



DEAKINCo.

# THE BUSINESS RETURN ON LEARNING AND DEVELOPMENT

March 2022

Prepared with  
Deloitte Access Economics

# CONTENTS

<b>Executive summary</b> .....	<b>1</b>
<b>1. Introduction</b> .....	<b>5</b>
1.1 This report .....	8
<b>2. Impact of COVID on Learning and Development</b> .....	<b>9</b>
2.1 Ways of working and rapid digitalisation .....	10
2.2 The current state of L&D and the impact of COVID-19 .....	12
Learning and Development best practice: Bupa .....	16
<b>3. Identifying and unpacking Australia's learning organisations</b> .....	<b>17</b>
3.1 The framework.....	18
3.2 The current state of play .....	20
3.3. How does this compare to how organisations think they're tracking? .....	24
3.4 What actions can businesses take to improve their learning maturity? .....	26
<b>4. The ROI from learning and development</b> .....	<b>31</b>
4.1 Examining the impact of L&D on organisational performance .....	34
4.2 Incentives to undertake L&D.....	36
<b>5. Future Force: future skill needs and the role of L&amp;D</b> .....	<b>37</b>
5.1 Changing skills needs for businesses.....	38
Future state key theme: the four-day work week .....	40
5.2 Building skills through L&D.....	42
<b>References</b> .....	<b>44</b>
<b>Appendix A: Technical Appendix</b> .....	<b>46</b>
A1. Business survey .....	46
A2. Learning maturity framework.....	48
A3. Econometric modelling .....	48





1

# EXECUTIVE SUMMARY

## **From dealing with Australia's first recession in 30 years, to adapting to working from home, and mitigating supply chain disruptions driven by closed borders, it's clear that businesses have faced unprecedented challenges since the onset of COVID-19.**

Among these is the obstacle of finding and retaining key talent, with job vacancies rising by almost 19% quarter-on-quarter in November 2021.<sup>1</sup> Set against this context, addressing skills shortages and building capability has now become more urgent. Yet, the impact of border closures is unprecedented with Australia historically relying on its migration program to meet skills demands. And while migration is starting to flow back, strong international competition and a significant backlog of skill needs mean the war for talent remains acute.

Learning and development (L&D) can play a critical role in addressing skills shortages within businesses, by upskilling and reskilling workers to better meet current demand. Not only does this reduce Australia's reliance on finding additional workers and alleviate current business pressure, it can also create a more flexible and resilient labour force that is able to adapt to rapidly changing skills needs.

L&D can be defined as the process through which employees are empowered with specific skills to deliver better business performance. It covers a wide range of both formal and informal training activity – from targeted skills programs, to mentoring and coaching, short courses, online seminars, credentialing, on-the-job shadowing, and much more.

L&D can deliver a range of benefits for employees and businesses. For example, research has shown that L&D can lead to increased profits, higher customer engagement, better staff retention, improved employee engagement and fewer safety incidents.<sup>2</sup> In the current climate of staff shortages and rapid digitisation, it can help Australian businesses navigate the complex set of challenges that have emerged during the COVID-19 pandemic.

Yet, while most businesses undertake L&D to some degree, the commercial benefits are not easily quantified. Without an understanding of the return on investment (ROI), it can be difficult for businesses to assess the costs and benefits of adopting a L&D program, leading to an underinvestment in learning. At the economy-wide level, this could slow down Australia's recovery if businesses cannot access the skills they need in the job market, and do not invest enough to build these skills internally.

This report seeks to understand the current state of L&D in Australia and quantify the value of L&D for organisational performance, drawing on bespoke survey data. It builds on previous research by Deloitte Access Economics for DeakinCo. which examined the role of soft skills for business success.

Data for this report draws on a survey of 206 business leaders and HR professionals across Australia with 200 or more employees. The survey covered a range of topics including expenditure on training and types of training offered, impacts of COVID-19 on training (e.g. on the mode of delivery of training and training effectiveness), as well as business perceptions of key barriers and benefits of L&D more broadly. The survey includes businesses from a range of different industries and regions across Australia.





Survey data found that Australian businesses invested \$2,500 per employee on training on average in 2021. The most common types of training implemented by businesses include mandatory compliance training (comprising 29% of all training activity), on-the-job formal training initiatives (25%), and coaching and mentoring (20%).

The most common benefits of training cited by businesses in the survey include increasing employee productivity (selected by 47% of businesses), upskilling and reskilling staff (44%) and improving employee retention (38%). In contrast, difficulties associated with COVID-19 and a lack of time were identified as the top barriers to implementing L&D – selected by 47% and 45% of businesses respectively. Despite the challenges of implementing L&D during COVID-19, business investment in L&D per employee during this time remained stable – falling by just 1% in 2020-21 compared to the year prior.

Successful businesses invest in L&D as it improves employee productivity and provides a platform for business growth.<sup>3</sup> But more than half (51%) of businesses surveyed suggested they wanted better evidence on the extent of benefits of training for organisational performance. **Based on bespoke economic modelling, this report finds that on average a 1% increase in L&D expenditure per employee is associated with an 0.2% increase in business revenue in the same year. In dollar terms, this is equivalent to every \$1 invested in L&D per employee being associated with an additional \$4.70 in business revenue (per employee).**

We understand L&D may be associated with higher business revenue per employee for various reasons. For example, L&D could help teach employees new skills, enabling them to do their work more efficiently.

L&D may also help businesses become more innovative, enabling them to provide new services or different products and reach new customers. But successful businesses may also be more likely to reinvest in training, so the relationship runs both ways.

Indeed, precisely measuring the relationship between L&D and business performance would require a time series of data, to understand how changes in L&D affect changes in business performance over time.

Beyond productivity benefits, research suggests that investing in L&D can lead to better staff retention and improved employee engagement,<sup>4</sup> with many employees taking it as a sign that their employer cares about their development.

Importantly, business investment in L&D and the types of training offered by businesses varies significantly. This report seeks to identify those businesses at the forefront – known as learning organisations. In this report, learning organisations are defined as businesses that invest in their people through L&D activity and can effectively acquire and share knowledge, while also adapting their behaviour in response to what is learnt in their business.

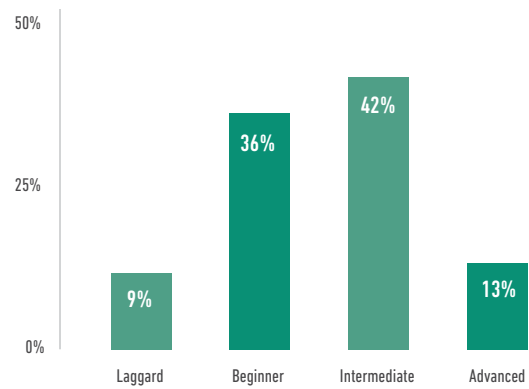
Being a learning organisation is not just dependent on how much a business invests, but rather covers a range of different factors including having a learning strategy, developing a learning culture, tracking and measuring returns to training and having the tools and technology to support training. To better understand what leading businesses are doing, this report develops a framework which has been applied to the survey results to understand the key features of learning organisations, based on 13 unique indicators.

The results of this modelling revealed that at least 87% of businesses in Australia could do more to enhance their L&D, with just 13% of businesses classified as Advanced learning organisations (Chart i). Of the 87% who were not Advanced learning organisations, 9% were classified as Laggards, 36% as Beginner, and 42% as Intermediate learning organisations.

With a significant proportion of businesses not classified as Advanced learning organisations, this suggests many Australian businesses aren't deriving the full scope of benefits associated with L&D. For example, when comparing an organisation's learning maturity and average attrition rate across businesses in the survey, this report found that Advanced learning organisations reported an average attrition rate of 14%, compared to almost 25% for Laggard organisations – 1.8 times higher.

Investment in L&D is growing, with businesses expecting the amount of training completed by employees to increase by 19% on average this year compared to pre-COVID levels. Based on our analysis of leading businesses, this report identified the top four actions a business can take to further develop their learning maturity and maximise the associated benefits (Figure ii).

Chart i: Learning organisation maturity, by category



Source: Deloitte Access Economics

Figure ii: Actions for businesses to improve their L&D



Source: Deloitte Access Economics



1

# INTRODUCTION



**Even before the onset of COVID-19, businesses were grappling with rapidly changing skills needs. Advances in technology (alongside increasingly service focused industries) were driving a spike in demand for soft skills and other skills that are difficult to automate, such as communication and leadership, while repetitive, manual tasks were increasingly being automated.<sup>5</sup> In fact, in previous research commissioned by DeakinCo., Deloitte Access Economics estimated that two-thirds of all jobs would be soft-skill intensive by 2030.<sup>6</sup>**

After operating in a COVID-19 disrupted world for more than two years, businesses are now facing new changes and challenges. The Australian economy has been severely disrupted, with businesses navigating the aftermath of Australia's first recession in 30 years. COVID-19 has permanently impacted where, and how, businesses work through remote and flexible work; and many businesses have had to grapple with intense workforce and skills shortages exacerbated by closed borders. The latest data from the ABS shows that net overseas migration has fallen by 88,700 in the year to June 2021, compared to the 241,300 added in the year to June 2019.<sup>7</sup> In a survey of Australian CFOs by Deloitte, 93% reported that difficulty in securing and retaining key talent was a key risk to their business through 2022.<sup>8</sup> Separately, in a survey of Australian businesses by NAB, a record 85% of Australian businesses reported that staff shortages were holding back their ability to operate at full capacity.<sup>9</sup>

Not only do these changes impact the types of skills businesses need, but also the urgency with which they need them. Determining how businesses can address skills shortages, build capability, and adapt to workplace changes is therefore now more urgent than ever.

Learning and development (L&D) plays a critical role in addressing skills shortages within businesses. L&D can be defined as training and learning activity within businesses, which can enhance an employee's skills, knowledge, and performance. L&D covers a wide range of both formal and informal training activity, such as mandatory compliance training (such as OH&S and onboarding training), targeted skills programs such as weekly skills training, paid or subsidised study leave, mentoring and coaching, online seminars (either delivered by internal or external L&D teams) as well as short courses, credentialing, shadowing and more. Importantly, L&D can play a key role in helping to build employee's skills and grow the capability of staff.

Most businesses recognise the benefits of L&D in improving productivity and employee performance at a high-level and provide some form of training to staff. For example, a survey by TAFE NSW in 2018 found that NSW businesses spent an average of \$1,685 per employee on training and development.<sup>10</sup> Yet, whether businesses are investing in effective L&D is an entirely different question. L&D is about more than just meeting mandatory training requirements such as onboarding, or occupational health and safety (OH&S). Effective L&D is about upskilling or reskilling employees to empower them to deliver the most value to the business while also creating a learning culture which promotes continuous and ongoing learning.

## EFFECTIVE L&D IS ABOUT UPSKILLING OR RESKILLING EMPLOYEES TO EMPOWER THEM TO DELIVER THE MOST VALUE TO THE BUSINESS WHILE ALSO CREATING A LEARNING CULTURE WHICH PROMOTES CONTINUOUS AND ONGOING LEARNING.

Importantly, businesses which put L&D at the core of their business, are **learning organisations** – those at the forefront of learning and investing in their people. Learning organisations go beyond providing the bare minimum of mandatory training and incorporate L&D into multiple aspects of their business strategy, planning and culture.<sup>11</sup>

While most businesses invest in L&D, the benefits for business performance can be difficult to quantify. Furthermore, some benefits (such as attracting new talent, retaining existing talent and improving employee engagement) are often not immediately obvious and can be difficult to directly attribute to an organisation's L&D.<sup>12</sup> Without a deep understanding of the value that L&D can provide, businesses could forgo investment and miss out on the range of associated benefits.

This report draws on data from a range of sources including a bespoke survey of 206 businesses in Australia, publicly available data such as the Australian Bureau of Statistics (ABS), and a broad literature review, to understand the following:

- what the current state of L&D is in Australia, including classifying businesses based on their learning maturity. We developed a bespoke framework covering the four key pillars of strategy, culture, measurement, and structure to categorise business. These pillars were identified based on broad desktop research and applied to the business survey to understand how Australian businesses are currently performing.
- what the value of investing in L&D is for business performance. This analysis involved a broad literature review as well as econometric modelling drawing on financial metrics from the business survey to provide a measure of return on investment (ROI).
- what actions businesses can take to improve their L&D activities and unlock the associated benefits, by comparing what advanced learning organisations are doing, compared to the broader business sample.

## ABOUT THE BUSINESS SURVEY

Deloitte Access Economics designed a bespoke survey on L&D, fielded by Ipsos in November 2021. This survey was completed by business leaders or HR professionals from 206 large Australian businesses with at least 200 employees or more. Responses were vetted for data quality and eight respondents were dropped from the sample, resulting in a core sample of 198 respondents.

The survey covered a range of topics including time spent on training, different types of L&D initiatives, ability and ways of measuring L&D, perceived benefits and barriers, and skills gaps currently faced by businesses. Surveyed businesses were from a range of industries and revenue groups, with a mix of L&D activity being undertaken.

Results from the business survey help to provide a view of both the current and future state of L&D within Australia. Further information about the business survey and data cleaning can be found in the Appendix.

## 1.1 THIS REPORT

The remainder of this report is structured as follows:

- **Chapter 2** explores major trends influencing the world of work, including the shift to hybrid work, digitalisation, and COVID-19 and the impacts on L&D in Australia.
- **Chapter 3** builds on the definition, characteristics and key pillars of learning organisations, and the current state of L&D in Australia.
- **Chapter 4** discusses business investment in L&D, including the perceived benefits and impact on business performance. This Chapter draws on econometric modelling to explore how the value of L&D can be quantified for businesses.
- **Chapter 5** examines the future state of skills in Australia and the role of L&D in helping to fill skills gaps.







2

# IMPACT OF COVID ON LEARNING AND DEVELOPMENT

**Since early 2020, Australians have grappled with lockdowns and restrictions, forcing employees to stay home and businesses to close their doors. COVID-19 has rocked the Australian economy, with Australia plunging into its first recession in nearly 30 years. At its peak, GDP fell 7% in the June quarter of 2020, the largest fall on record (more than three times the previous biggest fall of 2% in 1974).<sup>13</sup> Some states have had it worse than others, with Victorians spending 262 days in lockdown, the longest aggregate period in strict lockdown in the world.<sup>14</sup>**

Following the initial COVID-19 outbreaks, the economic recovery is underway with the unemployment rate falling to 4.2% in December 2021, albeit somewhat hampered by new variants. Furthermore, many of the business impacts of COVID-19 are still ongoing including the effect of closed borders on access to skilled labour, with job vacancies rising by almost 19% quarter-on-quarter in November 2021.<sup>15</sup>

This Chapter examines how COVID-19 has changed the business environment including the shift to remote work and rapid digitisation. It also explores how businesses have responded to these changes through L&D, and the barriers to L&D activity within businesses.

