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%

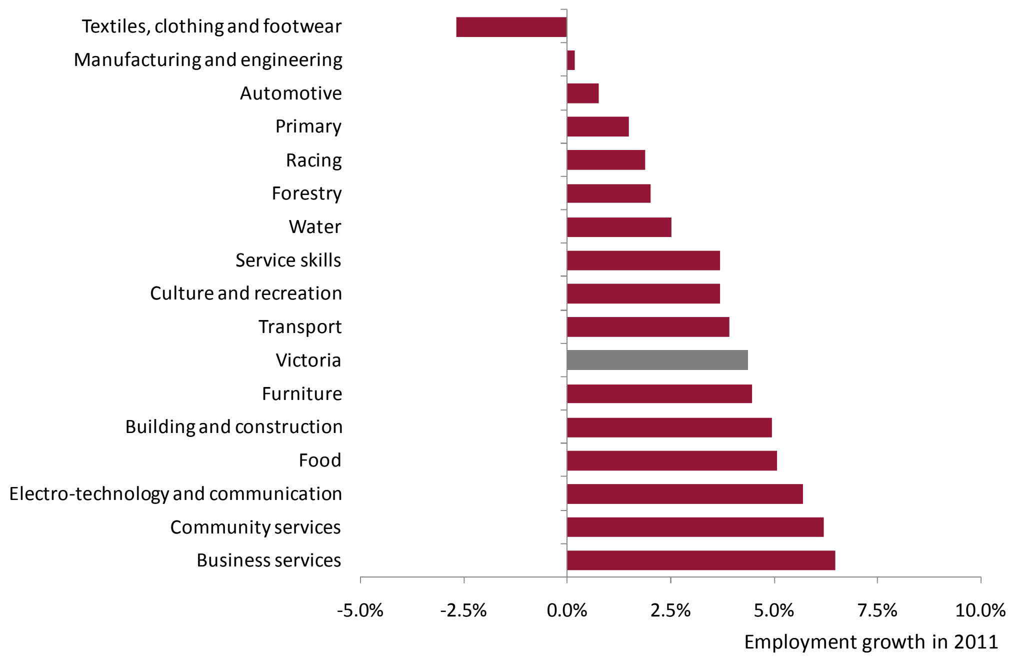
Source: Deloitte Access Economics, Australian Bureau of Statistics. Note: Business investment excludes intangibles.

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

4 Building and Construction

Coverage: Civil Operations, General Construction, Plumbing Services, Shared – Building and Construction.

Specific industry and business cycle drivers: Resource prices, demographics (particularly population growth among those aged 18-30), interest rates (particularly for housing construction), business investment.

Recent performance rating: Above average

Expected relative sectoral performance rating: High

Summary of ITAB advice and consultation

The Building Industry Consultative Council Industry Advisory Body (BICCIAB) reported several change drivers and developments for 2011 that were identified during their consultations with industry stakeholders. These are:

- Changing economic environment (demand side)
- High levels of unqualified workers (supply side)
- Changing technology (supply side)
- Regulatory change (supply side)
- Retirement of workers (supply side)
- Introduction of Competency Based Completions (CBC) (supply side)
- A critical need for up-skilling in civil construction (supply side)

According to BICCIAB, the number one issue affecting the skill needs of the building and construction industry is the **high level of unqualified workers** in unlicensed occupations. This reframes the skills gap issue somewhat as the problem is not about attracting workers, but attracting 'quality' workers who have undertaken formal training. BICCIAB reported that only 16% of people working as plasterers are qualified in that field and approximately 55% of all tradespeople have no related qualification. This problem is particularly relevant during periods of strong external demand, and many of these workers leave the market as quickly as they enter. This lack of training may be exacerbated further as government stimulus programs run their course and the residential construction sector stagnates, leading to a tightening of company budgets and associated negative implications for training funding.

A constant supply of untrained workers is masking this problem as employers are able to continue to fill positions, but the lack of qualified workers is reaching a critical point for the industry. One implication is that a low standard of work completed by untrained staff can require rectification work and call-backs, which is a cost to the industry. Industry associations have taken several steps towards addressing this problem. Some are establishing their own Registered Training Organisations (RTOs) in order to provide on-site training, which may be more attractive to both employers and employees than training off-site. Others have advertised the Federal Government's Apprentice Kickstart funding initiative which provides financial incentives to employers of apprentices. However, it has been suggested that an industry-wide cultural change is required in order to produce a long term solution to this problem.

A related issue is the unwillingness of highly paid tradespeople to move into higher AQF level occupations that are not paid as well. In particular, draftspeople and project managers and supervisors are in demand as there are not enough tradespeople willing to take on a job which requires more hours and responsibility.

