

# THE STATE OF THE SECTOR 2025

Building the workforce for a growth future

[msq.org.au](https://msq.org.au)



**MANUFACTURING  
SKILLS  
QUEENSLAND**



# QUEENSLAND MANUFACTURING: RESILIENCE, GROWTH, AND FUTURE CHALLENGES IN A CHANGING LANDSCAPE

Manufacturing remains a cornerstone of Queensland's economy, underpinning our state's broader industrial and economic success. The industry has strong regional bases that are driven by connections to energy and resource industries. To remain ahead of future trends, Queensland manufacturing needs to remain focused on building a highly skilled and diverse workforce.

The Queensland manufacturing industry continues to evolve, reflecting shifts in global and domestic markets. Over the past decade, we have witnessed cycles of expansion and contraction, yet Queensland has consistently demonstrated resilience and adaptability. The industry accounts for 6.1% of the state's workforce—a testament to its strength and critical role in Queensland's economic landscape.

While some of the post-pandemic growth has since moderated, our workforce remains significantly larger than pre-pandemic levels, and Queensland has emerged as a national leader in manufacturing growth. The workforce has expanded and has continued to consolidate its gains, lifting Queensland's share of the national manufacturing workforce from 18.5% to 20.0%. This shift shows manufacturing's unique strengths, particularly its deep connections to the state's energy and resource industries.

One of the most significant trends shaping Queensland's manufacturing landscape is the increasing prominence of resource-linked manufacturing. Machinery and equipment, petroleum and chemicals, and metal products have all experienced strong employment growth, reinforcing the state's competitive edge in upstream manufacturing.

Food and beverage manufacturing—traditionally the state's largest sub-industry—while remaining stable, has not seen the same level of expansion. This shift highlights the evolving skills needs of our industry and the growing demand for technical expertise in Queensland manufacturing.

Regionalisation remains a defining characteristic of Queensland manufacturing. Approximately half of our workforce operates outside Greater Brisbane, a trend that outperforms all other states and territories. Regional manufacturing hubs are thriving, driven by their proximity to resource and energy projects, supply chain efficiencies, and skilled workforces.

While progress has been made in diversifying the manufacturing workforce, particularly in increasing women's participation, challenges remain. Women account for 25% of the workforce, up from historic levels, but recent industry slowdowns have seen female participation decline again. This pattern reflects broader workforce trends in traditionally male-dominated industries, where expansion drives greater inclusion, but contractions can significantly impact less-represented groups. Long-term, systemic change will require targeted strategies that continue to support

retention and career progression for women in manufacturing.

Skills shortages continue to be a pressing challenge. Job vacancies in Queensland manufacturing remain high, even as the tight labour market begins to ease. The industry faces a critical task in ensuring a pipeline of skilled workers, particularly as technological advancements and automation reshape job roles. Queensland's manufacturing workforce is increasingly qualified, with VET and tertiary education playing a vital role. Sustaining this trend will require ongoing investment in training and education, ensuring new entrants have the skills needed to thrive in a rapidly evolving industry.

This report highlights both the achievements and the challenges ahead. As we move forward, collaboration between industry, government, and training providers will be essential to securing a strong, resilient, and skilled manufacturing workforce. Together, we can reinforce Queensland's position as a manufacturing leader—leveraging our strengths, addressing our challenges, and shaping a future of innovation and sustained growth.



**Rebecca Andrews**

Chief Executive Officer  
Manufacturing Skills Queensland



# INTRODUCTION

Manufacturing Skills Queensland (MSQ) commissioned Ai Group to develop a state of the industry report for manufacturing in Queensland. The report has been prepared by Ai Group's Research and Economics team.

This report is a broad analysis of national and state-based information, using the Australian Bureau of Statistics data. Ai Group's analysis provides insights into the industry.

## Report highlights

- 2024 proved a tougher year than forecasted, for both Queensland and Australian manufacturing, with cost pressures and workforce shortages crimping performance.
- Queensland manufacturing rebounded strongly following the pandemic – with material increases in output, employment and financial performance. While much of this post-pandemic rebound has reversed in Australian manufacturing, in Queensland the industry has consolidated the bulk of these gains.
- Queensland's recent manufacturing growth is broad based. Most sub-industries have seen employment growth, particularly in those with connections to the state's resource and energy industries.
- Queensland has the most regionalised manufacturing industry in Australia, with around half the workforce outside of greater

Brisbane. It is the only state with such a high degree of manufacturing regionalisation, reflecting links to mining and energy in the North.

- The gender composition of Queensland manufacturing has improved in the last decade. However, recent progress is very sensitive to changes in employment levels, which points to the need for ongoing change to employment pathways into the industry.
- Labour supply and skills gaps are the most acute pressure on Queensland manufacturing today. Job vacancies have eased but remain historically high, while wages are rapidly growing.
- Queensland's capex performance generally follows the national trend over the last five year. Changing economic and political climates in 2024 have led to a decrease in capex. In Queensland, periods of investment are followed by lowered capex to allow the industry to grow.



1.

# EMPLOYMENT IN THE QUEENSLAND MANUFACTURING INDUSTRY

*Long-term trend for increasing employment  
accelerated by the post pandemic boom.*

In 2024, the Queensland manufacturing workforce had an average workforce of 181,000 employees, accounting for 6.1% of the state's total workforce. However, there were 169,000 employees in November 2024.

Manufacturing employment has been subject to cycles of expansion and contraction. In the years following the global financial crisis the workforce reduced by approximately 15% while real manufacturing output was relatively constant. This contraction reflected increasing labour efficiency in a more competitive environment.

The post-pandemic expansion in Queensland manufacturing output also saw a period rapid of growth in the workforce: from 160,000 employees in early 2020 to 203,000 by mid-2021. Some of this growth has reversed in 2024, as more challenging operational conditions have faced the industry. Nonetheless, the Queensland workforce remains around 8% larger than prior to the pandemic, and in trend terms continues to grow.

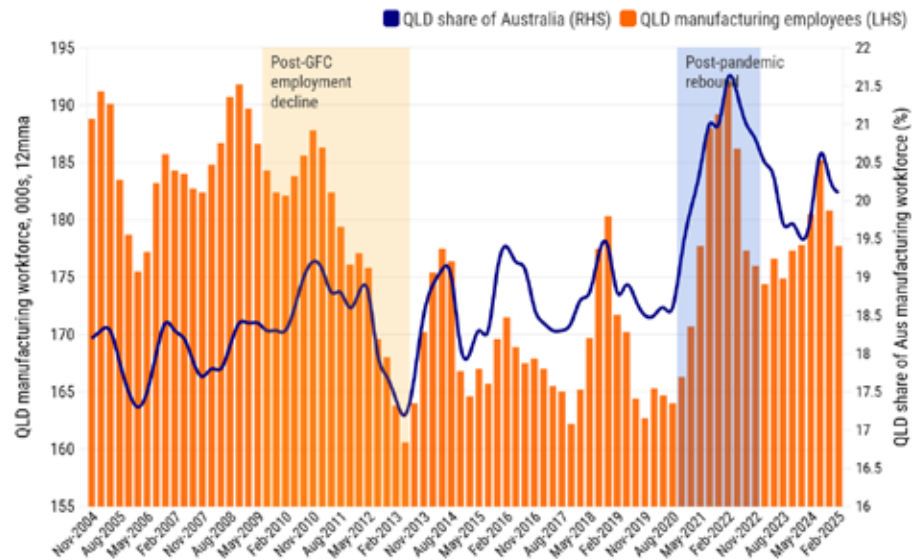
Interestingly, this rapid post-pandemic increase in the manufacturing workforce did not occur at a national level. Most states saw their workforce decline during the pandemic, and except for Victoria have yet to return to pre-pandemic levels. By contrast, Queensland's workforce grew during the pandemic and has consolidated those gains in the three years since. As a result, Queensland's share of the national manufacturing workforce rose significantly, from 18.5% pre-pandemic, to 21.5% at its peak, before returning to around 20.0% today.

