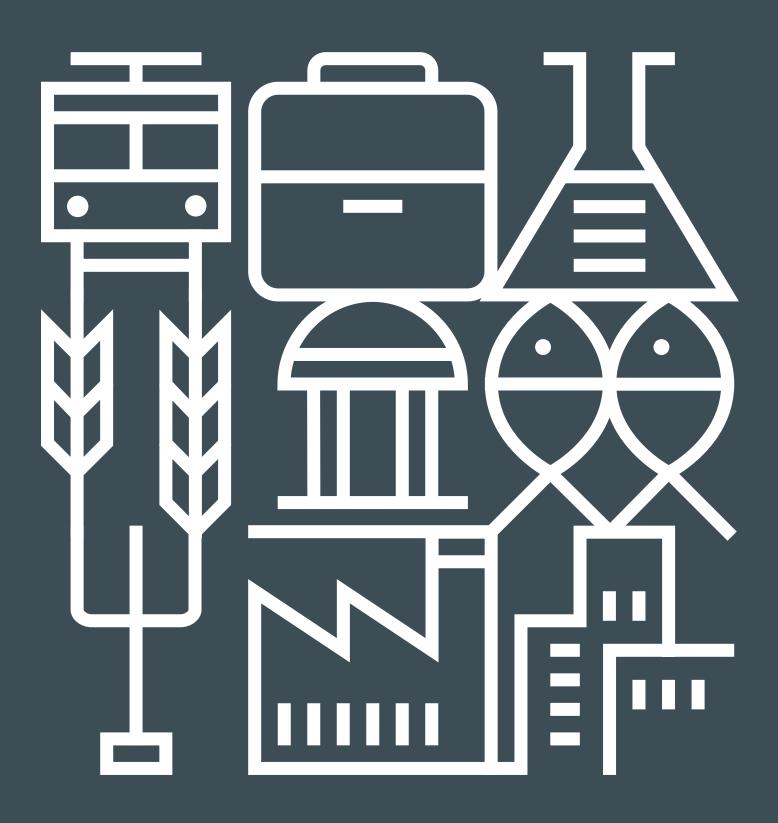
Skills Demand Snapshot



Victoria's landscaping sector September 2019



This document outlines the skills demand profile for the landscaping sector in Victoria. For the purposes of this skills profile, the landscaping sector is defined as businesses who deliver landscaping design, construction and maintenance services.



Prepared by the Office of the Victorian Skills Commissioner for the Minister for Training and Skills, the Hon, Gayle Tierney MP.

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Foreword

This document outlines the skills demand profile for the landscaping sector in Victoria. For the purposes of this skills profile, the landscaping sector is defined as businesses who deliver landscaping design, construction and maintenance services. This profile provides a genuine understanding of the current and future (one to three year horizon) skills and training requirements of the sector.

The success of this work relied on insights from experienced employers within each sector, to provide a sector-wide view of skills requirements and workforce challenges. A total of 12 employers, spanning the full range of services and market segments, were engaged across two separate meetings to develop this skills profile. At both meetings, insights from public data on the landscaping sector were presented and validated with participants.

The meetings provided the opportunity for landscaping employers to input their view of priorities and requirements from the VET system in addressing sector skills issues. This profile can be used by TAFE and training providers to better understand the landscaping sector's priorities in terms of occupation and skill demand to ensure the supply side responds appropriately to VET opportunities.

The Victorian VET system aims to deliver 'real training for real jobs' by providing up to date training for new challenges in the sector. This report is the first in a series of sector profiles which will be developed by the Office of the Victorian Skills Commissioner (OVSC). The set of skills demand snapshots will complement the regional skills demand profiles to provide a richer picture of the skills needs of Victorian employers. Insights from consultations will inform Government in terms of where they should be allocating taxpayers' money to sectors which value accredited training. A collaborative effort between government, employers and training providers is required to address these challenges.

This profile represents a summary of the views of consulted employers and sector representatives on the current and future needs of the landscaping sector. As such, the Office of the Victorian Skills Commissioner has prepared the report with care and diligence, based on information provided through consultations. Subsequently, information in this profile has not been independently verified or audited.

