

A skills-based wine workforce

Wine Marlborough

June 2024



Authors: Amanda Reid, Hugh Dixon, Connor McIndoe, and Satrio Wiradika

All work is done, and services rendered at the request of, and for the purposes of the client only. Neither BERL nor any of its employees accepts any responsibility on any grounds whatsoever, including negligence, to any other person.

While every effort is made by BERL to ensure that the information, opinions and forecasts provided to the client are accurate and reliable, BERL shall not be liable for any adverse consequences of the client's decisions made in reliance of any report provided by BERL, nor shall BERL be held to have given or implied any warranty as to whether any report provided by BERL will assist in the performance of the client's functions.

Executive summary

Business and Economic Research Limited (BERL) was commissioned by Wine Marlborough, in partnership with New Zealand Winegrowers and the Ministry of Business, Innovation and Employment, to assist with gathering data on current and future workforce needs. The aim of the research was to define the roles and skills that make up the wine industry (from vineyard to market). In turn, better data will improve the wine industry's ability to identify gaps and career pathways, and to forecast future workforce needs across roles and business types.

The findings of this report are based on two pieces of evidence. Firstly, a national industry survey was conducted with results received from wine companies, growers, and industry suppliers in wine regions throughout New Zealand. Almost 200 (199) businesses began the survey, with 47 businesses completing the full survey. The use of Lightcast as a resource was always planned for this project, and analysed wine and viticulture job advertisements in the New Zealand and Australian wine sector over the past 10 years. Together these two information sources provide the insights provided in the report.

Industry overview

The wine industry represents a significant sector in New Zealand's economy, characterised by diverse product offerings and a complex supply chain. The industry encompasses a wide range of activities, from viticulture and winemaking to marketing, sales, and tourism. As consumer preferences evolve and global markets expand, the industry faces both opportunities and challenges. These include adapting to technological advancements, meeting sustainability goals, and addressing workforce needs amidst changing labour dynamics.

Wine industry job roles can be grouped into job clusters and job families

Job clusters are groups of occupations that share skill sets

The research categorised wine industry job roles into various job clusters, reflecting the diverse skill sets and expertise required across different segments of the industry. Job clusters are defined based on the similarity of skills demanded by employers across various occupations, organising these occupations into clusters that share skill sets. This approach is particularly useful for understanding the broader landscape of job opportunities and how individuals might move between related roles within a cluster, considering the portability of skills across different occupations within an industry. The focus of job clusters is on the skills and capabilities that are transferable and valuable across a range of jobs, aiding career mobility and adaptability in a changing job market.

The seven job clusters are:

1. The Artisans
2. The Generators
3. The Informers
4. The Technologists

5. The Coordinators
6. The Carers
7. The Designers.

Each job cluster has its own unique set of core and technical skills, underscoring the need for targeted training and development programmes to meet the industry's diverse workforce requirements.

Job families are groups of occupations that involve similar types of work

Job families are groups of occupations that involve similar types of work and require similar training, skills, knowledge, and expertise. This classification helps in understanding the various roles within an industry and the specific skill sets they require, facilitating targeted career development and recruitment strategies. Job families also provide a framework for analysing market trends and skills gaps. There are eighteen job families, all represented to varying degrees in the wine industry.

Skills across the wine industry

The data analysis provides valuable insights into the current state of the wine industry's labour market, highlighting the demand for specific skills across various job clusters and families. Key findings include:

- **Core skills are vital:** Across all job families, core skills such as communication, teamwork, and leadership are highly valued, indicating the need for well-rounded professionals.
- **High demand for technical skills:** There is a significant demand for technical skills such as forklift operation, machinery operation, viticulture practices, and winemaking techniques, as well as customer service, sales, stakeholder management, and project management.

In-demand core skills are foundational across roles

The core skills identified as most in-demand in the wine industry are foundational across a wide range of roles within the wine industry, from vineyard operations to winemaking, laboratory analysis, and management positions. Lightcast and survey data showed strong agreement on the most common core skills across job roles in the wine industry. These core skills include:

1. **Communication:** Essential for almost every role, ensuring effective teamwork, clear instructions, and successful stakeholder relationships
2. **Planning and organising:** Including problem-solving, time management, attention to detail, and decision-making. Critical for managing operational, logistical, and strategic aspects of wine production and vineyard management
3. **Teamwork:** Important for fostering a collaborative work environment, crucial in roles ranging from machinery operation to laboratory analysis and management positions. Leadership is also highlighted as important for roles involving managing teams, driving projects, and leading operations within the vineyard and winery.

Technical skill requirements are diverse and evolving

While core skills are universally valued across the wine industry, the emphasis on specific technical skills varies significantly across job families, highlighting the need for targeted skill development strategies tailored to the unique demands of each role. The analysis of Lightcast and survey data reveals a nuanced landscape of technical skills critical to the operational efficiency, innovation, and competitiveness of businesses within the sector.

In the areas of viticulture and winemaking, technical skills such as irrigation management, forklift operation, and tractor driving are highlighted as essential. These skills ensure the effective and efficient management of vineyard and winery operations, contributing to the quality of the wine produced.

The data also underscores the significance of technical skills tailored to specific job families. For instance, customer service is a technical skill shared across many job families, including the Hospitality, Food, and Tourism job family. However, cooking and bartending are the top two technical skills for this family, and are not found elsewhere. Likewise, fermentation and wine processing emerge as key technical skills for the Manufacturing and Production job family, which includes winemakers and wine technicians, cellar hands, and bottling operators, but are not in the top ten for any other job family.

Using both Lightcast and survey data together gives a snapshot at a national industry level of the jobs and roles. The findings from both datasets illustrate the need for continuous learning and skill development to meet the demands of a dynamic global market. The findings also indicate a general lack of clarity in job descriptions that may be a barrier to meeting labour market demand.

Additional survey findings

This research also delves into the potential opportunities and risks facing the wine industry in the coming years. Opportunities include the growing emphasis on upskilling staff, embracing automation and technology, and increasing commitment to sustainability. Conversely, risks are identified in the form of challenges related to housing affordability for workers, which could impact recruitment efforts and contribute to higher turnover rates.

The survey data also provides insights into business operations within the wine industry, highlighting the use of exit interviews as a tool for understanding employee turnover. The data suggests a disparity in the adoption of exit interviews across different business types, with industry providers and wineries more likely to undertake them compared to growers. This section also notes the creation of new job roles in individual businesses in the past three years, indicating a shift towards more specialised positions in areas such as sustainability and information technology.

These findings highlight the dynamic nature of the wine industry's workforce, pointing to the need for continuous adaptation and investment in human capital to navigate future challenges and leverage emerging opportunities.

Contents

1	Introduction.....	1
2	Building a skills-based wine industry workforce.....	2
2.1	Job clusters and families	2
2.2	Job description elements.....	5
2.3	The value of clarity in job descriptions.....	7
3	Lightcast data on wine industry skills.....	9
3.1	Job postings by job cluster and job families.....	9
3.2	Most in demand core skills in the wine industry	10
3.3	Top skills by job family	12
3.4	Interactive dashboard	22
4	Survey data on wine industry skills	25
4.1	Job clusters and families represented in wine industry survey.....	26
4.2	Core skills from wine industry survey.....	27
4.3	Technical skills from wine industry survey.....	28
5	Survey responses on future workforce opportunities and risks	31
5.1	Potential workforce opportunities	31
5.2	Potential workforce risks.....	34
6	Survey responses on business operations.....	36
6.1	Turnover.....	36
6.2	Succession planning	38
6.3	Leave liability.....	39
6.4	New business roles	39
Appendix A	Survey responses on business demographics.....	41
Appendix B	Methodology.....	44
Appendix C	Job clusters, job families, and occupations	46

Tables

Table 3.1 Lightcast data, job postings by job cluster, 2013-2023.....	9
Table 3.2 Lightcast data, job postings by job family, 2013-2023.....	10
Table 3.3 Most in-demand core skills, 2013-2023.....	11
Table 3.4 Top skills for Agriculture, Horticulture, and Outdoors job family, 2013-2023.....	12
Table 3.5 Top skills for Business Management and Operations job family, 2013-2023.....	13
Table 3.6 Top skills for Clerical and Administrative job family, 2013-2023.....	13
Table 3.7 Top skills for Community and Social Service job family, 2013-2023.....	14
Table 3.8 Top skills for Customer and Client Support job family, 2013-2023.....	14
Table 3.9 Top skills for Design, Media, and Writing job family, 2013-2023.....	15
Table 3.10 Top skills for Engineering job family, 2013-2023.....	15
Table 3.11 Top skills for Finance job family, 2013-2023.....	16
Table 3.12 Top skills for Hospitality, Food, and Tourism job family, 2013-2023.....	17
Table 3.13 Top skills for Human Resources job family, 2013-2023.....	17
Table 3.14 Top skills for Law, Compliance, and Public Safety job family, 2013-2023.....	18
Table 3.15 Top skills for Maintenance, Repair, and Installation job family, 2013-2023.....	18
Table 3.16 Top skills for Manufacturing and Production job family, 2013-2023.....	19
Table 3.17 Top skills for Marketing and Public Relations job family, 2013-2023.....	20
Table 3.18 Top skills for Planning and Analysis job family, 2013-2023.....	20
Table 3.19 Top skills for Sales job family, 2013-2023.....	21
Table 3.20 Top skills for Science and Research job family, 2013-2023.....	21
Table 3.21 Top skills for Transport job family, 2013-2023.....	22
Table 4.1 Number of roles in survey, by job cluster.....	26
Table 4.2 Number of roles in survey, by job family.....	27
Table 4.3 Top 10 core skills from survey, Marlborough.....	28
Table 4.4 Top 10 core skills from survey, rest of country.....	28
Table 4.5 Top 10 technical skills from survey, Marlborough.....	29
Table 4.6 Top 10 technical skills from survey, rest of country.....	30
Table 5.1 Summary of future workforce opportunities and risks.....	31
Table 6.1 Regional representation of survey, by business type.....	41
Table 6.2 Wineries (including contract winemakers), by number of litres produced per year, represented in survey.....	42
Table 6.3 Vineyards, by number of hectares currently in production, represented in survey.....	42
Table 6.4 Breakdown of business activity of industry goods and services providers represented in survey.....	42
Table 6.5 Number of current employees directly employed by survey respondents, by region and employment type.....	43
Table 6.6 Number of employees directly employed by survey respondents in last 12 months, by region and employment type.....	43

Figures

Figure 2.1 Job clusters in the wine industry	3
Figure 3.1 Screenshot of dashboard, core skills	24
Figure 6.1 Does your business undertake exit interviews with members of staff who leave the business?	36
Figure 6.2 How many permanent staff are you aware of exited the industry?	37
Figure 6.3 Does your business have a succession plan?	38
Figure 6.4 Is your business concerned with its current level of leave liability?	39
Figure 6.5 Has your business created any new job roles in the last three years?	39

1 Introduction

Business and Economic Research Limited (BERL) was commissioned by Wine Marlborough, in partnership with New Zealand Winegrowers and the Ministry of Business, Innovation and Employment, to assist with gathering data on current and future workforce needs. The aim of the research was to define the roles and skills that make up the wine industry (from vineyard to market). In turn, better data will improve the wine industry's ability to identify gaps and career pathways, and to forecast future workforce needs across roles and business types.

This report focuses on a “whole-of-industry” approach, looking broader than grape growing and winemaking, and exploring roles across the industry. This includes understanding the role of skills in addressing the labour market challenges the wine industry faces. Rather than focusing on job titles, valuing, and developing skills and competencies that can be transferred through different roles and responsibilities is key to facing workforce shortages and skill gaps. When workers can more easily transition between roles and projects because of the portability and transferability of their skillsets, businesses will have greater flexibility and agility to respond to changing business needs and environments. Businesses can allocate resources more efficiently by matching workers with the skills required for specific tasks. By leveraging a diverse range of skillsets, innovation and problem-solving are more likely to increase.

The report covers:

- Job clusters and families – A way of organising job tasks
- Job description elements – Core skills, technical skills, aptitudes, knowledge, experience, and qualifications, and the differences between these elements
- The most in-demand core skills, and which core and technical skills are likely to grow in demand
- Survey responses from wine industry businesses on the skills they need to operate, the opportunities they see for their businesses and for the wine industry, and other business operations concerns.

2 Building a skills-based wine industry workforce

The wine industry operates within dynamic value chains that adapt to local and global trends, consumer preferences, and regulatory changes. These shifts influence the skills required by businesses from their workforce.

Workforce planning in the wine industry involves mapping out the diverse roles and skill sets required, which may evolve over time due to technological advancements and market demands. Wine businesses are continually adapting to changing environments, necessitating the adoption of new practices and structures to remain competitive in the market. Advancements like automation have transformed wine production, leading to a broader range of skills beyond traditional on-vineyard roles.

Addressing the challenges the wine industry faces, such as workforce shortages, technological changes, and supply chain complexities, requires strategic planning and adaptation at all levels. Understanding the challenges and drivers of change is crucial for developing effective strategies and ensuring the availability of skilled professionals to meet industry needs.

2.1 Job clusters and families

This section provides an overview of job clusters and job families, and what these groupings look like in the wine industry. The difference between job clusters and job families primarily lies in the basis of their grouping and their intended use or focus within workforce development and career planning. Job clusters are based on shared skills in demand across occupations, facilitating career mobility and adaptability, while job families group occupations according to inherent characteristics, like nature of work and qualifications, aiding in career path organisation and recruitment strategies.

The concept of job clusters comes from a research series, *New Work Order*, by the Foundation for Young Australians.¹ In this research, 2.7 million Australian job advertisements were analysed to reveal seven clusters of work. By examining the intensity and similarity of approximately 4,600 unique skills requested by employers, occupations were then grouped based on whether employers demand similar skills from applicants.

A clustering algorithm was used to identify groups of occupations that share common skills, thereby forming distinct job clusters. This approach provided a data-driven understanding of how jobs are related in terms of the skills they require. It also allowed for the identification of clusters of work within the economy, making it easier for people to understand the landscape of job opportunities and how they might move between related roles within a cluster.

