



# GROW YOUR OWN WORKFORCE

Region and industry environmental scan

Wide Bay region and the forestry industry



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1

# Introduction



## 1.1 Good People. Good Jobs: Queensland Workforce Strategy 2022-2032

[The Queensland Government released Queensland's Workforce Strategy 2022-32 \(QWS\)](#) to drive Queensland towards a strong and diverse workforce ready to seize today's jobs and adapt to future opportunities.

The QWS delivers innovative and practical solutions that are needed now to ensure Queensland has a ready workforce to support growth, strengthen our communities and keep Queensland at the forefront of new economic opportunities. The actions in the QWS provide a range of ways for regions, industries and employers to address workforce shortages and to take new and innovative approaches to growing, skilling and retaining their workforce.

Industry, community, and government are committed to tackling skills and labour shortages together by addressing the different needs of diverse populations, businesses and regions.

Each region in Queensland is unique, which results in varied demand for workers and the need for the development of local solutions. New challenges require new approaches, innovative and practical solutions that strengthen our communities and keep Queensland at the forefront of new economic opportunities.

The QWS emphasises the importance of local solutions to address these varied workforce challenges and opportunities.

One of the QWS actions is that the Queensland Government, through Jobs Queensland, will partner with regions to develop workforce plans and initiatives to support "grow your own" workforces and cross-sector skills development through locally led solutions.

## 1.2 Why a Wide Bay Region and industry environmental scan

This report, produced for Jobs Queensland, aims to support the "Grow Your Own" Regional Workforce Program by identifying workforce challenges in the Wide Bay forestry region. This will inform the development of mechanisms to implement action-based, locally focused and led workforce planning and initiatives.

Specifically, it provides an analysis of the employment and training data and trends within the Wide Bay region and forestry-related industries. It identifies workforce challenges and opportunities.



## 1.3 Project scope

This project will:

- provide an understanding of the existing local business structure and workforce skills to identify workforce-related gaps,
- identify opportunities and challenges and cross-sector skilling needs anticipated,
- identify retention and upskilling opportunities for the existing workforce, and
- identify challenges to skill new/local entrants and attract the local workforce to affiliated industries.

### Effective workforce planning has four stages



## 1.4 Governance and methodology

### Stage 1: Get started

To support delivery of the project, a Project Champion Group (PCG) has been established. The PCG will collaborate with Jobs Queensland (JQ) and partner organisation Timber Queensland (TQ) to deliver an improved and sustainable workforce through the development of an industry-led workforce plan that will provide a blueprint for the industry to address workforce challenges into the future.

The primary objective of the PCG will be to provide JQ with advice to help guide the project and provide industry endorsement of project deliverables to best meet industry's needs and expectations. The PCG will provide JQ and TQ with access to their networks, so consultation is maximised.

The PCG has been formed to provide governance and critical input to the workforce plan.

The PCG is comprised of representatives from:

- GMT Logging
- DTM Timber
- Timber Queensland
- HQ Plantations
- Robertson Bros Sawmill
- Hyne Timber
- Sunchip Group
- Canopy - a forest and timber industry training and career hub
- South + Central Queensland Forestry Hub
- Laminex Australia
- Private Forestry Service Queensland.

The PCG identified and endorsed the region of focus as the Wide Bay Statistical Area 4 (SA4) and developed a non-exhaustive visual of the industry in Queensland, showing a concentration of the Forestry industry's workforce in Wide Bay (see map on next page). This provides the parameters for research to establish the current profile of and future workforce needs for the forestry industry.

### Stage 2: Gather information

Desktop research using established and recognised information sources has been undertaken to develop a profile of the current regional workforce and to identify possible areas of concern for future workforce development. This will provide a benchmark for workforce planning activities.

## 1.5 Region and industry of focus

This report, produced for Jobs Queensland, provides an analysis of the employment and training data and trends in forestry-related industries in the Wide Bay Statistical Area 4 (SA4).

The Wide Bay SA4 comprises the local government areas of Bundaberg, North Burnett, South Burnett, Fraser Coast and Gympie. It includes the five Statistical Area 3 (SA3) regions of Bundaberg, Burnett, Gympie-Cooloola, Hervey Bay and Maryborough.

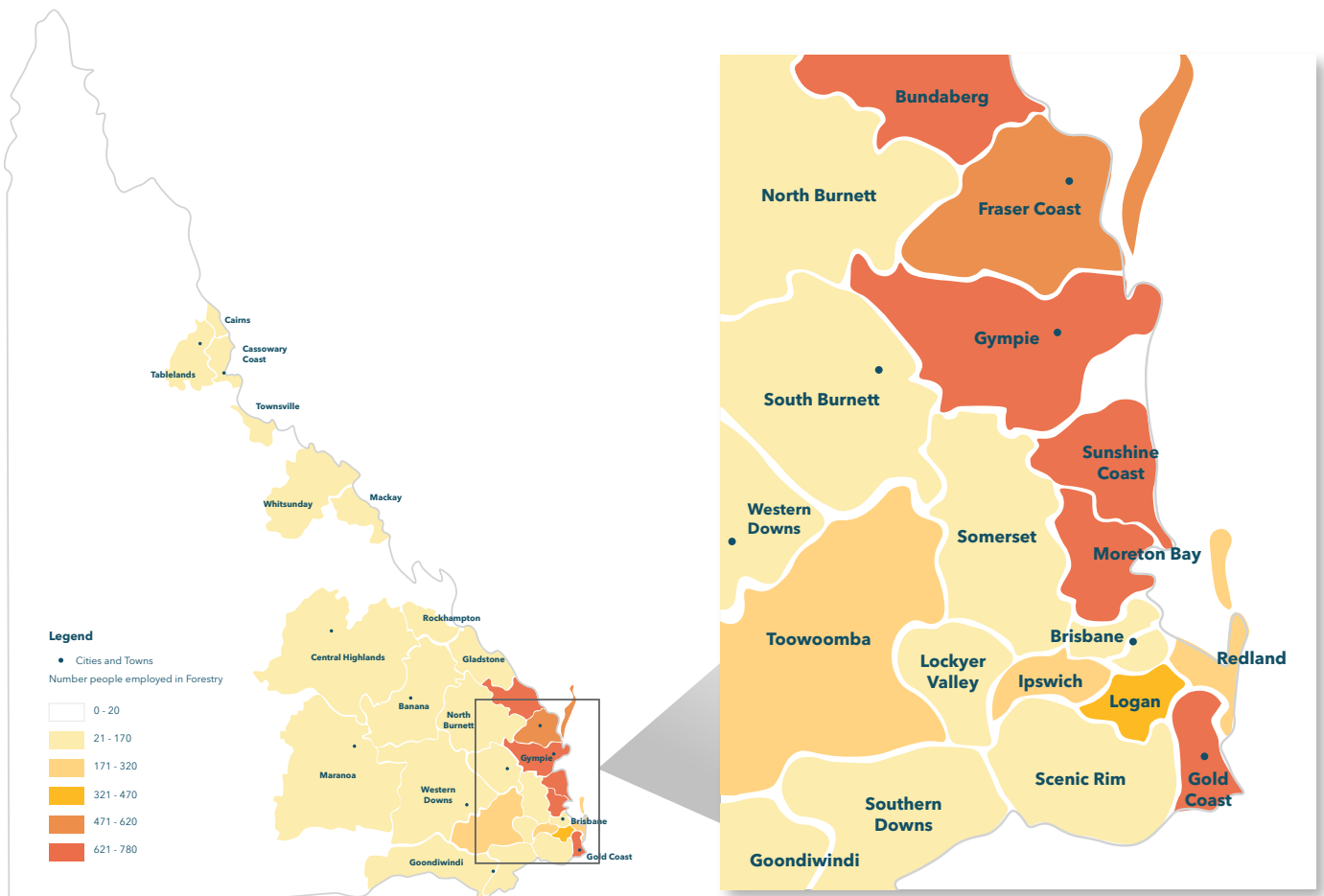
The Wide Bay region covers an area of about 48,599km<sup>2</sup>, or around 2.8% of Queensland. It extends from Kalpowar in the north to south of Nanango, and from Bundaberg, Maryborough and Gympie in the east to west of Eidsvold.

## 1.6 The forestry industry ecosystem

The specific industry sectors under consideration are Forestry and Logging (ANZSIC 03) and Wood Product Manufacturing (ANZSIC 14), which encompass the following subsectors:

- Forestry (ANZSIC 0301)
- Logging (ANZSIC 0302)
- Forestry Support Services (ANZSIC 051)
- Log Sawmilling and Timber Dressing (ANZSIC 141)
- Other Wood Product Manufacturing (ANZSIC 149).

### Forestry Industry Employment



Source: Department of Agriculture and Fisheries



# 2

## Summary highlights and findings

# Wide Bay region analysis

## 1. Demographic analysis

- **Ageing population:** The Wide Bay region has an ageing population, with the majority of residents falling within 45-64 and 65+ age groups. This indicates that many are either nearing or have already entered retirement. As a result, Wide Bay is likely to face a future reduction in its available workforce, leading to a potential labour shortage that could impact multiple industries.
- **Labour shortage:** To mitigate potential labour shortages, the region must consider strategies such as attracting younger residents in the workforce, attracting residents in the region, or extending the career lifespan of older residents. Other solutions might include adopting automated technologies or outsourcing tasks.
- **Impacts of skills mismatch:** Wide Bay's population is expected to grow, although at a slower rate than that of Brisbane. While this growth is likely to fuel job demand, a mismatch in education and skills development could make it difficult for local businesses to find qualified workers.
- **Diverse community:** Wide Bay has a diverse community, including First Nations and overseas-born individuals, along with residents receiving disability support. This highlights the importance of creating inclusive engagement strategies that respect the skills and cultural contributions of these groups.
- **Economic vulnerabilities:** Economic indicators, such as a lower median income compared to state average, suggest potential economic challenges and limited opportunities in high-paying sectors for the Wide Bay community.

## 2. Workforce and labour market landscape

- **Underutilisation of the working-age population:** Wide Bay has a considerably lower labour force participation rate compared to Queensland, particularly across the adult and senior age groups. The region also has the second lowest employment to population rate among all SA4 regions in Queensland. This suggests that the working-age population is underutilised, possibly due to limited jobs opportunities or other workforce engagement challenges. Creating more jobs opportunities or better matching skills to available jobs could improve the situation. This data could also suggest that the region is dominated by an older demographic or other groups less active in the workforce. For example, the employment rates in the 35-44 age group are notably lower than the preceding age group. This may be due to several factors, such as family responsibilities, mid-career transitions, and possibly societal perspectives on work-life balance or gender roles. The employment rate is higher in the 45-54 age group, suggesting that some individuals may have re-entered the workforce, possibly due to upskilling, or shifts in family dynamics. Providing retraining opportunities and supporting various life-stage needs could be crucial for economic development of the region.

- **Youth unemployment concerns:** The youth unemployment rate in Wide Bay is nearly twice the general unemployment rate in the region. This could point to various barriers for young workers, such as a skills mismatch or a lack of entry-level positions.

## 3. Business ecosystem and its challenges

- **Consistency with state-wide pattern:** The business-size distribution in Wide Bay closely mirrors that of Queensland. This could mean that state-wide policies and economic conditions may have a similar effect on the region.
- **Attracting and retaining skilled workers:** The limited presence of large businesses in the region may hinder the attraction and retention of highly skilled workers, who might be drawn to areas with more large-scale employment opportunities.

## 4. Dynamics of job vacancies and skills demand

- **Demand for skilled labour:** There is a high number of advertisements for professionals, technicians, trade workers, machinery operators and drivers in regional Queensland, which indicates a strong demand for skilled and trade workers. If the local workforce does not possess the necessary qualifications, a wider skills gap or shortage could emerge. This may prompt the need for increased investment in vocational education and training programs in these specific skilled areas.

## 5. Educational attainment and training focus

- **Vocational focus:** The Wide Bay region shows a strong emphasis on vocational and technical training, when comparing its VET qualifications attainment with the Queensland population.
- **Gap in higher education:** Only 16% of Wide Bay's population has a university-level education, which is notably lower than Queensland's average. This suggests either a shortfall in professionals in fields requiring extensive academic qualifications, or a lesser demand for such roles in the region's industries.
- **Potential limitations in general education:** 45.7% of Wide Bay's population completed up to Year 11 or 12, as opposed to 63.6% in the wider Queensland population. This may signal challenges in general educational attainment, limited opportunities or access to post school education options such as TAFEs, RTO (Registration Training Organisation)s and Universities in the region, or possibly a more direct transition from school to the workforce or vocational training. It also indicates that there is potentially a pool of low skilled people residing in the area that could fill entry level roles and be supported with upskilling and training opportunities.
- **Impact on attracting skilled workers and businesses:** The specific educational profile of the region might impact its ability to attract certain types of businesses or skills. Industries reliant on highly educated workers might find the region less attractive, while those requiring skilled trades might see it as a suitable location.

## 6. Vocational education and training (VET) trends

- **Youth engagement in VET:** The stable trend in enrolments among students aged 15 to 19 in Wide Bay, while Queensland experienced growth, could indicate potential challenges in engaging youths in vocational education and training in Wide Bay. A robust youth engagement in VET ensures a steady stream of skilled workers for industries relying on vocational skills.
- **Participation of First Nations students and students with disabilities:** The higher enrolment rate of First Nations students and students with disabilities in Wide Bay compared to Queensland may reflect a more inclusive approach to educational offerings in the region, addressing specific community needs or opportunities within the community.
- **Apprenticeship/traineeship trends:** A notable increase in apprenticeships and traineeships between 2020 and 2022 may suggest proactive measures in the Wide Bay region to address skill shortages triggered by the COVID pandemic. The introduction of the Australian Apprenticeships Incentive System is expected to further increase these apprenticeship/traineeship commencement rates.

## 7. Training and employment pathways

- **Sector-specific demand:** There is a pronounced demand for qualifications in the health care (especially individual support) and construction sectors, in line with the major industries in the region. Qualifications for roles in earthmoving, personal care, clerical work and hospitality are especially in demand, which likely reflects the ongoing infrastructure projects, the needs of an aging population, and growth in the tourism or local services industry.
- **Specialised skill development:** Specialised courses such as 'Perform Rescue from a Live LV Panel' and 'CPR Skill Set' or 'Surface Coal Mine Safety Skill Set' are also in demand, addressing niche industry needs. Such specialised training not only fulfills specific industry needs but also gives the region an edge in terms of specialised workforce availability.

