Australian Government

Jobs and Skills Australia

Towards a National Jobs and Skills Roadmap

Annual Jobs and Skills Report 2023

Summary

October 2023

Acknowledgement of Country

Jobs and Skills Australia acknowledges the Traditional Owners of Country throughout Australia and recognises the continuing connection to lands, waters and communities. We pay our respect to Aboriginal and Torres Strait Islander cultures, and to Elders past, present and emerging.

Context

The role of Jobs and Skills Australia

Australia faces a skills challenge not seen since the 1960s. In response to this challenge, Jobs and Skills Australia was established in November 2022 under interim legislation, superseded by permanent legislation in August 2023. Its mission is to be a catalyst in activating the potential of Australia's human capital to meet the present and future skills needs.

Jobs and Skills Australia's central role is to advise government and key partners in the national skills system on Australia's skills needs and the adequacy of the skills system in meeting those needs. It has been supported by a tripartite Consultative Forum, to be replaced by a tripartite advisory board under the permanent legislation and works closely with the 10 Jobs and Skills Councils, and with the states and territories.

Strategic objectives across the labour market and the economy

In 2023, Australia is experiencing a tight labour market and extensive skill shortages, as well as significant price inflation and continuing low productivity growth. Despite this tightness, the labour market has been slow to lift wages growth, which have been stagnant for a decade.

As the Reserve Bank of Australia (RBA) focuses on bringing inflation into the 2 to 3% target range, a focus on matching workforce skills with industry's needs is required to enable the economy to minimise the level of unemployment and underemployment that can be achieved alongside stable inflation.

A focus on enhancing Australians' skills also aims to support increased productivity, real wage growth, increased labour force participation and sustainable economic growth.

A focus on enhancing opportunities for those who are disadvantaged in the labour market aims to support more equitable outcomes in employment opportunities and rewards.

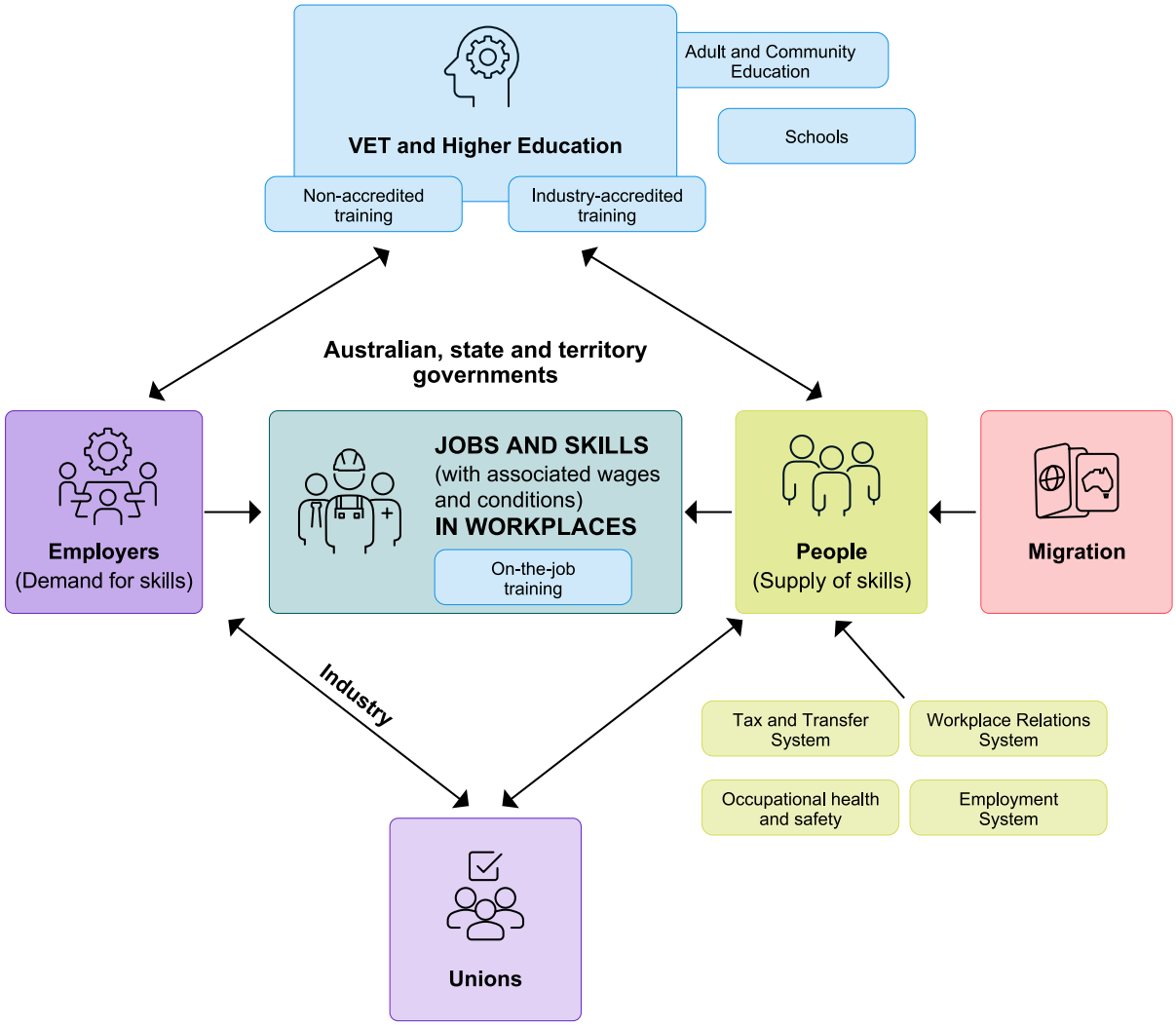
These are the high-level objectives that Jobs and Skills Australia is seeking to support: minimising unemployment and underemployment; increasing productivity, real wages, participation and sustainable economic growth; and increasing equity and reducing disadvantage. Supporting these objectives will involve anticipating how jobs and skills need to evolve to help the national skills system deliver the skills people will need for the objectives to be achieved.

