong emphasis on skills, including fee-free TAFE and apprenticeship incentives. Complementing these reforms, the Productivity Commission has undertaken a series of major inquiries examining the structural drivers of productivity performance across the Australian economy.

Across Australia's jurisdictions, governments are pursuing productivity reform through a variety of institutional models. Some states operate dedicated Productivity Commissions (NSW, SA, QLD, WA establishing), others embed productivity functions in economic growth and regulation units (VIC), or in strategic frameworks (ACT) and fiscal efficiency programs (TAS). Despite differences in institutional arrangements, most state and territory reforms focus on several common cross-cutting or sector-based policy areas:

- Regulation reform to streamline approvals, reduce red tape, and modernise compliance systems.
- Skills and workforce development.
- Support for innovation ecosystems, including research, commercialisation, or technology adoption.
- Infrastructure investment (both physical and digital).
- Sector-based strategies targeting sectors with competitive advantage.

Place-based funding programs to support regional economic development also exist across Australia's jurisdictions. Examples of programs include Western Australia's Royalties for Regions program, the Australian Government's Regional Precincts and Partnerships Program and New South Wales' Regional Economic Development and Community Investment Program.



The Australian Government

The Productivity Commission (PC) is the Australian Government's independent advisory body on economic, social, and environmental issues, with responsibilities for public inquiries, commissioned research, and performance reporting. In the 2025 report *Growth mindset: how to boost Australia's productivity*, the PC identified several reasons for the productivity slowdown in Australia:

- The rise of the non-market (government-funded) services sector.
- Smaller gains from technology and its diffusion.
- Stalling investment.
- Declining economic vitality and labour mobility.
- Lack of appetite for economic policy reform.
- Other potential causes including reduction in global trade growth and declining returns from education.

Treasury coordinates the national productivity agenda, including the Economic Reform Roundtable. The 2025–26 Budget frames a more dynamic and productive economy through a revitalised National Competition Policy (a 10-year plan underpinned by a \$900m National Productivity Fund). Reforms under the policy include:

- Liberalising and standardising commercial zoning rules and planning requirements.
- Removing barriers to the uptake of modern methods of construction.
- Creating a single national market for goods.
- Creating a single national market for workers by incentivising occupational licensing reforms.
- Delivering heavy vehicle productivity reforms.
- Reforms allowing health practitioners to work to their full scope of practice.
- Extending the right to repair to agricultural machinery.
- Reforming non-compete clauses and other employment restraints.
- Improving labour mobility in human services through a national worker screening check.

This complements existing policies in supporting small businesses and developing skills and workforce such as National Skills Agreement, Fee-Free TAFE Skills Agreement and Key Apprenticeship Program. The policy also acknowledges other factors such as housing, health, transport, and regulation and approvals are important to boosting productivity.

Productivity 5 Pillars Productivity Inquiry

In December 2024, the Treasurer Jim Chalmers tasked the Productivity Commission to conduct five inquiries to consider the changing nature of Australia's economy and identify priority reforms that could improve productivity growth. The inquiries were to focus on each of the five pillars of the Albanese Government's productivity agenda:

- Creating a more dynamic and resilient economy
- Building a skilled and adaptable workforce
- Harnessing data and digital technology
- Delivering quality care more efficiently
- Investing in cheaper, cleaner energy and the net zero transformation.

In December 2025, the Productivity Commission released final reports for each of the five pillars, providing 47 reform recommendations aimed at boosting Australia's long-term GDP and household income. These recommendations included:

- Corporate tax reform: transitioning to a hybrid tax system, with a 5% net cashflow tax to encourage investment.
- A red tape reduction.
- Improving access to high-quality teaching resources and professional development.
- Reducing burdensome occupational entry rules and creating pathways for upskilling and retraining.
- Suggestions for artificial intelligence regulation.
- A proposed framework and funding for preventative health measures.
- Improving service quality and efficiency in the care sector.
- Implement a national technology-neutral policy for reducing emissions in the electricity sector.
- A consistent approach for funding energy infrastructure.
- Faster approvals for renewable energy investment.

If well-implemented, these recommendations should provide a boost to Australia's long-term productivity growth and economic prosperity. To ensure these recommendations benefit all Australians, including the 36% who live outside the metropolitan regions, a regional lens should be cast to account for the specific challenges and opportunities present in Australia's regions. This includes an emphasis on place-based initiatives, facilitating regions to determine their own future and capitalise upon their strengths.



Australia's national industry strategies are also a critical part of the productivity agenda. At the core of current industry strategies is the Future Made in Australia plan, which aims to drive advanced manufacturing in Australia and is backed by \$22.7 billion announced in the 2024-25 Budget. Under this plan, five priority industries are identified as important to Australia's net zero transformation and economic resilience and security:

- Renewable hydrogen
- Critical minerals processing
- Green metals
- Low carbon liquid fuels
- Clean energy manufacturing, including battery and solar panel supply chains.

In addition to value adding to resources, this strategy also underscores the importance of growing innovation, digital and science capability and of investing in people and places, all of which are central to Australia's future productivity growth.

Due to their significant role in clean energy, advanced manufacturing, and defence supply chains, critical minerals are increasingly become a cornerstone of Australia's industry strategies. The Critical Minerals Strategy 2023–2030 sets out the government's vision to grow Australia's critical minerals sector, which can create a lot of employment and economic opportunities. This agenda has been strengthened through the establishment of a Critical Minerals Strategic Reserve, to enhance economic and strategic resilience and maximise the value of Australia's mineral endowment.

The Australian Government launched a Digital Economy Strategy in 2021 (and a 2022 Update) with a vision for Australia to become a top 10 digital economy and society by 2030. This Strategy highlights the need to improve digital infrastructure,

skills, capabilities, and regulations to support Australia's digital growth and modern competitive industry sectors. Such acknowledgement of the role of emerging technologies in productivity growth and economic prosperity has been further expanded in the Government's List of Critical Technologies in the National Interest and Critical Technologies Statement. The critical technologies include:

- Artificial intelligence (AI) technologies.
- Advanced information and communication technologies.
- Advanced manufacturing and materials technologies.
- Autonomous systems, robotics, positioning and timing, and sensing.
- Biotechnology.
- Clean energy generation and storage technologies.
- Quantum technologies.

These priority technologies are backed by several government funding, such as the \$101.2 million announced in the 2023-24 Budget to support businesses to integrate quantum and artificial intelligence technologies into their operations. The critical technologies, as well as the priority industries identified in the Future Made in Australia, are expected to drive transformation across the economy and society.

A key national place-based productivity program is the Regional Precincts and Partnerships Program, a \$400 million initiative from 2023-24 to 2026-27 supporting transformative regional, rural, and remote infrastructure projects. The Program Objectives for Stream Two are to facilitate place-based approaches to precinct planning and delivery, including providing benefits related to 'productivity, equity, and resilience for regional, rural and remote areas across Australia, comprised of multiple infrastructure components.



Lifting productivity is critical to growth in real wages, incomes, jobs, and overall living standards. It needs to be done in a sustainable and inclusive way to ensure all Australians can benefit.



States and Territories

New South Wales (NSW)

The NSW Productivity and Equality Commission operates as a dedicated state body tasked with boosting productivity growth in both the private and public sectors across NSW. The Commission takes productivity growth as the key driver of long-term growth improvement in living standards (e.g. increased real wages, better and more affordable goods and services, and increased leisure time). Beyond productivity and economic benefits, the Commission also pays attention to the equity of policies and reforms and how costs and benefits are distributed across the community.

The Commission has published a series of reports on productivity reform: Kickstarting the Productivity Conversation (2019), Continuing the Productivity Conversation Green Paper (2020), and Productivity Commission White Paper (2021). The White Paper as the latest policy document identifies four foundations for long-term productivity and economic growth:

- Supporting a skilled and high-performing workforce.
- Enabling innovative technologies and ways of doing things.
- Improving housing choice and affordability.
- Smarter use of infrastructure and natural resources.

Other major work from the Commission includes the housing supply review, the night-time economy regulatory review, the net zero research series, and guidance on regulatory experimentation to improve policy quality. The Commission highlights the importance of efficient and effective regulation to a productive economy and public wellbeing and thus develops a Regulatory Policy Resource Hub to support evidence-based policy development and effective regulations. Developed by the NSW Treasury, the NSW Guide to Better Regulation sets out the principles for proposing new or amended regulations and provides resources to assist with the design and decision processes. The Commission has also designed a Regulatory Experimentation Toolkit to support regulators to conduct regulatory experimentation which is understood as an approach to enhance the quality of regulation by testing the performance of a new regulatory scheme or process against existing or alternatives.

Another productivity related government body is the NSW Innovation and Productivity Council. Consisting of a group of experts from business, government and universities, the council provides research and advice to help NSW grow jobs, boost exports, and attract investment. In addition to research on coworking spaces and startup hubs, innovation precincts, remote work, and global talent war, the Council measures how NSW is performing in innovation and productivity and publishes the NSW Innovation and Productivity Scorecard every two years.

The New South Wales Regional Economic Development and Community Investment Program provided \$60.9 million to support initiatives that promote regional economic

development and contribute to job retention and creation. Applications could be submitted for infrastructure projects and services and program delivery across the fund's four focus areas: Aboriginal economic development and enterprise; community connection and capacity building; improving regional service delivery and sustainable regional industries.

