Deloitte Access Economics

Victorian skill needs in 2011: *A summary of industry intelligence*

Skills Victoria

31 March 2011

Deloitte.

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$A	Australian dollar
ABS	Australian Bureau of Statistics
AQF	Australian Qualifications Framework
AQIS	Australian Quarantine Inspection Service
ANZSIC	Australian and New Zealand Standard Industry Classification
BICCIAB	Building Industry Consultative Council Industry Advisory Body
BSV	Business Skills Victoria
CAD	computer aided design
CBA	Commonwealth Bank of Australia
CBC	Competency Based Completions
TFIA	Council of Textile and Fashion Industries of Australia
COAG	Council of Australian Governments
CS&HITB	Community Services and Health Industry Training Body
DEEWR	(Commonwealth)
EPICITB	Electrotechnology, Printing, Information Technology and Communications Industry Training Board
GFC	Global Financial Crisis
ISNR	Industry Skill Needs Report
ITAB	Industry Training Advisory Body
MESAB	Manufacturing and Engineering Skills Advisory Board
NBN	National Broadband Network
OH&S	Occupational Health and Safety
RPL	Recognition of Prior Learning
RTO	Registered Training Organisation
SSV	Service Skills Victoria
TAFE	Technical and Further Education
TCF&L	Textiles, Clothing, Footwear and Leather
TCFUA	Textiles, Clothing and Footwear Union of Australia
VET	Vocational Education and Training
VFITB	Victorian Food Industry Training Body
VTG	Victorian Training Guarantee

Executive Summary

Skills Victoria commissioned Deloitte Access Economics to provide an outlook for the Victorian labour market in 2011, including analysis of occupations in demand and experiencing critical skill shortages. The purpose of this report is to assist Skills Victoria in the publication of industry intelligence to individuals and businesses, with the aim of stimulating training demand in skill shortage areas.

This report incorporates Deloitte Access Economics' views, along with a summary of industry intelligence gathered from the 16 Victorian Industry Training Advisory Bodies (ITABs). Their advice was provided to Deloitte Access Economics during meetings and other correspondence in late 2010 and early 2011. The industry advice presented in this report has also been informed by consultations held with representatives of various Victorian government agencies.

ITABs were asked to identify the key issues that are expected to influence industry performance and the demand for skills over the coming year. Deloitte Access Economics has broken these into supply side issues (developments which affect the structure of the industry or how it produces goods and services) and demand side issues (developments which affect the quantum or type of goods and services demanded from the sector).

Key supply side issues

Key supply side issues affecting a broad range of industries include the following:

- **Regulatory changes and other government policies** were cited as a key supply side issue. These relate directly to the supply of training and skills – such as the specific programs and policies funding the Victorian VET sector – along with wider economic and social policies. The latter includes, for example, the rollout of the National Broadband Network, health funding programs, the eventual introduction of a carbon pricing mechanism in Australia, and a range of various industry-specific policies.
- **Technological changes**, including the use of new materials and the introduction of enhanced business processes, is an emerging supply side issue across a number of industries, partially as a response to an increasingly competitive business environment. The introduction of new technology increases demand for technical skills within the industry, but can also reduce the need for labour in some areas as production becomes more capital intensive. That can mean the need for redeployment or retraining into other emerging areas.
- **Environmental and sustainability** issues remain on the agenda. Across many industries, sustainability is becoming increasingly embedded within standard business practices, underpinning demand for workers to have a broad understanding of sustainable processes. Lean manufacturing and other practices aimed at efficiency are an important component of improving sustainability across many firms. A need for workers to have a solid understanding of sustainability within existing business operations is seen, in a number of industries, as a more practical short term outcome of growing environmental trends compared with the emergence of new sectors and technologies.
- The **ageing of Australia's population** remains an issue for a number of industries. In particular, concerns regarding the increased number of retirements over the coming years are centred on the loss of skills and experience in key occupations, and the resultant 'skills gap' which is expected to occur.

Key demand side issues

Key demand side issues having a general impact on Victorian industries include the following:

- Australia's **elevated exchange rate** is adding to competitive pressure on industries which rely on exports or compete with imported products in the domestic market. Industries such as automotive, food, forestry, manufacturing and services (through the tourism industry) are all feeling the impact of the higher $A. The strength of the currency does also provide some important benefits in some areas, such as through cheaper inputs sourced from overseas.
- **Demographics trends** are influencing the volume and types of products being produced across a number of industries. The ageing population is influencing demand for health services, and is also expected to alter consumption patterns more generally. The rate of population growth is also expected to slow in 2011 as a result of less international migration. That may have some impact on the demand for housing and household products.
- A change in **consumer** demands is also expected to influence production and skill needs. A growing number of consumers are choosing to purchase sustainable and ethical products (which is of particular relevance for the food industry), while the corporate sector more generally is recognising the need to incorporate sustainability and social responsibility into business practices in order to meet consumer expectations. There is also a growing trend toward online shopping and rising demand for digital interactive media to provide greater experience of products and services.
- More broadly, **economic trends and conditions** were also noted as an important demand side issue. While the Victorian economy is growing solidly, the re-emergence of the mining boom in other States and weaker consumer spending growth are influencing industry output and skill needs.

The submission of written advice and the industry consultation process was completed by Deloitte Access Economics in December 2010. As such, the advice reflected in this report does not explicitly incorporate the impact of the Victorian floods, which took place in mid- to late-January 2011.

