



Economic outlook for specific Victorian industries

30 April 2010

Report by Access Economics Pty Limited for
Skills Victoria

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Executive Summary

Skills Victoria commissioned Access Economics to provide an outlook for the Victorian labour market in 2010, and to incorporate into this report information gathered during consultations from the 16 Industry Training Advisory Bodies (ITABs) conducted in December 2009.

The past year has been a challenging one for most industries in Victoria, with the year starting amid the depths of the global financial crisis, but with that crisis generally easing through the year. At the start of 2010 some industries (or components of industries) continue to face low demand, while others are concerned about widespread skill shortages re-emerging.

What are the key issues which have affected ITABs over the past year and/or are seen as important over the coming years?

Through the report Access Economics attempts to split 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 number of industries include the following:

- The ongoing effects of **globalisation** which in some cases mean ongoing industry consolidation and rationalisation. The automotive industry is an area where significant global restructuring and consolidation is occurring, which in some cases affects local operations. In business services there is a continued trend towards greater outsourcing of services.
- Continuing fallout from the global financial crisis, including **the strength of the \$A**, as the Australian economy performed far better through the crisis than most other developed economies. That means more intense pressure from imported products in some sectors. For example, Victorian forestry exports are now much less competitive, as are manufactured chemical products. However in the case of furnishing, the lower cost of imported components provided some significant opportunities for local businesses.
- A greater focus on **environment and sustainability issues**, with some sectors looking for greater opportunities to work with sustainable materials, along with greater consideration of environmental sustainability when designing new facilities. The movement towards lean manufacturing is also resulting in greater sustainability as companies look to reduce energy and water usage, and waste. For primary industries, increased variability of climatic conditions along with declining water security and quality are major issues which may fundamentally affect what the sector can produce.
- A range of **government policies** are influencing how industries perform and how training occurs. In transport and storage, proposed reforms to the graduated licensing system to meet the increased demand for drivers is seen as risking under-skilled drivers being licensed. For sport and recreation, additional training needs flow from duty of care obligations for the responsible service of alcohol, while further training needs also flow from encouraging a greater awareness of health and wellbeing in sport. The National

Broadband Network (NBN) rollout is likely to result in shortages of skilled telecommunications workers.

- Changes to the way businesses operate due to **technology**. A greater prevalence of online booking systems for retailers and the tourism sector mean skills and training are required in e-communications and web management skills. The culture and recreation sector has had to adapt to the introduction of digital television and radio, while companies in the metals and engineering sector have been investing significantly in production equipment upgrades and e-commerce to improve efficiency.
- The **ageing of Australia's population** remains a slow burner of an issue, but one which sees some sectors concerned about how they will obtain sufficient staff once baby boomers start to retire in greater numbers. The community services and health industry faces the additional consequence of increased demand for its services due to an ageing population.
- The availability of appropriate **infrastructure**, with the transport sector seeing frequent bottlenecks. Upgrades to the rail network and ports over time are likely to affect the mode of goods distribution.

Key demand side issues

Key demand side issues affecting a number of industries include the following:

- The ongoing **fallout from the global financial crisis (GFC)** remains a key short term cyclical issue affecting the demand for goods and services. Underlying consumer and business demand was weak at the start of 2009 but has improved, while government support worked the other way through 2009. The culture and recreation sector suffered from reduced discretionary spending, though government stimulus spending boosted spending on sporting and recreation infrastructure and benefited the home entertainment and digital media industries. In forestry the global financial crisis threatened the viability of a number of forestry investment vehicles, but as the economy improves a notable pickup in housing activity may pose problems at the other end of the sector. Plans for new mining activity suffered as commodity prices tumbled, but a rebound in commodity prices suggests mining activity and new investment again have some powerful support.
- A greater emphasis on **sustainability** which has brought about greater demand for green products. In business services and manufacturing environmental sustainability is required in day-to-day operations to remain competitive. This is leading to demand for skills and training in sustainable development, corporate social responsibility, triple bottom line, and environmental social governance. Minimum energy ratings for new homes are likely to drive change in the types of skills required in the furnishing sector, along with greater demand for electricians with 'green skills'.
- **Changing demographics with an ageing population** is changing the types of goods and services being demanded in some sectors. More rapid overall population growth of late and the corresponding growth in demand for new housing are expected to flow through to increased demand for Victorian timber products.
- More broadly, **social trends** are also producing changes in demand for some goods and services. Factors affecting the food processing industry include the increased prominence of healthy eating. There has been growth in product labelling information

such as the Daily Intake Guide labelling in the past three years, lifting information requirements and increased need for accountability in the food product design and production process.