Victoria

Victoria does not operate a standalone Productivity Commission. Instead, the State has consolidated productivity and regulatory functions into Economic Growth Victoria and Better Regulation Victoria. Better Regulation Victoria focuses on the analysis, design, and implementation of best-practice regulation, including assessing the adequacy of regulatory impact assessments, assisting with the design and management of regulation, supporting the improvement of regulatory practice, and identifying opportunities to reduce red tape. It also conducts comprehensive reviews into specific legislative and regulatory systems at the request of the Minister for Finance. Economic Growth Victoria provides advice on broader areas such as:

- Growing a more dynamic economy in an equitable and sustainable manner.
- The efficiency and effectiveness of regulation.
- Industry performance.
- The efficiency and effectiveness of public services.
- Growing a skilled workforce.

Current initiatives of the agency focus on slashing the burden for businesses, including halving the number of business regulators by 2030, speeding up environmental assessment processes, delivering a new priority assessment team within key regulators, reducing the delays in the planning permit processes, and using digitisation and AI to speed up government.

The Victorian Government's Economic Growth Statement (2024) lays out a vision for a strong and vibrant economy in Victoria, centred around four key actions:

- Open doors: backing business to invest, expand, and innovate.
- Cut red tape: making it simpler to do business in Victoria.
- Building new skills: ensuring a workforce that is ready to go.
- Reach every community: a strong Victoria underpinned by a strong regional Victoria.

The program also identifies five key priority sectors: advanced manufacturing and defence, health technology and medical research, circular economy, digital technology, and agribusiness. These priority areas are chosen to align with the four key actions and boost productivity and economic growth. Across the four key actions and five priority areas, more than 40 initiatives were designed and backed by a \$627 million investment in the Victorian Budget 2025/26 to help businesses expand and grow.



As Victoria's regional economic development agency, Regional Development Victoria (RDV)³ plays a significant role in creating jobs, enabling investment, delivering infrastructure, and boosting productivity. Regional Economic Development Strategies (REDS) are a key instrument the RDV (and Victorian Government as whole) uses to identify strengths, challenges, and opportunities for economic growth in regional Victoria. Based on their demographic, existing and emerging industries, and other socio-economic context, these REDS set strategic directions for each region to drive growth and prosperity. The REDS represent a place based and evidence driven approach to economic development, but not specifically to productivity growth. These strategic directions highlight the opportunities arising from advanced manufacturing, high-quality food processing, creative and visitor economy, and renewable energy.

Queensland

The Queensland Productivity Commission was abolished in 2021 and reestablished in 2025 under new legislation. It is responsible for providing independent policy advice to the Queensland Government to help lift productivity, drive economic growth, and enhance living standards for Queenslanders. The Commission also houses the Office of Best Practice Regulation which provides regulatory advice, analytical support, and training on the development of regulation, application of regulatory best practice principles and regulatory impact analysis. The first major inquiry of the Commission targets construction productivity, aligned to housing and Olympic infrastructure timelines. The Commission proposes a reform program to improve productivity across the industry, with four key areas: reforming procurement, improving land use regulation, improving the regulation of building activity, and improving labour market operation.

In addition to the restoration of the Commission, the Queensland Government has launched several initiatives to improve productivity and innovation. The Innovation for a Future Economy 2022-2032 Roadmap sets out a clear vision for Queensland to become a leading and sustainable innovation economy. The ten-year roadmap identifies six priorities:

- Capital attraction.
- Research collaboration and commercialisation.
- Talent, skills, and innovative technologies.
- Innovative and sustainable solutions.
- Innovation precincts and places.
- Connected and inclusive ecosystem.

Another key Queensland initiative is the Transforming Queensland Manufacturing Strategy 2025-30 which sets out the pathway to a globally competitive and future-ready manufacturing industry over the next five years and beyond. Manufacturing is not only one of the largest industries in Queensland in terms of economic contribution and employment but also supports many other industries – construction, energy, mining, transport, and primary industries. By transforming the manufacturing industry, this strategy aims to drive greater productivity and innovation across the economy.

Queensland's Building our Regions program funds regional local governments to invest in essential infrastructure that 'will improve economic conditions and liveability'. Following the most recent round of funding, the state government program has approved over \$417 million towards 370 projects across 68 local governments and one town authority in regional Queensland and attracted additional investment of over \$556.9 million from councils and other organisations.

³ In addition to being part of the Australian Government initiative (RDAs), Regional Development Victoria is also an agency of Victorian Government, under the Department of Jobs, Skills, Industry, and Regions.

Western Australia (WA)

WA is establishing its first productivity commission, known as the 2050 Commission, with enabling legislation expected in the first half of 2026. This Commission will merge Infrastructure WA's key functions with the Economic Regulation Authority's inquiry's role, with the aim to strengthen the State's economy and delivery of public services. Infrastructure WA (IWA) provides advice to the state government on infrastructure matters, while the Economic Regulation Authority (ERA) conducts inquiries on economic matters and regulates the electricity, gas, and rail industries. The Commission will sharpen its focus on investment and economic growth: supporting continuous improvement in the performance of the state's private and public sectors, identifying ways to deliver more jobs and business opportunities, raising living standards and enhancing services for all Western Australians.

Both physical infrastructure (e.g. energy, water, and transport) and social infrastructure (e.g. health, education, justice, emergency services, and the arts) are critical to economic activity, daily life, and community wellbeing. IWA develops a State Infrastructure Strategy every five years, which addresses gaps in physical and social infrastructure. It highlights not only new projects and programs but also non-build solutions such as planning, policy, regulation, pricing, technology, skills development, and governance reforms.

As WA's independent economic regulator, the ERA aims to strengthen economic outcomes through effective regulation and decision making. With a small population spread across a vast area, real competition for some essential services is economically unviable, leaving suppliers in these areas to operate as monopolies. Therefore, independent regulation is necessary to protect customer needs. Yet there is trade-off between effective regulation of the sectors and compliance costs for businesses and communities. The importance of effective regulation has been strengthened in this agency Strategic Plan 2024-27. In addition to regulatory functions, the ERA also conducts inquiries to provide advice and recommendations to the state government on economic issues such as business licensing, efficient costs and tariffs of water corporations, microeconomic reform, and so on.

The establishment of the Commission forms part of WA's economic resilience agenda. A key economic blueprint for the State is Diversify WA, which provides a vision for growing and diversifying WA's economy. The framework identifies nine priority sectors in which WA has a competitive advantage and where there are significant growth opportunities:

- Production and scaling of renewable hydrogen.
- Advanced critical minerals processing.
- Manufacture of medical products and digital health devices.
- Decommissioning of oil and gas infrastructure.
- Naval shipbuilding, sustainment, and maintenance.
- Development of regional tourism destinations.
- Manufacture, utilisation and maintenance of space and cross-sector technologies.

- Development of new carbon capture, utilisation, and storage projects.
- Value-added food and beverage production.

These sectors are selected based on their alignment with key global trends, potential for strong economic and social benefits, synergies with existing government commitments and industry investment and capability. The framework further identifies seven cross-sector enablers for economic growth and diversification:

- A skilled and productive workforce.
- Environmental, social and governance frameworks.
- Science, innovation, and technology.
- Advanced manufacturing capabilities.
- Key infrastructure and project-ready land.
- Policy and regulatory frameworks.
- Investment and trade ecosystem.

They are critical to boosting productivity and building a resilient, dynamic economic across the State.

The WA Government Priorities 2025-2029 further set directions for the State's economy, focusing on both maintaining the global leadership in the resources industry and diversifying the economy for the future – including becoming a renewable energy powerhouse. As part of 2025-26 State Budget, the Government commits to invest \$1.4 billion to help secure a future that is Made in WA, to support economic diversification, skills development and just transition. The Budget also include \$331 million to support Fee-Free TAFEs and other key training and skills development initiatives.

The Government has created the Office of the Coordinator General, supported by the State Development Act 2025, to support the delivery of investment-ready precincts and enabling infrastructure and to help streamline complex approvals, reduce duplication of processes, and accelerate major developments for energy transition and economic diversification. The Office also takes care of State Development Areas, which are identified areas of land established under the State Development Act to coordinate planning, infrastructure delivery, and streamlined approvals for major projects.

Western Australia's Royalties for Regions program, launched in 2008, is an enduring example of a place based regional development model with a link to driving productivity growth, primarily through its scale and focus on sustained funding of economic growth enabling projects. The program is funded by a hypothecated share of state royalties and embedded in WA's regional development strategy and has supported investment in infrastructure, industry diversification, workforce attraction, and service capacity in regional areas.

The Department of Primary Industries and Regional Development and the nine Regional Development Commissions developed a Regional Development Framework 2026 that connects State Government priorities with regional communities and sets out the Government's strategic approach to strengthening Western Australia's regions through place-based development, local leadership, and coordinated

State action. It provides a shared vision, operating model, and value proposition for regional development delivery across government, focusing on jobs, health, housing, community, environment, and infrastructure and services.