## 8. Wide Bay regional development and sustainability

- **Focus on sustainability considerations:** The Queensland Government is committed to enhancing Wide Bay's manufacturing capabilities, energy independence, lifestyle amenities and employment prospects. This is in alignment with regional goals for economic growth and sustainability. In addition, given Wide Bay's dependence on construction and primary industries, this commitment also underscores the potential for future workforce training to concentrate on sustainable practices in construction, forestry and agriculture.



# Forestry industry analysis in the Wide Bay region

## 1. Workforce composition and dynamics

- **Significant regional employment:** The Wide Bay region plays a significant role in Queensland's Forestry industry, accounting for 23.7% of the state's total forestry workforce. Timber processing is the largest sector, comprising over half of the industry workforce in the region. Gympie-Cooloola and Maryborough are key subregions for employment in the industry.
- **An aging workforce:** Although the age distribution is balanced across the industry in Wide Bay, there is a considerable proportion of employees nearing retirement age. This indicates that strategic succession planning may be necessary to retain industry-specific knowledge and skills. Notably, the Burnett subregion has a higher rate of youth employment.
- **Limited gender and First Nations representation:** The industry shows limited diversity within the region, with female workforce participation remaining static at 13.3% and First Nations representation at 3.4%. Given the anticipated workforce and skills gaps, a compelling argument might exist for prioritising initiatives aimed at increasing workforce diversity.

## 2. Education and skills development in the industry

- **Educational attainment levels:** A significant proportion of the Forestry workers in the Wide Bay region hold only school-level education. This may highlight the need for targeted upskilling programs, which could offer pathways to higher qualifications, thus enhancing both individual career progression and the overall competency of the workforce, as well as job satisfaction.
- **Uptake of formal training:** Although the industry demonstrates commitment to formal training, notable gaps remain in the uptake of higher-level qualifications. This identifies a critical area for strategic improvement. In addition to forestry-specific courses, there is also notable opportunities for cross-industry training in areas such as agriculture, business services, and transport and logistics.
- **Skill development frameworks and training pathways:** Well-established frameworks for skill development are available, ranging from entry-level to tertiary educational options. These frameworks offer a diverse array of training opportunities tailored to industry needs; however, there is a lack of suitable training providers.

## 3. Challenges in vocational and tertiary education and strategic needs

- **Geographical and specialisation gaps:** The majority of VET organisations are located outside the region, often in other states. Their limited specialisation also results in misalignment with the industry-specific needs in the region. This underscores the need for localised vocational training facilities that cater to the skill needs of the industry.
- **Tertiary training gaps:** The absence of specialised forestry programs and a general decline in tertiary enrolments across Australia has created an educational void. Addressing this gap may require strategic collaborations with tertiary institutions.

## 4. Labour market dynamics and challenges

- **Specialised labour shortage:** The industry faces acute labour shortages in specialised occupations, which poses risks to both efficiency and future growth. Factors contributing to this shortage include limitations in training infrastructure.
- **High-demand occupations and recruitment needs:** Roles such as Forester, Harvester Operator and Saw Technician are in high demand, amplifying the need for targeted recruitment and training programs. In addition, there are challenges related to the inconsistent availability of general labour across the region.

## 5. Future directions and skill needs

- **Technological advances and expansion:** The Forestry industry in the Wide Bay region is well-prepared for growth, marked by technological adoption and expansion in areas such as plantation forestry, harvesting and timber manufacturing. These indicators point to a rapidly evolving industry landscape.
- **Uncertainties about future production from state-owned native forests:** The Queensland Government is formulating future policies through consultations with industry stakeholders about timber production from state-owned native forests in the Eastern Hardwoods region, including the Wide Bay area. However, post-2024 production remains uncertain and changes to the current agreement could have significant implications for the industry, including potential job losses and the need for retraining programs.
- **Emerging skill demands:** Emerging skill needs have been identified in specialised areas such as plantation management, silviculture, harvesting machine operation, technological literacy and quality control techniques. These requirements warrant short-term to mid-term strategic planning for skills development.

# 3

## An overview of the Wide Bay region



### 3.1 Population profile


#### a) Population size

 | **317,810**


The estimated population of Wide Bay was 317,810 people in 2022, making up 6.0 per cent of Queensland’s total population of 5,326,622<sup>1</sup>

**5.4%**  
First Nations community 

**12.9%**  
Born overseas 

**6.2%**  
have profound or severe disability 

#### b) Age profile and median age

 | Wide Bay had a median age of 48.8 years in 2021, which was substantially higher than the Queensland median of 37 years<sup>2</sup>

Growth of **14,447** persons (2021-2026) 

Table 1: Estimated resident population in Wide Bay and Queensland by age, 2021

	0-14 years		15-24 years		25-44 years		45-64 years		65+ years		Total Number
	Number	%	Number	%	Number	%	Number	%	Number	%	
Wide Bay	50,792	16.3	30,852	9.9	60,431	19.4	85,293	27.4	83,360	26.8	310,728
Queensland	989,461	19.0	651,113	12.5	1,416,854	27.2	1,295,777	24.8	864,448	16.6	5,217,653

Source: Australian Bureau of Statistics, ERP by SA2 (ASGS 2021), Age and Sex, 2001 Onwards [Data Explorer], accessed 01 August 2023.

Factors influencing this aging trend may include the region’s growing retiree population, declining birth rate, and increased life expectancy.

With a significant portion approaching or already in retirement age, the region may face a reduced labour supply. Individuals in the 45-64 age group may be looking towards retirement, while those 65 and over may have

already exited the workforce. This can potentially lead to labour shortages in certain sectors.

To offset the demographic challenges, the region might need to depend on attracting younger workers from elsewhere or outsourcing certain jobs and services.

#### c) Working age population

**56.8%**



(176,576 people) of Wide Bay’s total population were of working age in 2021<sup>3</sup>

The working age population, or those aged 15-64 years, is crucial for any region, as it constitutes the primary segment of the workforce. An ongoing ageing trend of population in Wide Bay might lead to a decline in this segment over time, impacting labour supply.

<sup>1</sup> Australian Bureau of Statistics, ERP by SA2 and above (ASGS Edition 3), 2001 Onwards [Data Explorer] (Accessed 01 August 2023).

<sup>2</sup> Australian Bureau of Statistics, Median age, sex ratio and broad age groups, by SA2 and above (ASGS2021), 2021, and Population Estimates by Age and Sex, Summary Statistics (ASGS 2016), 2006 and 2016 [Data cube] (Accessed 01 August 2023).

<sup>3</sup> Australian Bureau of Statistics, Data by region 2011-2022, by ASGS main structure (ASGS Ed. 3, 2021) [Data Explorer] (Accessed 01 August 2023).

#### d) Diversity: First Nations and overseas-born populations

First Nations community

# 5.4%



(16,840 people) of the population, representing significant part of Wide Bay's cultural heritage and demographic composition<sup>4</sup>

Ensuring engagement, inclusion, and tailored workforce development strategies for this community can enhance social cohesion and economic participation.

Persons born overseas

# 12.9%



(39,940 people) of the population, a significant representation of the region's diverse population<sup>5</sup>

This diversity can bring in varied skill sets, experiences, and perspectives to the region's workforce.

#### e) Persons with disability support

# 6.2%



of the Wide Bay's population, equating to 19,362 people, received a disability support pension in 2021<sup>6</sup>

Providing opportunities for training, skill development, and employment to this segment can enhance workforce diversity and tap into a broader talent pool.

#### f) Personal income distribution

# \$28,964



The median personal income in the Wide Bay region was \$28,964 per year in 2021, lower than Queensland's median of \$40,924<sup>7</sup>

The income distribution between Wide Bay and Queensland reveals significant disparities. Wide Bay's income distribution is characterised by a significantly larger portion of its population (40.6%) earning between \$20,000 and \$51,999 annually, compared to Queensland's 34.1%. Conversely, Queensland has a more substantial percentage (28.1%) in a higher income bracket of \$52,000 to \$103,999, a figure greater

than Wide Bay's corresponding category by 8.2%. Additionally, fewer individuals earn over \$104,000 per year in Wide Bay (5.4%) compared to Queensland (11.9%).

This skewed income distribution in Wide Bay may present challenges such as population hardship leading to dependence on government assistance.



<sup>4</sup> Australian Bureau of Statistics, Data by region 2011-2022, by ASGS main structure (ASGS Ed. 3, 2021) [Data Explorer] (Accessed 01 August 2023).

<sup>5</sup> Ibid.

<sup>6</sup> Ibid.

<sup>7</sup> Australian Bureau of Statistics, Census 2021, G17 Total personal income (weekly) by age by sex, Main Statistical Areas Level 2 and up (SA2+) and Census 2021, G02 Selected medians and averages, Main Statistical Areas Level 2 and up (SA2+) [Data Explorer], accessed 01 August 2023.

Table 2: Total personal income per year in Wide Bay and Queensland, 2021

	Less than \$20,800		\$20,800 to \$51,999		\$52,000 to \$103,999		\$104,000 or more		Median (\$/year)
	Number	%*	Number	%*	Number	%*	Number	%*	
Wide Bay	58,524	24.4	97,325	40.6	47,692	19.9	13,000	5.4	28,964
Queensland	667,315	17.3	1,316,078	34.1	1,085,654	28.1	461,162	11.9	40,924

Source: Australian Bureau of Statistics, Census 2021, G17 Total personal income (weekly) by age by sex, Main Statistical Areas Level 2 and up (SA2+) and Census 2021, G02 Selected medians and averages, Main Statistical Areas Level 2 and up (SA2+) [Data Explorer], accessed 01 August 2023.

## g) Migration Trends

### Net internal migration

The region saw a positive net internal migration of 6,413 people in 2022, marking a significant 76.2% change from 2021<sup>8</sup>. This might indicate that Wide Bay is becoming an increasingly attractive destination for Australians, which can have implications for its labour market dynamics.

### Net overseas migration

While the number stood at 753 people in 2022, what's notable is the 417.7% increase from 2021<sup>9</sup>. While the numbers are comparatively smaller, the substantial percentage change suggests a significant shift in international attraction, possibly marked by the border opening after the COVID pandemic and an increase in employer sponsorship visa to fill skill shortage.

## h) Population projections



Wide Bay's population growth is expected to be slower than the overall population growth of the state over the next decade

The population growth may have several implications on the workforce in the region. The foremost effect is a likely increase in demand for jobs.

If job opportunities expand at a rate exceeding job demand, or if population growth does not align with growth in education and skills development, businesses may struggle to find qualified workers. This could potentially put upward pressure on wages.

The growth disparity between the Wide Bay region and capital city or other regions may affect regional workforce development by making it challenging for regional businesses to attract and retain skilled workers as these workers may be drawn to the higher wages and more job opportunities in Brisbane.

Table 3: Population projections for cityWide Bay and Queensland, 2021 to 2031

	2021	2026*	2031*	Change 2021-2026	Change 2026-2031	Average Annual Growth Rate (%)
Wide Bay	310,728	325,175	336,440	14,447	11,264	0.8
Queensland	5,217,653	5,663,247	6,079,887	445,594	416,640	1.5

\*assumptions about the future levels of fertility, mortality, net overseas migration, net interstate migration and net intrastate migration medium

Source: : Queensland Government Statistician's Office, 25 August 2023, Queensland Government population projections, 2023 edition. Available at <https://www.qgso.qld.gov.au/statistics/theme/population/population-projections> (Accessed 04 September 2023).

<sup>8</sup> Australian Bureau of Statistics, Data by region 2011-2022, by ASGS main structure (ASGS Ed. 3, 2021) [Data Explorer] (Accessed 01 August 2023).

<sup>9</sup> Ibid.



## 3.2 Workforce and labour market profile

# 113,109

was the total of people employed in Wide Bay in June 2023<sup>10</sup>.

### Unemployment rate



## 8.2%

Total unemployment rate, July 2023



## 16.5%

Youth unemployment rate, July 2023

### Jobs held by gender<sup>11</sup>



## 96,493

Female (48.4%)



## 102,799

Male (51.6%)

The distribution of jobs was relatively balanced, with nearly equal numbers of positions held by males and females.

### a) Employment to population rate

The Wide Bay region had an employment to population rate of 49.9 % in July 2023<sup>12</sup>. This means that nearly half of the working-age population (those aged 15+ years and older) was employed. When compared to all other SA4 regions in Queensland, this was the second-lowest rate. This suggests that the region's demographic is markedly dominated by an older population and possibly other sections of the population that are not actively participating in the workforce. Analysing this rate by age group provides insights into the employment landscape.

- **Youths (15-24 years):** The employment rate for the youth cohort in Wide Bay's youth cohort, at is 55.369.0%. When compared to other age groups, this rate appears relatively low. Factors contributing to this may include, potential barriers to entering the workforce, educational commitments or limited educational opportunities for this age group. It may also highlight potential labour market capacity within the region.
- **Primary age adults (25-44 years):** The employment rate is 82.0% for those aged 25-35, demonstrating a strong level of workforce engagement in Wide Bay's economy. In contrast, the employment rate for the next age group, 35-44, falls to 67.3%. This suggest that nearly a third of individuals in this age group is currently not employed. Factors possibly causing this drop may include family responsibilities, mid-career transition or possibly societal attitudes towards work-life balance or gender roles.
- **Older adults (45-64 years):** Those aged 45-54 exhibit a 74.0% employment rate, marginally higher than the preceding age group. This may imply implies that a small proportion of individuals returned into the workforce. For the 55-64 age segment, a lower employment rate of 41.4% is observed, which may indicate potential early retirements or shifts out of the labour force.
- **Seniors (65+ years):** At 6.8% rate, the employment rate for seniors indicates a small, yet notable, segment that remains engaged in employment post-retirement age.

<sup>10</sup> Australian Bureau of Statistics, RM1 - Labour force status by Age, Labour market region (ASGS) and Sex, October 1998 onwards. Available at <https://www.abs.gov.au/statistics/labour/employment-and-unemployment/labour-force-australia-detailed/jul-2023> (Accessed 09 September 2023).

<sup>11</sup> Australian Bureau of Statistics, Data by region 2011-2022, by ASGS main structure (ASGS Ed. 3, 2021) [Data Explorer] (Accessed 04 August 2023).

<sup>12</sup> Australian Bureau of Statistics, RM1 - Labour force status by Age, Labour market region (ASGS) and Sex, October 1998 onwards. Available at <https://www.abs.gov.au/statistics/labour/employment-and-unemployment/labour-force-australia-detailed/jul-2023> (Accessed 09 September 2023).