Occupations in demand

Occupations in demand were generally specific to the coverage of the respective ITABs. However there was some commonality across areas, including:

- Mention was made by nearly all ITABs of the need for **emerging green occupations** which will be required in the future, including skills in measuring and reducing carbon pollution, skills to reduce waste (particularly in the manufacturing process), and skills to install energy saving devices.
- A rapidly growing and **ageing population** is seeing demand for certain occupations increase, from construction workers (to build the required housing) to aged care and health workers.

Some skills are still in critical shortage, despite a surge in training. Reasons for this include demand continuing to outstrip supply or people not entering the workforce in relevant occupations once they have completed training. The latter in some cases includes international students who go on to work in different areas after completing training and then gaining permanent residence.

The content and in some cases quality of training provided by registered training organisations (RTOs) was a common theme among consultations with ITABs. The ITABs reported that employers are often unwilling to undertake necessary training because there is a mismatch between the skills required and those provided within training courses. That is, the courses available do not contain all the elements required for their staff, or alternatively contains content that is not relevant. In some cases it was felt that the training did not include relevant updated technology and processes which are required in today's provision of services and products. Many ITABs are working with the RTOs to try to tailor courses specifically for individual employer's requirements, which is expected to result in increased uptake of training by many employers.

Prospects for job growth

The advice from ITABs on skill needs is couched within this document in the context of Access Economics' labour market forecasts. There are two sets of employment forecasts. The first are forecasts by broad Australian and New Zealand Standard Industry Classification (ANZSIC) industry, and are presented at the regional and metropolitan level, as well as for total Victoria. The forecasts for specific ITABs have been created by taking ABS ANZSIC employment data at a detailed level and aggregating these categories to broadly match the ITAB coverage. A detailed list of which ANZSIC classifications map to each ITAB can be found in Appendix A. Note that the sum of the ITAB employment numbers do not equal total employment for Victoria, as some classifications are not included in any ITAB.

Access Economics' forecasts of industry output and employment growth over time include elements of 'structural change', where some industries gain importance in their share of the economy's output or employment over time while others decline. Structural change is a continuous process across any economy. Structural change can result from both market

influences (including technological advances and changes in consumer tastes/spending patterns and trade) and government-related influences (microeconomic reforms applying to different industries).

The key structural change for Australia as a whole over the past two decades has been the decline in the relative sizes of the manufacturing and agricultural sectors, and the considerable expansion in the share of output contributed by the services sector. Industries such as mining and construction have been more cyclical over time, responding to changes in global and domestic economic conditions respectively.

Those structural changes which are leading to the services sectors becoming a larger share of the economy will continue over time, as will productivity growth which tends to limit job gains in sectors such as farming, manufacturing and utilities.

Beyond those however there is a strong cyclical rebound underway in the Victorian labour market. The muted impact of the GFC in Australia saw the unemployment rate peak at a far lower level than had been feared, and the closing months of 2009 saw a significant number of new jobs created.

Access Economics' forecasts are for jobs growth in Victoria of 3.8% in 2010, followed by 3.3% growth in 2011 and 1.7% growth in 2012. The short term profile is notably stronger than allowed for in last year's Treasury mid-year update, which in large part reflects the very rapid pace of jobs growth towards the end of 2009, which notably exceeded expectations.

Access Economics believes that the state has emerged from the crisis in good shape and recovery looks set to continue. The greatest short term risk is to manufacturers who are still battling tough conditions, amid a return to a higher exchange rate and climbing interest rates. Strong population gains in Victoria will drive employment onward, as well as encouraging demand in the already healthier than average housing construction sector.

Beyond short term cyclical effects, the strongest prospects for jobs growth over the coming years remain in key community services sectors such as public administration and safety, education and training, and health care and social assistance.

Note that jobs growth is only one of the key elements which drives training demand. There is also training of new entrants who replace those who retire, as well as training associated with other job turnover as people switch between jobs.