This reveals a post-pandemic shift in Australian manufacturing, in which Queensland has emerged as the primary state driving growth. As discussed further in this report, the industry's strong links to resource producers in the north of the state is one of the key factors driving this national trend.



## Queensland manufacturing employment

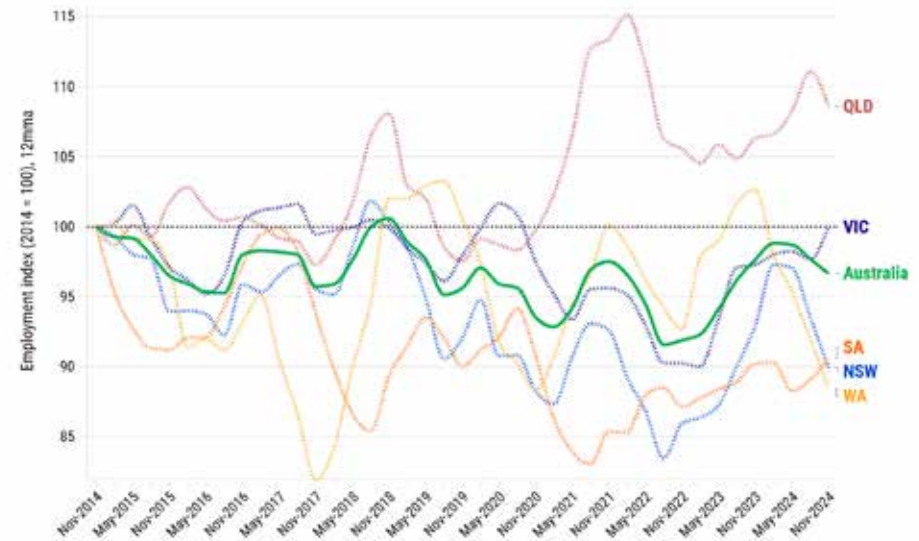
Queensland's share of national employment steadily increasing over two decades



Source: ABS LFS Detailed, Table 5, Ai Group Research & Economics

## Manufacturing employment growth in Australia states

Queensland the only state to show growth since the pandemic



Source: ABS LFS Detailed, Table 05, Ai Group Research & Economics

## 2.

# THE CHANGING COMPOSITION OF THE QUEENSLAND MANUFACTURING INDUSTRY

*Resource-linked manufacturing leads recent growth.*

Employment indicators reveal how the internal composition of the Queensland manufacturing industry is changing to align to the state's strengths in energy and resources.

Machinery and equipment is Queensland's fastest growing manufacturing sub-industry. We've seen workforce growth of 22% over the last three years, accounting for one-third of all new manufacturing jobs. It now accounts for one-quarter of Queensland manufacturing employment, making it the second largest sub-industry behind food and beverage.

The two other upstream branches of manufacturing have grown strongly in Queensland. In the last three years, the petroleum and chemicals sub-industry has seen employment grown 15%, and metal products has grown by 7%. This dynamic speaks to Queensland's emerging strength in branches of manufacturing which leverage the state's energy and raw materials capabilities.

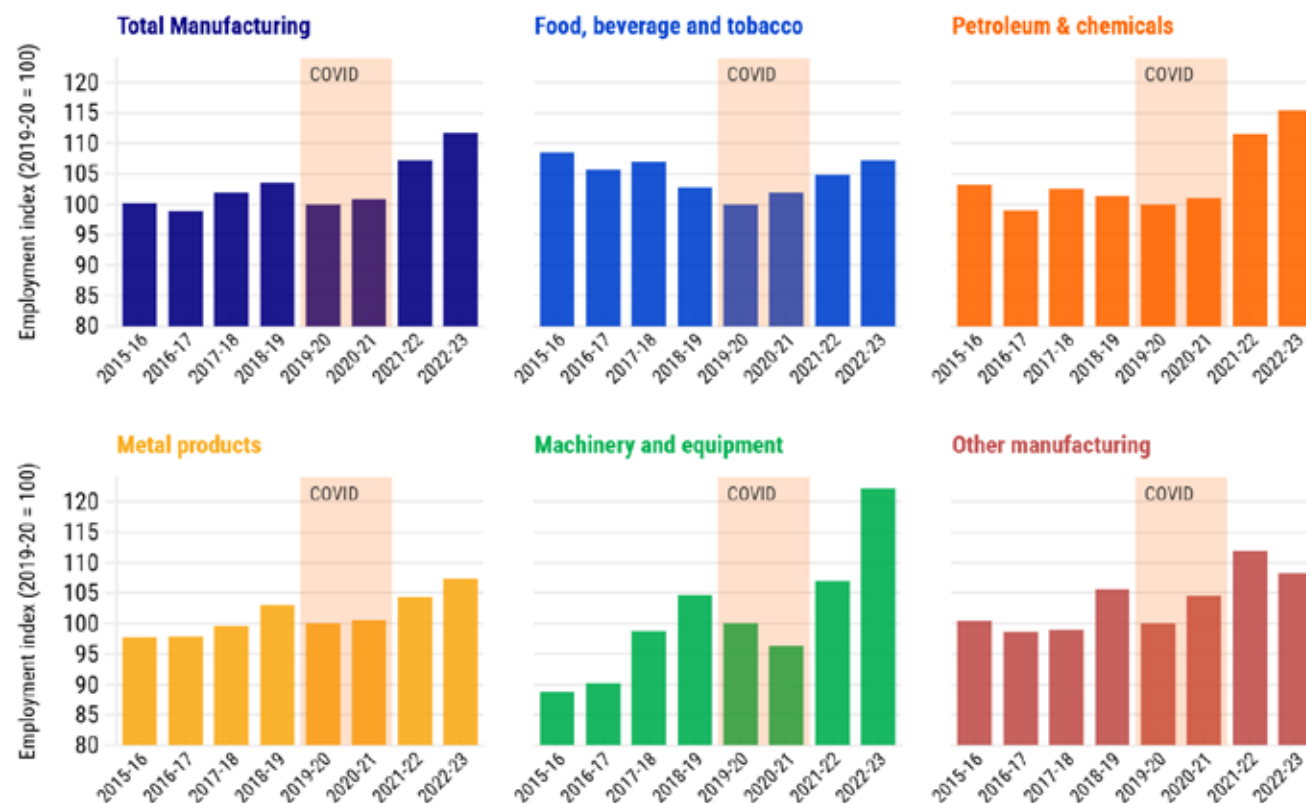
By contrast, employment in the food and beverage sub-industry has been flat. It has recovered to its pre-pandemic levels of employment but has not shown the growth seen by other industries. This reflects lower investment and output growth in the industry, given its connections to domestic consumer markets which have been subdued in recent years. Nonetheless, food and beverage retain its position as the state's largest manufacturing employer at 28% of the workforce.