Changes in technology, particularly as **green technology** becomes more prevalent, do not necessarily result in demand for new technical skills, but may require general skills among workers in order to better communicate with the public about alternative products. Often, the actual technical skill required does not change with the technology. For example, the installation of a solar hot water heater still requires traditional plumbing skills, but ideally plumbers will have higher level people management skills in order to better communicate with customers about sustainable options.

As such, relevant training packages have incorporated 'sustainability skills' from a theoretical, rather than practical, perspective. However, BICCIAB believes that the cost of acquiring and maintaining new equipment means that updating teaching units in relation to cutting edge products and technology is difficult to achieve. Qualifications are slow to update and the long turnaround time in embedding changes to the training package is resulting in an ever widening skills gap.

Generally speaking new 'green' roles have not been created as a result of the trend towards sustainability. Rather than seeing new jobs created for tradespeople, it is more likely there will simply be changes to the way existing roles are carried out. For example, the use of new cranes from Europe, which are considered sustainable as they produce less pollution, requires a change in the way they are operated due to increased safety features. Overall, no new jobs are created by the use of this new technology, but the way existing roles are carried out does change.

Bricklaying is an area where green skills are in demand. Bricklaying environmental managers are required with skills such as recycling materials and reducing run off down gutters. These skills are being taught to apprentices but typically not to the existing workforce.

Changes to regulations and legislation are a significant driver of training demands in the building and construction industry. For example, the requirements of the *Building Energy Efficiency Disclosure Bill 2010*, (also known as Mandatory Disclosure), which came into effect on 1 November 2010, is a driver of up-skilling as workers seek to gain the relevant accreditation (however the initial impact will likely reflect an increase in demand for assessors). Mandatory Disclosure requires an energy efficiency assessment at the point of sale, lease or sub-lease of a disclosure-affected building, using the National Australian Built Environment Rating System. Some larger companies are providing this training in-house in order to offer the assessment service to their clients.

Where properties receive a low energy rating as a result of their energy efficiency assessment, there may also be flow on effects for skill needs, specifically in demand for maintenance and retrofitting skills to reduce energy and water wastage. This would be particularly important for skills in heating, ventilating and air-conditioning maintenance plumbing.

Other important changes to regulation identified by BICCIAB include:

- the introduction of a National Occupational Licensing System from mid 2012;
- an update to Section J of the Building Code of Australia;
- the new Model Act and regulations for OH&S, to be introduced in 2012;
- compulsory six-star energy ratings for new houses, to be introduced in May 2011;
- a new Australian Standard for housing in designated bushfire areas; and
- environmental regulations.

Most of the training needs arising from these changes are being provided to workers via industry associations, rather than through RTOs. However, in order to ensure that future workers are equipped with the skills to meet the requirements of new legislation, any practical training implications also need to be included in the relevant training packages. This has already been done for occupational health and safety (OH&S) training, where increased technology safety features have been included in Certificates III and IV in OH&S.

Further policy changes may occur under the new Victorian government if, for example, there is a review of land releases and Melbourne's green wedge policy. The industry has been lobbying the government to increase the housing supply as new home building approvals have been in decline recently. The National Housing Supply Council and Housing Industry Australia are already concerned about a shortage of tradespeople to meet the growth in housing demand, so any strong growth in the residential construction sector associated with a policy change may result in an acute skills shortage if not managed well.

As a result of the physical demands of a trades job in the building and construction industry, workers generally retire early. There are concerns that the industry is not taking on a sufficient number of apprentices to offset the **retirement of older workers**. This is currently influencing demand for building surveyors. Retirements across the occupation have led to a shortage of building surveyors. Local councils are now 'sharing' surveyors in some cases due to the lack of qualified workers. More broadly, the impact of retirements on average worker age is not yet apparent, and this change driver may have a long lead time before its impacts are acutely felt, with severe shortfalls predicted for 2015.

The **introduction of Competency Based Completions** (CBC) has been rolled out over 2010 and the beginning of 2011 with the aim of increasing apprentice completion rates. The exact impact of CBC is not yet clear, and some employers remain uncertain about how the new system will operate. It is known that there will be four points of contact per year between an apprentice's RTO and employer, and that apprentices will be able to accelerate their training by undertaking assessments in advance of the set timeline. BICCIB will continue to promote a quality outcome for the apprenticeship system that provides industry with a valuable source of highly skilled tradespeople.