The Australian Government's recently released Employment White Paper, *Working Future*, outlines 5 objectives in its vision for the future of the Australian labour market, which we see as highly congruent with the 3 objectives outlined above.

Towards a national jobs and skills roadmap and a joined-up national skills system

Three key pillars of the national skills system are: vocational education and training (VET), higher education, and migration (Figure 1). Jobs and Skills Australia focuses primarily on these 3 key pillars and how they work within the broader jobs and skills ecosystem which includes, for example, the school system, informal on-the-job training, unaccredited and industry-based training, and system settings, like employment services and wage setting and workplace relations frameworks, and especially the way that wages adjust in the labour market.

Figure 1: The national skills system: conceptual view (illustrative)



Source: Jobs and Skills Australia

To meet the current skills challenge and the skills needs of the future, Australia will need a systematic approach to building foundation skills for all those entering the workforce, through to the extensive knowledge and workforce skills that are required at the highest level. This will require our education, training, and migration systems to effectively complement each other and flexibly respond to skills and workforce needs. And we will need the whole population to be supported by a lifelong learning system that enables them to continually develop their skills to meet the needs of a dynamic economy and changing labour market.

An interconnected systems view of the national skills system to better address current and future skills challenges is recognised by stakeholders as beneficial, while also acknowledging that industry, jurisdictional and pillar-specific nuances will continue to be important.

In 2023, a number of important reform processes of systemic importance to the national skill system have been progressed, with negotiations towards a new National Skills Agreement, a review of higher education leading towards a new Universities Accord, and the Australian Government's Migration Strategy which will also lead to significant reforms. These reform processes have identified the importance of synergy between each of these pillars of the national skills system, and a role for Jobs and Skills Australia in supporting the implementation and monitoring of policies in a way that seeks to ensure that they complement each other.

As these reform processes are charted out, Jobs and Skills Australia will develop a national jobs and skills roadmap in partnership with Jobs and Skills Councils, states and territories, business and unions, the education and training sector, and Australian Government agencies. Such a roadmap starts with an analysis of jobs and skills pressures and drivers, which is a key feature of this 2023 report. It would then map out the reforms required to deal with these pressures and drivers. Then comes the policy implementation stage. Finally, the implementation of policies will need to be monitored against the objectives they are seeking to achieve, with the feedback leading to further refinement of the strategies adopted.

Megatrends are shaping the economy and the workforce

Digital transformation

Digitalisation, automation, and emergence of artificial intelligence is a key megatrend that opens up significant productivity enhancing opportunities, and brings with it a critical skills agenda. Some jobs will be lost, and many others will change in nature. The whole workforce needs to be digitally literate. On top of that, higher level digital skills are in increasing demand. The power of artificial intelligence, as well as the associated risks, has come under particular scrutiny as its capability and applications unfold.

If Australia is going to take advantage of this trend a focus on the economy-wide implications is a key issue for Jobs and Skills Australia to analyse and advise on and work with the Jobs and Skills Councils, especially the Future Skills Organisation, as well as other key partners. Significant skill gaps exist in this area and the implications, for example, for our education and training pipeline and for lifelong learning, can only be expected to increase over time.

Technology and associated digital skills are a key enabler in meeting the opportunities of this megatrend.

Clean energy and the net zero transformation

The clean energy transformation is another megatrend that has been a major focus of Jobs and Skills Australia's work in 2023. The transition opens up significant opportunities for Australia with its abundant renewable energy resources and a significant construction effort required in the near-term. It also brings with it many challenges to confront, particularly for people and communities affected by the transition away from fossil fuels. The development of the skills required for successful transition is a key enabler within a broader transition policy framework. Stakeholders have consistently emphasised Australia will need to lift the pipeline of VET-trained workers, including in regional areas, to meet the needs of the clean energy transition.

The growth of the care and support economy

The growth of the care and support economy associated with an ageing and increasingly diverse population, a transition from informal to formal care, and increased citizens' expectations of government, is another important megatrend. This area is already experiencing skills shortages with employment in the care and support economy projected to grow strongly in future.

The health care sector is subject to similar pressures and growth expectations, with the nursing occupations experiencing significant skill shortages and projected strong growth in demand.

Current skills shortages

Skills shortages remain elevated

Analysis of current skills shortages shows that 36% of occupations assessed were in national shortage (332 out of 916) in 2023, 5 percentage points higher than the 2022 Skills Priority List (SPL).

Shortages were most common for Technicians and Trades Workers, with 50% of occupations in the category assessed as being in national shortage, broadly consistent with findings of previous SPLs. For example, all occupations in the Construction Trades Workers and Food Trades Workers groups were found to be in national shortage.

Shortages were also pronounced for the Professionals group, particularly Health Professionals. About 48% of the occupations within the Professionals group occupations were in shortage in 2023. A common thread among shortages in these occupations is that they require a high level of skills and knowledge, qualifications and experience.

Shortages grew amongst Community and Personal Service Workers (to 24% of occupations in 2023). As with the Health Professionals category, shortages for Community and Personal Service Workers in the health, care and support sectors are considerable.

New shortages have emerged in 2023 but many are persistent

Comparisons with the 2022 SPL highlight that there were 66 (or 7%) occupations newly in shortage in 2023, concentrated among high-skilled professional occupations – such as Sales and Marketing Manager, Taxation Accountant, Biomedical Engineer and Solicitor. The main drivers included a decrease in fill rates for these occupations and employers receiving fewer suitable and qualified applicants per vacancy.

