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Access Economics



Soft skills for business success

DeakinCo.

May 2017

Executive summary

A workforce with a broad mix of skills is crucial for business success and national prosperity. Businesses with more skilled staff have higher rates of innovation and productivity. And academic literature has found a consistent relationship between human capital and economic growth.

But do we fully understand the workforce skills necessary for success? Formal qualifications and technical skills are only part of the requirements for modern employees. **'Soft skills' and personal attributes are just as important to success.** Indeed ten of the sixteen 'crucial proficiencies in the 21st century' identified by the World Economic Forum are non-technical.

Soft skills are also referred to as employability skills, enterprise skills and they are transferable between industries and occupations. They include things like communication, teamwork, and problem solving, as well as emotional judgement, professional ethics and global citizenship.

DeakinCo. asked Deloitte Access Economics to assess the importance of obtaining and measuring soft skills to better understand areas that need to be improved in the Australian workforce and businesses.

To do this, Deloitte Access Economics consulted with key industry experts and analysed new detailed data from job matching tools, LinkedIn and Workible, to assess both international and domestic demand for these skills and how well-positioned Australians are to provide them.

As technology, globalisation and demographic shifts continue to shape how businesses compete, the importance of soft skills will grow. In this report, Deloitte Access Economics forecasts that **soft skill-intensive occupations will account for two-thirds of all jobs by 2030**, compared to half of all jobs in 2000. The number of jobs in soft-skill intensive occupations is expected to grow at 2.5 times the rate of jobs in other occupations. That's a big workforce change, similar in magnitude to other major trends, like the shift from 'blue-collar' to 'white-collar' work, and the growing participation of women in the workforce.

So does our workforce have the skills necessary to foster business success? It's a challenging question to answer neatly. But overall, the evidence available suggests that, as a nation, we have a strong soft-skills base.

For example, **more than nine in every ten employers think their graduates have the capacity for teamwork and the ability to understand different viewpoints.**

But there appears to be a gap between demand and supply. **A quarter of entry-level employers report having difficulty filling vacancies because applicants lack employability skills** (Department of Employment 2016). And these gaps can be significant across a wide range of soft skills. In a new analysis of data from Workible, an online search tool, we find that demand for self-management, digital skills, problem solving and critical thinking skills (measured by skill requirements listed by employers in job listings) significantly exceeds supply (measured by skills listed by employees in résumés). The difference between demand and supply is as large as 45 percentage points for communication skills.

Despite the value that businesses place on soft skills, data from LinkedIn profiles reveals that **less than 1% of Australians report having any soft skills** on their profiles. This under-reporting is consistent globally, and might be because we are uncomfortable with claiming skills without formal credentials, or because we underestimate the relative importance of soft skills.

Businesses recognise the importance of building soft skills in their employees in order to harness the broader benefits. We estimate that businesses spend **\$4 billion every year** on training, and another **\$7 billion each year** on recruiting the right staff. Yet without objectively and comprehensively measuring soft skills, it is difficult to measure the impact of this investment.

Given the importance of soft skills, it is important that we continue to build our understanding of how we perform. Effectively investing in improving our soft skills will bring significant benefits – to individuals, businesses and our economy.

Deloitte Access Economics

Figure i: Attainment on various soft skills in Australia



1. The skills for future success

SOFT SKILLS

2/3

jobs will be
soft skill
intensive
by 2030



Soft skills of
employees could
increase revenue
by more than

\$90,000



Demand for soft
skills exceeds
supply by up to

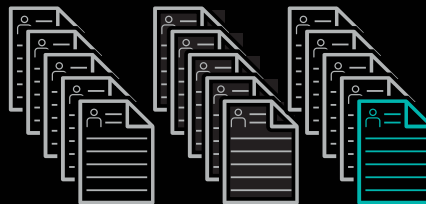
45

percentage points



<1%

Australians
report having any
soft skills on their
LinkedIn report



1/4

of employers have
difficulty filling entry-
level vacancies because
applicants lack soft skills



1. The skills for future success

Having the right mix of skills is crucial to the success of individuals, businesses, and societies. For individuals, better skills and qualifications lead to higher incomes and improved health. Businesses with highly skilled staff have higher rates of innovation and productivity (Department of Education 2016). And economic literature has found a consistent relationship between human capital and economic growth.

The importance of skills has only grown over time. This is evident in the investment in upskilling; government spending on tertiary education in Australia has grown 68% over the last 10 years, now equalling over \$30 billion (ABS 2016a).

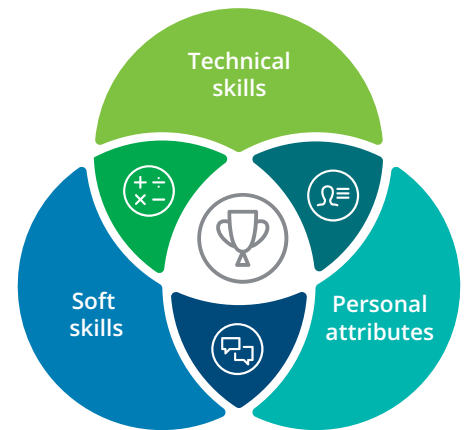
Businesses are also well aware of the importance of soft skills.

A 2015 survey of over 450 business managers and executives in the Western Sydney area found that the overwhelming majority of businesses cite team work (98%), time management (97%), and communication skills (95%) as being among the most vital skills for applicants to have (TAFE NSW 2015).

Clearly, as a nation we are well aware of the importance of skills, and willing to invest in building them.

But do we fully understand the skills necessary for success? Most of the national conversation is narrowly focused on the attainment of skills that we measure – comparisons of numeracy and literacy in schools, or enrolments in undergraduate science and technology.

These technical skills are obviously important. But they only form a part of the picture.



In fact, soft skills and personal attributes can be just as important as technical skills. Ten of the sixteen 'crucial proficiencies for education in the 21st century' identified by the World Economic Forum are non-technical.

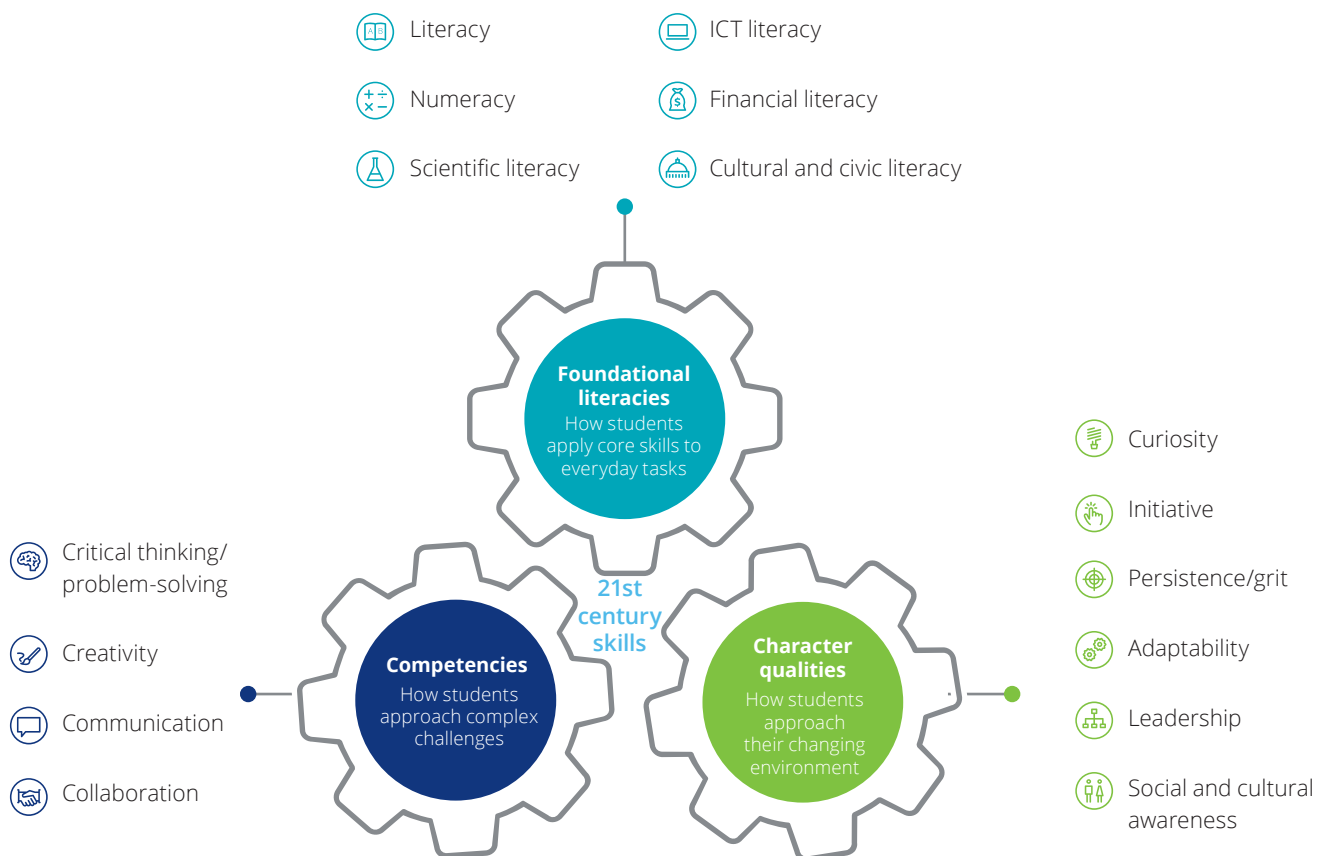
1.1 Defining non-technical skills

Non-technical skills have become widely acknowledged as important for workplace outcomes in addition to traditional technical skills. However, there is no universal definition for these skills. Different terminology is often used and can highlight different elements of these skills. Some examples of the various labels of non-technical skills include:

- **Transferable skills:** are skills that can be applied in varied contexts – for example a skill which can be developed in one job or industry but is still relevant and useful in another job or industry, even where the contexts are very different. This terminology is used by the Committee for Economic Development of Australia (2015) and is cited as being increasingly important as employees transfer to different industries more frequently.
- **Employability skills:** defined by the Department of Education, Employment and Workplace Relations (2002) as 'skills required not only to gain employment,

but also to progress within an enterprise so as to achieve one's potential and contribute successfully to enterprise strategic directions'. Some universities such as Deakin University, RMIT, and Sydney University also use the term employability skills to highlight their importance for graduate employment outcomes.

- **Enterprise skills:** a combination of developed problem solving techniques and ability to think creatively to come up with new solutions and recognise business opportunities (Foundation for Young Australians 2016).



Source: World Economic Forum (2015)

- **Soft skills:** often used by the business community that relate to a series of interpersonal or intrapersonal qualities necessary for individual.
- **Capabilities:** specify a standard expected in professional practice. They represent a holistic view of an individual's ability to perform in a range of contexts and their potential to improve (Bowles and Lanyon 2016).
- **Personal attributes:** describes the intrinsic traits of an individual such as loyalty or motivation. The Department of Education and Workplace Relations

(2002) considered these personal attributes as separate from employability skills. These attributes will not be considered in the below analysis.