## 2.1 WAYS OF WORKING AND RAPID DIGITALISATION

Public health orders requiring non-essential workers to work from home and businesses to close their bricks and mortar stores have fundamentally changed the way we work. One of the largest disruptions caused by COVID-19 was the dramatic increase in remote working. The ABS reported that at its peak in April 2020, an estimated 46% of employed persons regularly worked from home, a significant jump from 32% of employed people in August 2019.<sup>16</sup> Google Mobility Data also shows that at the peak of Australia's national lockdown in April 2020, workplace mobility was 82% below its median level in January 2020.<sup>17</sup> Today, Australian workers are almost twice as likely to work from home, compared to March 2020.<sup>18</sup>

The move towards remote and hybrid work varies significantly between industries. Some industries (such as construction, accommodation and food services, and utilities) have seen a smaller increase in remote work given practical constraints.<sup>19</sup> For example, only 13% of hospitality businesses worked from home in April 2021, compared to 69% of employees in financial and insurance services.<sup>20</sup> This is because businesses in hospitality are more likely to be customer facing and therefore unable to work remotely.

While the shift to hybrid work was a challenge for many businesses initially, today businesses recognise the many benefits that can be attributed to remote work. For example, a global survey of business leaders, managers and non-managers by the Adecco Group in 2021 indicated that 84% of business leaders and 79% managers believe that businesses will generally benefit from increased flexibility around where and how businesses work.<sup>21</sup> Part of this increase in productivity was attributed to decreased sick days, improved wellbeing and improved efficiency. On the employee side, many Australians prefer to spend at least some of their time working from home. For example, close to half (47%) of Australian workers surveyed by the Adecco Group want to spend at least 40% of their work time remotely.<sup>22</sup>

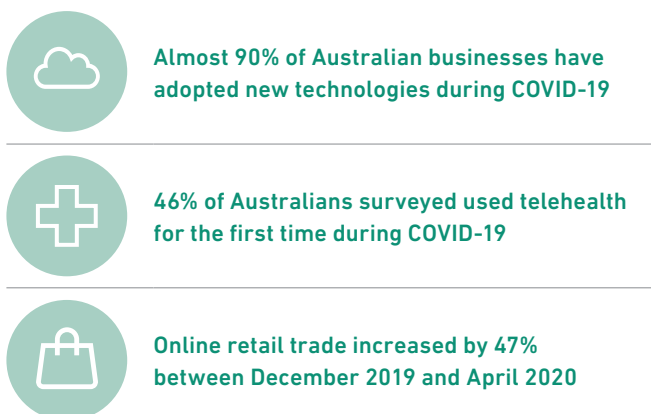
COVID-19 lockdowns and the shift to remote work has accelerated Australia's digital economy in a number of ways. Australia's Digital Economy Strategy 2030 notes that the country has vaulted five years forward in both consumer and business digital adoption in just two months during the COVID-19 pandemic.<sup>23</sup> In fact, almost nine in ten Australian businesses have adopted new technologies during COVID-19 to support business continuity when traditional bricks and mortar stores were closed.<sup>24</sup> Online retail trade also increased by 47% in just four months between December 2019 and April 2020.<sup>25</sup>

This rapid digital transition has been particularly impactful for industries such as health care. Use of telehealth services pre-COVID-19 was largely unheard of but became an important feature of health care during the pandemic. For example, 46% of Australians surveyed by the ACMA indicated that they first started telehealth consults during COVID-19.<sup>26</sup>

As digitalisation increases, Australian digital skills will have to keep up. Research in 2021 indicates that 64% of Australian workers apply digital skills in their jobs today.<sup>27</sup> And though most businesses may have some level of digital literacy, **26% of all businesses surveyed for this report reported digital literacy as a key skills gap** (which increases to 34% for just the business services industry group). The future state of skills and the role of L&D is explored further in Chapter 5.

**WHILE THE SHIFT TO HYBRID WORK WAS A CHALLENGE FOR MANY BUSINESSES INITIALLY, TODAY BUSINESSES RECOGNISE THE MANY BENEFITS THAT CAN BE ATTRIBUTED TO REMOTE WORK.**

**Figure 2.1:** Key digitalisation trends in Australia over COVID-19



Source: Australian Digital Economy Strategy 2030,<sup>78</sup> ACMA,<sup>79</sup> ABS.<sup>80</sup>





## 2.2 THE CURRENT STATE OF L&D AND THE IMPACT OF COVID-19

L&D is about empowering employees with specific skills to deliver better business performance and covers a wide range of both formal and informal training activity – from targeted skills programs, to mentoring and coaching, to online webinars, and much more.

In the context of COVID-19, L&D can play a crucial role in helping to upskill and reskill employees to better suit the rapidly changing business landscape. Recent research identified upskilling and reskilling as the top area of focus for L&D programs in 2021 – a necessary reaction to skills shortages caused by the pandemic, and more broadly, the changing skills landscape.<sup>28</sup>

Evidence from the business survey shows close to three-quarters of Australian businesses (74%) in our business survey agreed that L&D became more of an organisational priority due to COVID-19. This is echoed in similar surveys around the world which found that executives are increasingly recognising the importance of L&D, with 62% of L&D professionals agreeing their CEOs were actively championing learning in March 2021, up from only 27% in March 2020.<sup>29</sup>

While COVID-19 highlighted the importance of L&D for reskilling employees, it also emerged as the largest barrier to implementing L&D for Australian businesses. In fact, close to half (47%) of surveyed businesses identified COVID-19 as a top three barrier to implementing more L&D.

In part, this may be driven by the shift of L&D online – a change that is expected to stay post COVID-19. Online training was dominant during COVID-19, with 71% of businesses delivering training only or predominantly online, compared to 28% before COVID-19 (see Chart 2.1). This falls to 42% for post-COVID training, as more businesses anticipate hybrid working and a return to some in-person activities.

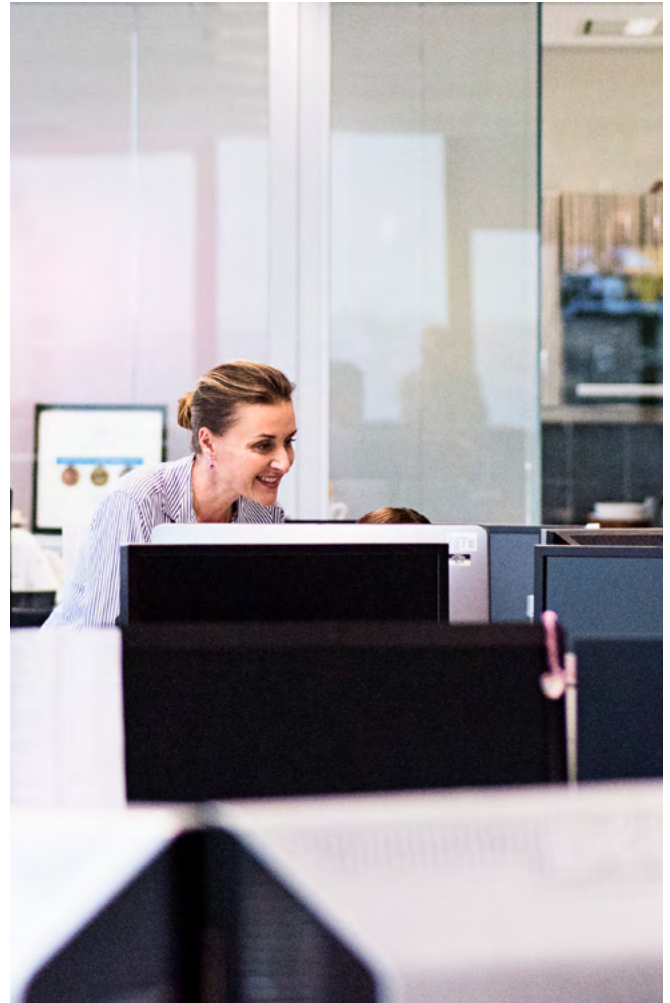
The shift to online delivery of L&D has not been easy for all businesses. The rapid shift of L&D online has made it difficult to capture the benefits of in-person training, such as in-person connectedness or delivering training for interpersonal skill development.<sup>30</sup> In some cases, businesses have overcome this by using blended learning where possible (a mix of in-person and online learning) or using a range of online delivery tools (such as break-out rooms and required pre-reading).<sup>45</sup>

Other barriers to implementing L&D identified by businesses include there not being enough time (selected by 45% of businesses) and training being too costly (36%). Motivating employees to undertake training was also a challenge identified by businesses – selected by a third of businesses in the survey.

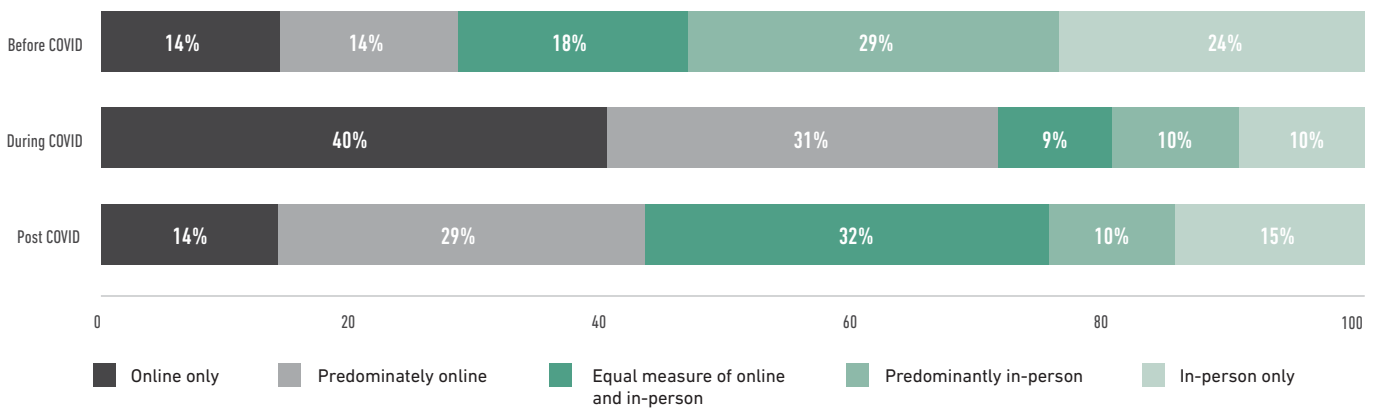
The challenge of implementing training during COVID-19 was identified as a key barrier across all industry groups. Over 50% of business services and goods distribution businesses identified COVID-19 as a top barrier to L&D, as did 44% of household services businesses. A lower share (32%) of business within goods production (which includes industries such as manufacturing, construction, mining and agriculture) reported COVID-19 as a key barrier. Instead, businesses in goods production ranked lack of motivation (37%) and insufficient time (37%) as key barriers.

By state, 65% of Victorian businesses reported COVID-19 as a top barrier against L&D; likely due to the extended lockdowns faced by Victorians through both 2020 and 2021 (262 days in lockdown since the start of the pandemic).<sup>31</sup> This was the highest across all states, with South Australia following at 57% and New South Wales at 52%. Largely non-locked down states such as Queensland, Western Australia and Tasmania had significantly smaller shares of businesses reporting COVID-19 as a key barrier against L&D; instead, not having enough time was the most pressing barrier for businesses in these states.

**ACCORDING TO OUR SURVEY, BUSINESSES SPENT ON AVERAGE \$2,500 PER EMPLOYEE ON TRAINING IN BOTH 2019-20 AND 2020-21, WITH A SMALL (APPROXIMATELY 1%) FALL IN 2020-21.**



**Chart 2.1:** COVID-19 impact on training delivery method (business survey)



Source: Deloitte Access Economics Business Survey.

These COVID-19 barriers add to, and exacerbate, more traditional barriers to L&D, such as finding the time required for training, difficulty of matching evolving skills requirements, and costs to implement.<sup>32</sup> Mind Tools for Business reports that “reluctance by managers to make time for learning” has been the number one concern since 2019, across industries, business sizes and countries.<sup>33</sup>

As a result of COVID-19 barriers, our business survey found that business investment in L&D during COVID-19 did not fall significantly. According to our survey, businesses spent on average \$2,500 per employee on training in both 2019-20 and 2020-21. Similarly, reported total hours spent on training stayed approximately equal through both 2019-20 and 2020-21.

Despite the barriers identified, and difficult economic conditions for businesses through 2020-21: two-thirds of businesses reported a decrease in revenue in June 2020 compared to the year prior, while almost one in four businesses decreased or cancelled capital expenditure plans in August 2020.<sup>34</sup>

This financial uncertainty and constrained investment activity through COVID-19 has likely held back businesses from growing their L&D investment.

Similarly, reported total hours spent on training did not change much during this period. Surveyed businesses said each employee spent an average of 1.5 hours on L&D in 2020, only slightly higher than the 1.4 hours per employee in 2019.

So, while L&D is growing increasingly important for businesses and executives in combatting key business challenges, COVID-19 associated uncertainty and financial difficulty was a key barrier against increased L&D activity through COVID-19.

**Chart 2.2:** Main barriers to implementing L&D selected by businesses



Source: Deloitte Access Economics Business Survey.



**GIVEN THE CHALLENGES OF IMPLEMENTING L&D DURING COVID-19, IT'S NOT SURPRISING THAT FOR MANY BUSINESSES INVESTMENT IN L&D STAYED STAGNANT OVER THIS PERIOD.**



# LEARNING AND DEVELOPMENT BEST PRACTICE: BUPA



While COVID-19 has undoubtedly been a major disruption to businesses and their traditional L&D activity, not all disruptions are bad. For Bupa, when staff were forced to work from home during COVID-19, L&D activity had to adapt both in delivery and in objective. **Bupa has used the pandemic to reimagine parts of their L&D practice;** to better support staff learning when their workforce was more dispersed than ever before.

According to Donna Roth, the Head of Leadership and Capability (within Health Insurance) at Bupa, "COVID-19 was a circuit breaker and gave traction to the idea that L&D can be delivered differently and successfully." Leadership at Bupa have embraced digital and remote L&D activity and opened up their perspective on what is considered "L&D" – leading to new initiatives being launched at Bupa during COVID-19, such as the introduction of a weekly development hour.

The weekly development hour allows each employee to work towards their own development goals (either for one hour a week or accumulated over time). This introduces an "art of learning" to Bupa and upskills staff in areas of genuine interest, helping the business and staff navigate and adapt to change – while also building a strong **learning culture** within the business.

L&D activities at Bupa target six strategic capabilities: **commercial acumen, product design, user centred design, digital, data and agility.** Developing these key skills is aimed at growing internal capability and improve internal mobility, to reduce the need to hire externally to fill skills gaps. This alignment with business strategy and skills needs is an important objective of the L&D team at Bupa, who are looking to develop existing talent and leverage existing skills and interests – to retain, upskill and support staff in their learning journeys. This is especially the case given impending automation of some roles across Australia; Donna notes that Bupa wants to use L&D to "get ahead of the curve, and to upskill staff who are vulnerable to automation for future roles at Bupa or elsewhere".

