

June 2025

Finance, Technology & Business workforce and skills projections

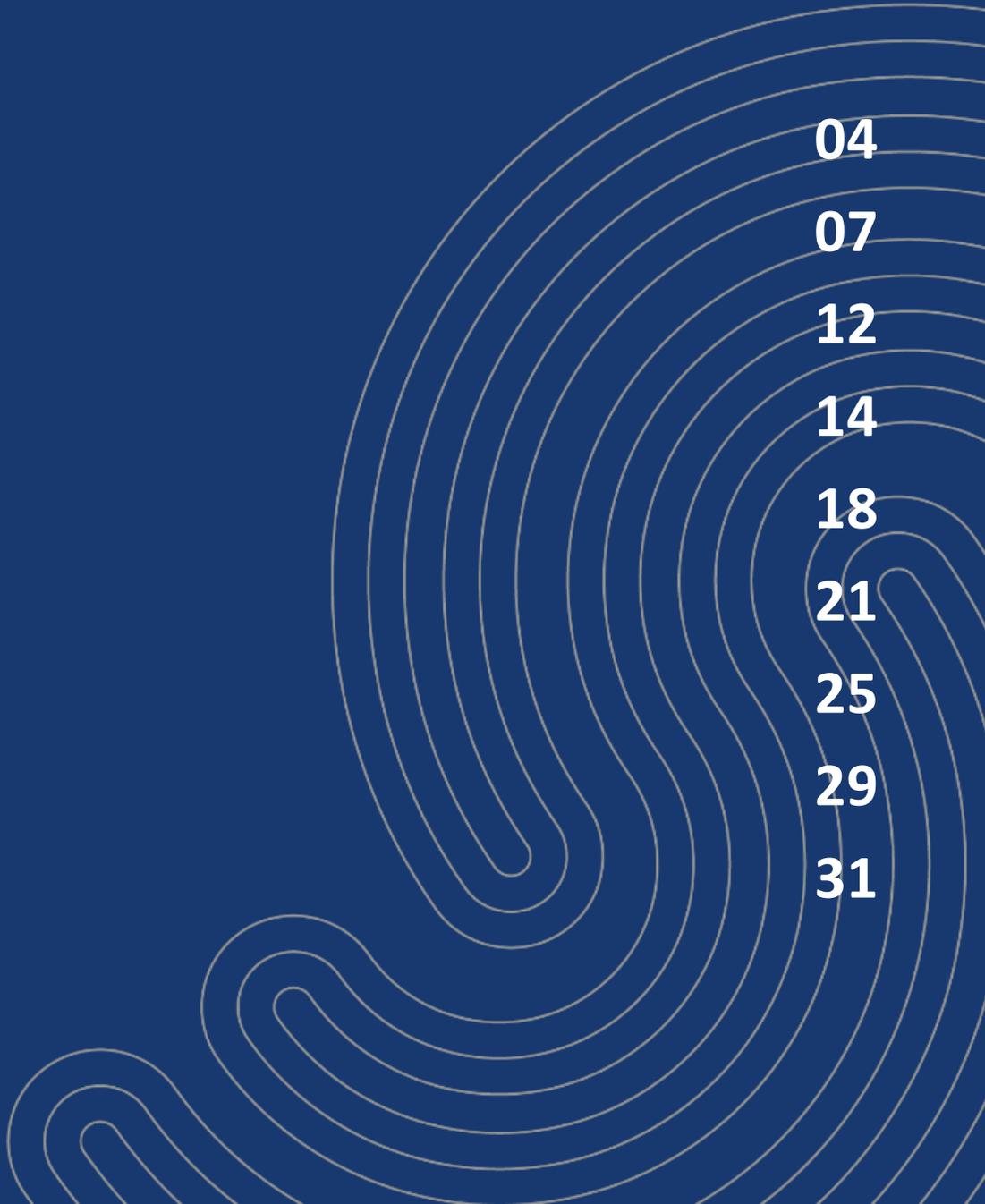
Report

Prepared by Oxford Economics Australia for the Future Skills Organisation



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Executive summary



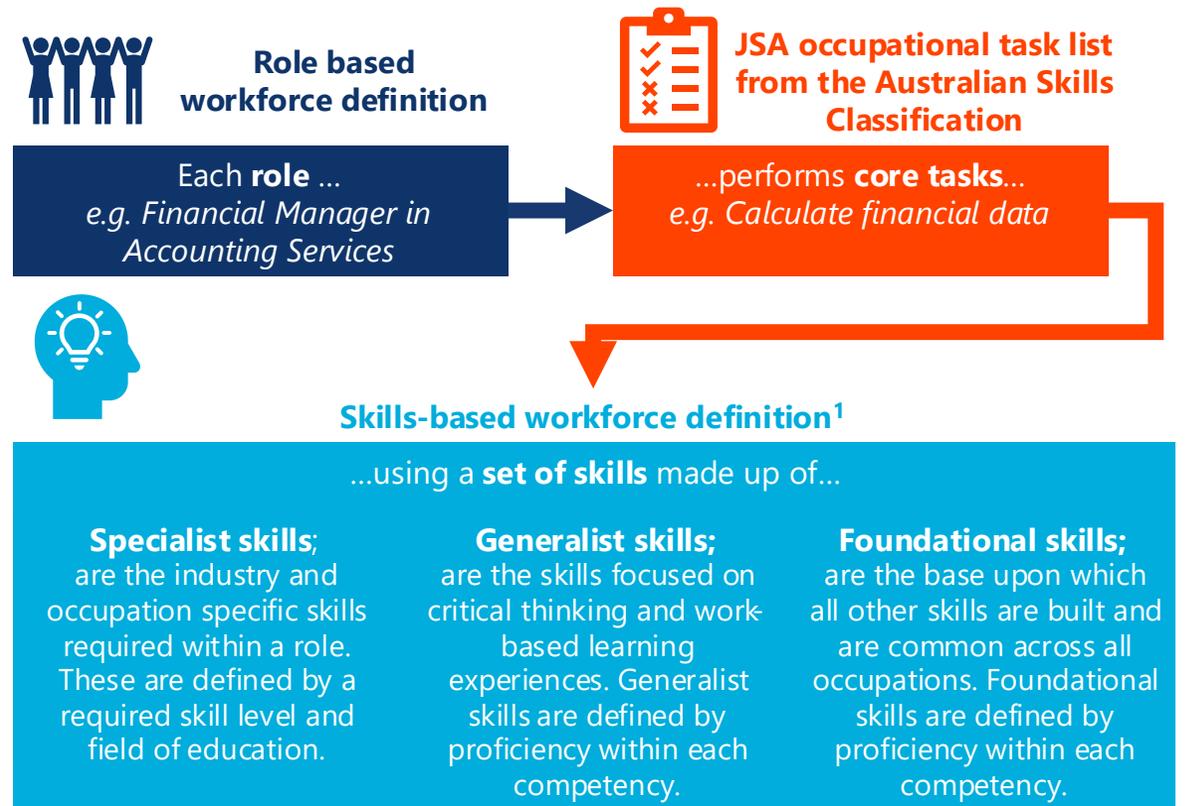
Analysing the finance, technology & business (FTB) workforce

This report analyses workforce needs through both a traditional workforce lens and a skills lens

The **FTB workforce** includes people working directly in the finance, technology and business industries, as well as people working in core finance, technology and business occupations across the whole economy.

This report also analyses the **FTB workforce needs through a skillset lens** that translates traditional role-based workforce definitions into a skills-based workforce definition.

	FTB industries	Non-FTB industries
Core FTB occupations	e.g. Financial manager in accounting services	e.g. Financial manager in food & beverage manufacturing
Non-FTB occupations	e.g. Commercial cleaners in accounting services	



Note: further information on the definition of the sector and skill sets can be found in slides 11 and 12.

The FTB workforce is likely to face a workforce shortage by FY30

Significant supply increases are expected to be required to meet the strong growth in workforce demand

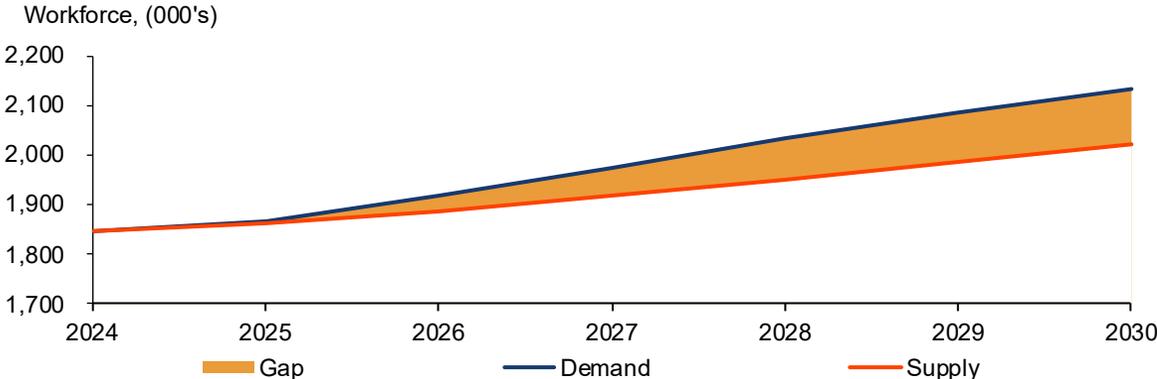
FTB industry workforce

The FTB industry workforce includes both core FTB occupations and non-FTB occupations working directly in the finance, technology and business industries.

The FTB industry workforce is expected to face a workforce shortage of **108,000 by FY30**, with the largest shortages driven by a strong uptick in demand pressures which supply trends are unlikely to match.

The *technology industry* is the key driver of forecast workforce shortages. However, **80% of the expected gap in the technology industry is within the *computer system design and related services*¹ sub-industry** which is traditionally included within *professional services*.

FTB industry workforce supply, demand and gap, FY24-FY30



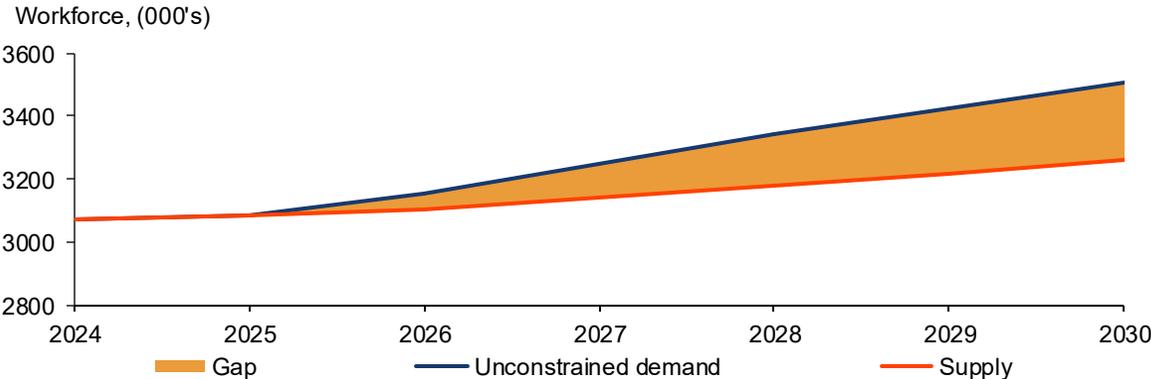
FTB occupation workforce

The FTB occupation workforce includes all core FTB occupations across the entire economy in every industry.

The FTB occupation workforce is expected to face a workforce shortage of **243,000 by FY30**. The larger shortage represents the broad-based demand growth for FTB occupations across all industries.

The **core drivers of workforce shortages for key occupations vary significantly**. Falling supply is forecast to drive the largest shortages for bookkeepers and accounting clerks. In contrast, shortages in key technology occupations are primarily driven by robust demand.

FTB occupation workforce supply, demand and gap, FY24-FY30



¹ The computer system design and related services sub-industry is typically defined as part of the Professional, Scientific and Professional Services industry. We have included this in the technology industry in our analysis to ensure our definition of the Technology industry is consistent with the Tech Council of Australia.

Skills mismatch is likely to exacerbate workforce shortages

Training will need to be targeted towards increasing the supply of critical skills into the workforce

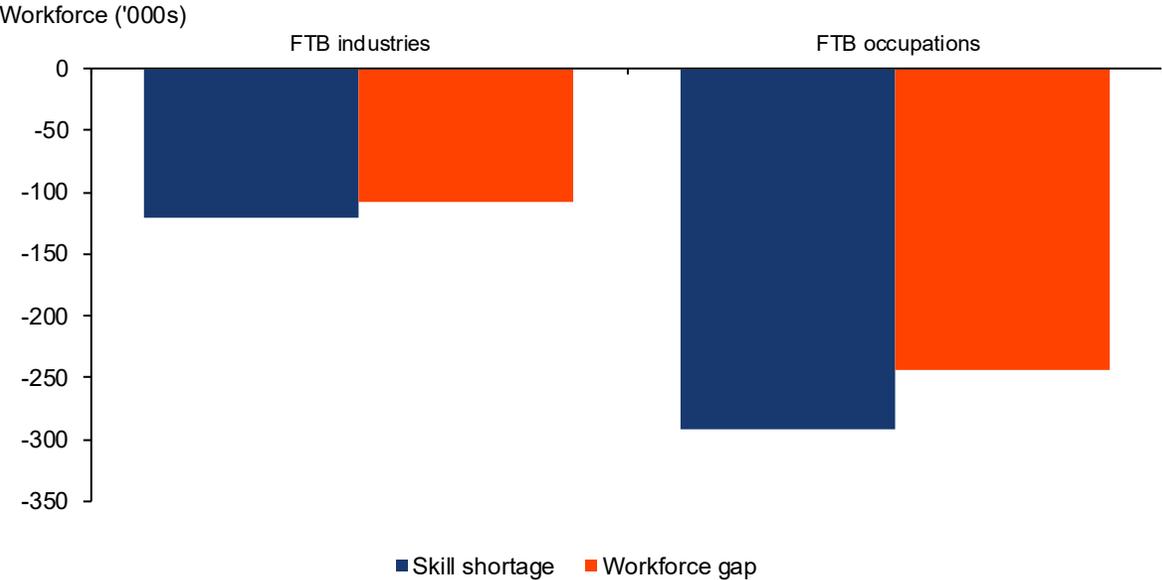
Headline workforce shortages do not adequately capture the skills mismatch within FTB industries and occupations. Some of this mismatch can be alleviated by workforce transitions and upskilling, but there remains a challenge in getting the right skills across FTB industries and occupations.

The underlying skills shortage within FTB industries and occupations can be better understood through skills-based workforce analysis. This is done by mapping the supply and demand of each role to a skillset and analysing the gaps in these skillsets at an aggregate level, before and after accounting for transitions and upskilling

Under a skills-based analysis, **the skill shortage facing FTB industries is 11% larger than the workforce gap.** There is a significant gap in computer science specialist skills with limited opportunities for transitioning or upskilling. While there is also a significant gap in business and management specialist skills, 74% of this can be resolved through transitioning or upskilling within the workforce.

Under a skills-based analysis, **the skill shortage facing FTB occupations is 20% larger than the workforce gap.** The largest skill gap in FTB occupations has no suitable opportunities for transitioning and upskilling within the workforce. This gap will need to be addressed through an increase in new workforce supply through the education & training system or from migration.

FTB workforce gap through a skills-based analysis, FY30



Executive summary - recommendations

1. Workforce planning is recommended to focus on increasing total supply entering the FTB workforce, given the significant overall labour shortages expected by FY30.
2. Workforce planning in FTB industries is recommended to focus on supporting additional supply into the computer system design and related services sub-industry¹ as this single sub-industry is expected to represent 45% of the projected workforce shortage in FTB industries by FY30.
3. Workforce planning in FTB occupations is recommended to focus on supporting additional supply of bookkeepers, accounting clerks, receptionists, office managers and key ICT roles as these are expected to represent the largest projected workforce shortages in FTB occupation by FY30.
4. Workforce planning for technology industries and occupations is recommended to focus on increasing local supply through education and job movements to decrease the exposure risk to migration policy changes.
5. Training package development is recommended to support upskilling and reskilling pathways. The flow of skilled workers entering the FTB workforce through job movements has the potential to play a vital role in filling labour and skill shortages.
6. Existing workers in FTB occupations forecast to decline – typically process-driven business occupations – may be considered for transitioning, upskilling, and retraining efforts to fill deficits in other FTB skillsets.
7. Training package development for technology industries is recommended to focus on supporting additional supply in computer science skill level 1 specialist skills with high generalist skills in digital engagement, initiative & innovation, and planning & organisation as this represents the largest forecast skillset shortage.
8. Training package development for skillsets in FTB occupations may require support across a broader number of skillsets, particularly in support of computer science skill level 1 as well as both accounting and business & management skill levels 2, 3 and 4.
9. Surplus skillsets that are easily transferrable into skillsets in deficit are suggested to be left to market forces to transition, and training efforts are recommended to prioritise those that require upskilling or retraining.