Prospects for employment growth

The Victorian economy has produced strong employment growth over the past year. More than 89,000 new jobs were created in Victoria through 2010, and total employment has risen by almost 200,000 since mid 2009. Going forward, Deloitte Access Economics expects that strong performance to continue in 2011. The Victorian economy has been one of Australia's steadiest performers over the past decade, and the same is expected to be true over the next year. Consumer spending is stronger in Victoria than the national average, and the pipeline of business investment is solid. Although population growth will weaken, the remaining spare capacity in the Victorian labour market and pace of economic growth provide the potential for good job gains in 2011.

Deloitte Access Economics expects Victoria to record employment growth of 4.4% in 2011, with that growth projected to be led by industries such as utilities, health and education, finance and business services, and construction.

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1 Introduction

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As such, this report incorporates Deloitte Access Economics' views, along with a summary of industry intelligence gathered from the 16 Victorian Industry Training Advisory Bodies (ITABs). The ITAB advice was provided to Deloitte Access Economics during meetings and through other correspondence in late 2010 and early 2011. The industry advice presented in this report has also been informed by consultations held with representatives of various Victorian government agencies.

In defining the lists of occupations in demand and experiencing critical skill shortages, ITABs were required to apply criteria developed by Skills Victoria. The criteria are based on definitions used by Skills Australia and the Commonwealth Department of Education, Employment and Workplace Relations. The definition used to identify an occupation in demand is as follows:

> *An occupation is in demand when employers are unable to fill or have considerable difficulty filling vacancies for the occupation, or significant specialised skill needs within that occupation over an extended time period, at market rates of remuneration and standard conditions of employment, and in reasonably accessible locations.*

Of those occupations listed as in demand, occupations were also considered to be experiencing a critical skill shortage if they met the following four criteria:

- **Long lead time:** Occupations that require skills which are highly specialised and require extended learning and preparation time over several years.
- **High use:** Where there is a high incidence of those undertaking formal training for a qualification subsequently taking up employment in the corresponding occupation.
- **High risk:** Occupations where the disruption caused by the skills being in short supply imposes a significant risk to the Australian economy and/or community.
- **High information:** Where the quality of information about the occupation is adequate to the task of assessing future demand and evaluating the first three criteria.

In addition to the industry discussion and occupation lists, this report also includes forecasts of Victorian employment by industry. These forecasts have been completed according to two industry structures:

- The Australian and New Zealand Standard Industry Classification (ANZSIC) published by the Australian Bureau of Statistics (ABS). Deloitte Access Economics has included forecasts completed at the one-digit ANZSIC level.
- An industry structure which is representative of the industry coverage of each ITAB.

A concordance between the ANZSIC and ITAB industry structures which has been developed by Deloitte Access Economics is included at Appendix A. Deloitte Access Economics cautions that this concordance will not always provide an accurate reflection of the employment base covered by each ITAB. Some more information on the limitations of the concordance is provided in the following chapter.

In Deloitte Access Economics' opinion the advice provided by the ITABs is generally sound. Each ITAB appears to have consulted widely with industry participants in formulating their advice. They each presented a balanced and informed view of expected industry developments in 2011 and the occupations which are likely to be in demand or experiencing critical skill shortages.

The submission of written advice and the industry consultation process was completed by Deloitte Access Economics in December 2010. As such, the advice reflected in this report does not explicitly incorporate the impact of the Victorian floods, which took place in mid- to late-January 2011. Similarly, any potential economic consequences of other recent natural disasters such as the Queensland floods and earthquakes in New Zealand and Japan are not captured within this report.

The following chapter provides Deloitte Access Economics' industry employment forecasts. Each subsequent chapter is dedicated to providing advice relevant to a particular industry. Where data is available, these industry chapters include data on vacancies, drawn from Skilled Vacancy Index published by the Commonwealth Department of Education, Employment and Workplace Relations (DEEWR). There are some shortcomings to using this data. For example, the index is based on the number of advertised vacancies and is not a detailed measure of unmet demand. In this report, the vacancy data is presented as an index, with the number of vacancies in 2000 set equal to 100.

Each industry chapter begins with a brief overview of the industry, as described in the box below.

Coverage: *The occupations covered by the industry.*

Specific industry and business cycle drivers: Specific *factors of particular importance to the industry and relevant economic factors.*

Recent relative employment performance rating: *A ranking of the industry's employment growth performance over the three years to 2010. The ranking – rated as Low, Below Average, Average, Above Average and High – is relative to the employment performance of the other industries examined in this report.*

Expected relative employment performance rating: *A ranking of the industry's expected employment growth performance over the three years from 2010.*

2 Industry employment forecasts

The following charts and tables provide a brief snapshot of the Victorian economy, along with key economic and employment forecasts derived by Deloitte Access Economics. The employment forecasts are provided for the ITAB industry structure, along with the ANZSIC industry structure.

As noted above, there are some limitations of using the ANZSIC industry structure to assess employment prospects across ITAB industries. For example, the rise of part-time farmers means that the Victorian primary industry often provides a secondary source of income for individuals. The implication is that counts of those employed in primary industry may not fully capture the industry coverage in aggregate. Imperfect alignment between the coverage of each ITAB industry and the ANZSIC industry categories may also give rise to some discrepancies in estimating the employment coverage of some ITABs. Moreover, the activities covered by some ITABs (particularly across creative, leisure and 'emerging' industries) may not be adequately captured within the ANZSIC categories for the purpose of making an accurate comparison with the coverage of the relevant ITAB.