This profile represents a summary of the views of consulted employers and sector representatives on the current and future needs of the landscaping sector.

Acknowledgements

The OVSC would like to acknowledge the time, contribution and insights of participating employers and to Landscaping Victoria in supporting this process. The findings in this report would not be possible without their shared knowledge, openness, generosity, expertise and commitment.

Table 1: Participating Employers

Member	Organisation					
Adam Hompas	Adam Hompas Landscapes					
David Jarman	Coolabah Building and Landscape Construction					
Georgia Harper	Georgia Harper Landscape Design					
lan Barker	lan Barker Gardens					
Russel Sweetman	Maroondah Landscapes					
Bronson Wrigglesworth	Melbourne Landscape Company					
Mike Jansz	Mike Jansz Landscape Consultant Pty Ltd (MJLC)					
Darin Bradbury	MINT design					
Andrew Wilson	PTA Landscapes					
Andrew Semken	Semken Landscaping					
Tyson Owen	Signature Landscapes VIC Pty Ltd					
Pat Pezzimenti	Urban Horticultural Solutions					

Summary

Victoria's landscaping sector



Manager

Experience: 10+ years

Skills: business management, project management, specification, estimation, budgeting, procurement

Salary: \$45k - <u>\$80k</u>

Salary: \$35k - <u>\$65k</u>

Validated career and training pathways

Landscape Designer

Experience: three + years Key skills: graphic design, plan reading, site assessment, basic construction techniques

ON THE JOB TRAINING

interest in post trade Landscape Design skillset

Experience: zero - two years

Key skills: digital drafting

(3D CAD Software), basic plant knowledge

Draftsperson

Construction Supervisor

Pathway to construction industry Experience: five - 20 years Key skills: end to end

construction services, product and plant knowledge, plan reading, people management

ON THE JOB TRAINING

Landscape Apprentices & labourers

Experience: zero - four years

Key skills: landscaping (hard and soft), plant knowledge, teamwork, communication, work ethic

Requirements: tickets (eg. OHS, load excavation, traffic management)

RECOMMENDED TRAINING PATHWAY

Enrol in: Certificate III Landscape in Construction, or Certificate III in Parks and Gardens (only if directed by emplyer)

Maintenance Supervisor

Experience: five - 20 years

salary: \$40k - <u>\$75k</u>

Salary: \$35k - \$60k

Key skills: end to end maintenance services, product and plant knowldge, customer relationship management, people management

ON THE JOB TRAINING

Plant Management, Professional Practice)

Maintenance Apprentices & labourers

Experience: zero - four years

Key skills: plant knowledge, land scpaing (soft) work ethic, teamwork, communication

Requirements: tickets (eg. OHS, load excavation, traffic management)

RECOMMENDED TRAINING PATHWAY Enrol in: Certificate III in Parks and Gardens

Salary: \$40k - \$65k

Salary: \$50k - \$80k

NO RECOMMENDED TRAINING PATHWAY

Proposed course: Advanced Diploma of Landscape Design (subject to course development through WTIF grant) Courses in horticulture, CAD software and graphic design are supported by the sector in the interim

Victorian Skills Commissioner

Other VET courses

May be relevant for futher study, no employment outcome

Not relevant, for personal interest only

Certificate II in Landscaping	Certificate II in Parks and Gardens	Diploma of Landscape Design	Diploma of Parks and Gardens Management	Certificate IV in Landscape	Certificate IV in Parks and Gardens	Diploma of Landscape Project Management
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Note: the chart on the previous page shows core roles in the landscape sector. Additional opportunities exist for people with expertise in irrigation, horticulture, arboriculture, soil sience, machine operation, carpentry, concreting, paving, planting and lighting to fulfil

specialist roles.