There were also 266 occupations (or 29%) that were in shortage in both years. Among these, 47% were professional occupations mostly related to health, engineering, information communication technology (ICT) and science. Another 33% were occupations within various technician and trade roles.

Three consecutive years of the SPL enables us to make an assessment of the persistence of skills shortages. The overwhelming conclusion from this assessment is how persistent many skill shortages are. In general, the labour market has not adjusted quickly, for example, through real wage increases, to clear these skilled shortages. The standout problem is the persistence of shortages among Technicians and Trade Workers, though there are also persistent shortages in Community and Personal Service Workers, a range of Professionals occupations, and Machine Operators and Drivers (Table 1).

Table 1: Persistent shortage since 2021 in ANZSCO major occupation groups

Major group	Description	Occupations in persistent shortage	Percentage of major group
1	Managers	3	3%
2	Professionals	55	17%
3	Technicians and Trades Workers	67	33%
4	Community and Personal Service Workers	5	6%
7	Machinery Operators and Drivers	8	10%

Source: Jobs and Skills Australia.
Note: the number of occupations assessed has changed for each SPL. This reflects both changes in the Australian and New Zealand Standard Classification of Occupations (ANZSCO) framework and the inclusion of skills shortage assessments for 'not elsewhere classified' (nec) occupations in both the 2022 and 2023 SPL assessments.

Occupations that have a strong gender imbalance were more likely to be in shortage

Jobs and Skills Australia's analysis reveals that gender imbalance is a feature of many skill shortage areas. Occupations that have a highly gender skewed workforce are significantly more likely to be experiencing shortages than occupations where the gender balance is more even. Male dominated occupations (in the occupation groups of Machinery Operators and Drivers, Labourers, and Technicians and Trades Workers) and female dominated occupations (in the Community and Personal Service Workers occupation group), stand out.

Skills shortages were more pronounced in regional areas

In recent times, skill shortages have been particularly acute in regional areas, especially for the highly skilled. The share of employers reporting location as a reason for recruitment difficulties increased with remoteness. In Very Remote areas, more than 80% of employers believed the reason they did not receive many applicants was because of the job location and over 40% of employers had a suitable applicant not take a job offer because of the location. In the Northern Territory, 55% of employers who had few applicants and 25% of employers with an unfilled vacancy listed location as the reason. In Western Australia, these figures were 36% and 20%, respectively.

Wage growth to address shortages has not responded as expected

For all skills shortages, conventional economics suggest that increasing wages is one lever that employers can pull to attract more workers. How successful that will be depends on the 'elasticity of supply of labour' which is contingent partly on how many people have the skills required.

The existence of extensive persistent skill shortages in our labour market implies that it is one in which wage adjustments of this kind are not solving the problem. This could be that for some reason, wage adjustments are not being used as much as they could be, or that there are wider issues at play.

Recent analysis by both Jobs and Skills Australia and the Reserve Bank of Australia highlights that wage adjustments are rarely used by employers as a short-term response to skills shortages.

Jobs and Skills Australia's Survey of Employers who have Recently Advertised (SERA) found that over the 3 years from 2021 to 2023, few employers changed remuneration in response to skill shortages. In the 2023 SPL period, around 1% of employers adjusted remuneration to attract skilled workers to fill vacancies. While this is surprisingly low, it was up significantly on the 2022 result when 0.4% of employers adjusted remuneration for this purpose.

The results are consistent with research undertaken by the Reserve Bank of Australia, which show limited evidence that firms raise wages in response to firm-wide or job-level skill shortages, at least in the short-term (Leal, 2019).

Further analysis of wage growth over a longer time horizon may shed light on whether wage adjustments are being used as much as they could be, particularly for occupations that have been in persistent shortage.

Not all skills shortages are the same

Jobs and Skills Australia has adopted a typology of skills shortages based on an insightful conceptual framework developed by Professor Sue Richardson. This provides a simplified approach to a complex set of labour market dynamics, and a helpful starting point for analysing both the causes and the potential solutions to the shortages (Table 2).

It needs to be noted that not all shortage occupations fit neatly in one category or another, and for some occupations assigned to one category, they may have some issues in common with occupations in other categories.

Longer training gap

Longer training gap shortages are defined by there being few qualified applicants per vacancy and a long training pathway – a bachelor degree, Certificate IV, diploma or apprenticeship is required by successful applicants.

This suggests that there is a need to increase the number of available skilled workers but with significant time lags involved in the training process.

In this category there may be a strong case for increasing the supply or throughput of qualified people either by a larger intake of students or higher completion rates. However, there would be a significant time-lag in creating this throughput. In the short-term, this could be addressed by upskilling people with some of the relevant skills, attracting back people who have left the occupation through improved remuneration and/or working conditions, or migration options.

Examples of occupations in this category are: Early Childhood (Pre-primary School) Teachers, Occupational Therapists, Physiotherapists, Registered Nurses, and Electricians.

Shorter training gap

Shorter training gap shortages arise when there are few applicants per vacancy and a Certificate I to III or less is required.

A priori, this suggests that there is a need to increase the number of available skilled workers, with shorter time lags involved in the training process.

This is a category where there may also be a strong case for increasing the throughput of qualified people either by a larger intake or higher completion rates. The time lag would be shorter than for longer training gap shortages, which means it would be fixed quicker if the throughput could be increased. If not, the alternative strategies of upskilling people with some of the relevant skills, attracting back people who left the occupation, or for some occupations migration options may also need to be explored.

Examples of occupations in this category are Retail Managers.

Suitability gap

The suitability gap category is those occupations where there are enough qualified applicants but too many are not hired because they are not regarded as suitable.

Suitability gap shortages are defined by many qualified applicants per vacancy but few suitable applicants per qualified applicant, which results in many of these vacancies remaining unfilled. Reasons often cited for this suitability gap are lack of employability skills and lack of work experience. Another factor which may be in play is unconscious bias of employers.