These definitional issues should be considered when examining the forecasts presented in this chapter. A concordance between the ANZSIC and ITAB industry structures which has been developed by Deloitte Access Economics is included at Appendix A.

Snapshot of the Victorian economy

- **Gross State Product (real)**

  $293.3 billion

  GSP per capita: $53,193 (2009-10 est.)
- **Population**

  5.51 million (2009-10 est.)
- **Labour force**

  3.03 million

  Unemployment rate: 5.1% (January 2011)
- **Key merchandise trade partners**

  China 18.4%, United States 10.6%, Japan 9.2%, New Zealand 5.9%, Germany 5.1% (2010)

Key forecasts

Annual % change except where noted *		History	Forecast		
	2008	2009	2010	2011	2012
Real gross state product	2.3%	0.6%	2.7%	2.8%	3.2%
Business investment	5.1%	-5.9%	0.3%	6.2%	3.5%
Private consumption	1.4%	1.0%	3.2%	3.4%	3.4%
Employment	2.2%	1.0%	3.7%	4.4%	2.0%
Unemployment rate *	4.3%	5.8%	5.4%	4.4%	4.5%
Total population	2.1%	2.2%	1.8%	1.6%	1.5%
Consumer Price Index	4.2%	1.4%	3.0%	3.1%	2.9%

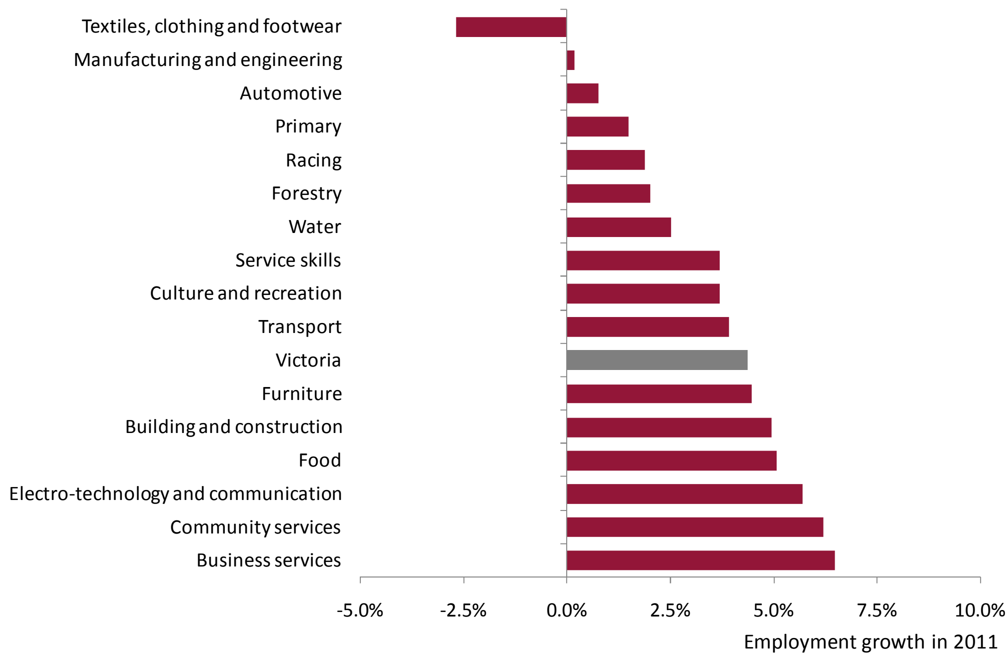
Source: Deloitte Access Economics, Australian Bureau of Statistics. Note: Business investment excludes intangibles.

Table 2.1: Annual industry employment growth – Victoria (ITAB industry structure)

		History	Forecast		
	Employment level in 2009	2010	2011	2012	2013
Automotive	140,952	0.2%	0.8%	0.6%	-0.6%
Building and construction	228,776	9.9%	5.0%	2.7%	3.4%
Business services	393,901	5.1%	6.5%	3.0%	2.2%
Community services and health	298,364	5.1%	6.2%	3.9%	2.9%
Cultural and recreation	61,831	-12.9%	3.7%	1.6%	3.2%
Electro-technology and communication	79,647	0.2%	5.7%	1.4%	-0.6%
Food	72,374	-1.0%	5.1%	0.3%	1.7%
Forestry	23,515	-2.7%	2.0%	0.6%	-3.0%
Furniture	12,729	2.5%	4.5%	-3.4%	-3.4%
Manufacturing and engineering	285,760	0.6%	0.2%	-0.3%	-1.3%
Primary	93,945	-4.2%	1.5%	-1.1%	0.7%
Racing	5,123	2.4%	1.9%	1.6%	4.7%
Services	623,590	5.4%	3.7%	1.6%	1.4%
Textiles, clothing and footwear	21,663	-4.6%	-2.7%	-6.6%	-4.4%
Transport	143,355	-5.0%	3.9%	1.6%	1.9%
Water	8,332	19.5%	2.5%	1.4%	-0.1%

Source: Deloitte Access Economics, Australian Bureau of Statistics

Chart 2.1: Industry employment growth in Victoria – 2011 (ITAB structure)



Source: Deloitte Access Economics

As shown in Table 2.2 below, Deloitte Access Economics expects the Victorian economy to record strong employment growth in 2011. The expected gain of 4.4% would be the fastest pace of job growth since the mid-1990s, building on the State's solid recovery since the slowdown of 2008-09. That employment growth is expected to see the unemployment rate fall to 4.4%.