Looking forward, the next challenge will be sustaining the momentum in L&D activity. Donna notes that significant appetite for L&D activity over COVID-19 from senior leaders has led to increased investment. The next step is to **better measure and demonstrate how business performance is improved through this investment;** a difficult but increasingly important element of L&D for businesses.

Bupa is **continuing to develop their business performance metrics**, which currently is based on self and leader assessment. Going forward, Bupa is looking to leverage existing data from contact centres to better measure performance. Growing data analytic ability and better data recording through digital learning and business platforms is hoped to make measurement easier – and make it easier to link L&D to overall business performance.



3

**IDENTIFYING  
AND UNPACKING  
AUSTRALIA'S  
LEARNING  
ORGANISATIONS**



**Most businesses undertake L&D because it is essential in enhancing employee skills and, ultimately, driving business performance. In fact, leaders in L&D have generally been shown to be more profitable than their peers.<sup>35</sup>**

However, investment in L&D, the types of training offered, and the learning culture can vary significantly across businesses. These factors and others play an important role in determining the success of a business' L&D programs and the subsequent benefits that they derive.

Businesses at the forefront of learning are generally known as learning organisations. This term originated in the 1990s when Peter Senge defined them as *"organizations where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning to see the whole together."*<sup>36</sup>

Since then, learning organisations have continued to grow in prominence (both in practice and in the literature) but the definition of a 'learning organisation' remains fluid. Typically, a learning organisation is not defined based on any one factor but generally takes into account a variety of elements including continuous learning, embedded learning systems, a strong learning culture and an ability to learn from past experiences.<sup>37</sup>

With new and evolving L&D technologies and types of training, the definition of a learning organisation will continue to evolve over time. At its core however, a learning organisation is one which invests in its people through L&D activity and is able to effectively acquire and share knowledge, while also adapting its behaviour in response to what is learnt in the business.

Understanding how a learning organisation can be defined, and how it differs to other businesses, is important because it underscores what businesses need to do to improve their learning maturity; to better understand what leading businesses are doing, this chapter develops a framework which has been applied to the survey results to understand the key features of learning organisations, based on 13 unique indicators.



**A LEARNING ORGANISATION IS ONE WHICH INVESTS IN ITS PEOPLE THROUGH L&D ACTIVITY AND IS ABLE TO EFFECTIVELY ACQUIRE AND SHARE KNOWLEDGE, WHILE ALSO ADAPTING ITS BEHAVIOUR IN RESPONSE TO WHAT IS LEARNT IN THE BUSINESS.**



### 3.1 THE FRAMEWORK

Becoming a leader in L&D is not just about investment. Based on broad desktop research, this report developed a framework to categorise businesses as learning organisations based on four building blocks: strategy, culture, measurement, and structure.

- Strategy:** Developing an L&D strategy is a crucial step in the implementation of L&D. For learning organisations, a learning strategy seeks to support strategic priorities for the business including addressing key skills gap. This helps to ensure the training being implemented directly relates to the needs of the business. Another element is to set a dedicated learning budget, which plays a vital role in enabling successful and sustained implementation of L&D initiatives.
- Culture:** A learning culture is crucial for building a learning organisation. Organisational learning is heavily influenced by the behaviour of leaders; if senior leaders constantly signal the importance of learning and look for opportunities to promote learning, a learning culture will flourish within the organisation.<sup>38</sup> A learning culture can also be fostered through ongoing mentorship support and providing rewards for continuous learning; this helps to ensure employees are aware that learning is valued within the business.
- Measurement:** To assess the effectiveness of L&D, learning organisations track and measure both the resources spent on L&D and its impact within the business. This helps a business understand the most effective forms of training and the ROI. In addition to conventional measures of L&D (e.g. employee satisfaction), learning organisations also prioritise quantitative measures such as ROI to help justify investment.
- Structure:** Learning organisations have structures in place to ensure learning is prioritised. This includes giving employees sufficient time to undertake training and ensuring they have access to resources such as tools and technology to support different types of training.

The learning organisation is summarised in the Figure below.

Figure 3.1: Learning organisation framework



Source: Deloitte Access Economics based on Senge (1990), Marsick and Watkins (1993), Garvin (1993), and MindTools for Business (2021).

### 3.2 THE CURRENT STATE OF PLAY

Understanding how businesses are currently performing, and the proportion that can be classified as learning organisations, is useful because it provides an indication of whether more can be done to unlock the value of learning.

The learning organisation framework outlined above was applied to the survey results, to help understand the key features of a learning organisation and the steps other businesses can take to build their capabilities.

Of course, it's not as simple as determining whether an organisation is or isn't a learning organisation. In reality, businesses are likely to sit on a scale on how advanced they are in their learning capabilities. For instance, a joint study by DeakinCo. and edcast reviewed the learning health of organisations in India and mapped organisations to a Learning Health Index (LHI). The LHI categorised businesses into five categories ranging from Ailing to Thriving.<sup>39</sup>

Alternatively, this report categorises businesses into four classes of learning maturity: Laggards, Beginners, Intermediate, and Advanced learning organisations. Businesses from the survey are mapped into one of the four categories based on their responses provided in the survey.

To categorise businesses, each was given a score for each pillar of strategy, culture, structure and measurement, based on self-reported responses in the survey drawing on 13 unique indicators. These scores were then summed to provide an overall score out of 100, and cut-off scores were used to assign each business into an overall learning organisation category (see Table 3.1). Further detail on the methodology is provided in Appendix A.

The results of this modelling revealed that at least 87% of businesses in Australia could do more to enhance their L&D, with just 13% of businesses classified as Advanced learning organisations. Of the 87% who were not Advanced learning organisations, 9% were classified as Laggards, 36% as Beginner, and 42% as Intermediate learning organisations (see Chart 3.1).

**THE RESULTS OF OUR MODELLING REVEALED THAT AT LEAST 87% OF BUSINESSES IN AUSTRALIA COULD DO MORE TO ENHANCE THEIR L&D.**

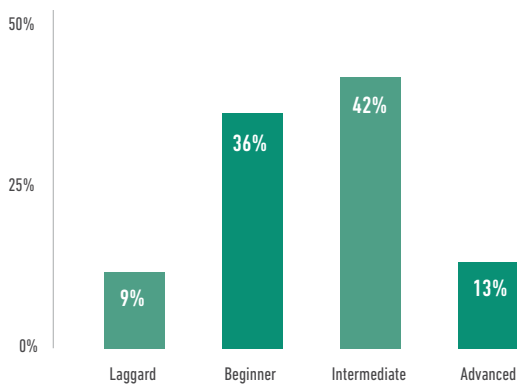


**Table 3.1:** Learning organisation maturity

	<b>Laggard</b> (score<50)	<b>Beginner</b> (50≤score<75)	<b>Intermediate</b> (75≤score<90)	<b>Advanced</b> (score≥90)
<b>STRATEGY</b> 	No business L&D strategy	Some investment in L&D	Learning strategy, ongoing investment in L&D, loosely addressing skills gaps	Learning strategy, dedicated budget, focusing on addressing skills gaps and changing business needs
<b>CULTURE</b> 	No learning culture	Starting to build a learning culture, with some leadership support	Good learning culture with leadership support and mentorship	Learning at the core of organisation's culture
<b>MEASUREMENT</b> 	No measurement	Time and resources spent are tracked	Time and resources spent are tracked, with some conventional measurement in place	Consistent tracking and measurement, measuring impact on organisational performance and return on investment
<b>STRUCTURE</b> 	No to little resources to support learning	Employees given limited time and resources	Employees given time and resources to undertake different types of training	Employees given sufficient time and resources to undertake various types of training

Source: Deloitte Access Economics

**Chart 3.1:** Learning organisation maturity by category

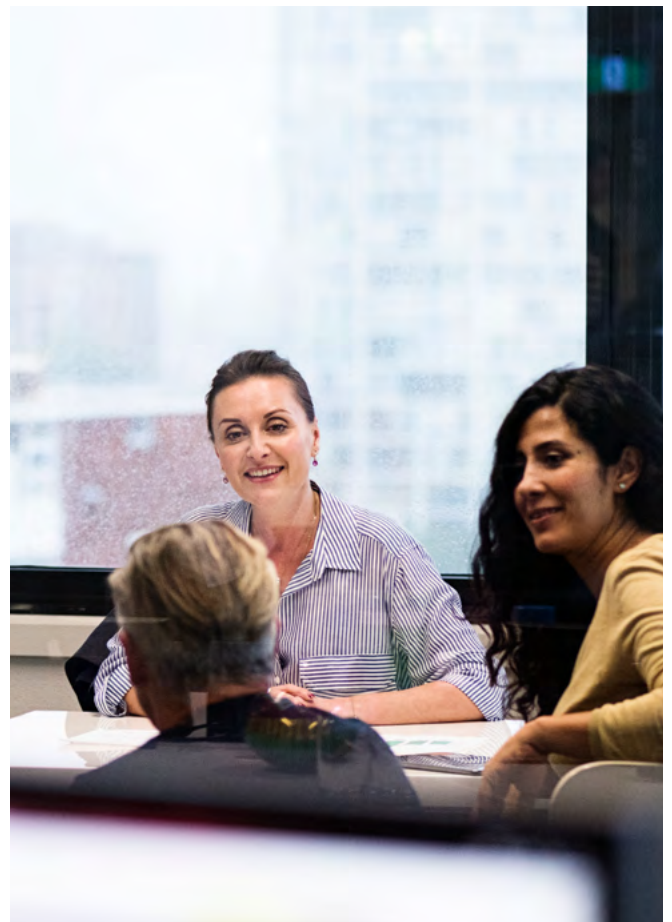


Source: Deloitte Access Economics Business Survey (N=198).

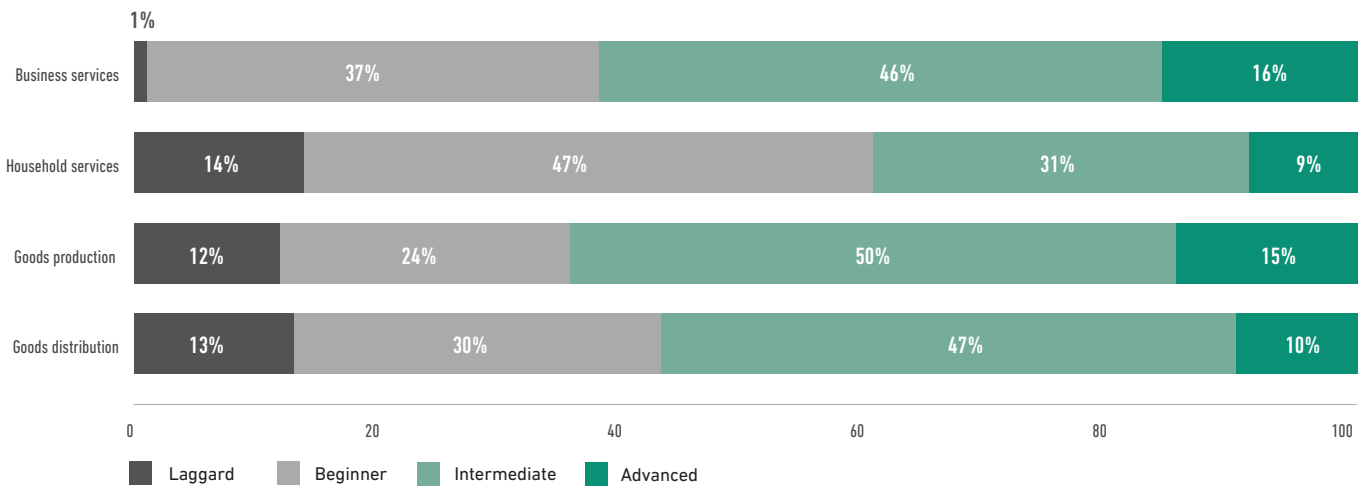
It is worth noting that these results were based on self-reported responses from the business survey, so the results may be subjective and there are some inherent limitations. However, it still helps to demonstrate the scope of different approaches towards learning.

The Chart below shows the breakdown of average learning maturity by industry (see Appendix A, Table A.3 for definitions). Out of the four broad industries, business services had the largest proportion of businesses classified as Advanced or Intermediate (62%), compared to just 40% of businesses in household services. In contrast, household services had the highest proportion of businesses classified as Laggards (14%). This suggests the proportion of businesses that could do more to enhance their learning may be even higher in some industries – for example, up to 81% in household services.

**OUT OF THE FOUR BROAD INDUSTRIES, BUSINESS SERVICES HAD THE LARGEST PROPORTION OF BUSINESSES CLASSIFIED AS ADVANCED OR INTERMEDIATE (62%), COMPARED TO JUST 40% OF BUSINESSES IN HOUSEHOLD SERVICES.**



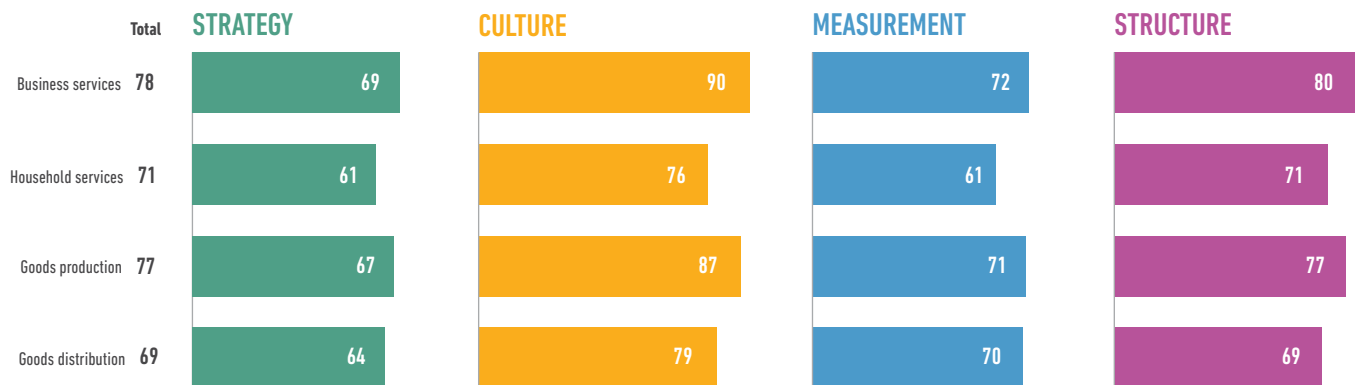
**Chart 3.2:** Learning maturity within each industry



Source: Deloitte Access Economics.

Across all industries, businesses tended to score highest in learning culture, and lowest in strategy on average, as shown in the Chart below.

**Chart 3.3:** Average learning score by industry



Source: Deloitte Access Economics.