This is a category where simply increasing the throughput of qualified people is a questionable strategy. A priori, it appears that the challenge is to enhance the attributes of qualified applicants through investing in their employability skills and their work experience.

Examples of occupations allocated to this category are: Advertising, Public Relations and Sales Managers, Construction Managers, and Civil Engineering Professionals.

Retention gap

Retention gap shortages are where there is above average job mobility (below average rates of retention) potentially reinforced by low numbers of new applicants per vacancy. A priori, the retention gap category is where low job retention appears to be the core driver of the problem.

This is a category where simply increasing the throughput of qualified applicants, if it were possible, is unlikely to solve the problem, because of the low likelihood of retaining them in the occupation.

A priori, it appears that what needs to be explored are ways to enhance the attractiveness of the occupation through improved remuneration and/or working conditions, professional development and clearer career pathways. If attention was paid to that, then increasing the throughput of qualified people would be more likely to pay dividends. Migration options may be another part of the strategy.

Examples of occupations in this category are: Human Resource Professionals, Chefs, Child Carers, and Aged and Disabled Carers.

Table 2: Top 20 occupations in demand by shortage type, 2023

Classification of skills shortage	Top 20 occupations in demand
Longer training gap Few qualified applicants per vacancy, bachelor degree, Certificate IV or apprenticeship required	• Early Childhood (Pre-primary School) Teachers • Occupational Therapists • Physiotherapists • Registered Nurses • Solicitors • Social Workers • Metal Fitters and Machinists • Electricians
Shorter training gap Few qualified applicants per vacancy, Certificate I to III or less required	• Retail Managers
Suitability gap Many qualified applicants per vacancy, but few suitable applicants per qualified applicant	• Advertising, Public Relations and Sales Managers • Construction Managers • Advertising and Marketing Professionals • Civil Engineering Professionals
Retention gap Above average job mobility (below average rates of retention), potentially reinforced by low number of total new applicants per vacancy	• Human Resource Professionals • Chefs • Child Carers • Aged and Disabled Carers

Source: Jobs and Skills Australia, Skills Priority List, 2023
Note: There are 3 occupations in the top 20 occupations in demand – General Practitioners and Resident Medical Officers, Software and Applications Programmers, and Motor Mechanics – which are yet to be categorised. Additional analysis required as they may fall in more than one skills shortage category.

It can be seen there are likely to be a number of factors that need to be addressed to deal with persistent shortages and the strategy may need to be multi-pronged. For example, increasing training places while exploring migration options in the short-term, combined with higher wages to attract more workers to the roles. Aged and disabled carers are an interesting case in point.