Many occupations require an upgrading of skills over time for existing employees (including due to many of the broader economic and social factors identified in this document). Indeed, an upgrading of skills for current employees forms a key focus of the specific training recommendations provided by ITABs in this report.

Access Economics
30 April 2010

1 Introduction

Skills Victoria commissioned Access Economics to provide an outlook for the Victorian labour market in 2010, and to incorporate into this report information gathered during consultations from the 16 Industry Training Advisory Bodies (ITABs) conducted in December 2009.

This report presents Access Economics' views of the economic and employment outlook in 16 Victorian industries, with forecasts by industry and metro/regional split (at the one digit ANZSIC level) given in the following chapter. The discussion of the outlook for each industry which then follows takes into account the individual advice offered by the sixteen ITABs, and in some cases reproduces advice gathered from the ITABs (for example, the lists of qualification shortages have been provided by the ITABs).

More specifically, this report contains:

- a synthesis of Access Economics analysis of each industry with the ITAB advice (ITAB advice is presented under the heading "Summary of ITAB advice and consultation", while Access Economics' general view on the industry is contained under the heading "Industry outlook");
- the labour market outlook for 2010 and beyond for each industry;
- occupations in demand for 2010 for each industry;
- a brief assessment of the soundness of the advice provided by the ITABs on the skills and training needs of their industries where necessary.

In general the advice presented by each ITAB is indeed sound. Each ITAB appears to have consulted widely with industry participants (if not at the time of consultation, in the months following) so as to obtain guidance on specific issues faced and the expected outlook for the future.

Access Economics has, in the main, restricted comments about the specific ITAB advice to comments regarding the economic conditions facing each industry.

The discussion for each industry which follows starts by noting:

- **Coverage:** The occupations covered by each industry.
- **Specific industry and business cycle drivers:** the factors of particular importance to the industry and overall economic factors to watch out for.
- **Recent relative sectoral performance rating:** with past rates of job growth rated as Low, Below Average, Average, Above Average, or High. These ratings are compared to all other ITABs. It should be noted that total ITAB employment does not equal total Victorian employment.
- **Forecast relative sectoral performance rating:** presents Access Economics' assessment of future rates of job growth as Low, Below Average, Average, Above Average or High over 2010 and 2011. Again, these ratings are compared to all other ITABs.

2 Industry forecasts

Access Economics' forecasts for employment growth in Victoria are presented in this chapter. Forecasts are shown for employment by industry at the 1 digit ANZSIC level, firstly for Victoria as a whole and then separately for metropolitan and regional Victoria. A table showing the concordance between the ITAB industries and the matching Australian Bureau of Statistics (ABS) industry classification is shown in Appendix A.

Table 2.1 presents employment forecasts for the state from Access Economics and the Victorian Department of Treasury and Finance. The Victorian 2009-10 Budget Update released on 26 November 2009 shows a relatively modest recovery in employment was expected at that time. Access Economics' latest forecasts for jobs growth are somewhat stronger over 2009-10 and 2010-11. In part this is due to Access Economics' forecasts being more recent, taking into account the very rapid pace of jobs growth towards the end of 2009, which notably exceeded expectations.

Table 2.1: Total employment forecasts – Victoria

	2009-10	2010-11	2011-12	2012-13
Access Economics	2.3%	3.4%	2.1%	1.0%
Department of Treasury and Finance, Victoria	0.25%	1.25%	1.75%	1.75%

Source: Access Economics, Department of Treasury and Finance

Access Economics believes that the state has emerged from the crisis in good shape and recovery looks set to continue. The greatest short term risk is to manufacturers who are still battling tough conditions, amid a return to a higher exchange rate and climbing interest rates. Strong population gains in Victoria will drive employment onward, as well as encouraging demand in the already healthier than average housing construction sector.

The following tables show the employment level for each major industry in 2009, followed by expected employment growth over the next three years. The projections are shown for Victoria as a whole, and then split into metropolitan Victoria (Melbourne) and regional Victoria.

Overall, the manufacturing industry in Victoria employs the greatest number of people in total, including those working in the metals and engineering, TCF&L, food, beverage and tobacco, and wood pulp and paper sectors. The manufacturing industry is not expected to emerge from the downturn until 2011, due to a combination of factors such as reduced demand for output, commodity prices and exchange rates. Overall, we expect manufacturing employment to continue to decline over time (consistent with the historic trend) as technology helps deliver strong productivity gains.