This data indicates that the internal composition of Queensland manufacturing is changing to reflect the state's strengths in energy and resources. Upstream branches of manufacturing where either energy or mineral commodities are a key determinant of competitiveness have seen strong growth, while more consumer-oriented downstream manufacturing has been relatively stable.

It points to a change in the state's manufacturing skills needs, including a greater supply of upstream-related manufacturing skillsets and a need to deliver skills and training provision in the geographic centres where resource-based manufacturing is located.

## Queensland manufacturing employment by subindustry

Upstream, resource-linked manufacturing leads recent growth



Source: ABS Australian Industry, Ai Group Research & Economics

3.

# REGIONALISATION IN THE QUEENSLAND MANUFACTURING INDUSTRY

*Regionalisation trend continues with strong growth of resource-connected manufacturing.*

Employment indicators allow us to examine the degree of regionalisation in Australian manufacturing industry.

Approximately half of the Queensland manufacturing workforce is currently located in areas outside of the Greater Brisbane area. The rate of regionalisation has increased since the pandemic, rising from around 45% over the preceding decade.

The regionalisation of Queensland manufacturing is significantly higher than the rest of Australia. The national rate is 31%, with Victoria, South Australia and Western Australia significantly lower than this figure. While there has been a small increase in the national rate over the last decade, Queensland still leads the country in its regional diversity.

Queensland's highly regionalised manufacturing base reflects the industry's links to the resource and energy industry. Manufacturing clusters have developed alongside the resource industry to reduce costs, increase supply chain proximity,

and exploit workforce synergies. As the energy industry has emerged as a major manufacturing buyer, particularly for renewable projects, it has gradually pulled the state's manufacturing industry northwards.

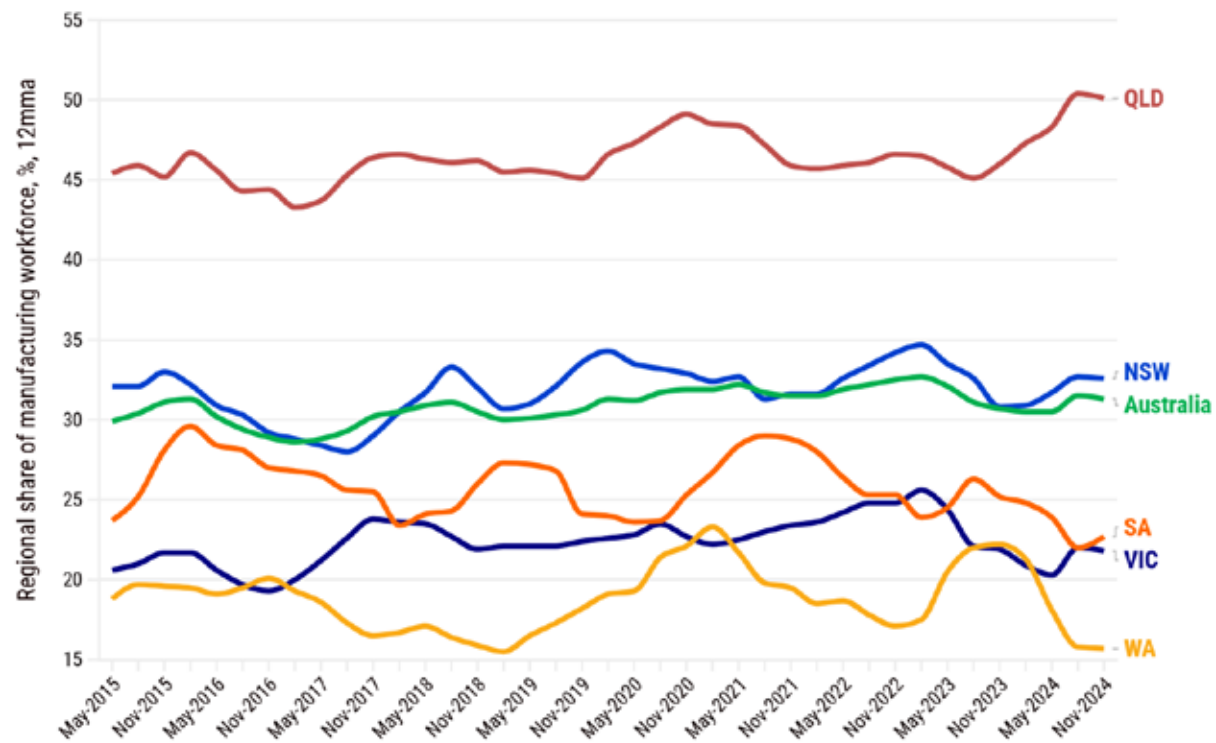
Interestingly, Western Australia's manufacturing industry has a very low level of regionalisation, despite the state also having a large resource industry. This suggests that Queensland's manufacturing industry is more geographically connected to its resource industry partners than counterparts in Western Australia.





## Regional share of Australian manufacturing workforce

Queensland has most regionalised manufacturing base of Australia



Source: ABS LFS Detailed, Table 5, Ai Group Research & Economics

A woman in a white lab coat and hairnet is working on a machine in a factory setting. The background is slightly blurred, showing other industrial equipment and lights. The image is part of a report cover, with a large orange and purple graphic element on the left side.

## 4.

# THE GENDER COMPOSITION OF OF THE QUEENSLAND MANUFACTURING INDUSTRY

*Long-term improvement in women's participation is sensitive to short-term workforce patterns.*

Manufacturing has historically had a large proportion of male employees in the industry and the workforce continues to be predominantly male. Queensland has historically had a lower female share of the manufacturing workforce than the rest of Australia, but this pattern is beginning to change.

In November 2024, 41,000 women worked in the Queensland manufacturing industry, accounting for 25% of the workforce. The female share of the workforce has grown steadily over the last decade.

Much of this growth occurred during the rapid expansion of Queensland manufacturing in the post-pandemic period, which saw a rapid increase in the number of women working in the industry. As a result, the gap between Queensland and Australia closed considerably, with the state nearly reaching the national average in mid-2022.