Employment projections for the decade ahead

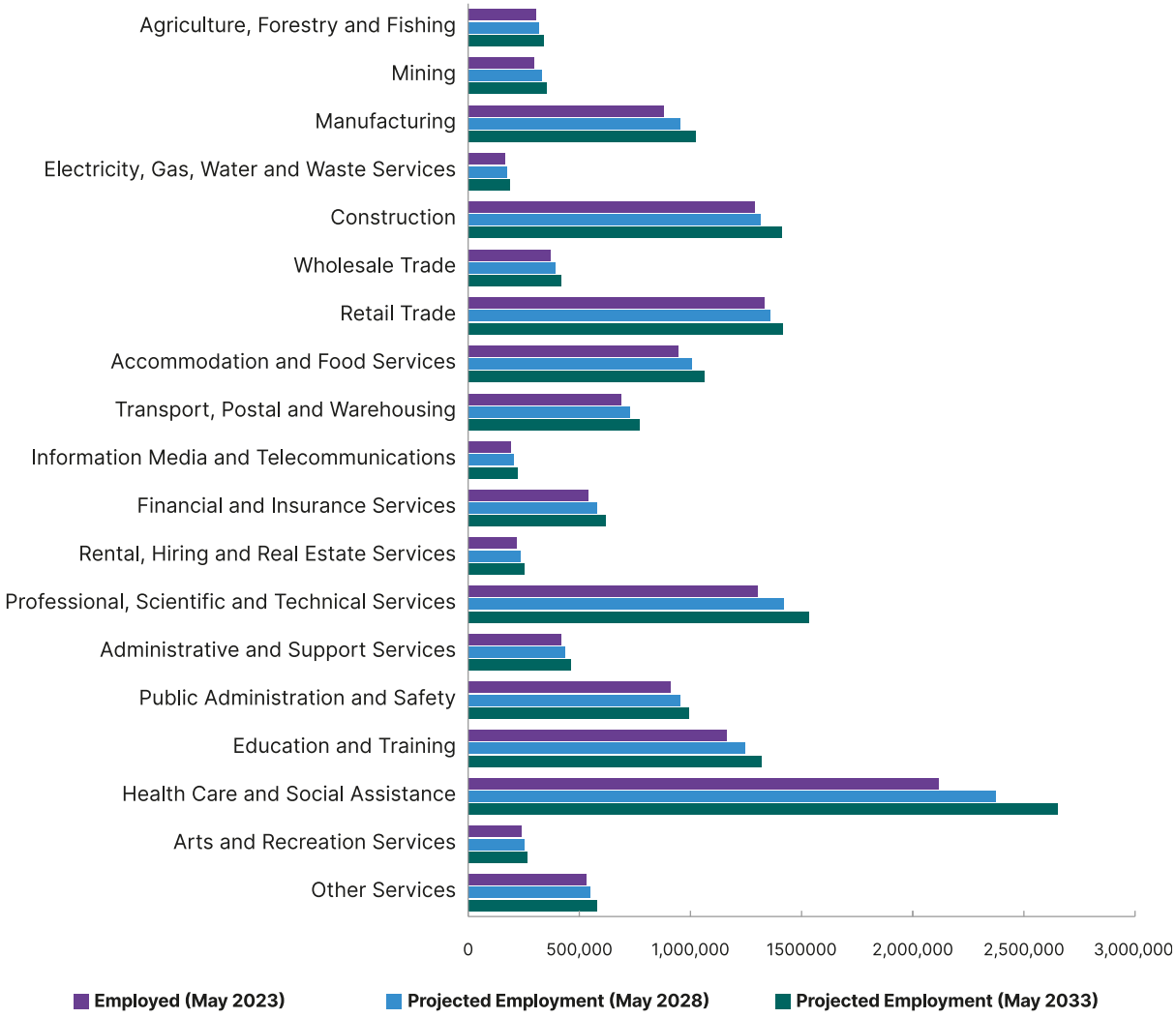
Aggregate growth

Total employment in the Australian economy is projected to increase by around 6.5% over the next 5 years to stand at 14.8 million, and 14.2% over the next 10 years, to stand at 15.9 million. That is, around 2 million more people will be employed in the Australian economy in 2033 than presently.

All industries are expected to grow

While growth across industries is broad-based, the greatest growth, by far, is expected in Health Care and Social Assistance, with its share of total employment projected to increase from 15.2% in 2023 to 16.7% in 2033. Other sectors expected to increase their employment significantly, in terms of actual increases in persons employed, are Professional, Scientific and Technical Services and Education and Training (Figure 2). After a long period of decline in its share of employment, Manufacturing is expected to experience significant growth in employment and slightly increase its share of total employment over the decade ahead. Mining is also expected to grow strongly in percentage terms over the next 10 years.

Figure 2: Employment projections by industry, May 2023 to May 2033, persons



Source: Projections produced by Victoria University for Jobs and Skills Australia

Occupational variations

The occupation groups projected to experience the strongest employment growth, in terms of actual increases in persons employed, in the next decade are Professionals, Managers, and Community and Personal Service Workers.

It is anticipated that the shift towards employment in occupations such as Professionals and Managers will continue over the next decade, with these 2 groups constituting 39.1% share of total employment in May 2023, and projected to make up 40.7% of employment in May 2033. The continued trend of growth in care and support occupations is also expected to continue with Community and Personal Services Workers expected to make up 11.4% of those employed in May 2033, compared to 11.1% in May 2023.

Demand for VET and higher education graduates is expected to grow strongly

Over the next 10 years, more than 9 out of 10 new jobs (around 92%) expected to be created will require post-secondary qualifications (Skill Levels 1 to 4). Around half (48.4%) will require a bachelor degree or higher qualification as the primary education training pathway (Skill Level 1), and around 44% will have VET as the primary pathway (Skill Levels 2 to 4) (Table 3).

Table 3: Projections by skill level, May 2023 to May 2033, persons

Skill Level	Employed, May 2023 (000s)	May 2033 Projection (000s)	10-year employment growth (000s)	Share of 10-year employment growth (%)
Skill Level 1	4,811	5,766	955	48.4%
Skill Level 2	1,720	1,941	221	11.2%
Skill Level 3	2,049	2,275	226	11.5%
Skill Level 4	3,322	3,744	422	21.4%
Skill Level 5	2,012	2,162	150	7.6%
Total	**13,915**	**15,889**	**1,974**	**100.0%**

Source: Projections produced by Victoria University for Jobs and Skills Australia
Note: Skill Level 1 relates to bachelor degree or higher qualification; Skill Level 2 relates to advanced diploma or diploma; Skill Level 3 relates to Certificate IV or III (including at least 2 years on-the-job training); Skill Level 4 relates to Certificate II or III; Skill Level 5 relates to Certificate I or secondary education.

All states and territories are expected to experience employment growth

The employment growth across states and territories is expected to be in the range of around 12 to 16% over the next decade. The strongest percentage growth is expected in Victoria and the weakest in South Australia, with largest absolute growth being in Victoria, New South Wales and Queensland.

Many of the same drivers and pressures for increased numbers of tertiary qualified workers, increases in health and care, greater digital skills and increased capability in the clean energy sector, are anticipated in all jurisdictions. Regional variations will be an increasing focus of our work going forward.

It will be important to work with partners across jurisdictions and sectors, including with Jobs and Skills Councils and states and territories, to enhance the employment projections over time and make them more accessible to better inform workforce planning and decision-making.

Meeting the needs of the clean energy transformation

Three scenarios about the clean energy future

Jobs and Skills Australia has undertaken a detailed study of the workforce implications of the transition to net zero with preliminary modelling of 3 scenarios.

Under all the scenarios, demand for employment in the sectors related to clean energy – supply, demand and enabling – will be among the sectors with the strongest employment growth in the Australian economy over the next 10 years.

Workforce implications

Jobs and Skills Australia has identified 38 critical occupations, mainly in trades and technical occupations, that occur across the various clean energy segments involved in developing, generating, storing, transmitting and distributing energy generated from renewable, net zero emissions sources, installing and maintaining the technology that uses clean energy rather than fossil fuels, and enabling the clean energy transition through education, training, regulation, and supply chains. Electricians and Electrical Engineers are critically important across these areas. Metal Fitters and Machinists, Industrial, Mechanical and Production Engineers and managerial occupations such as Production Managers and Construction Managers are also very important. In all the net zero scenarios, demand for these occupations will be greatest.

Regional implications

The preliminary modelling suggests that employment growth in regional Australia is likely to be higher than in metropolitan areas. By region, under the central scenario many regions are likely to have average annual employment growth rates close to 2% between 2023 and 2030, including Northern NSW and Southern NSW, Eastern Victoria and the Northern Territory. This growth reflects renewable energy projects and the associated construction pipelines. Some of these regions, for example Northern NSW and Eastern Victoria, also have transitioning sectors.