## b) Unemployment rate

The unemployment rate in the region was 8.2% in July 2023<sup>13</sup>. While this indicates active engagement in the workforce, there may be potential for improving employment opportunities. Youth unemployment, a significant marker of the economic vitality of a region, was notably high. It stood at 16.5% in July 2023<sup>14</sup>. This suggests once again that there may be difficulties for young people in transitioning from education to employment in this region. As such, this figure points towards an area that may need targeted interventions to ensure that young people have the necessary skills and opportunities to engage successfully in the labour market.

## c) Labour force participation rate

The labour force participation rate represents the portion of the population actively engaged in the labour market, either employed or seeking employment.

Employment levels in the Wide Bay region experienced a modest uptick during 2021 and the first half of 2022, following a minor decline in 2020 attributed to the impact of the COVID-19 pandemic. This upward trend in employment persisted through the latter half of 2022 and into the first half of 2023<sup>15</sup>.

The labour force participation rate was 54.3% in July 2023<sup>16</sup>. The data shows that the region consistently lags behind Queensland in labour force participation particularly across the adult and senior age groups. This gap may indicate underlying challenges in workforce engagement or opportunities within the region.

Table 4: Labour force status in Wide Bay by age, July 2023

	Age Group (Years)						Total
	15-24	25-34	35-44	45-54	55-64	65+	
Labour force total	28,174	40,347	24,835	33,098	19,436	5,711	151,600
Employed total	23,536	37,790	23,544	30,836	18,116	5,369	139,190
Employed full-time	11,281	28,340	16,017	21,985	11,183	2,115	90,922
Employed part-time	12,254	9,450	7,527	8,850	6,933	3,254	48,268
Unemployed total	4,638	2,557	1,291	2,262	1,320	342	12,410
Not in the labour force (NILF)	5,935	5,756	10,147	8,546	24,326	72,863	127,573
Civilian population aged 15 years and over	34,109	46,103	34,982	41,643	43,762	78,574	279,173
Employment to population rate (%)	69.0	82.0	67.3	74.0	41.4	6.8	49.9
Unemployment rate (%)	16.5	6.3	5.2	6.8	6.8	6.0	8.2
Participation rate (%) Wide Bay	82.6	87.5	71.0	79.5	44.4	7.3	54.3
Participation rate (%) Queensland	74.5	86.1	87.6	84.6	68.6	13.6	66.6

Australian Bureau of Statistics RM1 - Labour force status by Age, Labour market region (ASGS) and Sex, October 1998 onwards. Available at <https://www.abs.gov.au/statistics/labour/employment-and-unemployment/labour-force-australia-detailed/jul-2023> (Accessed 09 September 2023)

## Employment in the Wide Bay region, 2018 - 2023

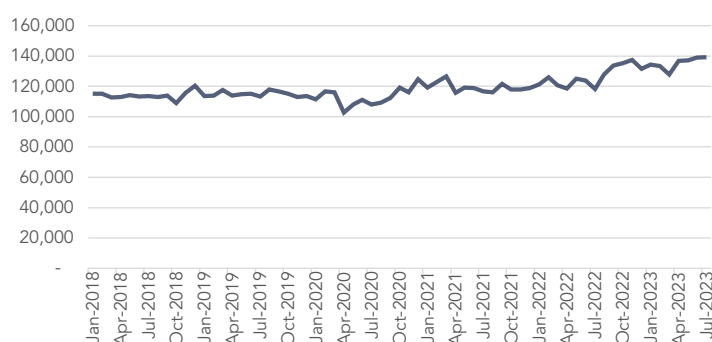


Figure 1: Employment trend in the Wide Bay region, January 2018 to July 2023. Source: Australian Bureau of Statistics, RM1 - Labour force status by Age, Labour market region (ASGS) and Sex, October 1998 onwards. Available at <https://www.abs.gov.au/statistics/labour/employment-and-unemployment/labour-force-australia-detailed/jul-2023> (Accessed 09 September 2023)

<sup>13</sup> Australian Bureau of Statistics, RM1 - Labour force status by Age, Labour market region (ASGS) and Sex, October 1998 onwards. Available at <https://www.abs.gov.au/statistics/labour/employment-and-unemployment/labour-force-australia-detailed/jul-2023> (Accessed 09 September 2023).

<sup>14</sup> Queensland Government Statistician's Office, 24 August 2023, Regional youth unemployment, July 2023. Available at <https://www.qgso.qld.gov.au/issues/3431/regional-youth-unemployment-202307.pdf> (Accessed 04 September 2023).

<sup>15</sup> Employment trend in the Wide Bay region, January 2018 to July 2023. Source: Australian Bureau of Statistics, RM1 - Labour force status by Age, Labour market region (ASGS) and Sex, October 1998 onwards. Available at <https://www.abs.gov.au/statistics/labour/employment-and-unemployment/labour-force-australia-detailed/jul-2023> (Accessed 09 September 2023).

<sup>16</sup> Australian Bureau of Statistics, RM1 - Labour force status by Age, Labour market region (ASGS) and Sex, October 1998 onwards. Available at <https://www.abs.gov.au/statistics/labour/employment-and-unemployment/labour-force-australia-detailed/jul-2023> (Accessed 09 September 2023).

## d) Gender distribution in employment

The distribution of jobs between males and females was quite significant, with each gender dominating in different sectors. Females had a significant presence in

health care, educational, and hospitality roles. Conversely, males were most significantly employed in skilled construction trades, health care, manufacturing and primary industries.

Table 5: The top 5 employing industries in Wide Bay by gender, 2023

		Employed full-time	Employed part-time	Total	% of total
Female	Health Care and Social Assistance	11,714	6,927	18,641	27.3
	Education and Training	6,984	3,403	10,386	15.2%
	Retail Trade	1,870	5,899	7,768	11.4%
	Accommodation and Food Services	3,173	4,048	7,221	10.6%
	Other services	985	2,023	3,008	4.4%
	Other industries	12,628	8,548	21,176	31.0%
	<b>Total</b>	<b>37,353</b>	<b>30,847</b>	<b>68,200</b>	<b>100.0%</b>
Male	Construction	12,027	2,219	14,245	21.7%
	Health Care and Social Assistance	4,533	2,697	7,230	11.0%
	Manufacturing	6,503	669	7,172	10.9%
	Public Administration	4,915	1,101	6,015	9.1%
	Agriculture, Forestry and Fishing	4,492	476	4,968	7.6%
	Other industries	17,319	8,808	26,127	39.7%
	<b>Total</b>	<b>49,789</b>	<b>15,969</b>	<b>65,758</b>	<b>100.0%</b>

Source: Australian Bureau of Statistics, RQ1 - Employed persons by Industry division of main job (ANZSIC), Labour market region (ASGS) and Sex, Annual averages of the preceding four quarters, Year to August 1999 onwards. Available at <https://www.abs.gov.au/statistics/labour/employment-and-unemployment/labour-force-australia-detailed/latest-release/Census2021> [Table Builder] (Accessed 04 August September 2023)

## 3.3 Business profile

The Wide Bay region is home to a diverse mix of businesses that shape its labour market. The distribution of businesses, based on their size, closely mirrors the pattern observed across Queensland. This indicates that Wide Bay shares a similar entrepreneurial and business growth environment with the rest of the state.

The majority of businesses, or 60%, were non-employing enterprises. Small businesses with 1 - 4 employees made up 27.9%. These small businesses contribute greatly to the economic fabric of Wide Bay, providing essential goods and services while also offering significant employment opportunities. More established small to medium-sized businesses with 5-19 employees comprised 10.0%, and medium-sized businesses with 20-199 employees constituted 2.0%. In contrast, large businesses with 200+ employees were relatively few, contributing to only 0.1% of the total number of businesses. However, their impact on employment and economic stability can be significant.

### a) Business size and distribution



The business landscape of Wide Bay consisted of 27,023 enterprises in 2022<sup>17</sup>

Table 6: Registered businesses in Wide Bay and Queensland by size, 2022

	Non-employing		1-4 employees		5-19 employees		20-199 employees		200+ employees		Total
	Number	%	Number	%	Number	%	Number	%	Number	%	
Wide Bay	16,217	60.0	7,530	27.9	2,709	10.0	543	2.0	36	0.1	27,023
Queensland	248,992	57.5	129,475	29.9	43,387	10.0	10,720	2.5	666	0.2	433,262

Source: Australian Bureau of Statistics, 8165.0 Counts of Australian Businesses, including Entries and Exits, Jun 2018 to Jun 2022 - Data cube 2 and 8 (Accessed 01 August 2023).

<sup>17</sup> Australian Bureau of Statistics, 8165.0 Counts of Australian Businesses, including Entries and Exits, Jun 2018 to Jun 2022 - Data cube 2 and 8 (Accessed 01 August 2023).

## b) Business industry sector

The construction industry was the dominant sector in Wide Bay's business landscape, aligning with the workforce data presented in a previous section. Agriculture, forestry, and fishing were also significant industries, following closely behind construction.

### Number and proportion of registered businesses in Wide Bay's top five industries, 2022

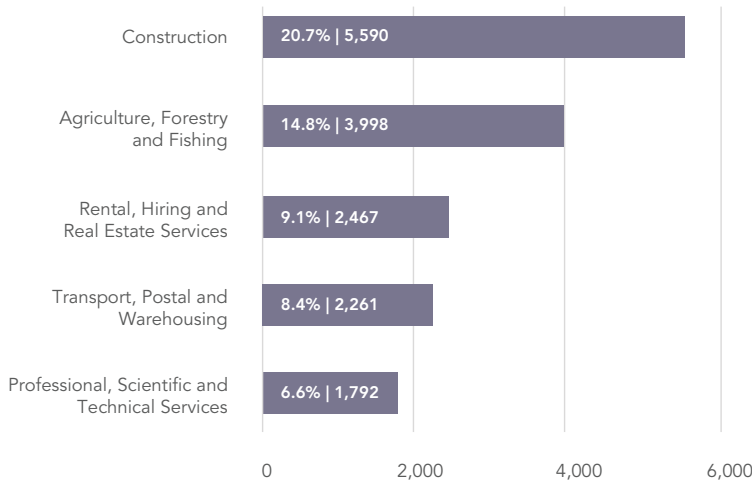


Figure 2: Top five industries in Wide Bay by number of registered businesses, 2022. Source: Australian Bureau of Statistics, 8165.0 Counts of Australian Businesses, including Entries and Exits, Jun 2018 to Jun 2022 - Data cube 2 and 8 (Accessed 01 August 2023).

## 3.4 Job vacancies

In understanding labour market trends and opportunities, internet job vacancy (IVI) data provides a real-time insight into employer demand for certain skills and occupations. The regions identified in the IVI may not fully correlate to the Australian Statistical Geography Standard (ASGS) regions. The region that most closely aligns with the Wide Bay region is Central Queensland.

### a) Job advertisements trends

The trend of online job advertisements in regional Central Queensland from July 2022 to June 2023 followed a similar pattern to that in Brisbane, the capital city<sup>18</sup>. There was a steady flow of job postings throughout the period, with a distinct drop during the summer months, from November to February. This drop could be attributed to seasonal

### Online job advertisements, July 2022 to June 2023

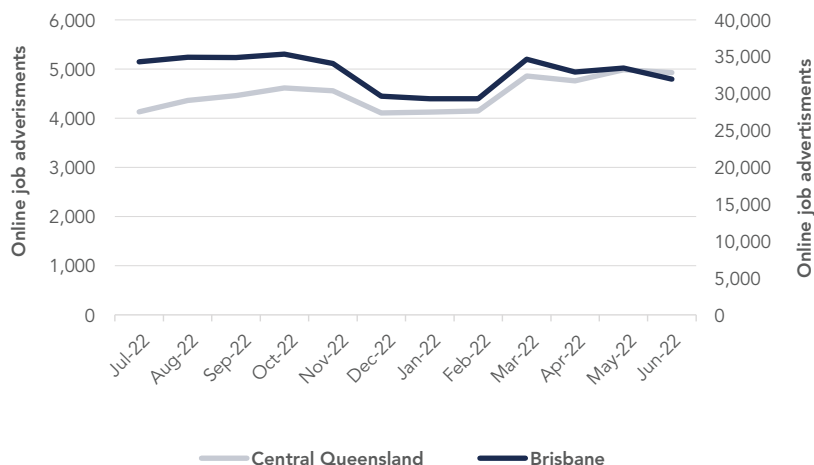


Figure 3: Online job advertisements in Central Queensland and Brisbane, July 2022 to June 2023. Source: Jobs and Skills Australia, Internet Vacancies, ANZSCO2 Occupations, IVI Regions - June 2023 (Accessed 03 August 2023).

<sup>18</sup> Jobs and Skills Australia, Internet Vacancies, ANZSCO2 Occupations, IVI Regions - June 2023 (Accessed 03 August 2023).



## b) Occupations in demand

In June 2023, the data indicated a variety of in-demand occupations, highlighting the diverse employment opportunities available in the region<sup>19</sup>:

1. **Professionals (1,234 ads):** Topping the list, which suggests a significant demand for highly skilled and often degree-qualified roles across various sectors.
2. **Technicians and trades workers (1,065 ads):** Reflecting the region's need for skilled jobs, which might be linked to industries such as construction, manufacturing or other services (i.e., electrical or mechanical).
3. **Machinery operators and drivers (516 ads):** The need for these roles can be associated with industries such as agriculture, mining or transportation, which are common in regional Queensland.

4. **Community and personal service workers (499 ads):** This demonstrates a need for roles that serve the community, such as healthcare workers, social workers, or hospitality staff.
5. **Clerical and administrative workers (473 ads):** This need suggests a strong demand for organisational and support roles in various sectors.

Interestingly, the data showed that the demand for technicians and trades workers was more than double that for labourers, indicating a higher demand for skilled trade roles compared to unskilled labour.

<sup>19</sup> Ibid.

### 3.5 Education level profile

Education is a key pillar of workforce readiness and plays a vital role in the economic development and sustainability of a region. Data on school and VET attainment in Wide Bay shows a strong emphasis on vocational and technical skills in the region, possibly from the school-level, which is likely aligned with the region’s industry needs. The variation with the state-wide data could also suggest variations in educational opportunities.

#### a) Higher education and vocational training



169,096 individuals, representing 65.0% of the Wide Bay’s population aged 15 years and over, had at least one qualification in 2021<sup>20</sup>.