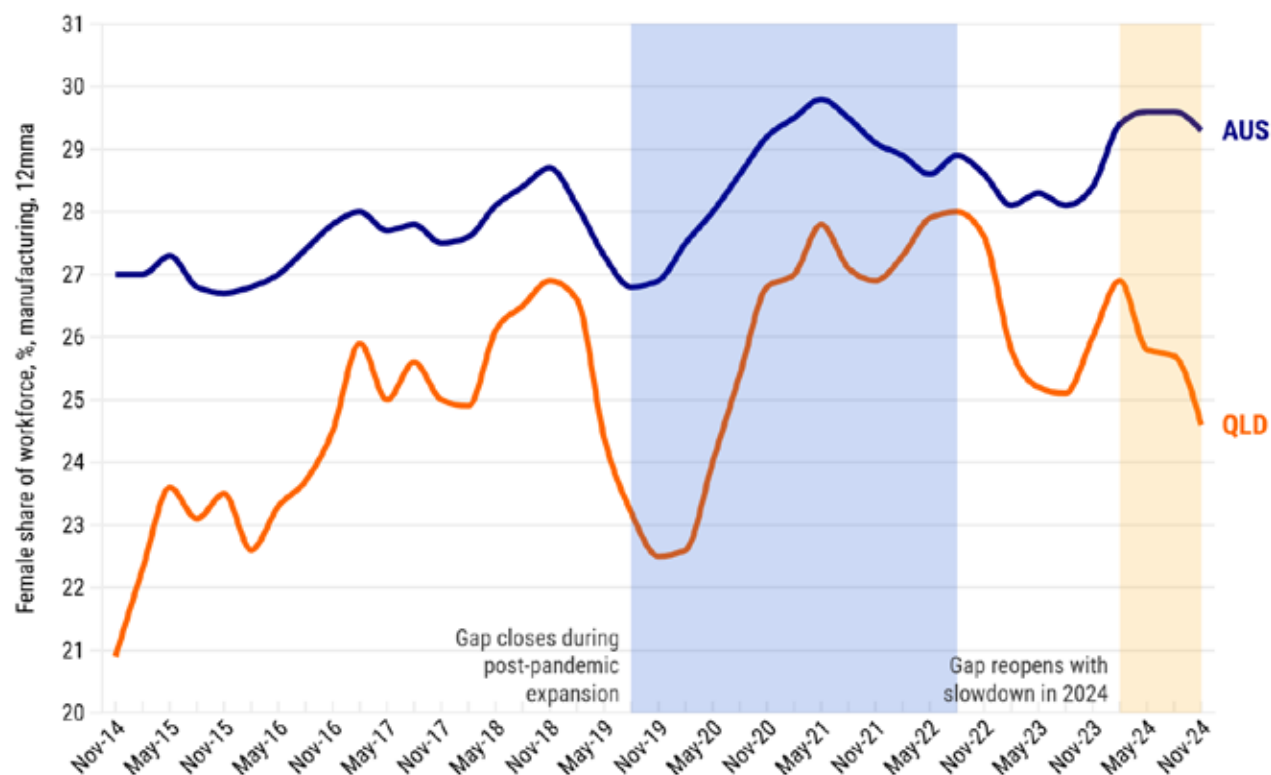
As conditions in the industry slowed during 2024, female participation has fallen again. While it remains higher than its historic level, the gap between Queensland and Australia has reopened.

In traditionally male dominated industries, it is common for sudden improvements in female participation to occur during periods of rapid workforce expansion, which necessitate that employers target less traditional employee groups. Then during workforce contraction, the less traditional employees with looser ties to the industry depart.

This dynamic explains why Queensland saw a spike and fall in the female workforce share over the last five years. It reveals the importance of employment growth to leverage faster change in traditionally male-dominated industries, but demonstrates an opportunity for intervention that creates systemic, long-term change.

## Gender composition of Queensland manufacturing workforce

Improving women's participation falters with slowdown in 2024



Source: ABS LFS Detailed (EQ6 Datacube), Ai Group Research & Economics

5.

# JOB VACANCIES IN AUSTRALIAN AND QUEENSLAND MANUFACTURING

*Job vacancies are easing but remain elevated.*

There were 14,900 job vacancies in Australian manufacturing in the September quarter of 2024, equivalent to 2.1% of all jobs.

The extremely tight labour market during Australia's post-pandemic recovery has seen the number of vacant jobs grow across all industries – and manufacturing has been similarly impacted.

Manufacturing vacancies started to rise in late 2020, and by March 2022 had peaked at almost triple their normal level. The national vacancy rate has since eased but remains elevated on its long-term trend.

Unfortunately, systematic vacancy data at state level is not presently available from official statistics. Using modelled indicative data, we have calculated a set of estimates for the Queensland manufacturing job vacancy rate (see chart on page 12).

During the post-pandemic boom, the estimated Queensland vacancy was higher than the national average, reflecting the state's stronger manufacturing employment growth during this period. Since the middle of 2023, the estimated Queensland rate has fallen slightly below the national average to 1.8%. This remains elevated compared to the state's long-term average of approximately 1.0%.

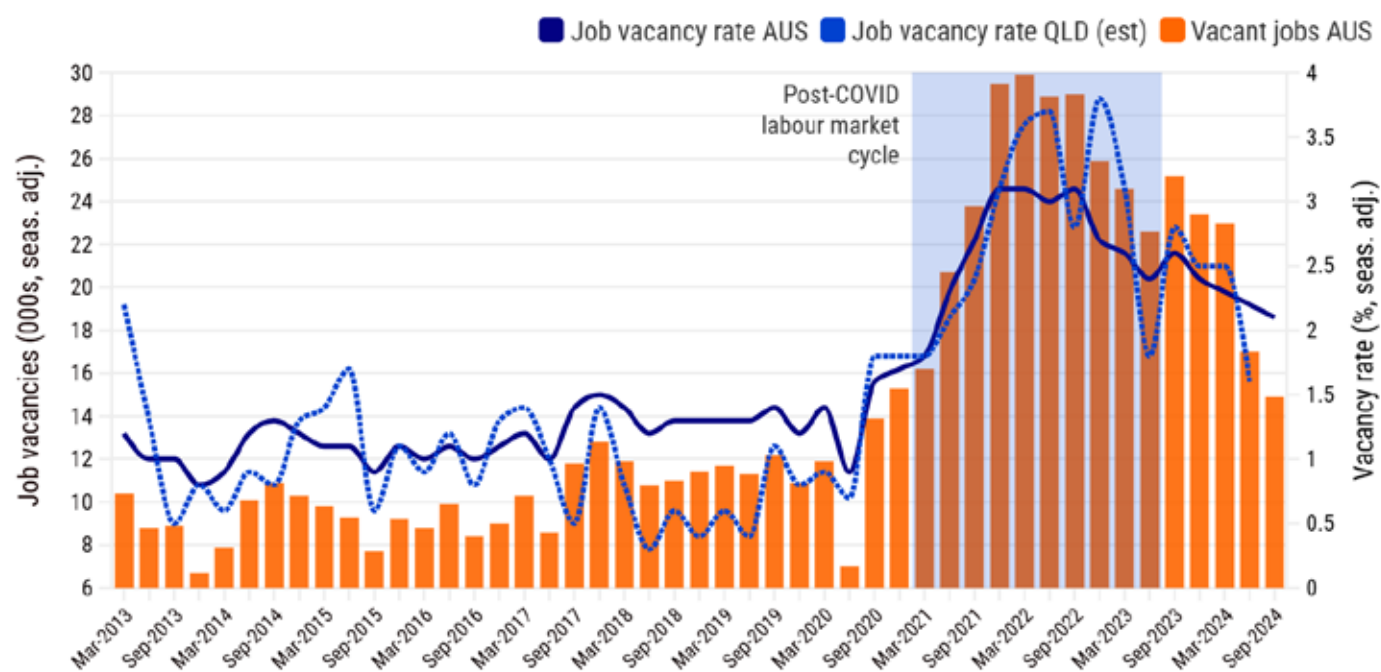
Job vacancies and skills shortages are frequently cited by manufacturers as one of the leading barriers to productivity and business growth. According to data from the Jobs and Skills Australia Recruitment Experience and Outlook Survey (REOS), some 57% of manufacturers failed to fill advertised vacancies in the September quarter of 2024.





## Manufacturing job vacancies

Queensland vacancy rates have eased but remain elevated



Source: ABS Labour Account, Table 4, ABS Modelled indicative state and territory level industry jobs and hours worked estimates, Ai Group Research & Economics



## 6.

# QUALIFICATION PROFILE OF QUEENSLAND MANUFACTURING

## *Secondary and VET dominates, but with major age cohort differences.*

Secondary and VET qualifications are the main qualifications of the Queensland manufacturing workforce, but significant differences exist between different age cohorts.

Secondary education (Year 12 or lower) is the most common workforce qualification, accounting for 43% across the workforce. Post-secondary qualifications (Certificate III to Advanced Diploma) account for another 41% of the workforce. Around one in six employees hold a higher education qualification.

