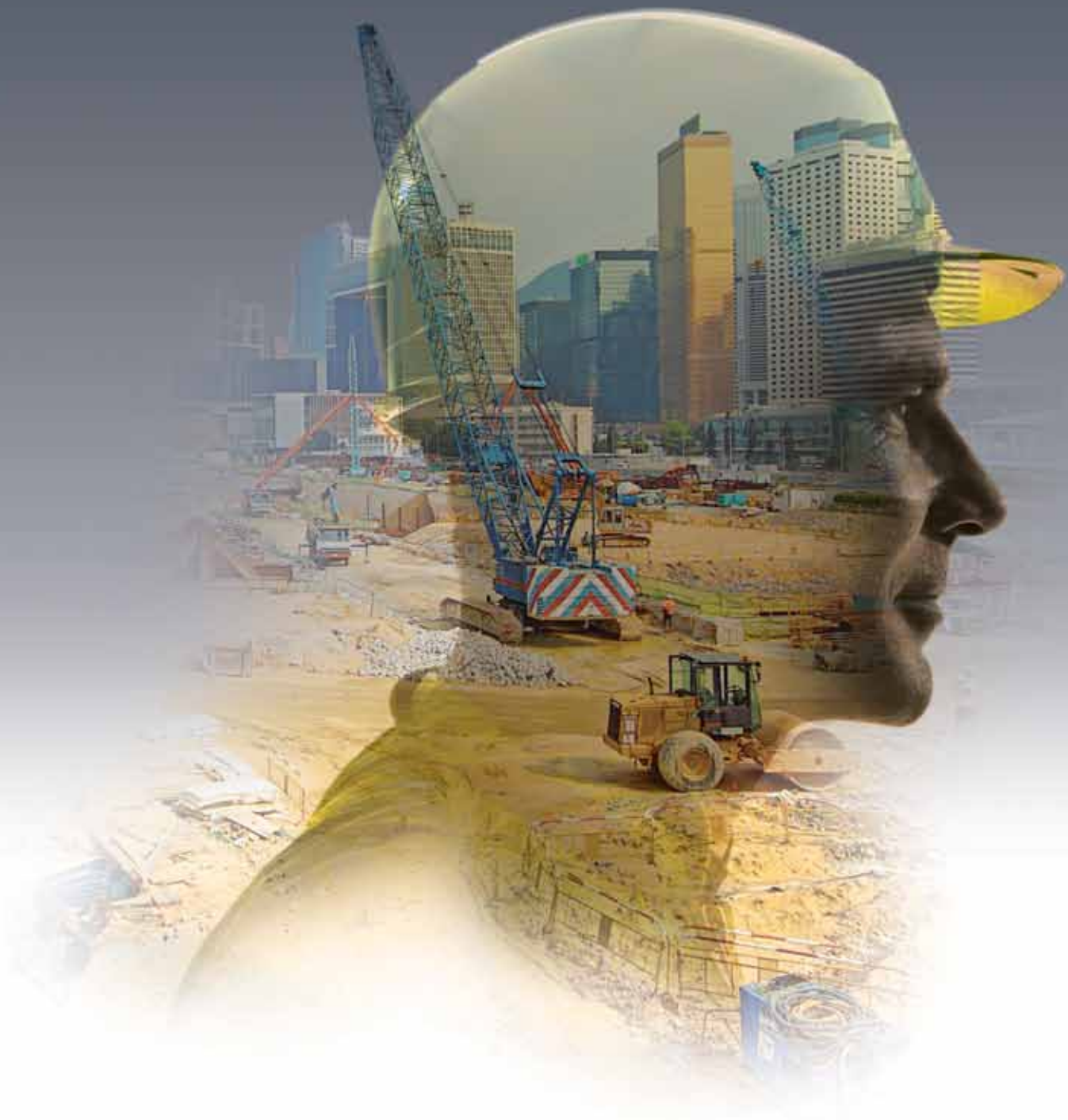


# ENVIRONMENTAL SCAN 2013-14



CONSTRUCTION & PROPERTY SERVICES INDUSTRY SKILLS COUNCIL



# From the CPSISC Chair



The year 2012 has been one of the most notable years for a number of reasons. It has been a uniquely challenging year for the construction industry with a flow on into property services activity. The ominous International economic storm has devastated the financial outlook of many countries since the GFC took hold in 2009 and there has been a falling confidence in the consumer patterns which continues to have an effect on the Federal Budget. Falling terms of trade and lower taxation receipts have led to a tightening of the economy and this is having a dampening effect on the demand for construction and property services sectors.