The distribution of the highest qualification level achieved in the region was as follows:

- **Vocational education and training (VET) qualifications:** 39.2% (66,294 people) had possessed a VET qualification, highlighting the region’s strong focus on vocational and technical training. This trend aligns with the region’s industry structure, potentially supporting sectors such as construction, agriculture, and trade. Queensland had a lower proportion of individuals with a certificate (26.2%).
- **Bachelor Degree or higher:** 16% (27,978 people) had a university-level education, including bachelor degrees and postgraduate qualifications. This figure is notably lower than the broader Queensland working age population, where 26.0% hold such qualifications.
- **Advanced Diploma or Diploma:** 11.5% (19,496 people) had qualifications at this level, indicative of advanced vocational training. This was similar with the Queensland’s rate of 11.2% (395,615 people).
- **Unspecified degree level:** An additional 16.2% (27,350 people) had some sort of qualification, but the specifics of the degree level remained undefined.

Table 7: Highest non-school qualification in Wide Bay and Queensland by level of education, 2021

	Bachelor’s degree or higher [a]		Advanced Diploma or Diploma		Certificate [b]		Qualified persons, unspecified degree level [c]		Total
	Number	%	Number	%	Number	%	Number	%	
Wide Bay	27,978	16.5	19,496	11.5	66,294	39.2	27,350	16.2	169,096
Queensland	918,468	26.0	395,615	11.2	927,894	26.2	376,685	10.6	3,537,130

[a] Includes Bachelor’s degree, graduate diploma, graduate certificate and post-graduate degree

[b] Includes Certificate I, II, III and IV and certificates without further defined responses

[c] Includes inadequately described or not stated level of education responses

Source: Australian Bureau of Statistics, Census 2021, G49 Highest non-school qualification: level of education by age by sex, Main Statistical Areas Level 2 and up (SA2+) [Data Explorer], accessed 01 August 2023.

#### b) School level



113,731 individuals, representing 45.7% of the youth and adult population in Wide Bay, had completed up to year 11 or 12 as their highest school level as of 2021<sup>21</sup>.

This is in contrast with the wider Queensland population, where 63.6% (2,554,330 individuals) had achieved the same level of education.

Of interest is the proportion of people who have not completed beyond year 10 (45.7%), indicating that there is potentially a pool of low skilled people residing in the area that could fill entry level roles and be supported with upskilling and training opportunities.

<sup>20</sup> Australian Bureau of Statistics, Census 2021, G49 Highest non-school qualification: level of education by age by sex, Main Statistical Areas Level 2 and up (SA2+) [Data Explorer] (Accessed 01 August 2023)

<sup>21</sup> Australian Bureau of Statistics, Census 2021, G16 Highest year of school completed by age by sex, Main Statistical Areas Level 2 and up (SA2+) [Data Explorer] (Accessed 01 August 2023)

Table 8: Highest level of schooling completed in Wide Bay and Queensland, 2021

	Did not go to school		Year 8 or below		Year 9 or 10 or equivalent		Year 11 or 12 or equivalent		Total*
	Number	%	Number	%	Number	%	Number	%	
Wide Bay	1,139	0.5%	17,656	7.1%	95,297	38.3	113,731	45.7	249,036
Queensland	23,716	0.6%	154,385	3.8%	989,350	24.6	2,554,330	63.6	4,017,207

\*Total includes highest year of schooling not stated

Source: Australian Bureau of Statistics, Census 2021, G16 Highest year of school completed by age by sex, Main Statistical Areas Level 2 and up (SA2+) [Data Explorer] (Accessed 01 August 2023).

Previous sections show that the Wide Bay region ranks second to last in terms of employment to population rate across Queensland's SA4 regions. Further, the youth unemployment rate significantly surpasses the general unemployment rate in the region by almost double. Additionally, the educational attainment of the general population in the Wide Bay region tends to be below that of Queensland, with a higher proportion of individuals completing only up to year 9 or 10 and a lower proportion completing year 11 or 12 as their highest level of education.

While literacy and numeracy data for the region is not available, previous studies establish a notable correlation between literacy and numeracy skill level and employment status.

National data on the literacy, numeracy, and problem-solving skills in technology-rich environments for Australians aged 15-74 years<sup>22</sup> indicates the following:

- People with a VET or higher qualification are more likely to have literacy and numeracy skills at Level 3 or 4/5 than those who only have school-level education.
- Similarly, those with higher educational attainment, such bachelor's degree or higher, are considerably more likely to possess literacy, numeracy and problem-solving competencies at Level 3 or 4/5 when compared to individuals with qualifications at or below a Certificate IV level.

In addition, data from the Adult Literacy and Lifeskills Survey<sup>23</sup> reveals a direct correlation between literacy and numeracy skill level and employment status:

- Higher skill levels in literacy, numeracy, and problem-solving correlate with increased employment opportunities and a greater likelihood of full-time employment. Specifically, more than 60% of full-time employed individuals surveyed in 2006 had literacy and numeracy competencies at Level 3 or 4/5. This contrasts with only 14% at Level 1 or 28% at Level 2. Conversely, 84% of individuals not in the labour force demonstrated low problem-solving skills at Levels 1 and 2.

This data emphasises the importance of literacy, numeracy, and problem-solving skills in enhancing employment prospects and underscores the need for focused interventions in the Wide Bay region.

<sup>22</sup> Australian Bureau of Statistics, 2013, 42280DO001\_201112 Programme for the International Assessment of Adult Competencies, Australia, 2011-12, Table 12 Literacy, Numeracy and Problem solving in technology-rich environments skill level of persons aged 15-74 years, By level of highest educational attainment (non-school priority) and main field of highest non-school qualification

<sup>23</sup> Australian Bureau of Statistics, 2008, 42280DO001 Adult Literacy and Life Skills Survey, Summary Results, Australia, 2006 (Reissue). Table 13 Skill Level, Current labour force status

## 3.6 VET training activity

The Vocational Education and Training (VET) system plays a vital role in providing the skills and qualifications necessary for the evolving workforce demands.

**37,928**

was the total VET program enrolments in Wide Bay in 2021<sup>24</sup>.

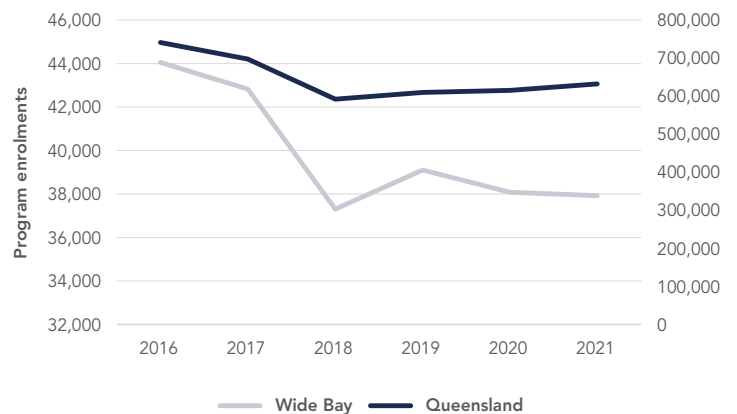
### a) Total VET program enrolments

Wide Bay experienced a peak at 44,052 in VET program enrolments in 2016, followed by a decline in 2018.

The subsequent years saw a slight recovery, stabilising around 38,000 enrolments in 2020 and 2021. This trend was mirrored at the state level, suggesting similar driving factors and influences from broader economic or policy framework.

*Figure 4: Total VET program enrolments in Wide Bay and Queensland, 2016-2022. Source: VOCSTATS, extracted on 06 August 2023*

### Total VET enrolments for Wide Bay and Queensland over the last 7 years



### b) Proportion of VET program enrolments for specific cohorts

A closer analysis of enrolment trends for specific cohorts reveals more nuanced insights<sup>25</sup>:

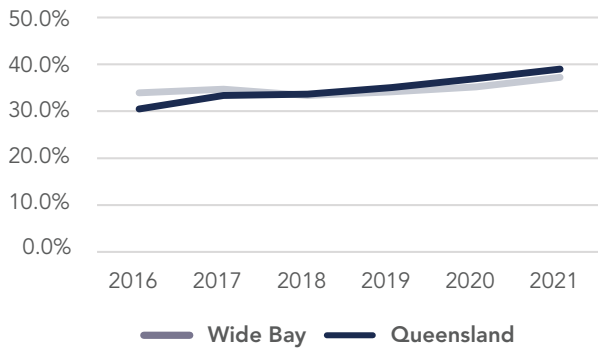
- **Students aged 15 to 19 years:** While Wide Bay registered a stable enrolment trend for this age bracket, between 33% and 37% over 2016-2021, Queensland presented a different development. Starting approximately 2% lower than Wide Bay in 2016, Queensland's enrolment rates increased steadily, reaching 2% higher than Wide Bay by 2021.
- **First Nations students:** Enrolments among First Nations students in Wide Bay remained close to 8.0% between 2016 and 2021, which was higher than Queensland's average of 7.0%. The trajectory saw a slight growth over these years in both areas, with Wide Bay consistently surpassing Queensland in this respect.
- **Students with a disability:** Starting at 8.0% in 2016, Wide Bay's enrolment rate for students with disabilities increased through 2017 and 2018 before moderately retracting to its 2016 numbers by 2021. Queensland presented a continuous growth line, rising from 5.2% in 2016 to 6.8% in 2021. Notably, Wide Bay maintained a higher percentage throughout the observed years compared to Queensland.

<sup>24</sup> VOCSTATS, extracted on 06 August 2023

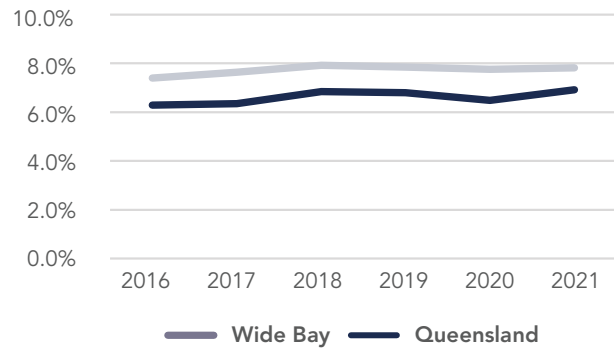
<sup>25</sup> VOCSTATS, extracted on 06 August 2023



### Students aged 15-19 years: proportion of enrolments in VET programs (2016-2021)



### First Nations students: proportion of enrolments in VET programs (2016 - 2021)



### Students with a disability: proportion of enrolments in VET programs (2016-2021)

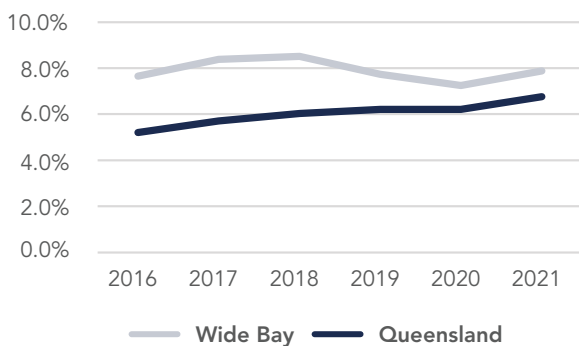


Figure 5: Proportion of VET program enrolments for specific cohort by Wide Bay SA4 and Queensland, 2016-2022. Source: VOCSTATS, extracted on 06/08/2023

### c) Apprenticeship/traineeship commencements

The trends in training contracts for apprenticeships/traineeships in both Wide Bay and Queensland from 2016 to 2022 showed similar patterns. There was a modest increase in 2017, followed by a small drop in 2018 and 2019<sup>26</sup>. A sharp increase was observed from 2020 to 2022, indicating a renewed focus on apprenticeships and traineeships possibly to address skill shortage triggered by the COVID pandemic. It is anticipated that this increase will continue past 2022 due to the implementation of Australian Apprenticeships Incentive System<sup>27</sup> that commenced on 1 July 2022.

### Apprenticeship commencements for Wide Bay and Queensland over the past 7 years

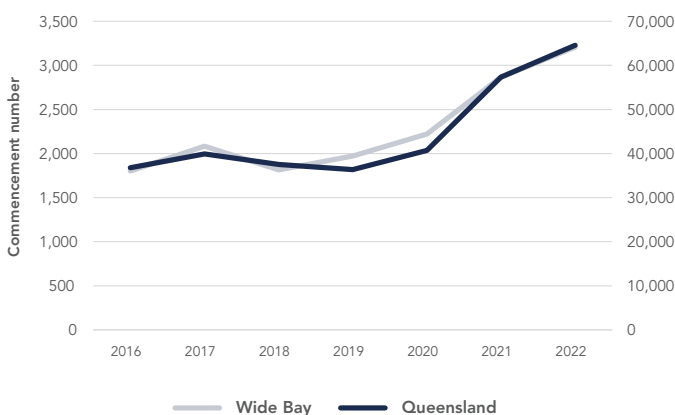


Figure 6: School-based apprenticeship/traineeship commencements by Wide Bay SA4 and Queensland, 2016-2022. Source: VOCSTATS, extracted on 06/08/2023.

<sup>26</sup> VOCSTATS, extracted on 06/08/2023

<sup>27</sup> Australian Government, Employer Incentives. Accessed from <https://www.australianapprenticeships.gov.au/aus-employer-incentives> on 10 August 2023.

### d) School-based apprenticeship/traineeship commencements

Commencements of school-based apprenticeship in Wide Bay declined from 2016 to 2020 and then increased through 2022. A similar trend was noted in Queensland, but with a sharper increase statewide<sup>28</sup>.

#### School-based apprenticeship commencements in Wide Bay and Queensland over the last 7 years

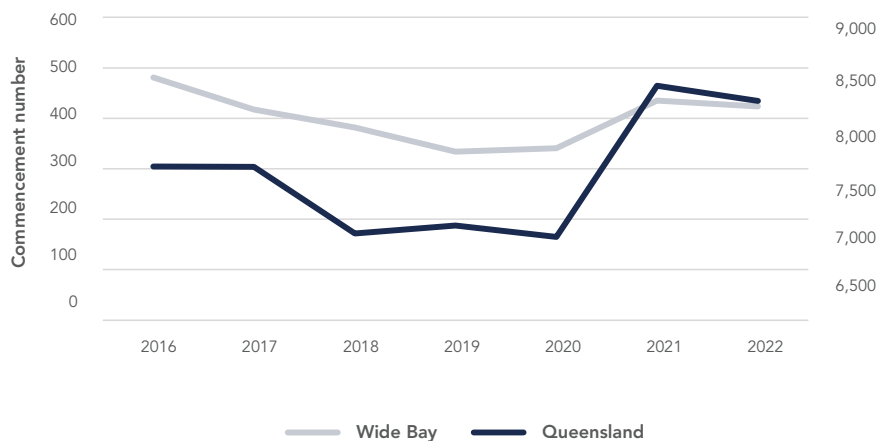


Figure 7: Apprenticeship/traineeship completions in Wide Bay and Queensland, top five employer industries, 2021. Source: VOCSTATS, extracted on 06/08/2023

### e) Apprenticeship/traineeship completions by industry sector

The sectors with the highest apprenticeship/traineeship completion rates varied slightly between Wide Bay and Queensland. The leading industries for Wide Bay were Accommodation, Retail Trade, Construction, Health Care and Social Assistance, and Other Services. Construction took the lead in Queensland, followed by Accommodation, Health Care and Social Assistance, Administrative and Support Services, and Other Services.