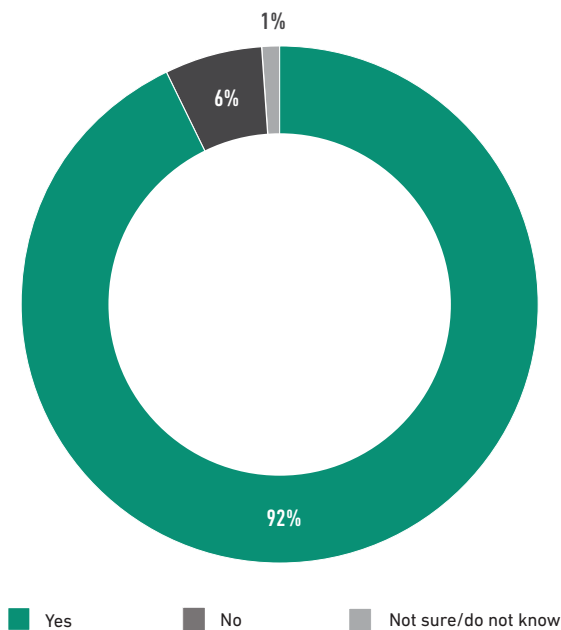


### 3.3 HOW DOES THIS COMPARE TO HOW ORGANISATIONS THINK THEY'RE TRACKING?

The results of our analysis suggest that just 13% of businesses are classified as Advanced learning organisations. However, when businesses were asked to self-identify as a learning organisation, over 90% of businesses surveyed believed they were already learning organisations.

This indicates a significant perception gap exists for businesses in relation to their L&D activity. Businesses may consider themselves learning organisations without understanding the complexities and depth of learning ability a business can achieve. Currently, businesses with limited learning strategy, culture, measurement and structure still believe they are learning organisations, despite the importance of these pillars to a successful learning organisation.

**Chart 3.4:** Business perceptions of being a learning organisation (business survey)



When looking at this perception gap by learning maturity, over 90% of the companies in the Beginner, Intermediate and Advanced category believe they are a learning organisation. However, far fewer businesses classified as Laggards self-identified as a learning organisation, as shown in the Chart below.

Interestingly, when asked if more could be done within their organisations to drive learning and development, only 60% of businesses within the Laggard and Beginner categories believe that more could be done, compared to over 80% and 90% for Intermediate and Advanced learning organisations, respectively. This indicates that Laggard and Beginner learning organisations are less likely to identify learning gaps and opportunities as they think they are already doing enough. This is also reflected in a significantly lower training spend per employee among Laggard businesses (\$1,100 per employee on average in the pooled sample), compared to more advanced learning organisations (\$3,000 per employee on average). In contrast, more advanced learning organisations are more likely to continuously look for opportunities to improve L&D.

In summary, gaps still exist within businesses' overall learning strategy, culture, measurement and structure. This perception gap could lead to businesses being complacent and stop looking for opportunities to further business investment and developing of L&D activity.

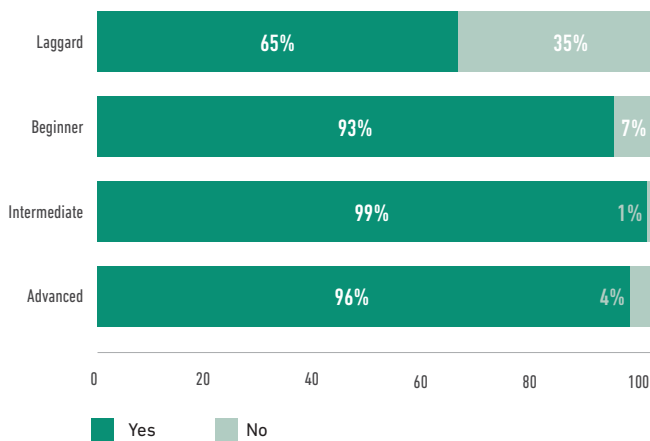
Source: Deloitte Access Economics Business Survey. Responses to this question was based on a provided definition to a learning organisation, derived from qualitative research.

The provided definition was: [A "learning organisation" can be defined as an organisation that is skilled at acquiring and sharing knowledge and adapting its behaviour to internal or external changes through continuous learning. These organisations promote continuous learning at work, which provide opportunities for employees to upskill or reskill to meet current business needs. "Learning organisations" also need responsive systems within the organisation which can help employees adopt learnings into business. For example, this may involve review systems where employees reflect on past performance to carry forward learnings to future work.]

**JUST 13% OF BUSINESSES ARE CLASSIFIED AS ADVANCED LEARNING ORGANISATIONS. HOWEVER, OVER 90% OF BUSINESSES SURVEYED BELIEVED THEY WERE ALREADY LEARNING ORGANISATIONS.**

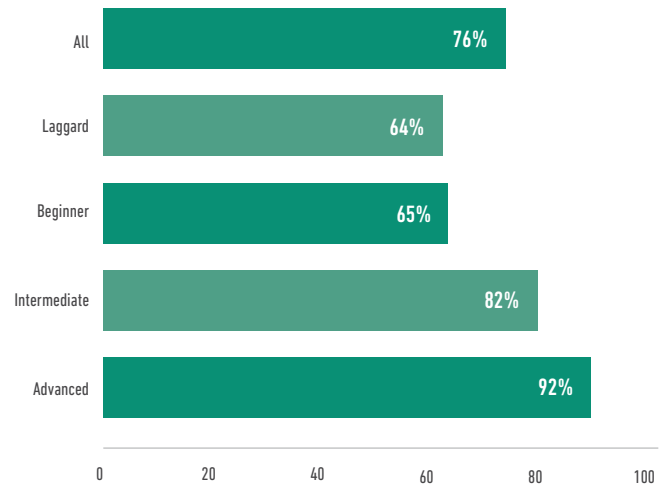


**Chart 3.5:** Business perceptions of being a learning organisation by learning maturity



Source: Deloitte Access Economics Business Survey.

**Chart 3.6:** Proportion of businesses that agrees more could be done within their organisation to drive learning and development, by learning maturity



Source: Deloitte Access Economics Business Survey.

### 3.4 WHAT ACTIONS CAN BUSINESSES TAKE TO IMPROVE THEIR LEARNING MATURITY?

The differences in learning maturity between organisations means there are significant differences in how businesses perform against each of the key pillars. This section examines these differences, and outlines actions businesses can take to become an Advanced learning organisation.

**77% OF ADVANCED LEARNING ORGANISATIONS PLANNED TO FILL ORGANISATIONAL SKILLS GAPS THROUGH TRAINING. IN CONTRAST, MOST LAGGARDS (60%) DIDN'T HAVE A PLAN FOR ADDRESSING SKILLS GAPS OR PLANNED TO HIRE EXTERNALLY TO FILL SKILLS GAPS.**

#### Key strategy actions for businesses

Some key actions businesses can take to become an Advanced learning organisation include:

- Create a dedicated organisational strategy on L&D
- Develop a plan to address skills gaps
- Address skills gaps by investing in a broad range of training types to build soft, technical and leadership skills.

#### Strategy

Approximately 76% of Australian businesses agree they have a dedicated organisational strategy on L&D, compared to 100% of Advanced learning organisations and 17% of Laggards. Advanced learning organisations are also more likely to have invested in a range of different types of training; including soft skills training, technical skills training, and leadership training. For Laggards, most had only implemented training targeting just one of these skills, suggesting Advanced learning organisations are more well-rounded in their approach to learning.

Furthermore, most Advanced learning (77%) organisations planned to fill organisational skills gaps through training. In contrast, most Laggard (60%) didn't have a plan for addressing skills gaps or planned to hire externally to fill skills gaps. This suggests that when facing skill shortages, Advanced learning organisations are more likely to upskill their current staff to fill the gaps, whereas less advanced learning organisations are less likely to do so.

### Key culture actions for businesses

Some key actions businesses can take to become an Advanced learning organisation include:

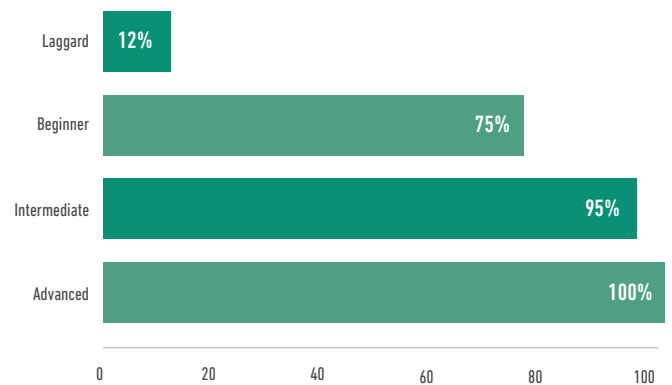
- Make it clear to employees that learning is valued at your organisation
- Mentor and coach new and existing staff members to guide their development
- Constantly seek out new opportunities to incorporate learning into regular workdays.

**100% OF ADVANCED BUSINESSES AGREED THAT THEIR BUSINESS VALUED L&D, COMPARED TO JUST 11% OF LAGGARDS.**

### Culture

More advanced learning organisations were more likely to value learning activities; 100% of Advanced businesses agreed that their business valued L&D, compared to just 11% of Laggards. In addition, all Advanced organisations agreed that leaders within their organisation mentored the people they were leading, for example, by providing feedback and guidance compared to just 12% of Laggards. Similarly, 100% of Advanced businesses said they were always looking for opportunities to promote learning and development, while only 6% of Laggards believed this to be true.

**Chart 3.7:** Proportion of businesses that provided mentorship and coaching, by learning maturity



Source: Deloitte Access Economics Business Survey (N=198).

## Measurement

Overall, 68% of businesses surveyed indicated they measured the ROI of L&D. However, these responses were concentrated in Intermediate and Advanced organisations. Similar results were found for those organisations tracking gaps between current and expected performance, and organisations who measure the time and resources spent on L&D.

Yet, many businesses do not have systems in place to understand and measure the benefits of L&D within their organisation. For example, of the 68% of businesses who report they track returns to L&D, the majority (56%) of respondents' measure ROI through employee satisfaction surveys or changes in productivity (50%).

On the other hand, only one third (33%) of businesses that say they track returns to L&D do so through monitoring financial metrics. This suggests that many businesses may lack necessary information about the benefits that can be realised through L&D.

Advanced learning organisations who track ROI for L&D do so in a variety of ways, with more than 50% of Advanced learning organisations using measures such as change in financial metrics, change in productivity, and change in attrition rate to track L&D (as outlined in Chart 3.8).

In comparison, a much smaller share of Laggard and Beginner organisations use these; indicating that measurement is still a key area of development for less mature learning organisations.

However, even for Advanced learning organisations, current ROI measures are not easily linked to business performance. Improving measurement of L&D activity within businesses and linking it to organisational performance is a key focus for many learning organisations going forward.<sup>40</sup> Edcast notes that 70% of organisations surveyed were only using some form of lower order metrics to measure L&D progress, and were yet to adopt more sophisticated measures that actually measure business impact.<sup>41</sup>

However, increasing online delivery of L&D within businesses and interest in linking L&D to organisational performance has seen an uplift in available L&D data which can be used to better measure L&D activity.<sup>42</sup> Gathering, analysing and leveraging L&D data through increasingly informative machine learning and data analytics tools will be an important part of the future of L&D in Australia, and a way to better capture the benefits of training for organisational performance.

### Key measurement actions for businesses

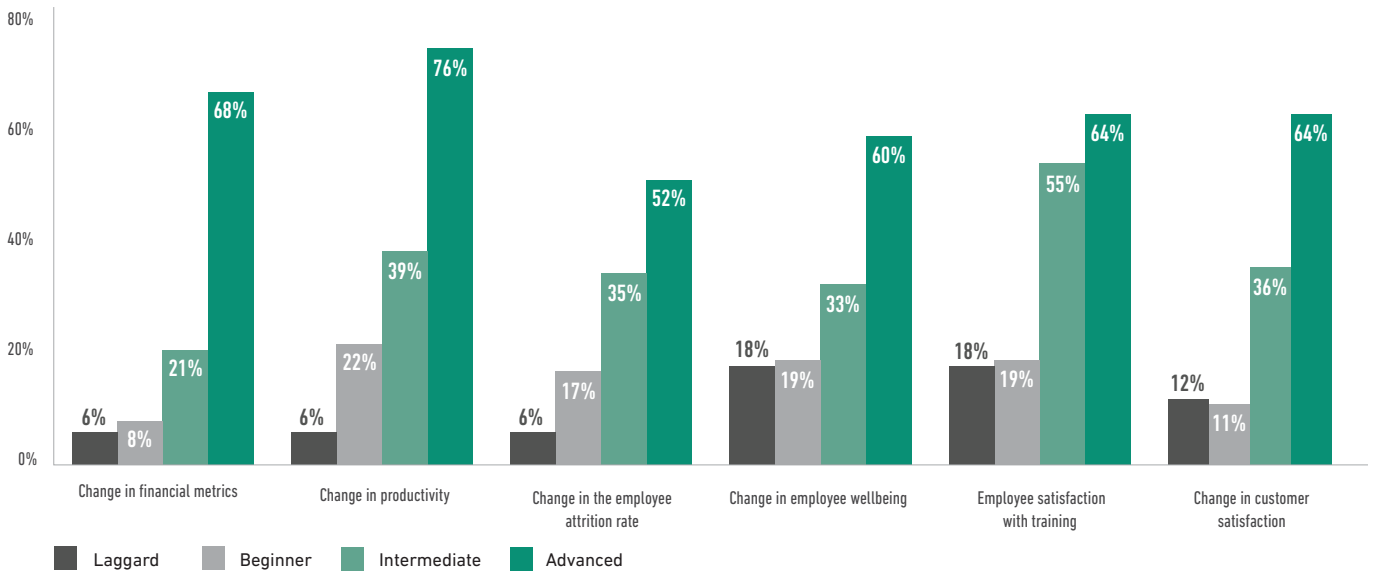
Some key actions businesses can take to become an Advanced learning organisation include:

- Introduce systems to track and measure performance gaps, resources spent on training and the ROI of these actions
- Use a broad range of metrics to track the ROI of L&D initiatives, focusing not just on employee metrics such as satisfaction but also financial performance.

**ONLY ONE THIRD (33%) OF BUSINESSES THAT SAY THEY TRACK RETURNS TO L&D DO SO THROUGH MONITORING FINANCIAL METRICS. THIS SUGGESTS THAT MANY BUSINESSES MAY LACK NECESSARY INFORMATION ABOUT THE BENEFITS THAT CAN BE REALISED THROUGH L&D.**



**Chart 3.8:** How businesses measure ROI for L&D (business survey)



## ADVANCED LEARNING ORGANISATIONS ARE ALSO MUCH MORE LIKELY TO HAVE A WIDER SPREAD OF TRAINING TYPES THAT EMPLOYEES ENGAGE WITH.

### Structure

When considering structure, the most important element is time available for employees to undertake L&D activity. Almost all Intermediate and Advanced organisations agree that their people are given time and resources to support learning and training compared to just 24% of Laggards. Beginners were more likely to agree that they gave time (53%), however, did not commit to as many hours of on-the-job training.

Before COVID-19, the majority of employees (47%) in Laggard organisations undertook up to 30 minutes of training per week only. In comparison, 60% of employees in Advanced organisations undertook 2 hours of training or more per week. This demonstrates that Advanced learning organisations put significant time aside for employees to engage with L&D activity.