The Government's Seven Cities vision for regional Western Australia identifies Bunbury, Kalgoorlie, Port Hedland, Karratha, Broome, Geraldton and Albany as key to positioning WA as a renewable energy powerhouse. It will invest in enabling infrastructure – industrial land, energy, water, transport and environmental assets – while strengthening housing, health, education, and public services to support a skilled workforce. While the initiative has limited explicit focus on productivity, it could be leveraged to drive higher productivity outcomes across the Seven Cities and their regions.

South Australia (SA)

The SA Productivity Commission (SAPC) has operated since 2018 with rolling inquiries across R&D intensity, renewable energy competitiveness, innovation competitiveness, and inclusive growth, as well as a series of research discussion papers on productivity performance, competitiveness, and challenges. Their research shows SA has been less innovative than the national average and the stagnation of technological progress, gaps in skills, and increases in inefficiency contributed to the fall of growth in productivity and living standards in the state (South Australian Productivity Commission 2024a).

In 2025, to promote sustainable growth across the state, the Department of State Development published South Australia's Trade & Investment Strategy to 2030 which outlines coordinated actions across government, industry, and international offices to attract high-impact investment, boost global exports, and create job-rich opportunities for South Australians. In this strategy, trade and investment is taken as an instrument to build local industry capability, increase productivity, and drive product innovation. This strategy also identifies the State's globally competitive industry sectors and markets with the greatest prospects.

To support workforce development, the Department has implemented a series of strategies, including South Australia's Construction Workforce Plan and the Upper Spencer Gulf Workforce Strategy. In addition, the Department of State Development (DSD) and the Department of Primary Industries and Regions (PIRSA) are jointly developing an Agribusiness, Food and Wine Workforce Strategy, which aims to deliver a long-term, integrated approach to workforce growth aligned with the Government's broader economic priorities.

While not directly focused on productivity, the Office for Regional Housing is a dedicated body working to address housing shortages across regional South Australia, with the aim of supporting population growth and strengthening regional economic vitality. A core feature of its approach is collaboration with local governments and regional stakeholders to respond to place specific challenges. This is reflected in the Regional Housing Initiatives Program, through

which councils, local industry, employers, and developers are invited to submit housing projects for consideration for investment.

Tasmania

Tasmanian Department of State Growth was established in 2014. It delivers grants (e.g. the Advanced Manufacturing Productivity Grant) and strategies that foster innovation, and works across sectors – including advanced tech, renewables, and infrastructure – to drive economic growth and productivity improvements. In 2024, the Government delivered the Our 2030 Strong Plan for Tasmania's Future, which set out the state's vision and actions for reducing cost of living and building a stronger economy. As part of this Plan, the Department of State Growth published the Tasmanian Advanced Manufacturing Action Plan 2028, which outlines strategies to strengthen Tasmania's position as a leader in advanced manufacturing, with a focus on driving innovation, improving productivity, and building global competitiveness.

The Tasmanian Government is also developing a new Economic Diversification and Investment Strategy which will provide a blueprint to ensure the state remains at the forefront of innovation to grow productivity. This strategy will focus on artificial intelligence (AI) and advanced digital technologies, with the ambition to build Tasmania into an 'AI Island.' Alongside this strategy, Tasmania's Digital Future Strategy is also in the process of being refreshed. The government highlights the importance of digital transformation in driving innovation, productivity, sustainability, jobs, and growth.

In the public sector, the Tasmanian Government is driving a multi-year Government Business Governance Reforms Bill and a new Efficiency & Productivity Unit (EPU) targeting \$150m ongoing savings by 2027–28. These initiatives aim to boost efficiency and improve productivity to achieve better service delivery for Tasmanians.

Northern Territory (NT)

In the NT multiple government agencies and units play a role in supporting productivity and innovation. The Department of the Chief Minister and Cabinet coordinates whole-of-government strategies for economic growth and productivity improvement, while Department of Trade, Business and Asian Relations focuses on driving investment and trade opportunities through international engagement, as well as workforce development. Infrastructure NT focuses on planning and delivering major infrastructure projects, which are critical enablers of productivity across the economy.

The NT Government has launched Rebuilding the Economy: Northern Territory Economic Strategy 2025 detailing the government's vision for developing an economy that:

- Outpaces the nation by growing faster than elsewhere in Australia.
- Plays to the Territory's strengths by focussing on key sectors with high growth potential.
- Benefits all Territorians by ensuring growth generates real opportunities and boosts capacity to fund essential services.

To achieve these goals, the Strategy identifies five priorities:

- A highly competitive tax and investment environment to support businesses to grow and be more productive.
- More local workers with the right skills to meet current and future business and industry needs.
- Accelerating nation building projects that drive growth.
- A strong focus to plan and foster development in the regions.
- Robust enabling infrastructure and networks that delivers services and reduces business costs.

The NT Government has developed the Territory Growth Initiative (TGI) providing financial support to eligible high-growth potential businesses to help establish or expand operations. This aims to build a skilled workforce, support business growth, unlock economic activity and accelerate enabling infrastructure-led projects. There are other relevant grants for supporting business innovation including the Business Innovation Program which helps businesses develop and commercialise innovative concepts and Territory Innovation Challenges Program that gives businesses (or research organisations) with solutions to certain innovation challenges the chance to negotiate a procurement contract with the government.

Australian Capital Territory (ACT)

The Chief Minister, Treasury and Economic Development Directorate lead the CBR2030 Strategic Economic Development Framework, setting four missions to 2030:

- Mission 1: A city that continues to give you back time – prioritising liveability, wellbeing, and seamless daily experiences through urban renewal, digital services, planning reform, and connected communities.
- Mission 2: A climate-ready city, leading Australia's net zero future – committing to net zero emissions by 2045, with major investments in renewable energy, electrification, climate resilience, and clean technology innovation.
- Mission 3: Continued knowledge-based economic growth – leveraging Canberra's strengths in research, education, and innovation.
- Mission 4: Building Canberra's future today – focusing on infrastructure, precinct development, and integrated transport to support population growth, economic activity, and community connection.

This Framework links liveability, productivity, inclusiveness, and sustainability together. For example, it states, 'A city that supports wellbeing also supports productivity' (Chief Minister, Treasury and Economic Development Directorate 2025). In addition, the ACT explicitly treats hybrid/remote work as a productivity lever (participation, inclusion, retention), while diversifying toward knowledge, creative and visitor economy sectors and investing in skills and innovation ecosystems.

In addition to this comprehensive framework, the ACT also has sector-specific productivity initiatives such as the ACT's Construction Productivity Agenda (in progress). This Agenda focuses on improving and streamlining the planning approval system to ramp up construction productivity. A range of actions has been committed to:

- Limit anti-competitive objections to development.
- Remove anti-competitive considerations from planning, rezoning, and development processes.
- Expand the range of permissible land uses.
- Streamline criteria and processes for development assessment and rezoning.
- Support the uptake of modern methods of construction (e.g. prefabricated and modular construction).
- Improving housing productivity will also support other sectors and improve general social and economic outcomes.



Jurisdiction	Primary Institutions	Key Productivity Programs and Documents	Focus Areas
New South Wales	NSW Productivity and Equality Commission	NSW Productivity and Equality Commission White Paper 2021	Regulatory reforms Workforce skills Technology adoption Housing and infrastructure development
	NSW Treasury	NSW Guide to Better Regulation	
	NSW Innovation and Productivity Council	NSW Innovation and Productivity Scorecard	
Victoria	Department of Treasury and Finance Economic Growth Victoria Better Regulation Victoria	Economic Growth Statement (Whole-of-government)	Business investment and innovation Innovative technologies and advanced manufacturing Cutting red tape Skills development Regional development
Queensland	Queensland Productivity Commission	Opportunities to Improve Productivity of the Construction Industry	Best practice regulation Construction and infrastructure productivity Innovation Advanced manufacturing
	Department of the Environment, Tourism, Science, and Innovation	Innovation for a Future Economy 2022–2032 Roadmap (Whole-of-government)	
	Department of Natural Resources and Mines, Manufacturing and Regional and Rural Development	Transforming Queensland Manufacturing Strategy 2025–30	
Western Australia	Whole of Government	WA Government Priorities 2025-2029 Made in WA	Economic diversification Net zero transition Electricity, gas, and regulation Advanced manufacturing Skills and training Infrastructure planning and industrial precincts
	2050 Commission (formerly Infrastructure WA)	State Infrastructure Strategy	
	Economic Regulation Authority	Strategic Plan 2024-2027	
	Department of Energy and Economic Diversification	Diversify WA	
	Office of the Coordinator General	State Development Act 2025 State Development Areas	
South Australia	SA Productivity Commission	Building our R&D intensity to Deliver a More Productive and Competitive State Positioning all South Australians to Share in the Benefits of Economic Growth	Economic competitiveness Inclusive growth Public schools and young people Innovation ecosystems Trade and investment attraction
	Department of State Development	South Australia's Trade & Investment Strategy to 2030	
Tasmania	Whole of Government	Tasmania 2030 Plan Economic Diversification and Investment Strategy Tasmania's Digital Future Strategy Government Business Governance Reforms Bill 2025	Cost of living and housing AI and digital innovation Advanced manufacturing Public services efficiency
	Department of State Growth	Tasmanian Advanced Manufacturing Action Plan 2028	
	Efficiency and Productivity Unit	2025-26 State Budget (Corresponding section)	
Northern Territory	Department of the Chief Minister and Cabinet	Rebuilding the Economy: Northern Territory Economic Strategy 2025	Infrastructure and services International trade Skilled workforce and population growth Business innovation support
	Department of Trade, Business and Asian Relations	Territory Growth Initiative	
	Infrastructure NT	NT Infrastructure Strategy 2022 to 2030 NT Infrastructure Plan and Pipeline	
Australian Capital Territory	Chief Minister, Treasury and Economic Development Directorate	CBR2030 Strategic Economic Development Framework	Liveability, productivity, inclusiveness, and sustainability as a whole Construction and planning approval
	City and Environment Directorate	Construction Productivity Agenda	



DISCUSSION

All government policy is necessarily geographical in its outcomes – whether intended or not. It is better to design in geography from the outset.
(Martin et al. 2017)

Australia's productivity agenda has re-emerged as a central policy focus, driven by a combination of Australian Government-led system reforms, intergovernmental agreements, and renewed state-level productivity institutions. These national and state reforms are substantial and necessary, with a strong emphasis on regulatory reform, infrastructure investment, workforce development, and the advancement of emerging technologies and industries.