- **Competencies:** are the specification of the skills, knowledge, and attributes required to achieve performance standards for specific occupations (Bowles and Lanyon 2016).

Despite the variety in terminology and emphasis, there are clearly overlapping elements among these skills. For example, Table 1.1 shows the overlaps between four skills frameworks – the Australian

school curriculum's general capabilities framework, the employability skills listed by the Department of Education Science and Training, DeakinCo.'s list of capabilities, and core competencies listed by the OECD.

Similarly, Bowles, Harris, and Wilson (2016) conducted a comparison of capability frameworks developed by Australian and New Zealand organisations in the last decade, and found that while terms may vary, significant commonality existed in the capabilities considered core to future success.

Table 1.1: Typologies of non-technical skills

Skill	Australian curriculum	Department of Education, Science and Training	DeakinCo.	OECD core competencies
Self-management 	✓	✓	✓	
Communication 		✓	✓	✓
Teamwork 		✓	✓	✓
Problem solving 		✓	✓	✓
Digital literacy 	✓	✓	✓	
Critical thinking 	✓		✓	✓
Innovation 		✓	✓	
Emotional judgement 	✓		✓	✓
Global citizenship 	✓		✓	
Professional ethics 	✓		✓	
Enterprise skills 		✓		✓

Source: Bowles and Lanyon (2016), Department of Education, Science, and Training (2002), Australian Curriculum Assessment and Reporting Authority (2016), OECD (2014).



1.1 This report

For the sake of consistency, this report will use the term ‘soft skills’ to describe a set of non-technical skills – like communication skills, emotional judgement, problem solving and digital literacy – as set out above.

Soft skills are critical to our future success, and their importance is recognised by education providers, academics, human resource departments, and businesses. However, there are many gaps in the literature about the impact of soft skills on businesses, and the current attainment level of soft skills in Australia.

In this context, Chapter 2 outlines how megatrends like technology, globalisation, and demographic change will contribute to more demand for people with soft skills, and presents forecasts about how this will translate into more soft skill intensive jobs in the Australian economy.

Chapter 3 discusses relevant literature on how soft skills can contribute to better outcomes for business – including increased productivity and revenue.

Chapter 4 looks at a range of evidence to consider the levels of soft skills in the Australian workforce. It includes analysis of custom LinkedIn data on reported soft skills capabilities in Australian professionals.

Chapter 5 identifies a skills gap in soft skills in Australia.

Finally, Chapter 6 examines the need for comprehensive and objective measurement of soft skills, both to enable better recruitment and to assist in assessing the effectiveness of training programs.

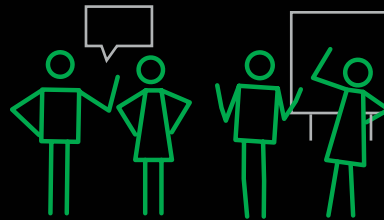
2. Soft skills will become increasingly important

SOFT SKILLS

Soft skill intensive jobs will grow

2.5x

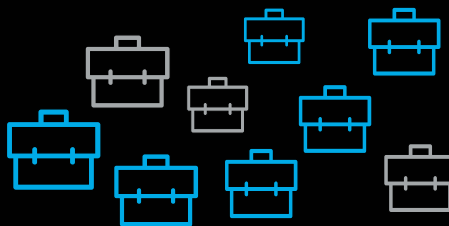
faster than other jobs



Soft skill intensive jobs will make up

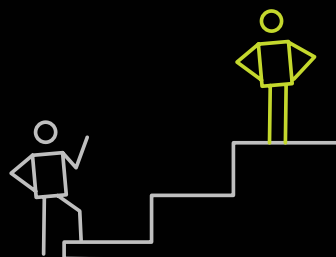
63%

of all jobs by 2030



42%

of businesses need leadership skill development for the digital future



2. Soft skills will become increasingly important

Despite a lack of focus on soft skills in the national debate, they are critical to the success of both individuals and businesses.

As noted by the World Economic Forum, they are especially relevant in the 21st century. Technology enhancements enable many routine technical tasks – like operating machinery and bookkeeping – to be automated. Yet businesses increasingly rely on critical thinking, emotional judgement, and problem solving skills in their staff to not just understand what technology is saying, but analyse why it is saying it, and what ought to be done. And although globalisation offers businesses access to a broader customer base, it also exposes them to increasing competition.

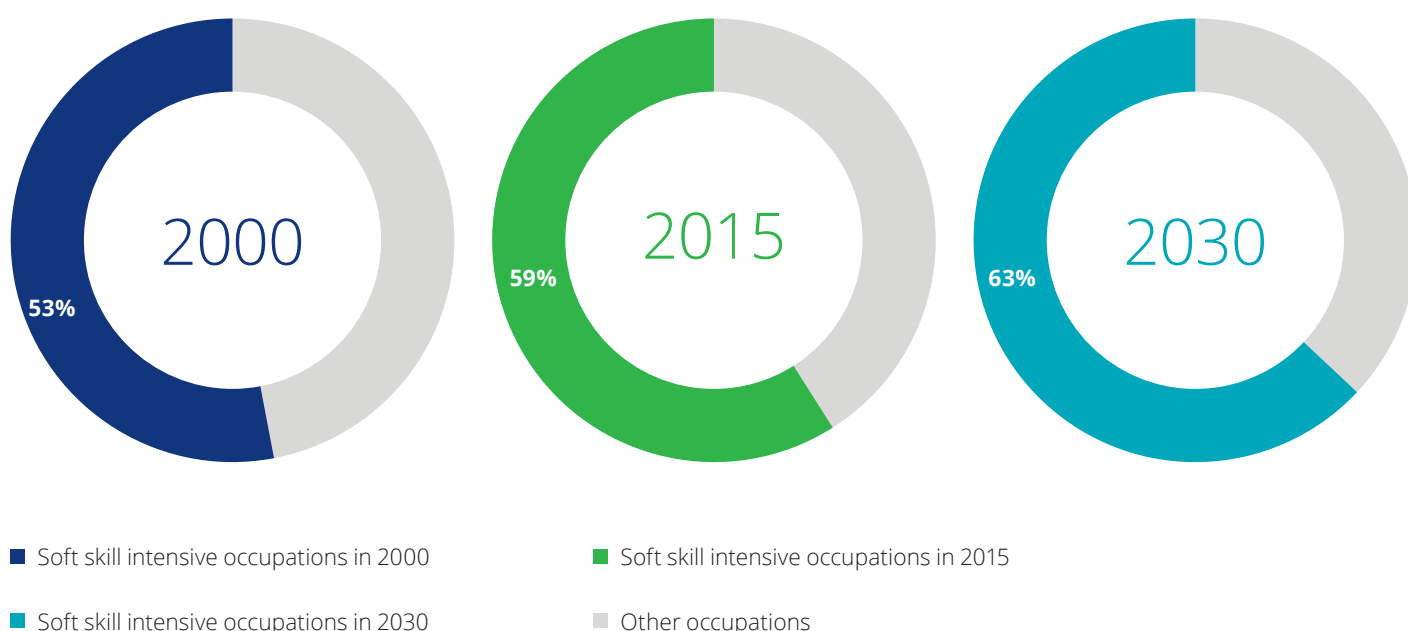
Being able to understand the needs of customers from different geographical and cultural backgrounds, communicate meaningfully, and deal with complex and ambiguous problems can be the key to customer service and differentiation.

In this environment, **the need for soft skills is going to intensify**. In new research, we have examined the characteristics of Australian occupations, to determine the relative intensity of their soft skill needs.

We find that the number of **jobs in soft skill intensive occupations is expected to grow at 2.5 times the rate** of jobs in less soft skill intensive occupations. And by 2030, we predict that **soft skill intensive occupations will make up almost two-thirds of the workforce by 2030**.

Our forecasts are based on distinguishing between occupations that are relatively soft skill intensive from the Australian New Zealand Standard Classification of Occupations (ANZSCO). ANZSCO is a classification system which groups and classifies jobs in Australia and New Zealand based on the required skill level (in terms of the qualifications or experience required) and areas of specialisation (for example farming or education). It allows each job to be classified at one of five hierarchical levels. For the purpose of this analysis, we have considered the soft skill intensity of occupations at the sub-major group level (that is, the second highest level of aggregation) with some of the occupations used listed in Table 2.2.

Figure 2.1: Soft skill intensive employment



Source: Deloitte Access Economics

Table 2.2: ANZSCO classification of occupations by soft skill intensity

Soft skill intensive occupations	Occupations with less soft skill intensity
Managers	Trades workers
Professionals	Clerical workers
Engineers, ICT, and Science technicians	Sales support workers
Community and personal services workers	Machinery operators and drivers
Office managers and program administration	Labourers
Sales representatives and sales persons	

2.1 Megatrends shaping future skill needs

The rate of change of technology is driving an increasingly competitive environment, lowering barriers to entry both domestically and overseas. The expectations and preferences of customers and staff continue to evolve.

These forces are changing how businesses operate – from strategy and business models to procedures and product offerings. Having staff with the right mix of technical and soft skills is becoming more important for business success.

As the skill needs of business evolve, so too does the workforce. The impacts of globalisation, digital disruption, and demographic change are well-known. But they are changing the workforce that businesses have access to, as well as their skills.

Globalisation, while not a new phenomenon, is accelerating. Facilitated by technology and more liberal trade policy, the barriers between economies are continuing to erode. Trade now represents nearly 30% of global GDP (and 20% in Australia) – and the value of trade is predicted to continue to grow (World Bank 2016).

For Australian businesses, this represents a significant opportunity for growth – 98% of the world economy are outside of national boundaries, yet only 7% of Australian businesses are exporting (World Bank 2016a, ABS 2016a).

At the same time, **digital disruption** waves have been, and are continuing to hit the skills landscape, both in Australia and across the globe. Technological advancements are making it easier to connect people across geographies, and soft skills will become more important. As technology advances, more business functions can be automated, meaning that an increasing proportion of skills gaps that businesses are likely to face in the future will revolve around soft skills. Recent modelling has suggested that almost 40% of jobs in Australia have a high probability of being substituted with computing over the next 10 to 15 years (Durrant-Whyte et al. 2015). As technical functions continue to be outsourced to machines, having staff with strong soft skills will become more important than ever as a way for businesses to connect with customers.

Trends in human capital

Deloitte's recently released *Global Trends in Human Capital* asks over 10,000 business and HR leaders from 140 countries about how businesses plan to invest in their teams. It found that businesses are transitioning away from traditional models of hierarchical organisation based on expertise in specific areas. Instead, there is increasing focus on more flexible teams whose members have a wide variety of perspectives, allowing the business to react quickly to new developments.