Deflated activity levels in the construction and property sectors have had an effect on apprenticeship starts. State and Federal Governments have pulled back on funding training for many occupations in property services sectors. Even where incentives have hit the ground in the form of the Federal Government Apprentice Kickstart incentive, employer confidence is such that it has failed to give new trades a start.

CPSISC has provided leadership within industry and government in 2012-13. With continuously improved Training Packages in hand, CPSISC has developed a mature comprehensive coverage of the RTO networks that function as a primary source of implementation information and support resources. CPSISC has applied additional resources to support policy, intelligence and advice provision to the CPSISC board, to government, the Australian Workforce & Productivity Agency, the National Skills Standards Council and to other key stakeholders. The Skills Council continues to navigate a high level network of international contacts with focus made in 2012-13 on forging relations with India, Germany and the UK. International stakeholders now seek out CPSISC as an essential conduit to navigate Industry Skills Council structures, VET systems, and the Australian Qualifications Framework, all of which are recognised as being the world's leading best practice.

Improved activity is forecast for late 2013-14 period improvement for our sectors in the residential construction sector. Any improvements will be derived from underlying demand factors, as opposed to stimulus driven demand as was seen in the period post GFC.

There are positive signs in the underlying demand factors for upticks in activity beyond the upcoming period. Population increases, housing undersupply, interest rates that incentivise activity and an ongoing strength in the Australian economy flag a need to continue to focus on continuously improving our Training Packages and to facilitate workforce development to be ready for future demands.

This document takes into account the formidable outlooks from some of the nation's most notable forecasters, commentators and academics alongside the hundreds of CPSISC Stakeholder voices as presented and reported in the last months of 2012 and early 2013. It is with the aim to provide sound workforce development guidance and to set the training needs for the years ahead that the 2013-14 Environmental Scan and CPSISC commends those contributors for their input. We look forward to working closely with CPSISC Stakeholders to deliver positive results into the future.

*Noel Hamey*

Mr Noel Hamey  
*CPSISC Chairperson.*



# Table of Contents

From the CPSISC Chair.....	ii
Strategic Summary.....	2
Industry Intelligence.....	4
The Global View.....	4
The Domestic Window.....	6
Construction and Property Services Aperture.....	12
The Construction and Property Services Market.....	18
Workforce Development.....	33
CPSISC Products and Services Response.....	42
CPSISC Training Packages.....	42
Training Packages into the Future.....	44
Appendix A – CPSISC Stakeholder Survey 2013.....	A1
Appendix B - Continuous Improvement of CPSISC Training Packages in 2012.....	B1
Appendix C - Skills in Demand.....	C1
Appendix D – CPSISC Mission, Vision, Objectives & Strategies.....	D1



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# Strategic Summary

## Overview

The development of the Environmental Scan (E-Scan) sees the Construction and Property Services Industry Skills Council (CPSISC) engage with stakeholders over the course of the 2012 year and intensively from September 2012 through to February 2013 to provide a review of:

- the size and structure of industry;
- the changing operating environment for construction and property services stakeholders;
- trends in use of technology;
- regulatory impacts;
- workforce development strategy;
- responsiveness of the VET system, CPSISC Training Packages and initiatives to meet skill demands;
- skill gaps and workforce development priorities for 2013-14.

To accomplish this task the E-Scan 'takes its initial bearings' from the findings of the 2011 edition of the E-Scan as a benchmark to consider how the environment and sectors within have changed over the past 12 months.