Skill shortages as a result of the **improved economic environment** and a re-emerging mining boom are apparent, but are not yet rife. Sectors that are experiencing particular problems are civil construction workers and plumbers, due to projects like the Gorgon gas project in Western Australia and local regional projects such as the Wonthaggi desalination plant, the North-South Pipeline and the Mortlake gas-fired power station. However, anecdotal evidence suggests that the appeal of the mining boom is not as strong this time around, with workers preferring stability over salary premiums following the employment implications of the recent global economic downturn.

The **civil construction** sector is suffering from several of the problems outlined above, which is a concern for the industry at a time when investment activity in infrastructure is high. The problem associated with unqualified workers is particularly acute in the civil construction sector, where training levels are very low, at approximately 8%. Any training or up-skilling of the current workforce is also problematic due to poor foundation skills (such as literacy and numeracy) among some existing workers.

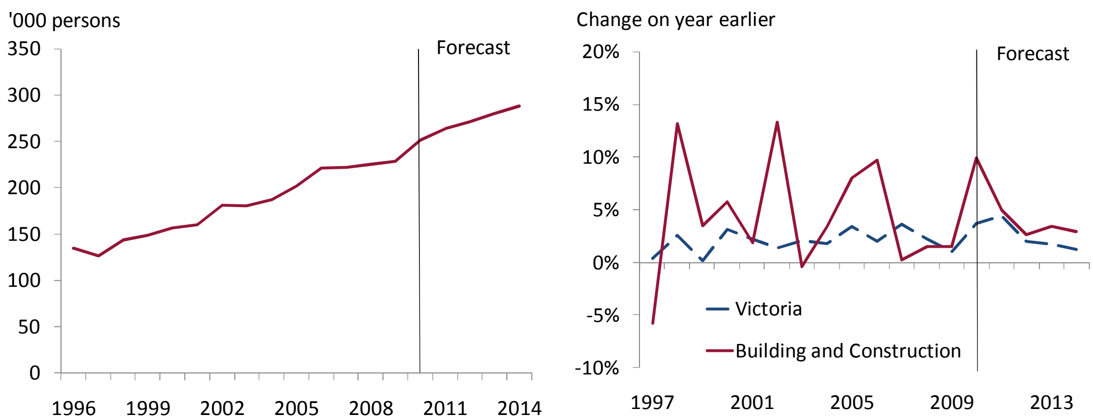
This problem is compounded by high levels of retirement among workers and a greater need for higher level skills due to technological change. Government subsidised training in foundation skills and up-skilling is available under the Victorian Training Guarantee. BICCIAB has piloted a new Certificate II in Civil Construction which was very successful and it is now looking to roll it out across TAFEs. This is a qualification delivered using a pre-apprenticeship type model which aims to instigate a gradual change in the skill level of the sector's workforce as those prospective workers completing a Certificate II move into apprenticeships and then join the workforce as a qualified operator.

Industry outlook

The outlook for the construction sector in Victoria looks strong, although there are a number of factors that threaten its continued medium-term strength.

Population growth is a key driver of construction activity. Victoria has seen strong population growth in recent years. This is good news for housing construction, which has done a much better job of keeping pace with demand in Victoria than it has in other States, but which is still likely to benefit from recent population growth under the right conditions. However, population growth is slowing in line with declining net overseas migration. Much of this has to do with a fall in international student numbers – a recent development which has particularly affected Victoria, and so will place a dampener on near-term housing demand.

Chart 4.1: Employment outlook – Victorian building and construction industry



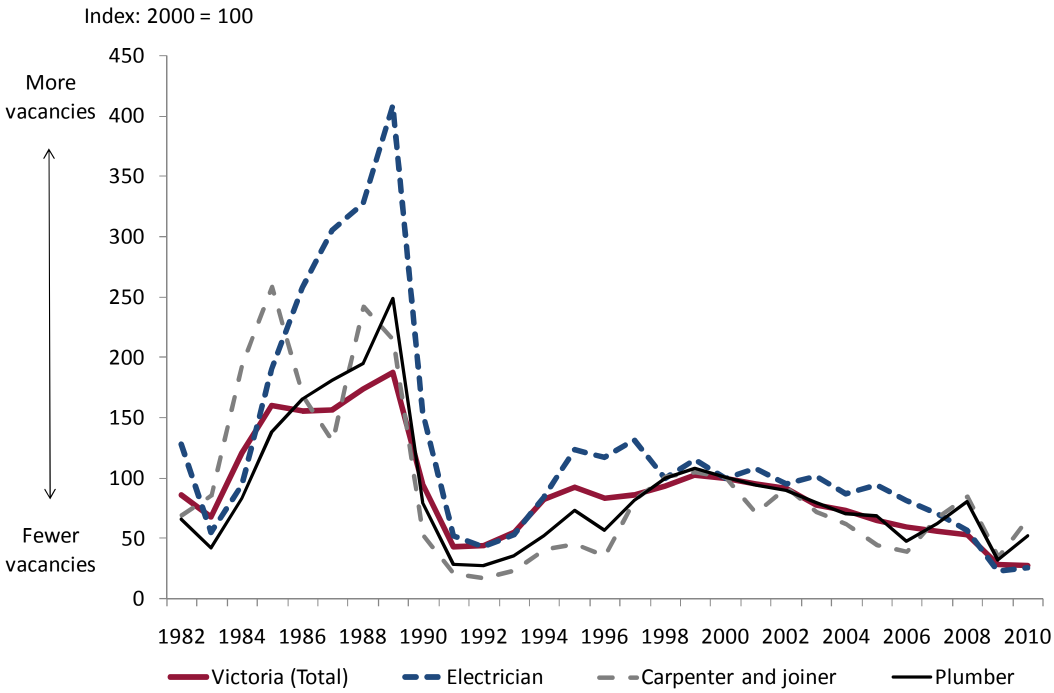
Source: Deloitte Access Economics, Australian Bureau of Statistics