These new models are leading to changes in recruitment practices. Instead of checking qualifications, employers are trying to assess the demonstrated skills of potential candidates. For example, more than a quarter of global business leaders surveyed (29%) are using games and simulations to identify skills to assess potential candidates.

A focus on skills rather than credentials is not just relevant for entry-level staff. Successful leaders are increasingly collaborative, problem solving figures who transcend the concept of 'leader as hero'. The ability of leaders to adapt to digital transformation and uncover opportunities has become crucial to many businesses. Over 42% of businesses cite leadership development as very important.

The employers surveyed also noted a change in the way employees and future leaders are trained and developed. In the old model, credentials are provided by universities and accredited institutions, with skills only certified through credentials. In the new model, credentials are unbundled, and certificates can be obtained in many ways. Employees are increasingly seeking more flexible credentials.

Employees will be called on to combine digital literacy with essential human skills such as communication and problem solving. Despite the low cost of customer service technology options such as automated phone answering systems and text messaging, customers prefer live chat (73%), which provides access to real employees in real time, to phones (44%) and SMS (41%) as a way to get in touch with firms (Charlton 2013). Businesses stand to benefit from successfully integrating both types of skills to anticipate and meet customer needs.

Australia's **population is ageing**, the proportion of those aged 65 and over has almost doubled from 8% in 1964 to 15% in 2014 (AIHW 2017). As the population ages, demand for healthcare will rise and therefore jobs in healthcare (and caring jobs more generally) will grow. Soft skills are critical for these roles, as being able to empathise with customers is essential.

2.2 Impacts on business

These megatrends affecting society have changed the way businesses operate, and as such what skills are needed.

The **boundaries between professions and industries are dissolving**. Deloitte Access Economics (2016a) found that 60% of employees planning to pursue a new job in the next ten years are planning to change to a different industry, a different role, or both. People change jobs far more now than ever before: the average Australian stays with an employer for around seven years (ABS 2015).

Soft skills are transferable, employees can use them across a range of industries. As such, soft skills will be increasingly important for the future's mobile labour force. And the benefits of soft skills extend beyond employees, LinkedIn data shows that businesses with employees who have large professional networks do better (Deloitte Access Economics 2016b).

There has also been a shift away from pure price competition, with a new focus on **customer service as a battleground** for business. Globalisation and digital disruption have lowered the barriers to entry for business, meaning that today the real competition is often in the quality of the customer experience. Businesses are finding that customers are looking for service, not just low prices. Ebiquity's Global Customer Service survey highlights the importance of customer service: 74% of surveyed consumers said they have spent more with a company because of a history of positive customer service (Ebiquity 2014).

Quality of customer service will be dependent on the extent to which employees have soft skills such as communication, problem solving, emotional judgement, and global citizenship, and as such soft skills are very important for the future.

2.3 Soft skill intensive occupations will grow

We predict that soft skilled jobs will grow faster than less soft skilled jobs over the next 18 years. The soft skill intensive occupation annual growth rate (1.6%) is predicted to **grow 2.5 times faster** than occupations where soft skills are less prevalent (0.6%) to 2035, as shown in Figure 2.2.

The faster rate of growth in soft skilled jobs reflects a historical trend. Indeed, between 2000 and 2015 soft skill intensive occupation growth (2.7%) was three times the rate of non-soft skill intensive occupation growth (0.9%).

The speed at which soft skilled occupations are growing is already impacting the composition of soft skilled occupations. These occupations have grown from approximately half of all jobs in 2000 to nearly 60% of all jobs in 2015. While experiencing slower growth from 2015 to 2035, Deloitte Access Economics predicts that **soft skilled occupations will make up 63% of all jobs by 2030**.

Soft skills in the Australian Tax Office

Nardine McLoughlin, Director of Core and Enabling at the Australian Taxation Office (ATO), thinks soft skills are critical to the performance of the ATO. "We are client facing for one, and there are growing expectations from the community about level of service," she explains, "We are also growing quickly, and people need to be able to effectively communicate and self-manage to keep up".

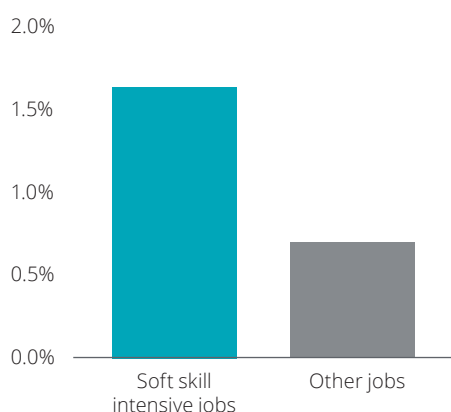
Over the last 12-18 months the ATO has dedicated significant time and resources to providing soft skills training for its staff. "Other agencies ask us for advice about building similar programs themselves," explains Kirsten Hughes, Director of Leadership & Management and Delivery Services.

The ATO has developed a number of training courses over the past few years, focussing on leadership, time management, communication, teamwork, and resilience. "We think of leadership as a practice, not a position – it's a skill that can be developed through training, so we build courses to further skill levels within the ATO. Some of these courses are designed in-house, some are developed externally and some are co-designed. It's really a mix," says Hughes.

Soft skills are also being built into performance monitoring within the ATO. "We have a new performance system which is more focused on behaviours and regular open conversations", says Hughes.

And according to McLoughlin, soft skills will only become more important. "We expect that skills like communication, collaboration, and teamwork will be increasingly important as technology allows for remote working and cross-office projects in the future."

Figure 2.2: Compound annual growth rates in Australian jobs by skill requirement, 2017-2035



Source: Deloitte Access Economics

These forecasts are also supported by historical developments in other developed economies. Analysing data from the US, Demming (2015) found that the employment share of occupations requiring relatively higher levels of social skills increased. These occupations were also valued more highly in the labour market. This supports our forecast that an increasing share of employment will be in soft skill intensive occupations.

It is important to note that all occupations require some level of soft skills. The classification above recognises that some occupations require a higher level of soft skills than other occupations. However, the distinction between soft skilled intensive occupations and occupations with less soft skill intensity is not clear cut.

Developing soft skills through education

Qualifications and credentials have long been used to provide businesses and individuals with a signal of technical skills. And their use has been rising for decades. In the early 1980s only 5% of the Australian working age population held a bachelor degree or above; today over 25% hold such a qualification (Deloitte Access Economics 2016a).

And this is mirrored globally; the average proportion of the population in OECD countries with tertiary education has almost doubled from 23% in 1995 to 42% in 2015 (OECD 2015).

Yet educational institutions in Australia are recognising the need for soft skills for future requirements in the Australian workforce. At a school level, the COAG Melbourne Declaration on Education Goals for Young Australians (2008) stated that: “The curriculum will support young people to develop a range of generic and employability skills that have particular application to the world of work and further education and training”

Soft skills are now included alongside technical skills in the Australian curriculum, with the key skills including:

- ICT capability
- Critical and creative thinking
- Ethical understanding
- Intercultural understanding
- Personal and social capability.

State governments structure the teaching and assessments of these skills. This year, Victorian schools will begin assessing these skills over year groups in a similar style to NAPLAN (Department of Education and Training Victoria 2016).

Soft skills are also increasingly being recognised in tertiary education. Deakin University has built soft skills into all their degrees alongside technical or disciplinary skills as key capabilities for graduates. They also have a system of ‘hallmark’ awards, where students who have excelled in soft skill development are recognised in the same way that students with outstanding technical skills are (Deakin Business School 2016). Other universities are engaged in similar programs to increase the emphasis on soft skills.

And this emphasis may continue to grow, after the Government launched an inquiry in late 2016 into how Australia’s tertiary education system can meet the needs of a future labour force that will be increasingly reliant on innovation and creativity (APH 2017).

3. Soft skills drive business outcomes

SOFT SKILLS

The level of soft skills of employees account for

3%

of the productivity gap between the best and worst performing firms



Digital literacy can drive customer engagement and increase spending by

20-40%



Soft skills of employees could increase revenue by more than

\$90,000



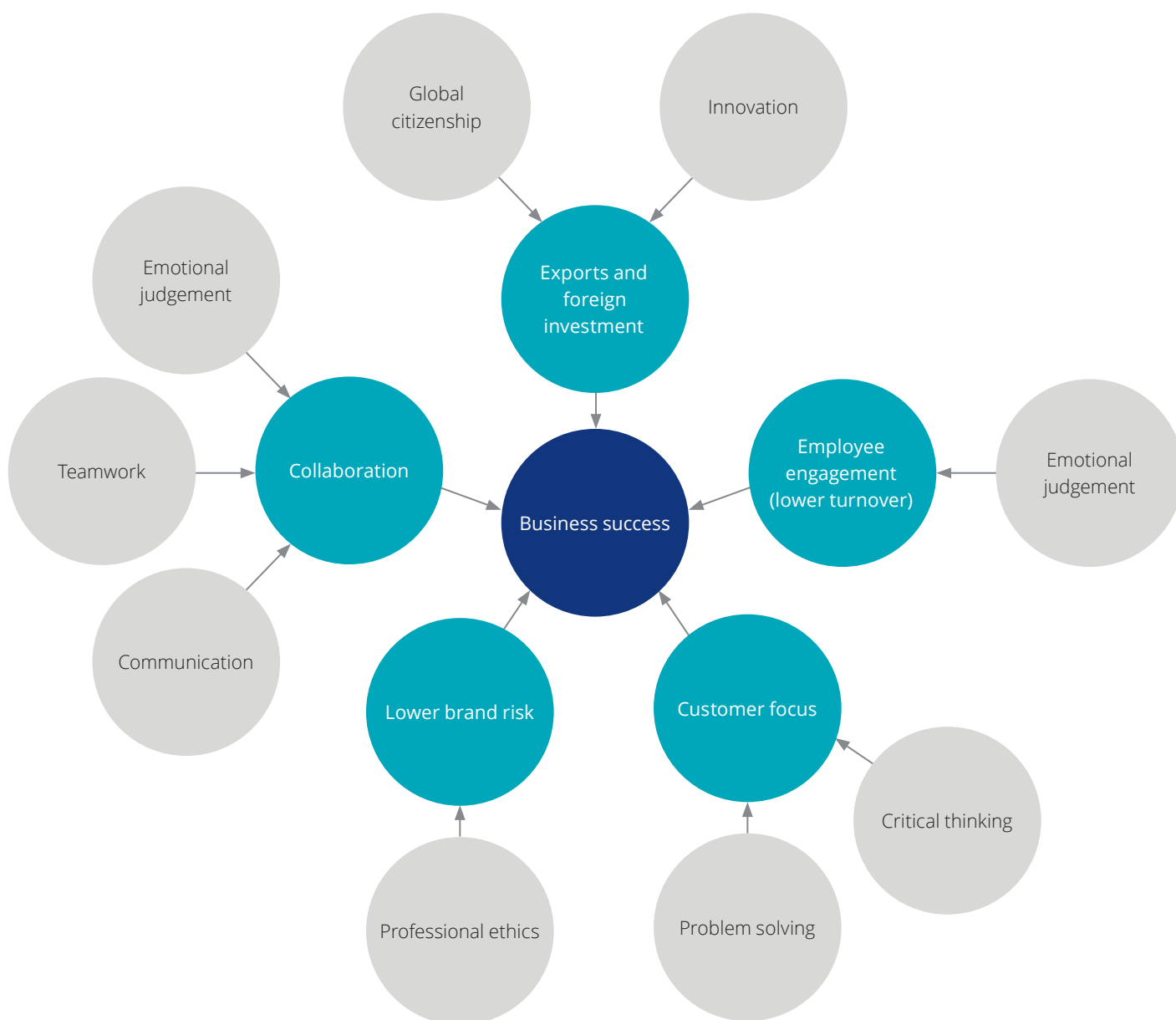
3. Soft skills drive business outcomes

Why do employers and businesses place such high value on individuals with soft skills? There are a range of anecdotal and intuitive reasons. A person with good communication skills could be easier to work with and relate better to clients, ultimately driving business outcomes.