<sup>28</sup> VOCSTATS, extracted on 06/08/2023.



## Top five employer industries for apprenticeship / traineeship completions in Wide Bay, 2022

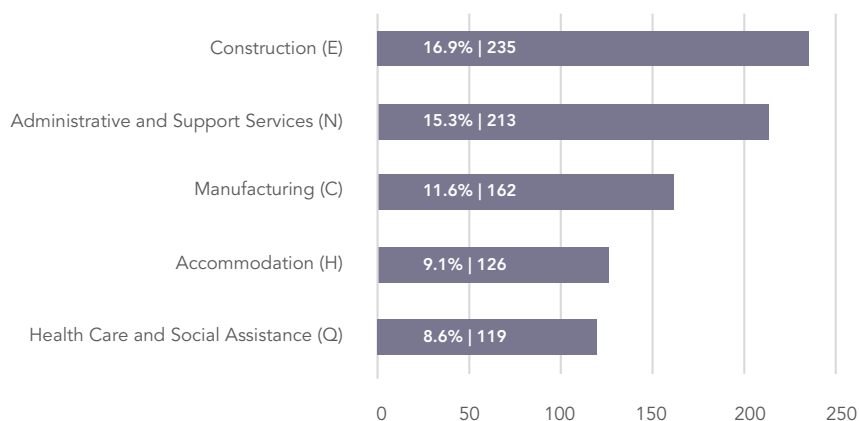
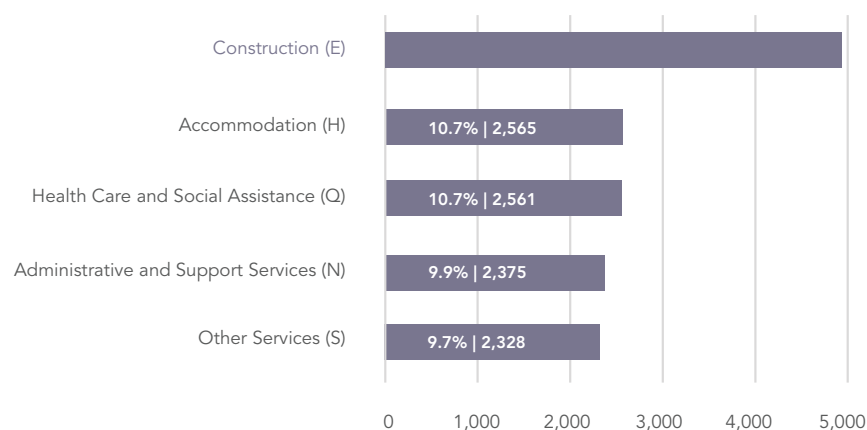


Figure 8: Apprenticeship/traineeship completions in Wide Bay and Queensland, top five employer industries, 2021. Source: VOCSTATS, extracted on 06 August 2023.

## Top five employer industries for apprenticeship / traineeship completions in Queensland, 2022



## 3.7 VET and employment pathways

### a) Top five qualification enrolments

The most popular qualifications with the highest enrolment for Wide Bay in the year 2021 included<sup>29</sup>:

1. Certificate III in Individual Support: 2,239 enrolments
2. Certificate II in Skills for Work and Vocational Pathways: 1,129 enrolments
3. Certificate I in Construction: 1,000 enrolments
4. Certificate II in Engineering Pathways: 855 enrolments
5. Certificate III in Civil Construction: 798 enrolments

These qualifications demonstrate a strong demand for skills in healthcare and personal support, construction, and engineering. This demand spans both entry-level and basic skilled positions.

<sup>29</sup> VOCSTATS, extracted on 06/08/2023.

## b) Top five skill set enrolments

Acquiring specific skill sets equips individuals for specialised roles and job functions. The leading skill sets for Wide Bay in 2021 were<sup>30</sup>:

1. Assist Clients with Medication Skill Set: 147 enrolments
2. Surface Coal Mine Safety Skill Set: 108 enrolments
3. Perform Rescue from a Live LV Panel and CPR: 89 enrolments
4. Individual Support - Disability Skill Set: 74 enrolments
5. Infection Control Skill Set: 68 enrolments These skill sets align with the needs of the health care, mining, electrical safety, and disability support sectors.

## c) Top five occupations for program (qualification, skill set, accredited course) enrolments

The top five intended occupational outcomes for learners participating in the VET programs in Wide Bay in 2021 were<sup>31</sup>:

1. Earthmoving Plant Operator (General): 2,416 enrolments
2. Personal Care Assistant: 2,408 enrolments
3. General Clerk: 2,110 enrolments
4. Earthmoving Labourer: 1,293 enrolments
5. Hospitality Workers - nfd: 1,222 enrolments

The strong representation of earthmoving and personal care occupations reflects the region's demand in the construction and health care sectors.

## d) Top five employer industries for apprenticeship/traineeship commencements (2022)

The industries that had the highest number of apprenticeship and traineeship commencements in Wide Bay in 2022 were (Figure 8):

1. Construction: 235 commencements
2. Administrative and Support Services: 213 commencements
3. Manufacturing: 162 commencements
4. Accommodation: 126 commencements
5. Health Care and Social Assistance: 119 commencements
6. These figures show that the construction industry, administrative services, manufacturing, and accommodation sectors play a crucial role in employment and trade skill development in Wide Bay.

<sup>30</sup> VOCSTATS, extracted on 06/08/2023.

<sup>31</sup> Ibid.



## 3.8 Wide Bay regional development

The Queensland Government is showing a strong commitment to supporting Wide Bay's economic development and enhancing employment opportunities for the local community. This support is manifested through strategic planning and a focus on growth, projects and opportunities as described below:

### a) Strategic Planning: Draft Wide Bay Burnett Regional Plan 2022<sup>32</sup>

The Draft Wide Bay Burnett Regional Plan 2022 lays down a 25-year roadmap focusing on:

- Attracting and retaining residents in the region
- Promoting workforce opportunities
- Enhancing the region's existing economic strengths and developing emerging industries
- Enhancing liveability and community reputation
- Enabling the delivery of large format industrial land to open shared infrastructure opportunities.

### b) Current and upcoming development projects<sup>33,34</sup>

- **Queensland Train Manufacturing Program:** A \$9.5 billion investment to build 65 new passenger trains and support facilities, promoting transportation and job creation.
- **Battery Manufacturing Facility:** A \$70 million project to establish a battery manufacturing facility in Maryborough, the first of its kind in Australia, to be completed by 2024.

- **Aircraft Manufacturing Hub:** A \$12 million project for building a high-tech aircraft manufacturing centre, anticipated to create up to 200 long-term, high-skill jobs.
- **Forest Wind:** A \$2 billion proposal for one of the largest grid-connected wind farms in the Southern Hemisphere, aiming to generate up to 1200MW of electricity.
- **Potential Pumped Hydro Energy Storage at Borumba Dam:** Investigating a critical energy storage facility near Gympie with potential to create over 2,000 jobs.
- **Potential Hydrogen Hub in Bundaberg:** A \$300 million initiative to create a green hydrogen hub, with the potential to create up to 1,000 jobs.
- **Potential for Bioenergy and Biomanufacturing:** Opportunities to link the sugarcane industry to low emission fuels.
- **Wide Bay Burnett Minerals Region Activation:** Ongoing efforts to explore and capitalise on the mineral resources within the region.
- **Infrastructure/Lifestyle Projects:** Various initiatives such as the redevelopment of the Hervey Bay Library & Admin Centre, and revitalisation of urban spaces.

These projects collectively enhance the region's manufacturing capabilities, energy independence, lifestyle amenities and employment opportunities, aligning with Queensland's vision for economic growth and sustainability.

<sup>32</sup> The State of Queensland (Planning), 2023, Wide Bay Burnett Regional Plan Review. Available at <https://planning.statedevelopment.qld.gov.au/planning-framework/plan-making/regional-planning/wide-bay-burnett-regional-plan> (Accessed 22 August 2023).

<sup>33</sup> Fraser Coast Regional Council, 2023, Major Projects: Current and Upcoming. Available at <https://www.investfrasercoast.com/major-projects> on 22 August 2023 (Accessed 22 August 2023).

<sup>34</sup> The State of Queensland (Department of Energy and Public Works), 2023, Wide Bay and Burnett. Available at <https://www.epw.qld.gov.au/energyandjobsplan/regions/widebay-burnett> (Accessed 22 August 2023).



### 3.9 Employment projections and jobs growth

Wide Bay is projected to be the fastest growing region in Queensland, due, in part, to strong levels of population growth. It is a diverse region, with significant levels of employment across industries as varied as education and training, construction and manufacturing, but the dominant industry is health care and social assistance.

The projections show that Wide Bay will contribute to 4.6% of the state’s total workforce. By 2025–26, employment in Wide Bay is expected to reach 133,252 people, marking an increase of 15,926 workers since 2021–22. This represents a growth of 13.6% over the four-year period<sup>35</sup>.

Table 9: Top five industry sectors in Wide Bay that are projected to experience employment growth, 2021–22 to 2025–26

	People employed	% of regional workforce 2025–26	% change since 2021–22
Health Care and Social Assistance	28,291	21.2	23.5
Professional, Scientific and Technical Services	5,286	4.0	20.0
Accommodation and Food Services	9,917	7.4	18.3
Public Administration and Safety	8,157	6.1	15.7
Education and Training	11,709	8.8	14.9

Source: Jobs Queensland, 2023, Anticipating Future Skills Series. Region Profiles. Available at <https://jobsqueensland.qld.gov.au/anticipating-future-skills> (Accessed 23 August 2023).

<sup>35</sup> Jobs Queensland, 2023, Anticipating Future Skills Series. Region Profiles. Available at <https://jobsqueensland.qld.gov.au/anticipating-future-skills> (Accessed 23 August 2023).





# 4

## An overview of the Forestry industry

## 4.1 Industry sectors and regional operations

The Wide Bay's forestry industry is an integrated network of sectors, stakeholders and production processes. This network involves various components working together to create and deliver essential products for everyday life in Australia such as house frames, furniture, packaging, and paper products.

### a) Industry sectors

- The sectors are broadly categorised as:
- Forestry and Support Services
- Harvesting and Haulage
- Wood Products Manufacturing.

### b) Functions and processes

The industry encompasses many functions ranging from growing and managing forests, to processing timber and producing wood products.

### c) Stakeholders

Numerous stakeholders contribute to the industry, including forest owners, processors, manufacturers and retailers.

### d) Forestry players and entities

**Large forest growers:** HQPlantations and Forest Products of the Department of Agriculture and Fisheries play a vital role in managing plantation estates and state-owned native forests in the region and across Queensland.

**Other forest entities:** These include farm forest growers (combining cattle grazing with private native forest cultivation) and private forest growers (managing smaller plantation areas).

**Harvesting contractors:** A number of small and medium-sized businesses are contracted to harvest plantation logs for timber and wood chips.

### e) Timber processing and manufacturing

**Sawmills:** The region is home to two significant softwood sawmills and several smaller softwood processors, which cater to the fencing and treated timber markets. The region also accommodates medium-sized and small hardwood and cypress pine sawmills. These mills manufacture high-quality structural and appearance products, and poles. In addition, several small mills are involved in timber re-sawing and dressing operations.

**Residue utilisation:** A few companies use residues like wood chips, off-cuts, sawdust and shavings to produce wood pellets and landscaping products.

**Manufacturing facilities:** This includes two major plants located in Gympie that produce panel boards and laminated timber products. Within the region, there is also a company that specialises in the manufacturing of prefabricated modular homes from cypress pine. Other businesses throughout the region include manufacturers that produce structural timber frames, roof trusses and other wooden fittings, including a pallet plant.

### f) Supportive network of businesses

**Suppliers, service providers, and buyers:** A large network supports the industry, including operations such as nurseries, consulting services, research services, timber construction companies and others.

**Interconnectedness:** The different sectors and stakeholders within this industry are closely intertwined. Any developments in one sector or changes to a stakeholder can significantly influence the others.





## 4.2 Workforce profile

All data presented in this section is derived exclusively from the Australian Bureau of Statistics, Census 2021, Employment, Income and Education<sup>36</sup>.

### a) Employment in the forestry industry

**The Wide Bay region plays a vital role in the Queensland forestry industry, contributing a significant portion of the total workforce.**

In 2021, the forestry industry was a notable employer within the Wide Bay region, accounting for approximately 1,600 employees. This constituted 23.7% of Queensland's total forestry industry employment, which totalled 6,753 employees. A breakdown of this employment within various subregions and sectors is as follows:

#### Regions:

- Gympie-Cooloola: 40.0% or 610 employees, was the largest employing subregion
- Maryborough: 34.9% or 532 employees
- Burnett: 14.1% or 215 employees
- Bundaberg: 7.3% or 111 employees
- Hervey Bay: 3.7% or 56 employees.

#### Sectors:

- Timber processing: Comprising 52.2% (795 employees) of the workforce, primarily located in Maryborough, Gympie-Cooloola, and Burnett.
- Forestry (including harvesting and support services): Engaging 25.1% (380 employees), with a focus in Gympie-Cooloola.
- Manufacturing of wooden structural components and other wood products: Encompassing 22.8% (345 employees), mainly in Gympie-Cooloola.

### Forest Industry Employment in Wide Bay, 2021



Figure 9: Employment in the forestry industry, Wide Bay, 2021. Source: Australian Bureau of Statistics, Census 2021, Employment, Income and Education [TableBuilder] (Accessed 21 August 2023).

<sup>36</sup> Australian Bureau of Statistics, Census 2021, Employment, Income and Education [TableBuilder], accessed 21 August 2023.

## b) Age distribution

The age composition of the industry's workforce in Wide Bay was balanced between those under 45 (50.8% or 774 employees) and those between 45 and 65 (49.2% or 750 employees). Within the youth age group (15-24 years),

Burnett recorded the largest proportion of employed youths (20.5%, 44 of 215 employees).

Additionally, 125 employees were within the 60 to 64 age bracket, and 40 employees were over 65, indicating potential retirement planning.

### Snapshot: Age Distribution of the Forest Industry Workforce in Wide Bay

**Under 45:** 50.8% (774 workers)

**Ages 45 to 65:** 49.2% (750 workers)

**Ages 60 to 64:** 125 workers

**Over 65:** 40 workers

nearing or considering retirement.