Implications for the skills system

The education and training sectors have a critical role to play, complemented by the migration system. It will be critical to stand up initiatives to increase the number of apprentices in electrical and related trades. This is a big challenge, noting that this is already an area of significant skills shortage.

It will be necessary to substantially increase the number of completions in electrotechnology and other critical trade apprenticeships, maintain high levels of graduates across many engineering disciplines, as well as ensure we maintain university programs in several other specialist fields such a geology and metallurgy. As important is ensuring that these graduates have the attributes and sector-specific technical skills that will be needed in the clean energy sector. Ensuring there are sufficient VET instructors and teachers with relevant clean energy sector experience will also be critical.

Stronger links between higher education and industry and the VET sector will be needed, including expanding and regularising higher apprenticeships and promoting degree apprenticeships and other combinations of the VET and higher education sectors.

An emerging reform agenda

To achieve low unemployment, strong productivity and wages growth and increase inclusion in the labour market will require all elements of the national skills system to improve and work better together. A focus on matching workforce skills with industry's needs will help retain low unemployment with stable inflation. Enhancing Australians' skills is also an important productivity enhancing strategy both directly but also to help facilitate innovation, a key driver of long-term productivity growth, which in turn should support real wage growth. And the skill system is a key lever to bring disadvantaged groups into stable, rewarding and valuable work. Increased skills should also enhance labour force participation, another contributor to sustainable and inclusive growth.

Vocational education and training

Workers qualified through VET pathways play a key role in the Australian economy. Job roles requiring applied learning and practical skills continue to be in demand and in persistent shortage across Australia.

A key challenge of the VET sector is its status and perceptions relative to higher education. A House of Representatives Committee is undertaking an inquiry into the status and perceptions of VET. A priority for Australia in meeting its skills challenges of the future is to raise the status of skills relative to knowledge, and VET relative to higher education, through raising the value of the application of skills and knowledge, contextualised to the workplace. Quality improvement of the VET sector, a focus on excellence, the development of higher-level vocational qualifications, and reform of the school system to place greater value on vocational skills, and enabling pathways for lifelong learning, are amongst the elements of a reform agenda required to support the culture change needed.

The VET sector in general, and Technical and Further Education (TAFE) in particular, have been significantly challenged relative to the higher education sector in the attention paid to their resourcing in recent decades. The negotiation of a new National Skills Agreement aims to start a process of addressing that problem, to strengthen the sector and initiate a reform process, so that VET can progressively improve in its ability to meet Australia's skills needs of the future.

The proposed National Skills Agreement would embed a new model of shared national stewardship of the VET sector to support a more collaborative and evidence-driven approach to delivering high quality, responsive and accessible education and training to boost productivity and support Australians to obtain the skills they need to participate and prosper in the modern economy.

Completion rates of VET courses is a concern that Skills and Workforce Ministers have identified as a problem to be addressed and a taskforce led by South Australia is currently analysing this issue.

A strong focus on developing required competencies is a strength of the VET sector, but sometimes these competencies are too detailed. This can stifle innovation and flexibility in training delivery and hinder the recognition of transferable skills and increase upskilling and reskilling costs. Other strengths include the direct relationship with industry in the development and delivery of training and the ability to rapidly upskill to meet changing skills needs in the workforce. At the same time, the time it takes to update VET courses to include new skills demanded by employers is a challenge identified by many stakeholders. An increased focus

on transferrable skills, resilience and adaptability are viewed by stakeholders as increasingly important in a rapidly changing labour market. Skills Ministers have established a tripartite process to implement reforms to VET qualifications to make them more fit for purpose.

Ten Jobs and Skills Councils with deep understanding of the VET sector and industry needs have been established to support the VET sector in meeting industries' needs and providing industry with a stronger voice. Keen understanding of the cross-cutting pressures and challenges across their sectors, for example, on the need for digital skills, will be a strength of the new system.

Higher education

Australia's higher education sector, in general, and its universities in particular, are highly ranked internationally. The sector has also achieved remarkable growth in the last 15 years, driven largely by the now lapsed 'demand-driven system', resulting in a substantial increase occurring in the share of the labour force with higher education degrees, especially bachelor degrees. The employment projections suggest that this growth will need to continue.

One problem to be solved is that the current construct of higher education poses a challenge to providers in terms of balancing their research and knowledge accumulation role with teaching and preparing students with the skills and knowledge they will need in the workplace.

There is a current review of higher education in place, to establish a Universities Accord. The Review Panel is considering current and future skills needs, learning and teaching, access and opportunity, research, innovation, international education, funding and regulatory settings, employment conditions and strengthening engagement between the higher education and vocational education and training sectors.

There is a very strong focus on the need for the higher education sector to play an important role in meeting Australia' s skills needs. The Interim Report identifies Jobs and Skills Australia's analysis as an important source of intelligence on current and future demands for skilled graduates.

Most young Australians undertake some form of tertiary education following school, with higher education currently being the most popular pathway. This is likely to continue although there are pleasingly some signs of VET recovering from its decline in popularity.

Higher education provides the attainment and transfer of knowledge, generally providing a broader knowledge base than required to succeed in a particular occupation. However, there is evidence that many qualified graduates find it difficult to get a foothold in the labour market because of a lack of work experience and practical employability skills. This is one of the key issues identified in the Accord Panel's Interim Report. Stronger collaboration between universities and industry is warranted.

Further, the Interim Report concludes that to successfully tackle our big national priorities, our higher education sector needs to become much, much stronger. It identifies 10 possible system shifts over the next decade. The first listed shift that it envisages is a more integrated tertiary system, with a commitment to access for everyone and achieving significant growth in pursuit of national skills and equity targets. Other shifts identified include for example: the transformation of teaching and learning, with an ambitious commitment to student experience and the use of technology; reskilling and lifelong learning provided though more modular, stackable qualifications, including microcredentials, with full scaffolding of pathways; population parity in participation by 2035; and First Nations at the heart of higher education.