¹ The computer system design and related services sub-industry is typically defined as part of the Professional, Scientific and Professional Services industry. We have included this in the technology industry in our analysis to ensure our definition of the Technology industry is consistent with the Tech Council of Australia.

Background



Project background

Providing a skillset focused evidence base to inform workforce planning

The finance, technology and business (FTB) industry is growing rapidly, driven by demand in specialised industries and for FTB roles in the broader economy. The Tech Council has also outlined a roadmap to achieve a 1.2 million tech workforce by 2030, requiring a significant workforce uplift.

Policy makers and industry can take many actions to support workforce and skillset growth, but these actions need to be targeted towards areas where the impact is likely to be most successful and the need is greatest.

There is an industry need to understand the rapidly changing skills landscape of the workforce and the intersection between traditional workforce structures and a skillset view of workforce needs. While workforce analysis traditionally focuses on occupations and industries, it misses the mismatch between skill sets across roles. For this reason, workforce analysis that considers the underlying skill needs of FTB industries and occupations is critical to supporting the strong growth outlook.

Oxford Economics Australia has been engaged by Future Skills Organisation (FSO) to undertake workforce modelling to understand workforce demand from an industry ambitions basis, rather than continuing historic trends, the forward-looking picture of workforce supply across the various channels and capture the rapidly changing skillsets requirements of the industry.

Oxford Economics Australia developed an unconstrained view¹ of workforce demand, providing a more accurate picture of workforce demand by an industry. This report's analysis focuses on the unconstrained view of demand, providing a more accurate picture of workforce and skillset demand in the finance, business, and technology industries.

¹ Further information on Oxford Economics Australia's methodology can be found in the appendix.

Oxford Economics Australia's analysis was undertaken in three main stages of work:

1. Creating a skillset framework to present the finance technology and business industries in terms of skillsets rather than the traditional industry-occupation-based workforce view.
2. Forecasting workforce demand and supply for FTB industries and occupations under a traditional industry-occupation workforce definition and through the lens of skillsets.
3. Analysing the key trends within the FTB workforce to identify workforce and skillset gaps and provide recommendations for future workforce planning.

This report presents this analysis in the following chapters:

- **Workforce demand outlook** – presenting information on demand for workforce across FTB industries and occupations, including those in structural decline
- **Workforce supply trends in FTB industries and occupations** – presenting information on labour supply through each workforce channel
- **Skillset analysis** – presenting information on the skill needs of FTB industries and occupations
- **Workforce gap assessment** – presenting information on the workforce and skillset gaps in FTB industries and occupations
- **Recommendations** – providing an overview of how workforce planning and training product development can support FTB workforce needs

Overview of the FTB workforce

The FTB workforce includes those working directly in finance, technology and business industries and all core FTB occupations working across the entire economy

FTB industries

The FTB industry workforce takes a vertical workforce view including both core FTB occupations and non-FTB occupations working directly in the finance, technology and business industries. These industries include:

Finance industry	Finance (including banking)
	Insurance and superannuation funds
	Auxiliary finance and insurance services
	Accounting
	Credit reporting and debt collection
Technology industry	Publishing (excluding internet and music publishing)
	Internet service providers, web search portals and data processing services
	Library and other information services
	Computer system design and related services ¹
Business industry	Professional, scientific and technical services
	Administrative and support services

¹ The computer system design and related services sub-industry is typically defined as part of Professional, Scientific and Professional Services industry. We have included this in the technology industry in our analysis to ensure our definition of the Technology industry is consistent with the Tech Council of Australia.

FTB occupations

The FTB occupation workforce takes a horizontal workforce view including all core FTB occupations across the entire economy in every industry. These core occupations include:

Finance occupations	Accountants, Auditors and Company Secretaries
	Financial Brokers and Dealers, and Investment Advisers
	Numerical, accounting, financial & insurance clerks and bookkeepers
	Insurance Agents and Sales Representatives
Technology occupations	Business and Systems Analysts, and Programmers
	Engineering, ICT and Science Technicians
	ICT Professionals
	Telecommunications professionals and specialists
	Actuaries, Mathematicians and Statisticians
Business occupations	Business administration managers
	Business, human resources, marketing and training professionals
	Information and organisation professionals
	Legal professionals
	Office managers and program administrators
	Personal Assistants and Secretaries

Note: A full list of industries and occupations covered in the FTB industry and occupation workforce are included in the appendix

Skillset definition

The skillset required to perform a role is defined as the combination of the correct competency in foundational & generalist skills and the correct level of industry and occupation specific knowledge.

Foundational skills

Foundational skills are the base upon which all other skills are built and are common across all occupations.

- Jobs and Skills Australia (JSA) define the proficiency level (basic, intermediate or high) of each occupation across these foundational and generalist skills as part of the [Australian Skills Classification](#).¹
- Multiple occupations can be required to complete the same tasks in their day-to-day operations. To understand the minimum foundational and generalist skills required to complete a particular task, we compare each industry occupation pair's proficiency in each competency when completing identical tasks.
- Across the 4 foundational skills and 6 generalist skills, we select the lowest proficiency score representing the floor of competency at which a task can be completed. Each task within a role then requires a particular skillset. For each role, a ceiling skillset is required to complete all the tasks within that role.

Foundational skills	
Competency	Proficiency
Numeracy	Basic-Intermediate-High as defined by Jobs and Skills Australia Australian Skills Classification (ASC)
Reading	
Writing	
Oral communication	

¹ The Australian Skills Classification has been decommissioned but provides useful information to inform the skillset definition. Further information on the skill set framework and a worked example can be found in the Appendix.

Generalist skills

Generalist skills are the skills focused on generalist thinking and work-based learning experiences.

Generalist skills	
Competency	Proficiency
Digital engagement	Basic-Intermediate-High as defined by Jobs and Skills Australia Australian Skills Classification (ASC)
Initiative and innovation	
Learning	
Planning and organising	
Problem Solving	
Teamwork	

Specialist skills

Specialist skills are the industry and occupation specific knowledge required within a role.

- Required skill levels, with 1 being the highest, are determined based on the ABS skill level classification by occupation, which corresponds to a minimum education and/or experience level requirement for an occupation based on the range and complexity of the tasks.
- The field of education is defined by the most common field of education within each industry-occupation pair.

Specialist skills	
Dimension	Levels
Skill level	1-5 as defined by ABS Occupation skill level (OCSKP)
Field of education	4 digit field of education as defined by ABS Australian Standard Classification of Education (ASCED)

Note: Further description and correspondence of skill levels to AQF levels are provided in the appendix

Workforce demand outlook

Workforce demand across FTB industries

Workforce demand across FTB industries could reach 2.1 million by FY30

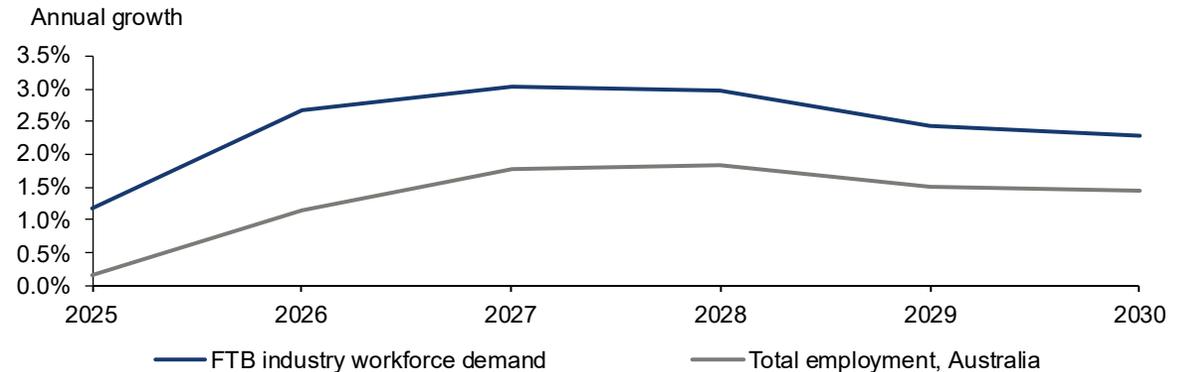
FTB industry workforce demand is expected to increase from 1.8 million in FY24 to just over 2.1 million in FY30. This represents a 2.4% p.a. growth rate, well above Australia's employment growth of 1.3% p.a. over the same period.

The push to fulfil Australia's tech workforce needs results in significant demand from the **technology industry**¹, with workforce demand increasing 4.0% p.a. over the forecast period to reach just over 600,000 by FY30. This represents an increase in share of the FTB industry workforce from 26% to just under 30% by FY30. Demand for the technology industry is being driven by robust growth in the largest sub-industry of computer system design and related services (4.6% p.a.), which accounts for 73% of the industry in FY24 and 75% by FY30. When stripping out this sub-industry the rest of the industry is forecast to grow at 2.5% p.a., as demand for digital and technology services increases faster than the broader Australian services industry.

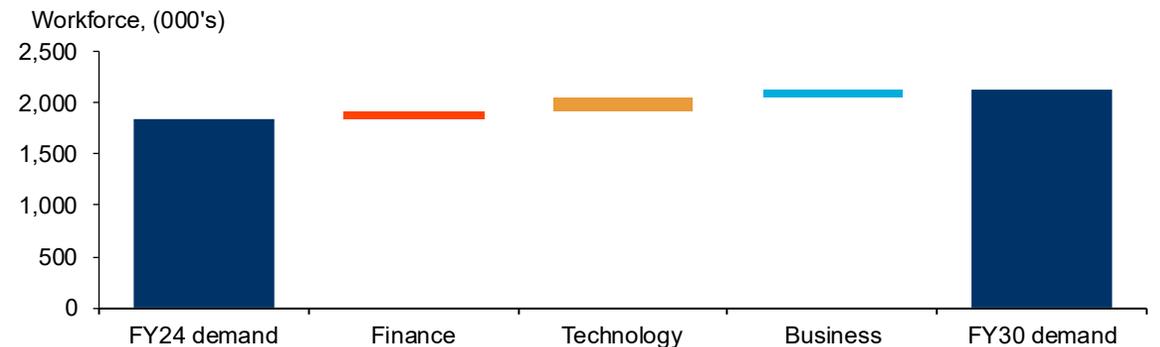
The **finance industry** is the largest industry within the FTB industry workforce, accounting for 38% of total employment at nearly 700,000 in FY24. The growth outlook is the weakest among the industries at 1.8% p.a. as the industry focuses on productivity improvements.² This is particularly true in insurance where reinsurance cost pressures have weighed on the sub-industry and made reducing costs a priority.²

The **business industry** is the next largest industry within the FTB industry workforce, accounting for 36% of total employment at just over 650,000 in FY24. Similar to the finance industry, demand growth in the business industry is expected to underperform compared to the technology industry, growing 1.9% p.a. to reach nearly 750,000 by FY30.

FTB industry workforce demand and total employment, Australia



FTB workforce demand by industry, FY24 to FY30



¹ Financial stability implications of artificial intelligence, Reserve Bank of Australia, September 2024

² The future of insurance in Australia: Navigating change and seizing opportunity, PWC, 9th of December 2024

Source: Oxford Economics Australia, Future Skills Organisation, Australian Bureau of Statistics, Jobs and Skills Australia

High growth industries driving workforce demand

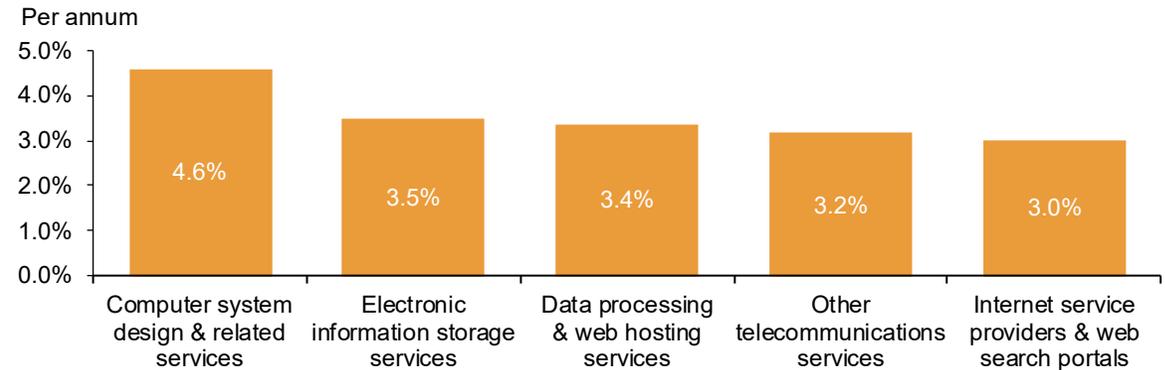
Computer system design & related services are forecast to account for 38% of workforce demand growth across FTB industries

The five fastest-growing sub-industries are all expected to be within the **technology industry**, with computer system design & related services growing at 4.6% p.a. and accounting for 38% of FTB industry workforce demand growth. The other fastest-growing sub-industries include electronic information storage services (3.5% p.a.), data processing & web hosting services (3.4% p.a.), other telecommunications services (3.2% p.a.) and internet service providers & web search portals (3.0% p.a.).

The **finance industry** contains three of the largest forecast level increases in workforce demand to FY30, despite being forecast to have the slowest rate of growth overall. While demand growth for banking services (1.0% p.a.), accounting services (1.0% p.a.) and other auxiliary finance & investment services (0.8% p.a.) is expected to be relatively slow, they have a large workforce overall and still account for nearly 20% of total FTB industry workforce demand growth to FY30.

The **business industry** has the five slowest growing sub-industries clustered in administrative and support services. These sub-industries engage more in support activities, which are relatively more susceptible to automation than professional services and information, media & telecommunications.¹ Technical sub-industries that engage in non-routine tasks perform relatively well, with the management advice and related consulting services sub-industries contributing significantly to overall FTB industry workforce demand.

Top 5 fastest growing industries, workforce demand, FY24-FY30



¹ Mechanical boon: will automation advance Australia, Edwards, D. & Bradley, T., Department of Industry and Innovation, October 2015
Source: Oxford Economics Australia, Future Skills Organisation, Australian Bureau of Statistics, Jobs and Skills Australia

Workforce demand across FTB occupations

Workforce demand across FTB occupations could reach nearly 3.5 million by FY30

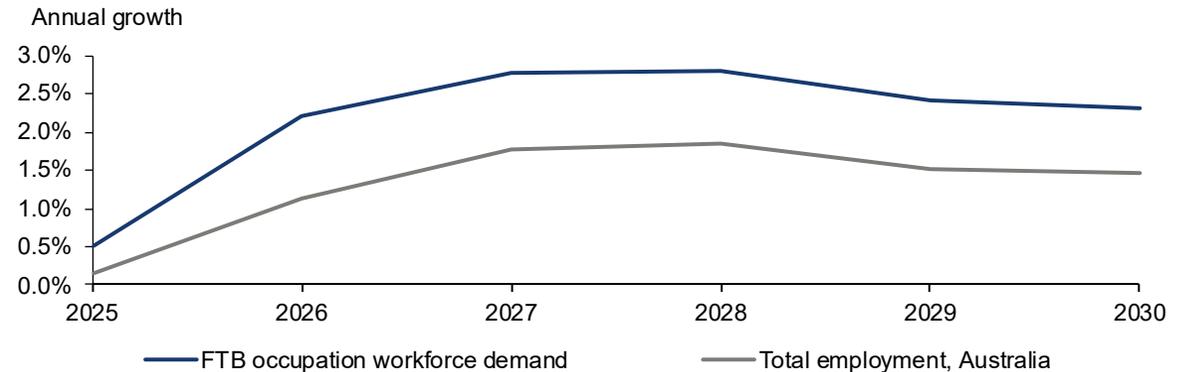
The **FTB occupation workforce** is much larger than the industry workforce demand, albeit the growth outlook is slightly slower. Demand for FTB occupations is expected to increase from 3.1 million in FY24 to nearly 3.5 million in FY30, representing a 2.2% p.a. growth rate.