On the other hand, financial and insurance services is expected to record a turnaround in fortunes in 2010 with the strongest rate of jobs growth expected, following job losses in 2008 and 2009. As one of the hardest hit industries through the global financial crisis, jobs are seen as returning in line with improving business confidence. Employment in the mining industry may improve in the short term on the back of promising oil and gas prospects as commodity prices

rebound. Beyond short term cyclical effects in 2010, the strongest prospects for jobs growth over the coming years remain in key community services sector such as public administration and safety, education and training, and health care and social assistance.

Table 2.2: Employment forecasts by industry – Victoria

Industry	2009 level	2010 % change	2011 % change	2012 % change
Agriculture, Forestry and Fishing	77,357	4.0	1.5	-2.2
Mining	10,230	11.8	1.2	-2.6
Manufacturing	272,312	-0.1	0.6	-1.2
Electricity, Gas, Water and Waste Services	27,797	-3.2	4.1	2.7
Construction	201,210	1.4	4.0	1.4
Wholesale Trade	103,115	2.3	1.8	0.7
Retail Trade	260,569	5.4	2.3	1.1
Accommodation and Food Services	157,200	3.7	4.0	2.8
Transport, Postal and Warehousing	127,075	-0.2	3.8	1.9
Information Media and Telecommunications	59,085	1.3	1.8	0.8
Financial and Insurance Services	91,989	13.6	2.7	1.7
Rental, Hiring and Real Estate Services	34,044	0.8	4.6	1.9
Professional, Scientific and Technical Services	185,617	7.6	4.0	2.6
Administrative and Support Services	83,380	8.5	3.7	2.4
Public Administration and Safety	108,254	-1.2	4.8	3.1
Education and Training	186,424	5.3	4.5	3.1
Health Care and Social Assistance	264,788	6.4	4.7	3.3
Arts and Recreation Services	57,269	4.1	4.1	1.9
Other Services	93,792	1.0	3.1	1.8
Blue collar	731,212	2.6	3.0	0.5
White collar	1,670,302	4.3	3.4	2.1
Total	2,401,514	3.8	3.3	1.7

Source: Access Economics, ABS

Employment forecasts for metropolitan and regional Victoria are provided in Table 2.3 and Table 2.4. On average, regional Victoria represents a quarter of total employment.

Prospects for jobs growth remain stronger for Melbourne than they do for regional Victoria as a whole as migration and business consolidation favour the capital. Melbourne receives most of the benefit of expansion of business services, while ongoing infrastructure development and population growth is also stronger in the capital.

Table 2.3: Employment forecasts by industry – metropolitan Victoria

Industry	2009 level	2010 % change	2011 % change	2012 % change
Agriculture, Forestry and Fishing	11,991	5.8	1.7	-1.6
Mining	5,180	11.7	1.7	-2.5
Manufacturing	202,692	0.4	0.6	-1.0
Electricity, Gas, Water and Waste Services	16,523	-1.7	3.4	3.0
Construction	148,504	2.1	3.8	1.6
Wholesale Trade	85,806	3.0	1.6	0.8
Retail Trade	189,165	5.4	2.7	1.2
Accommodation and Food Services	116,316	3.5	4.5	2.9
Transport, Postal and Warehousing	98,698	-0.2	4.2	2.1
Information Media and Telecommunications	48,518	1.0	2.2	0.8
Financial and Insurance Services	81,454	13.6	2.8	1.7
Rental, Hiring and Real Estate Services	27,397	0.9	4.8	2.0
Professional, Scientific and Technical Services	159,121	7.9	3.9	2.7
Administrative and Support Services	65,955	8.9	3.7	2.5
Public Administration and Safety	80,586	-0.9	4.9	3.3
Education and Training	139,697	5.0	4.9	3.1
Health Care and Social Assistance	189,761	6.1	5.3	3.4
Arts and Recreation Services	44,750	5.0	3.9	2.1
Other Services	69,657	0.2	4.0	1.9
Blue collar	482,290	3.3	3.1	0.9
White collar	1,299,492	4.3	3.6	2.2
Total	1,781,782	4.0	3.5	1.9