The survey methodology employed includes: direct engagement, email exchanges, telephone interviews and online survey. A mix of survey methodology was employed with members of the ISC Board, industry advisory committee members, peak bodies, regulators, Registered Training Organisations (RTOs) Cooperatives and an extensive number of CPSISC Stakeholders.

CPSISCs stakeholders have an expertise and an intelligence capacity that generates a multiplicity of national data and primary research over the year which provides key detail about the state of the industry. There are references to these sources for further information sought by the audience.

CPSISC has undertaken its annual survey of CPSISC stakeholders and received a significant response with a collection of broad quantitative and qualitative data obtained that is contained through the document. At the onset it must be said that many hundreds of hours were invested by industry stakeholders to provide their feedback to the survey and this work is critical to the analysis within. This update of the E-Scan also is informed by the release of the National Census data which has a focus on labour force numbers. The net is cast wider to integrate reports, submissions and statistical releases from government, research houses, the ABS and particularly IBISWorld reports.

With the E-Scan playing such a significant role to inform the Training Package and workforce development needs for Construction and Property Services sectors, CPSISC acknowledges the input of confidential stakeholder information and their in kind assistance to the E-Scan.

## Objectives

The objective of this report is to provide Commonwealth and State governments, their departments, and CPSISC stakeholders with intelligence around potential 2013 environmental conditions which will influence skills uptake, workforce development planning and future training needs for the construction and property services industries. More directly the E-Scan delivers important insights for the National Skills Standards Council (NSSC), Australian Workforce and Productivity Agency (AWPA) Board, with the industry also a key beneficiary of the E-Scan release through timely access to contemporary information on industry trends and training initiatives.



## The industries in summary

The construction industry employs almost 1 million Australians, or 8.6 per cent of all workers, which is the third largest workforce behind only the retail trade and health care<sup>1</sup> industries.

The property services industry under ABS Standard Industrial and Occupational classifications also employs close to an estimated 800,000 Australians, or 7 per cent of all workers across a diverse range of sectors and occupations with many numbers in management and administration roles.

## Workforce development and training needs in summary

This E-Scan provides pointers to policy prescriptions and training delivery requirements that are needed to support the future growth of skilled workers within the construction and property services industries. While many of these matters are specific to certain sectors it is fair to say that a number of overarching themes are demonstrated in this report, namely:

- The challenge of operating in a world economy that is still facing substantial economic challenges – resulting in currently constrained growth and challenging operating conditions while also preparing for the coming cyclical upturn;
- The challenge of ensuring adequate training funding at times when governments are seeking to restrain expenditure. Any reduction in funding, even in response to cyclical downturns in industry, can lead to skill shortages at the time of industry recovery if a lag is experienced in bringing through the required numbers of skilled new entrants. This mismatch between the number of required new skilled workers and those exiting training can lead to cost inflation and the loss of human capital to other industries;

- The need to maintain, and foster, successful industry engagement programs such as the Enterprise Based Productivity Places Program (EBPPP), the Critical Skills Investment Fund (CSIF), National Workforce Development Fund (NWDF) in order to assist enterprises overcome barriers to accessing skill development and navigating the complexities of the national Vocational Education & Training (VET) System;
- Opening up new Workforce Development outcomes for workers on Australia's *Projects of National Significance* such as Barangaroo South with CPSISC bridging the economic trough through to 2016;
- The need to ensure new entrants to the workforce are prepared with sufficient Language, Literacy and Numeracy (LLN) Skills – a complex issue that requires the intervention of the school and VET systems;
- The need to respond to substantial technological change which is developing business and training opportunities while also requiring workers to have a range of new skills;
- The provision of support to facilitate strategic engagement opportunities for Australian Training Packages abroad and for Australian Registered Training Organisations to be best positioned to operate in those regions;
- The need to foster a culture of life-long learning, careers development and the continual upskilling of existing workers which requires more flexible, targeted and accessible service delivery by RTOs;
- The need to continue the practice of refining and extending the CPSISC Training Packages in response to industry developments – to ensure relevance and currency into the future.

1 Australian Bureau of Statistics, 13500DO006\_201207 Australian Economic Indicators, July 2012



# Industry Intelligence

## KEY MESSAGES

.....