Demand for **technology occupations** is expected to increase significantly from 830,000 in FY24 to just under 1.1 million in FY30, representing a 4.5% p.a. growth rate. Strong demand growth for technology occupations is reflective of broad-based demand growth across all industries, with technology's share of demand for FTB occupations increasing from 27% to 31%. Technology occupations are concentrated in professional, scientific, and technical services (45.5%); beyond this, they are dispersed across the economy, with information, media, and telecommunications (8.0%) and financial and insurance services ranking as distant second and third.

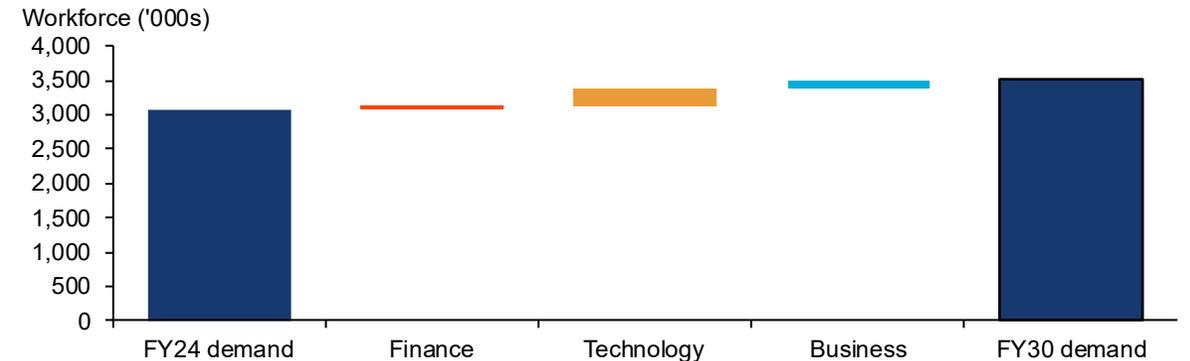
Demand for **finance occupations** is slightly larger than for technology occupations in FY24, at nearly 880,000. However, demand for these occupations is forecast to grow relatively slowly at 1.0% p.a. to FY30. Finance occupation demand is expected to fall behind technology occupations by FY26, following a broad trend away from process-focused roles such as numerical clerks. While demand for finance occupations is expected to be weak, only insurance agents are anticipated to decline in level terms (-0.1%) over the forecast period.

Business occupations are the largest segment of the FTB occupation workforce, accounting for just under 50% of the total workforce, approximately 1.5 million by FY30. While demand growth is still expected to outperform the economy-wide average at 1.5% p.a., business includes the majority of occupations within the FTB workforce, declining over the forecast period.

FTB occupation workforce labour demand and total employment, Australia



FTB occupation labour demand, FY24 to FY30



Structural shifts within FTB occupations

ICT occupations are forecast to grow significantly, while business support roles face structural declines

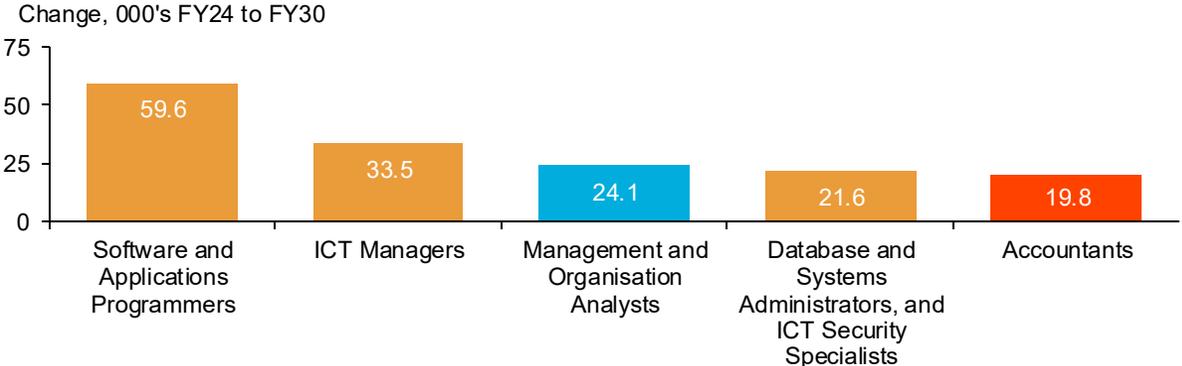
Demand for **technology occupations** is expected to increase significantly, with 25 of the 26 occupations projected to grow faster than the average for the FTB occupation workforce. Three of the five largest increases in demand are within technology occupations. Software and application programmers are projected to see the largest increase, with demand increasing by 59,600 from FY24 to FY30. ICT managers (33,500) and database and security specialists (21,600) are also expected to experience brisk growth in terms of level over the forecast period.

The only **finance occupation** facing stronger demand growth than the average FTB occupation workforce is finance managers, with demand increasing by 2.5% p.a. to FY30. Accountants, the largest finance occupation, are expected to increase by 19,200 in level terms but will only grow at 1.6% p.a. to FY30.

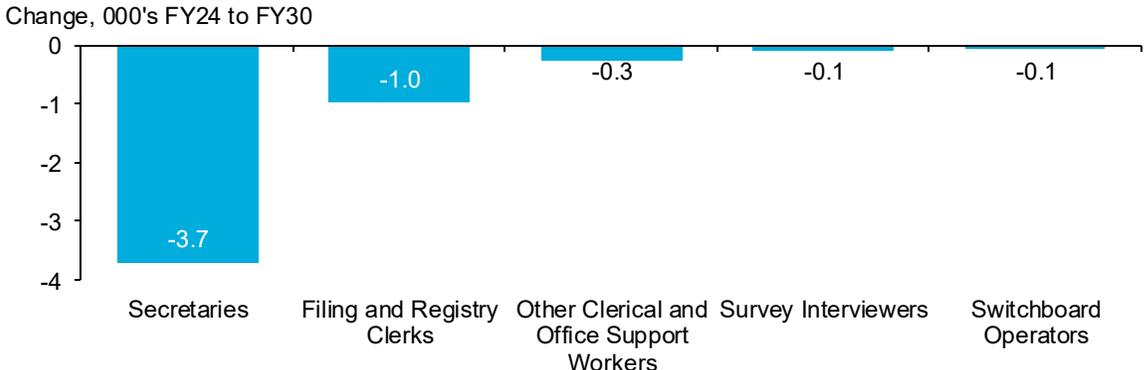
The demand outlook for **business occupations** is mixed. There are 10 occupations facing above-average demand growth, led by management and organisation analysts (3.3% p.a.). However, the majority of FTB occupations expected to experience declines in demand are in business. Secretaries (-3,700), filing & registry clerks (-1,000), and other clerical & office support workers (-300) are expected to experience the most significant decline in workforce demand over the forecast period.

These occupations in decline are all classified as clerical & administrative workers. These roles are often routine-focused and face increased risks from digitisation and the uptake of AI as tasks are automated and augmented¹.

Top 5 largest increases in workforce demand, FTB occupations, FY24-FY30



Top 5 largest declines in workforce demand, FTB occupations, FY24-FY30



¹ Impact of generative AI on skills in the workplace, Mandala Partners and Future Skill Organisation, December 2023
Source: Oxford Economics Australia, Future Skills Organisation, Australian Bureau of Statistics, Jobs and Skills Australia

Workforce supply trends in FTB industries

Workforce supply into FTB industries

Workforce supply into FTB industries is projected to grow at 1.5% per annum, reaching 2 million workers by FY30.

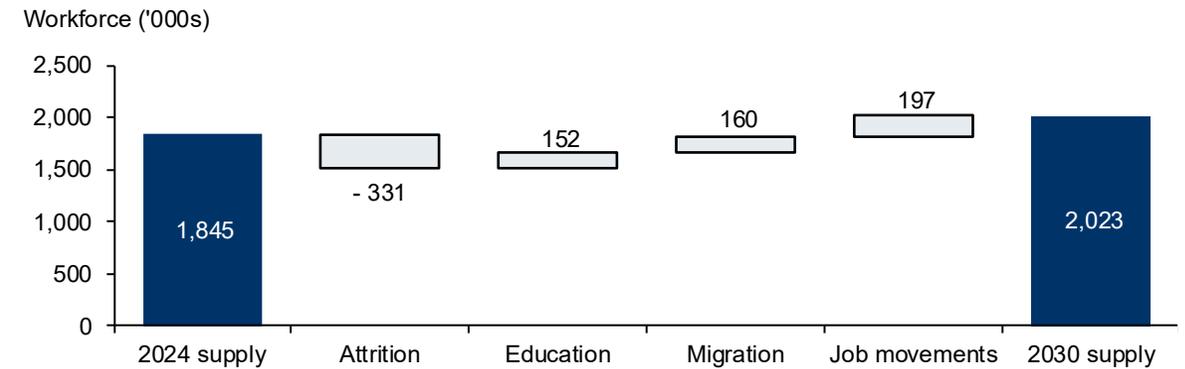
Based on current trends in retirement, migration, education, and job movements, the **FTB industry workforce** supply is expected to increase from 1.8 million in FY24 to 2.0 million in FY30 at a rate of 1.5% p.a. This rate of growth is well above the wider economy's projected workforce supply growth of 1.1% p.a. over the same period

The **finance industry** is expected to grow at the slowest pace (1.2% p.a.). The industry's sluggish growth is broad-based with the share of supply via migration (31%), education (31%) and job movements (39%) representative of the wider FTB industry workforce.

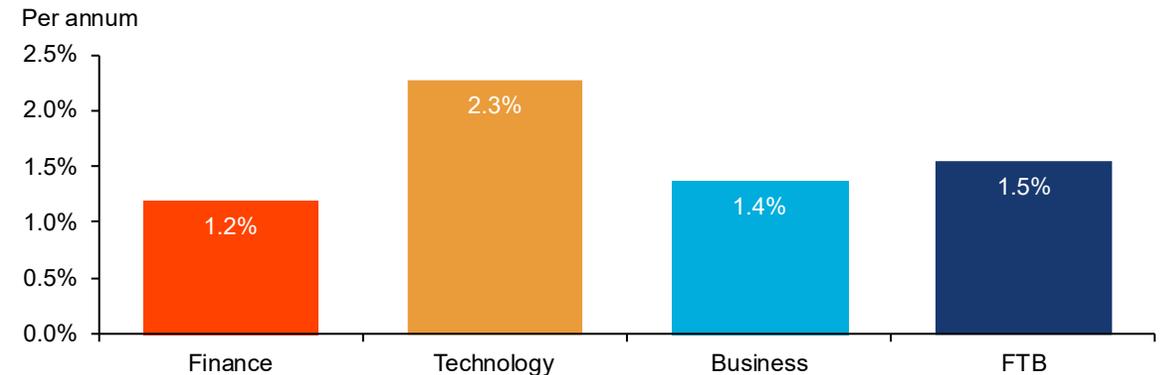
The **technology industry** is forecast to be the fastest growing over the forecast period (2.3% p.a.). The technology industry significantly benefits from migration inflows, and the relatively young workforce – 77% below 50 – reduces its exposure to attrition over the next half-decade compared to the wider FTB industry workforce.

The **business industry** is expected to grow by 1.4% p.a. over the forecast period. It is projected to experience the highest rate of attrition relative to its current supply (20%). However, greater supply via migration, education and job movements relative to current supply is forecast to push business industry supply to grow faster than finance.

FTB industry workforce supply by channel, FY24-FY30



Industry workforce supply, per annum, FY24 to FY30



Workforce attrition

The younger age profile of the technology industry is expected to limit workforce attrition

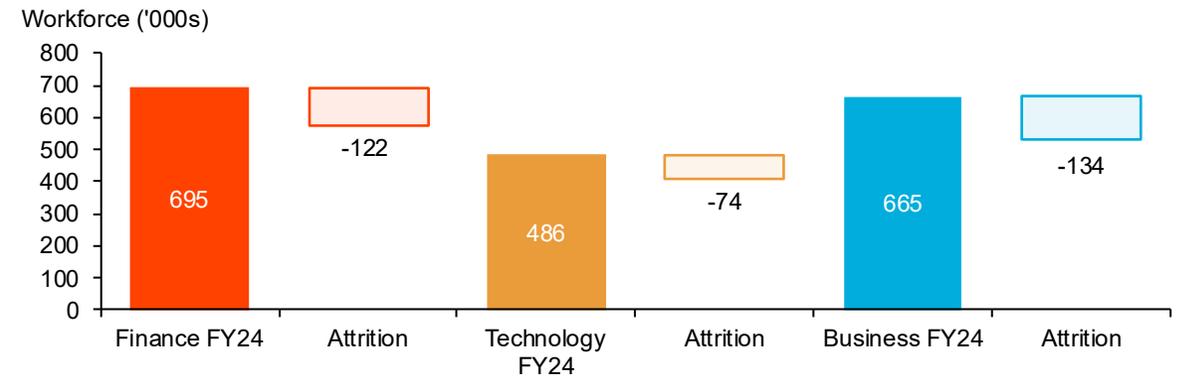
Workforce attrition refers to the loss of the workforce due to retirements and deaths based on an industry's age profile. This component is expected to reduce the **FTB industry workforce** supply by a cumulative 331,000 to FY30, equivalent to 17.9% of the FY24 workforce.

The **finance industry** is expected to have a workforce attrition rate of 17.6%, similar to the broader FTB industry workforce. However, the largest sub-industry – accounting services – is expected to face more acute attrition losses (21.1%), with 29% of the workforce over the age of 50 resulting in a higher propensity to retire.

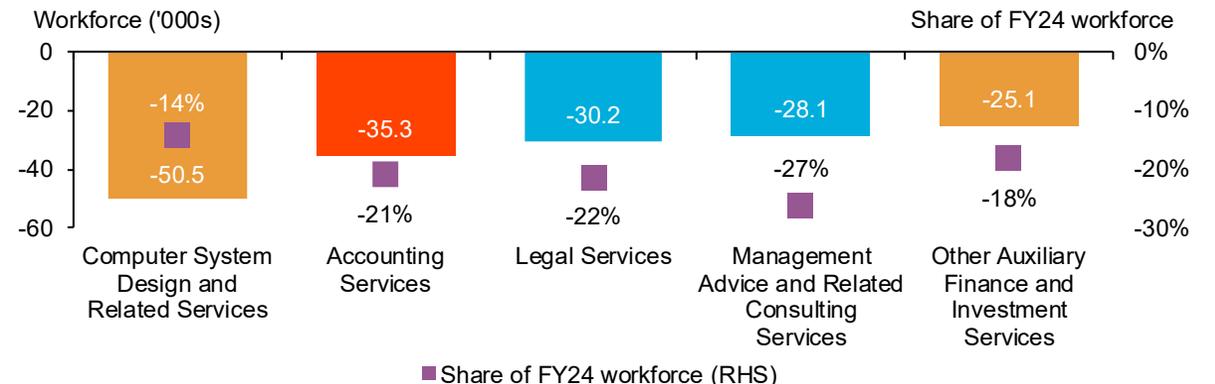
The **technology industry** has the lowest rate of natural attrition at 15.3% due to the younger age profile, with the bulk of its workforce below the age of 50 (77%). Despite having the lowest attrition rate overall, technology has the most significant variations within the underlying sub-industries. Within computer system and design related services – the largest sub-industry in technology – the natural attrition rate is expected to be only 14.3%. Comparatively, the libraries and archives (29.3%) and magazine and periodical publishing (28.5%) sub-industries are likely to have the highest attrition rates across the entire FTB industry workforce.

The **business industry** is projected to have the highest attrition rate at 20.2% due to its older age profile. Like the finance industry, the largest sub-industries within business are expected to come under greater pressure from attrition, with management advice & consulting services (26.5%) and legal services (21.5%) sub-industries experiencing comparatively elevated attrition rates.