Source: Access Economics, ABS

Table 2.4: Employment forecasts by industry – regional Victoria

Industry	2009 level	2010 % change	2011 % change	2012 % change
Agriculture, Forestry and Fishing	65,366	3.6	1.5	-2.3
Mining	5,049	12.0	0.7	-2.7
Manufacturing	69,620	-1.5	0.4	-1.8
Electricity, Gas, Water and Waste Services	11,273	-5.4	5.2	2.3
Construction	52,705	-0.8	4.5	0.8
Wholesale Trade	17,308	-1.1	3.0	-0.1
Retail Trade	71,403	5.4	1.4	0.8
Accommodation and Food Services	40,883	4.2	2.7	2.4
Transport, Postal and Warehousing	28,376	0.1	2.4	1.5
Information Media and Telecommunications	10,566	2.4	0.0	0.4
Financial and Insurance Services	10,534	13.6	1.6	1.3
Rental, Hiring and Real Estate Services	6,647	0.5	3.8	1.4
Professional, Scientific and Technical Services	26,495	5.8	4.3	2.1
Administrative and Support Services	17,425	6.7	3.8	1.8
Public Administration and Safety	27,667	-1.9	4.3	2.7
Education and Training	46,727	6.3	3.1	2.9
Health Care and Social Assistance	75,027	7.3	3.3	3.1
Arts and Recreation Services	12,519	1.1	5.1	1.1
Other Services	24,134	3.1	0.8	1.8
Blue collar	248,922	1.2	2.8	-0.2
White collar	370,810	4.4	2.3	1.8
Total	619,731	3.1	2.5	1.0

Source: Access Economics, ABS

3 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: Above average.

Summary of ITAB advice and consultation

The advice produced by the Victorian Food Industry Training Board (VFITB) identifies several broad categories of change drivers and developments. They are:

- Globalisation (demand side)
- Social trends, including organic food (demand side)
- Technology (supply side)
- Global financial crisis (demand side)
- Government intervention and policy (supply side)
- Legislation and regulation (supply side)

New Government legislation affects the training needs of the industry, in understanding and implementing any new requirements. Companies within the industry have adopted significant training to comply with OHS, Working at Heights, Food Safety and other requirements, while stricter animal welfare monitoring and standards are affecting the meat and poultry industries (and are likely to have an additional impact in the future), resulting in additional training for staff. Animal welfare standards can also directly or indirectly change handling and processing requirements, and have led to the development and delivery of an Animal Welfare Officers Course.

Food processors currently face very tight competition and the growing trend by supermarkets to provide consumers with unit prices reinforce the tighter margins for food processors, leading to a requirement for training in lean manufacturing. The mandate for bread to contain folic acid has affected the flour milling industry, with skill and training needs required to adopt the change.

Many companies have already begun implementing many sustainable work practices in order to cut costs and minimise waste. This has been a response to society's expectations and the cost reduction imperatives of increased competition, and includes looking at environmental

sustainability and how to improve training of personnel to adopt new attitudes and techniques.

General government policies not directly targeted at the industry also influence supply side developments. The proposed national emissions trading scheme requires the implementation of carbon accounting by businesses and affects long term planning and cost structures.

In some sectors, **technology** has been adopted to productivity and better modern equipment will often minimise strain on manual workers and reduce workers' compensation claims. This can increase the skill needs of workers rather than reduce them, as the technology which reduces manual handling strain on employees (such as bin tippers) requires skilled operation and training in safe work practices. State of the art knife sharpening equipment and systems are being recommended to industry by MINTRAC, the meat industry training arm, to improve productivity and reduce physical injury caused by blunt knife work.

A trend of industry consolidation and expansion has also driven change in the industry, towards adopting company strategic plans with competitive manufacturing processes ('lean' manufacturing). This requires further training in good management practices and team skills provision.

A particular characteristic of the Victorian food processing industry is its regional diversity, with large processing plants generally located in regional areas of Victoria (close to primary produce) rather than clustered near the CBD. This puts pressure on companies in accessing local training providers and creating a competitive marketplace in training providers. However, there have been moves towards providing online learning options to allow current staff access to further training. This trend is likely to continue.

On the demand side, and as with most industries, the **global financial crisis** affected the food processing industry. Some companies scaled back production to remain competitive. The strong \$A put pressure on exports and led to an increased use of imported ingredients.