The outlook for 2013-14 continues to be underwhelming with the economies of the US and Europe fuelling poorer international markets.

.....

Australia sits alone as one of the few markets for investment, with the country largely side stepping the international financial storms.

.....

Australia has a highly valued dollar, low unemployment, accommodating interest rates and a strong banking sector, however offshore uncertainty is dampening domestic consumer demand.

## The Global View

### EuroCrisis



The acute phase of the crisis in the Eurozone appears to be over for now. Despite the risks still imminent in Greece, there are signs of normalisation in the inter-banking market and the key threatened nations of Italy and Spain are on track to fund their fiscal deficits well into 2013.

Austerity measures in Europe have continued to stave off a crisis with Greece sitting in a parlous state amongst a number of countries such as Italy, Spain and Portugal which are in a precarious financial position.

Considerable downside risks remain, in particular with regard to the euro area crisis. The outlook for the euro area remains uncertain, with fears that the sovereign debt crisis could still escalate into a major monetary and financial crisis.

Youth unemployment in European countries is extremely dire resulting in a focus on reducing the emerging social disadvantage. The policy focus on the environment that had been the case in the mid to late part of the last decade has given rise to the move to support the basic need for jobs and creating social balance.

### The United States



The impending fiscal cliff in the United States remains a downside risk to the global economic outlook, with the possibility of a recession in the United States economy if no resolution is reached. With the re-election of the Democratic Obama Government there was a renewed threat of the 'fiscal cliff'

impasse which would have seen a range of tax increases come into effect from 1 January 2013. Having reached a 'fiscal cliff' deal, the US now has a



temporary reprieve in Congress's fiscal feud until a February fight over raising the \$16.4 trillion debt limit. The US economy in 2013 is likely to be subject to a series of mini crises for the foreseeable future.

Unlike Europe, the United States economy continues to grow, albeit at a subdued rate by historical standards, with persistent underlying weaknesses in labour and housing markets constraining growth. Notwithstanding recent signs of improvement in the United States housing market, persistent oversupply and the impact of lower house prices on household wealth will continue to weigh on growth prospects. In September 2012, Americans brought new homes at their fastest pace in two years, indicating that the industry whose decline was at the heart of the US recession was bouncing back. Long standing forecaster in the construction and property services, Yale University's Professor Robert Shiller who had previously forecast accurate downturns in the US property market, indicated that there were positive signs in September.<sup>2</sup>

## The Asian Century



External headwinds have seen growth in the Asia-Pacific region slow down with weaker

momentum felt in China and India. Despite several years of close to double digit growth the China story is slowing down.

In China, the prospects of a weaker contribution from the export sector to economic growth and the risks to global economic and financial stability emanating from the major advanced economies complicate the authorities' already challenging macroeconomic management task, raising the prospect of a sharper-than-planned slowdown in economic growth.<sup>3</sup>

The story is, however, mixed with the International Monetary Fund (IMF) projecting growth in China to increase from 7.8 per cent in 2012 to 8.2 per cent in 2013 growing to 8.5 per cent the following year.<sup>4</sup> These projections indicate that China is set to rebound after a dip in growth in the 2012 year.

With continued growth expected to come from working in the region, Australia has to consider strategies to work with its Asian neighbours to optimise growth opportunities. Countries in Asia and India in particular have a close interest in the Australian Qualifications Framework hierarchy with pan-Asian/European employers looking for acceptable international best practices in training.

India continues to emerge as a major economic power with an expanding middle class that will grow in its need for consumables and goods and services including education. Over the 2013-14 forecast horizon, India's growth is expected to improve, reflecting a gradual recovery in private investment and a return to normal seasonal conditions.

To boost innovation in this region, the *Australia in the Asian Century White Paper* was launched in late 2012 which by 2025 set the target for Australia to have an innovation system, in the top 10 globally, that supports excellence and dynamism in business with a creative problem-solving culture that enhances evolving areas of strength and attracts top researchers, companies and global partners.

## Global View End Note

The World Bank opened 2013 by downgrading its global growth forecasts to 2.4 per cent with Europe expected to endure a second year of recession and growth falling in the US and Japan.