- TAFEs to work with Landscaping Victoria and schools to facilitate required apprenticeship enrolments at least 100 more p/y to 2022
- Establish a course advisory commitee in partnership with employers to ensure training remains contexualised to current industry practice
- Remove qualifications with no sector demand from the funded course list

Recommendations for VET system

- Engage employers to update the apprenticeship pathway
- Pilot independent assessment for apprenticeship qualifications
- Support WTIF funding to develop a new Advanced Diploma of Landscape Design
- Market test current skill sets offered under the AHC training package to employers across the sector
- Faciliate the addition of current practitioners in trainer roles

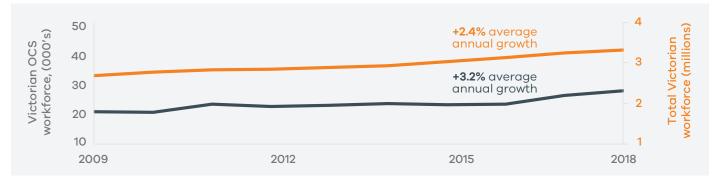


1. Sector overview

The landscaping sector has outperformed the Victorian economy over the past 10 years

Landscaping is a sub component of the broader construction industry, comprising businesses that specialise in the design, construction and/or maintenance of outdoor space. Services blend hard (the man-made features of a landscape such as retaining walls, paths, decks and fences) and soft (the living elements) features to create functional landscapes. The sector had an estimated turnover of approximately \$2.4 billion in 2018, or approximately 0.6 per cent of the Victorian economy¹. Over 10,000 workers are currently employed, and the workforce has grown at an average of three per cent per annum over the past 10 years (see Figure 1).

Figure 1: 'Other construction services' Victorian workforce growth since 2009



Note: OCS includes landscape services, machinery operators, and other construction services. Source: ABS Labour Force Survey, 2019.

Landscaping businesses typically serve three key segments: residential housing, commercial development and government infrastructure. Overall each segment generates similar total revenue. The higher value of commercial and public infrastructure projects is offset by the far larger number of clients in the residential market. For an end to end landscaping project, approximately 80-90 per cent of the revenue is generated through the construction element. The design and maintenance elements generally constitute the remaining 10-20 per cent.

Businesses adopt a common organisational structure with varied levels of vertical integration

More than 1,900 landscaping businesses are based in Victoria. Most are small operations, 98 per cent have between one - 19 staff, and 92 per cent have an annual turnover between \$200,000 and \$2 million². Figure 2 below outlines the basic structure of landscaping businesses, which have common core delivery roles (indicated by solid lines), and additional roles added with scale (indicated by dashed lines).

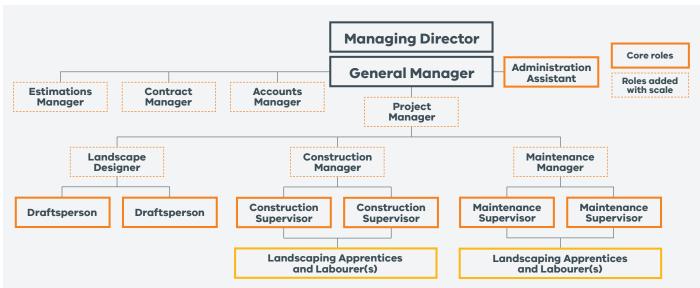


Figure 2: Indicative landscaping business organisational structure

¹ Parliament of Victoria, Victorian Economic Snapshot, 2016-17
² ABS Counts of Australian Businesses, 2018

Landscape construction and maintenance workers typically operate in crews of two to four people. A supervisor, with five to 20 years of experience is supported by two to three apprentices or labourers. In smaller businesses the owner carries out the management role with administrative support. As businesses grow beyond two to three crews, they require an additional layer of management with positions such as project and contract managers, and estimations and accounting experts. Specialist landscape design firms are often smaller, approximately 70 per cent are non-employing and the remaining 30 per cent have up to 10 to 12 staff. Key roles in design businesses include drafts people and landscape designers with horticultural and arborist expertise.

Businesses vary based on their extent of vertical integration. Approximately 60 per cent of businesses employ directly and only subcontract to professionals such as engineers, surveyors, drafts people, irrigation specialists, arborists, plumbers and electricians. An additional 30 per cent of businesses employ directly but have reduced capacity in delivery roles. These businesses contract additional landscaping workers depending on the size and complexity of individual projects, including general semi-skilled labourers, machine operators, carpenters, soil scientists, concreters, pavers, planters and lighting specialists. The remaining 10 per cent of businesses hold project management capability and contract out the end to end service delivery.