Critical-thinkers and problem-solvers can identify potential issues before they become significant, and implement optimal solutions. Team members with strong self-management skills could require less oversight and be more reliable.

Individuals with good emotional judgement and teamwork skills could help to foster better workplace culture.

Figure 3.1: Ways that soft skills can contribute to business success



Source: Deloitte Access Economics

Figure 3.1 shows how staff with high levels of soft skills can contribute to better performance on key metrics that lead to business success. There is quantitative evidence to support this, for example:

- Higher levels of **emotional judgement** of staff has been found to lead to lower levels of staff turnover. Jordan and Troth (2011) used a survey of 578 employees which found that self-assessed measures of emotional intelligence were highly correlated (0.90) with intentions of staying in their job. This has a large impact on the profitability of a business given that retraining staff amounts for 75% of a skilled employee's first year salary (Deloitte Access Economics 2016a).
- Employees that exercise **global citizenship** are better placed to reach global markets. A survey of over 900 internationally active businesses found that three quarters believed that local employees with cross cultural or language skills were important for their ability to operate in the most important international markets (Export Council of Australia 2016). Further, a study of almost 4,000 exporting companies in the Netherlands showed that 41% of the difference in export performance across companies can be explained by trust, commitment, cultural sensitivity, technological innovation, and entrepreneurship and communicative competence (Bloemer 2013).
- Businesses need staff with **digital literacy** skills to engage with customers online. And customers who engage with companies over social media spend 20% to 40% more money than customers who do not (Barry et al. 2011).
- A study of 445 participants enrolled in **communication** courses found that increasing the quality of communication between team members led to greater efficiency in teams as work was more evenly shared (Lam 2015).
- An individual's ability to come up with unique and useful ideas can be translated in to a business context. By implementing these ideas (requiring a combination of soft and technical skills), businesses become **innovative** – and innovation has long been recognised as a source of business success. This is particularly important in a business environment where the pace of change is increasing; businesses need to be more adaptive and able to respond quicker to capitalise on emerging opportunities. The Department of Industry (2016) has found that businesses that regularly innovate generate \$4 million more in revenue than firms that did not innovate. This estimate is based on data from 6000 Australian businesses based on a three year period, between 2011-12 and 2013-14.

Some skills like **professional ethics** may not be at the forefront of hiring decisions or business strategy. Yet professional ethics are crucial to developing and maintaining trust between staff members, with customers and with suppliers. For example, an increasing number of businesses have public Corporate Social Responsibility policies or business conduct policies to provide certainty to customers and attract talent.

Professional ethical standards aren't always set or enforced by law. Yet consumers can react against companies who are perceived as acting unethically. The global fashion retailers who had production sourced in the Rana Plaza factory found themselves under global scrutiny after a fire in 2013 where a number of workers died, with some facing consumer boycotts for their lack of consideration (Avaaz 2016).



Ultimately, businesses value soft skills because they contribute to business success. Studies show that soft skills contribute to higher revenue, productivity, and profitability, across industries and countries.

In a study of 1,100 manufacturing plants in the UK, for example, Haskell et al. (2003) find that **differences in the level of soft skills of employees account for 3% of the total factor productivity gap between firms in the top and bottom deciles.**

This controls for a range of other factors – like age, experience, qualifications, and the firm of employment.

This increase in productivity means **more revenue for businesses.** For the average Australian business, for example, it means that having staff with more soft skills could **increase revenue by over \$90,000.**¹ And given that the findings relate to manufacturing, the return could be even higher in industries which are more soft skill focused, like health and professional services.

These findings are mirrored in Australia. A survey of over 1,000 managers and employees (Deloitte Access Economics 2014), that employees who have and utilise teamwork skills (a proxy for soft skills) are **3% more productive,** and worth almost **\$2,000 more per year** to a business than those using less of these skills.

Soft skills at the heart of Cisco's success

Cisco is a global technology provider. In Australia, a focus on customers and their needs is critical to Cisco's success. "We are a customer focused organisation. To deliver outstanding solutions to our customers, all our staff – whether they be sales, delivery or support – need to be able to truly understand our customers, their needs and wants," explains Raymond Janse van Rensburg, Director of Systems Engineers.

And soft skills are fundamental to build Cisco's relationship with clients. In particular, communication and critical thinking skills have become increasingly necessary to understand the unique technical needs of customers. According to Paul Wittich, Head of Virtual Sales, "15 years ago, all you needed was a solid technical understanding. Now, soft skills are just as valuable as technical skills."

Although soft skills are important across the board, expectations are different across roles. For example Account Managers and Systems Engineers are expected to have better self-management and interpersonal skills.

However Shamila Wickramage, Human Resource Manager at Cisco, notes that soft skills are a key consideration in recruitment at all levels. "Recruitment decisions are no longer just about skimming a resume for technical skills. There needs to be evidence that a candidate will have the attitude and fit in with our collaborative culture."

Recognising the benefit of soft skills for their business, Cisco has trialled objectively assessing the soft skills attainment of their sales staff through DeakinCo.'s Professional Practice Credentials.

Wittich says that, through this process, staff become more self-aware of their capabilities. By recognising that these skills can be transferred to different contexts, the credentialing process has enabled Cisco to improve the internal mobility of their staff. "Efficient communication, with everyone aligned and working as a single entity. That determines the success of us as an organisation and the success of our customers."

According to Janse van Rensburg, these skills will only become more important over time. "20 years ago, business communication was all about face to face communication. Today, the collaborative experiences across messaging and video enabled meetings facilitated the development of a whole new set of communication skills."

For Cisco, soft skill needs will continue to evolve over time. However, they will remain critically important to the overall success of the business.

¹The increase in productivity means more revenue for businesses. The revenue of the average Australian business would increase revenue by over \$90,000 if staff increased their soft skill levels by the amount found by Haskell et al. (2003). This figure is based on an increase to the average Australian business revenue of \$3 million as reported by the Australian Taxation Office for 2013-14 financial year (ATO statistics 2016).

Empirical studies also show that developing soft skills increases the value of the employee. One study found that returns to investments in soft skills were equal to the return to hard skills. In a study of 1,500 employees, Balcar (2016) found that increasing soft skills and hard skills would increase the value of employees by 8.51% and 8.84% respectively.

This additional value to businesses is a result of a range of factors including time savings – they can more quickly find information from others, and spend less time replicating work already performed. It also improves the quality of the work produced. Further details involving the methodology of this calculation can be found in the Appendix.

And the benefits of investing in soft skills can be even higher for businesses who have low levels of existing soft skills in their businesses. For example, female employees in an Indian garment factory who were randomly assigned to a soft skills training program recorded a **12% increase in productivity** (Adhvaryu et al. 2016).

The magnitude of this increase may be attributable to lower starting stock of soft skills, and as such may not be replicable more broadly. However, it does demonstrate that **soft skills can bring significant benefits, even – and perhaps especially – in industries where these are traditionally seen as less critical.**

The role of soft skills in promotion

Having well developed soft skills is now recognised to be a way for individuals to improve their chances at getting a job, and there is also increasing recognition that soft skills lead to greater success once in the front door. With the average length tenure at a company remaining at 7 years, there is a growing focus on skills needed for employees to progress internally – through promotions or movements across departments.

This focus is also important for businesses: internal promotions and transfers offer benefits over external hires. For example, those who are hired internally bring with them tacit knowledge of the firm and business. Bidwell (2011) found that internally hired staff in all departments of an investment banking firm performed significantly better in performance evaluations than externally hired staff.

Soft skills are becoming key indicators for significant employers. One bank's new performance framework uses a 'behaviours first approach' to ensure professional standards are maintained in every interaction with customers. The program also encourages employees to adopt a 'growth mind set' that places the onus on individual employees to self-manage individual programs and develop their own capabilities required for leadership positions.

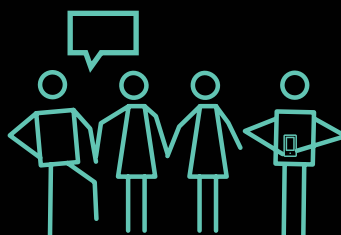
At Deloitte, soft skills are used to differentiate high performing staff ready to move to the next stage of their career. According to human capital partner, Kate McDonald "When we designed our consulting performance framework we reflected on the things that set high performers (at any level) apart – and it came down to very much the 'non-technical' skills." For McDonald, the skills that make the difference in a high performing team include:

- Building relationships based on empathy
- Having intellectual curiosity
- Being comfortable with ambiguity and new experiences
- Demonstrating flexibility when things change
- Developing self and others
- Having strong communication skills
- Seeking to collaborate.

4. How do we perform?

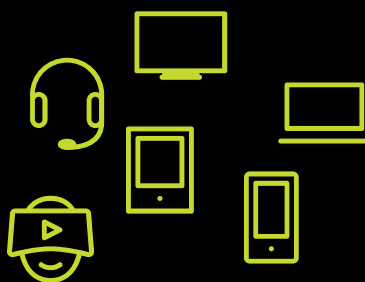
SOFT SKILLS

The 3
most common
soft skills are
communication,
teamwork and
digital skills



6%

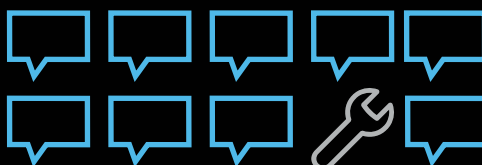
of Australians
have the highest
proficiency in
digital skills



Soft skills are

9x

more likely to
be endorsed
compared to
a technical skill



4. How do we perform?

Evidence on what proportion of Australians have soft skills, which soft skills we have and at what level we have these skills is scarce. There is no consolidated or consistent measurement of all soft skills across the working population. However, a number of different sources have information about attainment of selected skills.

For the first time, this report supplements existing studies with bespoke data from LinkedIn and Workable to provide a more consistent and up-to-date view of the extent to which Australians have soft skills.