Workforce attrition by industry, FY24-FY30



Top 5 sub-industry attrition by level and share of FY24 workforce, FY24-FY30



Migration

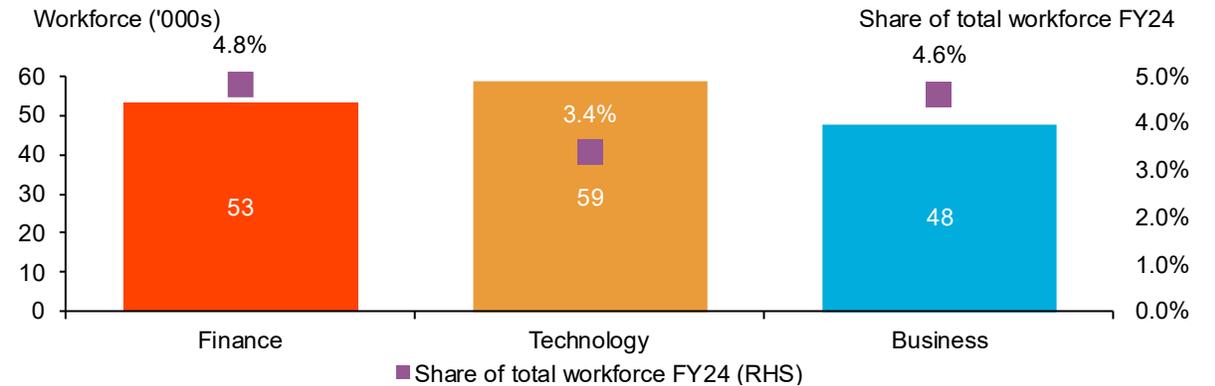
The technology industry is a key beneficiary of migration inflows

Migration flows are expected to contribute a cumulative 160,000 workers to the **FTB industry workforce** supply by FY30. The finance, technology and business industries are all forecast to receive a larger share of migration compared to their share of the total Australian workforce. Despite making up approximately 12% of the workforce, FTB industries are projected to receive 16% of the migration supply. The Australian government's policy of using permanent migration to help fill skillset shortages in priority areas results in a preference for occupations that align well with the FTB industry workforce.

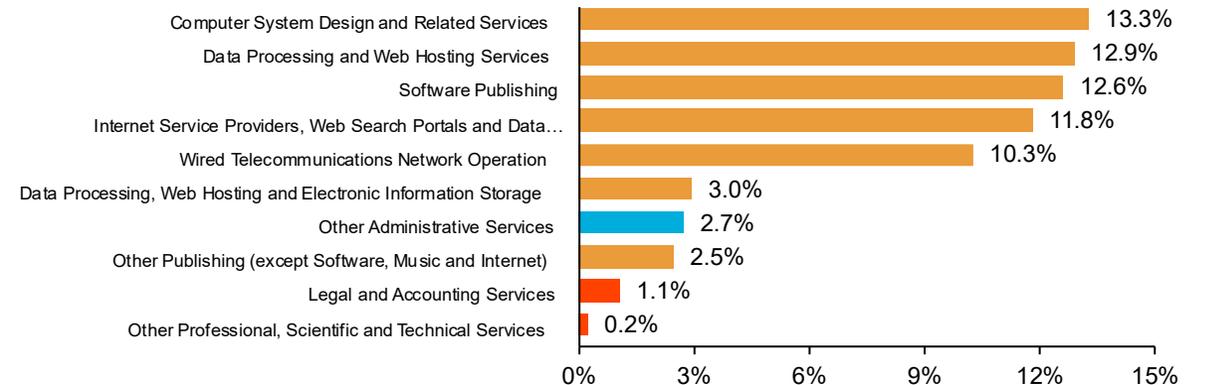
Despite being smaller than finance and business, the **technology industry** is projected to gain the most significant number of workers (58,600) through migration. The industry is forecast to receive 5.9% of total worker inflows from migration while only accounting for 3.4% of total economy employment in FY24. At the sub-industry level, all the top five fastest growing migration rates are forecast to sit within technology. Computer system and related design – the largest sub-industry within technology – is projected to see a cumulative workforce increase of 13.3% relative to its workforce size in FY24 due to migration additions.

The **finance** and **business** industries are likely to see more modest gains via migration, although still large relative to their share of total employment. The two industries are expected to capture 5.4% and 4.8% of total migration additions, respectively, while only accounting for 4.8% and 4.6% of employment in FY24.

Migration number and share of total workforce FY24, FY24-FY30



Top and bottom sub-industry migration additions as share of FY24 workforce, FY24-FY30



Education and job movements

Education and job movements are forecast to represent 68.5% of supply growth to the workforce

Education represents new entrants to the labour market from high school, VET and higher education. Job movements represent movements of workers between occupations. Not all those who complete a qualification will come through the education channel. Individuals participating in the labour market while completing a qualification may trigger a job movement and will be captured in the job movement channel.

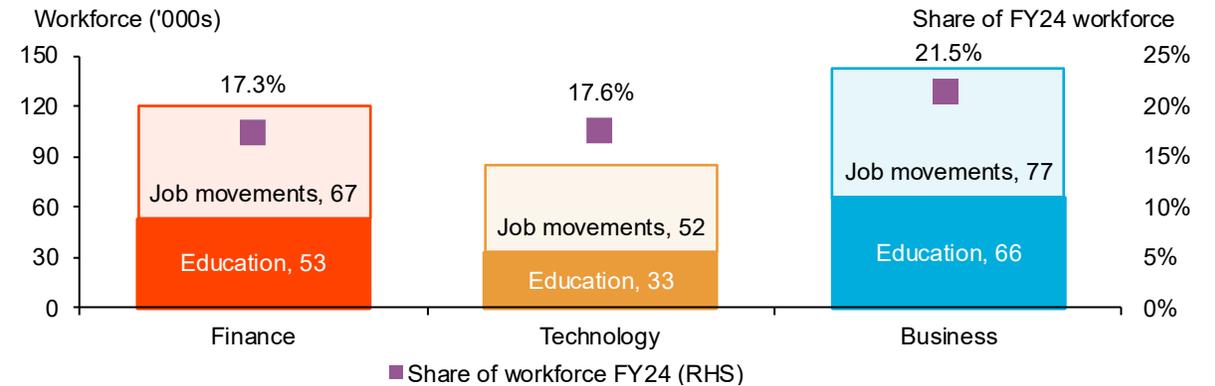
No **industries have a net loss** when combining job movements and education. Net job losses only occur when the job movements out of industry are greater than the sum of job movements in and new education supply.

Education and job movements are expected to contribute an additional 348,000 to the **FTB industry workforce** by FY30, representing 18.9% of the FY24 workforce. New entrants to the labour market through the education channel are expected to represent 44% of these additions, with job movements making up the remaining 56%.

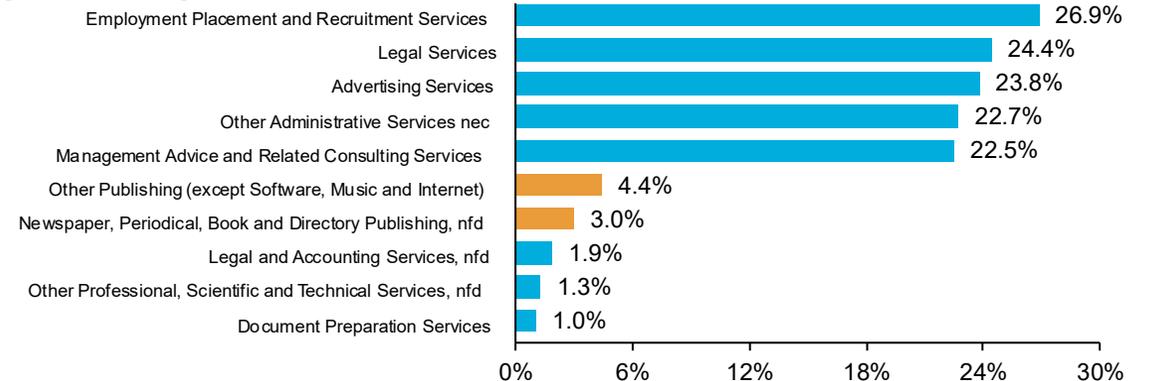
The FTB industry overall gains more workers than it loses through job movements, reflecting the tendency for FTB industries to attract workers later in their careers. Relative to the size of the FY24 workforce, the **business industry** is expected to see the most significant increase in supply from education and job movements at 21.5%. These gains are reflected at the sub-industry level, with all of the top 5 sub-industry gains from education and job movements within business.

The **finance and technology industries** gain less from the education and job movement supply channels relative to their workforce size at 17.3% and 17.6%, respectively, to FY30.

Education & job movement number and share of FY24 workforce, FY24-FY30



Top and bottom sub-industry education & job movement additions as share of FY24 workforce, FY24-FY30



Workforce supply trends in FTB occupations

Workforce supply into FTB occupations

Supply growth into technology occupations is expected to outpace the wider FTB occupation workforce

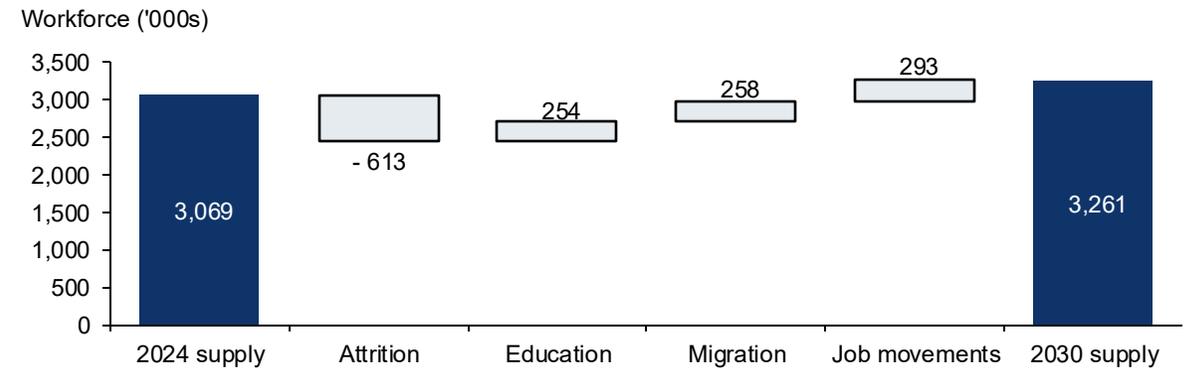
Based on current trends in retirement, migration, education, and job movements, the **FTB occupation workforce** supply is forecast to grow at 1.0% p.a. to FY30, reaching 3.3 million.

The supply of **finance occupations** is expected to decline marginally by 0.2% p.a. to FY30. The drivers of stalling supply are broad-based, with occupations having a higher attrition rate than the wider FTB occupation workforce and lower inflows from migration, education and job movements. The outlook for the three largest occupations within finance is mixed, with accountants projected to grow by 1.1% p.a. while accounting clerks (-3.1% p.a.) and bookkeepers (-5.0% p.a.) are forecast to decline.

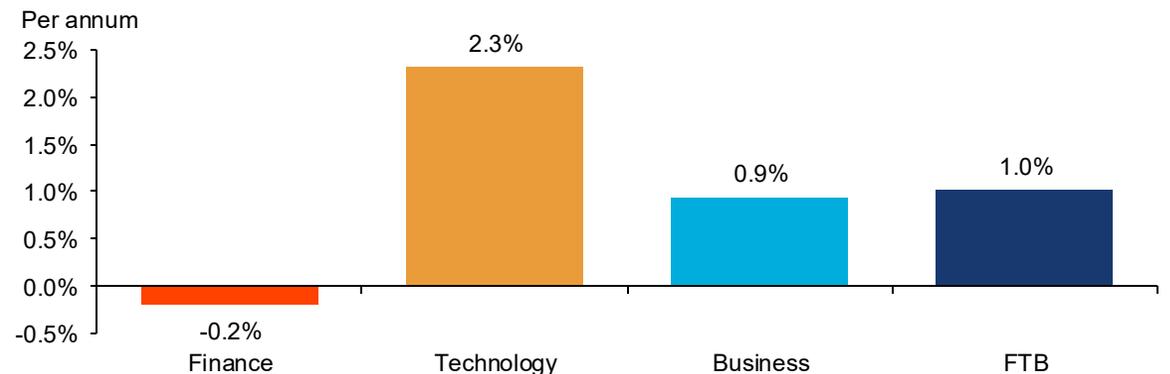
Technology occupations are projected to grow the fastest to FY30 at 2.3% p.a., primarily driven by lower attrition rates and significant supply additions through migration. Of the 26 technology occupations, 16 are projected to grow at a faster rate than the wider FTB occupation workforce. However, there is some variability within technology. Five occupations are expected to see a decline in supply. Occupations that are declining tend to be exposed to lower levels of migration; these include product quality controllers (-3.5% p.a.) and electronic engineering draftspersons and technicians (-2.2% p.a.).

The supply of **business occupations** is forecast to grow at 0.9% p.a.. Higher attrition rates and low migration are dragging on supply, offsetting the strong inflows from education and job movements. There is a high degree of variation at the occupation level within business, with supply in two of the five largest occupations – receptionists (-1.0% p.a.) and office managers (-1.5% p.a.) – expected to decline.

FTB occupation supply by channel, FY24-FY30



Occupation workforce supply, per annum, FY24 to FY30



Workforce attrition

Bookkeepers and accounting clerks are projected to drive elevated attrition rates in finance occupations

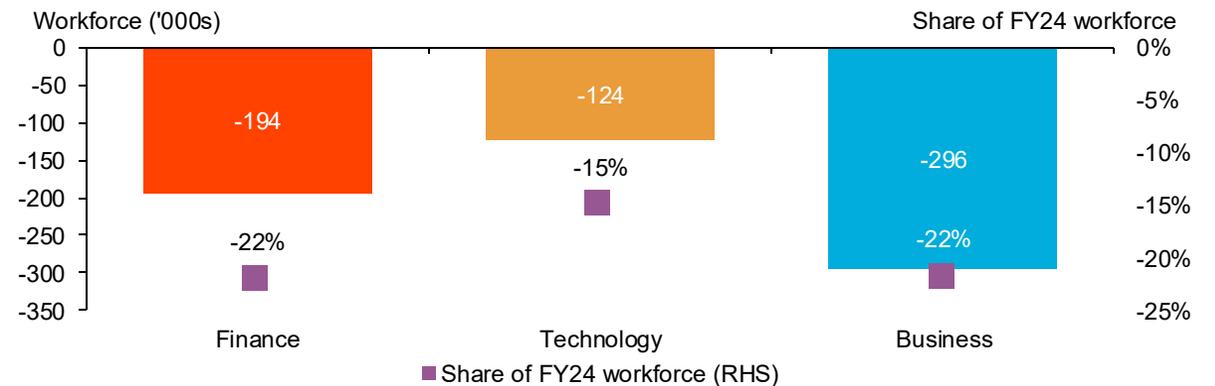
Workforce attrition refers to the loss of the workforce due to retirements and deaths based on an occupation's age profile. This is expected to reduce **FTB occupation workforce** supply by a cumulative 613,000 by FY30, equivalent to 20% of the FY24 workforce.

Finance occupations are projected to experience a workforce attrition rate of 22% of the FY24 workforce. High attrition in several large occupations is driving the above-average attrition rate. Bookkeepers, the third-largest finance occupation, are expected to face significant attrition pressures, with 35.8% of the FY24 workforce anticipated to exit by FY30. Accounting clerks, the second-largest occupation, are similarly expected to have above-average attrition at 24.2%. Accountants – the largest finance occupation – will partially offset these two with a lower age profile, driving relatively low attrition rates, expected at 18.7%.

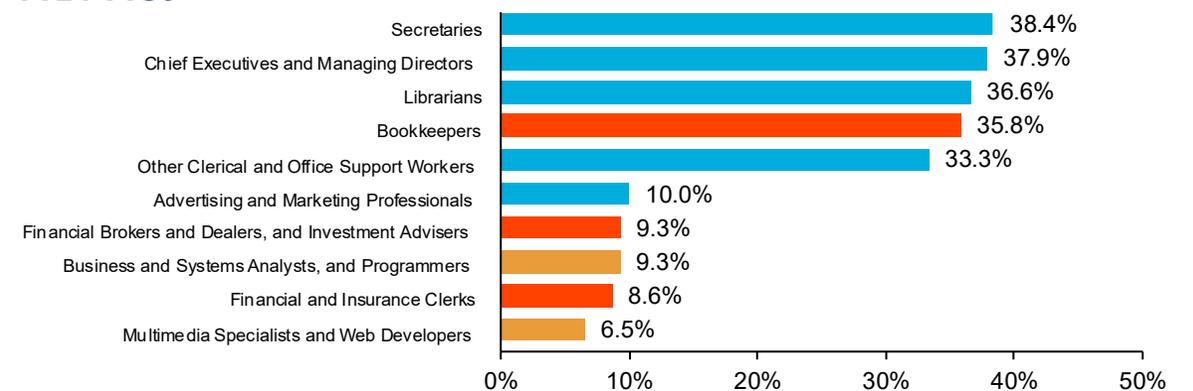
Technology occupations have the lowest projected natural attrition rate at 15%, driven by the workforce age profile. However, there are pockets of high attrition, particularly in electrical and electronic engineering occupations. Specifically, Electronic engineering draftspersons & technicians (25.9%), electronic engineers (25.0%), electrical engineering draftspersons & technicians (23.6%), and engineering managers (22.1%) are all projected to have elevated attrition rates.