Advanced learning organisations are also much more likely to have a wider spread of training types that employees engage with, which range from mandatory compliance training (20% of training) to on-the-job formal training initiatives (25%), coaching and mentoring (26%) and more. In comparison, the majority of training in Laggard organisations are restricted to mandatory compliance training – reaching, on average, 50% of training activity.

In summary, these observations highlight some key implications for businesses. First, businesses need to understand what the best practice of L&D is. From that, they will need to identify where they are currently at and the key weaknesses within their organisational learning, by assessing their performance against the four key learning pillars. Finally, businesses need to start investing and actioning on those identified weaknesses, in order to become an advanced learning organisation.

### Key structure actions for businesses

Some key actions businesses can take to become an Advanced learning organisation include:

- Ensure employees are given dedicated time each week for employees to spend on training programs
- Use learning to develop broad organisational capacity rather than just for delivery of mandatory compliance training.

A man in a dark suit and glasses is walking from left to right in profile. He is carrying a dark messenger bag. The background shows a modern building entrance with a large potted plant on the left and a staircase with a glass railing. The scene is overlaid with a teal gradient and geometric shapes.

4

# THE ROI FROM LEARNING AND DEVELOPMENT

**The previous chapter demonstrated the variability in training investment and approach across businesses, indicating many businesses were under-investing in their training efforts. This means they might not be reaping the full benefits of training, or that the training that they are implementing isn't as effective as it could be.**

Evidence from the literature suggests there is a strong case for investing in L&D, with benefits covering not just financial metrics but also helping to improve overall wellbeing, boosting workplace engagement and retaining talent.<sup>43</sup>

For businesses, L&D can improve financial performance through several channels. Previous research by Deloitte for DeakinCo. has shown that improving human skills (particularly soft skills in customer service, organisation and management, and digital literacy) could increase the revenue of an average Australian business by \$90,000.<sup>44</sup> A cross-country study also found that a strengths-based L&D program increased sales by 10-19% and profit by 14-29%.<sup>45</sup>

Learning can help spark new ideas that generate more business. As an organisation's L&D system matures and becomes more ingrained in its culture, the learning focus often shifts from efficiency to innovation resulting in more impactful activities such as supporting growth into new markets.<sup>46</sup>

L&D is an important strategy for employee management. Many studies have pointed out the importance L&D plays for retaining talent – for instance, 94% of employees say they would stay longer at their company if they invested in their career.<sup>47</sup> This benefit has become particularly relevant for Australian businesses, as Australia faces significant skill shortages.

For employees, developing soft skills through L&D can bring higher wages. A one standard deviation increase in human skill attainment is associated with a 5% increase in wages, more than twice current wage growth.<sup>48</sup> Moreover, by having opportunities to learn and grow, employees in companies with strong learning programs are happier and more engaged.<sup>49</sup>

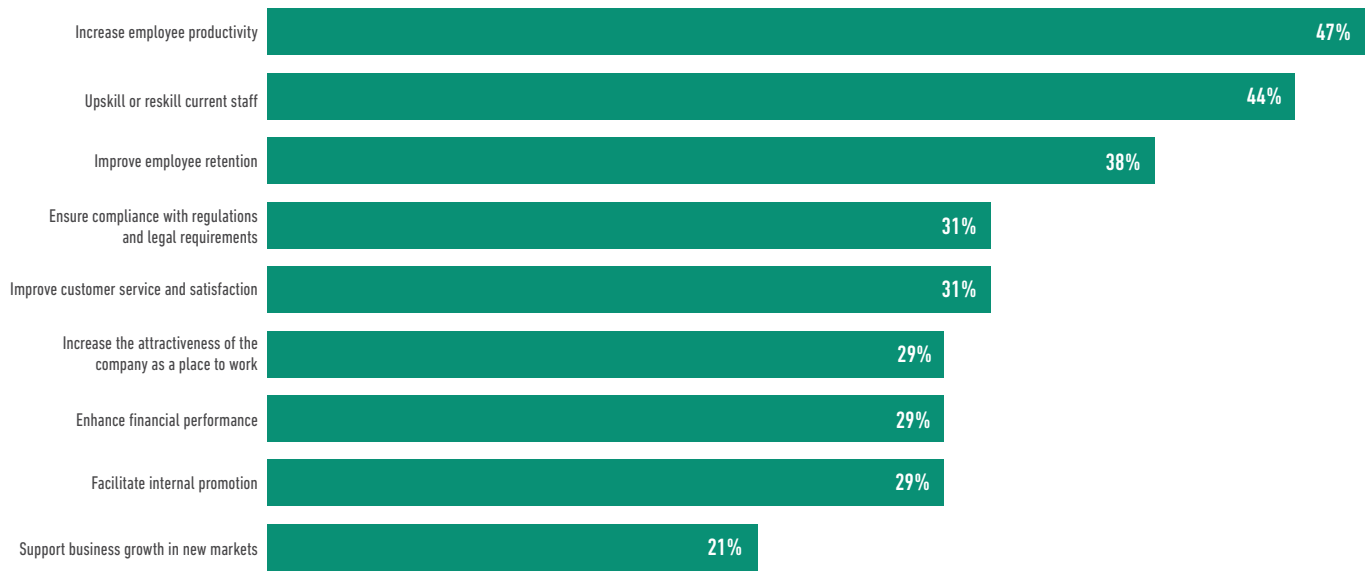
In the survey, businesses were asked what they thought the biggest benefits of training were; most were able to recognise the value of training for employee productivity and upskilling, selected by 47% and 44% of businesses, respectively. Additionally, L&D is perceived as being able to help retain current employees (38%). In contrast, factors such as supporting business growth (21%) or enhancing financial performance (28%) emerged as less important drivers of L&D activity for surveyed businesses.

Importantly, the benefits L&D can bring for a business are often not exactly quantified or are case specific. This makes it difficult for businesses to assess the costs and benefits of adopting a L&D program and can result in underinvestment in learning.





**Chart 4.1:** Perceived benefits of learning and development for surveyed Australian businesses



Source: Deloitte Access Economics Business Survey.

**EVIDENCE FROM THE LITERATURE SUGGESTS THERE IS A STRONG CASE FOR INVESTING IN L&D, WITH BENEFITS COVERING NOT JUST FINANCIAL METRICS BUT ALSO HELPING TO IMPROVE OVERALL WELLBEING, BOOSTING WORKPLACE ENGAGEMENT AND RETAINING TALENT.**

## 4.1 EXAMINING THE IMPACT OF L&D ON ORGANISATIONAL PERFORMANCE

Drawing on data from the business survey, modelling for this report sought to understand the association between investment in L&D and an organisation's financial performance.

Successful businesses invest in L&D as it improves employee productivity and provides a platform for business growth. Yet, quantifying the relationship between organisational performance and L&D is complex. In particular, the effect of training on business performance depends on a number of different factors such as type and delivery of training, as well as industry and size of the business, among others. There may also be a delay between when the training was implemented and when the benefits are eventually realised, making it challenging to attribute the change in business performance to the training directly. To precisely measure this relationship would likely require a time series of data, to understand how changes in L&D affect changes in performance within a business over time.

While we cannot definitively say what the impact of investment in L&D is on business revenue, data from the business survey can be used to understand how L&D investment is associated with changes in key financial metrics such as business revenue (per employee).

In the survey, businesses were asked to provide information about their financial performance and training spend over three consecutive years – from 2018-19 to 2020-21. Data from each of these three years was pooled in the analysis to understand how investment in L&D is associated with a firm's financial performance in the same year. The modelling controlled for a range of factors including business size, business age, industry, region and year.

It is also important to note that the survey focuses on businesses with 200 or more employees in Australia. As such these results may be less generalisable to smaller businesses or businesses located outside of Australia. Further details on our approach to the modelling can be found in Appendix A.



**4.11 Results**

This report considered how L&D investment impacts firm performance. The econometric modelling found that a 1% increase in L&D spending per employee is associated with a 0.2% increase in revenue per employee in the same year, controlling for demographic variables such as industry, region and others as noted above.

From the business survey, the average annual cost of training per employee was \$6,800, of which \$2,500 was associated with the cost of training and the remaining \$4,300 accounted for wages cost of training (i.e., the opportunity cost of training).

**Combining the econometric modelling with the financial information from the survey sample, this suggests that every \$1 increase in L&D spending per employee is associated with an increase of \$4.70 in revenue per employee in same the year.**

L&D may be associated with higher business revenue per employee for various reasons. For example, L&D could help teach employees new skills, enabling them to do their work more efficiently. L&D may also help businesses become more innovative, enabling them to provide new services or different products, and reach new customers. But successful businesses may also be more likely to reinvest in training, so the relationship runs both ways.

These results are in line with findings from a range of other studies. For instance, a study on human capital measurement suggested a return per dollar invested of \$6.72 on training programs.<sup>50</sup> Similarly, an Accenture study suggested that for every \$1 invested in training, companies receive \$4.53 in return.<sup>51</sup> Many other similar studies suggested ROI estimates ranging from \$3 to \$8 per dollar invested.<sup>52</sup>

**A 1% INCREASE IN L&D SPENDING PER EMPLOYEE IS ASSOCIATED WITH A 0.2% INCREASE IN REVENUE PER EMPLOYEE IN THE SAME YEAR.**

**Figure 4.1:** Association between investment in L&D per employee and revenue per employee



Source: Deloitte Access Economics.

Importantly, this is just the link to a firm’s productivity. As many other studies have shown, investing in L&D can also lead to broader benefits such as better staff retention, and improved employee engagement.<sup>53</sup> In fact, in our business survey **Advanced learning organisations reported an average attrition rate of 14%, compared to almost 25% for Laggard organisations – 1.8 times as high and indicating a positive correlation between learning and employee retention.**

While the results provided in this section find a significant relationship between L&D spending and revenue in the same year, the modelling did not find a significant relationship between changes in L&D spending and growth in revenue or growth in revenue per employee. More detailed discussion around this point and other limitations is provided in Appendix A.3. Furthermore, the modelling shows the connection based on investment, but not quality, of L&D. Higher quality training would be expected to be associated with stronger financial performance.

## 4.2 INCENTIVES TO UNDERTAKE L&D

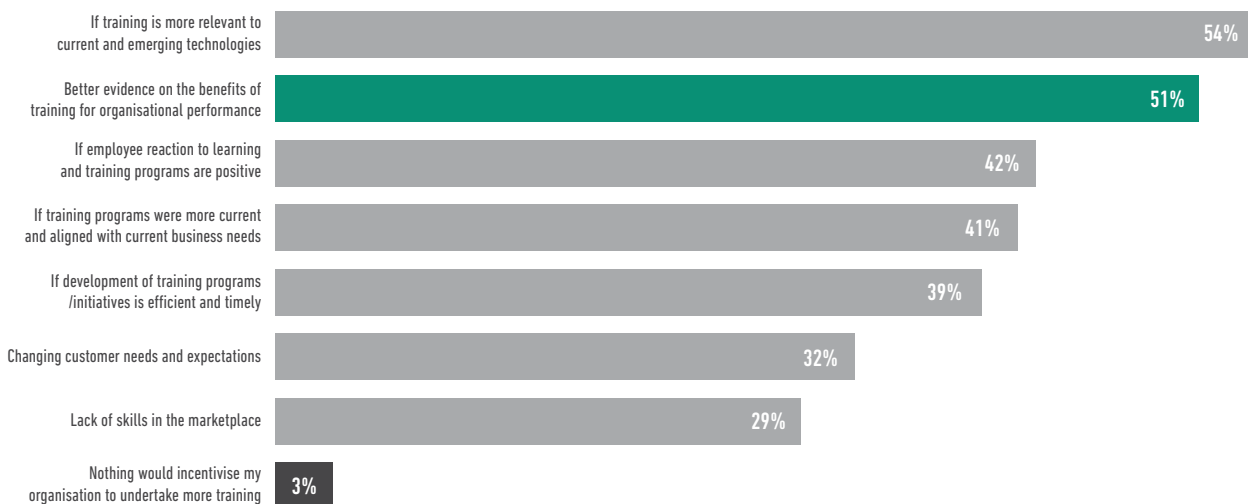
Given the payoffs of L&D, it is interesting to consider which factors would incentivise businesses to undertake more training. Indeed, only 3% of surveyed businesses noted that nothing would incentivise further training (Chart 5.2).

The largest incentive identified was training being more relevant to current and emerging technologies (selected by 54% of businesses). Increasing digitalisation and automation is likely the propellant for this incentive; as digitalisation and automation change businesses and jobs within Australia, business leaders want to use L&D to keep up with evolving skill needs.

Better evidence on the benefits of training for organisational performance was also identified as a barrier to L&D, selected by 51% of surveyed businesses. This is also often considered a large barrier to L&D – businesses are unaware if and how L&D can positively impact their financial metrics. Indeed, measuring economic and business performance aspects of L&D is one of the most notoriously difficult parts of L&D, even for Advanced learning organisations.<sup>54</sup>

In contrast, a lack of skills in the marketplace (29%) and changing customer needs and expectations (32%) ranked less highly as motivating factors.

**Chart 4.2:** Incentives to undertake more training for surveyed Australian businesses



Source: Deloitte Access Economics Business Survey.



# 5

## **FUTURE FORCE: FUTURE SKILL NEEDS AND THE ROLE OF L&D**



**Moving forward, a key challenge facing Australian businesses are skills shortages, with 93% of surveyed Australian CFOs reporting that difficulty in securing and retaining key talent was a key risk to their business through 2022.<sup>55</sup>**

These skill shortages go beyond just COVID-19 induced shortages, and encompass longer-term changes to the Australian skills landscape (such as the impact of automation, and the shift towards service industries) which were already creating demand for particular skills.

L&D will be an important tool for businesses to counteract these skill shortages; to not only improve employee innovation and productivity, but also prepare Australians for the future of state of work and skill needs. This chapter examines what future skill needs will look like in Australia, and the role of L&D in ensuring businesses have the skills they need to thrive in the future of work.