Workable is the provider of jobs sites technology platforms and power a significant network of job sites in Australia. It collects data on both employer demand (through job advertisements) and employee skills (through résumés which are provided to the job sites).

For this project, Workable analysed over 175,000 résumés and more than 168,000 job listings across 60 industry sectors to understand the demand for, and supply of, soft skills in Australia.

The supply of soft skills is measured by the proportion of employees reporting that they used a particular soft skill in their most recent role. As individuals may have latent skills which are unused or underused in that role, what is reported by employees on Workable may underestimate the true level of soft skills attainment in the workforce.

However, the data also demonstrates that often people are unsure of their skill levels. Soft skills are under-reported, likely due in part to the absence of a nationally recognised set of criteria against which to compare soft skill levels.

4.1 Attainment of soft skills in Australia

Quantifying the extent to which soft skills are held within Australia is challenging because information about soft skill attainment is limited. However, a number of different sources have been compiled and analysed below.

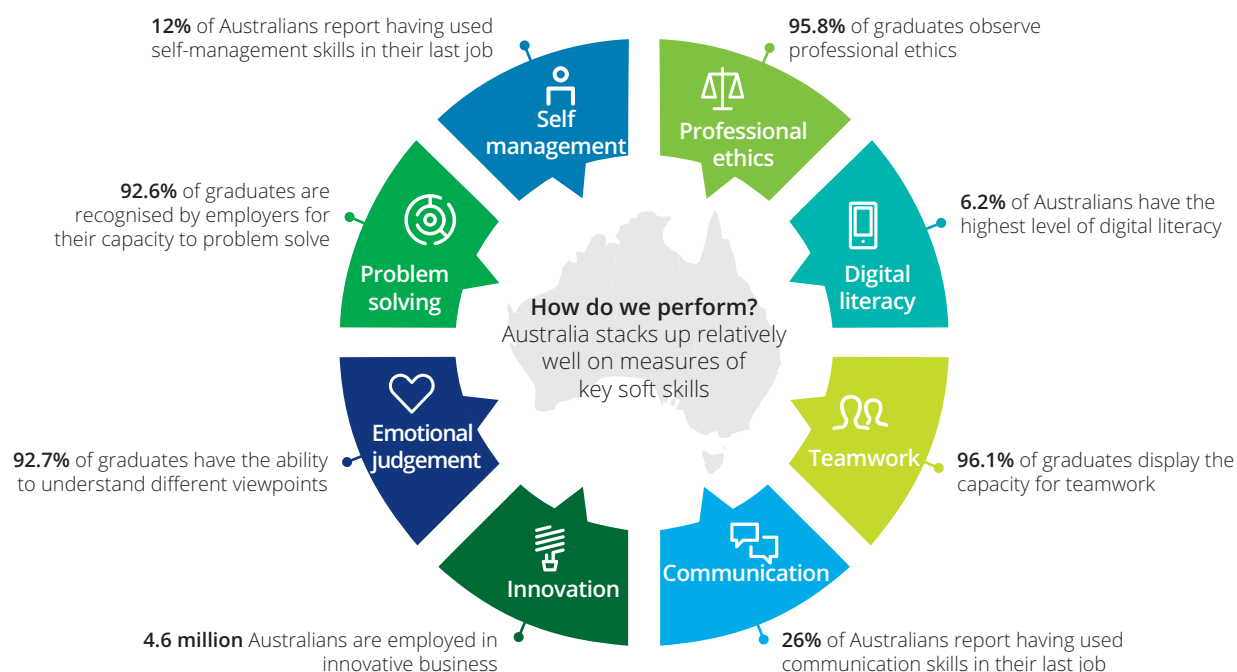
Workable

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Figure 4.1: Snapshot of evidence on soft skills attainment in Australia



Source: LinkedIn data (2017), Oliver et al. (2014), OECD (2015), ABS (2015)

Table 4.1: Measurement of soft-skill attainment

Skill	Workible	OECD	LinkedIn	Oliver et al.	Deloitte Access Economics
Self-management 	✓		✓		✓
Communication 	✓		✓	✓	✓
Teamwork 	✓			✓	
Problem solving 	✓		✓	✓	✓
Digital literacy 	✓	✓	✓		
Critical thinking 	✓				✓
Innovation 			✓	✓	
Emotional judgement 				✓	
Global citizenship 				✓	
Professional ethics 			✓	✓	

Source: Deloitte Access Economics, OECD, LinkedIn custom data request, Oliver et al., Australian Bureau of Statistics, Workible custom data request



4.1.1 Overall soft skill levels in Australia

According to data from Workible, the three most commonly reported soft skills in Australia are communication, teamwork, and digital skills, as pictured in Chart 4.1. More than one in every four Australians report having communication skills; similarly, 23% of Australians report having teamwork skills.

Other skills, such as critical thinking and problem solving, were less common in Workible résumés. Indeed, while Workible did not collect data on innovation and emotional judgement, **less than 1%** of résumés **listed ‘ethical’ or ‘global perspectives and understanding’** (as proxies for professional ethics and global citizenship respectively).

However, given that the data provided by Workible relates to self-reported skills, they may understate the actual level of skills. This might be in part because individuals are not aware of the value employers place on these skills, or be hesitant to list a skill which is more difficult to independently verify. Further, employees may have a skill which they did not use in their most recent role, which would not be reflected in their résumé. As such, it is likely that Workible data understates the actual levels of soft skill attainment in Australia.

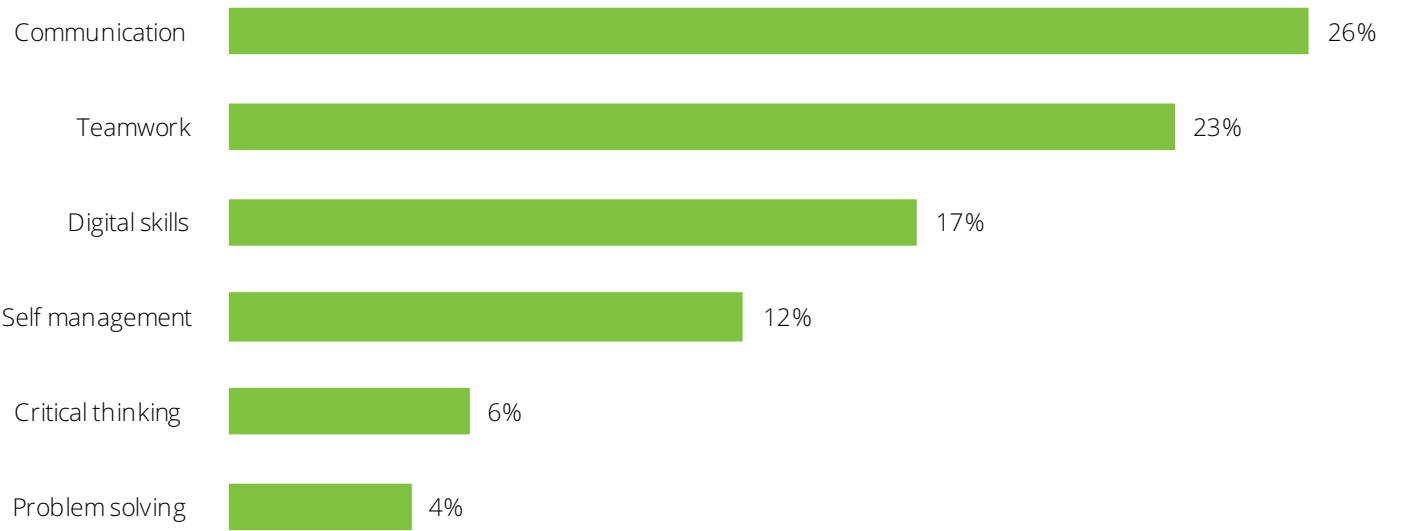
As an indication, an employer survey conducted in 2014 asked recent graduates and their work supervisors whether their training had equipped them with a number of soft skills (Oliver et al. 2014). Over 2,700 graduates and 539 supervisors were surveyed as part of the analysis.

The research found that vast majority of Australian graduates have soft skills. 93.4% of supervisors reported that graduates had good **communication** skills, and 92.6% reported they had the capacity to **problem solve**.

Further, it suggests that graduates have developed **global citizenship** skills, with 92.7% reporting graduates have the ability to understand different viewpoints, 95.8% saying they observe **ethical** standards, and 91.7% reporting graduates are prepared to work in multicultural environments.

Table 4.2 also highlights graduate attainment of **innovation and teamwork**. In all cases, at least 89% of employers felt graduates had these skills, with teamwork particularly developed.

Chart 4.1: Reported soft skills in supply, Workible



Source: Workible custom data (2017)

Table 4.2: Results from the employer satisfaction survey

Proportion answering qualification prepared graduate well or very well	Graduate	Supervisor
Communication (oral and written)	86.5%	93.4%
Capacity to analyse and solve problems	82.7%	92.6%
Capacity to understand different viewpoints	91.0%	92.7%
Observing professional and general ethics standards	N/A	95.8%
Ability to operate in an international or multicultural context	N/A	91.7%
Ability to develop innovative ideas or new opportunities	N/A	89.0%
Collaborating effectively with colleagues to complete tasks	86.8%	94.7%
Capacity for teamwork and cooperation	N/A	96.1%

Source: Oliver et al. 2014

It is important to note some caveats about the employer satisfaction data outlined above. There is a possible bias in the data as the respondents and supervisors are only providing perceptions of their soft skill level that may not be consistent across individuals. The authors also recognise in the study the possibility of selection bias as the participation of supervisors required graduate assistance. This meant that there is a risk that only graduates with strong work performance (and associated soft skills) would agree to assist with supervisor participation in the study (Oliver et al. 2014).

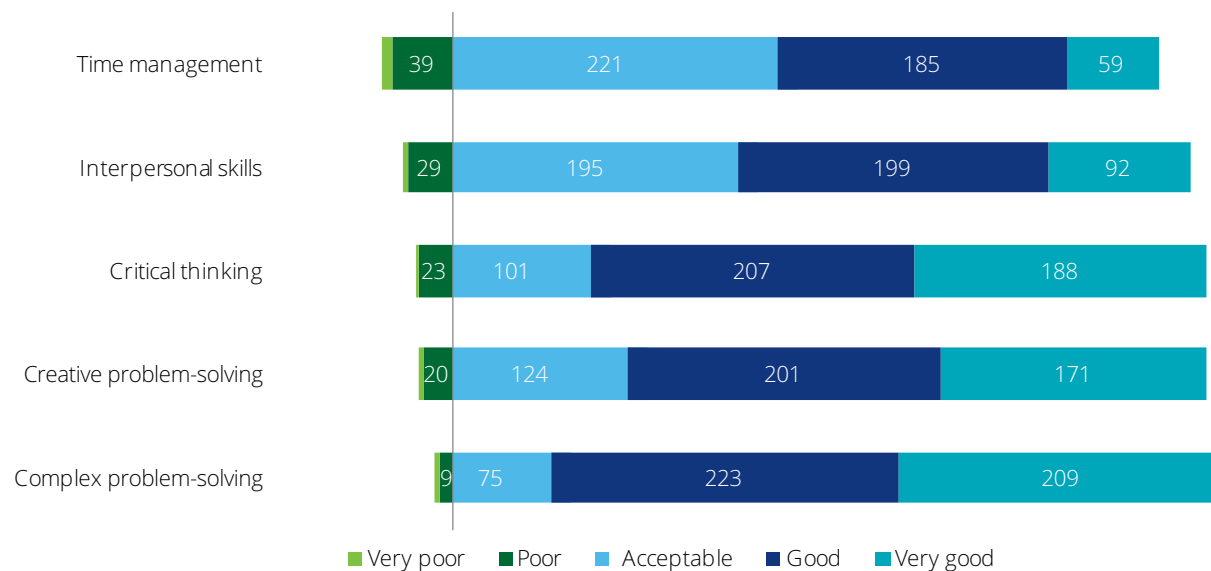
In addition to these potential biases, these proportions cannot be extrapolated from graduates to be representative of the Australian population. Interestingly, graduates felt less accomplished than employers gave them credit for in every instance. This is consistent with the under-reporting of soft skills (discussed in Section 4.2).