Job clusters group occupations based on shared skills

Job clusters are defined based on the similarity of skills demanded by employers across various occupations and by organising these occupations into clusters that share skill sets. This approach is particularly useful for understanding the broader landscape of job opportunities and how

¹ <https://www.fya.org.au/resource/new-work-order-research/>

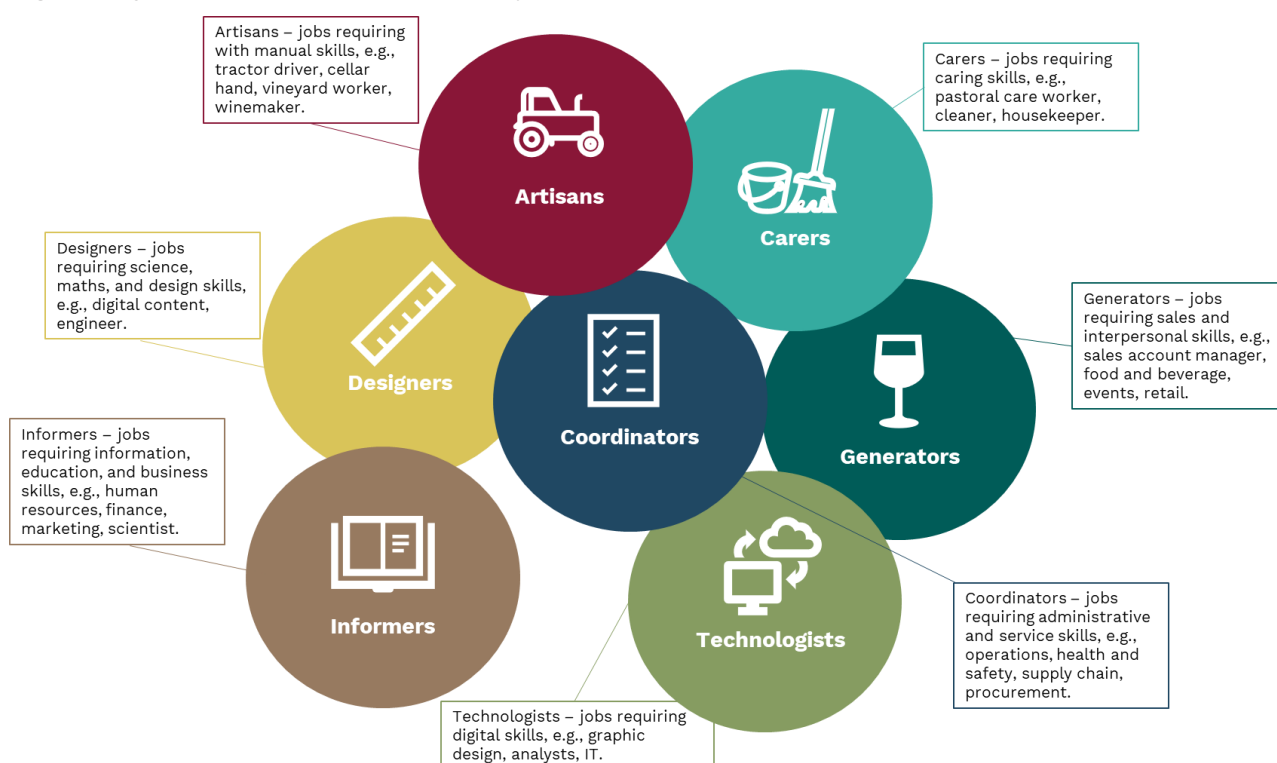
individuals might move between related roles within a cluster, considering the portability of skills across different occupations within an industry. The focus is on the skills and capabilities that are transferable and valuable across a range of jobs, aiding career mobility and adaptability in a changing job market.

Job families group occupations based on similar work, training, and qualifications

On the other hand, job families group occupations based on similar work performed, skills, education, training, and credentials. This classification is more about the inherent characteristics of the jobs themselves, including the nature of the work, the required qualifications, and the sector or industry context. Job families are used to organise and manage career paths within organisations or industries, making it easier to understand progression paths, training needs, and recruitment strategies. This grouping helps identify related jobs that might suit an individual's skills and career aspirations, enabling more strategic career planning and development within specific areas of expertise.

2.1.1 Job clusters in the wine industry

Figure 2.1 Job clusters in the wine industry



The seven job clusters are:

1. **The Artisans:** The Artisans cluster includes jobs that require skill in manual tasks related to construction, production, maintenance, or technical customer service. The Artisans are characterised by their focus on generic manual functions and the application of technical skills in various physical environments.

2. **The Carers:** The Carers cluster includes jobs that seek to improve the mental or physical health or well-being of others, including medical, care, and personal support services.
3. **The Coordinators:** The Coordinators cluster includes jobs that involve repetitive administrative and behind-the-scenes processes or service tasks. This includes roles that require organisational skills and customer service, such as time management, digital literacy, communication skills, teamwork, and customer service.
4. **The Designers:** The Designers cluster includes jobs that involve deploying skills and knowledge of science, mathematics, and design to construct or engineer products, buildings, or digital services.
5. **The Generators:** The Generators cluster focuses on generating sales and providing front-of-house retail or hospitality services. This includes roles that are centred around business development, sales support, managing sales relationships, customer relationship management, and contract management.
6. **The Informers:** The Informers cluster includes jobs that involve professionals providing information, education, or business services. These roles often require skills in communication, problem-solving, detail orientation, and the ability to convey information effectively to various audiences.
7. **The Technologists:** The Technologists cluster includes jobs that require skilled understanding and manipulation of digital technology. This cluster is characterised by its focus on the development, implementation, and maintenance of technology and digital solutions.

The Lightcast data showed all seven clusters were represented in the wine industry (refer to Appendix C Job clusters, job families, and occupations for comprehensive groupings of job titles and roles).² While it was out of scope to quantify the number of people employed in each cluster, some clusters were clearly more represented in the data.

2.1.2 Job families in wine

Job families, also known as occupational families, are groups of occupations based upon work performed, skills, education, training, and credentials. They organise occupations that involve similar types of work and require similar training, skills, knowledge, and expertise. The Lightcast data is categorised into various job families based on shared characteristics, skills, and responsibilities.

The job families in the wine industry include:

- Agriculture, Horticulture, and Outdoors
- Business Management and Operations
- Clerical and Administrative

² Lightcast offers real-time job market data, sourced from millions of online job postings. It provides detailed information on job requirements, enabling granular analyses across occupations and sectors.

- Community and Social Services
- Customer and Client Support
- Design, Media, and Writing
- Engineering
- Finance
- Hospitality, Food, and Tourism
- Human Resources
- Law, Compliance, and Public Safety
- Maintenance, Repair, and Installation
- Manufacturing and Production
- Marketing and Public Relations
- Planning and Analysis
- Sales
- Science and Research
- Transport.

These job families provide a framework for analysing labour market trends and skill gaps within the wine industry, and for forming workforce development strategies.

2.2 Job description elements

Across both the Lightcast and survey data, the research revealed widespread inconsistencies in job descriptions across the wine industry. This indicates a lack of clarity by employers that may be affecting how the current and potential workforce perceives the industry.

When employers are seeking to recruit, frequently job descriptions are the foundation for job advertisements, portraying the job role that is on offer. Job descriptions are the foundation for the legal agreement between employers and employees in respect of their job tasks and responsibilities, defining the job requirements. They also ensure the job aligns with organisational needs, showing reporting lines, any financial delegations, potential career development pathways, and areas of business responsibility. In the worst-case scenario of employer-employee relationships, job descriptions provide a framework for performance management.

Key elements of a job description essential for creating a skill-based workforce

There are several key elements of a job description that are relevant to developing a skill-based workforce, and this section defines these elements:

- Skills are the learned abilities to perform tasks
- Aptitudes are natural talents influencing skill acquisition

- Knowledge is the theoretical or practical understanding gained through learning
- Experience is the practical application of skills over time
- Qualifications are formal recognitions of one's skills and knowledge.

In the following definitions, a vineyard manager will be used as a practical example of how to apply these concepts to a job description and advertisement.

Core and technical skills

Core skills are non-specialist skills gained through both life experience and formal education, such as the ability to work unsupervised, teamwork, problem solving, the ability to delegate, read, and interpret instructions, and effective work planning. Sometimes these skills are called “soft skills” or “enterprise skills.”

Core skills are defined as key skills that are essential within a job cluster, enabling individuals to enter, succeed, and move around within that cluster. They are transferable skills that enable people to engage with a complex world and navigate challenges, while technical skills are specific to particular jobs or tasks. Many core skills appear across multiple occupations within a job cluster or job family, and are not just specific to a single job. Identifying core skills that are highly demanded across a range of jobs within a cluster, eases the movement of workers across different roles and into the unknown jobs of the future within that cluster.

Core skills for a vineyard manager include communication skills, computer literacy, organisational skills, such as planning and time management, and teamwork/collaboration.

Technical skills are specialist skills needed for that specific position, and may include knowing how to use specialised technology or tools. These skills include undertaking laboratory operations and analysis, explaining technical product information to customers, using specific equipment, and transporting crops or finished products.

Technical skills for a vineyard manager may include tractor driving or forklift operation, use of farm or horticulture equipment (e.g., irrigation systems), and using specific types of yield software.

Aptitudes, knowledge, experience, and qualifications

Aptitudes are natural talents, abilities, or capacities for learning and proficiency in specific areas or tasks. They represent a person's inherent or acquired potential to perform certain types of activities. Aptitudes can include a wide range of areas, from verbal and numerical reasoning to artistic creativity and physical coordination. However, unlike skills, which can be developed over time through education and practice, aptitudes are often considered more innate, influencing how easily and quickly a person can learn or develop skills in a particular domain.

Aptitudes for a vineyard manager may include being detail-oriented, a common aptitude used as a proxy for problem-solving skills.

Knowledge refers to the information and understanding that a person has gained through experience or education, and encompasses facts, descriptions, and awareness acquired through observation, learning, or instruction. Knowledge can be theoretical or practical, covering a wide range of fields or areas of study. It enables individuals to understand the world around them, make informed decisions, and apply their learning to solve problems or achieve goals. Knowledge can be categorised into different types, such as explicit knowledge (which can be easily communicated and documented) and tacit knowledge (which is personal and harder to formalise or share).

Knowledge for a vineyard manager will include knowing grape varieties, harvesting methods, and disease management.

Experience refers to the knowledge, skills, and competencies that an individual acquires through performing tasks in a job over a period of time, covering both the practical application of skills in real-world settings, as well as the insights gained from dealing with various situations, challenges, and successes in a professional environment. Work experience contributes to an individual's ability to perform tasks efficiently, solve problems, and adapt to new roles or responsibilities. It is often a critical factor in hiring decisions, as it provides evidence of a person's capability and potential for contributing to an organisation.

Experience is an easier element to define; vineyard managers may need a specific period of time (e.g., five years' experience), a specific type of grape (e.g., experience with pinot noir), or exposure to a specific type of climate or weather condition.

Qualifications are the formal certification of a person's skills and knowledge, typically achieved through education, training, or experience, which is recognised and often standardised by regulatory bodies or educational institutions. These can include degrees, diplomas, certificates, professional licences, and apprenticeships. Qualifications serve as a measure of an individual's competency in a specific field or profession, and they are often used by employers to assess the suitability of candidates for specific roles or tasks.

Qualifications are also relatively easy to define, and in the case of a vineyard manager, may include a tractor and/or forklift endorsement on their driver's licence, or the New Zealand Certificate in Horticulture – Wine Growing.

2.3 The value of clarity in job descriptions

One of the key findings from the research across both Lightcast and survey data, is that businesses are unclear about the difference between skills, aptitudes, knowledge, experience, and qualifications. Job advertisements and job descriptions across both of these sources often confuse them, however, they are all distinct concepts that collectively contribute to a person's capability to perform tasks and succeed in various roles.

Understanding the difference between skills, aptitudes, knowledge, experience, and qualifications is crucial for employers across locations and business sizes

1. **Improved recruitment and selection:** Recognising these differences helps employers create more accurate job descriptions, identify the most suitable candidates for a position, and set clear expectations, regardless of the business size. For instance, while qualifications and experience can demonstrate a candidate's background and achievements, aptitudes can indicate their potential for future growth and adaptability in the role. Skills and knowledge, on the other hand, are direct indicators of a candidate's current capability to perform specific job tasks.
2. **Effective workforce development:** Employers who understand these distinctions can better plan for workforce development and training. Knowing whether an employee needs to enhance their skills, gain more experience, or acquire additional knowledge for advancement allows for targeted development programs. This can lead to more effective training outcomes and a more competent workforce.
3. **Strategic career path and succession planning:** By differentiating between these elements, employers can more strategically plan career paths for their employees and succession plans for critical roles. Understanding an employee's aptitudes and experiences, in addition to their skills and qualifications, can help in identifying potential future leaders and in planning for the long-term development of these individuals.
4. **Enhanced employee engagement and retention:** Employers who recognise and value the comprehensive range of their employees' attributes (including their skills, knowledge, aptitudes, and experiences) are better positioned to engage and retain top talent. By aligning employees' roles with their strengths and providing opportunities for growth that consider all these aspects, employers can improve job satisfaction and reduce turnover. While this is crucial in businesses of all sizes, smaller businesses can be more impacted by staff leaving, so reducing turnover is vital.
5. **Adaptability to future workforce needs:** The future of work is characterised by rapid changes in technology and job roles. Employers who understand the portability of skills and the value of aptitudes and experiences are better equipped to adapt their workforce to meet future demands. This understanding allows for more flexible and dynamic workforce planning, ensuring that the organisation remains competitive and resilient in the face of change.

Recognising the differences between skills, aptitudes, knowledge, experience, and qualifications enables employers to make more informed decisions regarding hiring, training, career development, and workforce planning, ultimately contributing to the organisation's success and sustainability.

3 Lightcast data on wine industry skills

Lightcast data refers to the comprehensive labour market data collected and analysed by Lightcast (Appendix B Methodology). This data is derived from a vast array of online job postings and is used to provide insights into job market trends, skill demand, and the evolving landscape of employment. The search criteria was tightly defined to ensure only applicable wine industry jobs were included. By analysing thousands of job advertisements across New Zealand and Australia from 2013 to 2023, we were able to identify the specific skills wine industry employers have been seeking. This information is crucial for understanding current labour market demand, forecasting future trends, and informing educational and workforce development strategies.