A more joined-up tertiary education system

The Accord Panel's Interim Report cites a focus on skills and on stronger connections with VET as key priorities. Indeed, there has been a growing interest in the case for greater complementarity between the VET and higher education sectors over a number of years. A key aim would be to enhance the ability of students to navigate the tertiary education system to obtain the knowledge, skills and capabilities they need to successfully participate in the labour market. It should also help industry to work more effectively with both sectors to obtain the skills it needs, and encourage education and training providers from both sectors, and industry, to collaborate on designing fit for purpose education and training programs, drawing on the strengths of both sectors.

The Interim Report and the Employment White Paper both see this as an important priority. The Interim Report argues that Australia's skills needs will only be met if the higher education sector and an expanded VET sector, with TAFE at its core, work together within a more integrated system to deliver flexible, transferrable skills people want and need. The Interim Report also argues the case for working towards parity of esteem between VET and higher education.

Policy considerations in the Accord Review include, for example: the creation of a universal learning entitlement; new types of qualification closer aligning VET and higher education starting in areas of national priority – like clean energy, the care economy and defence; and expanding commonwealth supported higher education places at some Australian Qualifications Framework (AQF) levels to the TAFE sector.

The Interim Report also suggests that the reform of the AQF proposed by the Noonan Review could be a critical element of new joined-up tertiary system and that an Australian Skills Taxonomy relevant to both VET and higher education would offer common language between sectors that would assist with the co-design of fit for purpose qualifications. A national skills passport using a common skills language could also be explored as a way of increasing the transparency of the skills people possess and increasing the efficiency of the market for skills.

It also indicates that the Review is giving further consideration to the benefits of establishing a Tertiary Education Commission, whose initial focus would be to oversee the higher education funding model, but over time in partnership with the states and territories could encompass the whole tertiary system to pursue greater opportunities for alignment and collaboration between the VET and higher education sectors.

Migration systems reform

The Australian Government Review of the Migration System released in April 2023, concluded that the migration system is not fit for purpose.

The Review considered that Australia needs a new data-driven approach to identifying skills needs, with Jobs and Skills Australia playing an important role as the trusted source of evidence, research and analysis on the labour market and workforce skills and training needs.

It also pointed to the need for a tripartite approach, involving perspectives from industry, unions and government in determining the role of migration in meeting labour market gaps and delivering fair and efficient outcomes.

The Australian Government's subsequent Migration Strategy will set out a wide range of reforms so that skilled migration can more effectively address labour shortages and boost productivity. The Government is progressing this as a priority and has indicated that it will build in a greater role for Jobs and Skills Australia.

A joined-up national skills system

There is significant policy work underway across the national skills system and each element has called for a more joined-up, whole-of-system approach to meet Australia's current and future skills needs.

This will require our higher education, VET and migration systems to effectively complement each other and flexibly respond to skills and workforce needs. And we will need the whole population to be supported by a lifelong learning system that enables them to continually develop their skills to meet the needs of a dynamic economy and changing labour market.

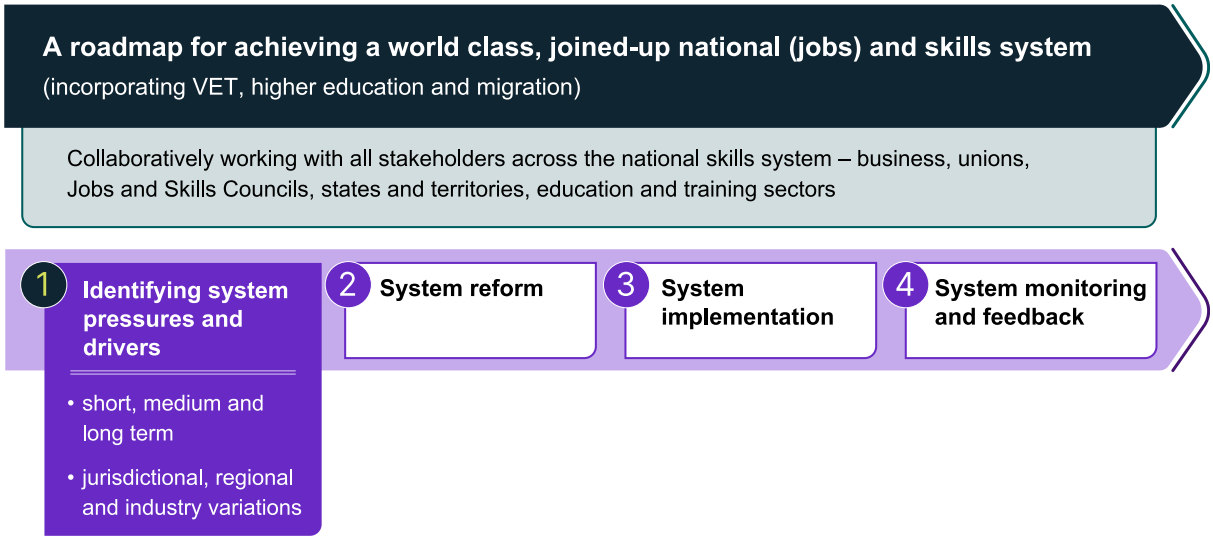
The potential benefits of a joined-up national skills system are immense. A more joined-up system has the potential to contribute to minimising unemployment, increasing productivity, economic growth, participation and real wages, and increasing equity and reducing disadvantage. The challenge is to clearly articulate the essential components of the joined-up national skills system, how they differ from the current approach within systems, and how to progress towards a joined-up system.

There is much potential in these reforms in delivering the skills Australia needs now and into the future. All of these reforms have signalled the importance of each of these pillars of the system working together and a role for Jobs and Skills Australia to bring together practitioners, academics, business, unions, policy makers, service providers and data holders together to set out a roadmap to achieving this goal.