Possible future interest rate increases may put pressure on households and dampen demand for housing purchases. Further construction will also depend on the Victorian government's policies for future land release. This is currently a topic of public discussion in Victoria, both in relation to the urban growth boundary and associated release of new land for housing and infill development. On balance, Victoria's sound population growth means that housing construction is likely to remain solid in the near term.

Non-residential building has been an important contributor to the Victorian construction sector in 2010, and helped to generate a very healthy rate of employment growth (as seen in the charts above). Overwhelming, this has been led by the Building the Education Revolution program. However the construction peak from that program has already occurred and its impact will fade in 2011.

The building and construction sector will then become more reliant on other components of non-residential building, such as offices and retail, which have remained subdued since the GFC given weaker demand and tighter finance. However, activity should lift in these sectors going forward. In January 2011 Melbourne recorded the lowest CBD office vacancy rates of any Australian city (at 6.3%), suggesting room for growth for office construction.

Chart 4.2: Skilled Vacancy Index – Victorian building and construction industry



Source: Commonwealth Department of Education, Employment and Workplace Relations

The pipeline for retail construction in Victoria is currently modest. However, recent very strong jobs growth may help restore consumer confidence and spending, though for this to translate to growth in retail construction it must outweigh other prevailing economic conditions. Tight credit for investment remains a barrier.

Engineering construction in Victoria is currently strong, and there continues to be a pipeline of significant infrastructure projects. That said, Victoria is not as well placed as States to the north and west to take advantage of the re-emerging mining boom. Victoria will, however, be subject to the potential negatives. A Resources Boom Mark II is likely to lead to the re-emergence of skills shortages, which may well put pressure on wages and inflation, and therefore interest rates. Higher wages and interest rates will result in higher project construction costs and may dampen construction activity in Victoria. The pipeline for engineering construction in Victoria looks strong and this, combined with competition from the mining sector, may lead to local skills shortages over the coming few years.

Chart 4.2 shows that skilled vacancies for key occupations such as plumbers and carpenters ticked up solidly in 2010 after a sharp fall in the previous year. Deloitte Access Economics expects the level of vacancies to rise further in 2011 as business investment strengthens.

Occupations in demand and critical skills shortages

The table below summarises advice provided by BICCIAB on occupations which it expects will be in high demand in 2011 and those which will experience critical skill shortages.

Occupations in demand and experiencing critical skill shortages

Occupations in demand
Draftspeople
General plumbers
Bricklaying environmental managers
Project managers and supervisors (commercial and domestic)
Gas appliance service technicians
Building surveyors
Occupations experiencing a critical skills shortage
Project managers and supervisors (commercial and domestic)
Gas appliance service technicians
Building surveyors

The table below outlines qualifications which are required for occupations experiencing a critical skills shortage.

Qualifications required for occupations experiencing critical skill shortages

Occupation	Qualification
Project managers and supervisors (commercial and domestic)	
	Certificate IV – Building and Construction (Building)
	Certificate IV – Building and Construction (Site Management)
	Certificate IV – Civil Construction Supervision
	Diploma – Building and Construction
	Diploma – Plumbing and Services
	Advance Diploma – Building and Construction (Management)
Gas appliance service technicians	
	Certificate III – Plumbing
	Certificate IV – Plumbing and Services (Operations Stream)
Building surveyors	
	Diploma – Building Surveying
	Advanced Diploma – Building Surveying

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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