3.1 Job postings by job cluster and job families

We analysed Lightcast data from 2013 to 2023, covering thousands of job postings in the wine industry, and sorted them by job cluster (Table 3.1). The Generator job cluster, covering a range of sales and hospitality jobs, was by far the largest job cluster at 15,068 job postings. The next largest job cluster, Coordinators, which includes many office, administrative, and operational roles, had 4,067 job postings. Artisans, with vineyard and production roles, round out the largest three clusters with 3,550 job postings. At the other end of the spectrum, Designer and Technologist job clusters had less than 400 postings in the same time period.

Table 3.1 Lightcast data, job postings by job cluster, 2013-2023

Job cluster	Job postings
Generator	15,068
Coordinator	4,067
Artisan	3,550
Informer	1,842
Carer	595
Technologist	396
Designer	361
Total	25,879

Source: Lightcast data, BERL analysis

We also sorted the job postings by job family (Table 3.2). The largest job family was Hospitality, Food, and Tourism, with 11,953 job postings, or 46.2 percent of all wine industry job postings analysed.³ Almost all roles in this family are in the Generator cluster, as are roles in the second largest family, Sales. Rounding out the top three is the Manufacturing and Production job family, and most of these roles are in the Artisan cluster.

³ The churn in the Hospitality, Food, and Tourism may be higher than other job families, which will influence the number of roles.

Table 3.2 Lightcast data, job postings by job family, 2013-2023

Job family	Job postings
Hospitality, Food, and Tourism	11,953
Sales	2,965
Manufacturing and Production	2,311
Business Management and Operations	1,510
Clerical and Administrative	965
Agriculture, Horticulture, and Outdoors	945
Maintenance, Repair, and Installation	900
Finance	773
Marketing and Public Relations	746
Human Resources	493
Customer and Client Support	451
Science and Research	407
Planning and Analysis	347
Community and Social Services	344
Engineering	341
Transport	162
Law, Compliance, and Public Safety	152
Design, Media, and Writing	114
Total	25,879

Source: Lightcast data, BERL analysis

3.2 Most in demand core skills in the wine industry

Table 3.3 shows the most in-demand core skills across this time period, with a count of the number of job advertisements that mentioned that skill. Some of these core skills, however, are better described as aptitudes (creativity, detail-oriented, positive disposition), while others can be considered more work conditions (physical demand). We have kept Microsoft Excel, Microsoft Office, and computer literacy in the data, given how many employers have asked for, and considered, these skills to be core skills. They are, however, technical skills.

Across these skills, three key areas emerge:

- Communication skills, including written, verbal/oral, and presentation skills
- Organisational skills, including planning, multitasking, problem-solving, time management, and troubleshooting
- Relational skills, including teamwork and collaboration, leadership, building effective relationships, mentoring, and people management.

Table 3.3 Most in-demand core skills, 2013-2023⁴

Core skills	Count
Communication skills	8,739
Detail-orientated	4,825
Planning	3,614
Organisational skills	3,507
Creativity	3,076
Time management	2,039
Problem solving	1,939
Energetic	1,537
Leadership	1,284
Positive disposition	1,180
Building effective relationships	1,167
Multi-tasking	1,069
Microsoft Excel	858
Microsoft Office	846
Computer literacy	808
English	386
Written communication	368
Research	351
Verbal / oral communication	280
Writing	260
Mentoring	257
Meeting deadlines	253
Troubleshooting	244
Analytical skills	238
Presentation skills	214
Preventive maintenance	198
Typing	119
Physical demand	107
People management	104

Source: Lightcast data, BERL analysis

⁴ Only skills listed in 100 or more job postings are listed.

3.3 Top skills by job family

3.3.1 Agriculture, Horticulture, and Outdoors skills

All Agriculture, Horticulture, and Outdoor roles are in the Artisan job cluster, and include forklift operators, irrigation technicians and managers, tractor drivers, vineyard workers and managers, viticulturists, and other on-vineyard manual workers.

Communication skills, planning, and organisational skills are the top core skills, while irrigation, forklift operating, and tractor driving are the top technical skills for this job family (Table 3.4). Detail-oriented has been coded as a core skill, it is more an aptitude than a skill, as is having a positive disposition or being energetic. To reframe being detail-oriented as a skill, it should be more closely related to the task being detail-oriented is required for, e.g., problem solving or analytical thinking. Physical demand is also a work condition rather than a skill, and could be phrased more around efficiency in completing physical tasks quickly and accurately.

Table 3.4 Top skills for Agriculture, Horticulture, and Outdoors job family, 2013-2023

Top 10 core skills	Job postings	Top 10 technical skills	Job postings
Communication skills	100	Irrigation	164
Detail-orientated*	86	Forklift operation	147
Planning	71	Tractor driving	56
Organisational skills	40	Irrigation systems	52
Computer literacy	33	Budgeting	47
Teamwork / collaboration	32	Farm management	46
Positive disposition*	30	Fencing	41
Physical demand**	24	Herbicides	39
Energetic*	23	Record keeping	33
People management	19	Customer service	30

* Aptitude rather than skill.

** Work condition/environment rather than skill.

3.3.2 Business Management and Operations job family

The Business Management and Operations job family is a larger job family, with roles predominately in the Coordinator cluster, across operations, procurement and purchasing, inventory, facilities, liaison, and management. These roles are usually more senior business administration and operational roles.

Communication skills are the top core skill category, alongside planning, and teamwork/collaboration (Table 3.5). These skills are all vital in the behind-the-scenes administrative and management work that weaves many elements of business operations together. It's therefore understandable that the top technical skills are focused on customers (customer service, stakeholder management, and customer contact) and operations (project management, budgeting, operations management, scheduling, logistics, and data entry). Forklift operation is in the top five technical skills, and a potential skills pathway between the Agriculture, Horticulture, and Outdoors job family.

Table 3.5 Top skills for Business Management and Operations job family, 2013-2023

Top 10 core skills	Job postings	Top 10 technical skills	Job postings
Communication skills	1,056	Customer service	575
Planning	632	Project management	349
Teamwork / collaboration	524	Budgeting	343
Problem solving	456	Stakeholder management	309
Organisational skills	440	Forklift operation	297
Building effective relationships	348	Logistics	191
Creativity*	294	Operations management	173
Computer literacy	237	Scheduling	114
Time management	228	Data entry	103
Microsoft Office	215	Customer contact	99

* Aptitude rather than skill.

3.3.3 Clerical and Administrative job family

The Clerical and Administrative job family is also predominately in the Coordinator cluster, with more supportive roles and functions, including administrators, office managers, receptionists, and executive assistants. They are frequently supporting roles in the Business Management and Operations job family, and consequently have some overlap in both skill categories, particularly in communication and organisational skills, teamwork/collaboration, and time management, as well as customer service, data entry, and scheduling (Table 3.6). These roles have less people focus, however, and more computer literacy focus, as can be seen by the presence of Microsoft Office and Excel, and a range of administrative skills.

Table 3.6 Top skills for Clerical and Administrative job family, 2013-2023

Top 10 core skills	Job postings	Top 10 technical skills	Job postings
Communication skills	459	Administrative support	366
Microsoft Office	252	Customer service	157
Detail-orientated*	244	Data entry	100
Organisational skills	237	Scheduling	89
Microsoft Excel	158	Business administration	72
Teamwork / collaboration	131	Administrative functions	50
Time management	120	Spreadsheets	50
Computer literacy	118	Secretarial skills	37
Problem solving	117	Office management	34
Planning	92	Travel arrangements	30

* Aptitude rather than skill.

3.3.4 Community and Social Service job family

One of the smaller job families, roles in the Community and Social Service job family are all in the Carer cluster and in counselling, pastoral care, and social worker roles. These roles have less overlap in skills with other clusters, and with the other job family within the Carer cluster (Hospitality, Food, and Tourism, in cleaning and housekeeping roles). A variety of communication and computer literacy skills are the top core skills, in common with many of the job families (Table

3.7). The technical skills, however, are where this job family is unique. These skills are very specialised, and include working with mental health and trauma, social work and case management, and other health care technical skills. Due to this specialisation, it is more likely that these skills will be developed through qualification and training pathways.

Table 3.7 Top skills for Community and Social Service job family, 2013-2023

Top 10 core skills	Job postings	Top 10 technical skills	Job postings
Communication skills	162	Working with mental health	146
Planning	95	Social work	140
Computer literacy	70	Working with trauma	88
Research	70	Case management	81
Written communication	50	Psychology	76
Mentoring	49	Clinical experience	74
Problem solving	40	Occupational therapy	60
Writing	37	Palliative care	51
Microsoft Office	30	Data entry	37
Critical thinking	29	Conflict management	36

3.3.5 Customer and Client Support job family

The Customer and Client Support job family is another small job family, with all roles in the Generator cluster, and in customer service roles. While customer service, the top technical skill, is a commonality with the Business Management and Operations and Clerical and Administrative job families, and sales skills are common with the Sales job family, most of the other technical skills are not of a high enough posting volume to state they could be considered a pathway between job families or clusters (Table 3.8). As with the Clerical and Administrative job family, the top core skills focus on communication and organisational skills, problem solving, time management, and teamwork and collaboration. Computer literacy skills are also key core skills.

Table 3.8 Top skills for Customer and Client Support job family, 2013-2023

Top 10 core skills	Job postings	Top 10 technical skills	Job postings
Communication skills	208	Customer service	382
Detail-orientated*	143	Customer contact	70
Problem solving	92	E-commerce	35
Time management	90	Sales	32
Teamwork / collaboration	83	Salesforce	30
Microsoft Office	79	Order and invoice processing	27
Microsoft Excel	78	Travel industry knowledge	26
Written communication	55	Front office	24
Computer literacy	54	Product management	24
Verbal / oral communication	50	Project management	9

* Aptitude rather than skill.

3.3.6 Design, Media, and Writing job family

The smallest job family within the wine industry, roles in the Design, Media, and Writing job family can be found in both Designer and Technologist job clusters, which are also the smallest clusters. These roles include digital content production and design, graphic design, packaging design, and industrial design. Therefore, most of the technical skills are specific to these types of roles, including graphic design and digital design, with little overlap between other families and clusters (Table 3.9). The technical skills bridges here are social media and e-commerce, which are also found in the Marketing and Public Relations job family and the Informer job cluster. Creativity is the top core skill, although this could be considered an aptitude. Creative thinking, however, is a skill.

Table 3.9 Top skills for Design, Media, and Writing job family, 2013-2023

Top 10 core skills	Job postings	Top 10 technical skills	Job postings
Creativity*	68	Graphic design	67
Communication skills	43	Social media	32
Teamwork / collaboration	34	Digital design	26
Detail-orientated*	34	Typesetting	18
Organisational skills	22	E-commerce	17
Meeting deadlines	19	Content management	16
Time management	19	Prototyping	15
Problem solving	12	UX wireframes	11
Presentation skills	11	Video editing	9
Research	11	Stakeholder management	8

* Aptitude rather than skill.

3.3.7 Engineering job family

Table 3.10 Top skills for Engineering job family, 2013-2023

Top 10 core skills	Job postings	Top 10 technical skills	Job postings
Communication skills	82	Project management	68
Problem solving	81	Mechanical engineering	55
Teamwork / collaboration	74	Budgeting	47
Planning	69	Stakeholder management	39
Creativity*	44	Due diligence	37
Mentoring	32	Engineering management	28
Building effective relationships	29	Civil engineering	25
Organisational skills	25	Commissioning	24
Detail-orientated*	23	Software development	20
Leadership**	22	Software engineering	18

* Aptitude rather than skill.

** While leadership is a skill, it is also an umbrella term for a range of other skills.

The Engineering job family is also found in the Designer job cluster, although there is little technical skill overlap with the Design, Media, and Writing job family (Table 3.10). Unsurprisingly, most of the technical skills for this job family revolve around engineering, although there are also management skills (including project and stakeholder management). The top core skills are very focused on effective communication and relationship management, as well as organisational skills.

3.3.8 Finance job family

The Finance job family is found in the Coordinator cluster, in accounts payable and receivable, finance manager, and payroll roles, as well as in the Informer cluster, where the roles are more analytical, such as accountant and finance analyst. As with the Engineering job family, the technical skills are very specific to the type of role, with accounting and account reconciliations, budgeting, financial analysis, reporting, and accounting, and balance sheets being some of the top technical skills (Table 3.11). The top core skills more closely match the pattern of the Clerical and Administrative job family, so there may be opportunity for technical upskilling for roles from that family.

Table 3.11 Top skills for Finance job family, 2013-2023

Top 10 core skills	Job postings	Top 10 technical skills	Job postings
Communication skills	307	Accounting	425
Microsoft Excel	266	Budgeting	256
Detail-orientated*	259	Finance	220
Teamwork / collaboration	170	Financial analysis	145
Problem solving	120	Account reconciliation	141
Planning	115	Financial reporting	121
Organisational skills	94	Balance sheet	106
Microsoft Office	73	Financial accounting	75
Time management	65	Stakeholder management	64
Creativity*	57	Payroll processing	61

* Aptitude rather than skill.

3.3.9 Hospitality, Food, and Tourism job family

The Hospitality, Food, and Tourism job family is the largest grouping in the wine industry, and the majority of these roles are in the Generator job cluster. They include chefs, event and venue managers, bar staff, restaurant and food service staff, sommeliers, and winery managers. The top technical skills therefore stem from these roles, with the majority being food and beverage service related, like cooking, bartending, customer service, sales, and food safety (Table 3.12). Management skills are also sought after, with restaurant and staff management, budgeting, and cost control in the top ten.

Table 3.12 Top skills for Hospitality, Food, and Tourism job family, 2013-2023

Top 10 core skills	Job postings	Top 10 technical skills	Job postings
Communication skills	3,477	Cooking	2,333
Detail-orientated	1,975	Bartending	2,069
Teamwork / collaboration	1,611	Customer service	1,749
Organisational skills	1,559	Restaurant management	1,540
Creativity*	1,498	Budgeting	869
Planning	1,416	Staff management	535
Energetic*	1,097	Cost control	466
Time management	950	Sales	427
Positive disposition*	791	Food safety	394
Leadership	779	Stock control	378

* Aptitude rather than skill.