The operations of the sector are predominantly focussed on Victoria and exports are minimal due to the physical nature of the work. Interstate and international delivery is limited to the design component of projects, as aspects of this work can be completed remotely if required. However, a number of externally-based, inter-state operators have recently moved into the Victorian landscaping market attracted by the potential for growth relative to their own markets. These are mostly large, interdisciplinary construction firms, who target high value commercial landscape construction contracts. Recently, some of these employers have bought out established local companies to enter the market.



The sector depends on younger workers and is concentrated around metropolitan areas

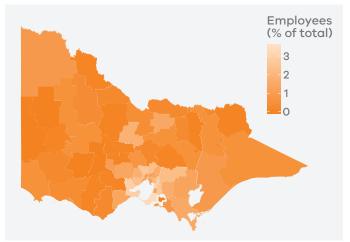
The Victorian landscaping sector employs a total of approximately 10,000 people. This is a sector which highly values and relies on apprenticeship pathways as the key entry level qualification. Approximately half of the current workforce are entry level workers in apprenticeship or labouring roles, with the remaining half split evenly between supervisor roles and in management positions. Overall, the workforce is relatively young compared to the broader Victorian economy (see Figure 3), with a median age bracket of 30-35 years. The higher proportion of young people reflects the physical nature of the work, with most workers over 55 having left the sector or moved into more senior positions.

Figure 3: Victorian landscaping workforce age distribution



Source: ABS Census, 2016

Figure 4: Geographical workforce distribution



Source: ABS Census, 2016

Work in the landscaping sector in Victoria is almost exclusively driven by local demand and centred around major residential areas. This is illustrated in Figure 4, which shows that more than half of the Victorian workforce located in Greater Melbourne. This distribution aligns with the broader construction industry which is a major driver of growth.



2. Sector outlook and workforce implications

Recommendations for the VET system:

- 1. TAFEs to work with Landscaping Victoria and schools to facilitate increase in first year apprenticeship enrolments by at least 100 per annum over the next three years (600 additional over three years)
- 2. TAFEs to establish a course advisory committee in partnership with landscaping employer representatives to ensure learning materials, work projects and quality of apprenticeship training remains contextualised to current industry practice

Demand by the landscaping sector has outstripped supply for entry level and skilled workers

The past five years has seen increased demand for labour from the sector as demand for landscaping services increased. However, employers have found it difficult to fill these positions due to a lack of suitable candidates for entry-level positions, and a loss of skilled workers to higher paying roles.

Most employers reported difficulty in attracting apprentices. Employers reported that many landscaping businesses could take on an additional apprentice if the right candidate was available. However, when advertisements were posted they mostly received applications from candidates which were unsuited to the role. In the absence of suitable apprentices semi-skilled labourers are employed in their place. The challenges in attracting apprentices is reflected in the 20 per cent decline from 2017-18 in apprenticeship enrolments in the Certificate III in Landscape Construction and Certificate III in Parks and Gardens, the most common pathways into the sector. Together these account for more than 1,500 apprentices (see Figure 5).

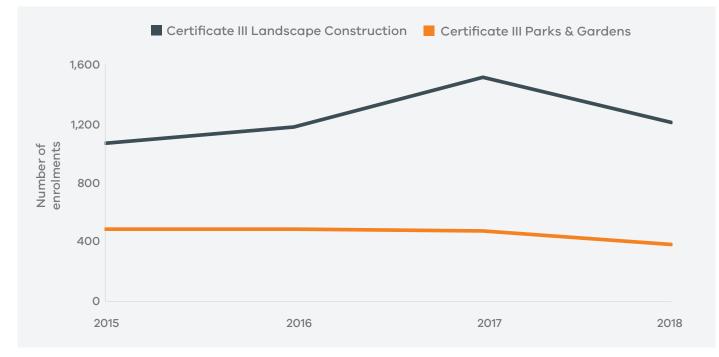


Figure 5: Landscaping apprenticeship enrolments 2015 to 2018

Source: NCVER, Government funded students and courses, 2018

Due to challenges in finding workers, some employers have found themselves reliant on recruitment agencies. For a more senior role, employers can spend a significant amount of money on recruitment, and it can often take more than three months to successfully fill the position. Employers cited a lack of clear career pathways advice in schools, the perceived physical nature of the work and an increased focus on university education as key drivers. There is clearly an opportunity to grow the apprenticeship numbers based on projected demand.