The Global Financial Stability Report (GFSR) of the IMF<sup>5</sup> warns of ongoing risks to the global financial system, with the euro area crisis the principal source of concern. The report urges policymakers to act now to restore confidence, reverse capital flight, and reintegrate the euro zone.

<sup>2</sup> Australian Financial Review, "Shiller urges private-sector finance", p.54, 8 November 2012

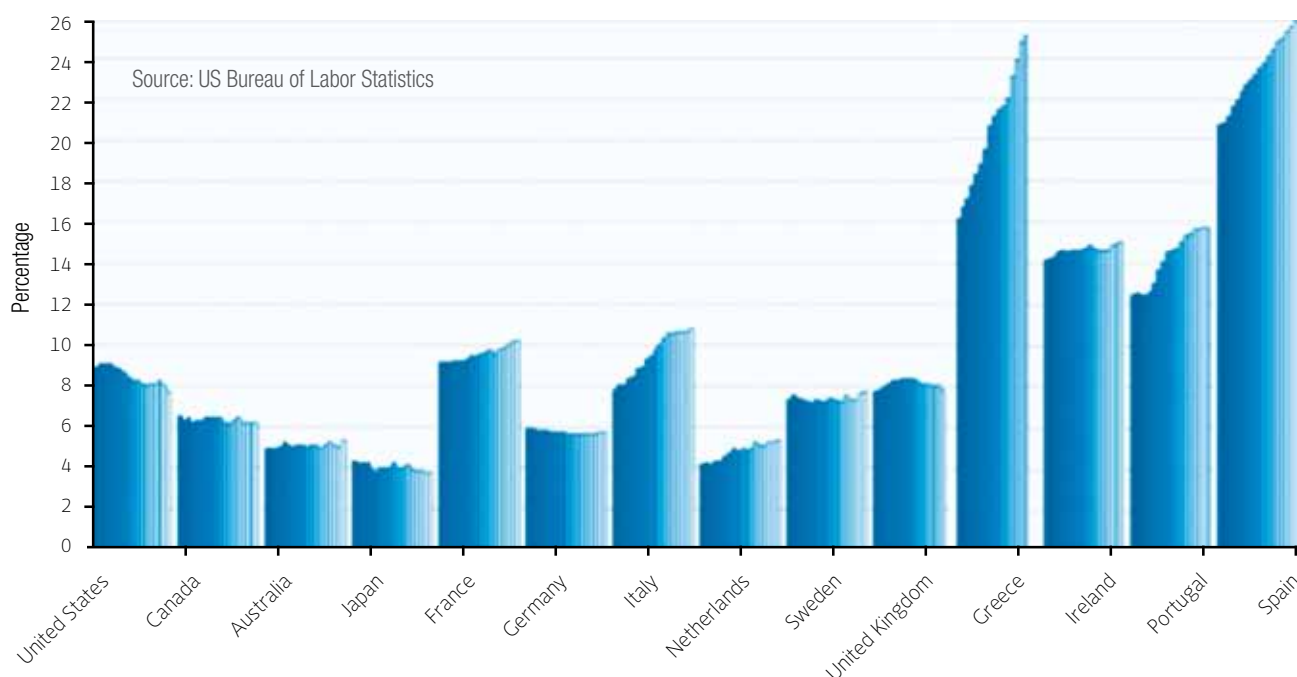
<sup>3</sup> MYEFO 2012-13. Part 2 Economic Outlook, The Treasury

<sup>4</sup> International Monetary Fund, World Economic Outlook, 23 January 2013

<sup>5</sup> <http://www.imf.org/external/pubs/ft/GFSR/index.htm>



Unemployment rates unadjusted by BLS, European countries or areas, seasonally adjusted, Apr 2011 – Sept 2011



Employment, the fundamental cornerstone of economic and social stability is being eroded in many Eurozone countries. Spain's unemployment rate increased from 11.3 per cent in 2008 to 20.8 per cent in April 2011 to 25.8 per cent by September 2012. The economies of the UK and the US appear to be improving, however, indicators such as the unemployment rate are potentially worse than reported with indications that job seekers have simply left the job market.<sup>6</sup>

Emerging market economies have successfully navigated global shocks thus far, but need to guard against future shocks while managing a slowdown in growth. The IMF indicates that policymakers must support non-inflationary growth, maintain financial stability, foster employment and remain responsive to weaker-than-expected outcomes.