The top core skills have much in common with other front-facing roles, around communication and organisational skills, and teamwork and collaboration. Three of the top ten are aptitudes rather than skills, and more clarity may be helpful in defining the skills that sit behind those assumptions. For example, rather than a positive disposition, problem-solving skills are helpful in finding solutions to challenging situations and support good customer service skills. Additionally, rather than asking for someone who is energetic, someone with time management and organisational skills can be developed to manage tasks efficiently and allocate energy effectively.

3.3.10 Human Resources job family

Table 3.13 Top skills for Human Resources job family, 2013-2023

Top 10 core skills	Job postings	Top 10 technical skills	Job postings
Communication skills	177	Onboarding	77
Building effective relationships	110	Talent acquisition	70
Organisational skills	107	Stakeholder management	64
Detail-orientated*	101	Customer service	40
Teamwork / collaboration	82	Candidate sourcing	32
Creativity*	71	Performance management	30
Problem solving	62	Human resource management	25
Time management	39	Business development	22
Microsoft Office	35	Sales	22
Microsoft Excel	32	Employee relations	21

* Aptitude rather than skill.

The Human Resources job family is around a quarter of the Informer cluster, with roles in people, culture, training and development, and recruitment. Correspondingly, the top technical skills are largely specific to these roles (onboarding, talent acquisition, candidate sourcing, human resources management, and employee relations) (Table 3.13). There is overlap with other job family and cluster roles, however, with stakeholder management, customer service, sales, and business development. The top core skills are focused on communication, interpersonal relationships, and organisational skills, which strongly correlate with the front-facing nature of many human resource roles.

3.3.11 Law, Compliance, and Public Safety job family

The Law, Compliance, and Public Safety job family is also in the Informer cluster, and is the second-smallest job family after Design, Media, and Writing. Within this job family are environmental advisor and compliance roles, and health and safety advisor and manager roles. The technical skills are what you would expect from this level of seniority and responsibility, covering a broad spectrum of safety, compliance, and legal skills (Table 3.14). Pathways from other job families are likely to be limited, with the exception of the Science and Research job family (environmental science). The top core skills are more typical of Informer cluster roles, with a wide range of communication and organisational skills present.

Table 3.14 Top skills for Law, Compliance, and Public Safety job family, 2013-2023

Top 10 core skills	Job postings	Top 10 technical skills	Job postings
Communication skills	88	Due diligence	53
Planning	37	Environmental management	43
Writing	31	Occupational health and safety	32
Time management	25	Stakeholder management	30
Creativity*	23	Project management	22
Initiative*	19	Environmental science	19
Microsoft Office	16	Legal compliance	19
Teamwork / collaboration	15	Environmental compliance	17
Research	15	Environmental management systems	13
Detail-orientated	12	Iso 9001 standards	10

* Aptitude rather than skill.

3.3.12 Maintenance, Repair, and Installation job family

Table 3.15 Top skills for Maintenance, Repair, and Installation job family, 2013-2023

Top 10 core skills	Job postings	Top 10 technical skills	Job postings
Communication skills	297	Forklift operation	185
Computer literacy	153	Predictive / preventative maintenance	180
Planning	149	Electrical work	133
Teamwork / collaboration	133	Scheduling	105
Problem solving	125	SAP	94
Detail-orientated*	120	Budgeting	46
Troubleshooting	79	Maintenance scheduling	40
Organisational skills	66	Welding	31
Microsoft Office	62	Industrial engineering expertise	29
Time management	17	Repair	29

* Aptitude rather than skill.

The Maintenance, Repair, and Installation job family is a trade-based grouping in the Artisan job cluster, and includes carpenters, joiners, electricians, maintenance technicians and fitters, and other service and repair roles. Because of the variety of technical trade skills across these roles, those in the top ten are wide ranging (Table 3.15). Forklift operation is a technical skill in common with many in the Artisan cluster, and scheduling and budgeting are found in a number of other job

families. Core skills reflect the technical elements of this job family, with many being focused on planning skills. Computer literacy is also a top core skill, supported by Microsoft Office as a core skill, and SAP software as a technical skill.

3.3.13 Manufacturing and Production job family

Table 3.16 Top skills for Manufacturing and Production job family, 2013-2023

Top 10 core skills	Job postings	Top 10 technical skills	Job postings
Communication skills	717	Forklift operation	758
Teamwork / collaboration	441	Fermentation	172
Detail-orientated*	419	Wine processing	171
Planning	231	Irrigation	170
Problem solving	210	Quality assurance and control	147
Organisational skills	177	Alcoholic beverage industry knowledge	109
Time management	174	Record keeping	100
Computer literacy	149	Scheduling	78
Leadership	101	Machine operation	66
Multi-tasking*	91	Production management	57

* Aptitude rather than skill.

The largest job family in the Artisan cluster, roles in the Manufacturing and Production job family include winemakers and wine technicians, cellar hands, bottling operators, plant and production operators, supervisors, and managers. Forklift operation is the top technical skill by far, in common with many of the roles in the Agriculture, Horticulture, and Outdoors job family in this cluster, in addition to irrigation (Table 3.16). These two skills could be pathways between job families. Alcoholic beverage industry knowledge, while more knowledge than skill, is shared with the Science and Research job family. The other top technical skills are unique to this job family. Core skills are varied across the three key areas of communication skills, planning, and organising, and teamwork, as well as computer literacy for some roles.

3.3.14 Marketing and Public Relations job family

Marketing and Public Relations job family roles are split across the Coordinator job cluster (communications, e-commerce, marketing, and brand specialists and managers) and the Informer job cluster (digital marketing, public relations, social media, and wine education). The difference in the clusters is centred on whether the role is more administrative or more informative, and some businesses may combine the two functions. This flexibility may provide workers within this job family with more pathways within the clusters.

Top technical skills include marketing, social media, stakeholder management, budgeting, and digital marketing (Table 3.17). There is some overlap with the Customer and Client Support job family (e-commerce and product management), as well as the Design, Media, and Writing job family (also e-commerce and social media). The top three core skills are the same as that job family too, with a few more overlaps in the top ten. Additional core skills include planning, building relationships, writing, and presentation skills, highlighting the different focuses across the two job families.

Table 3.17 Top skills for Marketing and Public Relations job family, 2013-2023

Top 10 core skills	Job postings	Top 10 technical skills	Job postings
Creativity*	436	Marketing	390
Communication skills	372	Social media	240
Teamwork / collaboration	310	Stakeholder management	196
Planning	215	Budgeting	172
Detail-orientated*	209	Marketing management	128
Organisational skills	143	Digital marketing	112
Problem solving	132	Product management	87
Writing	116	Project management	73
Building effective relationships	99	E-commerce	72
Time management	95	Brand planning	58

* Aptitude rather than skill.

3.3.15 Planning and Analysis job family

Another smaller job family, Planning and Analysis roles are across the Technologist (data, business, and sustainability analysts, and sustainability managers) and Informer (change management) job clusters. The top technical skills reflect this specialisation, with only stakeholder management and project management in common with other job families (Table 3.18). Top core skills reflect the technical focus of these roles as well, with Microsoft Excel, problem solving, research, and planning all top skills. Additionally, only this job family and the Science and Research job family have analytical skills as a top ten skill.

Table 3.18 Top skills for Planning and Analysis job family, 2013-2023

Top 10 core skills	Job postings	Top 10 technical skills	Job postings
Communication skills	150	Data analysis	74
Microsoft Excel	96	Stakeholder management	71
Teamwork / collaboration	93	Microsoft Power BI	65
Creativity*	81	Business analysis	64
Problem solving	81	SQL	54
Planning	77	Tableau	40
Detail-orientated*	72	Project management	34
Research	39	Optimisation	31
Analytical skills	33	Business process	29
Building effective relationships	29	Change management	29

* Aptitude rather than skill.

3.3.16 Sales job family

Although far smaller than the Hospitality, Food, and Tourism job family, the Sales job family is the second largest, and is also in the Generator job cluster. Roles in this job family include account and territory managers, business development managers, cellar door hosts and attendants, merchandisers, product demonstrators, and a range of retail and sales roles. Consequently, the top ten technical skills are very focused on the skills necessary for this environment, including sales, business development, retail operations, customer service, and sales, account, and store

management (Table 3.19). Core skills are largely focused on communication, organisation, and teamwork/collaboration, however, like the Hospitality, Food, and Tourism job family, there are a number of aptitudes as proxies for skills in the top ten.

Table 3.19 Top skills for Sales job family, 2013-2023

Top 10 core skills	Job postings	Top 10 technical skills	Job postings
Communication skills	1,103	Sales	1,495
Organisational skills	552	Sales management	509
Teamwork / collaboration	531	Business development	425
Detail-orientated**	497	Budgeting	369
Building effective relationships	467	Customer service	345
Planning	430	Sales goals	307
Creativity*	418	Store management	254
Energetic*	288	Merchandising	220
Problem solving	220	Account management	219
Time management	212	Product knowledge	176

* Aptitude rather than skill.

3.3.17 Science and Research job family

Table 3.20 Top skills for Science and Research job family, 2013-2023

Top 10 core skills	Job postings	Top 10 technical skills	Job postings
Communication skills	179	Data entry	64
Detail-orientated*	158	Customer service	51
Problem solving	82	Laboratory equipment	48
Teamwork / collaboration	82	Calibration	46
Planning	53	Plant pathology	45
Analytical skills	48	Environmental science	35
Meeting deadlines	43	Resource management	29
Organisational skills	39	Alcoholic beverage industry knowledge**	28
Time management	37	Quality assurance and control	27
Computer literacy	36	Environmental management	17

* Aptitude rather than skill.

** Knowledge rather than technical skill.

The Science and Research job family is largely part of the Informer job cluster (scientists, technologists and technicians, researchers, laboratory staff, and horticultural entomologists), with research and laboratory management roles in the Coordinator job cluster. A smaller job family, Science and Research is another of the more specialised job families with only small overlaps in technical skills, including data entry, customer service, quality assurance and control, and environmental management (Table 3.20). Otherwise, top technical skills are varied across laboratory research, calibration, environmental science, and pathology. Core skills are in line with those needed for analytical roles, however, teamwork and collaboration indicate interpersonal skills are still highly valued in these technical roles.

3.3.18 Transport job family

Table 3.21 Top skills for Transport job family, 2013-2023

Top 10 core skills	Job postings	Top 10 technical skills	Job postings
Detail-orientated*	83	Customer service	58
Communication skills	64	Forklift operation	56
Physical demand**	55	Passenger transport	28
Organisational skills	52	Bus driving	27
Teamwork / collaboration	35	Health and safety standards	21
Positive disposition*	32	Customer contact	12
Creativity*	23	Sales	12
Planning	23	Scheduling	10
Time management	23	Ethanol	9
Written communication	13	Fertilisers	3

* Aptitude rather than skill.

** Work condition/environment rather than skill.

The Transport job family is the smallest in the wine industry, with driving roles part of the Coordinator job cluster. As with other clusters, there are aptitudes acting as proxies for core skills, although the three main areas of communication, teamwork, and organisation are covered (Table 3.21). Technical skills are either customer- or task-focused, and qualifications are inferred by some of these.

3.4 Interactive dashboard

Using the Lightcast data, we developed an interactive dashboard highlighting the top 20 core skills and top 20 technical skills from 2013 to 2023, and mapped these across the seven job clusters. There is a drop-down menu to isolate skills for a particular cluster. Figure 3.1 is a screenshot of the core skills area of the dashboard.

Because of the diversity of job roles and tasks, these technical skills range from:

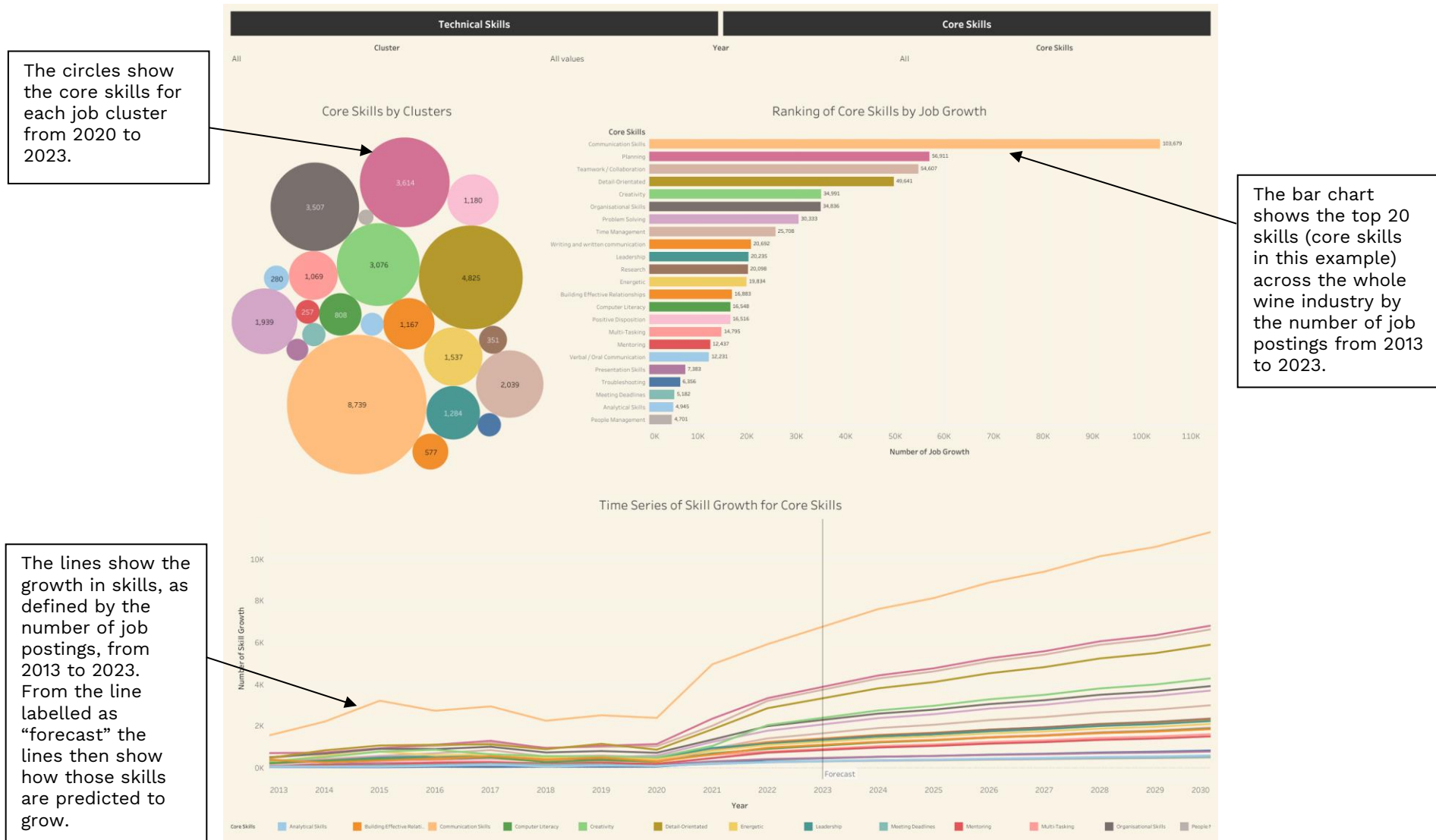
- Customer service and sales – Top technical skills overall, and top two for the Generator and Carer clusters
- Forklift operation – Top technical skill for the Artisan and Coordination clusters
- Accounting – Top technical skill for the Informer cluster
- Project management – Top technical skill for the Designer cluster
- Stakeholder management – Top technical skill for the Technologist cluster.