**5.1 CHANGING SKILLS NEEDS FOR BUSINESSES**

Automation continues to change the skills and occupation landscape and is closely linked to the accelerated digitalisation experienced during COVID. Historically, automation has picked up in the wake of economic shocks as business revenue declines and human labour becomes relatively more expensive.<sup>56</sup> In fact, the World Economic Forum (WEF) describes changes from automation and COVID-19 as a 'double-disruption' scenario for workers.<sup>57</sup>

The impacts of automation are expected to hit occupations, industries and regions very differently. The National Skills Commission (NSC) notes that Australian occupations which are the most automatable are those with manual and routine tasks while highly cognitive tasks are less vulnerable to automation.<sup>58</sup>

More broadly, there has also been a shift away from production industries and towards labour-intensive service industries over time.<sup>59</sup> Total employment in service industries such as professional services and health care have grown significantly over the last 30 years – increasing by 234% and 197% respectively.<sup>60</sup> In contrast, goods distribution and goods production have increased only by 29% and 16% respectively.<sup>61</sup>



**MOVING FORWARD, CHANGES WILL BE MOST OBVIOUS IN CHANGES TO THE NATURE OF JOBS AND TASKS, RATHER THAN JOBS DISAPPEARING ALTOGETHER.**



As a result, skill requirements and in-demand occupations have changed. For example, employment growth has been strongest in higher skilled occupations, with occupations that require a Bachelor degree or higher accounting for almost half of total employment growth over the past three decades.<sup>62</sup>

Moving forward, changes will be most obvious in changes to the nature of jobs and tasks, rather than jobs disappearing altogether.<sup>63</sup> Human skills such as communication, teamwork and problem-solving which cannot be automated will continue to grow in importance. In fact, previous research by Deloitte Access Economics (commissioned by DeakinCo.) estimated that two-thirds of all jobs would be soft-skill intensive by 2030.<sup>64</sup> Further, the number of jobs in human-skill intensive occupations is expected to grow at 2.5 times the rate of jobs in other occupations – especially as more occupations become increasingly services focused.<sup>65</sup>

As a result, the number of businesses who are investing in human skills is high: **92% of businesses surveyed for this report have invested in soft skills training, with 61% reporting a set budget for human skills training.**

Not only do businesses have to deal with the changing skills landscape, but also the impact of border restrictions on skills availability. Even before COVID-19, skills shortages are the second most cited barrier to business performance.<sup>66</sup> Today, over half of employers who reported difficulty in attracting new staff in 2021 identified border closures as the most common barrier to recruitment.<sup>67</sup> Job vacancies rose 19% to 396,000 job vacancies in November 2021 – 169,000 more vacancies than before the start of the pandemic.<sup>68</sup>

Reflective of the longer term trend relating to skills, when businesses were asked to identify their top skills gaps in the survey, the majority selected human skills. Specifically, this included adaptability and flexibility (selected by 29% of businesses), customer service (28%) and critical thinking and problem-solving (28%). Other in-demand skills include digital skills such as data analysis and digital literacy (Chart 5.1).

**Chart 5.1:** Top five skills gaps (business survey)



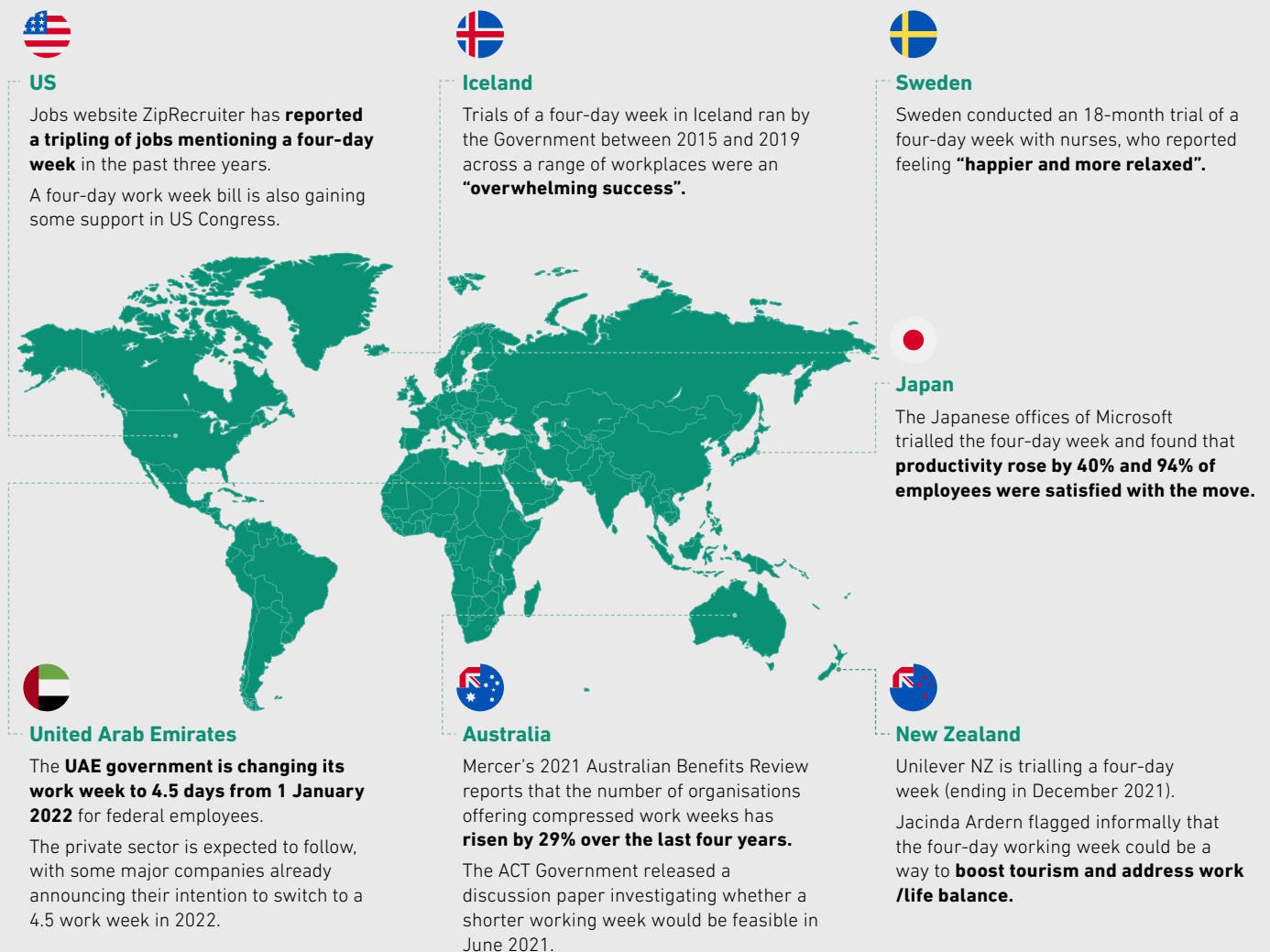
Source: Deloitte Access Economics Business Survey.

# FUTURE STATE KEY THEME: THE FOUR-DAY WORK WEEK

**L&D will play an important role in creating the future of work, even if work looks completely different. One such feature of the future of work may be the four-day work week. The four-day work week in this context can be defined as working one less day without a loss in pay (often referred to as a “working time reduction”).**

The idea of a four-day work week has gained considerable momentum recently, with trials for the four-day work week being run around the world, and by a variety of companies. In Australia, the number of organisations offering shorter work weeks has risen by 29% over the last four years.<sup>69</sup> Even governments are taking notice: the ACT Government is investigating whether a shorter working week would be feasible, after releasing a discussion paper in June 2021 with written submissions due in February 2022.<sup>70</sup>

Chart 5.2: Key international developments for the four-day work week



Source: Bloomberg,<sup>81</sup> Autonomy,<sup>82</sup> Forbes,<sup>83</sup> Unilever NZ,<sup>84</sup> World Economic Forum,<sup>85</sup> Mercer,<sup>86</sup> ACT Government,<sup>87</sup> Forbes.<sup>88</sup>

There are a range of potential benefits associated with a four-day work week. A 2019 research paper from the University of Reading found that almost two-thirds of employers who trialled a four-day work week reported an increase in staff productivity, and improved quality of work.<sup>71</sup> The Microsoft trial in Japan recorded a 40% increase in sales per employee, while also reducing office overheads.<sup>72</sup> Improved work/life balance is also a key objective of the four-day work week, which has led to improved employee retention in some company trials.<sup>73</sup>

And importantly for L&D, research suggests that L&D activity is better absorbed when employees are rested.<sup>74</sup> With improving work life balance and decreasing stress a key goal of the four-day work week, L&D within businesses may benefit from a switch to shorter working hours – and more engaged and rested staff.

Undoubtedly, interest in the four-day work week is growing. The majority of businesses in our business survey (84%) agree or strongly agree that the four-day work week could help boost employee productivity and wellbeing. Only 4% of businesses disagreed, indicating there is considerable appetite to examine the potential of a four-day work week in Australia.

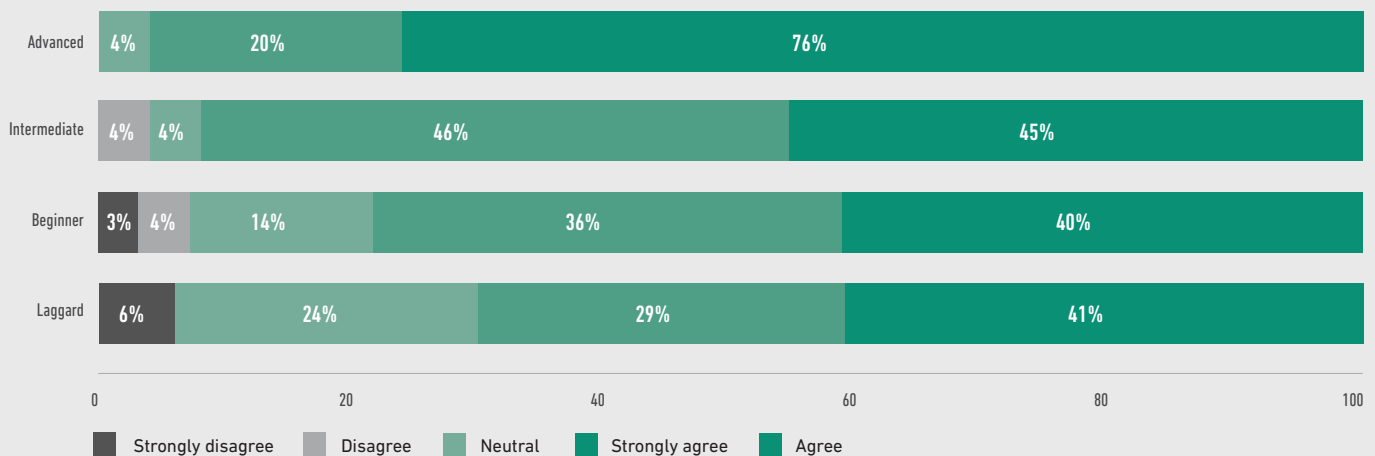
Importantly, this report finds that Advanced learning organisations were much more likely to agree or strongly agree that a four-day work week could help to boost employee productivity and wellbeing. In particular, 76% of Advanced learning organisations strongly agreed that the four-day work week could boost productivity and wellbeing; significantly higher than the 40%-45% recorded for Laggards, Beginners and Intermediate learning organisations. This likely emerges from the learning strategy and learning culture within Advanced learning organisations, which recognises the need for engaged and well-rested employees in the rollout of L&D activity.

## THE MAJORITY OF BUSINESSES IN OUR BUSINESS SURVEY (84%) AGREE OR STRONGLY AGREE THAT THE FOUR-DAY WORK WEEK COULD HELP BOOST EMPLOYEE PRODUCTIVITY AND WELLBEING.

L&D and the four-day work week are closely linked by productivity, well-being and engagement. When effective L&D activity is able to boost productivity, employees are equipped with the skills to work less and more efficiently, setting up the foundations for the four-day work week. And with a four-day work week, employees can prioritise well-being and work life balance in a new way, allowing employees to absorb L&D the most effectively.

However, this shift to a four-day work week will not be without its challenges. Four-day work weeks are not a reality for every industry or business. Matching work flexibility with customer needs and servicing is a key barrier identified by the University of Reading’s research: 82% of businesses identified the need to be available for client and customer servicing as a key barrier against implementing a four-day work week.<sup>75</sup> The lessons from trials to date suggest incremental changes to working hours, rather than a direct shift to a four-day work week, may be an effective transition to larger, more permanent changes.<sup>76</sup>

**Chart 5.3:** Responses to “the four-day work week could help boost employee productivity and wellbeing” by learning organisation classification



Source: Deloitte Access Economics Business Survey.

## 5.2 BUILDING SKILLS THROUGH L&D

As businesses struggle to find the skills they need in the changing skills landscape above, it's clear that L&D could play a significant role in ensuring employees are equipped with the right skills for the future of work.

Yet, when asked how they were planning to fill skills gaps within their organisation, most surveyed businesses were split between hiring and training their current staff. On average across the top five skills gaps (which were adaptability and flexibility, customer service, critical thinking and problem-solving, data analysis and digital literacy), **39% of organisations plan to introduce training targeting these skills while 27% plan to hire more people** (Chart 5.4). Given the skills shortages currently impacting Australian businesses, it's unclear whether this level of investment in L&D will be enough for businesses to keep pace with current skill demands throughout the labour market.

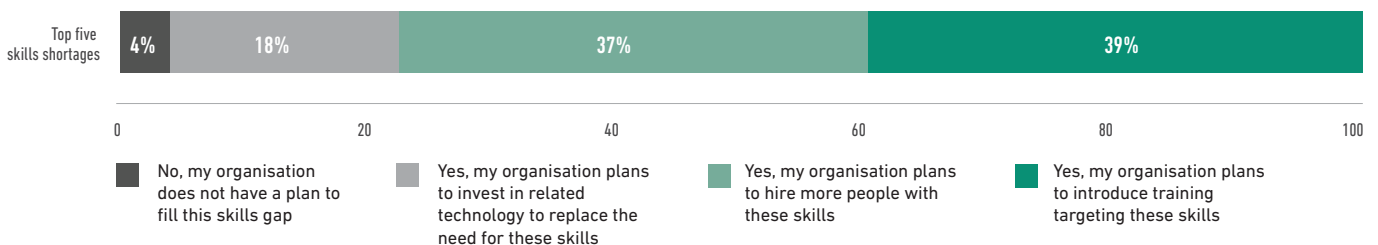
Interestingly, close to one in five (18%) surveyed businesses plan to invest in related technology to replace the need for key skills. This perhaps reflects the trend during COVID-19 of rising automation of digitalisation of business functions.

Furthermore, business plans to fill skills gaps also varies by the type of skill. As an example, 48% of businesses in our survey who identified organisation and time management as a key skills gap planned to introduce training targeting this skill, compared to 21% for innovation skills.

For businesses looking to fill skills gaps through hiring, there are significant risks and costs. Research suggests that the cost of replacing a bad hire can be 2.5 times that person's salary, and hiring externally typically means higher wages paid, more difficulty making relationships and lower productivity when hires first join due to time needed to onboard.<sup>77</sup> This suggests that businesses risk missing out on financial benefits associated with improved retention and internal mobility if they don't leverage L&D. Particularly when faced with current skills shortages, businesses who do not leverage L&D may struggle to find the right staff indefinitely.

More optimistically, total hours spent on training is expected to increase significantly post-COVID. **Businesses now expect the amount of training to increase to over 100 minutes per week, on average, up from less than 90 minutes prior to the pandemic.** This reflects an increase of 19% from before and during COVID-19 levels of training (Chart 5.1).

**Chart 5.4:** How organisations plan to fill the top five skills gaps identified (average across skills gaps)



Source: Deloitte Access Economics Business Survey.

Note: the top five skills gaps identified were adaptability and flexibility, customer service, critical thinking and problem-solving, data analysis and digital literacy.