**Youth (15-24 years):** 13.7% (209 workers), with Burnett having the largest youth employment (20.5%)

## c) Gender representation

The participation of women in Australia's forest and wood products industry has slightly increased, rising from 16.0% in 2016 to 17.8% in 2021. However, in Wide Bay,

the number of women in the workforce has remained stagnant since 2016. As of 2021, women made up just 13.3% (214 out of 1,600 individuals) of the industry's workforce in the region. This representation is lower than both the state and national levels.

### Snapshot: Women Participation Rate in Forestry Industry

	Wide Bay	Queensland	Australia
2016:	13.5%	16.2%	16.0%
2021:	13.3%	16.9%	17.8%

## d) First Nations participation

First Nations individuals represented 3.4% (54 individuals) of the forestry industry workforce in Wide Bay in 2021. Timber processing employed the largest number (35 individuals), and forestry support services had the largest proportion (19.0%, 11 of 58 employees).

## e) Education level

Of the approximately 1,600 employees, 46.9% (613 employees) held qualifications. The distribution of the highest level of educational attainment is as follows:

- Vocational Education and Training (VET): 34.3% (524 employees) had a VET qualification. This figure is slightly below Wide Bay's working population possessing a VET qualification at 39.2%, yet above Queensland's overall proportion of 26.2%.
- Advanced Diploma or Diploma: 5.8% (89 employees) had qualifications at this level, compared with 11.5% of the broader working-age population in Wide Bay and 11.2% in Queensland.

- Bachelor's Degree or Higher: 6.8% (104 employees) had university-level education, such as Bachelor's degrees and postgraduate qualifications. This is notably lower than both the broader Wide Bay population at 16% and the Queensland working-age population, where 26.0% hold similar qualifications.
- School-level: Secondary school was the highest level of educational attainment for 48.8% (745 employees).
- Unspecified Degree Level: An additional 4.3% (65 employees) had obtained some qualifications, although the degree level remained undefined. These may also represent qualifications gained off-shore and not recognised in Australia.

The proportion of qualified employees by industry sectors:

- Forestry Support Services: 60.8% (31 of 51 employed)
- Wood Product Manufacturing: 57.6% (204 of 354 employed)
- Forestry and Logging: 45.3% (149 of 329 employed)
- Timber Sawmilling: 42.0% (333 of 793 employed)

### Snapshot: Distribution of Educational Attainment

	Forestry workforce in Wide Bay	Wide Bay working population	Queensland working population
VET Qualification:	<b>34.3%</b>	39.2%	26.2%
Advanced Diploma or Diploma:	<b>5.8%</b>	11.5%	11.2%
Bachelor's Degree or Higher:	<b>6.8%</b>	16%	26.0%

## 4.3 Training profile

### a) Employee development

According to the findings of the recent Regional Forestry Hub's report<sup>37</sup>, businesses within the Wide Bay forestry industry are committed to continuous employee development. This is demonstrated through a multifaceted approach to training and development.

#### In-house training and skill development:

- Subject matter experts: Most businesses employ in-house experts and resources to provide on-the-job training. This covers the majority of skill areas required within the industry.
- Standard Operating Procedures (SOPs): These are consistently implemented and maintained, ensuring that all employees are aligned with the company's values, health and safety regulations, and compliance requirements.
- Other forms of informal training: These include inductions to the company's culture, values and expectations; meetings and regular discussions on health and safety regulations and compliance requirements; and coaching and mentoring through ongoing support and learning opportunities.

#### Formal training and upskilling:

- Businesses occasionally invest in formal training programs and qualifications to recognise, assess and enhance the skills of existing employees, enabling them for promotions or offering opportunities to advance within the company.
- For specialised areas such as mechanics, wood machinists, saw technicians, harvesting machine operations, and other mobile plant operations (e.g., forklifts), businesses engage external training providers. This approach is particularly common when specific certifications or work permits are required.

### b) Formal training uptake

All data presented in this section is derived exclusively from VOCSTATS<sup>38</sup>.

#### Enrolments in Forest and Wood Products (FWP) qualifications

In 2022 and 2021, the Wide Bay forestry industry registered approximately 170 enrolments in FWP qualifications for workers. It must be noted that these enrolments may not always culminate in completion of qualifications. They may serve the purpose of accessing specific units and funding linked with qualification enrolment.

#### Breakdown by qualification level:

- Certificate 2: Annual average of 62% or 106 enrolments
- Certificate 3: Annual average of 31% or 53 enrolments
- Certificate 4: No enrolments recorded
- Diploma 5: Annual average of 7% or 12 enrolments.

#### Top five FWP qualifications by enrolment:

- Certificate II in Forest Growing and Management: 97 enrolments
- Certificate II in Sawmilling and Processing: 18 enrolments
- Certificate III in Sawmilling and Processing: 17 enrolments
- Certificate III in Harvesting and Haulage: 15 enrolments
- Diploma of Forest and Forest Products: 12 enrolments.

#### Enrolments in FWP units of competency

FWP unit enrolments reached 1,200 in 2022, up from 1,000 in 2021. Interestingly, 58% of these enrolments covered tasks such as chainsaw operations and four-wheel drive vehicle operations, applicable across various occupations, including arborists, garden labourers and forestry workers.

Unit enrolments specific to forestry and timber operations:

- 2022: 579 enrolments
- 2021: 307 enrolments.

Unit enrolments by specific skill area:

- Discrete technical skills: Annual average of 66% or 266 enrolments
- Skills in WHS and environmental protection: Annual average of 24% or 107 enrolments
- Skills in communication and quality procedures: Annual average of 16% or 71 enrolments.

#### Use of other qualifications and training packages

Beyond FWP, the industry also utilised non-industry-specific qualifications and training packages in 2022. For instance:

- Agriculture, Horticulture and Conservation and Land Management (AHC) units: Over 1,963 enrolments by forestry workers.
- Business Services (BSB) units: Approximately 30 enrolments by forestry, harvesting, and sawmilling operators.
- Transport and Logistics (TLI) units: Approximately 15 enrolments by harvesting and sawmilling operators.

<sup>37</sup> South and Central Queensland Regional Forestry Hub, March 2023, Report: Forestry Training and Education Future Skills Assessment. Accessed from [https://www.qldforestryhubs.com.au/\\_files/ugd/3c7854\\_6fd744bf3cb64494b89bba87ff36ef73.pdf](https://www.qldforestryhubs.com.au/_files/ugd/3c7854_6fd744bf3cb64494b89bba87ff36ef73.pdf) on 17 August 2023.

<sup>38</sup> VOCSTATS, <http://www.ncver.edu.au/resources/vocstats.html>, 'Total VET students and courses' extracted on 20 August 2023.

## 4.4 Training pathways

### a) Entry-level pathways

**Prerequisites to enter the industry:** For entry-level positions, businesses typically seek candidates with a mix of hard (industry-specific) skills and soft skills. No specific qualifications are required, but basic knowledge of the industry and soft skills such as a strong work ethic, WHS awareness, and willingness to learn are valued. An essential part of integrating new employees into the company culture and workplace environment is the onboarding process, which includes company induction and job-specific training<sup>39</sup>.

**Entry-level courses and training opportunities:**

Qualifications that support entry level roles include Certificate II in Forest Operations, Certificate II in Timber and Wood Products Operations, Certificate III in Timber Systems Design and Certificate III in Timber Building Products Supply. These qualifications may also be suitable for delivery to secondary students to acquire workplace skills and knowledge while they are still at school. In addition, skill sets can be used to support workplace functions for entry-level roles related to forestry, saw technology and wood machining<sup>41</sup>.

**Entry-level positions:** Potential entry-level roles encompass forestry support workers in forestry (specialising in nursery production, silviculture or harvesting), process operators in timber and wood product manufacturing and frame and truss estimators. They also include customer service or sales assistance roles. Individuals in these roles undertake mainly routine work.

### b) Further learning vocational pathways

**Specific courses and training opportunities:** A range of qualifications from AQF Level II to Diploma provide pathways for further vocational learning and job opportunities for skilled work across all sectors within the forestry industry.

The education pathway also offers a range of skill sets for those looking to develop technical skills related to specific job functions in forestry or manufacturing operations, rather than mastering an end-to-end manufacturing process or occupation. Skill set options are also available for those aspiring to a leadership role in timber manufacturing.

**Apprenticeships:** Individuals can be trained in highly specialised fields like saw technology or wood machining through an apprenticeship. This can be completed full-time, part-time or school-based. The following qualifications are available: Certificate III in Saw Technology and Certificate III in Wood Machining.

**Skilled positions:** The industry provides a diverse range of specialised occupations across its different sectors, as depicted in Attachment 1.

### c) Tertiary education pathways

Southern Cross University is the only institution offering an undergraduate degree in Forestry Systems. The Bachelor of Science (Forest Systems) has a focus on sustainable subtropical forestry, developing strong practical skills via extensive field training and exposure to native and planted forest types. The course integrates studies in commercial wood production and sustainable resource management<sup>40</sup>.



<sup>39</sup> Skills Impact, February 2023, Forest and Wood Products Version 8.1. Available at <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47> (Accessed on 26 August 2023).

<sup>40</sup> Southern Cross University, Study Forest Science. Available at [https://www.scu.edu.au/study/science-and-environment/forest-science/?utm\\_source=google&utm\\_medium=cpc&utm\\_campaign=dsa-forest-science&utm\\_term=&gad=1&gclid=CjwKCAjwloynBhBbEiwAGY25dJNGuOrPpoYKdKcbNPxlmWIVEYhufXR6wl5amwmVb2-uHV5U1FuBBoCFdUQAvD\\_BwE](https://www.scu.edu.au/study/science-and-environment/forest-science/?utm_source=google&utm_medium=cpc&utm_campaign=dsa-forest-science&utm_term=&gad=1&gclid=CjwKCAjwloynBhBbEiwAGY25dJNGuOrPpoYKdKcbNPxlmWIVEYhufXR6wl5amwmVb2-uHV5U1FuBBoCFdUQAvD_BwE) (Accessed on 22 August 2023).

# Career pathways in forestry and timber product manufacturing

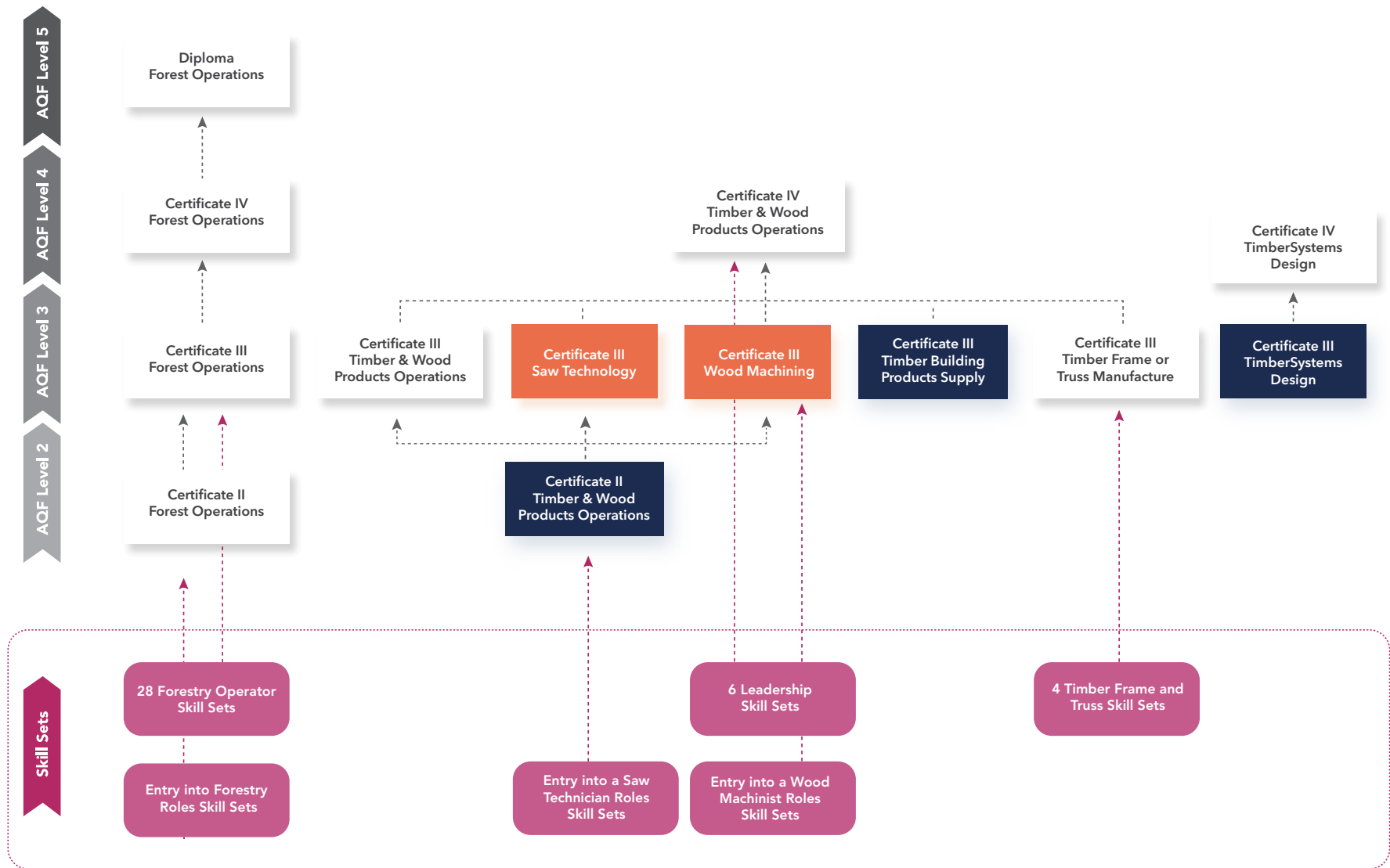


Figure 10: Career pathways in forestry and timber product manufacturing. Adapted from Companion Volume Implementation Guide FWP Forest and Wood Products Version 8.1 by Skills Impact, February 2023.

## 4.5 Vocational training and tertiary education infrastructure

Businesses within the forestry industry typically require formal training for their employees for roles that demand special licenses or involve high-risk activities, for legal and industry safety mandates, for career progression, when hiring new staff, when employees are learning trades (such as for mechanics, wood machining or saw technician roles), and to validate skills gained through work experience.

Although educational institutions play a pivotal role in providing a steady stream of skilled workers, the training infrastructure for the forestry industry in the Wide Bay region is limited.