This dashboard can be found at the New Zealand Winegrowers and Wine Marlborough websites.

Time series of skill growth

Using the growth rates in both core and technical skills listed in job advertisements from 2013 to 2023, we forecast growth rates through to 2030 for the 40 skills mapped on the dashboard. The prevalence of the top skills is unlikely to change substantially, and the focus should be on “soft” core skills, particularly in communication. For example, communication skills are both foundational and complementary skills for customer service and sales technical skills, enhancing customer interactions and engagement, enabling empathy, and improving the ability to provide tailored solutions. Organisational skills also contribute to these technical skills, as well as accounting, project management, and stakeholder management, and are crucial for the attention to detail and time management, needed for forklift operations.

Figure 3.1 Screenshot of dashboard, core skills



4 Survey data on wine industry skills

We undertook an extensive survey of wine industry employers (Appendix B Methodology). The section on skills and training was the most substantial in the survey, and was intended to be the backbone of mapping the skills needed for current and future wine industry activities. In particular, it was designed to help map the range of duties and skills across the wine industry, from growers to labour supply to support services to wineries, and provide a baseline for what jobs make up the wine workforce.

Survey respondents were asked to use the position descriptions of their workers directly engaged in wine industry activities, as well as a list of support employees, e.g., human resources and finance roles. Workers directly engaged in wine industry activities include vineyard and winery workers, as well as laboratory technicians, mechanical engineers, machine operators, growers, bottling and logistics specialists, wine marketers, and anyone who has specialised viticulture skills and experience.

Insufficient responses were provided in this section, however, for the intended mapping to take place. Additionally, some job titles did not have any skills listed, and the majority had aptitudes, experience, knowledge, and qualifications listed for the requested core and technical skill fields. Therefore, transitions between job families and clusters with overlapping skills cannot be fully understood with this survey data. The survey data should be interpreted with caution due to its low response rate.

The data is helpful for a high-level overview of what employers are looking for, though. Some of the key areas reported by survey respondents that are crucial for various roles within the wine industry, ranging from vineyard operations to winemaking and laboratory analysis, include:

- Practical winery and vineyard experience, including a strong technical background in a production-based business environment and knowledge of winemaking equipment
- Understanding of vine physiology, phenology, pest management, and general knowledge of farming and horticultural systems
- Competence in laboratory procedures relating to wine, with a strong knowledge of winemaking science and practices
- Commercial business acumen, computer literacy, and a focus on quality with meticulous attention to detail
- Experience in cellar work, vineyard operations management, and a demonstrated understanding of wine quality management systems
- Technical winemaking knowledge, experience with bottling and packing machinery, and understanding of physical and mechanical processes
- Operational planning experience, client relationship management, and a strong understanding of winemaking processes, including legislation and compliance

- Proficiency in machinery management, people management skills, and effective communication and planning skills
- Knowledge and experience in sustainable practices, pest and disease monitoring, and the ability to perform crop estimates and set up laboratory trials
- Regulatory knowledge, including an understanding of legislation (New Zealand and overseas), and the ability to conduct accurate lab analysis and trials.

4.1 Job clusters and families represented in wine industry survey

A total of 506 job roles were provided by survey respondents, with at least one core and/or technical skill provided to enable analysis of 430 job roles. The job roles were then organised by job cluster (Table 4.1) and job family (Table 4.2) for both Marlborough and the rest of the country.

The Artisan job cluster had the highest representation in the survey responses, a different representation from the Lightcast data representation, where the Generator cluster was highest (Table 3.1). Artisan job cluster roles represented 70.7 percent of the job data provided in Marlborough and 74.4 percent for the rest of the country. This is likely to have to do with the profiles of the business types that completed the survey (Table 6.1). The Coordinator job cluster was the next highest, with 57 job roles overall, or 12.3 percent of Marlborough job roles and 9.3 percent of job roles from the rest of the country. Skill data for Carer, Technologist, and Designer job clusters was minimal in the survey.

Table 4.1 Number of roles in survey, by job cluster

Job cluster	Marlborough	Rest of country
Artisan	236	128
Carer	1	2
Coordinator	41	16
Designer	8	3
Generator	22	13
Informer	24	9
Technologist	2	1
Total	334	172

With the Artisan job cluster so highly represented in the survey skill data, it makes sense that the Agriculture, Horticulture, and Outdoors job family was also the top job family, with 200 job roles providing information on skills. One third of Marlborough job roles (33.5 percent) and half of job roles from the rest of the country (51.2 percent) are represented in the survey data. This is a very different picture from the Lightcast data, where the Agriculture, Horticulture, and Outdoors job family was not as well represented in job postings (Table 3.2).

The second highest number of roles was in the Manufacturing and Production job family, which was the third highest in the Lightcast data. Skill data on this family was provided by 120 job roles, representing 27.5 percent of Marlborough and 16.3 percent of the rest of the country. As with job clustering, some job families have minimal representation in the survey data, including single-digit responses for a number of job families.

Table 4.2 Number of roles in survey, by job family

Job family	Marlborough	Rest of country
Agriculture, Horticulture, and Outdoors	112	88
Business Management and Operations	35	13
Clerical and Administrative		1
Community and Social Services		1
Customer and Client Support	3	1
Engineering	8	3
Finance		1
Hospitality, Food, and Tourism	11	2
Human Resources	2	
Law, Compliance, and Public Safety	1	
Maintenance, Repair, and Installation	34	13
Manufacturing and Production	92	28
Marketing and Public Relations	2	1
Planning and Analysis	2	1
Sales	11	11
Science and Research	21	8
Total	334	172

4.2 Core skills from wine industry survey

The most common core skills across job roles in the wine industry, according to the survey data, include:

1. **Communication:** Essential for almost every role, from winemaking to vineyard management, ensuring effective teamwork, clear instructions, and successful stakeholder relationships.
2. **Planning and organising, including problem solving, time management, attention to detail, and decision making:** Critical for managing the various operational, logistical, and strategic aspects of wine production and vineyard management; for meeting the seasonal and operational deadlines that are critical in the wine industry, ensuring that tasks are completed efficiently; and for ensuring the quality of wine through vineyard management, winemaking processes, and laboratory analysis.
3. **Teamwork:** Important for fostering a collaborative work environment, crucial in roles ranging from machinery operation to laboratory analysis and management positions. Leadership is also important for roles that involve managing teams, driving projects, and leading operations within the vineyard and winery.

This data supports the findings from the Lightcast data, and shows these skills are foundational across a wide range of roles within the wine industry, reflecting the diverse and complex nature of wine production and sales.

4.2.1 Regional analysis of core skills

The top four core skills noted across Marlborough (Table 4.3) and the rest of the country (Table 4.4) are identical: communication skills, teamwork and collaboration, organisational skills, and planning. There are a few variations in the rest of the top ten, although the small number of job titles provided for roles outside of Marlborough means that making generalisations may not be helpful.

Table 4.3 Top 10 core skills from survey, Marlborough

Core skills	Times skill noted in survey
Communication skills	92
Teamwork / collaboration	80
Organisational skills	43
Planning	40
Time management	37
Problem solving	34
Computer literacy	33
People management	32
Leadership	31
Decision making	19

Table 4.4 Top 10 core skills from survey, rest of country

Core skills	Times skill noted in survey
Communication skills	52
Teamwork / collaboration	30
Organisational skills	23
Planning	19
People management	15
Computer literacy	14
Time management	12
Physical demand*	9
Decision making	8
Literacy	8

** Work condition/environment rather than skill.

4.3 Technical skills from wine industry survey

The ten most common technical skills across job roles in the wine industry from the survey responses are:

1. Machinery operation: Proficiency in operating various machinery, including tractors, harvesters, and specialised winery equipment
2. Computer literacy: Skills in using computers, including software like Excel, Word, Outlook, and industry-specific software for data management and reporting
3. Viticulture practices: Understanding the vineyard lifecycle, pest, and disease monitoring, pruning, and canopy management

4. Winemaking techniques: Proficiency in all aspects of winemaking, from fermentation to bottling, including quality control and wine tasting
5. Lab analysis: Ability to conduct laboratory work, including chemical and microbiological analyses, to ensure wine quality
6. Technical expertise with vineyard and winery equipment: Knowledge of and ability to operate, maintain, and repair vineyard and winery equipment
7. Health and safety: Understanding of health and safety regulations, including hygiene standards in food and beverage production
8. Quality control and assurance: Skills in quality management systems, environmental protection, and pollution prevention, ensuring product meets set standards
9. Engineering and maintenance: Skills in structural repairs, maintenance, fabrication, and understanding of engineering principles applicable to winery operations
10. Digital competence: Ability to manage databases, systems, and digital tools for efficient operation and communication within the industry.

These technical skills are crucial for the efficient operation of vineyards and wineries, and for the practical aspects of wine production and quality control, ensuring the production of high-quality wine and the sustainable management of resources.

4.3.1 Regional analysis of technical skills

There is more regional variation in technical skills between Marlborough (Table 4.5) and the rest of the country (Table 4.6), although again, with a small number of detailed responses from outside of Marlborough. Machine operation is the top technical skill nationwide, with wine processing second in Marlborough (and nationwide overall) and tenth in the rest of the country. Occupational health and safety is also third in Marlborough (and nationwide overall), and sixth in the rest of the country. Oenology is listed as a technical skill in many job descriptions, and comes in fifth overall, but it could be considered technical knowledge, rather than a skill developed from application of that knowledge.

Table 4.5 Top 10 technical skills from survey, Marlborough

Technical skills	Times skill noted in survey
Machine operation	47
Wine processing	30
Occupational health and safety	29
Operations management	21
Oenology	14
Laboratory testing	12
Customer service	11
Farm management	11
Forklift operation	10
Quality assurance and control	10

Table 4.6 Top 10 technical skills from survey, rest of country

Technical skills	Times skill noted in survey
Machine operation	28
Oenology	10
Customer service	8
Operations management	8
Predictive / preventative maintenance	8
Occupational health and safety	7
Business systems	6
Laboratory testing	6
Tractor driving	6
Wine processing	6

5 Survey responses on future workforce opportunities and risks

Survey respondents were asked to identify potential workforce opportunities and workforce risks for their business and for the wine industry in the next three to five years. These questions were open-text fields, which meant respondents could write freely. This section of the report outlines a summary of these opportunities and risks (Table 5.1).

Table 5.1 Summary of future workforce opportunities and risks

	For businesses	For industry
Workforce opportunities	<ul style="list-style-type: none"> • Growing, attracting, upskilling staff • Embracing automation and technology • Increasing commitment to sustainability • Expanding into new areas 	<ul style="list-style-type: none"> • Workforce skill and capability development • Increasing automation to improve productivity • More sustainable production practices
Workforce risks	<ul style="list-style-type: none"> • Seasonal workforce challenges • Training not aligned with future skill needs • Adapting to new ways of operating. 	<ul style="list-style-type: none"> • Skilled and RSE staff shortages • Competition in labour market • Rising costs and overheads

5.1 Potential workforce opportunities

5.1.1 For businesses

Workforce opportunities identified by businesses fall into three broad and overlapping themes:

- Labour opportunities
- Workforce development
- Business growth and strategies.

Labour opportunities

There is a growing focus on various roles, including vineyard jobs, sales and marketing, wine tourism, and winery jobs, reflecting the diverse needs of the wine industry. Businesses are looking to shift towards employing in-house workers for tasks, like pruning and harvesting, aiming to upskill existing staff, and attracting young talent to settle in the region. Initiatives offering incentives and rewards are being implemented to attract and retain talent, and are likely to increase.

Workforce development

Businesses are embracing automation, artificial intelligence (AI), and technological advancements to streamline processes, reduce labour requirements, and create new, more technical roles. This trend is driving a need for hiring digitally skilled staff. Higher-skilled roles and remote workforce opportunities are part of this picture. Talent development is being prioritised, leading to the evolution of existing roles into higher-value positions driven by technological advancements and automation.

Increasing emphasis is being placed on productivity enhancement, online learning platforms, and creating year-round workflow, along with exploring collaborative work opportunities for increased efficiency. There's also potential for creating new positions with environmental responsibilities, such as roles in regenerative viticulture, due to climate change.

Business growth and strategies

Businesses anticipate growth and expansion plans into new territories, including Australia, which calls for additional staffing. They are also intensifying sales efforts and targeting new clientele to drive growth.

Environmental responsibilities are being integrated into specific roles, reflecting a commitment to sustainability, and reducing the carbon footprint. Technology is increasingly being leveraged for sales growth and enhancing customer interactions.