On the other hand, the Australia-ASEAN-New Zealand Free Trade Agreement (AANZFTA) commenced on 4 January 2010 and is anticipated to increase export potential, with the food export industry in line to be a key beneficiary. The agreement includes the immediate elimination of a 10% tariff on cheese exports to Malaysia (worth around \$10 million a year).

Globalisation has also driven change in the industry through the increase in multinational corporations leading to intra-company competition. Individual plants must not only compete against external forces but with other plants in the company to maintain profitability lest new locations be adopted. This is particularly influential in regional communities where the exit of a large employer significantly affects livelihoods. It underpins the need for skills to be up to date, stressing efficiency of production.

Demand for the new Vocational Graduate Certificate in Food Industry Management (which was certified in December 2009) is anticipated to grow as companies position themselves to expand further into Asia. Diploma level qualifications will be developed in 2010, and the general food producers are keen to have specialist units developed for their sectors to match those in the dairy and confectionery sectors.

Social trends affecting the industry include the increased prominence of healthy eating. There has been growth in Daily Intake Guide labelling in the past three years, lifting information requirements and increased need for accountability in the design of products (such as proportions of fats and sugars). Additionally, greater consumer emphasis on environmentally friendly production practices requires food processors to consider adopting waste and energy reducing practices, and providing relevant employee training to achieve these. There is also greater demand for organic, vegetarian and gluten free prepared food. The trend is towards greater quality as well as quantity of food for a growing population with increasingly specific consumer tastes.

Industry outlook

The food sector has faced considerable challenges over the past decade due to the high \$A, rising competition from New Zealand and Asia, as well as a series of droughts which hurt farm output from 2002-03 onwards. And some short term challenges remain, such as the current round of award modernisation which poses problems for a number of employers, the continued strength of the \$A, while higher sugar prices are affecting the sector's input costs (although, sugar manufacturing itself is a booming growth industry).

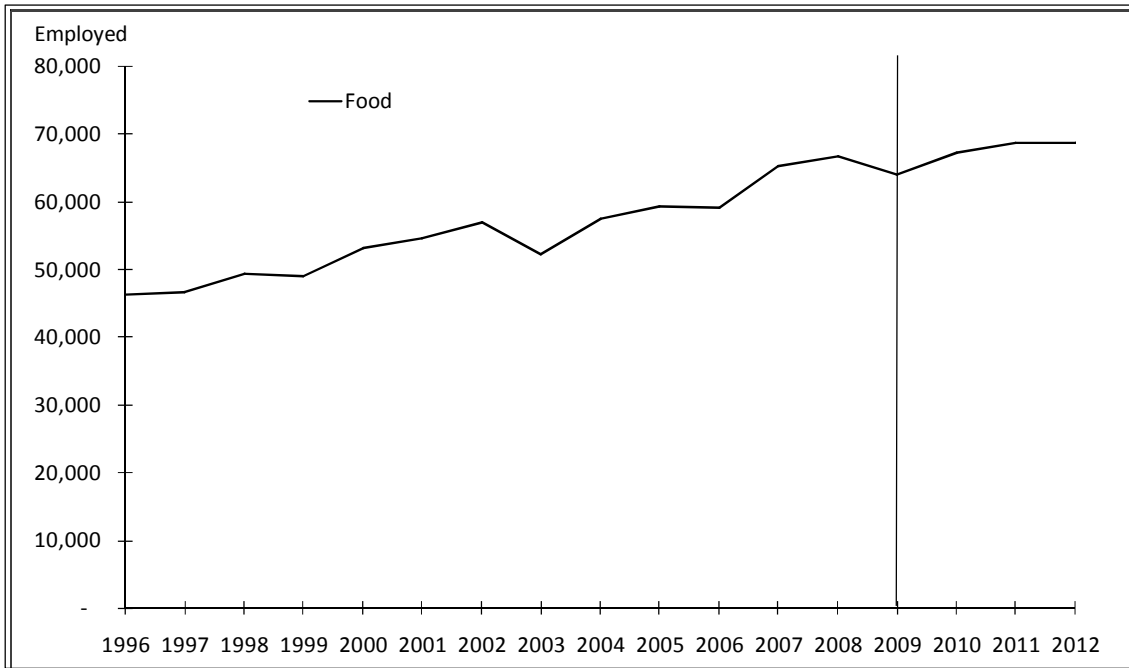
Additionally, the beverages sector could face changes as part of the Henry Review, given the current structure of indirect taxation in this sector. This could have wider implications for employment within the sector (particularly in the wine industry). This would come on top of a 21% fall in wine exports since their peak in late 2007.