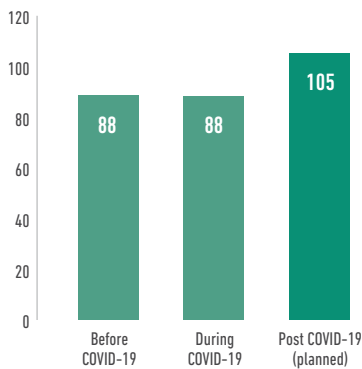
Notably, some industries plan to do more than others. Household services and goods distribution businesses (who reported lower levels of L&D pre-COVID) are planning for employees to spend 40% and 31% more time per week respectively on L&D – a significant increase for business L&D activity within these industries. And even though business services and goods production industries reported higher levels of time spent on training before COVID-19, these businesses still plan to increase time spent on L&D post-COVID by at least 10%.

Australian businesses are facing immense skills shortages in the post-COVID environment. While businesses are planning to introduce more L&D as a potential solution, many are still relying on hiring to get the skills they need; with the risk of not being able to find the right people with the right skills for prolonged periods.

It is clear that L&D can provide many benefits for businesses, *if* businesses choose to invest in L&D. Not only can L&D help fill skills gaps from within but it can also equip Australian workers with the skills they need to face the future of work. Further, this report found that a 1% increase in L&D spending per employee is associated with a 0.2% increase in revenue per employee in the same year – equivalent to an additional \$4.70 for every \$1 invested – and affirming the impact of L&D on business performance.

**AS BUSINESSES STRUGGLE TO FIND THE SKILLS THEY NEED IN THE CHANGING SKILLS LANDSCAPE, IT'S CLEAR THAT L&D COULD PLAY A SIGNIFICANT ROLE IN ENSURING EMPLOYEES ARE EQUIPPED WITH THE RIGHT SKILLS FOR THE FUTURE OF WORK.**

**Chart 5.5:** Average time spent on training before, during and after COVID-19 for surveyed Australian businesses



Source: Deloitte Access Economics Business Survey.

# REFERENCES

- 1 Australian Bureau of Statistics, Job Vacancies, Australia, November 2021 (January 2022).
- 2 Gallup, Global Study: ROI for Strengths-Based Development (2016) < <https://www.gallup.com/workplace/236288/global-study-roi-strengths-based-development.aspx>>.
- 4 Gallup, Global Study: ROI for Strengths-Based Development (2016) < <https://www.gallup.com/workplace/236288/global-study-roi-strengths-based-development.aspx>>.
- 5 Deloitte Access Economics, Building the Lucky Country: Why the future of work is human (2019) <<https://www2.deloitte.com/au/en/pages/building-lucky-country/articles/path-prosperity-future-work.html>>.
- 6 Deloitte Access Economics, Soft skills for business success (report commissioned by DeakinCo., May 2017) <<https://www2.deloitte.com/au/en/pages/economics/articles/soft-skills-business-success.html>>.
- 7 Australian Bureau of Statistics, National, state and territory population, June 2021 (December 2021).
- 8 Deloitte, CFO Sentiment: Resilient in the face of uncertainty (2022) < <https://www2.deloitte.com/au/en/pages/about-deloitte/articles/cfo-sentiment-edition-12.html>>.
- 9 NAB, Quarterly Business Survey – December 2021 (3 February 2022) < <https://business.nab.com.au/nab-quarterly-business-survey-december-2021-50997/>>.
- 10 TAFE NSW, TAFE Enterprise Skills and Australian Business Report 2018, < <https://www.tafensw.edu.au/enterprise-report>>.
- 11 Edcast, Learning Health Index Study 2020: Putting Learning Health Under the Scanner (2020), <<https://go.edcast.com/l/139221/2021-05-10/2mfiftn>>.
- 12 Go1, The positive impact of learning and development on organisations (07 November 2019) < <https://www.go1.com/en-au/blog/post-the-positive-impact-of-learning-and-development-on-organisations>>.
- 13 Australian Bureau of Statistics, National Accounts, June 2020 (02 September 2020).
- 14 Hassan Vally & Catherine Bennett, COVID in Victoria: 262 days in lockdown, 3 stunning successes and 4 avoidable failures, The Conversation, < <https://theconversation.com/covid-in-victoria-262-days-in-lockdown-3-stunning-successes-and-4-avoidable-failures-172408>>.
- 15 Australian Bureau of Statistics, Job Vacancies, Australia, November 2021 (January 2022).
- 16 Australian Bureau of Statistics, Characteristics of Employment, August 2021 (14 December 2021).
- 17 Google, 'Community Mobility Reports' (2021) <<https://www.google.com/covid19/mobility/>>.
- 18 Australian Bureau of Statistics, Household impacts of COVID survey, June 2021 (8 December 2021).
- 19 Productivity Commission, Working from Home (Research paper, 16 September 2021) < <https://www.pc.gov.au/research/completed/working-from-home>>.
- 20 Ibid.
- 21 The Adecco Group, Resetting Normal: Defining the New Era of Work (2021) <<https://www.adecco.com.au/resetting-normal/>>.
- 22 Ibid.
- 23 Australian Government, Digital Economy Strategy 2030 (Strategy report, 2021) <<https://digitaleconomy.pmc.gov.au/strategy/australia>>.
- 24 Ibid.
- 25 Australian Bureau of Statistics, Retail Trade, October 2021 (8 December 2021).
- 26 Australian Communications and Media Authority, Communications and media in Australia: how we use the internet (Research report, 10 December 2021) <<https://www.acma.gov.au/publications/2021-05/report/communications-and-media-australia-how-we-use-internet>>.
- 27 AlphaBeta, Unlocking APAC's Digital Potential: Changing Digital Skill Needs and Policy Approaches (2021) < <https://access.awscloud.com/i/1354318-awsp-apac-digital-skills-research-report-en-mar-2021/0?>>.
- 28 LinkedIn Learning, Workplace Learning Report (2021) <<https://learning.linkedin.com/resources/workplace-learning-report>>.
- 29 Ibid.
- 30 McKinsey and Company, Adapting workplace learning in the time of coronavirus (17 March 2020) < <https://www.mckinsey.com/business-functions/people-and-organizational-performance/our-insights/adapting-workplace-learning-in-the-time-of-coronavirus>>.
- 31 Hassan Vally & Catherine Bennett, COVID in Victoria: 262 days in lockdown, 3 stunning successes and 4 avoidable failures, The Conversation, < <https://theconversation.com/covid-in-victoria-262-days-in-lockdown-3-stunning-successes-and-4-avoidable-failures-172408>>.
- 32 LinkedIn Learning, Workplace Learning Report (2019) <<https://learning.linkedin.com/resources/workplace-learning-report-2019>>.
- 33 MindTools for Business, Innovate, Dominate or Decline: 2021 Annual L&D Benchmark Report (7 December 2021) <<https://mindtoolsbusiness.com/research-and-reports/innovate-dominate-decline>>.
- 34 Australian Bureau of Statistics, Business conditions and sentiments , June 2020 (24 June 2020).
- 35 Ottawa University, 5 Benefits of Training and Development (2021), <<https://www.ottawa.edu/online-and-evening/blog/january-2021/5-benefits-of-training-and-development>>.
- 36 Peter Senge, The Fifth Discipline (Currency, 1st ed, 1990).
- 37 David A Garvin, 'Building a Learning Organization' (1993) Harvard Business Review; Victoria Marsick and Karen Watkins, 'The Dimensions of a Learning Organization Questionnaire' (1997) Warwick, RI: Partners for the Learning Organization; Robyn Johnston and Geof Hawke, 'Case studies of organisations with established learning cultures' (2002) NCVER.
- 38 Garvin et al, Is Yours a Learning Organization? Harvard Business Review (2008) Harvard Business Review.
- 39 Edcast, Learning Health Index Study 2020: Putting Learning Health Under the Scanner (2020), <<https://go.edcast.com/l/139221/2021-05-10/2mfiftn>>.
- 40 LinkedIn Learning, Workplace Learning Report (2020) <<https://learning.linkedin.com/resources/workplace-learning-report>>.
- 41 Edcast, Learning Health Index Study 2020: Putting Learning Health Under the Scanner (2020), <<https://go.edcast.com/l/139221/2021-05-10/2mfiftn>>.
- 42 Forbes, The rise of online learning, May 2 2020 <<https://www.forbes.com/sites/ilkerkoksal/2020/05/02/the-rise-of-online-learning/?sh=e6cf09172f3c>>.
- 43 MindTools for Business, Innovate, Dominate or Decline: 2021 Annual L&D Benchmark Report (7 December 2021) <<https://mindtoolsbusiness.com/research-and-reports/innovate-dominate-decline>>.
- 44 Deloitte Access Economics, Soft skills for business success (report commissioned by DeakinCo., May 2017) <<https://www2.deloitte.com/au/en/pages/economics/articles/soft-skills-business-success.html>>.
- 45 Gallup, Global study: ROI for Strengths-Based Development (19 March 2020) < <https://www.gallup.com/workplace/236288/global-study-roi-strengths-based-development.aspx>>.
- 46 MindTools for Business, Innovate, Dominate or Decline: 2021 Annual L&D Benchmark Report (7 December 2021) <<https://mindtoolsbusiness.com/research-and-reports/innovate-dominate-decline>>.
- 47 LinkedIn Learning, Workplace Learning Report (2018) <<https://learning.linkedin.com/resources/workplace-learning-report-2018>>.
- 48 Deloitte Access Economics, The wage premium associated with human skills (commissioned by DeakinCo., 2019) <<https://www2.deloitte.com/au/en/blog/government-public-services-blog/2020/wage-premium-associated-with-human-skills.html>>.
- 49 Glint, New Data Shows How Learning Fuels Employee Engagement (19 March 2020) <<https://www.glintinc.com/blog/new-data-shows-how-learning-fuels-employee-engagement/>>.
- 50 Bassi, L.J. and McMurrer, D.P. Toward a Human Capital Measurement Methodology (2008) <<https://journals.sagepub.com/doi/10.1177/1523422308325611>>.



- 51 The Growth Faculty, The Good News – This Staff Benefit Gives You 353% ROI For Every \$1 Spent (2018) < <https://www.thegrowthfaculty.com/blog/TheGoodNewsstaffbenefitgivesyou353ROIforevery1spent>>.
- 52 McGovern, J.L. et al, Maximizing the impact of executive coaching: Behavioral change, organizational outcomes and return on investment, *The Manchester Review*, 6(1), 1-9. < <https://www.performanceconsultants.com/document/maximizing-the-impact-of-executive-coaching.pdf>>.
- 53 Gallup, Global Study: ROI for Strengths-Based Development (2016) < <https://www.gallup.com/workplace/236288/global-study-roi-strengths-based-development.aspx>>.
- 54 MindTools for Business, Innovate, Dominate or Decline: 2021 Annual L&D Benchmark Report (7 December 2021) <<https://mindtoolsbusiness.com/research-and-reports/innovate-dominate-decline>>.
- 55 Deloitte, CFO Sentiment: Resilient in the face of uncertainty (2022) < <https://www2.deloitte.com/au/en/pages/about-deloitte/articles/cfo-sentiment-edition-12.html>>.
- 56 Organisation for Economic Co-operation and Development (OECD), Preparing for the future of work across Australia (Research report, 24 September 2021).
- 57 World Economic Forum, The Future of Jobs Report 2020 (Report, 20 October 2020).
- 58 National Skills Commission, State of Australia's Skills 2021: now and into the future (Report, 6 December 2021) < <https://www.nationalskillscommission.gov.au/state-australias-skills-2021-now-and-future>>.
- 59 Department of Employment, Skills, Small and Family Business, Changes in the Australian labour market: a 30-year perspective (Special topic report, 2019) < <http://lmpip.gov.au/default.aspx?LMIP/GainInsights/SpecialTopicReports>>.
- 60 Australian Bureau of Statistics, Labour Force detailed, October 2021 (8 December 2021).
- 61 Ibid.
- 62 Department of Employment, Skills, Small and Family Business, Changes in the Australian labour market: a 30-year perspective (Special topic report, 2019) < <http://lmpip.gov.au/default.aspx?LMIP/GainInsights/SpecialTopicReports>>.
- 63 Deloitte, The path to prosperity: Why the future of work is human (2019) < <https://www2.deloitte.com/au/en/pages/building-lucky-country/articles/path-prosperity-future-work.html>>.
- 64 Deloitte Access Economics, Soft skills for business success (report commissioned by DeakinCo., May 2017) <<https://www2.deloitte.com/au/en/pages/economics/articles/soft-skills-business-success.html>>.
- 65 Ibid.
- 66 Deloitte, The path to prosperity: Why the future of work is human (2019) < <https://www2.deloitte.com/au/en/pages/building-lucky-country/articles/path-prosperity-future-work.html>>.
- 67 RMIT, Ready Set Upskill – Fast track growth with digital skills (2022) <<https://online.rmit.edu.au/insights/2022>>.
- 68 Australian Bureau of Statistics, Job Vacancies, Australia, November 2021 (January 2022).
- 69 'Is Australia moving towards a four-day work week? Mercer's Australian Benefits Review suggests it could be', Mercer <<https://www.mercer.com.au/newsroom/is-australia-moving-towards-a-four-day-work-week.html>>.
- 70 Legislative Assembly for the Australian Capital Territory, Inquiry into the future of the working week (Discussion paper, 16 June 2021) <<https://www.parliament.act.gov.au/parliamentary-business/in-committees/committees/egee/inquiry-into-the-future-of-the-working-week>>.
- 71 Henley Business School (University of Readings), 'Four better or four worse?' (White paper, 2019) <<https://www.henley.ac.uk/fourdayweek>>.
- 72 Zoe Kleinman, 'Microsoft four-day work week 'boosts productivity'', BBC (online, 4 November 2019) <<https://www.bbc.com/news/technology-50287391>>.
- 73 Julie Gilbert, 'MRL Consulting Group boosts retention and productivity with four-day work week', *Employeebenefits* (online, 12 December 2019) <<https://employeebenefits.co.uk/mrl-95-staff-retention-four-day-week/>>.
- 74 Deloitte, The disconnect disconnect (22 January 2021) < <https://www2.deloitte.com/uk/en/insights/topics/talent/culture-vacation-policy-trends-employee-burnout.html#endnote-9>>.
- 75 Henley Business School (University of Readings), 'Four better or four worse?' (White paper, 2019) <<https://www.henley.ac.uk/fourdayweek>>.
- 76 Legislative Assembly for the Australian Capital Territory, Inquiry into the future of the working week (Discussion paper, 16 June 2021) <<https://www.parliament.act.gov.au/parliamentary-business/in-committees/committees/egee/inquiry-into-the-future-of-the-working-week>>.
- 77 Deloitte Access Economics, Soft skills for business success (report commissioned by DeakinCo., May 2017) <<https://www2.deloitte.com/au/en/pages/economics/articles/soft-skills-business-success.html>>; Matthew Bidwell, 'Paying More to Get Less: The Effects of External Hiring versus Internal Mobility' (2011) *Administrative Science Quarterly*.
- 78 Australian Government, Digital Economy Strategy 2030 (Strategy report, 2021) <<https://digitaleconomy.pmc.gov.au/strategy/australia>>.
- 79 Australian Communications and Media Authority, Communications and media in Australia: how we use the internet (Research report, 10 December 2021) <<https://www.acma.gov.au/publications/2021-05/report/communications-and-media-australia-how-we-use-internet>>.
- 80 Australian Bureau of Statistics, Retail Trade, October 2021 (8 December 2021).
- 81 Stefan Nicola, 'Tell your boss the Four-Day Week is coming soon', *Bloomberg* (online, 2 March 2021) <<https://www.bloomberg.com/news/articles/2021-03-02/four-day-work-week-gains-popularity-around-the-world>>.
- 82 *Autonomy*, Going public: Iceland's journey to a shorter working week (4 July 2021) <<https://autonomy.work/portfolio/icelandsw/>>.
- 83 Jack Kelly, 'Microsoft Japan launched a four-day work week to much success: is this the key to attracting talent in the tight US job market?', *Forbes* (online, 5 November 2019) <<https://www.forbes.com/sites/jackkelly/2019/11/05/microsoft-japan-launched-a-four-day-work-week-to-much-success-is-this-the-answer-to-attract-talent-in-the-tight-us-job-market/?sh=7310b4fc59ff>>.
- 84 Unilever NZ, 'Unilever NZ to trial four-day work week at fully pay' (1 December 2020) <<https://www.unilever.com.au/news/press-releases/2020/unilever-nz-to-trial-four-day-work-week-at-fully-pay/>>.
- 85 Kate Whiting, 'New Zealand Prime Minister opens door to 4-day working week', *World Economic Forum* (online, 20 May 2020) <<https://www.weforum.org/agenda/2020/05/new-zealand-jacinda-ardern-4-day-week-pandemic-productivity/>>.
- 86 Mercer, 'Is Australia moving towards a four-day work week? Mercer's Australian Benefits Review suggests it could be', Mercer (online, 30 September 2021) <<https://www.mercer.com.au/newsroom/is-australia-moving-towards-a-four-day-work-week.html>>.
- 87 Legislative Assembly for the Australian Capital Territory, Inquiry into the future of the working week (Discussion paper, 16 June 2021) <<https://www.parliament.act.gov.au/parliamentary-business/in-committees/committees/egee/inquiry-into-the-future-of-the-working-week>>.
- 88 Lisa Kim, 'UAE to adopt 4.5 day working week to match global markets', *Forbes* (online, 7 December 2021) < <https://www.forbes.com/sites/lisakim/2021/12/07/uae-to-adopt-4--day-working-week-to-match-global-markets/?sh=41e8b8df1871>>.