### a) VET training organisations

Eight private training organisations are registered to deliver forestry and wood products qualifications in Queensland<sup>41</sup>. Of these, two are located within the state and the other six operate from New South Wales, Victoria, South Australia and Tasmania. Most specialise in delivering Certificate II and III in forestry operations.

Among these providers, only one, located in Queensland, offers qualifications in frame and truss design and manufacturing as well as timber supply. Another provider, based in Victoria, is equipped to provide qualifications in timber and wood products.

These organisations largely cater to pre-existing demands, offering training that may not necessarily align with the needs of individual businesses.

A notable limitation of these training providers is their inability to offer specialised training across all occupational or field areas. This results in their dependence on workplace trainers and specialists.

Businesses often require training on-the-job, in their physical or operational contexts. Training becomes particularly challenging when releasing employees is difficult, especially in unique functional roles such as wood machinists or saw technicians. These roles are essential for maintaining the continuity of the production process. The challenge intensifies in rural and remote regions, complicating the provision of training further.

TAFE Queensland does not offer qualifications specific to the forestry industry in the Wide Bay region or throughout the state. Instead, they provide training in diverse, cross-industry technical areas. These areas include transportation, mechanical and electrical trades, forklift licensing, land management, and wood machining (furnishing).

### b) Tertiary institutions

At present, no tertiary institutions specifically address the industry's need for specialised, skilled professionals such as foresters. Historically, the forestry sector relied on graduates from courses like the Bachelor of Forest Science offered by the University of Melbourne and the Australian National University. Furthermore, government-run forest management organisations collaborated with universities to create local 'forestry schools'. These schools provided qualifications up to the Associate Diploma level, ensuring a steady stream of qualified foresters.

However, a decline in student enrolment prompted both the University of Melbourne and the Australian National University to discontinue their forestry programs. Currently, Southern Cross University is the only institution offering an undergraduate degree in Forestry Systems, but low student numbers threaten its future.



<sup>41</sup> National Register on Vocational Education and Training (VET). Accessed from <https://training.gov.au/Search> on 20 August 2023.

Table 10: Training organisations registered to deliver forestry and wood products qualifications in Queensland

Industry Sector		Forest operations				
RTOs approved to deliver in Queensland	Head office	Certificate II in Forest Operations	Certificate III in Forest Operations	Certificate IV in Forest Operations	Diploma of Forest Operations	
Millettia Solutions	QLD		x			
NTHA Training	QLD	x	x			
Intrain National Training Academy	VIC	x	x			
LITA Training	SA	x	x			
RTV Consultancy	TAS		x			
Fusion Training Solutions	NSW	x				
Southern Training Organisation	NSW	x	x			
Industry Sector		Timber manufacturing				
RTOs approved to deliver in Queensland	Head office	Certificate II in Timber and Wood Products Operations	Certificate III in Timber and Wood Products Operations	Certificate III in Saw Technology	Certificate III in Wood Machining	Certificate IV in Timber and Wood Products Operations
Timber Training Creswick	VIC	x	x	x	x	x
TAFE NSW	NSW			x		
Industry Sector		Frame & truss manufacturing			Timber supply	
RTOs approved to deliver in Queensland	Head office	Certificate III in Timber Frame or Truss Manufacture	Certificate III in Timber Systems Design	Certificate IV in Timber Systems Design	Certificate III in Timber Building Products Supply	
NTHA Training	QLD	x	x	x	x	

Source: National Register on Vocational Education and Training (VET). Accessed from <https://training.gov.au/Search> on 20 August 2023.

## Snapshot: Challenges and gaps in vocational training and tertiary education for the Forestry industry in Queensland's Wide Bay region

Vocational education and training (VET) organisations:

- Limited presence in Queensland, with most VET organisations located in other states
- Specialisation primarily in Certificate II and III
- Potential misalignment with specific industry needs
- Dependence on workplace trainers due to the inability to cover all fields
- Challenges in rural on-the-job training
- TAFE Queensland's focus on cross-industry areas, missing specific forestry training

Tertiary institutions:

- Absence of specialised forestry programs within the region
- Decline in forestry education, with discontinued programs at major universities
- Threat to the sustainability of existing forestry degree due to low enrolment

## 4.6 Employment projections and jobs growth

Projections indicate a modest growth in Wide Bay's forestry industry. From 2021-22 to 2025-26, the industry's employment is expected to increase by 20 new positions, representing a growth rate of 0.9% over the four-year period<sup>42</sup>.

The employment growth across sectors shows differences in growth rates. Specifically, employment in forestry support services and timber sawmilling is expected to grow by up to 14.4%. Conversely, employment in forestry and harvesting, as well as wood product manufacturing, is anticipated to decrease by up to 26.2%. This drives a need to discuss industry and individual transitions of existing skills to remain in the region

### Four-year employment growth projections in Wide Bay's Forestry industry (2021-22 to 2025-26)

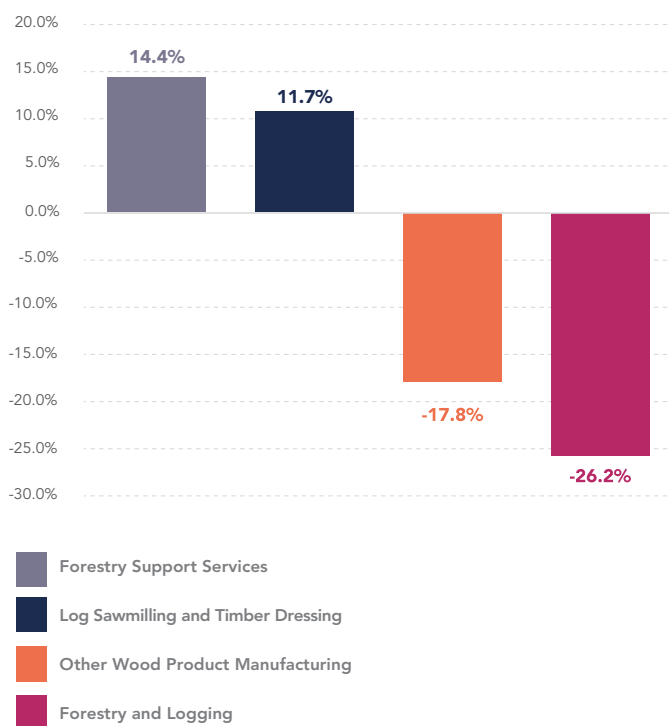


Figure 11: Projected growth in employment for forestry industry in Wide Bay by sector, 2021-22 to 2025. Source: Jobs Queensland, 2023, Anticipating Future Skills Series. Region Profiles. Available at <https://jobsqueensland.qld.gov.au/anticipating-future-skills/> (Accessed 23 August 2023)

<sup>42</sup> Jobs Queensland, 2023, Anticipating Future Skills Series. Region Profiles. Available at <https://jobsqueensland.qld.gov.au/anticipating-future-skills/> (Accessed 23 August 2023).



## 4.7 Labour shortage and recruitment challenges

The 2023 skills and training needs analysis study of the regional forestry hub<sup>43</sup> reveals that forestry businesses in the Wide Bay region are experiencing labour shortages and recruitment difficulties. These challenges are outlined below. They are particularly significant when it comes to filling specialised roles that are crucial for their daily operations.

### a) Specialised occupations in demand

The forest and timber sectors have several specialised occupations like forester, harvester operator, saw technician, wood machinist, mechanical fitter, truck driver, frame and truss estimator, and detailer that are crucial for day-to-day operations but difficult to fill.

### b) General labour challenges

The availability of general labour varies, with some companies finding it hard to recruit due to competition with larger industries, while others struggle to recruit and retain workers due to the demanding nature of the job, especially when the roles require using herbicides, extensive driving to forestry sites, or unexpected physical effort. As a solution, some companies have hired workers from Pacific Island countries under the Pacific Australia Labour Mobility (PALM) scheme<sup>44</sup>.

### c) Reasons for ongoing shortages

Several factors contribute to the persistent labour shortage in the industry:

- Wage dynamics: The mining and other high-paying industries' ability to attract trade workers.
- Shortage of regional VET trainers: A lack of trainers in the region providing VET training for these specialised roles.

### d) Recruitment barriers

- External factors: Competition from other sectors and liveability aspects, especially concerning public infrastructure in more isolated and rural regions.
- Candidates' work ethic and willingness to work: Challenges in finding individuals with a strong work ethic and a genuine willingness to work in the industry.
- Public perception and awareness: The general public's lack of understanding and misconceptions about the industry, its jobs and wage structures.
- Educational limitations: The absence of forestry-related traineeships or relevant subjects in school curricula, which could instil interest in the industry from a young age.

#### Snapshot: Labour shortage in Wide Bay's Forestry industry - 2023

- 2023 analysis reveals pressing labour shortages and recruitment difficulties in the Wide Bay's forestry industry, particularly for specialised occupations
- The availability of general labour varies, leading to struggles in recruitment for some businesses
- Several factors, including wage dynamics across employing industries in the region and training infrastructure limitations, contribute to the persistent labour shortage in the forestry industry

#### Specialised occupations in demand

- Forester
- Harvester Operator
- Saw Technician
- Wood Machinist
- Mechanical Fitter
- Truck Driver
- Frame and Truss Estimator, and Detailer



<sup>43</sup> South and Central Queensland Regional Forestry Hub, March 2023, Report: Forestry Training and Education Future Skills Assessment. Accessed from [https://www.qldforestryhubs.com.au/\\_files/ugd/3c7854\\_6fd744bf3cb64494b89bba87ff36ef73.pdf](https://www.qldforestryhubs.com.au/_files/ugd/3c7854_6fd744bf3cb64494b89bba87ff36ef73.pdf) on 17 August 2023.

<sup>44</sup> Ibid.

## 4.8 Immediate to mid-term skills and training requirements

The forestry industry in the Wide Bay region is experiencing a growth trend according to the 2023 skills and training needs analysis study for the regional forestry hub<sup>45</sup>. Consequently, labour demand is projected to increase in the following years, providing opportunities for both skilled and entry-level candidates. Technology adoption and automation are recurring themes, suggesting the nature of jobs is evolving, leading to the need for upskilling and reskilling. These findings from the hub's report are highlighted below for each industry sector.

**Forestry:** Plans for plantation expansion and more sophisticated risk management strategies will increase the demand for various forestry jobs, including nursery workers, tree planters, silviculture employees and foresters. Simultaneously, advances in technology and management practices might reshape the number of these jobs and lead to workforce reallocation.

**Harvesting and haulage:** Harvesting, especially in established plantations, is projected to grow over the next few years. In addition, contractors explore diversified services, such as site preparation. This leads to the demand for harvesting machine operators to rise. A growing interest in forest residues for energy will further amplify this demand. Notably, harvesting for biomass requires a lower skill level compared to timber log harvesting.

**Timber manufacturing:** More sawmills are implementing scanning technology and automation, creating new job roles in manufacturing-driven processes, quality control and continuous improvement. Traditional roles such as manual timber graders may become redundant, leading to a need for re-training and transfer to other roles. More harvesting contracts and timber targets may create more jobs for process operators, but this depends on technology and efficient processes. Additionally, the establishment of possible a new glulam facility in the region will create new job opportunities for approximately twenty-five technical staff specialised in finger jointing, laminating and drying processes.

**Pellet manufacturing:** A new pellet mill will be set up in the region, creating specialised jobs like quality control technicians and technical-mechanical specialists. These jobs require specific skills, with training opportunities provided both on-site and off-site.

### Snapshot: Immediate and mid-term skills needs

#### Forestry

- **Plantation Management Skills:** Includes the planning and management of plantation expansions
- **Silviculture Knowledge:** Understanding of forest ecology and the cultivation of forest crops
- **Tree Planting and Care Expertise:** Skills for nursery workers, tree planters and silviculture employees
- **Advanced Risk Management:** Implementing sophisticated risk management strategies
- **Technological Literacy:** Adaptation to new technology affecting the forestry job landscape

#### Harvesting and haulage

- **Harvesting Machine Operation Skills:** Training for machine operators with the growth in established plantation harvesting
- **Site Preparation Skills:** Skills in preparing sites for cultivation of forest crops
- **Understanding of Biomass Harvesting:** A specialised focus on harvesting for energy creation
- **Contract Management and Coordination:** Skills in managing contracts for diversified services

#### Timber manufacturing

- **Scanning Technology and Automation:** Training in managing scanning technology and other automated processes within sawmills
- **Quality Control and Continuous Improvement:** Skills in manufacturing-driven processes and quality control
- **Specialised Skills in Glulam Production:** Expertise in finger jointing, laminating and drying processes with the establishment of a new glulam facility
- **Re-training and Skill Transferability:** Provision of transfer opportunities for roles like manual timber graders

#### Pellet manufacturing

- **Quality Control Techniques:** Skills in ensuring product quality in pellet manufacturing
- **Technical-Mechanical Specialisation:** Training for understanding and managing mechanical aspects of pellet production

<sup>45</sup> South and Central Queensland Regional Forestry Hub, March 2023, Report: Forestry Training and Education Future Skills Assessment. Accessed from [https://www.qldforestryhubs.com.au/\\_files/ugd/3c7854\\_6fd744bf3cb64494b89bba87ff36ef73.pdf](https://www.qldforestryhubs.com.au/_files/ugd/3c7854_6fd744bf3cb64494b89bba87ff36ef73.pdf) (Accessed 17 August 2023).

## 4.9 State-owned native timber production

### a) Current agreement

According to the South East Queensland Forests Agreement (SEQFA), the Eastern Hardwoods region - covering the Wide Bay area - will continue timber production from state-owned native forests until 31 December 2024.

### b) Policy development and industry consultation

The Queensland Government is in the process of formulating future policies through rigorous consultations with key industry stakeholders. Among the topics under discussion is the potential extension of timber production from state-owned native forests. It is noteworthy that the government has expressed a strong interest in leveraging sustainable timber for infrastructure projects related to the forthcoming Brisbane Olympics.

### c) Uncertainties and future implications for the timber industry

The long-term future of state-owned native timber production in the Eastern Hardwoods region, post-2024, is under review. This situation presents considerable uncertainties, which could have far-reaching implications for the broader timber industry. Should the existing agreement be modified, potential consequences may include job losses. Such an eventuality would require the initiation of retraining and skill development programs designed to assist affected workers in transitioning to other employment opportunities.

## 4.10 Regional industry's strategic priorities and insights into future workforce and training needs

On 10 May 2023, the Queensland Regional Forestry Industr convened a workshop in Gympie to delineate priority areas and related strategies. These were identified as fundamental to the comprehensive review of the South and Central Queensland Regional Forestry Hub and the wider industry<sup>46</sup>.