Chart 3.1 shows total employment in the food, beverage and tobacco industry in Victoria, and indicates a relatively steady increase in employment over the past decade. Employment has fallen recently in the industry, reflecting the challenges for export markets during the financial crisis. The high \$A has undoubtedly hurt the industry over the past year, making imported food cheaper, which has resulted in some loss of market share. The tobacco manufacturing sector has also been struggling for a while now, with tobacco sales continuing to decline.

Access Economics expects employment to rebound however, as the effects of the GFC pass, unemployment falls and export markets see some recovery. There are also reasonable prospects for the sector over the longer term – not only is food a necessity, but as people become wealthier, they demand greater amounts of 'luxury' foods, such as meat and dairy. With a rapidly developing Asia in close proximity, Australia (and Victoria) should be well placed to meet the increased demand for their growing luxury food requirements.

It should be noted that the advice provided by the VFITB offers different anecdotal evidence for the sector – with the companies consulted indicating that expenditure on training, the number of apprentices and uptake of new apprentices was unaffected during the downturn. However many companies reported scaling back operations, resulting in fewer hours and employees taking leave. The meat industry reported a contraction due to lack of stock for sale during the drought.

Chart 3.1: Total employment in the food, beverage and tobacco industry – Victoria



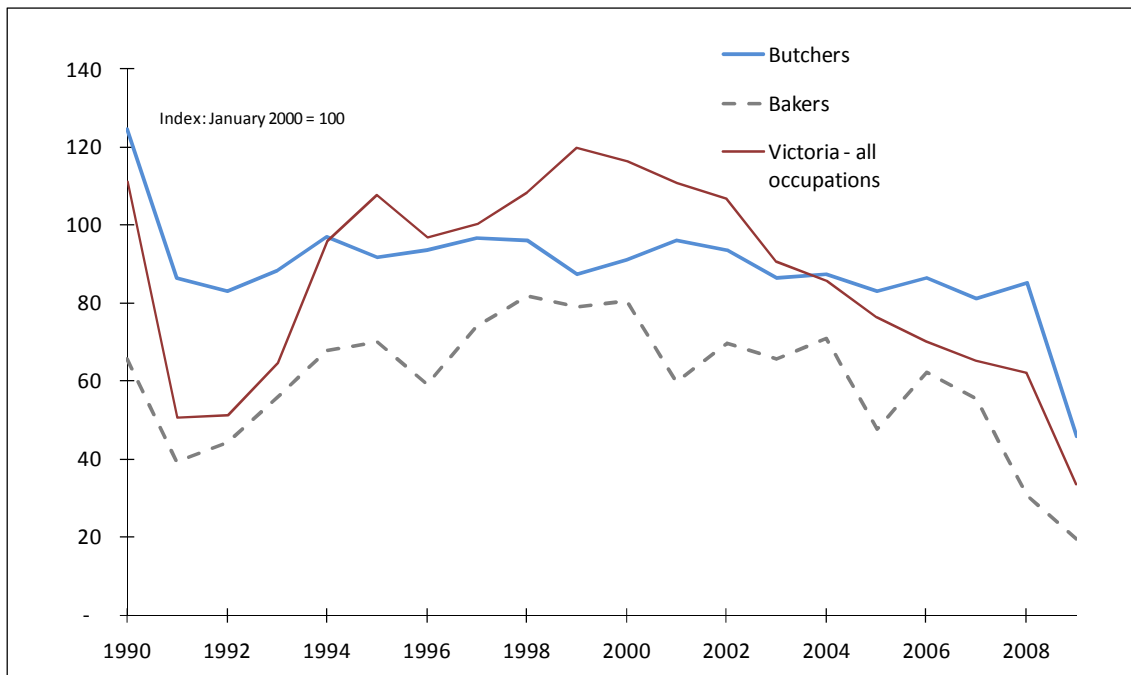
Source: Access Economics, ABS

Occupations in demand

There is likely to be little change in the occupations in demand over the coming year. While the domestic wine production glut continues and overseas demand falters, demand for workers in the sector is likely to fall. Bakers, butchers and pastry cooks are listed on the National Skill Needs List of trades for January 2010, and have been in demand now for some time, a position which is unlikely to change over the next year or so. Government incentives are offered for apprentices and employers of apprentices in these trades, in the hope of addressing the skills shortages, however there has been little evidence so far of any improvement due to these measures.