## The Domestic Window

**Cautious Domestic Outlook** - Despite a weaker global outlook, according to the Federal Treasury the fundamentals of the Australian economy remain strong and the outlook remains positive:

"The Australian economy continues to outperform every major advanced economy. GDP growth in Australia is currently well above the levels that were before the [GFC] crisis. Australia is unusual in that respect. Certainly if you look at GDP per capita, Australia is almost alone in having seen growth in GDP per capita since before the financial crisis."<sup>7</sup>

*Dr David Gruen, Executive Director of Treasury's macro-economic group*

In October 2012, Fitch Ratings reaffirmed Australia's Long-Term Foreign and Local-Currency Issuer Default Ratings at 'AAA' with a Stable Outlook. The 'AAA' ratings reflect Australia's fundamental credit strengths including the country's high-income developed economy and credible macroeconomic policy framework.<sup>8</sup> It is worth noting here that the three main ratings agencies all put a AAA-rating on Commonwealth debt, a standard currently held by only six other nations.

The Australian Prudential Regulation Authority (APRA) conducted a "stress test" in late 2012 on

<sup>6</sup> [http://www.bls.gov/fls/intl\\_unemployment\\_rates\\_monthly.htm](http://www.bls.gov/fls/intl_unemployment_rates_monthly.htm)

<sup>7</sup> Dr David Gruen, Senate Hansard, Economics Legislation Committee - 18/10/2012 - Estimates - TREASURY PORTFOLIO

<sup>8</sup> Media Release -Fitch Affirms Australia at 'AAA' on credit strengths, Fitch Ratings, 26 October 2012



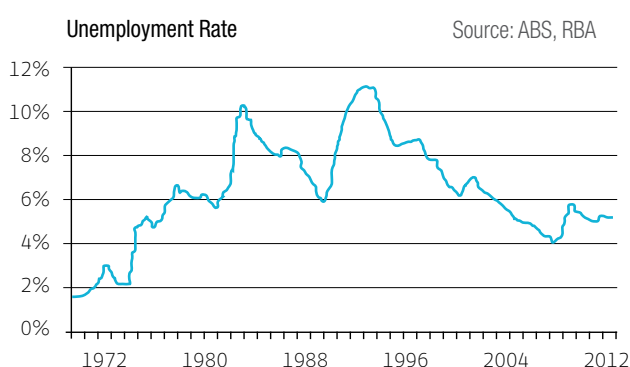


the big four banks and the Macquarie Group which found that the Australian banking system has the capital strength to cope not just with the real-world stress test of the crisis, now stretching beyond five years, but with much greater adversity. APRA found that none of the institutions would collapse even in the face of an extreme deterioration in conditions in the event of a global economic meltdown.<sup>9</sup>

The high Australian dollar and strong offshore growth in Australian government bonds are also clear signs from the rest of the world that we are one of a relative few safe havens left. Further reinforcing this perception, Australia's ranking of Australian government bonds in the Blackrock Sovereign Risk Index jumped three spots to 7th place, up from the 10th least risky three months ago.<sup>10</sup>

Despite the reaffirmation of the AAA rating and the strong findings of the 'stress test' on the major institutions Australia never will be truly insulated from international economic shocks, however the country does have good form when it comes to avoiding the fall out of international shocks. Australia has managed to skirt the Asian financial crisis in 1997-98, the tech wreck of 2001, and the GFC in 2008-09.

**Unemployment** - The current national unemployment rate is 5.4 per cent, after sitting in the 5 to 5.25 per cent range for two years now.