By industry, health and education are expected to record the strongest employment growth in 2011, with finance and construction also projected to see employment levels increase solidly. In contrast, employment growth in accommodation and food services, arts and recreation, manufacturing and agriculture may be relatively weak.

Table 2.1, shown on the previous page, shows how these projections translate into employment forecasts at the ITAB level, with business services and community services leading the way, while textiles, clothing and footwear may record a fall in employment in 2011.

Table 2.2: Annual industry employment growth – Victoria (ANZSIC industry structure)

		History	Forecast		
	Employment level in 2009	**2010**	**2011**	**2012**	**2013**
Agriculture, Forestry and Fishing	86,813	-4.8%	1.4%	-1.4%	0.2%
Mining	11,596	-4.5%	2.6%	3.2%	0.3%
Manufacturing	309,520	-1.3%	2.1%	-0.8%	-1.5%
Food, Beverage and Tobacco	72,374	-1.0%	5.1%	0.3%	1.7%
Textile, Leather, Clothing and Other	39,837	-2.2%	-3.0%	-4.6%	-3.3%
Wood, Pulp and Paper	20,774	-1.1%	6.9%	-3.3%	-3.6%
Printing and Recorded Media	14,322	29.7%	4.6%	2.5%	-1.2%
Petroleum, Coal, Chemical and Polymers	35,452	-8.0%	8.8%	-1.1%	-3.2%
Non-Metallic Minerals	11,897	-18.4%	0.1%	0.2%	-0.2%
Primary and Fabricated Metals	41,091	-4.8%	0.0%	-0.5%	-2.6%
Transport and machinery equipment	73,774	0.8%	4.0%	1.0%	-1.7%
Electricity, Gas, Water and Waste	31,510	0.9%	2.9%	0.2%	0.3%
Construction	228,776	9.9%	5.0%	2.7%	3.4%
Wholesale Trade	116,425	0.8%	4.6%	1.3%	0.6%
Retail Trade	295,745	7.2%	6.0%	1.8%	1.5%
Accommodation and Food Services	178,637	5.3%	1.2%	2.3%	1.3%
Transport, Postal and Warehousing	143,355	-5.0%	3.9%	1.6%	1.9%
Info. Media and Telecommunications	66,434	-3.2%	4.9%	1.6%	0.4%
Financial and Insurance Services	103,687	9.3%	5.7%	3.8%	1.7%
Rental, Hiring and Real Estate Services	38,066	5.8%	3.3%	1.0%	1.3%
Professional, Scientific and Technical	209,546	6.6%	4.9%	1.8%	2.2%
Administrative and Support Services	93,846	9.1%	3.4%	2.9%	2.1%
Public Administration and Safety	122,841	6.6%	4.7%	4.1%	2.2%
Education and Training	210,233	5.0%	6.0%	4.6%	2.8%
Health Care and Social Assistance	298,364	5.1%	6.2%	3.9%	2.9%
Arts and Recreation Services	64,329	-12.2%	2.5%	1.6%	4.8%
Other Services	106,242	4.4%	3.8%	-0.1%	1.3%
Victoria	**2,715,964**	**3.7%**	**4.4%**	**2.1%**	**1.7%**

Source: Deloitte Access Economics, Australian Bureau of Statistics

9 Food Processing

Coverage: Baking, Dairy, General, Meat, Milling and Confection, Wine and Other Beverages, Pharmaceuticals.

Specific industry and business cycle drivers: The $A, competition from New Zealand producers (affects the degree of imports), FSANZ regulatory burden. Trend towards more ready prepared meals/less preparation from fresh ingredients. Economic developments in markets which buy live Australian animal exports.

Recent relative sectoral performance rating: Below average

Expected relative sectoral performance rating: Average

Summary of ITAB advice and consultation

The food processing industry has recently undertaken **changes to the food processing training package (FDF)**, with the FDF10 training package endorsed in October 2010. The new training package features greater flexibility, such as the inclusion of electives from competitive manufacturing and other training packages of relevance for the sector. Further developments include new qualifications (Certificate IV and Diploma) in Food Science and Technology. These qualifications will be based on existing Victorian programs and will be released later in 2011. These sorts of industry specific skills may complement existing higher degree experience held by potential staff which companies are seeking as part of a changing industrial landscape. As part of the **general outlook**, once changes to the FDF10 training package are complete, the Victorian Food Industry Training Board (VFITB) expects to see a higher take up of qualifications under the FDF10.

The VFITB has collaborated with industry to create two new specialist qualifications for the food processing sector. In 2009 and 2010 the Vocational Graduate Certificate and Diploma of Food Industry Management qualifications were devised, with the Graduate Certificate currently being delivered in the dairy sector. Previous research identified a lack of food processing education and training at the experienced middle and senior management level, including by those holding higher education qualifications and those with VET qualifications. The accreditation of new General Foods units to match the current dairy and confectionery sector units is expected to assist a broader range of industries in supporting personnel to complete these studies. Both qualifications are designed to be project based with significant support from employers.