Levels of soft skill attainment can vary by industry and type of role. For example, in 2013, Deloitte Access Economics published *Australia's STEM workforce: a survey of employers*; research which involved a survey of 1,065 employers across a range of Science, Technology, Engineering, and Mathematics (STEM) heavy industries.

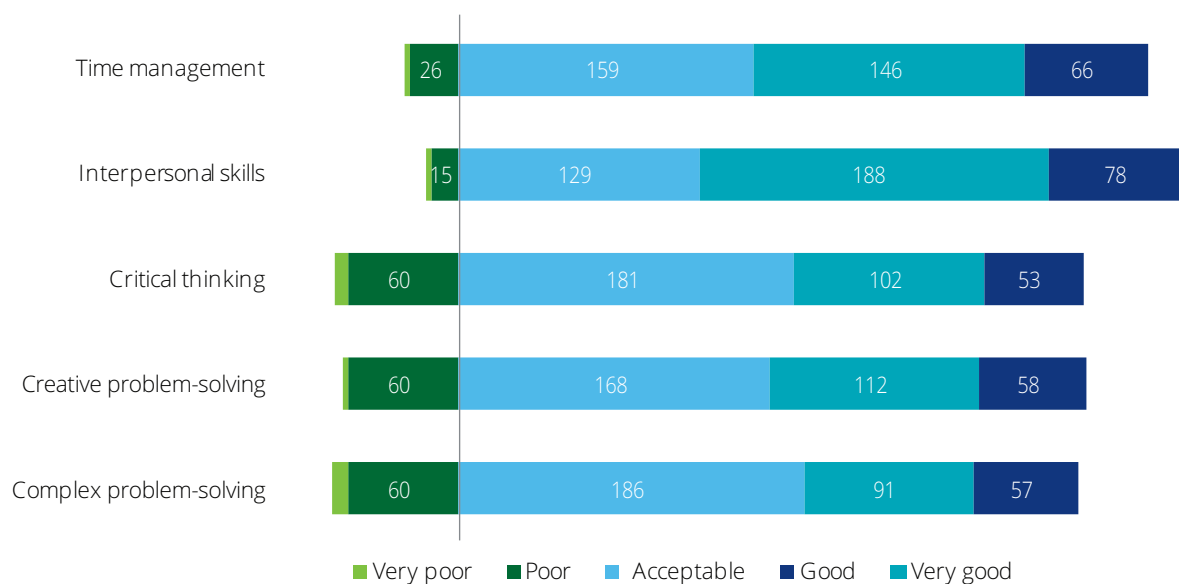
Employers were asked about the skills of both STEM and non-STEM staff including soft skills like **communication** (interpersonal), **self-management** (time management), **critical thinking**, and **problem solving skills** in the workplace.

Chart 4.2 shows employers felt that their STEM employees demonstrated a range of soft skills, with a relatively small proportion saying that skills were poor or very poor.

On the other hand, these employers thought that non-STEM staff within their organisations were much more likely to perform poorly on problem solving or critical thinking, as shown in Chart 4.3.

Chart 4.2: Soft skills of STEM workers in STEM industries

Source: Deloitte Access Economics (2013)

Chart 4.3: Soft skills of non-STEM workers in STEM industries

Source: Deloitte Access Economics (2013)

4.1.2 International comparisons

Data from the OECD also suggests that Australians have relatively strong digital skills. Looking at how Australia rates against the rest of the world, the OECD examined skill levels around the world through a global survey of 215,000 adults from 33 countries in 2016. Digital literacy (or problem solving in technology-rich environments) was measured for each country, with people classified into levels of digital proficiency (Level 3 being the highest).

Table 4.3 shows the attainment of digital literacy among Australians. Just over 6% of the population displayed the highest level of proficiency, compared with the OECD average of 1.9%. Digital literacy is higher amongst Australians than the OECD average, as well as the UK and the US.

LinkedIn data paints a similar picture – Australians have high soft skill attainment levels compared with other countries. Australians are three times more likely to list **problem solving** as a skill on their LinkedIn account than the global average, suggesting higher attainment. Similarly, they are more than twice as likely to list **digital literacy, innovation, and communication** as the average, and almost twice as likely to include **self-management and professional ethics**.

Table 4.4 shows how Australia compares to similar countries. The global average is set to 1, so it can be seen that Australia scores above the average in a number of soft skills. However, beyond that, Australia rates higher than Singapore, the US, and the UK in soft skills as well (the exception being professional ethics).

Clearly, Australians are more proficient in some soft skills, such as communication and teamwork than in others, such as critical thinking and problem solving. However, a comparison with the level of skills demanded by employers suggests that there is a broader soft skills gap in industries across the board. This is discussed in the next chapter.

Table 4.3: Digital literacy in OECD countries

Level	Australia	UK	Singapore	US	OECD Average
Below Level 1	9.2%	15.1%	12.5%	15.8%	14.2%
Level 1	28.9%	33.9%	28.7%	26%	25.7%
Level 2	31.8%	29.3%	29.3%	26%	25.7%
Level 3	6.2%	5.7%	7.7%	5.1%	1.9%

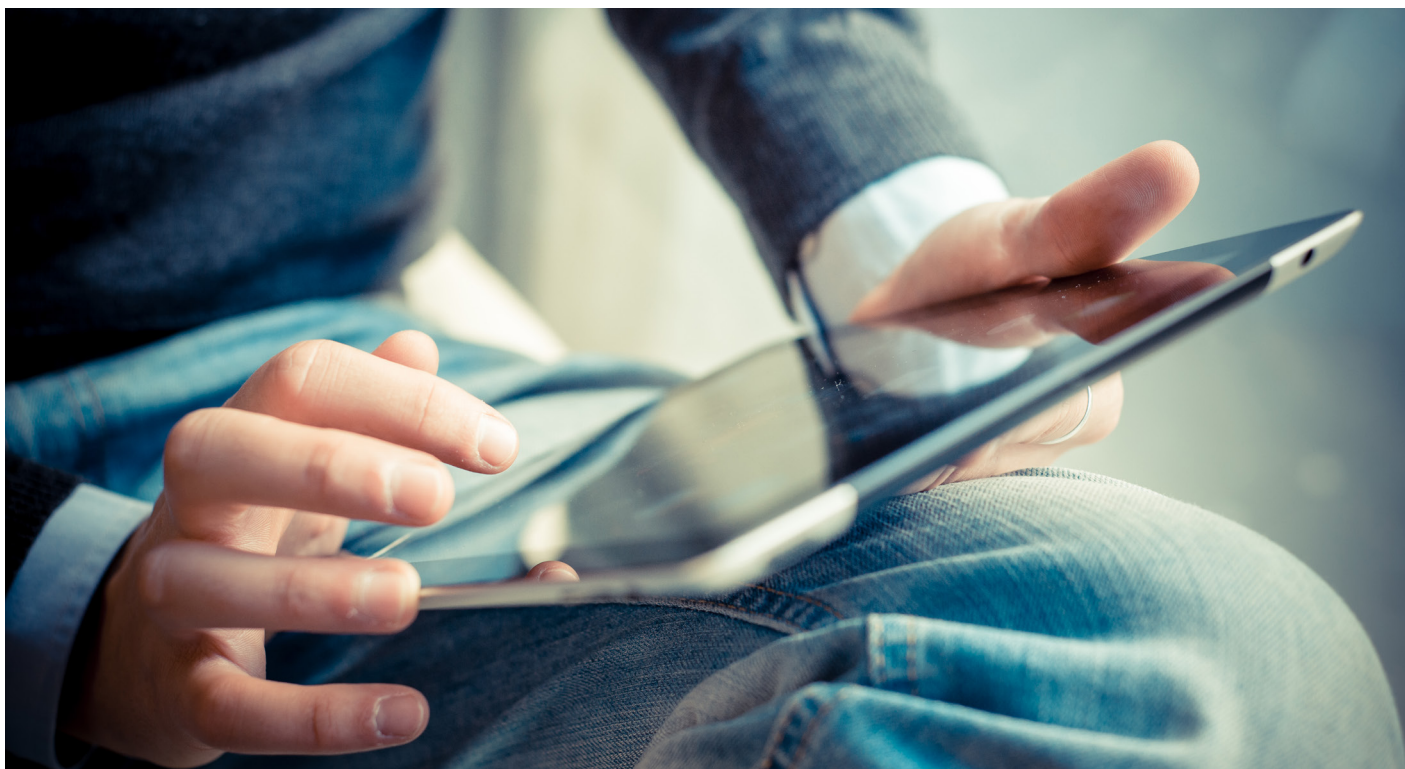
Source: OECD (2015)

Table 4.4: Prevalence of soft skills on LinkedIn profiles (global average normalised to 1)

	Australia	Singapore	UK	US
Problem solving	3.1	0.0	1.2	2.1
Digital literacy	2.5	2.0	1.6	2.1
Innovation	2.1	1.2	1.4	1.8
Communication	2.1	1.3	1.7	1.7
Self-management	1.9	1.5	1.6	1.8
Professional ethics	1.9	2.3	1.6	1.9

Source: LinkedIn customised data, 2017





4.2 Under-reporting of soft skills

Although the data shows that Australians do have soft skills, this comes largely from indirect sources (such as employer surveys and ABS business statistics). When asking people directly about skill levels, they will report technical skills and professional qualifications, but LinkedIn data shows that very few report soft skills.

Less than **1%** of Australian LinkedIn profiles list soft skills and capabilities such as communication and problem solving. This is similar to other countries such as the United States, the United Kingdom and Singapore.

Workable data tells a similar story. Although soft skills like communication and teamwork are more commonly reported in Workable résumés, there are still gaps in reporting – for example, only 4% of workers list problem solving skills.