Amongst the youth cohort (15-24 years), secondary education only, accounts for most of the workforce. This is explained by life course effects: many youth manufacturing employees are in their first jobs following school or are completing their VET training.

At middle-aged cohorts (25-34 and 35-44 years) the share of VET qualifications rise, becoming the dominant qualification. Higher education – at both the undergraduate and postgraduate levels

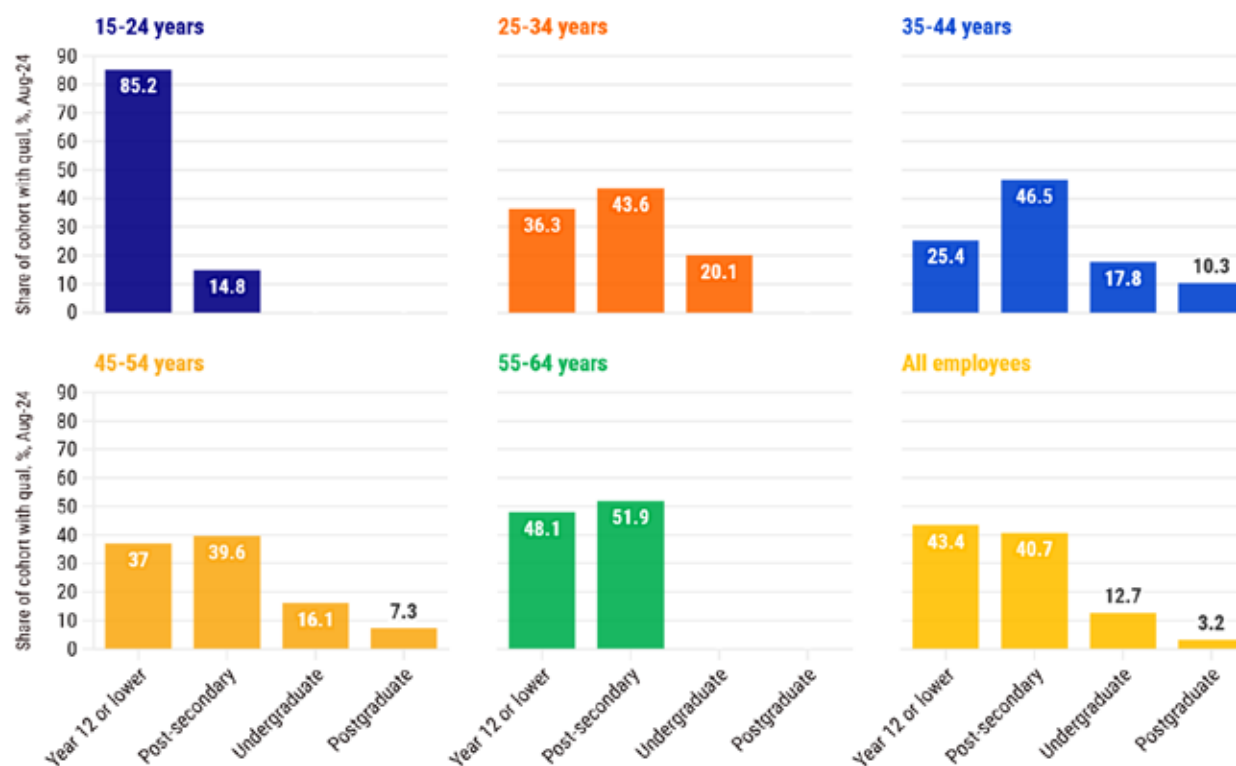
– becomes more common. This reflects greater opportunities to complete qualifications, as well as a requirement for greater levels of qualification for new entrants to the industry.

At the senior cohorts (45-54 and 55-64 years), the qualification level of the workforce reduces again, with secondary education dominant and only 6% holding a tertiary qualification. This likely reflects structural change dynamics. At the time these workers entered the labour force in the 1980s and 1990s, tertiary qualifications were rarer in the workforce and not routinely required in manufacturing.

The advancement of age cohorts – youth into middle-aged, and middle-aged into senior – in future years is likely to deliver a cohort effect that increases in the qualification level of the manufacturing industry. However, this outcome will depend on a continuing supply of training, at both the VET and higher education levels, to the newly entering youth cohort.

## Qualifications of Queensland manufacturing workforce

Dominance of secondary and VET qualifications, with large cohort differences



Source: ABS Characteristics of Employment Survey microdata, Ai Group Research & Economics

7.

# MANUFACTURING WAGES IN QUEENSLAND

*Wages growth moderates with slowing conditions in 2024.*

Median earnings for a permanent full-time employee in Queensland manufacturing were \$37.60 per hour in August 2024. This was marginally lower than national manufacturing figures (\$40.00) but reflects a narrowing gap. The gap between Queensland and Australian manufacturing earnings has narrowed in recent years which reflects the relatively strong employment conditions in the industry relative to other states.

With increasing job vacancies in recent years, manufacturing wages began to grow. Australian manufacturing wages grew at an annual rate of 3.8% in the September quarter of 2024, the fastest rate since 2007. Nationally, manufacturing currently has the fourth highest rate of wages growth of by industry, behind only utilities (5.0%), education (4.4%) and administrative services (3.9%).

Despite these relatively high increases in wage rates, median hourly earnings in Queensland manufacturing fell by 3.1% in the year to August 2024. This likely reflects the easing of business conditions, which lead to more moderate labour utilisation and less use of overtime. This has reduced median earnings, while base rates have increased.

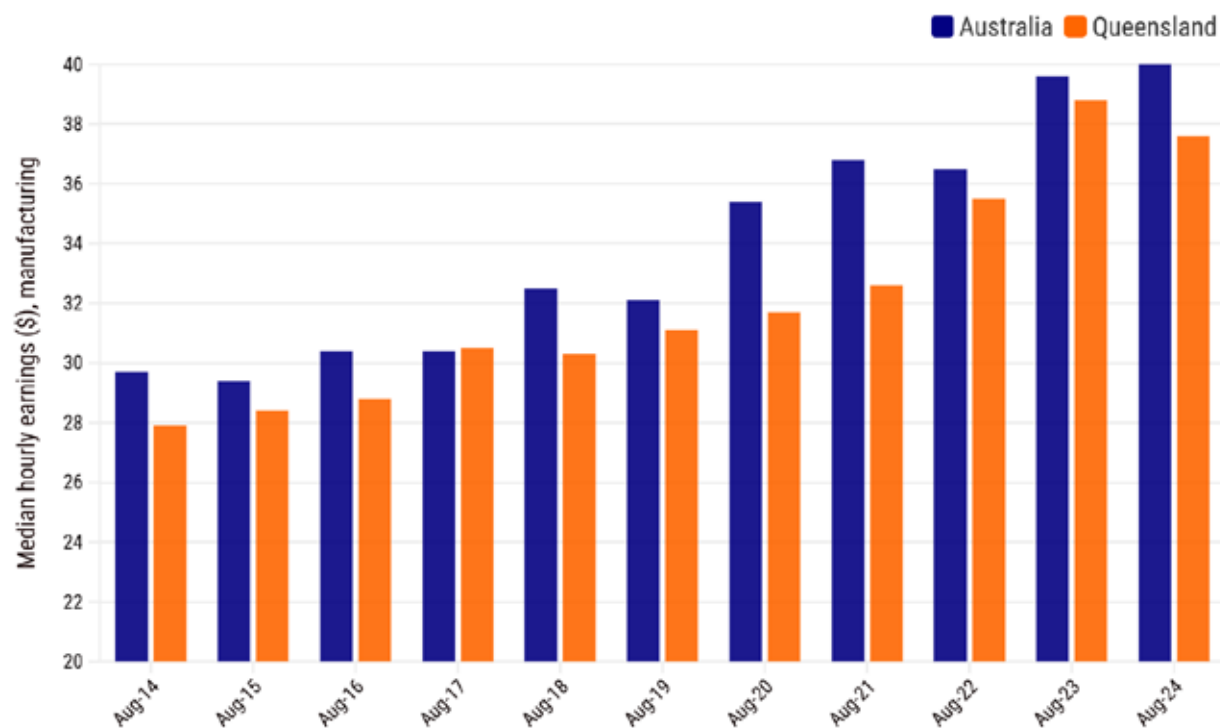
Closing the earnings gap to Australia has mixed effects on the Queensland manufacturing industry—it reduces a labour cost advantage relative to other states but allows the state to be more competitive in terms of recruitment in a period of labour and skills shortages.