Chart 3.2 shows the vacancy index for butchers and bakers in Victoria. This chart shows that the index of vacancies for butchers and bakers is currently at the lowest level in two decades – which is similar to the picture across most occupations. However, with the Australian economy steadily improving, and unemployment rates already heading down, these lows are not expected to continue into 2010. Indeed, data released in January shows that the index for butchers has already risen substantially, while that for bakers is steady.

Chart 3.2: DEEWR skilled vacancy index – butchers and bakers



Source: DEEWR skilled vacancy index, Access Economics

The Victorian Food Industry Training Board has advised that occupations in demand will be:

- Bakers
- Pastry cooks
- Butchers
- Small goods makers
- Bakery managers
- Line managers
- Shift managers
- Production supervisors
- Plant supervisors
- Process operators

Critical skills shortages

The advice from the Victorian Food Industry Training Board identifies the following occupations as currently experiencing critical skills shortages:

- Bakers
- Pastry cooks
- Butchers
- Small goods makers

Qualifications required

The advice from the Victorian Food Industry Training Board identifies the following areas as future areas for attention in training:

For bakers and pastry cooks:

- FDF 30303 Certificate III in Food Processing (Plant baking)
- FDF 30503 Certificate III in Food Processing (Retail baking – Cake and pastry)
- FDF 30603 Certificate III in Food Processing (Retail baking – bread)
- FDF 30703 Certificate III in Food Processing (Retail baking – combined)

For butchers and small goods makers:

- MTM30107 Certificate III in Meat Processing (Boning Room)
- MTM30207 Certificate III in Meat Processing (Food Services)
- MTM30307 Certificate III in Meat Processing (Meat Safety)
- MTM30407 Certificate III in Meat Processing (Rendering)
- MTM30507 Certificate III in Meat Processing (Slaughtering)
- MTM30607 Certificate III in Meat Processing (General)
- MTM30807 Certificate III in Meat Processing (Meat Retailing)
- MTM30907 Certificate III in Meat Processing (Smallgoods - General)
- MTM31007 Certificate III in Meat Processing (Smallgoods - Manufacture)

Qualifications which will be in demand from other occupations include:

- Certificate IV Frontline Management training
- Traineeships in Certificate III Food Processing (Handling)
- Certificate IV and Diplomas in Supervisor, Lean/Competitive Manufacturing
- Certificate IV Training and Assessment
- Diploma in Management
- Workplace literacy training
- General review of the Food Processing Training Package, including review of qualifications and development of new national qualifications:
 - Food Science and Technology
 - Advanced Baking
 - Flour Milling
 - Malting and Brewing
 - Cheese Making
 - Wine qualifications
 - Food safety and food safety auditing

- Flour Milling
- Pharmaceutical Manufacturing

Emerging green skills

There are a number of opportunities are also opening up within the industry relating to green skills, including:

- Sustainable work practices embedded into food processing – waste minimisation and efficient handling
- Carbon accounting for businesses

While there is an overall acknowledgement by industry that it needs to operate in more environmentally sustainable ways, the skills for food processors are not yet specifically moving in this direction in a 'stand alone' way. They are skills and attitudes that will in theory, permeate every activity, occupation and training program in the sector but in a sense are additional, or underpin, the existing nature of occupations in food processing.

Appendix A: Industry concordance

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

ITAB Industry	ANZSIC Industry
Automotive	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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

ITAB Industry	ANZSIC Industry
Food	Electricity Distribution On Selling Electricity and Electricity Market Operation 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
Forestry	Food, Beverage and Tobacco Product Manufacturing 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 Specialised Machinery and Equipment Manufacturing Other Machinery and Equipment Manufacturing Architectural, Engineering and Technical Services Machinery and Equipment Repair and Maintenance

ITAB Industry	ANZSIC Industry
Primary industry	Nursery and Floriculture Production Mushroom and Vegetable Growing Fruit and Tree Nut Growing Sheep, Beef Cattle and Grain Farming 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

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

Appendix B: Industry consultation

This appendix has been provided in confidence to Skills Victoria.

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