The VFITB noted that a large proportion of training in the food processing industry occurs in house. Companies use a range of government and private providers to train food processing workers on site and utilise the federal government traineeship incentive payments to offset the cost of taking staff off production lines to deliver training. Some companies find their customers, particularly in the export sector, prefer to see training delivered and assessed by a third party, as opposed to in house training. Many other companies, particularly large multinational companies that have detailed training products and resources, choose to not use the formal VET sector, and use in house training programs for process workers and supervisors.

The VFITB also identified several change drivers and developments, most of which will affect the supply outlook for the industry. These are:

- A strong Australian dollar (demand side)
- Changing consumer preferences (demand side)
- New national meat inspection regulations (supply side)
- Rising retail industry quality standards (supply side)
- Increasingly ethnically diverse workforce (supply side)
- Changing technology (supply side)

The Australian Quarantine and Inspection Service (AQIS) is **changing the protocols for the inspection of meat for export**. Under the new regulations, companies will be able to perform the compulsory meat inspections in-house, where it was previously done by external AQIS inspectors. Roughly one quarter of the current AQIS inspectors will be required as AQIS's focus shifts to a risk management role after the changes take effect. As a result, companies in the meat export sector will need to employ staff with training in meat inspection. As the in-house inspection role is not likely to receive as high a salary as the AQIS inspectors currently do, it is unlikely these AQIS staff will be picked up by the food processing industry. Hence there is likely to be a strong demand for Certificates III and IV in Meat Safety in 2011.

There has been a recent reversal of the trend towards a **separation of the meat butchering and packaging components of the meat retail trade**. As supermarkets take on a greater market share of the meat retail trade, their different approach to management of the supply chain had previously affected training of staff in the sector. The removal of breaking up carcasses as a compulsory unit in the meat training package was an earlier reflection of this trend.

However in Victoria there is evidence of a reversal and an emphasis on recruitment and training of apprentice butchers more recently. Some major supermarket stores which had been converted to remove the butchers department are reverting back, reflecting changing consumer preferences and a desire to talk to butchers and see in to an open look meat department. Woolworths and Coles continue to have a strong commitment to training and are completing the Certificate III Meat Retailing apprenticeship.

There is, however, a shortage of retail butchers overall as local butchers have retired and the number of strip butchers shops has diminished (partly due to the competition of supermarkets). The shortage is compounded by the lack of new apprentices via this traditional small business sector and retirements.

Customer quality, food safety and ethical standards in the food processing industry are rising, placing a **higher emphasis on quality and food safety standards**. In order to meet these standards, firms must undertake formal processes to ensure proper food safety processes. For example, issues such as the potential presence of nuts in the production line and ensuring the suitable labelling of products need to be considered. Generally, high customer quality standards are a competitive advantage for Australian companies for both the domestic and export market. An increasing emphasis on this aspect of food production is likely to result in an increase in demand for both formal and informal training.

The food processing industry is investing in new plant and equipment, with **more advanced technology**, in order to reduce production costs and remain competitive in the global market. The need to up-skill existing staff with higher order operator skills may result in a shift towards formal training in this industry as workers take advantage of the Victorian Training Guarantee. As an example, cold pasteurisation is a new technology that may have advantages over traditional pasteurisation as it is more efficient in terms of its use of other inputs (e.g. water and energy) and in terms of the product it delivers (as it retains more flavour and nutrients). A company taking on this technology requires more highly trained staff to operate the new equipment.

The **high Australian dollar** has been putting pressure on firms in the industry, as it exacerbates existing difficulties for competitiveness with food processing abroad. As a result of these pressures on company margins, competitive (or 'lean') manufacturing skills are in demand. These are not a compulsory part of the FDF training package, but may be undertaken as a stand-alone course or as an elective. The new training package encourages greater flexibility to select electives.

The VFITB reported that food processing companies are taking on a **more ethnically and linguistically diverse workforce**, which has implications for training. Firms will need to bridge gaps in language and, in some cases, numeracy and literacy skills. As such, training in foundation level skills is important, and is available through the VTG. Adequate OH&S signage is an example of an issue that may need to be addressed as a result of a more linguistically diverse workforce. OH&S signage in the workplace needs to be communicated with all staff, and where staff lack English language skills this must be addressed by providing signage in different languages, training staff to read signage in English or a combination of both.

Consumers are increasingly looking to purchase **more sophisticated, healthy and sustainable products**, placing demands on both staff and production equipment. Not only are higher order Food Science and Technology qualifications required for product development to meet this demand, but higher order operator qualifications are also required for staff to operate more sophisticated equipment. The new post-trade Certificate IV in Advanced Baking will be finalised for delivery in late 2011 or 2012 and will provide an opportunity for up-skilling in technical and environmental expertise and business productivity.

Retention is also a significant issue, particularly across bakery occupations. The hours typically worked by bakery staff, including very early starts, weekend work, and low apprentice and trade award salaries make it difficult to retain young workers. Indeed, VFITB notes that skill shortages present across bakery occupations is due to the lack of retention of young staff rather than attracting individuals to vacancies.

The food processing industry has incorporated **green skills** into the new FDF and meat training packages as part of the national requirement for all VET qualifications through the inclusion of training in sustainability. Further action in this area is unlikely until a firm policy direction regarding carbon pricing is known, at which point there are likely to be significant developments.