In previous years, the biggest drain on skilled labour was mining projects. However, this peaked in 2012, and the main competition for skilled labour has shifted to major public infrastructure developments. Skilled landscape workers are increasingly in demand by firms working on Major Projects. This is in turn driving competition for workers and upward pressure on wages. Employers are often prepared to pay above market rates to retain critical staff members. However, this varies by businesses and their ability to absorb higher costs.

On projected growth the sector will require an additional 1,300 workers by 2022

Sector growth and heightened customer expectations are anticipated to drive further demand for skilled workers over the next three years. The workforce is predicted to grow by 4.5 per cent per year³, resulting in an estimated 1,300 additional workers being required by 2022. Apprentices constitute almost half of this growth, with an additional 600 forecast (see Figure 6). Landscape contractors have a preference to employ apprentices directly. An additional 300 supervisors and managers, and 150 landscape designers will also be required.

More than half of employers anticipate that landscaping construction apprenticeship roles will be the most difficult to fill over the next one to three years. Finding workers to fill parks and gardens apprenticeships, as well as all supervisor level roles is also likely to be challenging. For landscape designers, getting entry level designers with 3D digital software skills was identified as the biggest challenge.

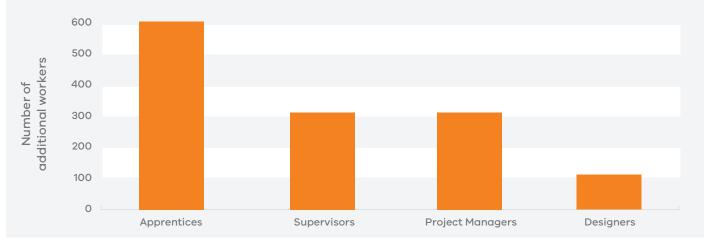


Figure 6: Estimated growth in demand for key roles over the next three years



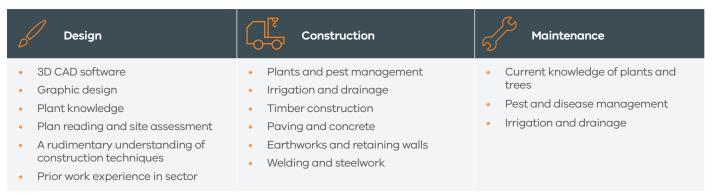


Employers seek core skills in workers

Landscaping businesses in the residential and commercial markets compete on quality and price. Skilled workers are the backbone of their businesses. Client relationship management is core to all businesses. Customer expectations of quality and attention to detail have increased significantly in recent years. Businesses that set themselves apart are those which can deliver to these expectations, particularly for ongoing maintenance projects. In some cases, effective communication skills are more important to effectively manage these situations than technical landscaping knowledge.

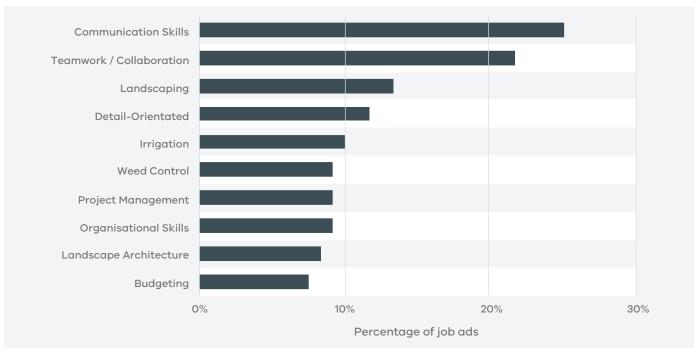
In addition, employers look for specialist skills depending on the role being performed (see Table 2).