The priority areas encompass three key components:

- Forest resource security
- Manufacturing and supply chain development
- Workforce planning and development.

These aspects are carefully examined in Attachment 2 to evaluate potential future workforce demands and corresponding training needs.

Included below is an overview of the future skills and training needs of the industry to prepare a future-ready workforce. These align with the strategic priorities of the industry and are informed by the details contained in Attachment 2.

<sup>46</sup> South and Central Queensland Regional Forestry Hub, August 2023, Report: Strategic Review and Strategy Guidance. Accessed from [https://www.qldforestryhubs.com.au/\\_files/ugd/3c7854\\_692a6bf7eb4f41afac04e913681144d3.pdf](https://www.qldforestryhubs.com.au/_files/ugd/3c7854_692a6bf7eb4f41afac04e913681144d3.pdf) (Accessed 20 August 2023).



## Snapshot: Strategic framework for future-ready workforce development - Prioritising skills and training in the Wide Bay Forestry industry

### Selective harvesting and timber production

1. **Operational and management skills:** Catering to new job opportunities in selective harvesting and timber production.
2. **Private native forest management:** Opportunities for skill development in managing private native forest resources.
3. **Attracting and training youth and newcomers:** Targeting those with agriculture-related backgrounds to fill potential roles in the hardwood forestry sector

### Continuous learning and expertise

1. **Forestry health:** Focused on pest and disease management, optimised harvesting techniques
2. **Plantation forestry:** Skills in soil testing, local ecology, forest genetics, plantation establishment
3. **Tree planting, tending, and harvesting:** As new greenfield plantations and silvopastoral systems grow
4. **Community engagement and economic benefits:** Skills in farm forestry techniques, silvopastoral systems, especially catering to landowners

### Environment and cultural competency

1. **Carbon accounting and biodiversity assessment:** Expertise in carbon markets and credit trading
2. **Indigenous knowledge integration:** Developing cultural competency, negotiation skills, understanding of Indigenous knowledge

### Training for First Nations landowners

1. **Commercial native forestry management:** Building skills and understanding timber supply dynamics
2. **Economically sustainable forestry options post-mining:** If relevant to the region

### Timber design, manufacturing and innovation

1. **Timber product design and manufacturing:** Expertise in local species, quality control, R&D alignment
2. **Local species knowledge and advanced manufacturing:** Focus on market research and tailored product design
3. **Hybrid construction expertise:** Specialised designers, manufacturers, engineers proficient in timber and steel integration
4. **Remote worksite lodgings:** Skills in designing, constructing and manufacturing hybrid timber/steel prefabs
5. **Research and development collaboration:** Expanding departments, collaboration with universities, and research institutions
6. **Sustainable and circular economy principles:** Management of supply chain residues, collaboration with bioenergy experts, efficient resource utilisation

### Marketing, public relations and stakeholder engagement

1. **Championing timber's competitive edge:** Advocacy, comparative analysis of timber vs. steel
2. **Employee value proposition and positive environment:** Implementation of flexible working arrangements, team management
3. **Forestry-specific marketing and PR skills:** Specialisation in forestry and wood sectors for authentic representation

### Education, training and partnership

1. **Trainers and assessors within organisations:** Training in skill sets or Certificate IV in Training and Assessment
2. **Understanding of school curriculums and youth engagement:** Collaboration with educational institutions, liaison roles with schools
3. **Supervisory capability:** Overseeing apprenticeships, internships or trainees seeking hands-on experience

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## Attachment 1: Occupations and specialisations in forestry and timber product manufacturing<sup>47</sup>

Skill Level	Forestry		Timber and Wood Products Manufacturing		Timber Frame and Truss Manufacturing		Timber Supply
	Occupation	Specialisations	Occupation	Specialisations	Occupation	Specialisations	Occupation
AQF Level II or III	Forestry Worker	Nursery Production Worker Tree Planter Tree Pruner Pest and Weed Controller Chainsaw Operator – Basic	Timber Process Operator	Process Operator Kiln Operator Treatment Plant Operator	NA	NA	Customer Service/ Sales Assistant (Retail or Wholesale)
AQF Level III	Forestry Operator	Nursery Production Operator Silviculture Operator Mechanical Site Preparation Operator Earthmoving Plant Operator Chainsaw Operator (Tree Feller) Forest Firefighter	Wood Machinist	Trades Assistant Wood Machinist Apprentice Wood Machinist Wood Machinist (Timber or Wood Products) Wood Machining Supervisor/Team Leader	Timber Frame or Truss Fabricator	Timber Frame Fabricator Timber Truss Fabricator	Customer Service/ Sales Assistant (Retail or Wholesale) Customer Service Officer
	Harvesting Machine Operator	Feller Buncher Operator Single Grip Harvester Operator Forwarder Operator Loader Operator Skidder Operator	Saw Technician  Note: This occupation was formerly known as Saw Doctor	Trades Assistant Saw Technician Apprentice Saw Technician Saw Technician – General Saw Service Saw Technician – Saw Maintenance Engineering Sawshop Supervisor/ Team Leader	Timber Systems Designer	Estimator	
	Log Truck Driver	NA					

<sup>47</sup> Adapted from Companion Volume Implementation Guide, FWP Forest and Wood Products Version 8.1 by Skills Impact, February 2023.

Skill Level	Forestry		Timber and Wood Products Manufacturing		Timber Frame and Truss Manufacturing		Timber Supply
	Occupation	Specialisations	Occupation	Specialisations	Occupation	Specialisations	Occupation
AQF Level IV	Forest Operations Supervisor	Forest Firefighting and Prevention Supervisor	Timber Technician	Process Improvement Technician Process Optimisation Technician Scanning Technician Supply Chain Technician or Production Scheduling Technician Laboratory Technician Quality Assurance Technician Pellet Technician	Timber Systems Designer	Detailer	Sales and Merchandising Team Leader Sales and Merchandising Team Leader (Timber Products) Timber Advisor
	Harvesting Supervisor	Harvesting Crew Leader		Timber Production Supervisor Alternative names: ● Team Leader ● Leading Hand			
AQF Level V	Early Career Forester	Forestry Field Officer Forest Operations or Forest Resource Technician	NA	NA	NA	NA	NA
AQF Level VI and above	Forester/ Forest Operations Managers	NA	Timber Production Manager Alternative names: ● Production Lead ● Operations Manager ● Plant Manager	Dry Mill Manager Green Mill Manager Further Processing Manager Engineered Wood Products Manager	Production/Design Manager	NA	Sales Manager



## Attachment 2: Strategic priorities of the Queensland regional forest industry and future workforce requirements and training needs

Priority focus	Strategies <sup>48</sup>	Insights: Future workforce and training needs
Forest resource security	<ul style="list-style-type: none"> <li>● Collaborate with the state government on maintaining a long-term plan for utilising state forest resources and secure reliable arrangements for long-term supply</li> <li>● Advocate for access to private native forests</li> </ul>	<ul style="list-style-type: none"> <li>● New jobs opportunities at both operator and management levels for selective harvesting and timber production as new supply arrangements are reached and production from state-owned and private native forest grows</li> <li>● Opportunities for skill development in the management of private native forest resource and production</li> <li>● Need for programs to attract, recruit and train senior high school students and newcomers, targeting those with backgrounds in agriculture or related sectors. This is to fill potential new job opportunities from the expansion of the hardwood forestry sector</li> </ul>
	<ul style="list-style-type: none"> <li>● Maintain and improve the health and productivity of existing plantations</li> </ul>	<ul style="list-style-type: none"> <li>● Promote continuous learning and expertise in areas such as forestry health, pest and disease management, and optimised harvesting techniques</li> </ul>
	<ul style="list-style-type: none"> <li>● Facilitate the development of new plantations</li> </ul>	<ul style="list-style-type: none"> <li>● Need for plantation foresters skilled in soil testing, local ecology, forest genetics and plantation establishment</li> <li>● New job opportunities in areas of tree planting, tending and harvesting</li> </ul>
	<ul style="list-style-type: none"> <li>● Support forestry initiatives on private lands:               <ul style="list-style-type: none"> <li>○ Advocate for farm forestry and silvopastoral practices</li> <li>○ Focus on capacity building for farm forestry and silvopastoral practices on private lands</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>● New jobs opportunities could be expected in areas of tree planting, tending and harvesting as silvopastoral systems gain traction and investment in new greenfield plantations grow</li> </ul>
	<ul style="list-style-type: none"> <li>● Implement methodologies to recognise and trade values related to carbon and biodiversity</li> </ul>	<ul style="list-style-type: none"> <li>● Need for expertise in carbon accounting, biodiversity assessment, and the technicalities of carbon markets and credit trading</li> </ul>
	<ul style="list-style-type: none"> <li>● Respect and integrate First Nations' interests and knowledge in forest management</li> </ul>	<ul style="list-style-type: none"> <li>● Opportunities for developing cultural competency, understanding of Indigenous knowledge systems and how to integrate this with modern forestry practices, and negotiation skills</li> <li>● Offer training programs for First Nations landowners focusing on:               <ul style="list-style-type: none"> <li>○ Building skills in commercial native forestry management</li> <li>○ Understanding timber supply dynamics for both local and global markets</li> <li>○ Exploring economically sustainable options post-mining if present in the region</li> </ul> </li> </ul>

Priority focus	Strategies <sup>48</sup>	Insights: Future workforce and training needs
Manufacturing and supply chain development	<ul style="list-style-type: none"> <li>● Target value-adding processing and prefabrication tailored to local species, scale, and end-markets</li> </ul>	<ul style="list-style-type: none"> <li>● Expect a growing need for:               <ul style="list-style-type: none"> <li>○ Timber product designers and manufacturing technicians with expertise in local species</li> <li>○ Quality control and R&amp;D teams to align products with market requirements</li> </ul> </li> <li>● Focus on training/building knowledge in:               <ul style="list-style-type: none"> <li>○ Local timber species and their characteristics</li> <li>○ Advanced manufacturing methods</li> <li>○ Market research and tailored product design</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>● Prioritise opportunities specific to regions and Queensland, such as:</li> <li>● Accommodations for remote worksites</li> <li>● Hybrid timber/steel prefabrications</li> <li>● Timber components designed for steel structures</li> </ul>	<ul style="list-style-type: none"> <li>● A growing need for:               <ul style="list-style-type: none"> <li>○ Specialised designers and manufacturers who can integrate timber and steel designs/concepts</li> <li>○ Engineers proficient in both timber and steel</li> <li>○ Construction experts in designing and constructing remote worksite lodgings</li> </ul> </li> <li>● Focus on enhancing skills in:               <ul style="list-style-type: none"> <li>○ Designing and constructing remote worksite lodgings</li> <li>○ Manufacturing hybrid timber/steel prefabs</li> <li>○ Fabricating timber parts for integration into steel structures</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>● Explore emerging (pre-commercial) opportunities for value-adding and prefabrication that goes beyond traditional engineered wood products and bioenergy forms</li> </ul>	<ul style="list-style-type: none"> <li>● Need for expanding R&amp;D departments and increased collaboration with universities and research institutions</li> <li>● Support continuous learning, adaptation and development of skills in:               <ul style="list-style-type: none"> <li>○ Timber product innovation</li> <li>○ Prototyping</li> <li>○ Market feasibility studies</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>● Integrate supply chain residues into the overarching manufacturing strategy, considering a wide range of applications from biochar to diverse bioenergy forms</li> </ul>	<ul style="list-style-type: none"> <li>● Opportunities to create roles anchored in sustainable and circular economy principles within manufacturing focusing on:               <ul style="list-style-type: none"> <li>○ Management and optimisation of supply chain residues</li> <li>○ Collaboration with bioenergy experts</li> </ul> </li> <li>● Prioritise knowledge development in:               <ul style="list-style-type: none"> <li>○ Waste management</li> <li>○ Efficient resource utilisation</li> <li>○ Developing products from residues such as biochar and bioenergy</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>● Advocate for timber-based solutions as competitive alternatives to established steel prefabrication models in housing and general construction</li> </ul>	<ul style="list-style-type: none"> <li>● Need for advocates, marketers and industry liaisons to champion timber's competitive edge</li> <li>● Focus on developing knowledge of comparative strengths and weaknesses of timber vs. steel</li> </ul>

Priority focus	Strategies <sup>48</sup>	Insights: Future workforce and training needs
Workforce planning and development	<ul style="list-style-type: none"> <li>● Attract and retain skilled workers essential for the industry</li> </ul>	<ul style="list-style-type: none"> <li>● Introduce courses or invest in specialised HR teams or consultants to support forestry organisations to improve employee value proposition and foster a positive working environment</li> </ul>
	<ul style="list-style-type: none"> <li>● Promote careers and opportunities within forestry and wood product sectors:               <ul style="list-style-type: none"> <li>○ Showcase attractive, advanced and sustainable career pathways</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>● Need for professionals with expertise in marketing, public relations and stakeholder engagement, as well as with specialisation or experience in the forestry and wood sectors for authentic representation</li> </ul>
	<ul style="list-style-type: none"> <li>● Foster flexibility in job roles to promote a healthy work/life balance</li> </ul>	<ul style="list-style-type: none"> <li>● Provide training to managers on:               <ul style="list-style-type: none"> <li>○ Implementing flexible working arrangements</li> <li>○ Managing teams with variable schedules</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>● Provide training and assessment programs that are purpose-driven, widely recognised and easily accessible</li> </ul>	<ul style="list-style-type: none"> <li>● Seek out potential trainers and assessors within organisations</li> <li>● Train them to achieve skill sets or a Certificate IV in Training and Assessment, thereby building a group of competent individuals to enhance training provision and capability in the region</li> </ul>
	<ul style="list-style-type: none"> <li>● Initiate training opportunities integrated with school education</li> </ul>	<ul style="list-style-type: none"> <li>● Develop a deeper understanding of:               <ul style="list-style-type: none"> <li>○ School curriculums and youth engagement</li> <li>○ Collaborative techniques to partner with educational institutions</li> </ul> </li> <li>● Anticipate/create liaison roles to work with schools and educational bodies</li> <li>● Develop capability for supervisors to oversee apprenticeships, internships, or trainees seeking hands-on experience</li> </ul>

<sup>48</sup> South and Central Queensland Regional Forestry Hub, August 2023, Report: Strategic Review and Strategy Guidance. Available at [https://www.qldforestryhubs.com.au/\\_files/ugd/3c7854\\_692a6bf7eb4f41afac04e913681144d3.pdf](https://www.qldforestryhubs.com.au/_files/ugd/3c7854_692a6bf7eb4f41afac04e913681144d3.pdf) (Accessed 20 August 2023)



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