The two biggest areas of difficulty for **regional skills** in the food processing industry are for Bakers and Abattoir Workers. Between 40 and 45% of people employed in these sectors are located in regional Victoria. However access to training is logistically difficult due to thin markets. Online learning is not a popular solution to this problem, as training in this industry often needs to be customised to individual processing plants and operating procedures, and is therefore costly to write. The unmet delivery of training to regional areas represents a significant skill need. There are examples of companies in regional areas looking to deliver joint food safety training as a cost effective delivery method.

Given these issues in food processing workforce development the VFITB is initiating an informal network of training managers in this sector. This initiative was an outcome of the 2010 *Up-skilling Food Operators* project, funded by the VSC Manufacturing Taskforce. The degree of change and the breadth of issues affecting productivity and product quality have raised expectations on skills and workplace culture in the industry, and the role of training to improve them. This network will provide industry professionals with an opportunity to share good practice and experiences.

Industry outlook

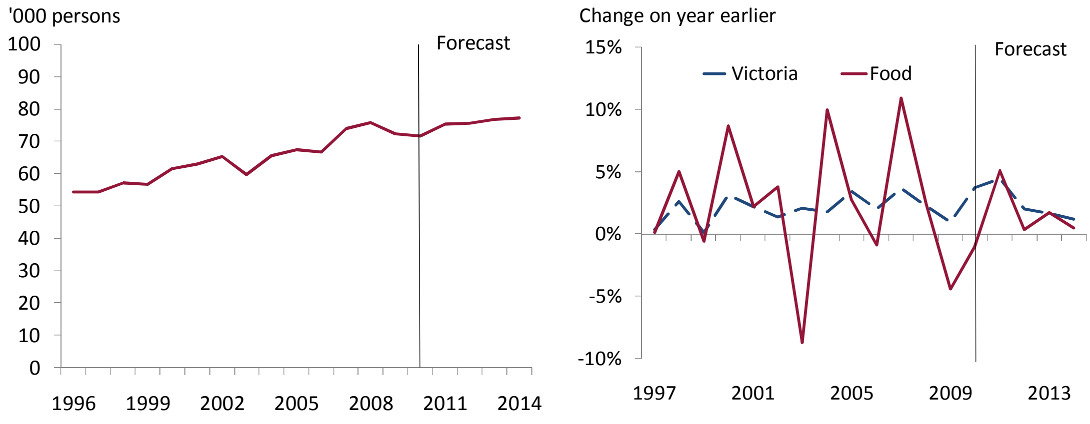
The general trend for the food processing industry is one of consolidation and increased competition from abroad, suggesting that, over the longer term, employment numbers are likely to fall. Indeed, the level of employment in the sector has fallen over the past two years. In the short term however, local weather conditions for farming and the value of the $A are perhaps the two most important factors in determining the outlook.

The east coast of Australia has seen a wet spring and summer this year. While flooding has devastated some areas of Victoria's agricultural production, the wetter conditions have been generally good news for farmers and also for the food processing industry, which tends to cycle with agriculture and the amount of domestic production available as inputs.

The Murray Darling basin has seen much needed water inflows, and water storage is back at levels not seen since before the 2002-03 drought. This will flow through to the food processing sectors that rely on inputs from the basin's livestock, dairy, grain and horticulture production. The latter two are more likely to see short-term gains for sectors such as baking and wine and other beverages (as inputs for products like bread, beer and juice) whereas the dairy and meat sectors won't necessarily see gains immediately as livestock and dairy farmers may take the opportunity of better rains to build up herd numbers again. This will flow through with benefits in the medium term but may limit gains in the short term.

The international market is also important for the food processing industry. In some sectors, world prices for necessary inputs will have a substantial effect on production costs. Sugar prices remain relatively high (pushed higher still in the aftermath of cyclone Yasi) and this will keep input costs for milling and confectionery relatively high. In other cases, it is weak global prices that are the problem, such as for the export of Australian wine. The tobacco manufacturing sector also continues to falter, as domestic tobacco sales steadily decline. Recent government actions including a hike in the tax on cigarettes and the proposal for plain cigarette packaging will serve to solidify this decline.