5.1.2 For the wine industry

Potential workforce opportunities for the wine industry are focused on:

- Optimising labour
- Changing practices within the industry.

Labour optimisation

Businesses see labour optimisation as presenting significant opportunities for the wine industry to address workforce challenges and enhance productivity. Leveraging initiatives, like the Recognised Seasonal Employer (RSE) scheme, and attracting backpackers are seen as opportunities to provide a reliable source of seasonal labour.

Aligning industry training programmes with the required future skills and capabilities ensures a skilled workforce ready to meet evolving industry needs. Additionally, attracting skills from different regions or overseas, and introducing new skill sets can foster innovation and enrich the industry's talent pool.

Businesses also see an increased focus on automation for vineyard tasks as not only improving efficiency, but also creating higher-skilled jobs, replacing manual labour and administrative roles. Introducing new roles, particularly in automation, is seen as a way of further enhancing productivity, enabling the industry to adapt to technological advancements.

Changing wine industry practices

The wine industry is undergoing transformative changes by adopting innovative practices to enhance efficiency, sustainability, and appeal. Embracing robotics, genetics, AI, and automation in vineyard and winery operations are ways businesses see productivity improving while minimising environmental impact. Practices such as composting grape marc and reducing waste contribute to sustainability efforts. There are opportunities to take a greater lead as an industry in decarbonisation, waste reduction, ethical employment, capability building, and setting standards for sustainability.

This emphasis on environmental considerations and sustainable practices underscores the industry's commitment to responsible production. These evolving practices signify a dynamic shift towards a more efficient, sustainable, and environmentally conscious wine industry. Additionally, expanding winemaking styles, techniques, and varieties, coupled with global marketing expertise, are seen as opportunities to attract a younger workforce and remain competitive.

5.2 Potential workforce risks

5.2.1 For businesses

Workforce risks identified by businesses include:

- Labour constraints
- A lack of skill development and training initiatives
- Operating challenges.

Labour constraints

Challenges in obtaining seasonal workers persist, particularly in roles such as machinery operators, irrigation technicians, and vineyard operators, which highlights a significant shortage in these areas. Businesses expressed concerns regarding reliance on the RSE scheme and backpackers. Complexity within the RSE scheme poses potential risks for smaller operators, potentially excluding them from the scheme. Businesses suggest that scheme expansion and accommodation of other industries are proposed to mitigate these risks. Embracing modern, sustainable practices and environmentally friendly solutions, and diversifying operations are highlighted as strategies to attract a younger workforce.

Skill development and training initiatives

Businesses perceive that there is a lack of strategies to attract skills from other regions or overseas, and that training is not aligned with their future skill needs. Businesses also express a need for new skills in regenerative roles, Power BI experts, and water management. Initiatives such as education subsidies for wine studies, organising work expos and open days, and focusing on skill enhancement through new roles and automation are offered as ways to address skill development needs.

Operating challenges

Businesses are facing challenges related to the integration of robotics, genetics, and AI/technology for automation, waste reduction, and efficiency improvement within their operations. Prioritisation of compliance, advocacy, climate adaptation and decarbonisation, ethical employment, and water management are among the key business challenges identified by businesses.

5.2.2 For the wine industry

Potential workforce risks for the wine industry are also largely focused on labour constraints, with some concern about operational economic risks (e.g., potential threats to financial stability and performance).

Labour constraints

Labour constraints pose significant workforce risks for the wine industry. There is a lack of experienced vineyard and machinery operators, as well as managers (due to retirements). This is coupled with complications in equipment maintenance and repair due to the shortage of trained staff.

Businesses think challenges in attracting both skilled and unskilled labour will persist due to low interest in the industry and fierce competition for talent within and outside the industry. The potential inability of employees to adapt to new technology may further exacerbate labour constraints, along with high turnover rates within the workforce.

Businesses also see risks associated with any reduction or restriction in the number of RSE workers allowed into New Zealand, leading to potentially escalating costs of RSE labour on top of heavy reliance on this scheme for essential labour.

Operational economic risks

Operational economic risks pose significant challenges for the workforce in the wine industry. Rising labour costs, encompassing wages and overheads, along with escalating industry expenses, are squeezing profitability. This situation is exacerbated by inflation and excise tax increases, further straining the financial viability of wine industry businesses, and impacting their ability to retain and attract skilled workers. There are also ongoing localised issues related to accommodation and housing shortages for the wine workforce, with no clear solution in sight given that housing is a nationwide issue. This not only affects the well-being of workers, but also hinders recruitment efforts and may lead to increased turnover rates within the industry.

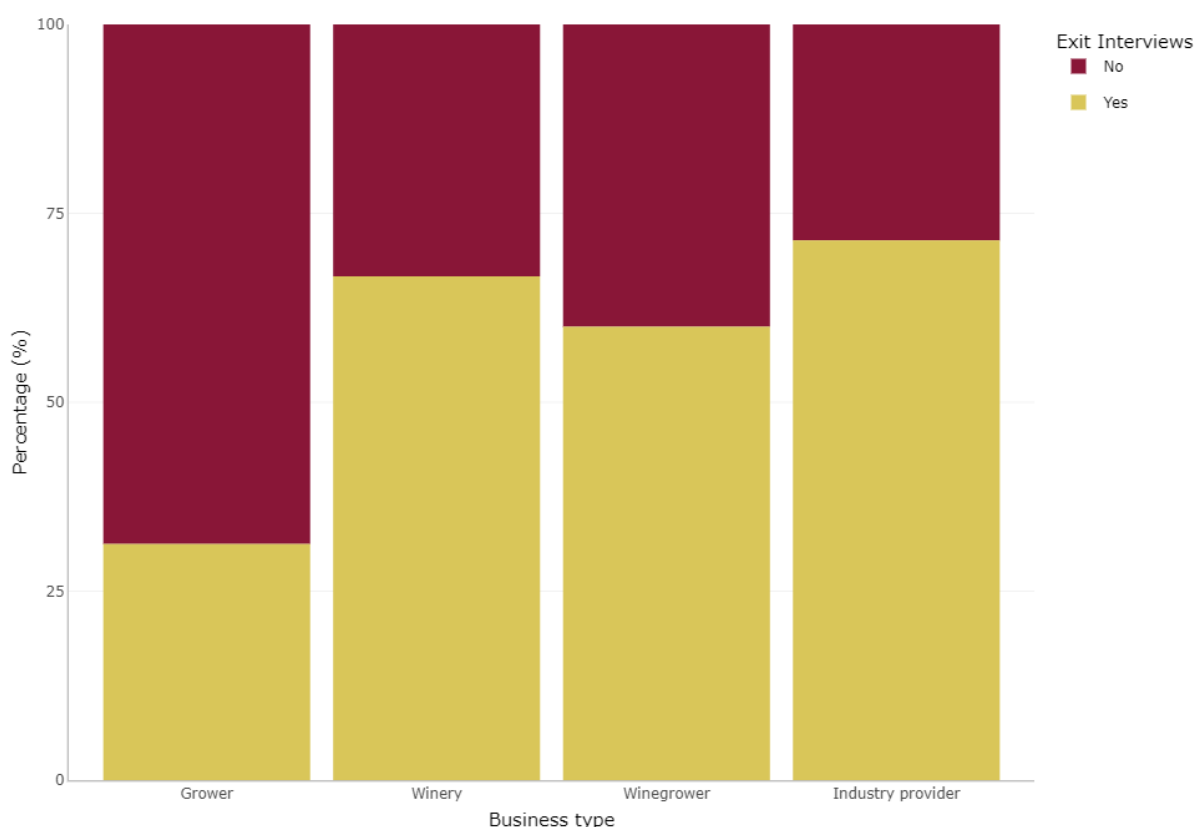
6 Survey responses on business operations

6.1 Turnover

This section of the survey asked about employee turnover. While there is no specific data to benchmark these survey responses against for the wine industry, exit interviews are considered valuable tools for understanding employee turnover – why employees leave and where they go – and improving organisational practices.

Figure 6.1 shows the percentage of survey respondents who did and did not undertake exit interviews, by business type. Growers are the least likely to be undertaking exit interviews (31.2 percent yes), while industry providers (71.4 percent), wineries (66.7 percent), and winegrowers (60.0 percent) regularly use exit interviews.

Figure 6.1 Does your business undertake exit interviews with members of staff who leave the business?



In terms of the number of exit interviews, growers undertook 14, wineries 28, industry providers 104, and winegrowers 112 interviews in the previous 12 months. This is a total of 258 exit interviews across respondents. For permanent staff members leaving the business, the main reasons for leaving were provided in 42 of these interviews. The reasons given for leaving the wine industry, included:

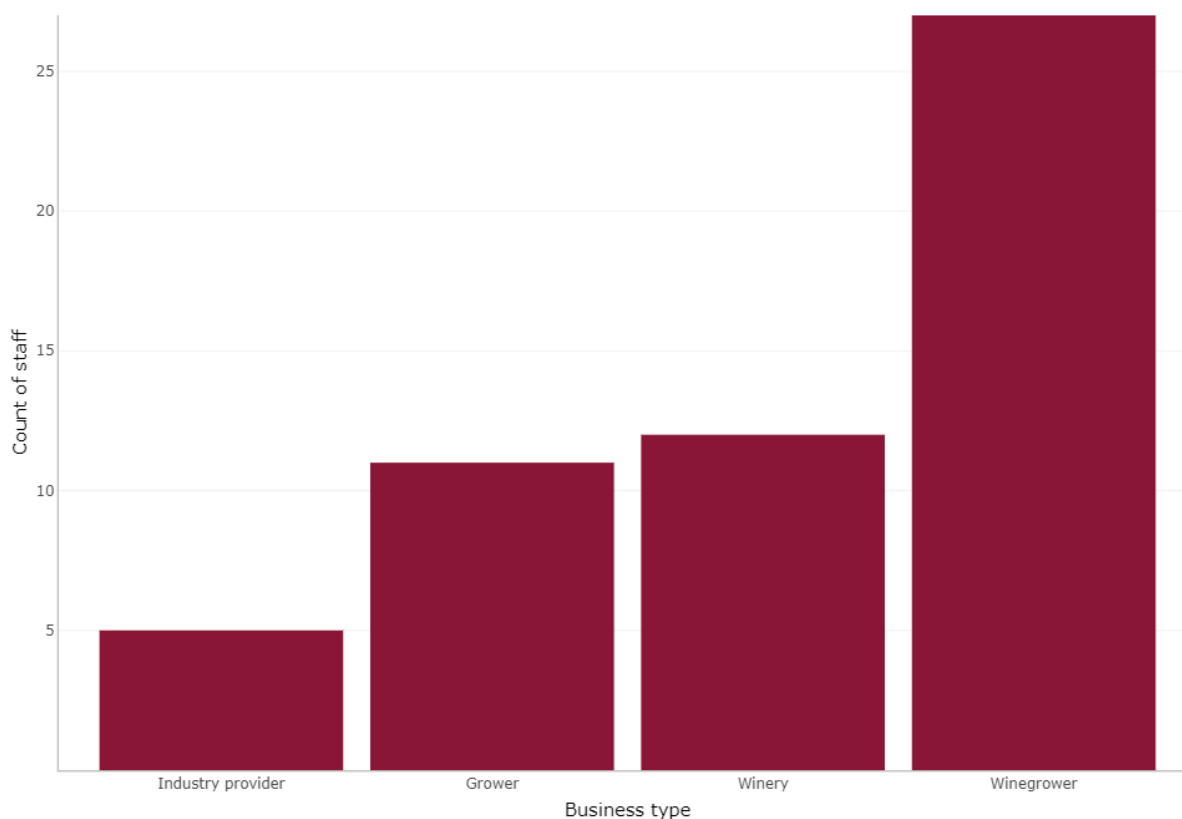
- Dissatisfaction with their role, team, or manager; lack of career advancement opportunities or location

- Lifestyle changes, including leaving the region or country; family or personal reasons; retiring; or health reasons
- Seeking opportunities outside the industry, including a better salary package, or wanting a change of industry
- Other career changes include studying or buying a business.

Respondents were also asked how many permanent staff members they were aware of who exited the industry in the last 12 months (Figure 6.2). The figures range from five for industry providers, 11 for growers, 12 for wineries, and 27 for winegrowers. Wineries also reported 46 non-permanent staff leaving the industry in the last 12 months, while growers counted 163 non-permanent staff leaving. Hospitality, fast-moving consumer goods, administration, and agriculture were all mentioned as destinations for non-permanent staff, although moving overseas was the dominant destination.

Figure 6.2 How many permanent staff are you aware of exited the industry?

For



Businesses were also asked what percentage of their seasonal staff from previous years returned to their business this year. Answers ranged from 0 to 100 percent, with the average being 27.8 percent and the median being 14.5 percent. The low median and average indicate a lower rate of return for many seasonal workers.

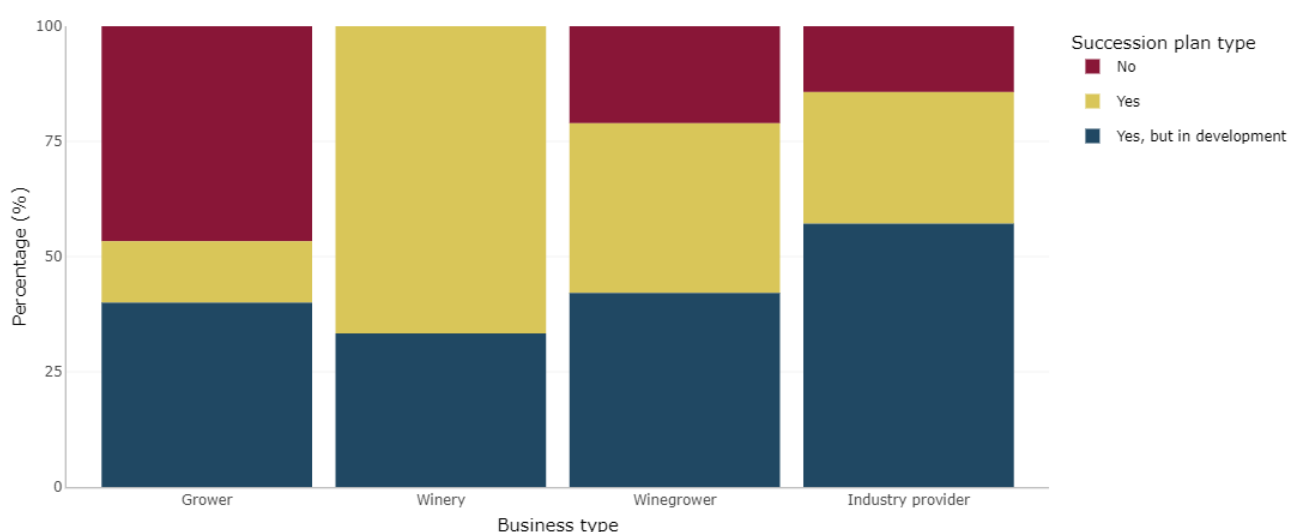
Respondents were also asked about the impact on their business operations of vacancies. While some businesses said there was no impact, and others said workforce shortages had existed for as long as they had been in the industry, vacancies in the workforce had significant consequences on business operations for others. In particular, increased workloads and the need for staff to work extra hours and overtime are common, leading to decreased productivity and potential burnout among existing employees. Delays in tasks and maintenance due to increased workload and responsibility for other roles can affect the overall performance and output of the business.