The most likely explanation is that people are not confident in assessing and reporting their soft skills. This is certainly the case amongst graduates; as discussed above, graduates' self-assessments of their soft skill attainment were lower than employer reported attainment for every skill in the Oliver et al. survey.

A lack of formal, independent credentials which verify these skills could play a role in this under-reporting. Individuals may choose not to report a skill because they feel that their assessment is subjective and cannot be verified.

Another possibility is that Australian employees underestimate the value that employers place on soft skills, leading to a misconception that they are less important and should not be included.

Alternatively, employees may think some skills (like ethical practice or digital literacy) are a given, or be unfamiliar with the names of soft skills like critical thinking and innovation.

LinkedIn data also shows that soft skills are more likely to be endorsed than technical skills. In Australia, soft skills are **nine times** more likely to be endorsed compared to a technical skill. This means that people should report having these skills, so there is a question as to why they do not.

5. The soft skills gap

SOFT SKILLS

1/4

of employers have difficulty filling entry-level vacancies because applicants lack soft skills



3/4

organisations report a workforce skills gap



Communication

skills are in most short supply



5. The soft skills gap

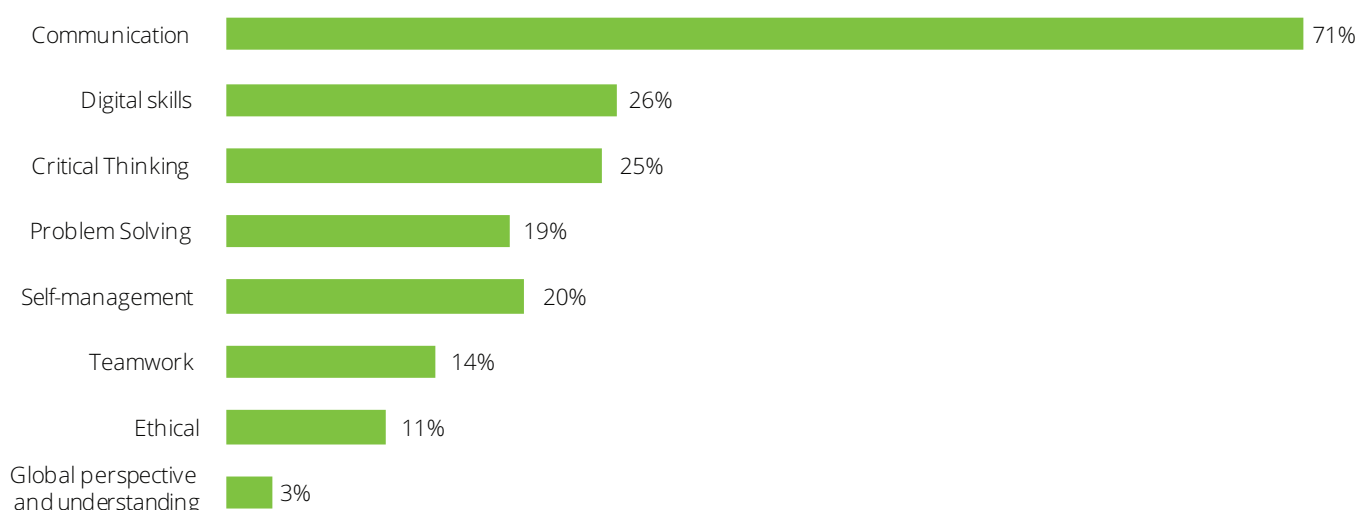
Soft skills are in demand. Recognising the importance of soft skills, businesses regularly advertise for staff with specific soft skills.

For example, nearly three in every four jobs advertised with the Workible network list communication skills as a requirement, as pictured in Chart 5.1. This demand is ubiquitous across industries – communication skills are ranked in the top three most demanded soft skills across all industries covered by Workible.

Soft skills are clearly important for all occupations and industries. Yet outside of communication skills, the importance of individual skills varies across industries and roles, as shown in Table 5.2.

For example, Workible data shows that critical thinking is over six times as likely to be listed in a job advertisement for science as in sport, fitness and recreation. Creative skills, which could be a measure of innovation at an individual level, was requested in 61% of marketing and communications roles but only in 2% of accounting jobs.

Chart 5.1: Demand for soft skills, Workible



Source: Workible

Table 5.2: Top five skills demanded by industry, Workible

Industry	Top ranked soft skill	Second ranked soft skill	Third ranked soft skill	Fourth ranked soft skill	Fifth ranked soft skill
Mining and resources	Communication	Critical thinking	Problem solving	Digital skills	Self management
Marketing and communications	Communication	Digital skills	Critical thinking	Self management	Problem solving
Nannies and babysitters	Ethical	Self management	Communication	Problem solving	Critical thinking
Creative media and arts	Digital skills	Communication	Critical thinking	Self management	Problem solving
Medical and health care	Communication	Self management	Problem solving	Critical thinking	Digital skills

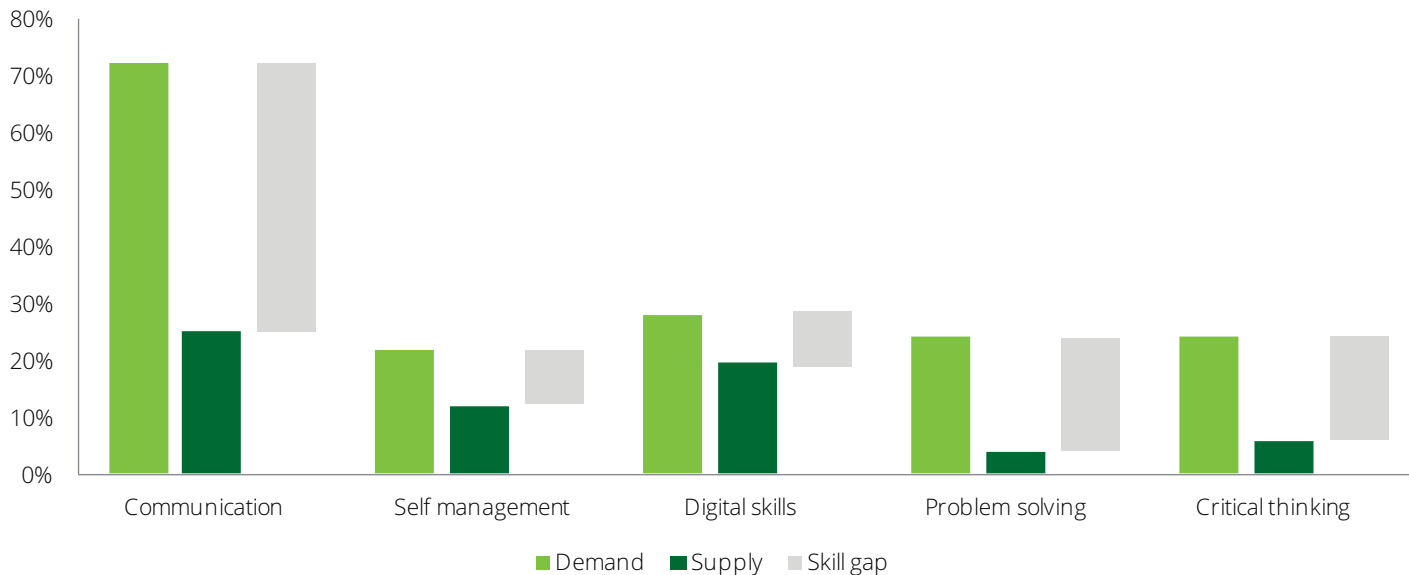
Source: Workible

Yet there appears to be a shortage of these skills. A survey by the Department of Employment found that **one quarter of employers recruiting for entry level positions have difficulty filling vacancies because applicants lack employability skills** (Department of Employment 2016).

Even at an individual soft skill level, there are significant gaps between soft skill demand (measured through job advertisements) and soft skill supply (measured through résumés). With the exception of teamwork, every soft skill for which both demand and supply data are available through Workable lists a shortage, as pictured in Chart 5.2.



Chart 5.2: The soft skills gap



Source: Workable

Despite being the most commonly listed soft skill, **communication skills remain in most short supply**, with a 45 percentage point difference between demand (71%) and reported supply (26%).

Workable data also shows that there are **skills shortages in self-management, digital skills, problem solving and critical thinking**. Teamwork is the only skill that is in higher supply (23%) than what is demanded (14%). As insufficient data was available on emotional judgement, innovation, global citizenship and professional ethics, it is difficult to assess the extent to which skills shortages may be present in these individual soft skills.

The need for soft skills is even more prominent in leadership positions. A survey of 3,700 business executives and managers from organisations around the world in digital firms found that soft skills were more important for determining the success of a leader than technical knowledge. When asked about the most important skill for leaders to succeed in a digital environment, only 18% of respondents listed having technical knowledge, compared to 22% of respondents who thought that having **problem solving and collaborative skills** were more important (Kane et al., 2016).

The increasing importance of soft skills as roles become more senior is also highlighted in data from Workable. Specifically, **problem solving skills** are listed as a requirement for C-level and management roles in 38% of cases, more than twice as often as for office administration and support roles (17%). As employees work up the ranks, soft skills only become more important. For decisions makers, having the ability to effectively **communicate, problem solve, and think critically** is important for success.

Research by the Victorian Department of Education and Training found that of 5,700 businesses surveyed, nearly one third identified a lack of skills within their businesses now or within the next 12 months. Of these, just under half reported soft skills as a skills shortfall, second only to job specific technical skills (Department of Education and Training Victoria 2015).

Similarly, the Australian Institute of Management conducted a survey of over 2,000 managers around Australia and 76% confirmed they had a workforce skills gap in their organisation (Australian Institute of Management 2009). And soft skills are a large part of those skills in short supply with a third of all respondents identifying a communication and interpersonal skills gap in their organisations.

Soft skills specifically are repeatedly identified as in-demand and in short supply. A LinkedIn survey revealed that 69% of HR decision makers in Australia and New Zealand find it difficult to fill leadership roles. The top reason cited for this difficulty was a lack of soft skills (45%) amongst applicants (LinkedIn 2016). According to Workable data, there is a deficit in leadership skills specifically. One-third of roles ask for leadership qualities but only 17% of potential workers state having leadership skills.

Each of these surveys asked respondents what the major impacts of these shortages were. The answers are summarised in Table 5.3 below, with the common themes being increased pressure on existing staff, a decline in product/ service quality, and a reduction in innovation within businesses.

Leadership skills developed at BSchool

BSchool is a training provider that fosters leadership and entrepreneurial skills in business owners and management teams. Co-founder, Ryan Trainor explains that “BSchool began when we started to ask industry and businesses what they needed in their leaders. And we found that the most common requirement across the board was future skills”.

While technical skills will always be necessary, intra and interpersonal skills will become increasingly necessary for success, especially for leaders. According to Trainor, “you can think of individuals like computers. We can easily ‘download programs’ or gain technical skills. But what enables you to adapt a wide range of skills is your soft skills – it’s the operating system which scaffolds everything else.” This will be increasingly important as the half-life of formal qualifications is becoming shorter, for example software engineers must redevelop skills every 12-18 months (Deloitte 2017).