Table 2: Key skills identified by employers



Analysis of job advertisements by landscaping employers showed that general skills such as communication and teamwork are the most common skills employers advertise for (see Figure 7). Sector specific skills, such as landscaping, irrigation and weed control are also identified. Attention to detail, embracing new technologies and keeping pace with the expansion of different products (e.g. paving products and techniques) are also increasing in importance.

Figure 7: Most common skills identified in Melbourne landscaping job advertisements



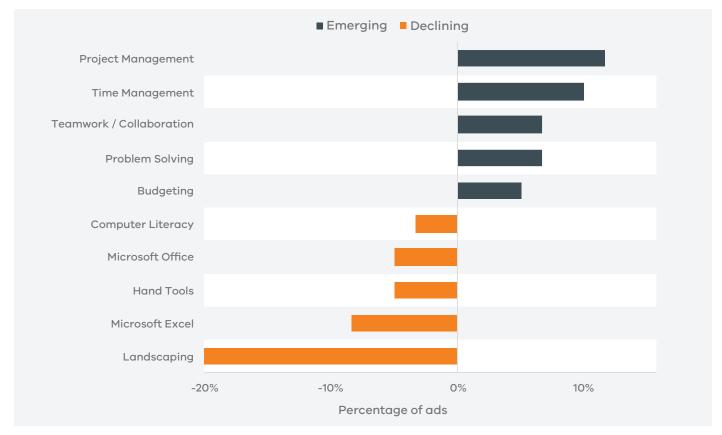
Source: Nous analysis of data from Burning Glass job advertisements

Landscape workers also require several tickets to certify that they can safely operate on site. Work sites generally require OHS induction card (white card), driver's license (manual license preferred), Working with Children, load excavate (Excavator), load shift (Bobcat). Commercial sites may have additional requirements such as traffic management (basic), roller, medium rigid truck licence and first aid.

Sector trends will drive new skills needs and risks

In addition to growing demand for work the sector is experiencing trends that have implications for the future workforce. Analysis of job advertisements in the Greater Melbourne region indicates a shift by some businesses away from traditional models of delivery towards sub-contracting (see Figure 8). This trend, in part, can be explained by difficulties experienced by landscaping contractors in attracting new apprentices. Additional skills such as project management, time management and general problem solving are becoming more prominent while listings requiring landscaping skills declined by 20 per cent between 2016 and 2018.

Figure 8: Emerging and declining skills identified in Melbourne landscaping job advertisements



Source: Nous analysis of data from Burning Glass job advertisements

Consulted employers confirmed that some businesses have shifted to a sub-contracting model to reduce exposure to risk and due to increasing difficulties with entry level staff, such as a lack of basic skills, work readiness and ability to interact professionally with clients. Employers raised concerns about the sustainability of subcontracting based on experiences in other construction sectors. Key concerns included reduced control over cost of labour and lower quality services.

The second trend is the diversification of landscaping products and introduction of technology. Employers reported that this will continue to impact workforce skills requirements. However, they also noted that core skills are likely to remain constant as the sector will never become fully automated. Instead workers will need to upskill as new machinery is introduced, and general computer literacy will become more important for completing tasks such as documentation and timesheets via a mobile tablet device. Familiarity with accounting and estimating systems is also advantageous for workers looking to move into management roles. For landscape designers, computer-related skills are becoming more relevant. Familiarity with 3D CAD design software, and digital tools such as estimating programs are now fundamental for entry level workers.

The final trend is the heightened expectations on quality and sophistication of the sector. Customer expectations have increased significantly in recent years and businesses that set themselves apart are those which can deliver to these expectations. To increase quality, the skill level of workers is the number one challenge, and this has driven demand for specialist skills such as horticulture and arboriculture and soil science. In some cases, businesses have employed qualified specialists to inform the design aspect of projects to ensure a manageable level of maintenance post-construction. Increasing expectations also impact entry level workers, who now require in depth knowledge across a range of areas, such as a current working knowledge of plants suitable for a range of urban environments.