Towards a national jobs and skills roadmap

A roadmap would create an indicative strategic plan for the national skills system and chart major steps or milestones along the way. A roadmap for the national skills system is anticipated to include the 4 elements outlined in Figure 3.

Figure 3: National jobs and skills roadmap elements



Source: Jobs and Skills Australia

Pressures and drivers

The first step in the development of a national jobs and skills roadmap is to identify the key pressures and drivers that need to be attended to, to enhance the ability of the skills system to meet the nation's skills needs. This is a key focus of this 2023 Jobs and Skills Report and will be further developed and refined over the next year in partnership with the Jobs and Skills Councils and the states and territories, in consultation with business, unions and education and training providers, and with relevant Australian Government agencies.

Reform

The next step in the development of a roadmap, is to undertake reform of the national skills system where it is deemed to be inadequate or in need of significant improvement. A range of reforms have been under active consideration and development this year, to the tertiary system encompassing the VET and higher education sectors, and to the migration system – which has been outlined in the previous section. These reform agendas will be further shaped and refined in the months ahead and move to their respective implementation stages.

Implementation

The third step in the national jobs and skills roadmap is policy implementation, progressively incorporating a range of reforms over time. Over the next year we can expect the progressive introduction of a range of new initiatives, reforms and ways of working to the VET sector, higher education, and the migration system.

Monitoring and feedback

The last step in the roadmap is monitoring policy implementation and assessing its success against its objectives. This will then provide feedback to the system to act on and into the policy development process to support its refinement and further policy reform.

Jobs and Skills Australia is uniquely placed to provide insights and analysis in relation to VET, higher education and the migration system, with the added advantage it can monitor the coherence and complementarity of the component parts across the national skills system. Partnership with Jobs and Skills Councils and the states and territories will be a key success factor in this process.

Conclusions: Roadmap priorities and opportunities

The roadmap is starting to emerge, both through analysis, the policy development process and extensive stakeholder consultation.

We suggest 8 priorities should guide the further development of the national jobs and skills roadmap:

- deep engagement with key partners and stakeholders
- close collaboration with key policy advising/policy making bodies and departments of government
- set ambitious goals/outcomes, such as the 3 strategic objectives for the Australian population as a whole and keep them in mind
- set and chart goals and milestones for how the national skills system and each of its 3 key pillars are seeking to contribute to these goals/outcomes
- ensure that Jobs and Skills Australia focuses strongly on the interoperability and complementarity of the component parts of the national skills system
- produce subsidiary roadmaps in priority areas (industry, regions and cohorts)
- chart progress against roadmap milestones
- ensure feedback loops and continue to enhance the evidence base.

Fourteen potential roadmap opportunities are presented to help facilitate this dialogue.

Potential roadmap opportunities

1. Identifying Australia's top 20 persistent skill shortages and charting a joined-up approach to solving them, including the respective roles of a range of different levers such as:
   - increasing the throughput of qualified workers by increasing intake and/or completion rates of relevant training and education pathways
   - enhancing the attributes of graduates of VET and higher education by improving their employability skills and creating greater work experience opportunities
   - working with employers and unions and governments to enhance job opportunities through better working conditions, including strategies to tackle gender imbalance in key skill shortage occupations
   - supplementing the Australian workforce through well-targeted migration.
2. Continue the dialogue between Jobs and Skills Australia, the states and territories and Jobs and Skills Councils on a nationally consistent approach for labour market and skills forecasting, and improve the coherence of workforce planning across regions and industries.
3. Support the reform of the VET, higher education and migration systems by providing advice and analysis and monitoring achievement of progress against their objectives. This should be done in a way that highlights the synergies between the 3 reform processes.
4. Work with Jobs and Skills Councils to assess how the range of reforms implemented as a result of the National Skills Agreement, the Australian Universities Accord and migration reforms, help meet the skills needs of industry.
5. Identifying the top 10 examples of weak pathways between VET and higher education, where collaboration between VET and higher education, supported by Jobs and Skills Australia and Jobs and Skills Councils, in consultation with business and unions can create a stronger pipeline of skilled graduates.
6. Identifying VET qualifications which if completed alongside higher education qualifications would enhance graduate employability.
7. Supporting the existing process of VET qualifications reform to enhance the adaptability, resilience and employment prospects of VET graduates.
8. Identifying key enhancements in the evidence base that will assist the development of the roadmap and improve our ability to monitor its success, including in relations to the outcomes of learners and workers. For example, expanding the VET National Data Asset into the higher education sector.
9. Supporting the net zero transition challenge by charting a roadmap for education, training and migration to make that transition successful, in partnership with the new Net Zero Authority.
10. Shaping a national skills taxonomy in a collaborative partnership between business, unions, higher education and VET, and the Jobs and Skills Councils, to underpin more joined-up tertiary education system.
11. Develop a regional Australia jobs and skills roadmap to identify the key steps in enhancing regional Australia's human capital in ways that will ensure success in meeting regional employment opportunities.
12. Co-create a First Nations workforce roadmap in partnership with First Nations people and with key partners in the national skills system.
13. Develop a roadmap for enhancing the prospects of international students playing a significant role in enhancing Australia's skills profile as permanent migrants.
14. Establish a dialogue between Jobs and Skills Australia and the Productivity Commission to identify key elements of the national jobs and skills roadmap that will assist Australia's productivity growth strategy.

In parallel, Jobs and Skills Australia will work with partners and stakeholders to progress a range of projects, outlined in our 2023–24 work plan, to enhance and expand the analysis and evidence to activate Australia's skills potential. All projects will provide insights into at least one of the above 14 roadmap opportunities.

For more information, see

Towards a National Jobs and Skills Roadmap
- Annual Jobs and Skills Report 2023

in full at

JobsandSkills.gov.au

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JSA23-0127