Yet it is vital that organisations are measuring and reporting the levels of these future skills. Formal qualifications, like degrees, enable individuals to reveal their technical skills, but there are less people who can formally verify their future skills. BSchool co-founder, Lincoln Trainor explains “I have a background in the military, where you wear your skills on your sleeve – your ranks and badges mean that everyone around you can instantly understand what skills you have. However, in the business world, we don’t have these explicit signals. It can take a long time for an employer, colleague or client to understand what you bring to the table.”

Table 5.3: The impacts of skills shortages

Largest impacts	Department of Education and Training	Australian Institute of Management	LinkedIn
1	Increased workload for other staff	More stress on employees	Loss of employee engagement/morale
2	Difficulty in meeting quality standards	Lower staff morale	Decline in innovation
3	Loss of business or orders to competitors	Losing some high performing employees	Decline in collaboration
4	Delays in developing new products or services	Reduction in customer service standards	Inability to meet current clients' needs
5	Withdrawal of certain products or services	Impact on profits/performance goals	Increase in employee turnover

Source: Victorian Department of Education and Training (2015), Australian Institute of Management (2009), and LinkedIn (2016)

Work by the Foundation for Young Australians (FYA) into skills required by young people shows the extent of the demand for soft skills in the Australian economy. The FYA analysed 4,600 skills requested by employers across 2.7 million job advertisements, and from this grouped jobs into 7 new 'job clusters'. Each of these clusters has a set of skills that are required, and each of the 7 clusters reference the need for specific soft skills such as communication skills, teamwork, problem solving, and digital literacy. This analysis highlights the strong demand for soft skills: soft skills were requested by employers across all 7 job clusters identified by the study.

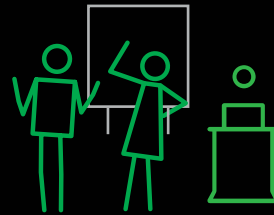
Demand for soft skills is evident in this literature, and is set to only increase in the future. As the labour force becomes more mobile and competitive, and the demand for services grows, soft skills will become ever more important in the economy.

6. Developing and credentialing soft skills

SOFT SKILLS

82%

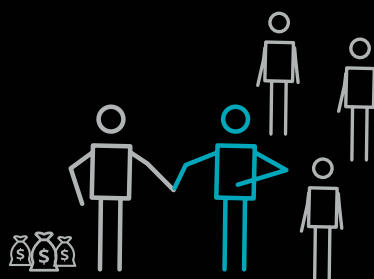
of employers provide structured or informal training



Recruiting for candidates with the right skills costs

\$7 billion

annually



Businesses spend

\$4 billion

on training and developing employees every year



6. Developing and credentialing soft skills

It can be difficult for businesses and individuals to objectively assess skill levels. Individuals tend to overstate their own abilities – of one million American students, 85% rated themselves above average in their ability to get along with others (Alicke and Govorun 2005). And employers and recruiters may be subject to unconscious biases – for example, thinking that people with English as a second language have poorer communication skills.

One solution to this problem is signalling – independent accreditation and/or qualification processes which allow businesses and individuals to objectively assess an individual's skills. Yet credentials for soft skills are just beginning to emerge.

These processes often involve training programs that focus on learning inputs such as hours spent in learning or a comprehension test at the end of a course. This is the route often taken by systems as seen in the box in Chapter 2 on soft skills in the education system.

Yet developments affecting work mean that it has become unrealistic to develop the necessary skills at the beginning of a career, especially as career spans are lengthening (The Economist 2017).

An alternative model that concentrates on learning outcomes is offered by DeakinCo. Rather than focus on developing the soft skills themselves, DeakinCo. provides independent assessment of soft skills that have been demonstrated in practice by applicants as well as reflection on their experience using that soft skill (Bowles and Lanyon 2016). This provides additional assurance that the holder of the credential has proficiency with the skill and awareness that can encourage use in varied settings.

The benefits of credentials for soft skills do not only accrue to the individuals but also to businesses. Assessing individual skills is difficult – and employers place a high premium on getting it right.

We estimate that **businesses spend \$7 billion annually** on recruitment. This figure is based on a report by the Society for Human Resource Management and adjusted for inflation (as cited by Masud 2012).

And the costs of hiring someone with the wrong skills can be large. A survey by Robert Half found that one third of 1,400 US executives surveyed felt the top factor for a hiring failure was a poor skills match (Robert Half 2011). And the cost of **replacing a bad hire** six months into the job will still cost **two and a half times the person's salary** (Yager 2017). This estimate does not include the lower productivity from the employee or the impact on staff morale for other staff.

Beyond providing a tool for assessing promotions and recruitment, credentials for soft skills could also help businesses more effectively allocate and evaluate its training programs.



On the job training – whether it be through workshops and courses, e-learning or traineeships – is important to teaching both technical and soft skills. In 2003, the Australian Bureau of Statistics found that **81% of employers provide structured or informal training** for staff.

And this training can be costly. Looking at intermediate uses of education services by all industries, we estimate that Australian businesses, governmental and non-governmental organisations spent **\$4 billion on training** in 2016, or roughly **\$300 per employee**² (ABS 2016b). This is even higher in recent studies in the US where in 2014 the average cost of direct learning expenditure was **\$1,208 per employee** (Association for Talent Development as cited by Miller 2014).

Without a measurement of soft skills, it is difficult to assess the effectiveness of training, and the return on investment for businesses. Credentialing offers a route for employees to demonstrate their attainment of soft skills that can be used to measure the impact of training. The benefits to businesses from credentials for soft skills are two-fold. Firstly, recruitment processes can be made more efficient as credentials allow recruiters to pre-screen potential candidates for desired soft skills. Just as technical qualifications signal the technical expertise of a candidate, soft skill credentials provide employers with a standard measure of attainment across cohorts. Secondly, more targeted recruitment for soft skilled candidates can allow businesses to make savings in training and developing their workforce later on.

Developing soft skills on the job

Businesses often underestimate the importance of soft skills in ensuring day-to-day operations are effective, according to Arun Pradhan, a senior learning and performance consultant at DeakinCo.

Pradhan describes how “many companies come to us thinking they have a problem with their staff’s technical skills. But, when we dive deeper, we often uncover a disguised soft skills problem.” For example, Pradhan describes a situation where an internal IT support team wasn’t meeting business’s needs. “On face value it presented as a gap in technical skills, but the underlying issues were their inability to work in a complex team and weak communication skills when engaging stakeholders.”

When considering how to address such challenges, Arun points to the vast difference between an academic understanding of a soft skill and the ability to apply it. He explains “improving soft skills goes beyond formal training, which tends to focus on ‘knowledge’ over deep skill.”

This can be particularly important for recently promoted managers. According to Pradhan, “internal staff are often promoted to people leader roles because of their technical expertise or ability to achieve individual success.” But leadership and management can require a broader skillset. “New managers quickly need supported opportunities to develop and apply the advanced communication, teamwork and problem solving skills required to lead their teams.”

This improvement in leadership could bring broader benefits for the Australian economy. A Deloitte Access Economics report, *Businesses of Tomorrow* (2016), found that halving the gap in management effectiveness between Australia and the world’s best could mean a \$70 billion boost to our economy.

Arun believes that credentialing soft skills can improve the ability of businesses to develop their team. “Credentials can provide employers with robust insights into soft skills capabilities which will allow businesses to take a more scientific approach to evaluating skills gaps, recruitment, and training requirements. In that sense, credentials for soft skills are part of a broader data driven movement in human resources and corporate learning.

² This spending reflects the use of technical, vocational, tertiary, arts, sports, adult and community education services by industries, including government departments and agencies. This does not include final government or household consumption expenditure on education.

Conclusions

Soft skills are clearly important for businesses to achieve success through greater revenue, accessing new customers and lower employee turnover. Skills associated with collaboration such as team work, communication and problem solving and innovation have significant financial benefits for the business as employees who used these skills may be worth \$2,000 more per year to the business.

There is only a patchwork of evidence of soft skill attainment. The evidence we do have suggests that the Australian workforce have these capabilities to some extent. However, much of this data is based on self-assessment or with no clear assessment criteria.

Employers are looking for candidates with these skills more than ever before. For One quarter of all surveyed employers recruiting for entry level positions have difficulty filling vacancies because applicants lack employability skills.

These skills are also in demand for those applying for leadership roles. A LinkedIn survey revealed that 69% of HR decision makers in Australia and New Zealand find it difficult to fill leadership roles. The top reason cited for this difficulty was a lack of soft skills (45%) amongst applicants (LinkedIn, 2016).

This demand for soft skills is expected to increase. Soft skill intensive occupations are growing 2.5 times more quickly than more other occupations. They also outnumber more technical roles and by 2030 are expected to account for two thirds of all jobs in the economy.

Given the importance of soft skills in improving business performance, we need to focus more on soft skills and continue to build the evidence base.

Part of this is about comprehensively and objectively measuring attainment of soft skills in Australia. This is important with \$4 billion per year spent on training and \$7 billion spent on recruitment each year by business. This total of \$11 billion in annual expenditure on business training and recruitment could be spent more effectively if employers could better assess soft skills, and if candidates and employees could track their own development. Objectively measuring soft skills would allow businesses to identify gaps in their organisation and make strategic decisions about how to invest effectively in building our capabilities in years to come.

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Appendix A: Soft skills productivity dividend

The productivity dividend of almost \$2,000 per employee from increased soft skills is based on data from a survey for the Deloitte Access Economics report, The Collaborative Economy (2014). Both employees and managers of organisations who collaborated were asked to provide an estimate of their weekly time savings that were derived from working in a team. Respondents were asked to also provide estimates of activities that wasted time while collaborating.

The net effect time savings figure was multiplied by the average hours that managers and employees spent collaborating per week. To get a dollar value, the net time savings were multiplied by the average salary for employees and employers respectively as an indicator of market value. This led to an estimate of per week savings for employees and managers. This figure was adjusted for inflation to bring the figure to current value terms.

Collaboration was considered a proxy variable for soft skills in general as it was assumed to be highly correlated with other soft skill variables. Skills such as communication, problem solving, and digital literacy are likely to be highly correlated with the amount of collaboration. No specific employee that is highly skilled teamwork or is involved in teamwork often is not likely to have all the soft skills to the same level. However, on average, employees that collaborate well will on average have a higher level of these skills than employees that are not often using teamwork skills.

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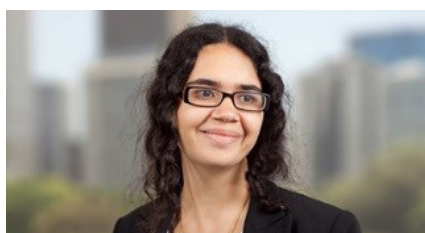
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