## Employee earnings in Queensland manufacturing

Strong post-pandemic growth narrows gap with rest of Australia



Source: ABS Employee Earnings, Table 3, Ai Group Research & Economic

To control for compositional effects, presents median hourly earning for permanent full-time employees only.



8.

## BUSINESS STRUCTURE INSIGHTS

### *Small and medium businesses dominate manufacturing.*

Small businesses constitute the bulk of the Queensland manufacturing industry, both in Brisbane and the regions.

In June 2024, there was 9751 employing businesses in the Queensland manufacturing industry. The main centres were in Brisbane metro (23% of businesses), the Gold Coast (17%) and Sunshine Coast (10%). The remaining half of manufacturing businesses are located outside these three main population centres.

This geography reflects the character of Queensland's manufacturing industry, which as previously noted, is unique in being relatively evenly split between metro and regional bases.

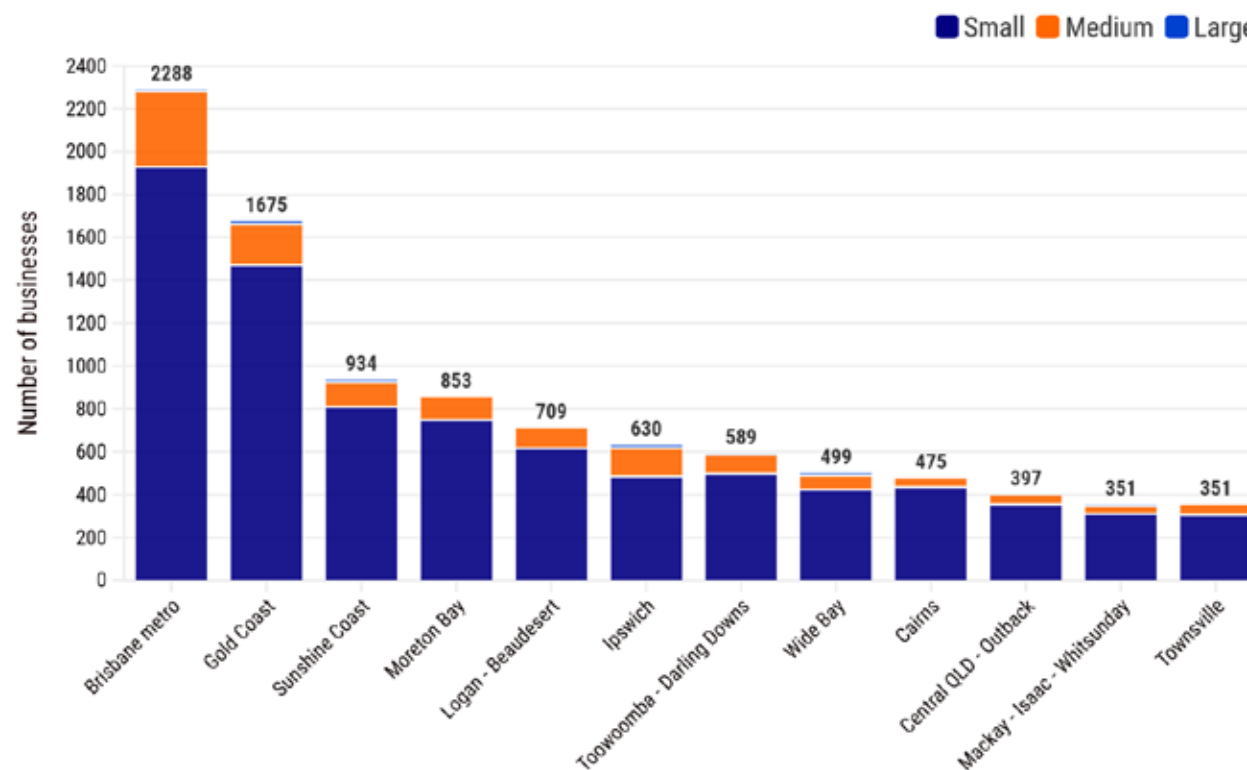
86% of Queensland's employing manufacturing businesses are classified as micro or small businesses. 'Micro' businesses with 1-4 employees make up around half (52%) of the total, and another third (33%) are 'small' with between 4 and 19 employees. Manufacturing businesses at this size typically have limited skills development or

training capabilities and rely on labour markets to supply the skills they need.

Business size also varies with geography. The majority of the state's large manufacturers are located in the three main population centres, which also have larger proportions of medium businesses. In regional centres small business dominate the manufacturing ecosystem, with very few local large or medium peers. This points to a specific need for skills and training capabilities in regional centres that can provide a foundation for local training systems.

## Queensland manufacturing businesses by location and size

Small businesses dominate, with half outside the three main population centres



Source: ABS Counts of Australian Businesses Datacube 8, Ai Group Research & Economics

A man with a grey beard and glasses, wearing a black t-shirt, is operating a large industrial machine in a factory setting. The machine has a prominent vertical pipe and various mechanical components. The background is slightly blurred, showing other industrial equipment.

9.

## FINANCIAL PERFORMANCE OF AUSTRALIAN MANUFACTURING

*Strong improvement in margins due to lift in local demand following pandemic.*

Estimates of operating margins – an industry-level proxy measure for profitability – show the performance of the Australian manufacturing industry has improved since the pandemic.

Manufacturing margins in Australia fell swiftly in the years following the global financial crisis. This corresponded with a period of decline in Australian manufacturing, associated with significant changes in the automotive industry and increasing import competition during the resource boom due to a strong currency.

Manufacturer margins began to recover from around 2015, and by 2018 had returned to around 10%. While a significant improvement, they remained below the all-industry average.

Since the pandemic, manufacturing margins have grown again, peaking at 12.2% in June 2022. The indicator has eased with the industry slowdown of 2024 but remains well above even pre-GFC levels. Manufacturing margins have also outperformed the all-industry average – the first time this has occurred in over a decade.