3. The role of training

Recommendations for the VET system:

- 3. Remove qualifications with no demand from the landscaping sector from the funded course list. This includes the Certificate IV in Landscape, Certificate IV in Parks and Gardens, Diploma of Landscape Design, Diploma of Parks and Gardens Management, Diploma of Landscape Project Management
- 4. Engage with employers to update the apprenticeship pathway to address core landscape construction and maintenance skills requirements
- 5. Pilot independent assessment of an individual's competencies of the Certificate III in Landscape Construction and Certificate III in Parks and Gardens qualifications prior to completion
- 6. Support WTIF funding to develop a new Advanced Diploma of Landscape Design
- 7. Market test current skill sets offered under the AHC training package to employers across the sector
- 8. Facilitate the inclusion of experienced current practitioners into trainer roles.

Apprenticeships are the preferred model of training for the sector

Landscaping businesses generally prefer to develop staff internally, rather than rely on external hires to fill skilled positions. For construction and maintenance, the preferred development pathway is to hire workers as new apprentices and retain high performers in supervisory roles. The transition from apprentice to supervisor is a gradual process and takes an average of two four years to develop the competencies and experience required to lead a crew and manage a work site independently. For many employers, most of their supervisors started with the business as apprentices and have progressed through. Supervisors with 10 or more years of experience can then look to transition into management roles. Designers are also often initially employed as drafts people and then gain experience and learn additional skills on the job.

Apprentices require dedicated focus to develop a range of specific skills throughout their apprenticeship. In some cases, due to a lack of suitable young applicants who are prepared to put in the effort required, employers hire mature age workers into entry level roles. Employers were concerned that a reduction in the amount of time young people spend working with their hands and tools growing up is a key driver of this issue. However, employers remain open to hiring young people who demonstrate dedication and passion for landscaping.

The transition from apprentice to supervisor is a gradual process and takes an average of two - four years to develop the competencies and experience required to lead a crew and manage a work site independently. Formal training in the landscaping sector ceases following apprenticeship qualifications for most workers. Employers place little focus on formal professional development posttrade and prefer to upskill workers on the job. Most are unaware of VET skillsets offered under the AHC training package. However, employers identified two additional career stages where accredited training would be valuable, including the transition from qualified apprentice to supervisor and transition from a supervisor into a management position. For example, supervisors looking to transition into management may require upskilling in specification, estimation, plan reading, project management and business management. When presented with current skillsets, most employers agreed these may address their needs, but further investigation and market testing is required.



Seven of nine qualifications listed on the funded course list do not directly lead to an employment outcome

Employers indicated that most qualifications related to landscaping on the VET funded course list (see Figure 9) are not in demand by the sector.

Pathways to **Pathways to** Personal interest only Course Course Course Course: Course Course Course: Course: Course Certificate III Certificate III Certificate Certificate II Diploma of Certificate Certificate IV Diploma of Diploma of ll in in Landscape in Parks and in Parks and Landscape IV in in Parks and Parks and Landscape Counstruction Gardens Landscpaing Gardens Design Landscape Gardens Gardens Project Management Management 2018 2018 2018 2018 2018 2018 2018 2018 2018 enrolments: enrolments: enrolments: enrolments: enrolments: enrolments: enrolments: enrolments: enrolments 1,210 385 70 110 85 0 0 0 0

Figure 9: Landscaping VET courses on the funded course list

Of the nine courses identified, only the two apprenticeship qualifications are recognised and valued by landscaping employers. Pre-apprenticeship Level II Certificates in Landscaping and Parks and Gardens were recognised as a way to develop familiarity and signal interest in the sector. However, they are not sought after as a basis for employment.

Four further courses, Diploma of Landscape Design, the Certificate IV in Landscape, the Certificate IV in Parks and Gardens and the Diploma of Parks and Gardens were not recognised by the sector. Of these only the Diploma in Landscape design had any enrolments (85 in 2018). Employers see the course as too broad with insufficient focus on core skills needed for employers to take students on in entry level roles (see Table 3). Familiarity with CAD software is particularly important, and the current diploma only requires 20 hours of CAD work. On the other hand, new designers do not need to be trained in tasks such as industrial compliance and contract negotiation, which are currently covered.





Opportunities exist to strengthen training products and delivery to better meet the needs of the sector

Landscape design, construction and maintenance businesses utilise different training pathways and have different core needs. Each identified strengths and limitations of existing qualifications (see Table 3).