Some businesses feel the reliance on contractors to fill the gaps in the workforce can result in additional expenses and potential quality control issues. Additionally, the recruitment process itself can be time-consuming and costly, further impacting operational efficiency. On the whole, workforce vacancies are not only straining existing staff but also hindering businesses' ability to meet customer expectations, pursue new opportunities, and maintain operational excellence.

6.2 Succession planning

A succession plan is a record of a strategic process that identifies how key leadership positions will be filled in an organisation, to ensure capable staff can step into crucial roles when needed. While it is often thought of as being for owners of family-run businesses, it's vital for all businesses to be proactive in developing leadership potential in their organisation. Succession plans ensure continuity by facilitating talent development and recognising future leaders, while also strengthening organisational resilience and mitigating risks from key personnel departures. More winegrowers have a succession plan in place or in development (78.9 percent), while fewer growers do (53.3 percent) (Figure 6.3). Only one of the industry goods and service provider respondents does not have a succession plan, while all wineries do.

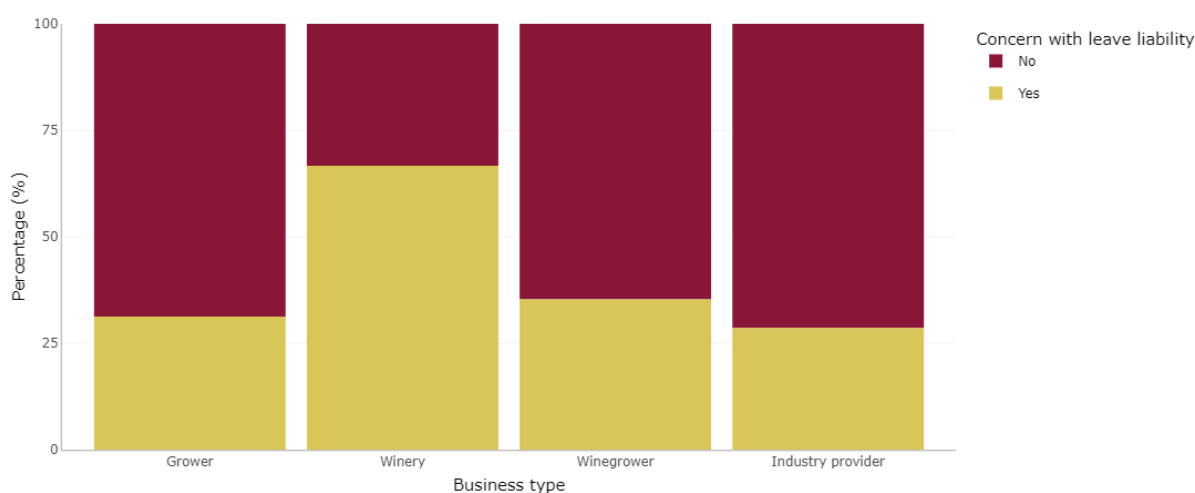
Figure 6.3 Does your business have a succession plan?



6.3 Leave liability

Leave liability is the dollar value of leave that is paid to an employee at their final pay, usually the accumulated balance of annual leave, alternative leave, and leave accrued for working a public holiday. Accumulated leave liability can strain a business’s cashflow, and managing employee leave entitlements effectively is associated with employee wellbeing and engagement, and operational continuity. Survey respondents were asked about their concern with leave liability to better understand if anecdotes about staff not being able to take leave were borne out. While most respondents are not concerned with the level of leave liability in their business, there was variation across the business types (Figure 6.4). Overall, a third of respondents (37.0 percent) are concerned about their leave liability.

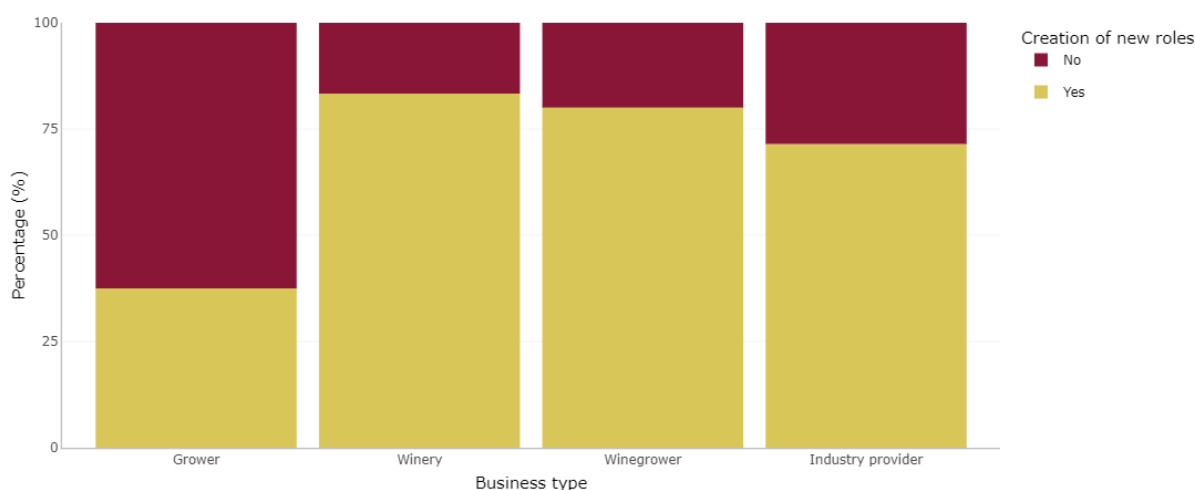
Figure 6.4 Is your business concerned with its current level of leave liability?



6.4 New business roles

Two-thirds of survey respondents have created new job roles in the last three years, particularly winegrowers (Figure 6.5).

Figure 6.5 Has your business created any new job roles in the last three years?



New job roles created by individual businesses in the last three years can be categorised as follows:

- Leadership and management roles across:
 - Safety
 - People, including culture, recruitment and mobility, and workforce planning and partnerships
 - Finance
 - Business, including key account managers
 - Brand, including marketing and events
 - Information Technology
 - Sustainability
 - Winemaking
 - Viticulture and Vineyard, including assistant manager roles
- Co-ordination roles:
 - Health and safety
 - People and culture advisors and coordinators
- Viticulture and vineyard operations:
 - Operators, including Autonomous Vineyard Tractor (AVT) operator
 - Technicians
 - Machinery trainers
 - Regenerative viticulturist
 - Precision viticulture advisor
- Winery operations:
 - Cellar supervisor
 - Cellar hand
 - Production winemaking
- Logistics and business operations:
 - Logistics
 - Administrator
 - Finance and payroll administration
 - Finance business partner
 - Digital marketing specialist.

Appendix A Survey responses on business demographics

This section includes a range of business demographics, including:

- Location of operations (Table 6.1)
- Wineries (including contract winemakers) – Number of litres produced per year (Table 6.2)
- Vineyards – Number of hectares currently in production (Table 6.3)
- Provider of support services to the wine industry – An estimate of the percentage of business by time generated from the wine industry (Table 6.4)
- All businesses – Headcount of direct employees by type (e.g., full-time, and part-time employees, seasonal workers, casual workers) (Table 6.5 and Table 6.6).

Some of the businesses have multiple locations, so the total counts in Table 6.1, Table 6.2, and Table 6.3 add up to more than the 199 businesses responding to the survey.

Table 6.1 Regional representation of survey, by business type

Regions	Types of Business	Count
Auckland and Northland	Grower	1
Auckland and Northland	Winery	1
Auckland and Northland	Winegrower	16
Auckland and Northland	Industry provider	3
Hawke's Bay	Grower	6
Hawke's Bay	Winery	3
Hawke's Bay	Winegrower	17
Hawke's Bay	Industry provider	6
Rest of the North Island	Grower	4
Rest of the North Island	Winegrower	14
Rest of the North Island	Industry provider	2
Marlborough	Grower	36
Marlborough	Winery	16
Marlborough	Winegrower	49
Marlborough	Industry provider	21
Rest of the South Island	Grower	6
Rest of the South Island	Winery	4
Rest of the South Island	Winegrower	29
Rest of the South Island	Industry provider	3

Table 6.2 Wineries (including contract winemakers), by number of litres produced per year, represented in survey

Types of Business	Litres of Wine	Count
Winery	Category I	5
Winery	Category II	4
Winery	Category III	5
Winery	Contract Winemaker	4
Winegrower	Category I	20
Winegrower	Category II	18
Winegrower	Category III	25

Table 6.3 Vineyards, by number of hectares currently in production, represented in survey

Types of Business	Vineyards	Count
Grower	Less than 5 hectares	9
Grower	5 to 20 hectares	17
Grower	21 to 50 hectares	8
Grower	51 to 200 hectares	14
Grower	More than 200 hectares	5
Winegrower	Less than 5 hectares	5
Winegrower	5 to 20 hectares	7
Winegrower	21 to 50 hectares	10
Winegrower	51 to 200 hectares	12
Winegrower	More than 200 hectares	28

Table 6.4 Breakdown of business activity of industry goods and services providers represented in survey⁵

Main business activity	Marlborough	Rest of country
Vineyard management	8	
Labour supply	4	1
Machinery / equipment supply or servicing	6	
Engineering	4	
Water	1	
Training	1	
Transport	5	
Logistics and storage	2	
Bottling	3	
Research and development	1	
Other services	5	

⁵ Industry providers could select more than one business activity.

Table 6.5 Number of current employees directly employed by survey respondents, by region and employment type

Regions	Full-time permanent	Part-time permanent	Full-time contractor	Part-time contractor	Seasonal RSE	Seasonal backpacker	Seasonal other	Casual	Other
Auckland and Northland	1,069	122	0	0	20	0	402	89	36
Hawke's Bay	351	51	0	0	104	0	62	22	12
Rest of the North Island	101	11	0	0	19	0	32	48	2
Marlborough	2,245	203	0	0	1,379	0	561	266	36
Rest of the South Island	313	61	0	0	10	0	37	41	4

Table 6.6 Number of employees directly employed by survey respondents in last 12 months, by region and employment type

Regions	Full-time permanent	Part-time permanent	Full-time contractor	Part-time contractor	Seasonal RSE	Seasonal backpacker	Seasonal other	Casual	Other
Auckland and Northland	377	26	0	0	0	0	0	26	45
Hawke's Bay	238	45	0	0	1,215	0	416	32	33
Rest of the North Island	48	14	0	0	10	0	42	38	28
Marlborough	1,327	74	0	0	847	0	780	279	230
Rest of the South Island	264	57	0	0	88	0	95	224	2

Appendix B Methodology

Lightcast data

Lightcast (formerly Burning Glass Technologies) is a labour market analytics company that provides real-time data on job market trends, skill demand, and workforce development insights. The Lightcast dataset, sourced from millions of online job postings, provides detailed information on job requirements, including industry codes, location, posting date, employer name, education, professional experience, and skills, enabling granular analyses across occupations, sectors, and locations, and enabling earlier detection of emerging trends. Lightcast analyses job vacancy text to identify necessary skills, standardising information by removing duplicates and spelling differences, except for British versus US English and acronyms.

This results in a list of keywords, which are then translated to skills required to perform certain jobs. These keywords include core and technical skills (e.g., “analytical skills”), as well as knowledge (e.g., “food safety” or “environmental policy”), and aptitudes (e.g., “detail-oriented”). A preliminary assessment suggests that skill keywords primarily capture all the conceptual elements noted in Section 2.2). Some job postings have no skill requirement information (stable across the years at approximately 10 percent). While it is possible that the requirements of some jobs are implicitly conveyed through the job title, qualification, or education requirements, it may also be a further indication of the need for capability development in writing job descriptions and job advertisements.

For this project, we analysed labour insights data through the Lightcast platform, using keyword searches on viticulture, vineyard, and wine-related terms, as well as searching under the Australian and New Zealand Standard Classification of Occupations (ANZSCO) classifications and Lightcast’s own job family classifications.

The first step was to allocate job titles, and their associated job families, to job clusters. We evaluated the job titles, families, and clusters with a working group. Once the final categorisation was confirmed by the working group (Appendix C Job clusters, job families, and occupations), data on all relevant job advertisements from 2013 to 2023 was downloaded. Core skills and technical skills were identified and categorised, both according to the job titles and the job clusters.

This analysis was used to identify the most in demand core and technical skills, and to develop the dashboard (Section 2.3). We have also provided Wine Marlborough with data on the top skills, qualifications, and experience requirements for wine industry jobs by job title and job family.

Survey of wine industry businesses

From 4 September to 6 November 2023, Wine Marlborough conducted an online survey. Business and Economic Research Limited (BERL) designed and conducted the survey, analysed findings, and authored this report.

We undertook a pilot phase in Marlborough with businesses representative of the wine industry, before rolling out the survey nationally. The pilot survey enabled us to test the survey and gain feedback on the survey process and questions.

Quantitative and administrative data from survey responses was analysed using statistical analysis techniques, and the open text responses were analysed using narrative thematic analysis. The data was disaggregated by business segments to enable comparisons.