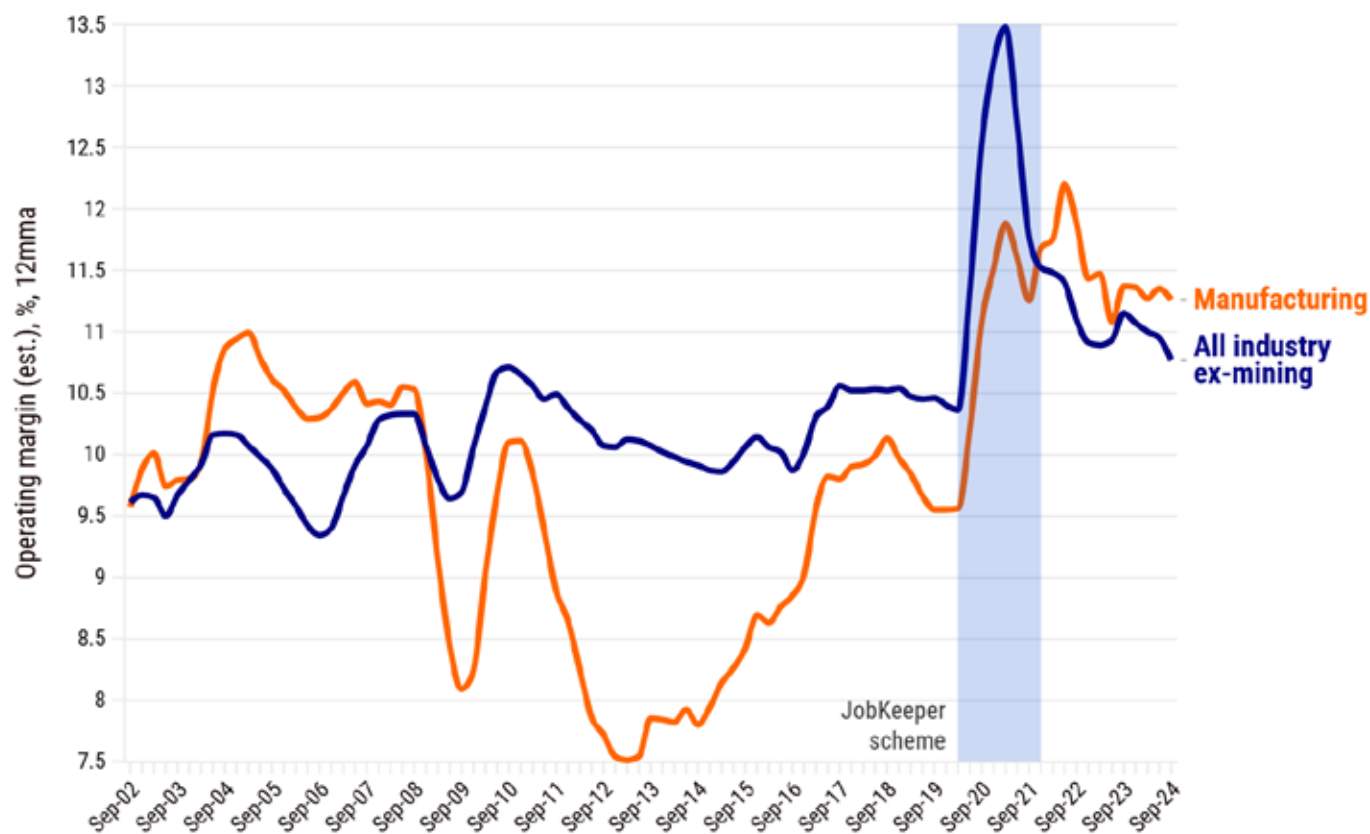
Data on manufacturing margins is currently not available at the state level. However, the stronger performance of the Queensland manufacturing industry relative to the national average since the pandemic would suggest similar performance in Queensland.

The post-pandemic improvement in manufacturer margins partially reflects economy wide dynamics, with margins improving across all industries since 2021. But manufacturing's above average performance reflects industry specific factors, particularly global supply chain shortages and strong demand from the resource and construction industries.



## Manufacturing margins Australia

Strong margin recover since the pandemic, exceeds all-industry again



Source: ABS Business Indicators, Ai Group Research & Economics

"Operating margin" is estimated as operating profit before tax as share of sales income.

10.

## VALUE-ADD IN THE QUEENSLAND MANUFACTURING INDUSTRY

*Strong growth sees Queensland outperform the national average.*

The Queensland manufacturing industry generated \$26.8 billion of value add in June 2024, accounting for 5.2% of Gross State Product.

Output fell steeply in 2019-20 as COVID-19 restrictions were implemented, but the Queensland manufacturing has had a strong recovery in the years since.

Growth eased over the last financial year. In 2023-24, real manufacturing output fell by 3.2%. Rising input costs, labour and skills shortages, and weaker industrial market conditions all dragged on the industry over the last year. In real terms, the industry has now returned to around the same size as it was immediately prior to the pandemic.

Queensland's performance is consistent with the experience of the broader Australian manufacturing industry. The post-pandemic manufacturing rebound has unwound across most of the country, with Western Australia the only state to report output growth in 2023-24. This reflects the generalised nature of cost, labour and

market pressures, which are affecting most state manufacturing industries equally.

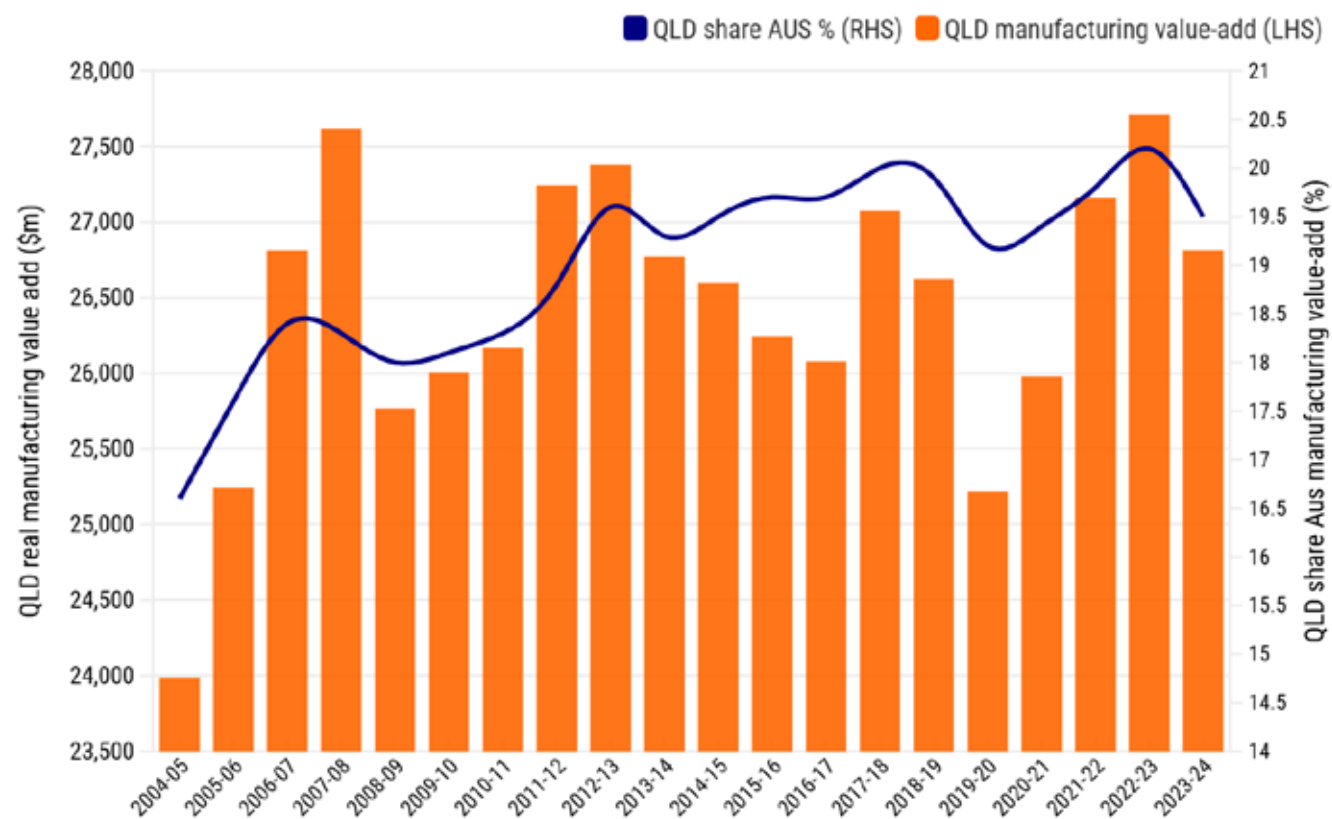
Over the last two decades, Queensland has steadily increased its importance to Australian manufacturing capabilities. The state's share of national manufacturing value-add has grown from 16% in 2004-05 to just under 20%. This indicates that over the longer-term Queensland manufacturing is outperforming other states, across the ups and downs of the business cycle.