"In the past 30 years, there have only been four years in which the unemployment rate has averaged below its current 5.25 per cent. The picture is pretty clear, the average unemployment rate is lower and the variation across the country is also lower. Today, around half the regions have unemployment rates below 5 per cent and 50 of the 68 regions have an unemployment rate below 6 per cent. In only three regions is the unemployment rate above 8 per cent, compared with 13 regions a decade ago."<sup>11</sup>

*Philip Lowe, Deputy Governor, Reserve Bank of Australia (RBA)*

**Interest Rates** - Interest Rates are trending down. However the Reserve Bank of Australia retains room to cut interest rates if it deems it necessary. This is in contrast to the US, the Eurozone, the United Kingdom and Japan, which are all very close to the zero lower bound on interest rates and are utilizing less conventional monetary policy.<sup>12</sup> The cash rate now sits at 3 per cent and the RBA is in a position to change that downward if need be with estimates that the rate could go as low as 2.25 per cent in 2014.

**Lending markets** - International lending markets have dramatically eased for the major Australian banks. As a sign of an easing of monetary lending policy in September the Commonwealth Bank, which is the nation's largest lender, raised \$US3.25 billion at a cost almost 80 basis points cheaper than the transaction would have been priced at in May 2012.<sup>13</sup> This position of the Commonwealth Bank contrasts with APRA's previous figures that indicated Europe's beleaguered banks were withdrawing billions of dollars from Australia in the final month of 2011.

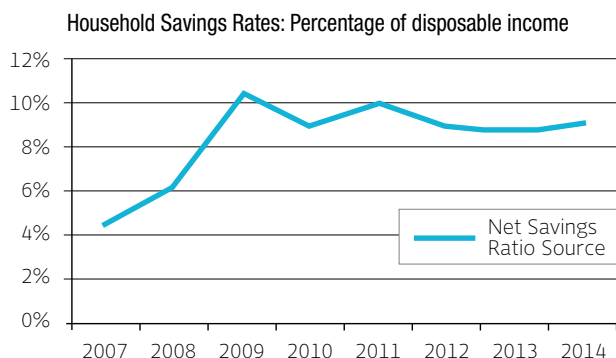
9 John F Laker, "The Australian Banking System under stress - Again?", p.11, APRA, 8 November 2012

10 Black Rock, "New Blackrock Sovereign Risk Index Update", 16 January 2013

11 Philip Lowe RBA Deputy Governor Speech - The Labour Market, Structural Change and Recent Economic Developments, 9 October 2012

12 Dr David Gruen, Senate Hansard, Economics Legislation Committee - 18/10/2012 - Estimates - TREASURY PORTFOLIO

13 The Australian, "Fund Markets ease for the big four", 12 September 2012



Australian household savings have surged in the lead up to the GFC in 2009<sup>14</sup> filling the vaults of Australian banks. Australian private non-financial companies are also improving their cash position sitting on a mountain of cash and deposits worth \$394.6 billion. Apart from improving the liquidity of the companies' balance sheets, which is sought by shareholder investors, this available cash improves the Australian banks' ability to lend to small to medium businesses in 2013.<sup>15</sup>

Tim Roche, Ratings Director of Fitch Ratings previously indicated that *"there is a heightened risk that international credit markets will freeze"*<sup>16</sup>. He provided an update to CPSISC on the previous position on tight credit markets:

*There is a lot of liquidity floating through the international markets which is benefitting Australian banks. Deposits from cautious Australians have also been significant enough to allow banks the capacity to lend. Fitch Ratings believe that a credit freeze is now unlikely.*

Positive indicators on the fundamentals of the economy such as Australia's fundamental credit strengths, improved access to funds and reaffirmation of the AAA rating are all key elements to Australia's ranking sitting among the world's most robust.

**Natural Disasters** – Australia recorded some of the hottest temperatures on record across January 2013 with bushfires destroying hundreds of homes across Tasmania, Victoria and New South Wales.



Storms and floods also swept through Queensland and New South Wales in January. Both disasters create reconstruction requirement and the events may have some bearing on future development, especially where damage such as flooding has hit the same Queensland towns and regions a number of times in only a handful of years.