Business occupations' attrition rates (22%) are broadly expected to be similar to those in finance. However, with significantly more variation across specific occupations. Secretaries are projected to face the largest attrition rate of all FTB occupations, at 38.4%. Of the larger occupations, chief executives (8th) and office managers (3rd) are also projected to have elevated attrition rates at 37.9% and 29.5%, respectively.

Workforce attrition number and share of FY24 workforce, FY24-FY30



Top and bottom five occupation attrition losses as share of FY24 workforce, FY24-FY30



Migration

Technology occupations account for 5.8% of the workforce but is expected to receive 11.8% of migration

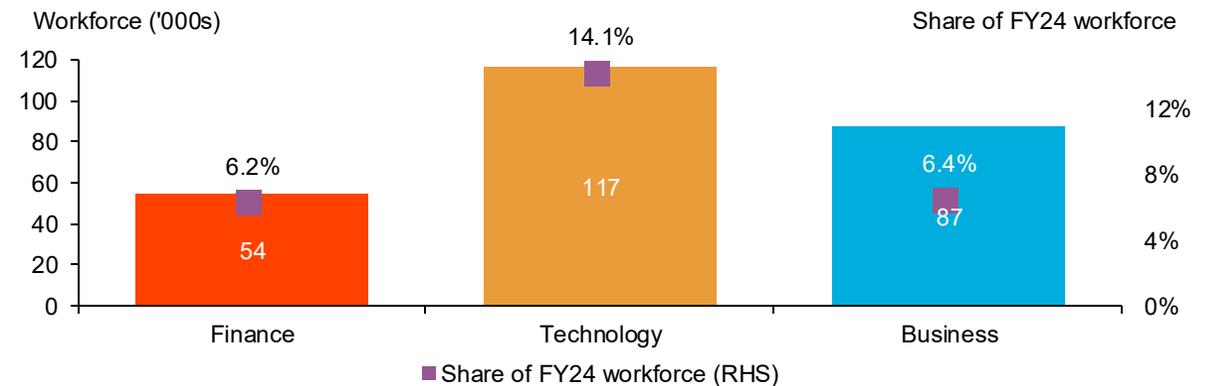
Migration flows are expected to add a cumulative 258,000 workers to the **FTB occupations workforce** supply by FY30. The FTB occupation workforce accounts for approximately 21% of the total Australian workforce and is projected to receive 26% of migration-driven workforce supply growth. This reflects the government's policy of leveraging permanent migration to address skillset shortages in priority areas, which has historically favoured FTB occupations.

Technology occupations are the key beneficiaries of migration flows. Although technology occupations account for only 5.8% of total employment in FY24, they are projected to receive 11.8% of the migration supply. In contrast, **business and finance occupations** are expected to receive a smaller share of migration supply than their employment share.

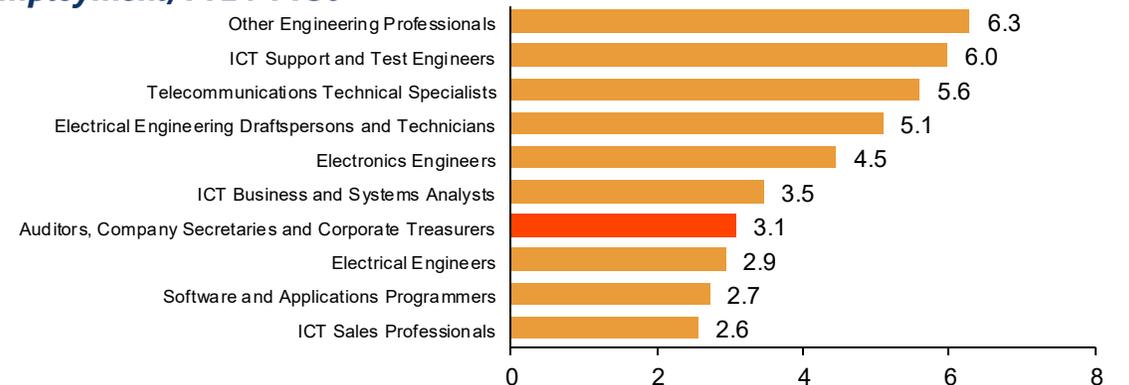
Most **technology occupations** are expected to benefit significantly from migration inflows, with occupations related to engineering and technician professions likely to see the most substantial benefits. However, electronic engineering draftspersons and technicians, as well as product quality controllers, are expected to receive a relatively small share of migration inflows, with the ratio of migration share to employment share expected to be 0.58 and 0.57, respectively.

Business and finance occupations are categorised by relatively low migration intake, with only 13 of 58 occupations receiving a share of migration that exceeds their share of employment. The best-performing occupations are expected to be auditors, company secretaries and treasurers, life scientists and advertising and marketing professionals, with forecast migration share to employment share ratios of 3.1, 2.1 and 1.9, respectively.

Migration number and share of FY24 workforce, FY24-FY30



Top occupation share of migration gains as a ratio to share of total economy employment, FY24-FY30



Education and job movements

Business has strong supply channels through education and job changes, while technology and finance lag

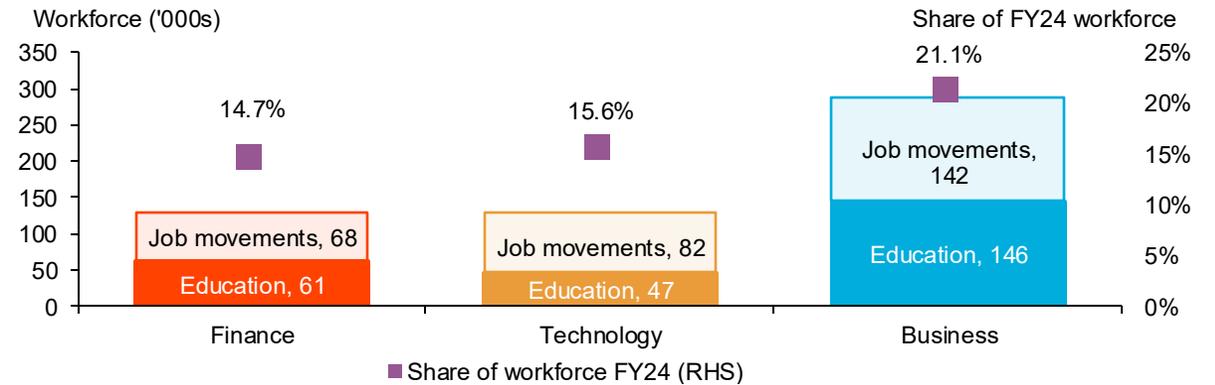
The **FTB occupation workforce** is projected to gain a cumulative 546,000 workers through education and job movements by FY30. Job movements are the primary channel (54%) through which additional supply enters FTB occupations. Lower levels of supply entering through the education channel suggest that those entering FTB occupations after completing a qualification tend to already be participating in the labour market, highlighting the important role of upskilling and reskilling for FTB occupation workforce supply moving forward.

Finance occupations are forecast to gain 129,000 supply additions via education (47%) and job movements (53%). Additional supply is expected to represent only 14.7% of the FY24 workforce, the lowest of finance, technology and business and sits well below the FTB occupation workforce total of 17.8%.

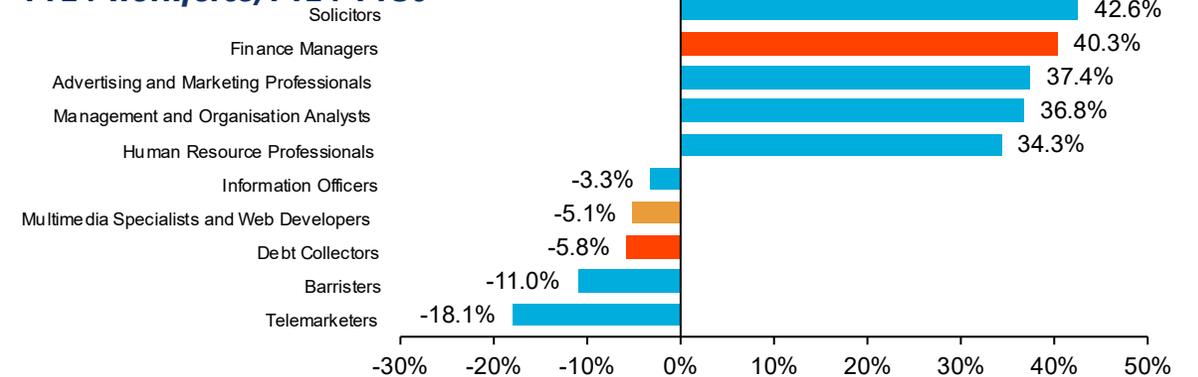
Technology occupations are likewise forecast to gain education and job movement additions of 129,000 to FY30 (15.6% of the FY24 workforce). Technology occupations primarily rely on capturing workers who are upskilling, reskilling, or moving into technology occupations from other occupations, with job movements representing 64% of additional supply. Compared to the broader FTB occupation workforce, technology attracts fewer new entrants to the labour market.

Business occupations are expected to gain additional supply through education and job movements equivalent to 21.1% of the FY24 workforce. Supply additions are expected to be split relatively evenly between education (51%) and job movements (49%). The relatively greater contribution of education highlights that business occupations tend to gain a more significant share of their workers through new entrants to the labour market rather than through job movements later in their careers.

Education & job movement number and share of FY24 workforce, FY24-FY30



Top and bottom occupation education & job movement additions as share of FY24 workforce, FY24-FY30



Skillset analysis



Demand for skillsets across FTB industries and occupations

Demand is concentrated in four key skillsets across both FTB industries and occupations

Growing skills demand

Skillset demand across FTB industries and occupations is concentrated in technology and business-related specialist skills. The largest increase in demand across both FTB industries and occupations is expected for skill level 1 computer science specialist skills with high generalist skills, particularly digital engagement.¹ Meanwhile, by FY30, 33% of skillsets in demand across FTB occupations are likely to have business and management specialist skills.

Declining skillsets

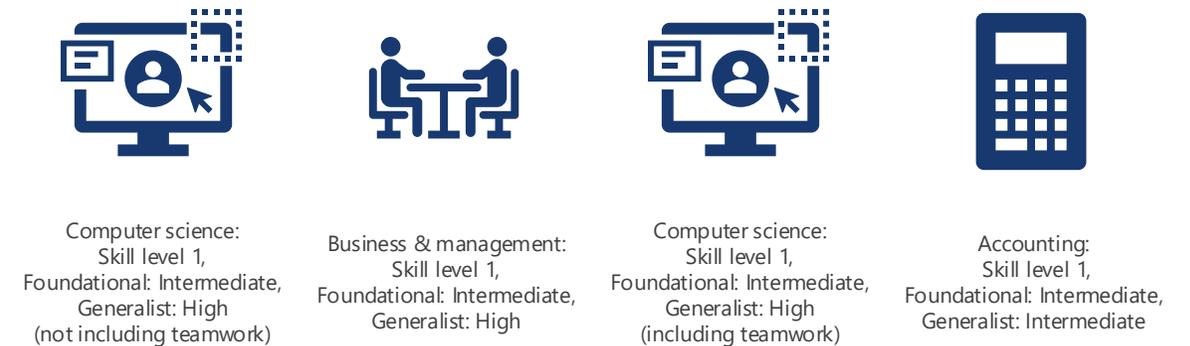
The skillsets within FTB occupations facing structural decline are concentrated in business-related specialist skills with intermediate levels of foundational and generalist skills. Skillsets with skill level 2 in business & management, office studies, and personal services specialist skills are likely to experience the largest declines.

Transition pathways for occupations in decline

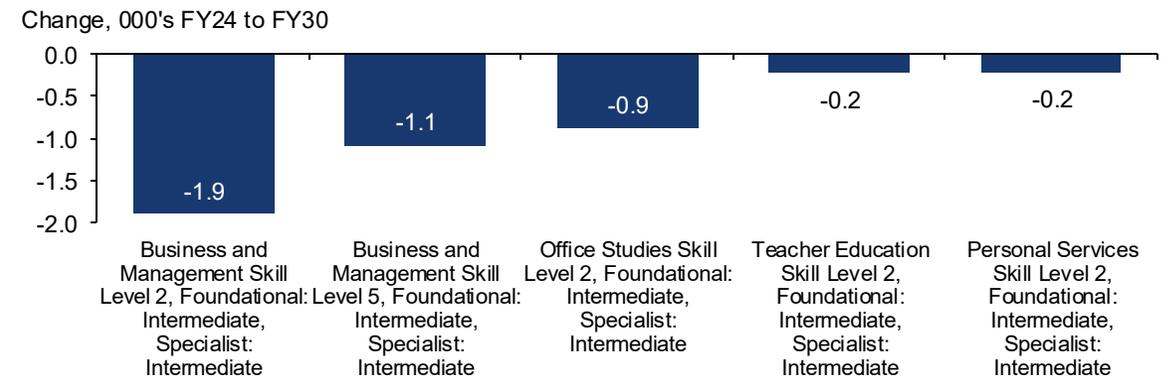
Secretaries typically have specialist skills in business and management and require a skill level 2, with intermediate foundational skills and a high degree of proficiency in the generalist skills of planning & organising. These skillsets are demanded across other FTB occupations, including personal assistants and office managers.

Filing & registry clerks and other clerical & office support workers typically have specialist skills in business and management and require a skill level five, intermediate foundational and generalist skills. These skillsets are demanded across survey interviewers and ICT sales assistants, however demand in these occupations is unlikely to be enough to offset the structural decline in demand for this skill.

Four fastest growing skillsets across both FTB industries and occupations



Top 5 skillsets facing declines across FTB occupations, change, FY24-FY30



¹ A definition of skill levels and a concordance table linking them to education qualifications and experience can be found in the technical appendix which is based on current OSCA definitions.

Skillsets supplied to FTB industries

A single skillset is forecast to account for over quarter of all skills supplied to technology industries

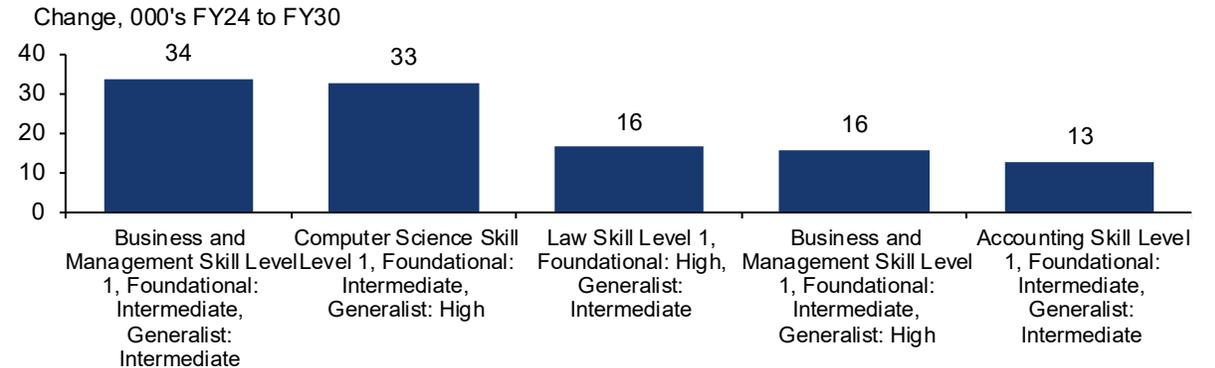
Supply for **skillsets to FTB industries** is expected to see the largest uplifts in business and computer science specialist skills, typically with high proficiency in generalist skills, including planning & organisation, initiative & innovation, and digital engagement. The five largest increases in skillsets supplied are all expected to have skill level 1 specialist skills.

Within the **finance industry**, the most common skillset supplied is projected to be specialist skills in accounting, skill level 1, with intermediate foundational skills and high generalist skills in initiative & innovation and planning & organisation. This skillset is expected to account for 16.2% of the finance industry's supply by FY30.