This strong performance reflects the state's fundamentals – above average economic, population and investment growth – as well as supply chain linkages to the resource and energy industry.



## Queensland manufacturing value-added

A post-COVID manufacturing recovery eases in 2023-24



Source: ABS Sate Accounts, Ai Group Research & Economics



11.

## CAPITAL EXPENDITURE IN THE QUEENSLAND MANUFACTURING INDUSTRY

*Strong post-pandemic performance but  
challenges in 2024*

The Queensland manufacturing industry undertook \$2.4 billion of capital expenditure (capex) in 2024. The manufacturing industry is capex intensive, accounting for 7.0% of capex in the state – larger than its contribution of around 5% to the state's economy and employment.

Queensland's manufacturing capex performance has been strong following the pandemic. Capex initially surged during the early phase of the pandemic, bucking a fall in national expenditure. This was a time when Australia's two other manufacturing intensive states—New South Wales and Victoria—were heavily affected by lockdowns.

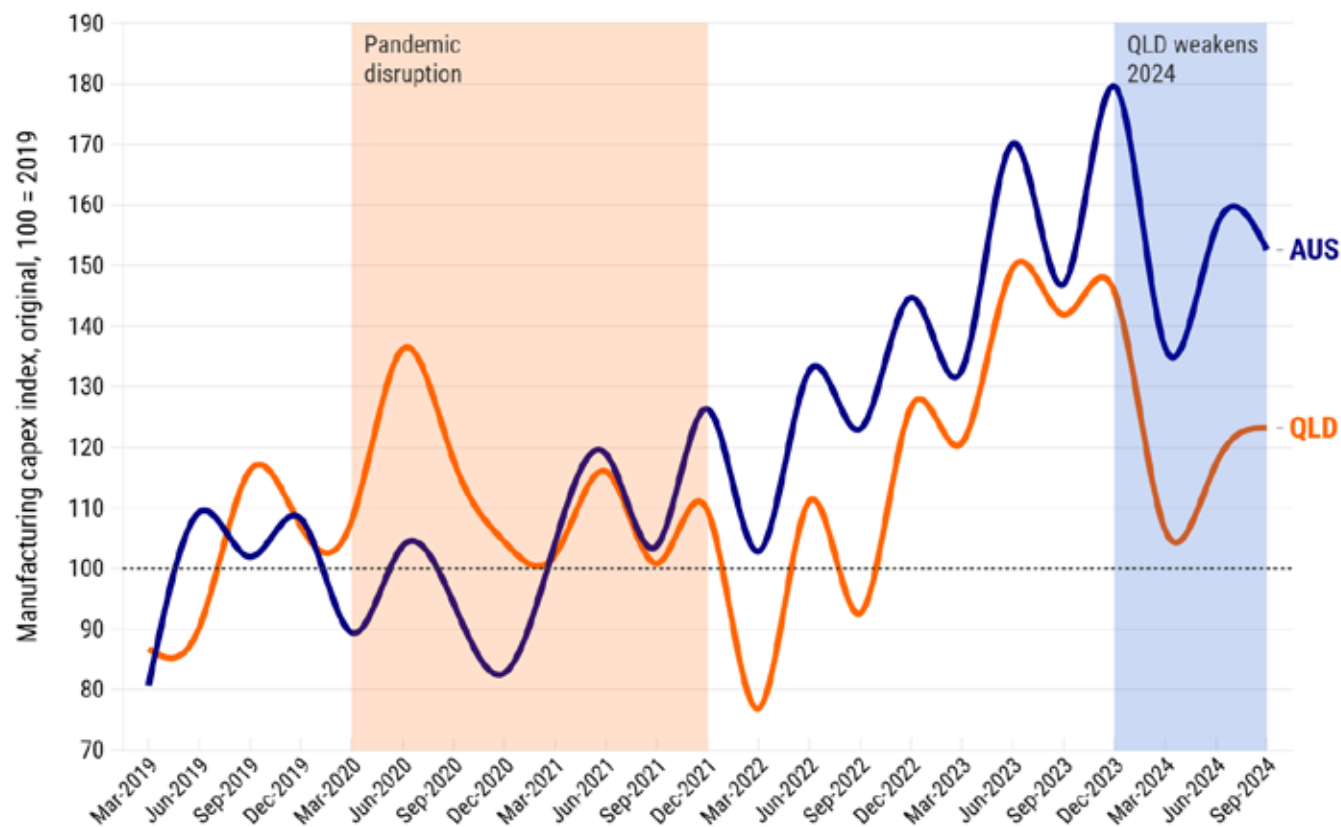
The state's capex performance continued during the post-pandemic period, with mirroring a national trend of steady increases in new investment levels in 2022 and 2023. However, in 2024 capex in Australian manufacturing fell off significantly during the industry's downturn. The fall in Queensland mirrored the rest of the country.

Despite the initial fall in 2024, Queensland capex performance has seen consecutive increases and remains above on its historical trend, reflecting the state's investment attractiveness. Strong economic fundamentals in the state, alongside linkages to the resource and energy sector, have seen investment continue to grow across the national manufacturing business cycle.



## Capital expenditure in Queensland Manufacturing

Queensland follows national rise but underperforms in 2024



Source: ABS Private New Capital Expenditure and Expected Expenditure (Table 20), Ai Group Research & Economics

# ABOUT MANUFACTURING SKILLS QUEENSLAND

Manufacturing Skills Queensland (MSQ) is building a sustainably skilled workforce for a future-proofed manufacturing industry. We're here to connect and support employers and the wider industry with the skills, opportunities, and information to build a thriving sector. Established as part of the Queensland Government's *Making it in Queensland: Building a Stronger Manufacturing Sector* policy, our vision is to create the skills pathways for the future of manufacturing in Queensland.



## AI GROUP RESEARCH & ECONOMICS

Ai Group monitors and analyses developments across the Australian economy. The Ai Group Research & Economics team specialise in business, industrial and labour market economics issues affecting Australian industry. They work with businesses from across the industrial ecosystem—manufacturing, construction, engineering, supply chain and technology—to understand and analyse the challenges and opportunities for Australian industrial development.

Ai Group Research & Economics publish business surveys, industry analyses, policy reports and economic briefs so business leaders can understand the changing national and global economic settings.

[msq.org.au](https://msq.org.au)