Alongside this, an increasingly influential trend across the policy landscape seeks to integrate liveability, productivity, inclusiveness, and sustainability as mutually reinforcing objectives rather than competing priorities. This reflects a growing recognition that economic performance cannot be sustainably improved without attention to the social and environmental conditions that underpin it, and that progress in these domains, in turn, depends on stronger economic foundations.

However, navigating this complex policy landscape reveals persistent coordination challenges across different levels of government and between agencies. This fragmentation can lead, on the one hand, to duplication of effort and, on the other, to geographical unevenness, whereby certain regions or sectors receive disproportionate attention and resources while others remain comparatively underserved. Furthermore, because policy outcomes are shaped by the interaction of multiple interventions – spanning infrastructure, skills, housing and industry development – as well as the underlying economic, social and institutional capacities of places, the absence of an integrated approach can generate inefficiencies in resource allocation and either weaken or exacerbate the (uneven) cumulative impact of policy settings on regional and national productivity.

Current national and state productivity policies remain primarily macroeconomic and sectoral in orientation. They focus on economy-wide levers, major industries and regulatory reform, but rarely treat regions as the primary unit for diagnosing and addressing productivity constraints. This creates a gap between productivity policy and regional development policy. Regional development programs recognise geography and place but often do not make productivity growth an explicit objective or align closely with the broader productivity agenda.

Bridging this gap requires embedding regional and place-based approaches within productivity policy, rather than treating regional development and productivity reform as separate domains. Productivity is shaped by local labour markets, infrastructure, industry structures, environmental conditions and institutional capacity; regional development, in turn, depends on lifting productivity performance over

time. A stronger place-based productivity agenda would connect these two policy domains and ensure national, and state reforms are adapted to the different conditions, constraints and opportunities of Australia's regions.

A place-based productivity policy approach should consist of three elements:

- **Functional regions as the unit of analysis and delivery:** Policy should be designed around labour market catchments, supply chains, service regions, not LGAs or state borders. This requires a place-based understanding of regional economies, beginning with identifying local productivity barriers and enabling conditions.
- **Differentiated and targeted policy tools:** Place based approaches acknowledge that similar headline productivity challenges can arise from quite different underlying causes across regions. A place-based agenda therefore tailors policy levers to local and regional conditions, applying the most relevant mix of skills, infrastructure, regulatory, investment or service delivery interventions rather than relying on uniform, one size fits all solutions.
- **Coordinated governance:** Effective place-based productivity reform requires governance arrangements that support coordination across policy domains, particularly transport, housing, workforce and skills, industry development, and digital infrastructure. This is especially important in rural and remote contexts, where productivity constraints are often mutually reinforcing and cannot be addressed through isolated interventions. Integrated planning and collaborative governance across local, state, and national levels help ensure investments are well sequenced, complementary, and aligned with regional economic priorities.

However, top-down policy design alone is not sufficient; effective productivity reform also requires mechanisms that enable regions to participate in both its design and delivery.

International experience such as from the United Kingdom has shown that the powers and capacities of local and regional institutions are key to delivering effective place-based policymaking (Westwood 2022; Tilley et al 2023). Researchers observe that while contemporary regional development policy has transitioned to place-based approaches – incorporating local voices in policy design and enhancing policy effectiveness – these solutions are often fragmented, under-resourced and lacking strategic direction and ultimate decision-making authority continues to be concentrated in central authorities (McKenzie 2024). As a result, current place-based approaches often enhance local community participation and engagement without fundamentally changing the power structures and the system, which has hindered the progress of regional development and the alleviation of urban and regional disparities (Eversole 2016).

Improving regional level governance and decision-making can be considered as a further step towards stronger place-based policy making (See below Further Reading: International Examples of Place-based Policy Making). Evidence from OECD countries shows that devolution, defined as the transfer of powers from higher to lower levels of government, can deliver higher productivity growth and stronger social capital where regional boundaries match functional economic or social areas – such as labour markets – and where institutional capacity is strong and transparent (OECD 2025a).

In the Australian context, enhancing regional governance arrangements and funding models is critical to addressing shared and cross-cutting challenges, including economic and social transitions, workforce development, housing supply, infrastructure provision and service access – all of which are closely linked to productivity outcomes. Strengthening regional-level governance – alongside national and state policy frameworks – can help mitigate coordination challenges across jurisdictions and support more integrated, place-responsive policy design and delivery. This is particularly the case where such governance is underpinned by long-term, consolidated funding, as regional institutions operate at the spatial scale at which policy interactions and economic processes occur, enabling more effective alignment of policy interventions.

There are several potential pathways to strengthen regional governance. First, states and territories have the authority to create regional authorities through state legislation. Some jurisdictions already operate regional service delivery or coordination structures (e.g. Queensland's and NSW's Regional Organisations of Councils, NSW Joint Organisations, Western Australia's Development Commissions), although these remain administrative or collaborative organisations rather than fully empowered political governments. While the Australian Government cannot unilaterally create a new regional tier of government, state and territory governments may consider whether regional governance could improve service delivery, strategic planning, and coordination within their jurisdictions and across multiple local government areas to support productivity growth.

Another path toward regional governance could be for the Australian Government, in collaboration with the states and territories, to strengthen and expand existing regional organisations, such as the RDA committees. RDAs were established, in part, to provide collaborative leadership and facilitate local decision-making, but inadequate funding and staff has limited their ability to deliver on expectations to date (Buultjens et al. 2012). For regional organisations like RDAs to reach their full potential, Buultjens et al. (2012) suggest that reforms could focus on:

- Clearer mandates and statutory recognition
- Sustainable, increased funding and staffing
- Greater authority in regional planning and project delivery
- Stronger integration with state and local government processes.

RDAs could be embedded more closely with state agencies (as in Victoria) or aligned with other regional bodies. They could take on more roles such as acting as a regional hub for funding and investment attraction.

Beyond these pathways, the introduction of a tier of government at regional level across Australia would be a major reform to Australia's political system and require substantial political negotiation and constitutional or major legislative change. A national model of regional government would need broad intergovernmental and bipartisan agreement and public support.

These point to a set of directions for future exploration in both policy and research. There is a need to better understand how different policy levers – such as infrastructure, services, skills, innovation systems, and competition – can be more effectively coordinated at the regional level through institutional and governance arrangements.



INTERNATIONAL EXAMPLES OF PLACE-BASED POLICY MAKING

This section provides several international examples of place-based policy making.

OECD guidance

The OECD's Place-based Policies for the Future, released in 2025, finds that 'policy makers are now increasingly looking to harness the potential of place-based policies to tackle today's challenges' including 'place-based industrial policies that seek to improve national competitiveness through spatially targeted investment'. The OECD's Regional Economic Outlook, released in 2023, contains a detailed discussion on the importance of lifting regional productivity to reduce inequality between regions and the factors that explain differences in regional productivity: 'Whilst different sector specialisms explain some of the productivity differences between regions, three quarters of the gap reflects differences in the productivity of firms within the same sector. Regional differences in the quality of infrastructure, access to skills, innovation spillovers, finance and markets and investment all play a role here. This implies that place-based policies that address these inequalities can also play a significant role in driving productivity growth in existing industries and sector specialisms.'

These reports coincide with the publication of the OECD's Recommendations for Regional Development Policy in 2023 that contains 10 pillars to implement 'long-term, cross-sectoral, multilevel policy that aims to improve the contribution of all regions to national performance and reduce inequalities between places and between people.' The importance of collaboration and engagement with regional stakeholders in regional development policy is emphasised through the recognition that 'relevant knowledge needed to design and implement a policy for a place is embedded in the place itself and lies with people and communities.'

European Union – Smart Specialisation Strategy (S3)

The EU's Smart Specialisation Strategy (S3) is a place-based productivity and innovation framework, introduced in 2010, requiring regions and member states to develop research and innovation strategies for regions that possess, or can develop, comparative advantage. There are three core pillars for S3:

- Localisation – S3 is a place-based approach that builds on assets and resources available within the region.
- Prioritisation - S3s identify and concentrate resources on investment priorities.
- Participation - S3s require stakeholders from the public sector, research, private sector, and civil society to be engaged throughout the development of the strategy and for S3 investment priorities to be supported by local actors.