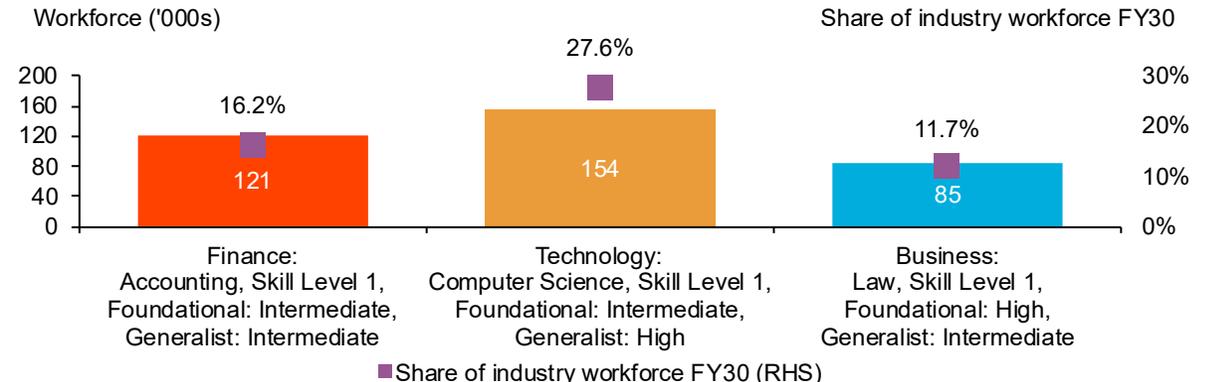
Skills supplied to the **technology industry** are relatively more concentrated. The most common skillset has specialist skills in computer science, skill level 1, with intermediate foundational skills and high generalist skills in digital engagement, initiative & innovation, and planning & organisation. A projected 154,000 workers – equivalent to 27.6% of supply in the technology industry – is projected to have this skillset by FY30.

The **business industry** has a more diverse array of skillsets with the single largest skillset forecast to account for only 11.7% of supply in FY30, most common in the legal services sub-industry. This skillset has specialist skills in law, skill level 1, with high foundational skills in reading, oral communication and writing, and high generalist skills in planning & organisation.

Top 5 skillsets workforce supply level change, FY24 to FY30



Largest skillset by industry, share of total industry skillsets, FY30



Skillsets supplied to FTB occupations

The five largest increases in skillsets supplied to FTB occupations are all expected to be skill level 1

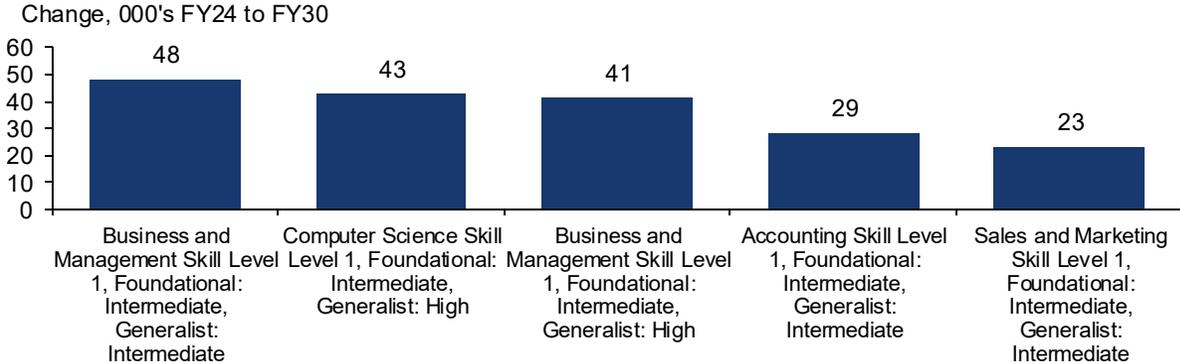
The largest increase in skillsets supplied in **FTB occupation** are expected to be business and computer science specialist skills, with high proficiency in generalist skills, including planning and organisation, initiative and innovation, and digital engagement for computer science. The five largest changes in skillset supply are all expected to be skill level 1.

The most common skillset supplied to **finance occupations** has specialist skills in accounting, skill level 1, with intermediate foundational skills and high generalist skills in planning & organisation and initiative & innovation. The next two largest skillsets also have accounting specialist skills but are skill levels 3 and 4. Finance occupation skillsets are more highly concentrated than the finance industry, with the most common skillset representing 34.4% of supply.

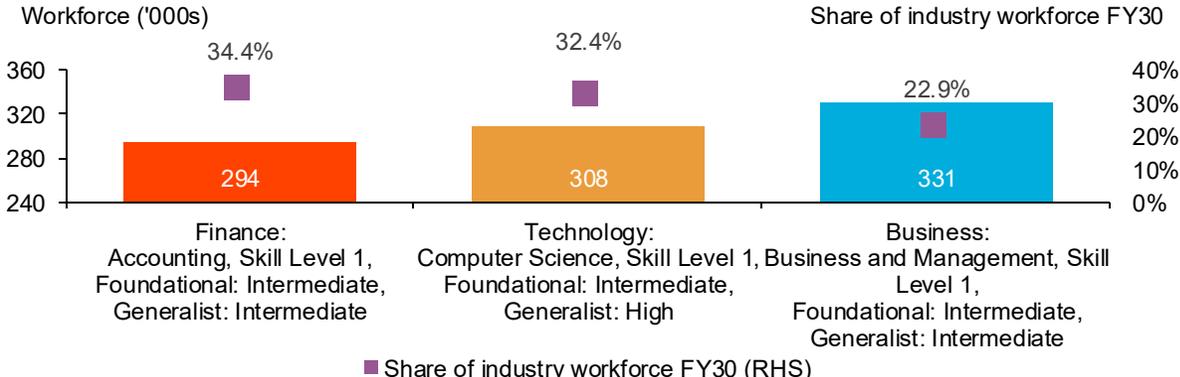
The most common skillset supplied to **technology occupations** is the same as that for technology industries. The most common skillset has specialist skills in computer science, skill level 1, with intermediate foundational skills and high generalist skills in digital engagement, planning & organisation, and initiative & innovation.

The most common skillset supplied to **business occupations** differs from that of business industries, driven by the higher variability of skillsets for business occupations across the whole economy. The largest skillset has specialist skills in business & management, skill level 1, with intermediate foundational skills, and high generalist skills in planning & organisation, and initiative & innovation.

Top 5 skillset supply level change, FY24 to FY30



Largest skillset by occupation, share of total occupation skillsets, FY30



Workforce gap assessment

FTB industry workforce gap

The FTB industry workforce is expected to face a workforce shortage of 108,000 by FY30

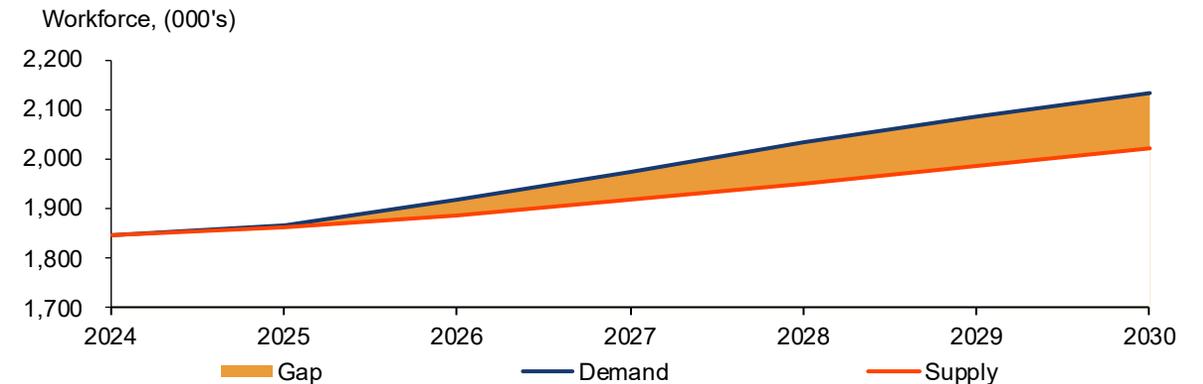
The **FTB industry workforce** is expected to experience workforce shortages by FY30 as strong workforce demand outstrips supply growth. The shortage is estimated to reach 108,000, representing 5.1% of demand. Gaps are expected to be primarily driven by strong demand growth in FTB industries, outpacing workforce demand growth in the wider economy. All FTB industries are expected to see supply growing faster than the wider economy but not at a rate sufficient to keep up with the growth in demand.

The **finance industry** is expected to face a shortage of 25,000 workers, equivalent to 3.3% of demand. Most industries have a marginal deficit. The largest shortage as a share of demand is in auxiliary finance and investment services (11.8%). The largest industry—accounting services—is expected to face a deficit of 7,400 workers (4.0%), and other auxiliary financial investment services face the most significant gap in levels at 7,600 workers (5.0%).

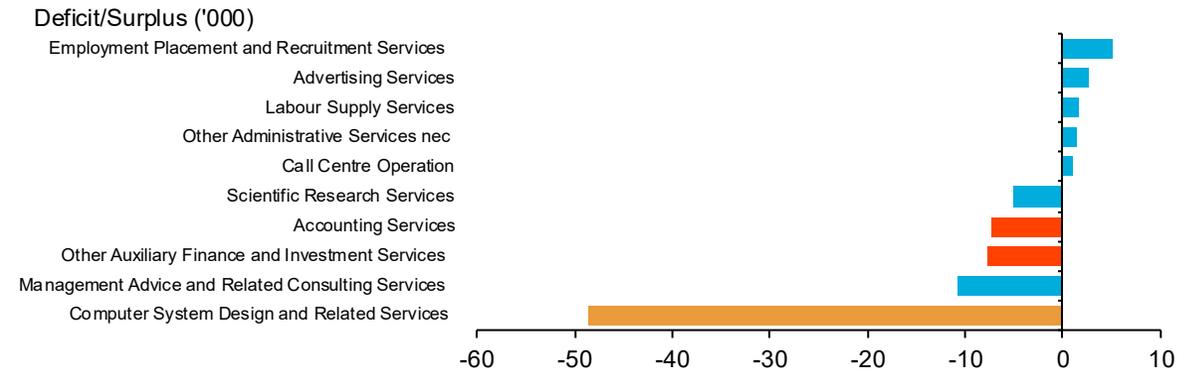
The **technology industry** is projected to face the most significant workforce shortage (61,000) and the largest gap as a share of demand (9.8%). The computer system design and related services sub-industry is expected to represent 80% of the technology industry shortage at 48,600 workers or 10.5% of demand - noting that this sub-industry is more traditionally considered a part of the professional services industry. Closing this one sub-industry gap would reduce the technology industry workforce deficit as a share of demand from 9.8% to 3.0%.

The **business industry** is expected to face the smallest shortage, at 22,000 workers, equivalent to 3.0% of demand. However, the industry has greater variability at the sub-industry level, including the five largest workforce surpluses and the second largest deficit in the management and related consulting services sub-industry, at 10,800 workers, or 9.8% of demand.

FTB industry workforce supply, demand and gap, FY24-FY30



Top five FTB industry surplus and deficits, FY30



FTB occupations workforce gap

Bookkeepers are expected to face a workforce shortage of 27,000 by FY30

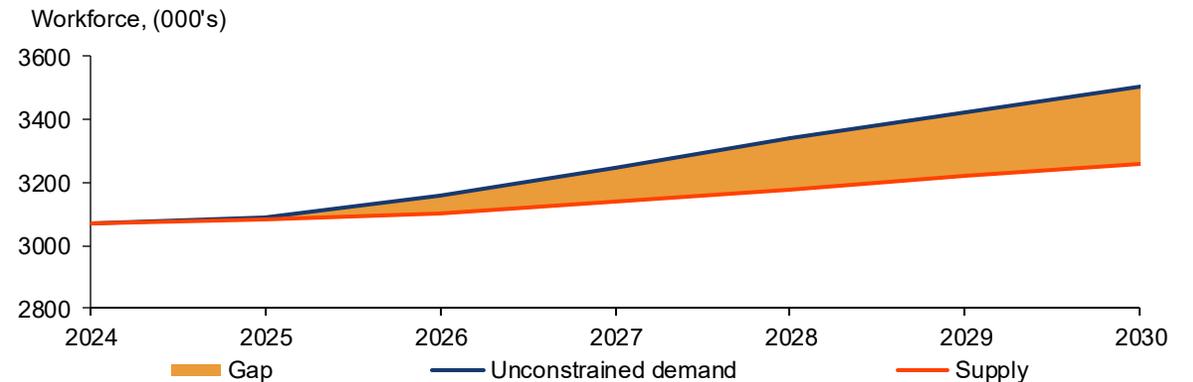
The **FTB occupation workforce** is forecast to experience greater challenges than the FTB industry workforce. The workforce gap is projected to reach 243,000, representing 6.9% of demand. The larger shortage in FTB occupations represents the broad-based demand growth for FTB occupations across all industries.

The **finance occupation** workforce shortage is projected to be 63,000 workers, representing 6.8% of demand. This is expected to be driven by slow supply growth. Despite sluggish growth in projected demand for finance occupations of 1.0% p.a., supply is expected to remain flat, falling 0.2% p.a. to FY30. At the occupation level, the largest deficits are projected for bookkeepers at 27,000 (27.4%) and accounting clerks at 26,000 (17.8%). Both occupations are forecast to experience elevated rates of attrition, driving their shortages.

Technology occupations are projected to have the largest workforce shortage in level terms (131,000) and as a share of demand (12.1%), primarily driven by robust demand. Technology occupation supply is projected to grow at a healthy 2.3% p.a. to FY30, ahead of the estimated growth in total economy workforce supply at 1.0% p.a. Most occupations are expected to be in shortage by FY30, with the largest being software and application programmers at 19,600 (12.5%), followed by database and system administrators and ICT security specialists at 17,900 (21.0%). Acute shortages are also expected in smaller occupations such as product and quality controllers (28.1%) and electronic engineering draftspersons and technicians (26.8%). These two occupations are projected to have the lowest level of exposure to migration among all technology occupations.

Business occupations are expected to have the largest number of occupations in surplus. The overall workforce shortage is projected to be 48,000, accounting for 3.2% of demand. Clerical and administrative workers, including office managers (16,700), information officers (16,200), and receptionists (15,300), account for 45% of the deficits across all business occupations.

FTB occupation workforce supply, demand and gap, FY24-FY30



Top five FTB occupation surplus and deficits, FY30



Skillset transitions within FTB industries and occupations

There is significant potential to transition overqualified workers to adjacent lower skilled roles

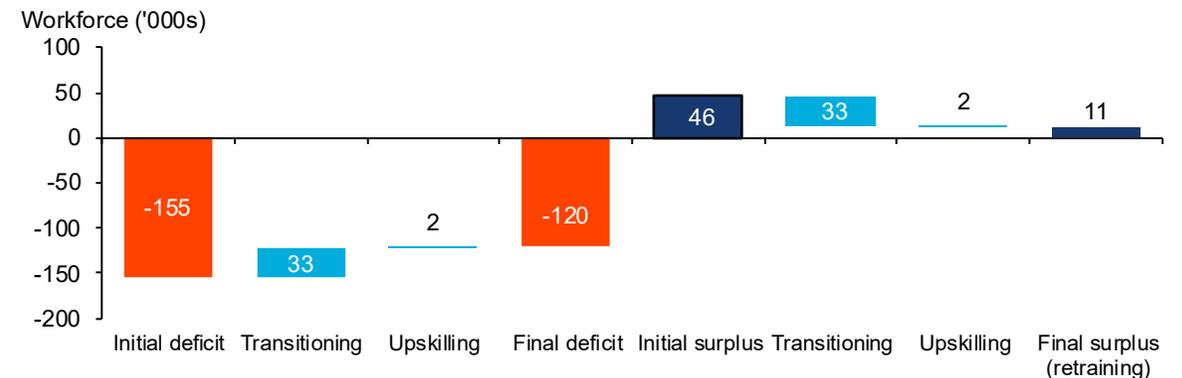
Analysis of where skillsets can be redirected provides a more nuanced view of how occupation and industry skill shortages can be addressed through:

- **Transitioning** overqualified workers in surplus to fill skill gaps in adjacent lower skilled roles. Suitable for skillsets with matching specialist skills and a higher skill level, alongside equivalent or higher foundational and generalist skills.
- **Upskilling** underqualified workers in surplus to fill skill gaps in adjacent higher skilled roles. Suitable for skillsets with a matching specialist skill but a lower skill level and lower foundational and generalist skills.
- **Retraining** workers, or redirecting training, for surplus skillsets that don't match the skill gaps across FTB industries and occupations. Suitable for skillsets where there is little alignment in skillsets.