Chart 9.1: Employment outlook – Victorian food processing industry

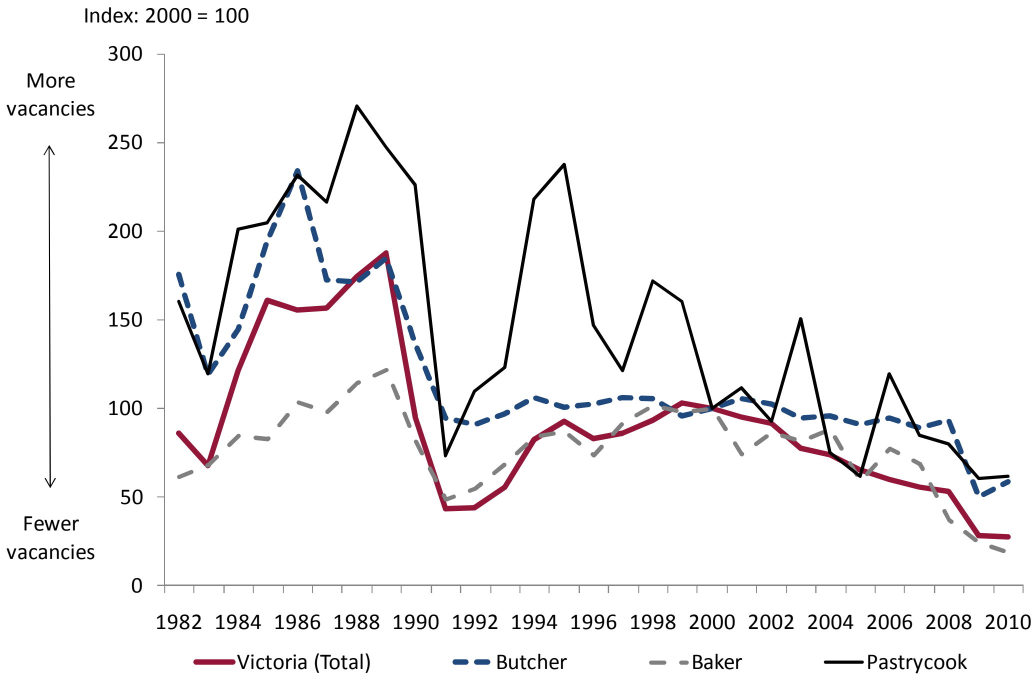


Source: Deloitte Access Economics, Australian Bureau of Statistics

The high $A will also affect the food processing sector and is likely to stifle growth in the short term, making Australian exports less attractive abroad and providing imported food products with a competitive advantage domestically.

Overall, the outlook for the food processing industry is modest. This is because the positive effects of recent rainfall are unlikely to remain strong, but competition from overseas is likely to do so (even though we expect the $A to subside in value after 2011). Deloitte Access Economics forecasts that employment in the food processing sector will show modest growth over the next few years.

Chart 9.2: Skilled Vacancy Index – Victorian food processing industry



Source: Commonwealth Department of Education, Employment and Workplace Relations

Occupations in demand and critical skills shortages

The table below summarises advice provided by the VFITB on occupations which it expects will be in high demand in 2011. No occupations were considered to be critical skills shortages, according to the Skills Victoria definition. However, the VFITB noted that, from a social capital perspective, Bakers and Pastry cooks are in critical shortage as a lack of people with these skills may be forcing the closure of bakeries in small regional towns.

Occupations in demand and experiencing critical skill shortages

Occupations in demand
Bakers
Pastry cooks
Butchers – retail, slaughterers, boners/slicers
Meat inspectors

Appendix A: Industry concordance

Table A.1: Concordance between ITAB industry structure and ABS ANZSIC classification

ITAB Industry	ANZSIC Industry
Automotive	Motor Vehicle and Motor Vehicle Part Manufacturing
	Other Transport Equipment Manufacturing
	Motor Vehicle and Motor Vehicle Parts Wholesaling
	Motor Vehicle Retailing
	Motor Vehicle Parts and Tyre Retailing
	Automotive Repair and Maintenance
Building and construction	
	Residential Building Construction
	Non-Residential Building Construction
	Heavy and Civil Engineering Construction
	Land Development and Site Preparation Services
	Building Structure Services
	Building Installation Services
	Building Completion Services
	Other Construction Services
Business services	
	Waste Collection Services
	Waste Treatment, Disposal and Remediation Services
	Central Banking
	Depository Financial Intermediation
	Non-Depository Financing
	Financial Asset Investing
	Life Insurance
	Health and General Insurance
	Superannuation Funds
	Auxiliary Finance and Investment Services
	Auxiliary Insurance Services
	Motor Vehicle and Transport Equipment Rental and Hiring
	Farm Animal and Bloodstock Leasing
	Other Goods and Equipment Rental and Hiring
	Non-Financial Intangible Assets (Except Copyrights) Leasing
	Property Operators

ITAB Industry	ANZSIC Industry
	Real Estate Services
	Scientific Research Services
	Legal and Accounting Services
	Advertising Services
	Market Research and Statistical Services
	Management and Related Consulting Services
	Other Professional, Scientific and Technical Services
	Computer System Design and Related Services
	Employment Services
	Other Administrative Services
	Building Cleaning, Pest Control and Gardening Services
	Packaging Services
Community services & health	
	Hospitals
	Medical Services
	Pathology and Diagnostic Imaging Services
	Allied Health Services
	Other Health Care Services
	Residential Care Services
	Child Care Services
	Other Social Assistance Services
Cultural & recreation	
	Motion Picture and Video Activities
	Sound Recording and Music Publishing
	Radio Broadcasting
	Television Broadcasting
	Libraries and Archives
	Museum Operation
	Creative and Performing Arts Activities
	Sports and Physical Recreation Activities
	Amusement and Other Recreation Activities
Electro-technology & communication	
	Printing and Printing Support Services
	Reproduction of Recorded Media
	Electricity Generation
	Electricity Transmission
	Electricity Distribution
	On Selling Electricity and Electricity Market Operation