A recent review identified that Smart Specialisation Strategies (S3) play a significant role in implementing a strategic approach to place-based investment, compared to scattered investments, and guide more than €70 billion in research and innovation funding (European Court of Auditors 2025).

United States – NSF Regional Innovation Engines

The National Science Foundation's Regional Innovation Engines program is a place-based productivity and innovation investment program by the U.S. Federal government. Launched in 2022 under the CHIPS (Creating Helpful Incentives to Produce Semiconductors) and Science Act, the program provides long-term (up to 10 years) funding of up to US\$160 million per region to build durable innovation ecosystems in parts of the country that have historically not fully participated in technology commercialisation. NSF Engines fund region led partnerships across industry, academia, government, nonprofits, civil society, and communities of practice, with a strong emphasis on translating research into commercial outcomes, promoting innovation, job creation, and growth in technologies such as advanced manufacturing, clean energy, semiconductors, and biotechnology.

English devolution and productivity plans

England's devolution reforms are a national response to longstanding spatial inequalities in productivity, living standards and opportunity. Devolution is centred on transferring powers, budgets and long-term responsibility to subnational governments called Mayoral Strategic Authorities. The authorities must produce Local Growth Plans which provide a 10-year strategic framework for growth in their region, and which set out priority projects and funding to drive productivity and growth. Place based productivity policy in England is moving from centrally managed redistribution (project funding under the former Levelling Up program) towards institutional reform, with devolution now the primary mechanism for driving regional productivity through locally coordinated investment in skills, transport, housing, innovation, and public service reform.



5. PLACE-BASED PRODUCTIVITY IN PRACTICE

The case studies in this chapter show how regional productivity challenges and opportunities play out in different local contexts. They illustrate how industry composition, geography, scale, environmental constraints, infrastructure endowments and governance capacity interact to shape productivity outcomes. Rather than providing a comprehensive assessment of every region, the case studies demonstrate why regional productivity policy needs to be grounded in local diagnosis, regional institutions and coordinated investment.

CASE STUDY 1: INNOVATION ECOSYSTEMS IN CAIRNS AND FAR NORTH QUEENSLAND

Regional attributes

Cairns and Far North Queensland (FNQ) exemplify a diversified regional service economy with natural endowments which support the tourism and agriculture industries. Health care, accommodation and food services, retail and education dominate employment, reflecting its function as both a tourism gateway and a regional service hub. Over time, Cairns has moved beyond a narrow tourism dependence towards a more complex economy, supported by enabling infrastructure such as an international airport, port facilities and two universities. This combination has created the conditions for a distinctive regional innovation ecosystem to emerge.

Productivity dynamics

Measured productivity (GRP per hour worked) remains below state and national averages, due to industry composition: tourism and care services are labour-intensive and typically exhibit lower measured productivity. However, aggregate productivity masks important internal dynamics. The region has experienced strong long-term GRP growth and has developed high value niches in areas such as tropical medicine, maritime technology, aviation services, and Agri innovation.

The defining feature of Cairns' productivity story is the emergence of a regional innovation ecosystem. Strong collaboration between universities (especially James Cook University), local government, industry groups, and entrepreneurs has strengthened the entire innovation value chain, from research and ideation through to commercialisation. Examples include startups translating agricultural technologies into datacentre cooling solutions and global firms integrating Cairns based teams into international value chains.

Key constraints

Despite these strengths, Cairns faces persistent productivity barriers:

- Tyranny of distance, driving higher input and logistics costs.
- Housing shortages and high living costs, constraining labour attraction, and retention.
- Digital and specialist infrastructure gaps, limiting scaleup and advanced manufacturing.
- Venture capital scarcity, particularly midstage funding, encouraging outward migration of firms.
- State policy settings can be perceived as metrocentric, further limiting responsiveness to regional needs.

Lessons

Cairns highlights that productivity growth in service based regional economies relies less on capital deepening and more on coordination, talent pipelines, institutional leadership, and relational business models. Its experience underscores the importance of embedding innovation programs locally and building on regional identity and strengths.



CASE STUDY 2: WATER SCARCITY AND PRODUCTIVITY ON THE EYRE PENINSULA (SA)

Regional attributes

The Eyre Peninsula represents a resource based, export oriented regional economy dominated by agriculture and fishing, with significant grain, livestock, and seafood production. The region is sparsely populated, geographically isolated, and highly exposed to climate variability. More than half of its economic output is exported, yet value adding opportunities are constrained by infrastructure and distance to markets.

Productivity dynamics

Overall GRP growth in the Eyre Peninsula has been slower than state and national averages. Productivity (GRP per hour worked) remains below the South Australian average but has improved in recent years, partly reflecting agricultural innovation and the disproportionate impacts of COVID19 on metropolitan economies.

Productivity gains have been driven primarily by technological adaptation in dryland agriculture and shifts towards higher value fishing species. Research institutions such as the Minnipa Agricultural Centre have played a critical role in enabling productivity improvements under harsh environmental conditions.

Dominant constraint: water insecurity

Water scarcity is a constraint on productivity and growth. The region relies on rainfall dependent groundwater systems that are increasingly stressed by climate change, overextraction and salinity risks. Water insecurity affects not only agriculture and manufacturing but also liveability, population retention, and future investment confidence.

This constraint illustrates how environmental limits can cap otherwise strong productivity potential. Proposed infrastructure responses, particularly desalination, address supply security but raise new challenges around energy demand, cost, social licence, and system integration.

Interlinked infrastructure failures

Water scarcity is compounded by:

- Transport deficits, including degraded road networks and lack of container port capacity.
- Energy insecurity, with grid reliability issues limiting industrial expansion.
- Digital exclusion, reducing adoption of productivity enhancing technologies.
- Centralised planning delays, restricting workforce enabling infrastructure such as childcare.

These constraints reinforce one another, demonstrating that productivity barriers in remote regions are rarely isolated.

Lessons

The Eyre Peninsula case study shows that climate resilience, water security and productivity are inseparable. It also highlights the costs of delayed action and the importance of regional coordination across multiple local governments. Productivity policy in such regions should integrate natural resource management, infrastructure investment, and institutional reform rather than focusing narrowly on economic efficiency.



CASE STUDY 3: FOOD TECHNOLOGY AND INDUSTRIAL TRANSFORMATION IN THE PEEL REGION (WA)

Regional attributes

The Peel region sits at the interface of metropolitan and regional Australia. Proximity to Perth, access to transport infrastructure, abundant mineral resources and a rapidly growing population give Peel characteristics that many regions lack. Mining and mineral processing dominate output, while health care, construction, and retail drive employment.

Productivity dynamics

Measured labour productivity in Peel is consistently above state and national averages. However, this masks uneven productivity across the region and raises questions about long-term diversification, employment resilience, and population servicing.

Rapid population growth is both an opportunity and a risk. Without diversification, population growth can outpace job creation and infrastructure provision, undermining productivity gains derived from mining.

Strategic response: Food Innovation Precinct WA

Peel's productivity strategy centres on deliberate industrial diversification through food and Agri innovation. The WA Food Innovation Precinct exemplifies an ecosystem approach: integrating research, production, water, and energy systems within a purpose-built industrial precinct.

Key features include shared R&D facilities, common use manufacturing infrastructure, innovation support services, and an enterprise growth program. This approach lowers barriers for SMEs and enables value adding within supply chains that would otherwise export raw commodities.

Constraints and risks

Despite strong fundamentals, Peel faces:

- Social licence issues around mining expansion.
- Water and environmental pressures, intensified by growth.
- Infrastructure sequencing risks, as population growth accelerates faster than service delivery.
- The model's success remains contingent on sustained government funding, coordination, and market uptake.

Lessons

Peel demonstrates how place based industrial policy, supported by state investment, and regionally embedded institutions, can convert resource advantages into diversified, productivity enhancing industries. It also illustrates that headline productivity driven by mining must be complemented by strategies that broaden employment and innovation capacity.



CASE STUDY 4: FREIGHT AND LOGISTICS HUBS – WODONGA (VICTORIA) AND PARKES (NSW)

Regional attributes

Wodonga and Parkes are inland regional centres whose productivity advantage derives from strategic locations within national freight networks. Both sit at the intersection of major road and rail corridors, enabling them to function as logistics gateways linking regional producers to national and international markets.

Productivity dynamics

Productivity gains in both regions arise primarily from systemwide efficiency improvements, rather than firm level innovation. Logistics hubs reduce transport costs, shorten delivery times, and improve reliability for businesses across multiple regions, generating productivity benefits.

Governance and investment model

While the Wodonga Logic Centre is well established and more advanced than the emerging Parkes Special Activation Precinct, both cases share common success factors:

- Long-term local government vision, sustained over decades.
- Upfront public investment in enabling infrastructure.
- Risk sharing between local and state governments.
- Integration of training and workforce development, notably through TAFE campuses.
- Anchor tenants, providing early market validation.
- Parkes' Special Activation Precinct adds a state led planning overlay, including streamlined approvals and government managed land development, accelerating private investment.

Constraints

Future productivity benefits depend on:

- Completion and utilisation of adjacent infrastructure (e.g. Inland Rail at the Parkes SAP).
- Continued investment in utilities, water, and energy.
- Skilled workforce availability.
- Maintaining community support for large-scale industrial development.