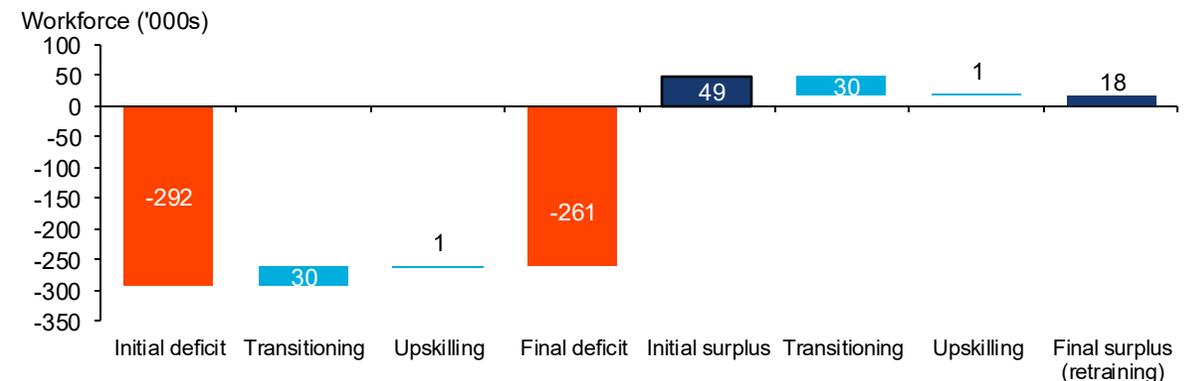
The initial **skill gap in FTB industries** is estimate to be 155,000 in FY30. The primary route to alleviating this shortage is to transition skill sets in surplus, with a small amount of skillsets that could be upskilled. This could reduce the skill gap to 120,000.¹

The initial **skill gap in FTB occupations** is projected to be 292,000 in FY30. A smaller proportion of skill sets in surplus can be transitioned or upskilled to alleviate this shortage, compared to surplus skill sets in FTB industries. However, similar to FTB industries, most of those repurposed are expected to be able to do so through transitioning. This could reduce the skill gap to 261,000.

Breaking down skill shortages across FTB industries, FY30



Breaking down skill shortages across FTB occupations, FY30



¹ Workforce shortage and final surplus may not add up to skillset shortage due to round to nearest thousand workers.

Skill gap assessment

The skill gap across FTB industries and occupations is more significant than the workforce shortage

After accounting for potential skillset transitions and upskilling, the skill gap for FTB industries and FTB occupations is still larger than their respective workforce gap. This reflects the mismatch between skillsets in demand and expected supply of skills.

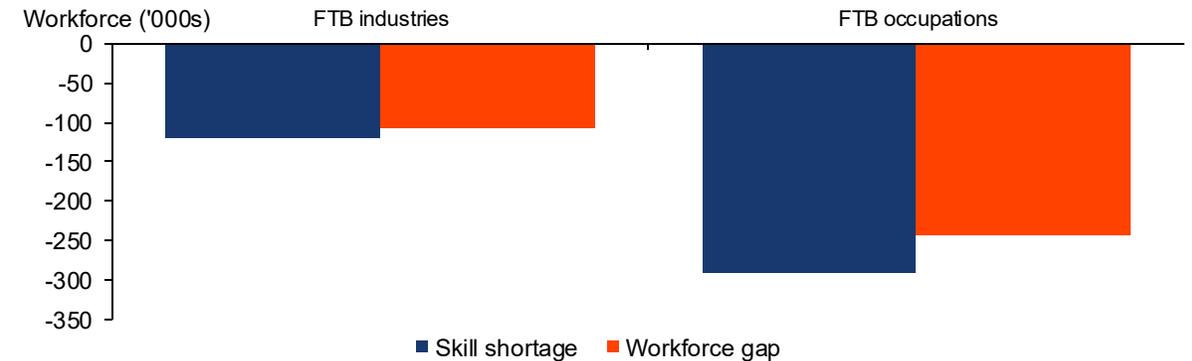
The skill shortage facing **FTB industries**, after effectively transitioning and upskilling potential skillset surpluses, is forecast to be 120,000 in FY30.¹ This is 10% larger than the respective workforce gap.

Two of the three largest skill gaps in FTB industries relate to computer science skill level 1 specialist skills, and there are no suitable skillset surpluses forecast from other areas of the workforce that can be redirected to provide relief. The second largest shortage—business and management skill level 4—has a deficit of 11,600. However, a projected 8,600 surplus of skillsets could be repurposed to partially fulfil shortages in business and management.

If workers in occupations that are expected to be in surplus can transition and upskill effectively, the skill shortage facing **FTB occupations** is forecast to be 292,000 in FY30.¹ This is 20% larger than the respective workforce gap.

The largest projected skill gap for FTB occupations is in the specialist skill computer science skill level 1. No forecast surplus skillsets can be transitioned or upskilled to provide relief for this shortage. Instead, additional supply will likely need to come online to balance the demand and supply of skills. In contrast, accounting skill level 3 has a significant skill shortage, but there is expected to be a surplus of accounting skill level 1 skillsets that could transition into the lower skill level, offsetting some of the projected shortage in this skillset

FTB workforce gap through a skills-based analysis, FY30



Top three skill gaps across both FTB industries and occupations



Computer science:
Skill level 1,
Foundational: Intermediate,
Generalist: High



Business & management:
Skill level 4,
Foundational: Intermediate,
Generalist: Intermediate



Accounting:
Skill level 3,
Foundational: Intermediate,
Generalist: Intermediate

¹ A more detailed list of priority industry and occupation skill gaps and how they link to occupations can be found in the appendix.

Generalist skill shortages across FTB industries and occupations

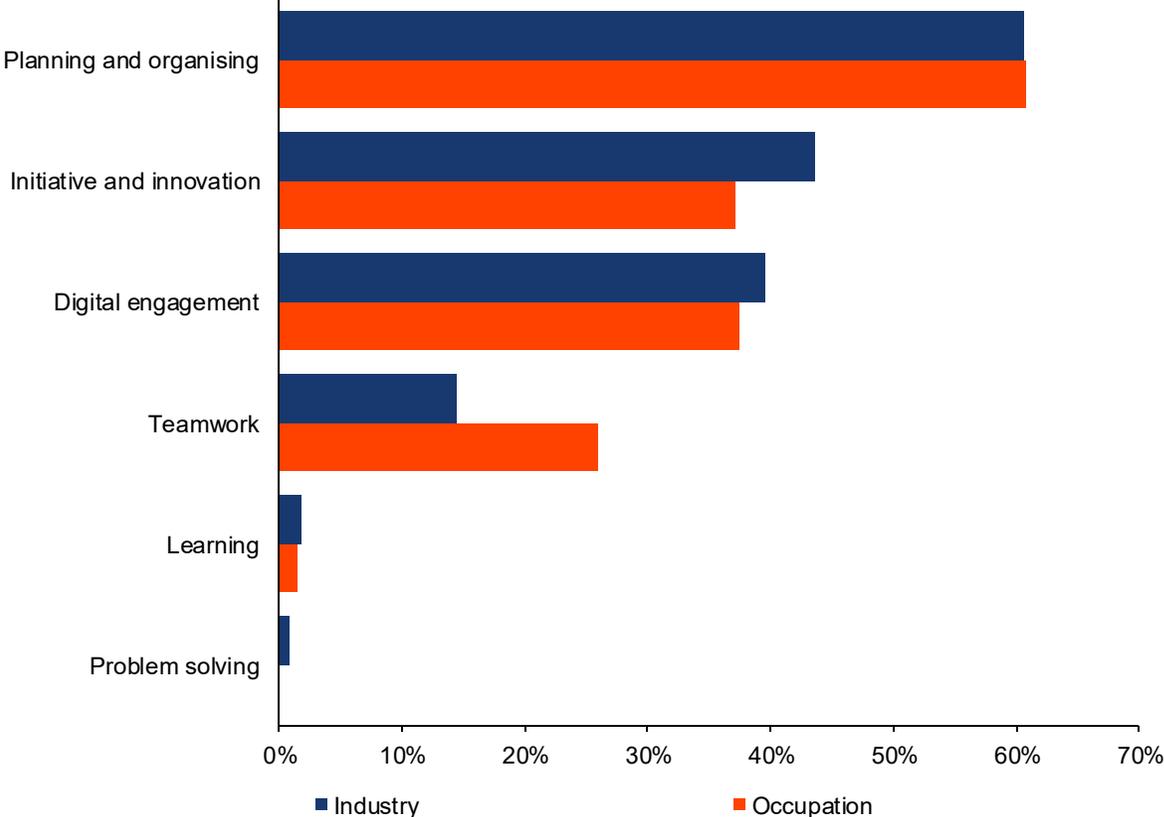
Training is likely needed in planning & organising, initiative & innovation, and digital engagement

Regardless of the field of education and skill level, the **FTB industry and occupation workforce** is expected to require training packages that prioritise the generalist skills of planning & organising, initiative & innovation, and digital engagement.

The skill gap across **FTB industries** places a marginal premium on the top three generalist skills compared to occupations. Planning & organisation skills are projected to be required for most (61%) skill shortages by FY30. High proficiency in planning & organisation are not exclusively within skillsets with higher specialist skill levels, with the need for this proficiency present from skill levels 1 to 5. The technology industry is projected to particularly require an uplift in planning & organisation proficiency, with the three largest skillset deficits that require high proficiency in planning & organisation all being in computer science. Expected shortages in initiative and innovation are likewise centred around computer science, with 49% of skillsets requiring high generalist skills having computer science specialist skills.

Skill needs across **FTB occupations** are well aligned with the FTB industry across the top three high proficiency generalist skills demanded. However, it requires a larger share of workers to be highly proficient in teamwork. Expected shortages in high proficiency of teamwork are driven by deficits in office managers (16,700), receptionists (15,300) and information officers (16,200). These roles are more dispersed across the broader workforce, driving the greater demand for high skills in teamwork across FTB occupations compared to the FTB industries.

Share of high proficiency skillset gaps in generalist skills



Recommendations

Labour demand and supply insights and implications



Insights from the workforce gap analysis

The FTB industry workforce is expected to face a workforce shortage of 108,000 by FY30, with the largest shortages driven by a strong uptick in demand pressures which supply trends are unlikely to match.

The FTB occupation workforce is expected to face a workforce shortage of 243,000 by FY30. The larger shortage in FTB occupations represents a mix of the broad-based demand growth for FTB occupations across all industries and weak supply, posing challenges for occupations with the largest gaps.

The technology industry is the key driver of forecast workforce shortages. However, 80% of the expected gap in the technology industry is within the computer system design and related services¹ sub-industry traditionally included within professional services.

Technology has the strongest supply outlook from an industry and occupation lens, but this is still not enough to fulfil demand. Low additions from education and job movements are expected to be the key barrier to stronger supply growth

While the education channel (which represents new entrants to the workforce) is relatively small, significant supply gains through job movements highlight the larger role of reskilling and upskilling in the FTB workforce.



Recommendations for FSO

Workforce planning is recommended to focus on increasing total supply entering the FTB workforce, given the significant overall workforce shortages expected by FY30.

Workforce planning in FTB occupations is recommended to focus on supporting additional supply of bookkeepers, accounting clerks, receptionists, office managers and key ICT roles as these are expected to represent the largest projected workforce shortages in FTB occupations by FY30.

Workforce planning in FTB industries is recommended to focus on supporting additional supply into the computer system design and related services sub-industry¹ as this single sub-industry is expected to represent 45% of the projected workforce shortage in FTB industries by FY30.

Workforce planning for technology industries and occupations is recommended to focus on increasing local supply through education and job movements to decrease the exposure risk to migration policy changes.

Training package development is recommended to support upskilling and reskilling pathways. The flow of skilled workers entering the FTB workforce through job movements has the potential to play a vital role in filling labour and skillset shortages.

¹ The computer system design and related services sub-industry is typically defined as part of the Professional, Scientific and Professional Services industry. We have included this in the technology industry in our analysis to ensure our definition of the Technology industry is consistent with the Tech Council of Australia.

Skillset demand and supply insights and implications



Insights from the workforce gap analysis

The roles in structural decline are all projected to be in business occupations, with a particular focus on process-driven tasks exposed to automation and AI.

The skill gap across FTB industries, at 120,000, is expected to be 11% larger than the workforce shortage. This accounts for the differing skillsets between roles that cannot be filled through transitioning or upskilling existing workers within the existing FTB industries.

The skill gap across FTB occupations, at 292,000, is expected to be 20% larger than the workforce shortage. This accounts for the differing skillsets between roles that cannot be filled through transitioning or upskilling existing workers within the existing FTB occupations.

The largest FTB industry skill gap is in the specialist skill of computer science, with a skill level of one, intermediate foundational skills, and high generalist skills.

The top 4 skill gaps in FTB occupations have no suitable opportunities for transitioning and upskilling existing workers with surplus skillsets within FTB occupations. These occupations are expected to require significant new supply additions to fill the skillset gap.

Most skillsets forecasted to be in surplus within FTB industries and occupations are suitable for transition within the FTB workforce to lower skill roles in shortage.



Recommendations for FSO

Existing workers in FTB occupations forecast to decline – typically process-driven business occupations – may be considered for transitioning, upskilling, and retraining efforts to fill deficits in other FTB skillsets.

Workforce planning that supports the upskilling and reskilling workers as their skillsets enter surplus is expected to provide some relief to skillset shortages. However, planning is recommended to focus on supporting the increase in new entrants through the education and job movements stream as this is expected to be required in order to address the larger skillset shortages forecast to FY30.

Training package development for technology industries is recommended to focus on supporting additional supply in computer science skill level 1 specialist skills with high generalist skills in digital engagement, initiative & innovation, and planning & organisation as this represents the largest forecast skillset shortage.

Training package development for skills in FTB occupations may require support across a broader number of skillsets, particularly in support of computer science skill level 1 as well as both accounting and business & management skill levels 2, 3 and 4.

Surplus skillsets that are easily transferrable into skillsets in deficit are suggested to be left to market forces to transition, and training efforts are recommended to prioritise those that require upskilling or retraining.

Technical appendix



FTB industry workforce definition

Finance

Central Banking
Banking
Building Society Operation
Credit Union Operation
Other Depository Financial Intermediation
Non-Depository Financing
Financial Asset Investing
Life Insurance
Health Insurance
General Insurance
Superannuation Funds
Financial Asset Broking Services
Other Auxiliary Finance and Investment Services
Auxiliary Insurance Services
Accounting Services
Credit Reporting and Debt Collection Services
Depository Financial Intermediation, nfd
Finance, nfd
Financial and Insurance Services, nfd
Insurance and Superannuation Funds, nfd
Health and General Insurance, nfd
Auxiliary Finance and Insurance Services, nfd
Auxiliary Finance and Investment Services, nfd
Legal and Accounting Services, nfd

Technology

Newspaper Publishing
Magazine and Other Periodical Publishing
Book Publishing
Directory and Mailing List Publishing
Other Publishing (except Software, Music and Internet)
Software Publishing
Newspaper, Periodical, Book and Directory Publishing, nfd
Publishing (except Internet and Music Publishing), nfd
Wired Telecommunications Network Operation
Other Telecommunications Network Operation
Other Telecommunications Services
Telecommunications Services, nfd
Internet Service Providers and Web Search Portals
Internet Service Providers, Web Search Portals and Data Processing Services, nfd
Data Processing, Web Hosting and Electronic Information Storage Services, nfd
Data Processing and Web Hosting Services
Electronic Information Storage Services
Libraries and Archives
Other Information Services
Library and Other Information Services, nfd
Computer System Design and Related Services*
Information Media and Telecommunications, nfd
Professional, Scientific and Technical Services, nfd*

Business

Scientific Research Services
Other Specialised Design Services
Scientific Testing and Analysis Services
Legal Services
Advertising Services
Market Research and Statistical Services
Corporate Head Office Management Services
Management Advice and Related Consulting Services
Other Professional, Scientific and Technical Services nec
Employment Placement and Recruitment Services
Labour Supply Services
Office Administrative Services
Document Preparation Services
Call Centre Operation
Other Administrative Services nec
Professional, Scientific and Technical Services (except Computer System Design and Related Services), nfd
Legal and Accounting Services, nfd
Management and Related Consulting Services, nfd
Other Professional, Scientific and Technical Services, nfd
Administrative and Support Services, nfd
Administrative Services, nfd
Employment Services, nfd
Other Administrative Services, nfd

¹ These sub-industries are typically defined as part of the *Professional, Scientific and Professional Services industry*. We have included these sub-industries in the technology industry in our analysis to ensure our definition of the *Technology industry* is consistent with the Tech Council of Australia.