ITAB Industry	ANZSIC Industry
	Gas Supply
	Newspaper, Periodical, Book and Directory Publishing
	Software Publishing
	Internet Publishing and Broadcasting
	Telecommunications Services
	Internet Service Providers and Web Search Portals
	Data Processing, Web Hosting and Electronic Information Storage Services
	Other Information Services
Food	
	Food, Beverage and Tobacco Product Manufacturing
Forestry	
	Forestry and Logging
	Forestry Support Services
	Log Sawmilling and Timber Dressing
	Other Wood Product Manufacturing
	Pulp, Paper and Paperboard Manufacturing
	Converted Paper Product Manufacturing
Furniture	
	Furniture Manufacturing
Manufacturing and engineering	
	Mining
	Other Manufacturing
	Petroleum, Coal, Chemical, Polymer and Rubber Product Manufacturing
	Non-Metallic Mineral Product Manufacturing
	Primary Metal and Fabricated Metal Product Manufacturing
	Professional and Scientific Equipment Manufacturing
	Computer and Electronic Equipment Manufacturing
	Electrical Equipment Manufacturing
	Domestic Appliance Manufacturing
	Pump, Compressor, Heating and Ventilation Equipment Manufacturing
	Specialised Machinery and Equipment Manufacturing
	Other Machinery and Equipment Manufacturing
	Architectural, Engineering and Technical Services
	Machinery and Equipment Repair and Maintenance
Primary industry	
	Nursery and Floriculture Production
	Mushroom and Vegetable Growing
	Fruit and Tree Nut Growing
	Sheep, Beef Cattle and Grain Farming

ITAB Industry	ANZSIC Industry
	Other Crop Growing
	Dairy Cattle Farming
	Poultry Farming
	Deer Farming
	Other Livestock Farming
	Aquaculture
	Fishing
	Hunting and Trapping
	Agriculture and Fishing Support Services
	Parks and Gardens Operations
	Veterinary Services
Racing	
	Horse and Dog Racing Activities
Service Industries	
	Agricultural Product Wholesaling
	Mineral, Metal and Chemical Wholesaling
	Timber and Hardware Goods Wholesaling
	Specialised Industrial Machinery and Equipment Wholesaling
	Other Machinery and Equipment Wholesaling
	Grocery, Liquor and Tobacco Product Wholesaling
	Textile, Clothing and Footwear Wholesaling
	Pharmaceutical and Toiletry Goods Wholesaling
	Furniture, Floor Covering and Other Goods Wholesaling
	Commission-Based Wholesaling
	Motor Vehicle Parts and Tyre Retailing
	Fuel Retailing
	Supermarket and Grocery Stores
	Specialised Food Retailing
	Furniture, Floor Coverings, Houseware and Textile Goods Retailing
	Electrical and Electronic Goods Retailing
	Hardware, Building and Garden Supplies Retailing
	Recreational Goods Retailing
	Clothing, Footwear and Personal Accessory Retailing
	Department Stores
	Pharmaceutical and Other Store-Based Retailing
	Non-Store Retailing
	Retail Commission-Based Buying and/or Selling
	Accommodation and Food Services
	Travel Agency and Tour Arrangement Services

ITAB Industry	ANZSIC Industry
	Gambling Activities
	Personal Care Services
	Funeral, Crematorium and Cemetery Services
	Other Personal Services
Textile, clothing & footwear	
	Textile Manufacturing
	Leather Tanning, Fur Dressing and Leather Product Manufacturing
	Textile Product Manufacturing
	Knitted Product Manufacturing
	Clothing and Footwear Manufacturing
Transport and storage	
	Transport, Postal and Warehousing
Water	
	Water Supply, Sewerage and Drainage Services

Appendix B: Industry consultation

This appendix has been provided to Skills Victoria in confidence.

Appendix C: Australian Apprenticeships – National Skills Needs List, January 2010

This regularly updated list includes trades which are experiencing persistent skills shortage on a national level, based on DEEWR labour market research. The Federal Government offers incentives for employers to take on apprentices in these fields, as well as benefits for the apprentices themselves. These include the Support for Adult Australian Apprentices payment, Tools For Your Trade payment, Rural and Regional Skills Shortage incentive and the Securing Australian Apprenticeships initiative.

The trades included on the January 2010 list are shown in the table below, grouped by each ITAB.

ITAB	Trades needed
Automotive	Automotive electrician, Panel beater, Motor mechanic, Vehicle body maker, Vehicle painter, Vehicle trimmer
Building and construction	Bricklayer, Carpenter, Carpenter and joiner, Drainer, Fibrous plasterer, Gasfitter, General plumber, Mechanical services and air-conditioning plumber, Painter and decorator, Roof plumber, Roof slater and tiler, Solid plasterer, Stonemason, Wall and floor tiler
Business services	n/a
Community services and health	n/a
Culture and rec	n/a
Electro-tech and comms	Binder and finisher, Communications Linesperson, Electrical powerline tradesperson, Electrician (Special class), Electronic equipment tradesperson, General Communications Tradesperson, Printing Machinist, Screen printer
Food processing	Baker, Butcher (including smallgoods producers), Pastry cook
Forestry	Wood machinist (A-grade)
Furnishing	Binder and finisher, Fitter, Floor finisher, Furniture finisher, Furniture upholsterer, Landscape Gardener, Painter and decorator, Picture framer
Metals and engineering	Aircraft maintenance engineer (Avionics), Aircraft maintenance engineer (Mechanical), Boat builder and repairer, Electronic equipment tradesperson, Fitter, Flat glass tradesperson, Locksmith, Metal fabricator, Optical mechanic, Pressure welder, Refrigeration and air-conditioning mechanic, Sheetmetal worker (First class), Toolmaker, Welder (First class)
Primary	Tree surgeon
Racing	n/a
TCF	n/a
Water	n/a
Wholesale/retail/tourism/hosp	Cook, Hairdresser

Source: *www.australianapprenticeships.gov.au*

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