Lessons

These cases highlight that freight productivity is place based but delivers national benefits. Regional logistics hubs show how infrastructure investment, when paired with governance capability and skills development, can shift regions into higher productivity roles within national supply chains.

Summary

The case studies represent a small sample of regional Australian economies but collectively reinforce the case for place-based productivity policy as a necessary complement to national reform. Several themes recur across the case studies:

- Productivity is shaped by place, with industry mix, scale, geography and environmental factors impacting in different ways and requiring targeted solutions.
- Institutions and governance are decisive in terms of coordination, leadership, and vision for enabling higher performing regions.
- Infrastructure bottlenecks are binding constraints in regional Australia with water, energy, transport, housing, and digital systems impacting on productivity.
- Resilience and productivity are converging agendas, particularly as regions experience significant shifts due to economic and social transition and climate change.
- Case study information should be complemented by improved regional productivity measurement to identify local challenges in the efficient use of labour, capital, energy, and materials inputs to production.



6. CONCLUSION

Regional productivity is central to Australia's long-term prosperity. Regional Australia generates a substantial share of national output and underpins many of the country's globally competitive industries, including agriculture, mining, energy, logistics, tourism and emerging clean energy and advanced manufacturing sectors. Yet many regions also face persistent structural and place-specific constraints that are not adequately addressed through economy-wide or sector-based productivity reforms alone.

This report argues that place-based productivity strategies should complement national and state productivity agendas. Lifting regional productivity requires coordinated investment in enabling infrastructure and services, stronger skills and migration pathways, improved housing supply, support for innovation ecosystems and policies that build on local industry strengths. These actions need to be grounded in regional evidence, local institutions and functional economic geographies, rather than applied uniformly across diverse places.

Effective policy design must also be supported by robust measurement of regional productivity. Without accurate and consistent measurement, it is difficult to identify productivity drivers, monitor policy impacts or adjust interventions over time. This report provides viable options for improving regional productivity measurements. These will enable effective policy design, as well as allow ongoing monitoring of the effectiveness of implemented policies that can be changed in an ever-changing world.

Lifting regional productivity is not only an economic imperative but is also central to building resilient, inclusive, and prosperous communities. Strengthening the productivity of Australia's regions will play a decisive role in lifting national economic performance. Complementing existing state and national productivity agendas with effective place-based policies will ensure that long-term investments in people, infrastructure and innovation capacity deliver a more stable and prosperous Australia for all.



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APPENDIX 1: METHODOLOGY

This project explores the critical role of productivity in enhancing economic growth and living standards, focussing on regional Australia. It examined trends in labour productivity by region and industry and explored regional productivity measurement challenges. It identified regional barriers such as limited infrastructure, skills shortages, and geographic constraints, and examined enabling factors such as capital investment, innovation, and digital transformation.

Research Objectives

1. Demonstrate the importance of productive regionally based industries for Australia's national economic performance and wealth and welfare of all Australians.
2. Measure productivity by region and by industry to understand trends and the current state of play and identify any shortfalls in data collection and reporting that need to be addressed.
3. Identify and assess the barriers and enablers of regional productivity growth and a set of actionable system-wide and place-based solutions.
4. Provide in-depth assessments of the implications of digital technology developments for boosting productivity in regions and creating opportunities for new industries and economic activity under supportive policy frameworks.

Research Methods

This research project used a combination of desktop research, statistical analysis, in-depth interviews, and broader stakeholder consultation. The statistical analysis was undertaken by the Regional Australia Institute (RAI) and the Centre for Productivity Research at the University of Queensland using Real Gross Regional Product and productivity data at the Local Government Area (LGA) level, provided by Informed Decisions through the Economy .id platform. These data were originally developed by the National Institute of Economic and Industrial Research

(NIEIR). The NIEIR-ID model replicates the National Accounts framework at the local level, drawing on a wide range of data sources to estimate economic activity and trends for individual LGAs. Key inputs include:

- Population Census data (working population)
- ABS National Accounts (income, expenditure and product)
- ABS State Accounts
- ABS Labour Force Survey regional employment and hours estimates
- ATO Income tax estimates by postcode
- Centrelink payments by postcode
- Real Estate Institute (state) housing price and rent estimates
- ABS Household Expenditure Survey

These sources are integrated to produce consistent local-level estimates of economic output, income, expenditure and productivity, enabling analysis of regional economic performance across Australia. For further information, please refer to the Data Sources and Specific Topic Notes available through the Economy .id platform.

The first stage of stakeholder engagement involved targeted consultations with ISIP partners and key government stakeholders. In depth interviews, including those undertaken for the regional case studies, were conducted with state government and local government representatives, industry, and relevant community organisations. Stakeholders were selected using purposive identification through new or existing relationships, combined with snowball sampling to leverage the networks of participants (Table 6).

Artificial intelligence (AI) tools including Copilot and Claude were used to assist with literature and information sourcing, drafting, summarising, and improving clarity and structure in this report. All content generated by AI was reviewed and edited by RAI researchers, who remain accountable for all content in the final report.

Table 6. Overview of research participants

Data collection method	Jurisdiction/Region	Sample Size	Stakeholders
Government Consultations	The Australian Government New South Wales Victoria Western Australia South Australia	The Australian Government and four state governments taking part in meetings	RAI Shared Inquiry partners Government departments Subject matter experts Invitations were sent to all states and territories for consultation, with some choosing to provide a written response, rather than taking part in a meeting
In-depth Interviews	Cairns and Far North Queensland, QLD Eyre Peninsula, SA Parkes, NSW and Wodonga, Victoria	22 interviews	State and local government representatives Industry representatives Regional Development Australia Regional development organisations Community organisations



APPENDIX 2: GLOSSARY

Agglomeration Economics

Agglomeration economics refers to the benefits of firms being close to each other - which typically favours metropolitan areas rather than regional areas given the sparse population and long travelling distances. The concentration refers not just to competing firms, but extends to allied industries, whether as customers or suppliers, as well as knowledge creation industries such as consultants and industry supporters. This concentration of industry, and allied industries, is conducive to higher productivity due to shared infrastructure, larger and more specialised labour pool, and greater opportunities for both competitive innovation and collaboration.

The benefits of agglomeration include lower input costs arising from reduced communication and logistical costs, higher productivity from more optimised resource allocation (economies of scale and scope), higher productivity from concentration of skilled workers, and greater innovation support through partnerships with public and private researchers as well as knowledge gain of workers (NIEIR 2023).

Capital Deepening

Capital deepening refers to an increase in the capital-labour ratio, that is, each worker has more advanced tools, machinery, equipment, or infrastructure with which to work. For each unit of time this allows a worker to produce more outputs. Historically, capital deepening has been a major contributing factor to improving Australia's productivity. According to neoclassical growth models (eg the Solow-Swann model), this mechanism suffers from diminishing marginal returns, requiring ever increasing amounts of new capital to produce the same percentage improvement.

Creative Destruction

A longstanding concept within economics, creative destruction is a process whereby innovation drives economic progress at the expense of existing industries, technologies, firms, and jobs has received new attention recently. Economists have shown the combination of scientific understanding and practical invention leads to innovation and economic gains when society is open to new ideas, embracing the innovative technology. This continuous process of 'creative destruction,' whereby new products and firms replace the incumbent products and firms, is a primary driver of economic growth. The laureates were awarded for transforming this concept into a mathematical framework, explaining clearly cyclical innovation (The Royal Swedish Academy of Sciences 2025).

The creative destruction process can be summarised as:

- **Innovation emergence:** nationally and globally innovative firms experiment and produce new ideas, technologies, and processes.
- **Diffusion and disruption:** the innovative technology/idea diffuses throughout the economy and starts to out compete the incumbents.
- **Reallocation:** new and productive firms are rewarded with greater resources (through sales and profits), and older, lower productivity firms are forced to exit.

Although painful in the short-term (bankruptcies and job losses), this reallocation process increases long-term economic efficiency and dynamism.

This has several key implications for productivity growth:

- Market dynamism and barriers to entry: high rates of firm entry and exit correlate with stronger productivity growth – resource reallocation to more efficient firms can improve productivity.
- Competition: a strong competitive environment heightens innovation incentives, with incumbents forced to innovate or risk being overtaken by new entrants.
- Supportive policy: policy must encourage openness to innovation, protect intellectual property and facilitate the entry and exit of firms (The Royal Swedish Academy of Sciences 2025).

Knowledge spillover refers to the process by which knowledge created by one firm, organisation, or individual transfers to other producers, intentionally or otherwise, and thereby benefits others who were not directly involved in creating that knowledge.

Gross Regional Product

Headline Gross Regional Product (GRP) is the regional equivalent of Gross Domestic Product (GDP), measuring the size of a Local Government Area (LGA) or regional economy and the value of goods and services produced within it. Changes in headline GRP over time may reflect shifts in employment, labour productivity, capital investment, or the industrial composition of the region.

Knowledge spillover refers to the process by which knowledge created by one firm, organisation, or individual transfers to other producers, intentionally or otherwise, and thereby benefits others who were not directly involved in creating that knowledge.