# APPENDIX A: TECHNICAL APPENDIX

## A1. BUSINESS SURVEY

To inform this report, Deloitte Access Economics designed a bespoke survey, conducted by Ipsos in November 2021. The survey was completed by business leaders or HR professionals from 206 large Australian businesses with at least 200 employees or more. Responses were vetted for data quality and eight respondents were dropped from the sample, resulting in a core sample of 198 respondents.

The results provide insight into the current and future state of L&D in Australian businesses, the benefits and barriers of L&D, the skills being targeted by employers and how L&D has been impacted by COVID-19.

Key demographic information on these businesses including location, industry, business age and employee characteristics are summarised in the tables below.

**Table A.1:** Business survey respondents by state

State	Percentage
New South Wales	28%
Victoria	37%
Queensland	18%
South Australia	5%
West Australia	9%
Tasmania	2%
Northern Territory	1%

Source: Deloitte Access Economics (2021).

**Table A.2:** Business survey respondents by industry

Industry	Percentage
Agriculture, forestry, fishing and hunting	1%
Mining	2%
Manufacturing	6%
Electricity, gas and water supply	3%
Construction	6%
Wholesale trade	2%
Retail trade	11%
Accommodation, cafes and restaurants	6%
Transport, postal and warehousing	2%
Information, media and telecommunications	18%
Finance and insurance	11%
Rental, hiring and real estate services	1%
Professional, scientific and technical services	7%
Administrative and support services	2%
Public administration and safety	6%
Education and training	3%
Health care and social assistance	8%
Arts and recreation services	0%
Other services	8%

Source: Deloitte Access Economics (2021).Table A.3: Business survey respondents by industry grouping

**Table A.3:** Business survey respondents by industry grouping

Industry grouping	Industries	Percentage
Business services	Information, media and telecommunications; Finance and insurance; Professional, scientific and technical services; Administrative and support services; Rental, hiring and real estate services	37%
Household services	Other services; Health care and social assistance; Accommodation, cafes and restaurants; Public administration and safety; Education and training; Arts and recreation services	30%
Goods production	Manufacturing; Construction; Electricity, gas and water supply; Mining; Agriculture, forestry, fishing and hunting	18%
Goods distribution	Retail trade; Wholesale trade; Transport, postal and warehousing	15%

Source: Deloitte Access Economics (2021). Table A.4: Business survey respondents by business age

**Table A.4:** Business survey respondents by business age

Age	Percentage
Less than 6 months	1%
At least 6 months, less than 2 years	4%
At least 2 years, less than 5 years	6%
At least 5 years, less than 10 years	28%
At least 10 years, less than 20 years	24%
20 years or longer	38%

Source: Deloitte Access Economics (2021).

**Table A.5:** Business survey respondents by employee characteristics

Employee characteristics	Percentage
Executive or business owner	6%
CEO	7%
Director	21%
Manager	60%
HR or L&D Professional	6%

Source: Deloitte Access Economics (2021).

**Table A.6:** Top barriers to implementing L&D in businesses

Barrier	Percentage
<b>Business services</b>	
COVID-19 has made it difficult to implement training	51%
Lack of motivation among employees for learning	35%
There isn't enough time	34%
Costs too much to implement	33%
<b>Household services</b>	
There isn't enough time	53%
COVID-19 has made it difficult to implement training	44%
Costs too much to implement	42%
Lack of motivation among employees for learning	32%
<b>Goods production</b>	
Lack of motivation among employees for learning	37%
There isn't enough time	37%
Costs too much to implement	34%
COVID-19 has made it difficult to implement training	32%
<b>Goods distribution</b>	
COVID-19 has made it difficult to implement training	53%
There isn't enough time	50%
Difficult to motivate while working from home	40%
Company culture does not support continuous learning	37%

Source: Deloitte Access Economics Business Survey.

## A2. LEARNING MATURITY FRAMEWORK

To determine a businesses' learning maturity, the following steps were taken.

- Survey questions were divided among the four learning maturity pillars: strategy, culture, measurement and structure.
- Each response for each question was assigned a score, based on the within-question level of learning maturity. Within each question, the maximum possible score varied.
- Businesses' responses were scored and then summed together within each pillar based on the scoring adopted in step 2, then normalised to 100.
- Finally, the total learning maturity score was calculated by summing pillar scores from step 3 and was normalised to 100. In the sample, the average score was 73. The lowest score was 8 and the highest was 100.
- Respondents were then grouped into four learning maturity classes based on the cut-off scores shown in Table A.4.

**Table A.7:** Learning maturity cut-offs and rankings

Learning maturity level	Lower bound	Upper bound
Laggard	0	50
Beginner	50	75
Intermediate	75	90
Advanced	90	100

Source: Deloitte Access Economics (2021).

**Table A.8:** Distribution of responses based on category

Learning maturity level	Percentage
Laggard	9%
Beginner	36%
Intermediate	42%
Advanced	13%

Source: Deloitte Access Economics (2021).

## A3. ECONOMETRIC MODELLING

To estimate the benefits L&D investments have on organisation performances, a regression approach was used. This approach allows us to isolate the impact of L&D investment while controlling for other factors that may also have an impact on organisation performance, such as industry and geographical region.

A range of financial metrics were tested in this study, including revenue, profit and attrition rate. In this report, only two financial outcomes were reported: (1) revenue and (2) revenue per employee, as others did not produce any statistically significant results.

A standard log-log regression model was used to determine the impact of an increase in L&D spending per employee on revenue and revenue per employee. To help isolate the effect of investment in L&D, the modelling controls for a range of factors including business size, business age, industry, region, and year. The regression specification is as follows:

$$\log(\text{revenue}) = \beta_0 + \beta_1 \log(\text{L\&D spending per employee}) + \beta_2 \text{Region} + \beta_3 \text{Industry} + \beta_4 \text{Business age} + \beta_5 \text{Business size} + \text{year}_{2020} + \text{year}_{2021} + \epsilon$$

$$\log(\text{revenue per employee}) = \beta_0 + \beta_1 \log(\text{L\&D spending per employee}) + \beta_2 \text{Region} + \beta_3 \text{Industry} + \beta_4 \text{Business age} + \beta_5 \text{Business size} + \text{year}_{2020} + \text{year}_{2021} + \epsilon$$

In the survey, businesses were asked to provide information about their financial performance and training spend over three consecutive years – from 2018-19 to 2020-21. Our regressions used pooled data across the three years, and to account for the fact that revenue and training spend might have been affected by COVID-19, two indicator variables were included for year 2020 and 2021.

### Data cleaning

Various steps were taken to clean the survey data informing analysis in this report.

The sample initially consisted of 206 respondents. Eight respondents were identified as straight-liners i.e., respondents who provided the same responses in a question array. These were dropped from the sample, resulting in a core sample of 198 respondents.

For the financial analysis, further steps were taken to ensure information provided by businesses was reasonable:

- Respondents who provided L&D spending which exceeded their revenue or expenditure on wages were dropped from the sample. Approximately 88 businesses were dropped.
- In addition, respondents within the top ten percentile by L&D spending per employee and top ten percentile of revenue were identified as outliers and dropped from the sample.

Following these cleaning steps, 95 responses remained in the sample, which was used for all financial analysis in this report alongside the econometric modelling (detailed below).

## Results

A 1% increase in L&D spending per employee is associated with a 0.17% increase in revenue. This is statistically significant at the 10% level. Table A.4 summaries the regression results.

**Table A.4:** regression results for log of revenue

<b>Independent variable</b>	<b>Coefficient estimate</b>
Log L&D spend per employee	0.1698*
<b>Region dummy variables</b>	
New South Wales	2.7601***
Northern Territory	2.8621***
Queensland	2.9556***
South Australia	2.3568**
Victoria	3.5138***
Western Australia	3.9564***
<b>Industry dummy variables</b>	
Admin and support services	1.5868***
Agriculture, forestry, fishing and hunting	0.3614
Construction	0.1434
Education and training	1.0465
Electricity, gas and water supply	1.4269***
Finance and insurance	0.3718
Health care and social assistance	-0.6763**
Information, media and telecommunications	0.0572
Manufacturing	-0.1894
Mining	0.1913
Other services	0.4390
Professional, scientific and technical services	0.4746*
Public administration and safety	0.1343
Rental, hiring and real estate services	-2.2805**
Retail trade	1.0822**
Transport, postal and warehousing	-0.2763
Wholesale trade	2.8362***
<b>Years of operation dummy variables</b>	
2-5 years	-0.8331
10-20 years	-1.0438
More than 20 years	-0.0040
<b>Size of business</b>	
Number of full-time employees	0.0001
Number of part-time employees	0.0001
<b>Year dummy variables</b>	
Year 2020	0.0940**
Year 2021	0.1000
Intercept	0.2894

Source: Deloitte Access Economics. Note: \*\*\* significant at 1% level, \*\* significant at 5% level, \* significant at 10% level.



A 1% increase in L&D spending per employee is associated with a 0.22% increase in revenue per employee. This is statistically significant at the 5% level. Table A. 5 summaries the regression results.

**Table A.5:** regression results for log of revenue per employee

<b>Independent variable</b>	<b>Coefficient estimate</b>
Log L&D spend per employee	0.2206**
<b>Region dummy variables</b>	
New South Wales	2.0595***
Northern Territory	1.6002***
Queensland	2.0856***
South Australia	2.1833**
Victoria	2.6220***
West Australia	3.1615**
<b>Industry dummy variables</b>	
Admin and support services	1.8912***
Agriculture, forestry, fishing and hunting	0.5658
Construction	0.8212***
Education and training	0.0021
Electricity, gas and water supply	1.3725***
Finance and insurance	0.0565
Health care and social assistance	-0.8004***
Information, media and telecommunications	0.5034*
Manufacturing	0.2244
Mining	0.9445**
Other services	0.2548
Professional, scientific and technical services	0.5683***
Public administration and safety	0.1933
Rental, hiring and real estate services	-2.1966**
Retail trade	0.6331
Transport, postal and warehousing	-0.4161
Wholesale trade	2.6653***
<b>Years of operation dummy variables</b>	
2-5 years	-0.5935
5-10 years	-1.7362*
10-20 years	-1.2620
More than 20 years	-0.1444
<b>Size of business</b>	
Number of full-time employees	-0.0001
Number of part-time employees	-0.0002
<b>Year dummy variables</b>	
Year 2020	0.0624
Year 2021	0.0575

Source: Deloitte Access Economics. Note: \*\*\* significant at 1% level, \*\* significant at 5% level, \* significant at 10% level.

### **Limitations**

While results presented in this report suggest a significant relationship between L&D spending and revenue and revenue per employee in the same year, the modelling did not find a significant relationship between changes in L&D spending and revenue growth. This could be because:

- Within each business, L&D spending does not vary much from year to year
- L&D spending is larger for large firms who have higher but more stable revenue and productivity growth
- Growth was only observed for a limited number of years (i.e. two years), including over the COVID-19 period. To appropriately model the effect of changes in L&D spending on revenue growth, a more extensive observation period would be required.

This report was commissioned by DeakinCo.  
a division of Deakin University

Tower 2, Level 12, 727 Collins St  
Melbourne, Victoria, 3008

Published by Deakin University, 2022.  
Print ISBN: 978-0-7300-0304-5  
Digital ISBN: 978-0-7300-0224-6


We acknowledge the assistance Deloitte Access Economics provided in preparing and compiling this report.


This work is copyright. Except as indicated, this publication is copyright to Deakin University. Apart from any use as permitted under the Copyright Act 1968, no part may be reproduced by any process without prior written permission.


This subject material is issued by Deakin University on the understanding that: Deakin University, its officials, author(s), or any other persons involved in the preparation of this publication expressly disclaim all or any contractual, tortious, or other form of liability to any person (purchaser of this publication or not) in respect of the publication and any consequences arising from its use, including any omission made by any person in reliance upon the whole or any part of the contents of this publication. Deakin University expressly disclaims all and any liability to any person in respect of anything and of the consequences of anything done or omitted to be done by any such person in reliance, whether whole or partial, upon the whole or any part of the contents of this subject material.

**DeakinCo.**

Tower 2, Level 12  
727 Collins Street  
Melbourne VIC 3008  
+61 3 9918 9000

 DeakinCo

 @DeakinCo

 @DeakinCo

**DEAKINCO.COM**