A total of 199 respondents started the survey, with 47 completing the entire survey. In the report, percentages have been rounded to whole numbers and may not add up to 100 percent. Percentages may add up to more than 100 percent, where respondents could select more than one answer. The data provided by respondents is reported in the combined results.

Appendix C Job clusters, job families, and occupations

Cluster	Job title	Alternative title	Alternative title	Alternative title	Job family
Artisan	Farm / Nursery / Greenhouse Worker	Nursery/grafting	General Farm Worker		Agriculture, Horticulture, and Outdoors
Artisan	Farm Hand	Farm Work	Cropping Farm Hand	Mixed Crop and Livestock Farm Worker	Agriculture, Horticulture, and Outdoors
Artisan	Farm Manager	Assistant Manager	Assistant Farming Manager		Agriculture, Horticulture, and Outdoors
Artisan	Forklift Driver	Forklift Operator	Forklift / Pallet Jack Operator		Agriculture, Horticulture, and Outdoors
Artisan	Irrigation Technician	Irrigation Manager			Agriculture, Horticulture, and Outdoors
Artisan	Landscaping / Groundskeeping Worker	Gardener	Grounds Person		Agriculture, Horticulture, and Outdoors
Artisan	Tractor Driver	Tractor Operator	Machinery Operator	Heavy Equipment Operator	Agriculture, Horticulture, and Outdoors
Artisan	Vineyard Manager				Agriculture, Horticulture, and Outdoors
Artisan	Vineyard Worker	Labour Contractor	Vineyard Operator	Grape Pickers	Agriculture, Horticulture, and Outdoors
Artisan	Viticulture Manager	Assistant Viticulture Manager			Agriculture, Horticulture, and Outdoors
Artisan	Viticulturist	Assistant Viticulturalist			Agriculture, Horticulture, and Outdoors
Artisan	Packager	Pick Packer	Warehouse Packer		Business Management and Operations
Artisan	Quality Control Systems Manager	Quality Manager	Operations Quality Manager		Business Management and Operations
Artisan	Carpenter	Leading Hand	Joiner	Cellar Leading Hand	Maintenance, Repair, and Installation
Artisan	Diesel Mechanic	Agricultural Heavy Diesel Technician	Diesel Fitter Mechanic	Diesel Motor Mechanic	Maintenance, Repair, and Installation
Artisan	Electrician	Electrician	Maintenance Electrician		Maintenance, Repair, and Installation
Artisan	Fitter / Turner	Maintenance Fitter	Welder / Fabricator	Industrial Mechanic	Maintenance, Repair, and Installation
Artisan	Maintenance / Service Supervisor	Maintenance Manager	Maintenance Planner	Maintenance Supervisor	Maintenance, Repair, and Installation
Artisan	Maintenance Technician	Maintenance Handyman	Technical Officer		Maintenance, Repair, and Installation
Artisan	Repair / Service Technician	Service Technician	Technician		Maintenance, Repair, and Installation
Artisan	Assistant Winemaker				Manufacturing and Production
Artisan	Cellar Hand	Cellar Supervisor / Leading Hand	Cellar Master	Cellar Worker	Manufacturing and Production
Artisan	Plant Operator	Production Operator			Manufacturing and Production
Artisan	Production Plant Manager	Production Manager	Production Coordinator	Production Supervisor	Manufacturing and Production
Artisan	Bottling Operator	Production Worker	Works Operator	Operator	Manufacturing and Production
Artisan	Wine Packaging Technician	Manufacturing Machine Operator	Production Filler Operator	Packaging Line Operator	Manufacturing and Production
Artisan	Winemaker	Winemaking Director	Oenologist		Manufacturing and Production
Artisan	Winemaker Planner	Wine Technician			Manufacturing and Production

Cluster	Job title	Alternative title	Alternative title	Alternative title	Job family
Carer	Counsellor				Community and Social Services
Carer	Pastoral Care Worker	Personal Support Workers			Community and Social Services
Carer	Social Services Manager	Social Worker	Social Worker Integrated Care		Community and Social Services
Carer	Housekeeper	Housekeeping Attendant	Room Attendant		Hospitality, Food, and Tourism
Carer	Janitor / Cleaner	Cleaner			Hospitality, Food, and Tourism
Coordinator	Buyer / Purchasing Agent	Purchasing Officer	Assistant Wine Buyer	Procurement Analyst	Business Management and Operations
Coordinator	Chief Executive Officer	Chief Executive	Managing Director	Executive Director	Business Management and Operations
Coordinator	Client Liaison (contract winemaking)				Business Management and Operations
Coordinator	Contract Administrator	Procurement And Contracts Officer	Senior Contract Officer	Contract Administration And Customer Relations Coordinator	Business Management and Operations
Coordinator	Facilities Manager	Project Manager			Business Management and Operations
Coordinator	General Manager	Assistant Manager	Commercial Manager		Business Management and Operations
Coordinator	Grower Liaison Officer	Vintage Grower Liaison Officer			Business Management and Operations
Coordinator	Inventory / Supply Specialist	Inventory Controller	Inventory Officer		Business Management and Operations
Coordinator	Logistics / Supply Chain Analyst	Supply Chain Administrator	Export Operator	Supply Project Specialist	Business Management and Operations
Coordinator	Operations Manager	Operations Director	Head of Operations		Business Management and Operations
Coordinator	Procurement Manager	Assistant Category Buying Manager	Sourcing Manager		Business Management and Operations
Coordinator	Programme Manager				Business Management and Operations
Coordinator	Project Manager	Senior Project Manager	Project Coordinator		Business Management and Operations
Coordinator	Property / Real Estate / Community Manager	Property Development Manager	Property Manager		Business Management and Operations
Coordinator	Safety Specialist / Coordinator	Health And Safety Coordinator	Work Health And Safety Coordinator	Wellbeing Health and Safety	Business Management and Operations
Coordinator	Scheduler / Operations Coordinator	Production Assistant	Production Line Assistant	Scheduler	Business Management and Operations
Coordinator	Supply Chain / Logistics Manager	Logistics Coordinator	Logistics Manager	Training Logistics Coordinator	Business Management and Operations
Coordinator	Viticulture Planning Coordinator / Analyst	Production Planner	Demand Planner	Planning Supervisor	Business Management and Operations
Coordinator	Warehouse / Distribution Supervisor	Warehouse Team Leader	Warehouse Coordinator	Warehouse Manager	Business Management and Operations
Coordinator	Warehouse / Inventory Associate	Store person	Warehouse Assistant	Warehouse Store Person	Business Management and Operations
Coordinator	Administrative Manager	Administrator	Administration Manager		Clerical and Administrative

Cluster	Job title	Alternative title	Alternative title	Alternative title	Job family
Coordinator	Administrative Supervisor	Front Office Supervisor	Customer Success Manager	Team Administrator	Clerical and Administrative
Coordinator	Executive Assistant	Executive Assistant Manager			Clerical and Administrative
Coordinator	Office / Administrative Assistant	Administration Officer	Administration Assistant	Administrative Assistant	Clerical and Administrative
Coordinator	Office Manager	Practice Manager			Clerical and Administrative
Coordinator	Receptionist	Front Office Receptionist			Clerical and Administrative
Coordinator	Accounts Payable / Receivable Manager	Accounts Payable Officer	Accounts Receivable Officer	Revenue Officer	Finance
Coordinator	Bookkeeper / Accounting Clerk	Bookkeeper	Accounts Administrator	Accounts Officer	Finance
Coordinator	Financial Manager	Chief Financial Officer	Commercial Finance Manager	Manager Financial Services	Finance
Coordinator	Payroll Specialist	Payroll Officer	Payroll And Finance Coordinator		Finance
Coordinator	Winery Manager	Winery Operations Manager	General Manager Winery Operations		Hospitality, Food, and Tourism
Coordinator	Communications / Public Relations Manager	Communications Manager	Campaign Manager		Marketing and Public Relations
Coordinator	Communications Coordinator	Communications Specialist	Communications Assistant	Digital Communications Officer	Marketing and Public Relations
Coordinator	E-Commerce Analyst	Digital Product Manager	E-Commerce Executive	E-Commerce Manager	Marketing and Public Relations
Coordinator	Marketing Specialist	Digital Marketing Specialist	Marketing Specialist	Campaign Analyst	Marketing and Public Relations
Coordinator	Product Manager	Assistant Brand Manager	Senior Brand Manager		Marketing and Public Relations
Coordinator	Research and Development Manager	Laboratory Manager			Science and Research
Coordinator	Delivery Driver	Long Distance Driver	Van Driver		Transport
Coordinator	Truck Driver	Heavy Vehicle Driver	Heavy Rigid Driver	HC Driver	Transport
Designer	Digital Producer	Digital Content Producer	Producer		Design, Media, and Writing
Designer	Engineering Manager	Site Reliability Engineer	Principal Engineer		Engineering
Designer	Industrial Engineer	Senior Engineer	Project Engineer - Foundations		Engineering
Designer	Mechanical Engineer	Senior Mechanical Engineer	Project Engineer - Mechanical		Engineering
Generator	Customer Service Manager	Service Manager	Customer Experience Consultant	Experience Manager	Customer and Client Support
Generator	Customer Service Representative	Customer Service Officer	Customer Service Agent		Customer and Client Support
Generator	Bartender	Bar Staff	Bar Attendant		Hospitality, Food, and Tourism
Generator	Chef	Chef/Cook	Head Chef		Hospitality, Food, and Tourism
Generator	Event Planner	Venue Manager	Assistant Venue Manager	Event Manager	Hospitality, Food, and Tourism

Cluster	Job title	Alternative title	Alternative title	Alternative title	Job family
Generator	Restaurant / Food Service Manager	Restaurant Manager	Bar Manager	Food And Beverage Manager	Hospitality, Food, and Tourism
Generator	Restaurant / Food Service Supervisor	Restaurant Supervisor	Food And Beverage Supervisor	Duty Manager	Hospitality, Food, and Tourism
Generator	Sommelier	Wine Waiter	Wine Steward	Waiter / Waitress	Hospitality, Food, and Tourism
Generator	Account Executive	Key Account Executive	National Account Executive	Territory Manager	Sales
Generator	Account Manager / Representative	Account Manager	National Account Manager	Key Account Manager	Sales
Generator	Business Development / Sales Manager	Business Development Manager	Sales Manager	Business Development Executive	Sales
Generator	Cellar Door Attendant	Cellar Door Sales	Tasting Room Attendant	Cellar Door Host	Sales
Generator	Cellar Door Manager	Restaurant / Food Service Manager	Cellar Door and Bar Manager	Cellar Door Sales Manager	Sales
Generator	Merchandising Specialist	Merchandiser	Activation Merchandiser	Merchandiser/Promotional Wine Taster	Sales
Generator	Product Demonstrator	Brand Ambassador	Wine Brand Ambassador	Brand Home Manager	Sales
Generator	Retail Sales Associate	Floor Staff	Retail Assistant	Food Retail Assistant	Sales
Generator	Retail Store Manager / Supervisor	Store Manager	Assistant Store Manager	Store Manager - Vintage Cellars	Sales
Generator	Sales Manager	Sales Supervisor	Sales Broker		Sales
Generator	Sales Representative	Sales Assistant			Sales
Informer	Accountant	Finance Business Partner	Financial Accountant		Finance
Informer	Financial Analyst	Senior Finance Analyst	Business Analyst	Finance Analyst	Finance
Informer	Human Resources / Labour Relations Specialist	Human Resources Advisor	Human Resources Advisor/Recruitment Consultant		Human Resources
Informer	Human Resources Assistant	Human Resources Coordinator	Human Resources Officer	Human Resources Generalist	Human Resources
Informer	Human Resources Manager	Human Resources And Business Operations Manager	Human Resources Business Partner		Human Resources
Informer	Kaitakawaenga Māori Cultural Advisor	People And Culture Advisor			Human Resources
Informer	Recruiter	Recruitment Consultant	Talent Acquisition Specialist		Human Resources
Informer	Training and Development Specialist	Learning Manager	Health, Safety And Training Manager	Inclusive And Diverse Learning Coordinator	Human Resources
Informer	Environmental Compliance Specialist	Environmental Advisor	Environmental Manager	Senior Environmental Advisor	Law, Compliance, and Public Safety
Informer	Safety Manager	Regional Safety Advisor	Health And Safety Advisor	HSE Advisor	Law, Compliance, and Public Safety
Informer	Marketing Coordinator / Assistant	Marketing Coordinator	Digital Marketing Coordinator	Marketing Assistant	Marketing and Public Relations

Cluster	Job title	Alternative title	Alternative title	Alternative title	Job family
Informer	Marketing Manager	Public Relations Manager	Digital Marketing Manager	Sales And Marketing Manager	Marketing and Public Relations
Informer	Social Media Strategist / Specialist	Social Media Marketer	Communications And Social Media Advisor Vid	Digital Campaign Manager	Marketing and Public Relations
Informer	Wine Educator	Wine Trainer			Marketing and Public Relations
Informer	Business / Management Analyst	Business Improvement Officer	Change Manager	Redevelopment Change Manager	Planning and Analysis
Informer	Environmental Scientist / Specialist	Environmental Protection Officer	Environmental Consultant	Environmental Scientist/Engineer	Science and Research
Informer	Food and Agricultural Scientist / Technologist	Agricultural Consultant	Horticulturist Entomology		Science and Research
Informer	Food and Wine Researcher	Oenology Researcher			Science and Research
Informer	Vintage Laboratory Technician	Laboratory Technician	Laboratory Assistant	Food and Wine Scientists	Science and Research
Technologist	IT Manager	IT Project Manager	Director of Information Technology		Business Management and Operations
Technologist	Graphic Designer / Desktop Publisher	Graphic Designer	Digital Designer		Design, Media, and Writing
Technologist	Industrial Designer	Senior Product Designer	Packaging Designer	Product Designer UX/Ui	Design, Media, and Writing
Technologist	Data / Data Mining Analyst	Data Analyst	Data Statistician		Planning and Analysis
Technologist	Operations Analyst	Business Analyst	Senior Business Analyst	Senior Commercial Analyst	Planning and Analysis
Technologist	Sustainability Specialist	Sustainability Manager	Sustainability Analyst		Planning and Analysis