Comparing Headline GRP and Local Industry GRP provides insight into the structure of a regional economy. Differences between the two measures can indicate the extent to which economic activity is driven by locally based businesses or by larger corporations whose profits are distributed outside the region (Economy .id n.d.).



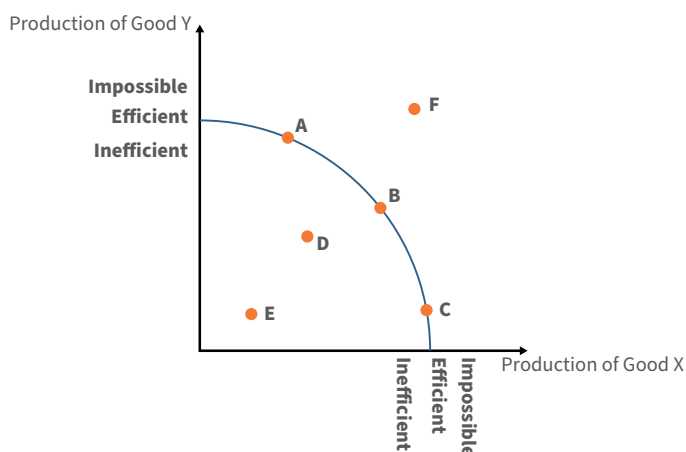
Knowledge spillover

Knowledge spillover refers to the process by which knowledge created by one firm, organisation, or individual transfers to other producers, intentionally or otherwise, and thereby benefits others who were not directly involved in creating that knowledge. In economics and innovation studies, it is treated as a positive externality: the creator cannot fully capture all the benefits of their ideas, so some value 'spills over' to others.

Productivity Frontier

The Productivity Frontier, also known as the Production Possibility Frontier, represents the maximum achievable output with a given set of inputs. That is, with a fixed amount of labour, capital, and other intermediate inputs, what is the greatest output possible? Economies operating along the frontier are as efficient as possible, while economies operating behind the frontier are comparatively inefficient.

The following simplified diagram shows the production possibilities of an economy across two dimensions: production of good X, and production of good Y. In scenarios A, B, C, the combination of goods x and y are all possible and represent the most efficient combination of goods and services which can be produced. Scenarios D and E are also possible but represent an inefficient use of resources: where the total amount of goods and services is less than under the scenarios of A, B, or C. Scenario F is currently impossible to produce - only through a change in technology or processes can it be reached.



Economists have developed a range of models for the purposes of explaining productivity growth. Production function models allow for explanations of technical progress, environmental change, and efficiency change. Within these economic productivity frameworks, observed productivity change can be attributed to four broad economic drivers:

- **Technical progress (TP):** the discovery or development of new techniques for transforming inputs into outputs.
- **Environmental Change (EC):** factors that are physically involved in the production process but not controlled by firms, such as weather conditions or public infrastructure.

- **Technical Efficiency Change (TEC):** how effectively existing production techniques are adopted and implemented.
- **Scale-And-Mix Efficiency Change (SMEC):** changes in how well producers exploit economies (or diseconomies) of scale and substitution.

To put it simply, there are two ways in which an economy, and the firms within it, can improve productivity:

- Move to the productivity frontier by operating more efficiently.
- Move beyond the productivity frontier through expanded capacity.

Becoming more efficient and thus moving toward the productivity frontier is typically done through microeconomic reform and domestic policy. This can be achieved through a variety of mechanisms, including but not limited to:

- Encouraging competition between firms.
- Lowering the barriers to entry to facilitate new entrants challenging incumbent firms.
- Changes to taxes and market regulations to allow more efficient allocation of resources or improving access to finance.
- Removing unnecessary and burdensome regulation.
- Improving access to markets and facilitation participation in global value chains.

The use of taxes and subsidies also play a significant role in guiding efficiency gains, such as providing tax offsets for research and development.

Moving beyond the current productivity frontier and increasing productive capacity is achieved through technology advances. This is typically achieved through inventing and implementing innovative technologies, but also includes novel production processes, as well as knowledge improvements specifically resulting in new methods of production or entrepreneurship.

APPENDIX 3: RAI REGIONAL TYPOLOGIES

There is no single definition of what constitutes regional Australia. Many different definitions exist and can vary depending on the user and the purpose for which the definition is required.

The RAI uses a broad definition for its research, policy, and advocacy work. For the RAI, regional Australia includes all the cities, towns, and areas outside of Australia's largest capital cities: Sydney, Melbourne, Brisbane, Adelaide, Perth, and Canberra.

While this definition is a useful starting point to conceptualise what regional Australia encompasses, it is more important to recognise and acknowledge the diversity that exists throughout regional Australia. There are different types of regional communities and different factors that will shape their futures. When analysing future trajectories of regional communities, the most relevant factors are their population, industry, and proximity to a capital city. On this basis, the RAI has identified four different regional types. Called the 'Foundations of Regional Australia,' they provide a basis for understanding the range of unique pathways to future prosperity that exist across regional Australia.

The factors that influence the socioeconomic development and potential of regional areas can be broadly divided into three categories:

- Population: How many people live there
- Employment: The kinds of jobs that people have
- Proximity/distance to major cities

These are key drivers of economic growth and social change and provide a starting point for understanding the diverse pathways to future prosperity across regional Australia. Accordingly, the RAI developed the following four typologies for regional areas:

- **Regional Cities**, which have populations of over 50,000 people. They have diverse economies and the chance to use their size and diversity to shape their own future.
- **Connected Lifestyle Regions** do not have city population size but are close to our major metropolitan regions. They will be influenced by their connection with these cities.
- **Industry and Service Hubs** are regional centres with between 15,000 and 50,000 residents, located further from major metropolitan areas. Their performance is linked to industry outcomes, but their population size means they could be resilient to change.
- **Heartland Regions** are smaller regional areas that are not close to other major metropolitan or Regional Cities. Industry trends and local ingenuity will shape their future.



APPENDIX 4: IMPROVING REGIONAL PRODUCTIVITY MEASUREMENT

Limitations of Current Regional Productivity Measurement

The labour productivity indicators presented in this report provide useful insight into regional economic performance using estimates of Real Gross Regional Product, or gross value add, as a measure of output. However, there are different views on using gross value add as a measure of output. Some theories question the use of gross value add and stipulate that only pure quantity output be used.

However, there are practical limitations to pure output approaches that necessitate significant data collection activities.

Further, labour productivity as a measure can mask the impact of other inputs on productivity – for example, capital, energy, and material inputs. Labour productivity is simply calculated as output per hour worked, so it effectively reflects the combined influence of all labour, capital, intermediate goods, and technology inputs. Labour productivity therefore does not necessarily even reflect the productivity performance of workers. For instance, labour productivity may increase if a worker is provided with faster machinery. In this case, the measured productivity has not risen due to the worker becoming more productive, it has risen due to the improved machinery. We would ideally like to get a better understanding of productivity performance across all the main inputs in the production process.

For these reasons, Multi-Factor Productivity (MFP) which captures the combined efficiency with which multiple inputs are used in the production process, is widely regarded as a more comprehensive measure of productivity over labour productivity.

The ABS currently provides experimental MFP estimates by industry but not by region. Developing a regional MFP measure would provide rich analysis of productivity drivers and enablers by place and would significantly strengthen the evidence base for place-based productivity policy. It would allow for comparisons of industry performance in different parts of Australia and the key factors. However, estimating MFP at the regional level is difficult and complex, and requires more data and changes to measurement practices.

The lack of detailed available data is a major limitation in constructing regional productivity estimates. European statistical systems have begun developing sub-national MFP datasets, and these experiences provide useful insights for how similar approaches could be implemented in Australia.

The RAI commissioned the Centre for Efficiency and Productivity Analysis at University of Queensland to explore options for measuring Labour Productivity and Multifactor Productivity at the regional level in Australia. The rest of this appendix sets out experimental results from the measurement of LP and MFP in the agriculture sector at the state level and discusses the possibility of extending this type of analysis to the regional level (by LGA or equivalent regional unit).

An Experimental Model of Labour Productivity and Multifactor Productivity by State

CEPA has calculated experimental measures of labour productivity and multifactor productivity at the state and territory level for the agriculture, fisheries, and forestry sector.

Meaningful regional productivity analysis requires development of an integrated LGA-level (or equivalent) ‘Q-KLEMS’ dataset measuring output and the full set of capital, labour, energy, materials, and services inputs:

- Output (Q)
- Capital (K)
- Labour (L)
- Energy (E)
- Materials (M)
- Services (S)

At present, there is currently no integrated dataset that measures the outputs and all capital, labour, energy, materials, and services inputs of regional production units.

For this experimental analysis, a state-level dataset was constructed using sources from the ABS and Bureau of Meteorology (BoM) for the period from 2016 to 2020. The dataset contains measures of output and input quantities and prices, together with selected environmental variables (temperature and rainfall).

Explaining productivity change involves explaining changes in output and input quantities. The analysis uses a standard production function model that gives the maximum output that is possible using given inputs. Because such functions describe the boundary of the set of feasible input– output combinations, they are often referred to as production frontiers. With such models, observed changes in productivity can be attributed to four broad economic drivers:

- Technical progress (TP): the discovery or development of new techniques for transforming inputs into outputs
- Environmental Change (EC): factors that are physically involved in the production process but not controlled by firms, such as weather conditions or public infrastructure
- Technical Efficiency Change (TEC): how effectively existing production techniques are adopted and implemented
- Scale-And-Mix Efficiency Change (SMEC): changes in how well producers exploit economies (or diseconomies) of scale and substitution.