Table 3: Coverage of core skills in key qualifications



• Plant knowledge

• Welding and steelwork

Landscape construction employers identified shortfalls in the Certificate III in Landscape Construction apprenticeship against sector need (See Table 3). The most significant was the absence of a working knowledge of plants and trees. Due to this gap, some employers prefer to enrol employees in the Certificate III Parks and Gardens apprenticeship, or a two-year horticulture traineeship instead, and then teach workers construction skills on the job.

Employers suggested there would be value in a broader review of the qualification to first ensure identified gaps are addressed and secondly to get the right balance between exposure to core skills and the ability to develop an appropriate level of proficiency. Two options were presented. The first option is to maintain a broad apprenticeship, followed by post trade options to develop specific expertise. Alternatively, the apprenticeship could have a smaller common core, with separate steams of specialisation to be completed during the Apprenticeship.

Landscape maintenance employers were generally satisfied with the apprenticeship but noted that content needs to be regularly refreshed. For example, apprentices would benefit from a more current working knowledge of the characteristics and suitability of the top 100 plants used in urban areas.

Finally, employers identified a lack of consistency in the quality of teaching offered by training providers. Employers noted that long-term trainers can be out of touch with the sector and emphasised the need for current practitioners to ensure that training keeps up with latest practices. However, current systems such as certification requirements act as barriers for experienced, passionate people from getting into teaching roles. The introduction of independent competency assessments for landscape qualifications would also improve training quality and provide confidence to employers of a consistent standard of skills outcomes.

Landscape design employers would support the development of a new two-year Advanced Diploma in Landscape Design that covers each of the key skills as a new entry level requirement. This should cover project management if designers are expected to fulfil the role in the sector. A shorter entry level qualification solely focused on digital drafting would also be supported by employers. An application for funding under the Workforce Innovation and Training Fund has been provided to Government for consideration. In the interim, employers recommend that people looking to enter the sector gain core skills through courses in horticulture, CAD software and graphic design.





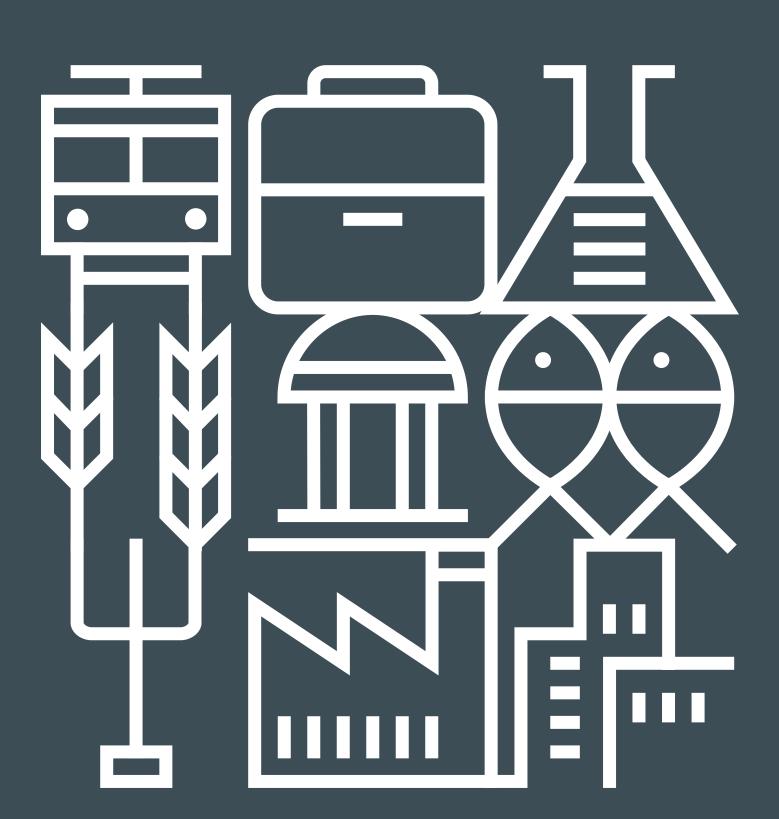


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