FTB occupation workforce definition

Finance

Finance Managers
Accountants, Auditors and Company Secretaries, nfd
Accountants
Auditors, Company Secretaries and Corporate Treasurers
Financial Brokers and Dealers, and Investment Advisers, nfd
Financial Brokers
Financial Dealers
Financial Investment Advisers and Managers
Numerical Clerks, nfd
Accounting Clerks and Bookkeepers, nfd
Accounting Clerks
Bookkeepers
Payroll Clerks
Financial and Insurance Clerks, nfd
Bank Workers
Credit and Loans Officers
Insurance, Money Market and Statistical Clerks
Debt Collectors
Insurance Investigators, Loss Adjusters and Risk Surveyors
Insurance Agents and Sales Representatives, nfd
Insurance Agents

Technology

Business and Systems Analysts, and Programmers, nfd
Computer Network Professionals
Database and Systems Administrators, and ICT Security Specialists
Electrical Engineers
Electrical Engineering Draftspersons and Technicians
Electronic Engineering Draftspersons and Technicians
Electronics Engineers
Engineering, ICT and Science Technicians, nfd
Graphic and Web Designers, and Illustrators
ICT Business and Systems Analysts
ICT Managers
ICT Professionals, nfd
ICT Support and Test Engineers
ICT Support Technicians
ICT Trainers
Multimedia Specialists and Web Developers
Software and Applications Programmers
Actuaries, Mathematicians and Statisticians
Engineering Managers
Telecommunications trades workers
Product Quality Controllers
Other Engineering Professionals
Electronics Trades Workers
Telecommunications Technical Specialists
Telecommunications Engineering Professionals
ICT Sales Professionals

Business

Chief Executives and Managing Directors
General Managers
Business Administration Managers, nfd
Corporate Services Managers
Human Resource Managers
Research and Development Managers
Business, Human Resource and Marketing Professionals, nfd
Human Resource and Training Professionals, nfd
Human Resource Professionals
Training and Development Professionals
Information and Organisation Professionals, nfd
Archivists, Curators and Records Managers
Economists
Librarians
Management and Organisation Analysts
Other Information and Organisation Professionals
Advertising and Marketing Professionals
Life Scientists
Legal Professionals, nfd
Barristers
Solicitors
Office Managers and Program Administrators, nfd
Office Managers
Personal Assistants and Secretaries, nfd
Secretaries
Call or Contact Centre Workers
Information Officers
Receptionists
Filing and Registry Clerks
Survey Interviewers
Switchboard Operators
Other Clerical and Office Support Workers
Miscellaneous Clerical and Administrative Workers, nfd
Conveyancers and Legal Executives
Court and Legal Clerks
Human Resource Clerks
Library Assistants
Telemarketers

Framework for modelling workforce demand and supply

We model workforce supply and demand separately to identify potential gaps

Our modelling framework develops forecasts of both constrained and unconstrained workforce demand:

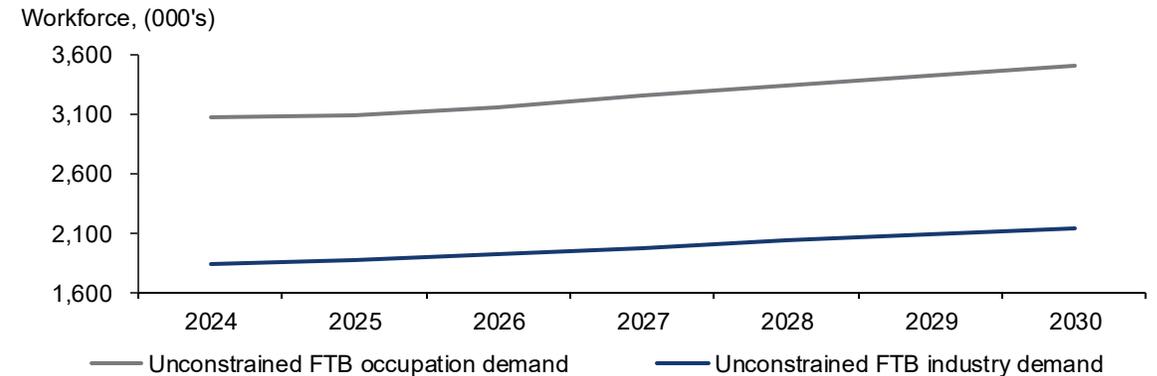
- An effective demand view of workforce demand as modelled by employment is inherently **constrained**, representing met demand rather than true underlying demand.
- Overlaying policy ambitions or other industry targets enables us to develop an **unconstrained** view of the workforce, providing a more accurate picture of workforce demand.

Jobs and Skills Australia employment projection growth rates have been applied to May 2024 employment data to develop the demand outlook. The Tech Council of Australia 1.2 million Tech jobs were then applied as an additional assumption to increase demand growth in Tech roles to FY30 to align with this target.

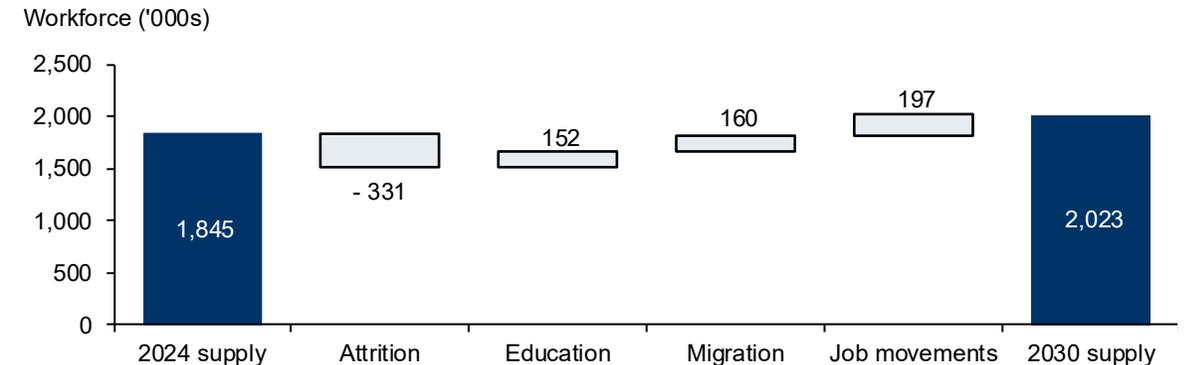
Our supply model estimates flows in and out based on four key channels:

- **Natural attrition** refers to the loss of workforce from retirement and deaths and is driven by the age distribution of the workforce.
- **Migration** includes both arrivals and departures as working aged people enter and leave the Australian workforce. This considers permanent and temporary migration settings and trends in citizen movements.
- **Education** is the primary channel for new entrants to the workforce, including VET, higher education and in some cases, school leavers.
- **Job movements** reflect the churn within the labour market, capturing both movements in and out of the workforce.

Unconstrained workforce demand for FTB industries and occupations



Workforce supply for FTB industries



Skillset framework

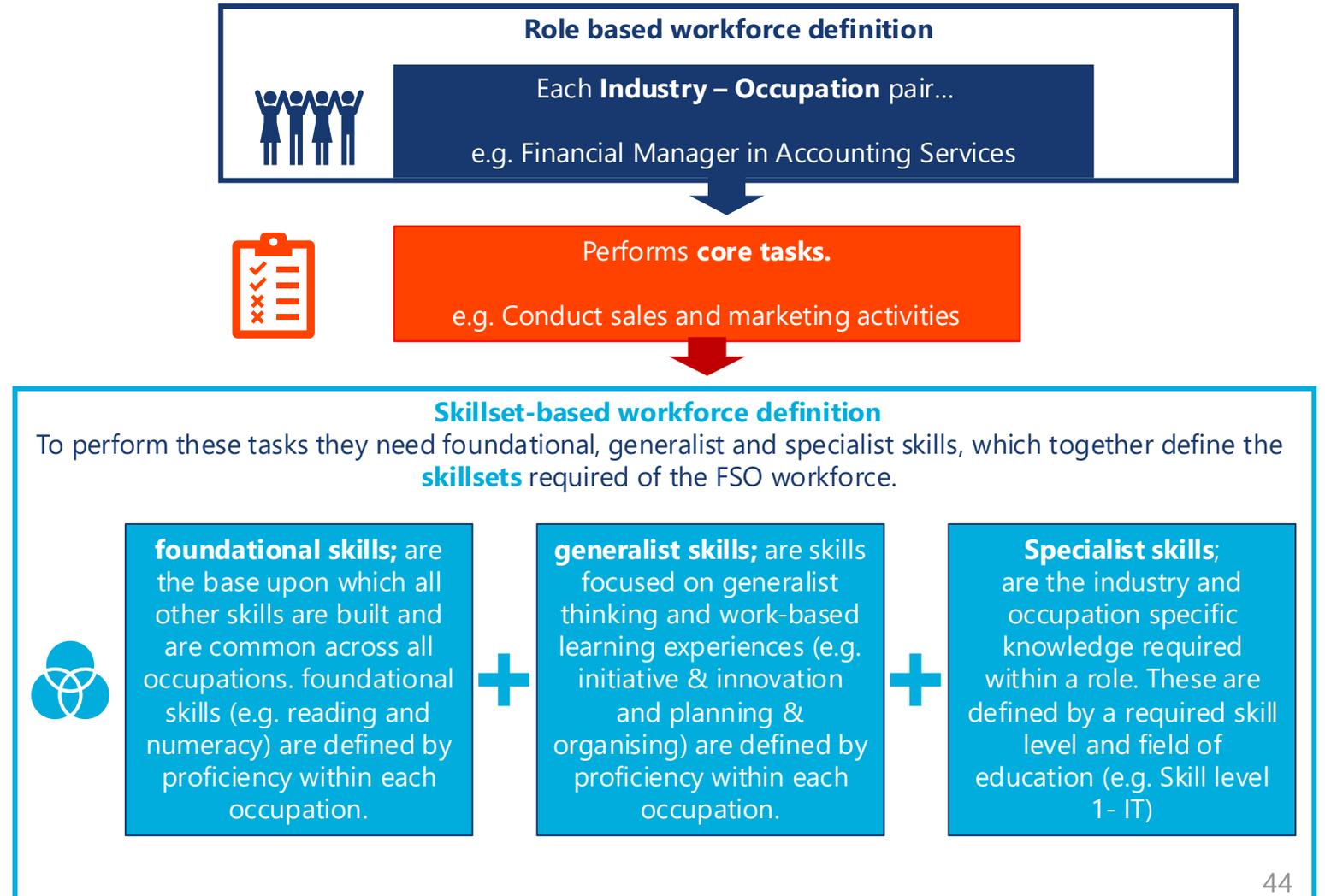
We model workforce supply and demand separately to identify potential gaps

Each industry occupation pair within the FTB workforce performs a set of core tasks. Our skillset framework defines the skillset required to perform these tasks as the combination of foundational, generalist, and specialist skills.

- **Specialist skills** are classified as the required skill level and most common field of education within each role. This is based on current definition within OSCA but may not accurately reflect the skills required for all roles, especially entry-level roles.
- **Foundational skills** are classified as a set of the required proficiency levels in the fundamental core skills: numeracy, reading, writing and oral communication.
- **Generalist skills** are classified as a set of the required proficiency levels in core skills focused on generalist thinking and work-based learning experiences: digital engagement, initiative & innovation, learning, planning & organising, problem solving and teamwork.

Each task within a role then requires a particular skillset. For each role, a ceiling skillset is required to complete all the tasks within that role. Under this consideration, a role may require higher foundational and generalist skills to perform more complex tasks, even if those tasks constitute only a small portion of the total workload.

Applying this framework across all roles, we can define the demand and supply for skillsets in the FTB workforce.



Skillset example - Bookkeepers in superannuation

Demand and supply for skill sets can be considered in two ways, each providing different insights

Skill **sets** demanded to perform tasks

Skill **set** demanded to perform role

		Skill sets demanded to perform tasks					Skill set demanded to perform role
	Tasks	Verify accuracy of financial or transactional data and information	Maintain financial or account records	Calculate financial data	Operate office equipment	Operate computers, computer systems, or computerised equipment	Skill set requirement for occupation
Specialist skills	Skill level	Intermediate specialist skills (Skill level 4) which corresponds to AQF level 3 (requiring skills equivalent to the competencies gained through a certificate II or III)					
	Field of education	Accounting					
Foundational skills	Numeracy	Intermediate	Intermediate	Intermediate	Intermediate	Basic	Intermediate
	Reading	Intermediate	Intermediate	Intermediate	Intermediate	Intermediate	Intermediate
	Writing	Intermediate	Intermediate	Intermediate	Intermediate	Intermediate	Intermediate
	Oral communication	Intermediate	Intermediate	Intermediate	Intermediate	Intermediate	Intermediate
Generalist skills	Digital engagement	Intermediate	Intermediate	Intermediate	Intermediate	Intermediate	Intermediate
	Initiative and innovation	Intermediate	Intermediate	Intermediate	Intermediate	Intermediate	Intermediate
	Learning	Intermediate	Intermediate	Intermediate	Intermediate	Intermediate	Intermediate
	Planning and organising	Intermediate	Intermediate	Intermediate	Intermediate	Intermediate	Intermediate
	Problem Solving	Intermediate	Intermediate	Intermediate	Intermediate	Intermediate	Intermediate
	Teamwork	Intermediate	Intermediate	Intermediate	Intermediate	Intermediate	Intermediate

Skill levels and Australian Qualifications Framework (AQF)

Skill level	AQF Level
Skill level 1 - Commensurate with a bachelor's degree or higher qualification. At least five years of relevant experience may substitute for the formal qualification.	10
	9
	8
	7
Skill level 2 - Commensurate with an associate degree, advanced diploma or diploma. At least three years of relevant experience may substitute for the formal qualifications	6
	5
Skill level 3 – Commensurate with a certificate IV or a certificate III with two years on the job training. At least three years of relevant experience may substitute for the formal qualifications	4
	3
Skill level 4 - Commensurate with a certificate III or a certificate II. At least one year of relevant experience may substitute for formal qualifications	2
Skill level 5 – Commensurate with a certificate I or compulsory secondary education. For some occupations a short period of on-the-job training may be required in addition to or instead of the formal qualification	1
	0

Priority industry gaps and associated skill sets

Industry	Deficit	Field of education	Skill level	High generalist skills
Computer System Design and Related Services	48,600	Computer Science (35%)	1	Digital engagement, initiative & innovation and planning & organising
		Business and Management (15%)	1	Initiative & innovation and planning & organising
		Computer Science (11%)	1	Digital engagement, planning & organising and teamwork
		Computer Science (6%)	1	Digital engagement, planning & organising
		Computer Science (6%)	2	Digital engagement, planning & organising
Management Advice and Related Consulting Services	10,800	Business and Management (36%)	1	Initiative & innovation and planning & organising
		Business and Management (6%)	2	Planning & organising and teamwork
		Environmental Studies (6%)	1	Planning & organising
		Business and Management (5%)	1	Initiative & innovation, planning & organising and teamwork
		Communication and Media Studies (4%)	1	Initiative & innovation and planning & organising
Other Auxiliary Finance and Investment Services	7,600	Banking, Finance and Related Fields (28%)	1	Initiative & innovation, planning & organising
		Banking, Finance and Related Fields (10%)	4	NA
		Banking, Finance and Related Fields (9%)	2	Initiative & innovation, planning & organising
		Accounting (9%)	1	Initiative & innovation, planning & organising
		Business and Management (6%)	1	Initiative & innovation, planning & organising

Priority occupation gaps and associated skill sets

Occupation	Deficit	Field of education	Skill level	High generalist skills
Bookkeepers	27,000	Accounting (93%) Business & Management (6%)	3	NA
Accounting Clerks	26,000	Accounting (80%) Business & Management (11%) Banking, Finance and Related Fields (4%)	4	NA
Software and Applications Programmers	19,600	Computer Science (99%)	1	Digital engagement, initiative & innovation, planning & organising
Database and Systems Administrators, and ICT Security Specialists	17,900	Computer Science (85%) Other Information Technology (6%) Mathematical Sciences (3%)	1	Digital engagement, initiative & innovation and planning & organising
Office Managers	16,700	Business & Management (93%) Sales and Marketing (3%)	2	Planning & organising and teamwork
ICT Managers	16,200	Computer Science (88%) Electrical and Electronic Engineering and Technology (6%) Business and Management (4%)	1	Digital engagement, initiative & innovation, planning & organising, teamwork
Information Officers	16,200	Business and Management (82%) Automotive Engineering and Technology (8%) Banking, Finance and Related Fields (3%)	4	Teamwork
Receptionists	15,300	Business & Management (88%)	4	Teamwork
ICT Support Technicians	13,000	Computer Science (92%) Mathematical Sciences (3%) Electrical and Electronic Engineering and Technology (2%)	2	Digital engagement and planning & organising
Chief Executives and Managing Directors	7,900	Business & Management (63%) Mechanical and Industrial Engineering and Technology (6%) Building (5%) Banking, Finance and Related Fields (3%) Electrical and Electronic Engineering and Technology (3%)	1	Initiative and innovation, planning and organising

Disclaimer

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