Labour Productivity by state and territory

Labour productivity is calculated as total output divided by labour inputs. Table 7 reports Agriculture, Fisheries and Forestry labour productivity index numbers for all states and territories over the period 2016–2020. This table compares labour productivity in a given state and year to labour productivity in New South Wales (NSW) in 2016 (Index value of 1.000). Values greater than one indicate higher labour productivity than the NSW 2016 benchmark, while values below one indicates lower productivity.

Table 7. *Agriculture, Fisheries and Forestry Labour Productivity (LP) Index Numbers (NSW in 2016 = 1)*

State	2016	2017	2018	2019	2020
NSW	1.000	1.238	1.515	1.307	1.176
Vic	0.912	0.956	1.052	1.107	1.165
Qld	1.621	1.656	1.608	1.391	1.253
SA	1.233	1.481	1.351	1.658	1.735
WA	1.872	1.590	1.411	1.789	1.651
Tas	1.554	1.747	2.039	2.172	1.602
NT	6.763	2.540	2.456	2.561	2.577
ACT	0.140	0.136	0.280	0.802	0.324

A few key observations stand out regarding labour productivity:

- Victoria tracked closely to the NSW 2016 benchmark
- Western Australia and Queensland were well above the NSW benchmark throughout the period
- Tasmania was also relatively high, particularly in 2018 and 2019
- Labour productivity in NSW increased by 51.5% between 2016 and 2018, while in Queensland it fell slightly over that same period
- Labour productivity in Western Australia was highest in 2016, while in Victoria it was highest in 2020.

These results provide evidence that labour productivity dynamics are highly state-specific and can change over time.

Further analysis of the sources of productivity was undertaken to assess technical efficiency and scale-and-mix efficiency, respectively. Technical efficiency is a measure of how well states use best-practice production techniques, while scale-and-mix efficiency measures how well they capture economies of scale and substitution.

The analysis found that most states consistently operated on the production frontier, with technical efficiency scores equal to one. Only in 2019 and 2020 did any technical efficiency scores fall below one. In contrast, there was substantial variation in scale-and-mix efficiency across states and over time. Scale-and-mix efficiency in Queensland and the Australian Capital Territory (ACT) was consistently low. Scale-and-mix efficiency in Victoria, South Australia and Tasmania was consistently high.

Overall, these results suggest that differences in state-level labour productivity have been primarily driven by differences in environmental conditions and economies of scale and substitution. There have been no persistent failures to adopt and correctly implement best-practice production techniques. From a policy perspective, this implies that interventions aimed solely at improving technical efficiency are unlikely to be effective in increasing output per worker.

Multifactor Productivity

MFP is calculated as total output divided by all inputs used in the production process. CEPA provided MFP based results using an MFP measure in which aggregate input is defined as: a weighted sum of capital, labour, energy, materials, and services inputs; with average prices over all states and periods used as weights. This measure provides for a more comprehensive quantification of productivity than the use of the labour alone, as used in labour productivity measures.

The resulting estimates below illustrate the productivity insights that can be obtained from a fully specified Q-KLEMS database and provide a benchmark for the richer forms of regional productivity analysis that could be undertaken if LGA-level Q-KLEMS data become available.

Table 5 reports index numbers that compare Agriculture, Fisheries and Forestry MFP in each state and year with the corresponding value for NSW in 2016. These MFP index numbers exhibit less dispersion across states than the corresponding labour productivity index numbers. This may reflect the substitution of labour for capital and other non-labour inputs. Table 8 reveals that most states experienced steady MFP growth between 2016 and 2018, followed by a slight decline thereafter. As in the labour productivity-based results presented earlier, MFP in the ACT was lower than in other states throughout the period.

Table 8. *Agriculture, Fisheries and Forestry Multifactor Productivity (MFP) Index Numbers (NSW in 2016 = 1)*

State	2016	2017	2018	2019	2020
NSW	1.000	1.117	1.230	1.069	0.995
Vic	0.997	1.101	1.191	1.065	1.004
Qld	1.057	1.168	1.251	1.091	1.009
SA	1.039	1.148	1.223	1.094	1.032
WA	1.079	1.160	1.128	1.104	1.034
Tas	1.077	1.214	1.297	1.137	1.032
NT	1.079	1.167	1.249	1.082	1.002
ACT	0.546	0.568	0.821	0.910	0.745

Taken together, the labour productivity and MFP results provide a picture of state level productivity dynamics. Patterns of labour productivity change are clearly different from patterns of MFP change. In both cases, productivity differences across states are shown to reflect differences in environmental conditions, the scale of operations, and the input mix. They are not caused by failures to adopt best-practice production techniques. Failure to recognise the significant impact of environmental conditions, inputs mix and economies of scale could potentially lead to poor policy interventions.

Data Requirements for Constructing Regional Productivity Measures

This section outlines several pathways for constructing datasets required to extend this type of productivity analysis across the economy at the regional level. Each pathway involves trade-offs between analytical completeness, data availability, and practical feasibility.

Publicly available Australian data sets do not currently support labour productivity or MFP measurement at the LGA level. Progress toward comprehensive regional productivity measurement depends on government statistical agencies collecting, assembling, and making available regionally disaggregated data on outputs and inputs consistent with a Q-KLEMS framework. Evidence from European studies demonstrates that productivity analysis at highly disaggregated levels is possible when appropriate data are available (see, for example, Mansson et al. (2025)).

Undertaking productivity analysis at the regional level in Australia would require quantity data on output, labour, capital, energy, materials, and services at the industry level within each LGA (or equivalent regional unit). Where direct quantity data are unavailable, quantities would need to be inferred from available value and price data. Output and non-labour inputs typically require this type of indirect measurement, while labour input is often observed directly through measures such as employment or hours worked.

These requirements go beyond those needed to construct value-added-productivity indicators and imply trade-offs between analytical completeness, data availability, and practical feasibility.

CEPA considered three broad pathways for assembling such data at the LGA level in practice:



Pathway 1: Proportional allocation of higher-level aggregates

This approach would allocate national or state-level Q-KLEMS aggregates to LGAs (or regional equivalents) using observable regional shares, such as employment or hours worked by industry. However, when both outputs and inputs are allocated using the same regional shares, meaningful productivity difference cannot emerge at the LGA level. Proportional allocation is therefore unsuitable for analysing regional productivity differences at the LGA level but can serve as a useful accounting framework.

Pathway 2: Hybrid allocation using input-specific regional information

This more informative approach combines allocation methods (described above) with additional region- and input-specific information. Under this hybrid approach, different inputs are allocated using different regional indicators rather than a single common share. For example, labour input could be allocated using the best available information on regional hours worked by industry (where available, or using proxies from the Census, Centrelink, the Labour Force Survey, taxation records, or data platforms such as BLADE), while output and other inputs could be allocated using industry specific weights that vary across regions. Because outputs and inputs are no longer tied to a single allocation share, productivity can vary across LGAs. This hybrid style approach provides a pragmatic way forward when comprehensive regional quantity data are unavailable, though results depend on the quality of the underlying allocation weights

Pathway 3: Full-system construction using regionally observed data

The most comprehensive approach would involve constructing an LGA-level Q-KLEMS dataset using regionally observed quantity information for all major outputs and inputs. Under this approach, output, labour, capital, energy, materials, and services are measured separately by industry and LGA, using direct quantity data where available and consistent inference methods where they are not. Although demanding in terms of data requirements and implementation effort, it provides the strongest analytical foundation for regional productivity analysis and aligns most closely with best practice in international productivity measurement.

These pathways represent increasing levels of analytical capability but also increasing data requirements. Allocation-based approaches are easy to implement but offer limited insight into regional productivity differences. Hybrid approaches provide a pragmatic compromise when regional data are incomplete. Full-system Q-KLEMS implementations offer the greatest analytical value but require substantial investment in data development. Ultimately, advancing regional productivity measurement will depend on government statistical agencies collecting, integrating, and disseminating regionally disaggregated data on outputs and inputs.

Conclusion

Multifactor productivity (MFP) is widely regarded in the academic literature as the most comprehensive measure of productivity, as it captures the combined efficiency with which all inputs are transformed into outputs. In practice, however, data limitations mean that regional productivity analysis in Australia has typically relied on real gross regional product (RGRP) per hour worked as a proxy. Advancing regional productivity analysis will require moving beyond labour productivity measures alone. While labour productivity remains a useful indicator where data are constrained, its exclusion of non-labour inputs can provide an incomplete picture of productivity performance. MFP measures address this limitation by accounting explicitly for the full set of production inputs, although they require significantly more detailed data and methodology, particularly at regional scales.

Advancing regional productivity measurement will require sustained statistical investment, specifically, the coordinated collection, integration, and dissemination of regionally disaggregated data on outputs and inputs consistent with a Q-KLEMS framework. Such investment would enable analysis to move beyond descriptive regional indicators toward policy-relevant analysis of the sources and drivers of regional productivity differences in Australia.





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