**Population** – The Australian Bureau of Statistics shows that the fall in Net Overseas Migration (NOM) from around 300,000 persons in 2009 has now ceased and there is a forecast rise in the coming years. Beyond 2015, the size and mix of NOM arrivals and NOM departures will shape and transform the population in Australia. Focusing on projections for the year 2050 the results show that with a NOM of 180,000 per annum the total Australian population would reach 35.5 million of which a projected 11.4 million would be overseas-born. A NOM of 300,000 per annum, which is very high by historical standards, would result in a projected population of more than 42 million, with over 16 million overseas born.<sup>17</sup> For the purpose of the E-Scan the Department's forecast rise in the NOM in the short term period up to 240,000 persons will have an impact on demand for dwellings and property services in 2014-15.

Despite the downturn in Construction and Property activity there has been an increase in 457 Visas and Holiday Visas granted for the occupations which are flowing through to a rise in the NOM. Many of the NOM numbers come through from the 457 Visa class which in turn come through from holiday Visa holders.

<sup>14</sup> Australian Bureau of Statistics, 5206.0 - Australian National Accounts: National Income, Expenditure and Product, June 2012

<sup>15</sup> Australian Bureau of Statistics, 5232.0 - Australian National Accounts: Financial Accounts, June 2012

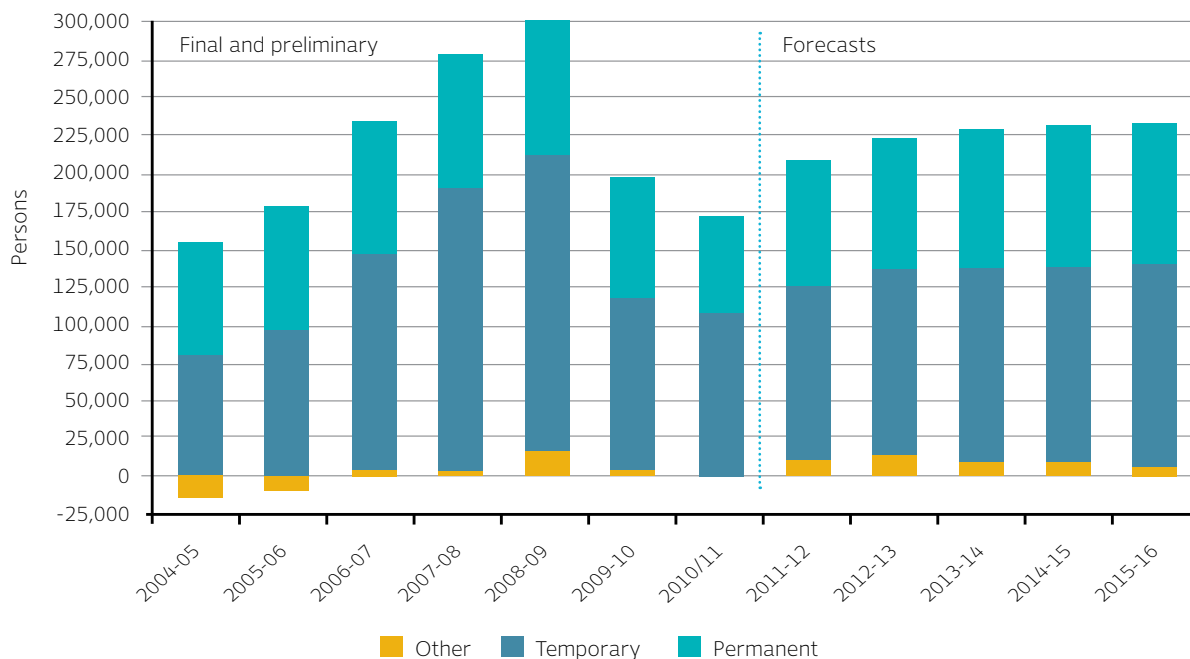
<sup>16</sup> Direct interview comment, Tim Roche, Ratings Director, Fitch Ratings, 31 October 2012

<sup>17</sup> Mark Cully and Laze Pejovski, "Australia unbound" Migration, openness and Population Futures, P68



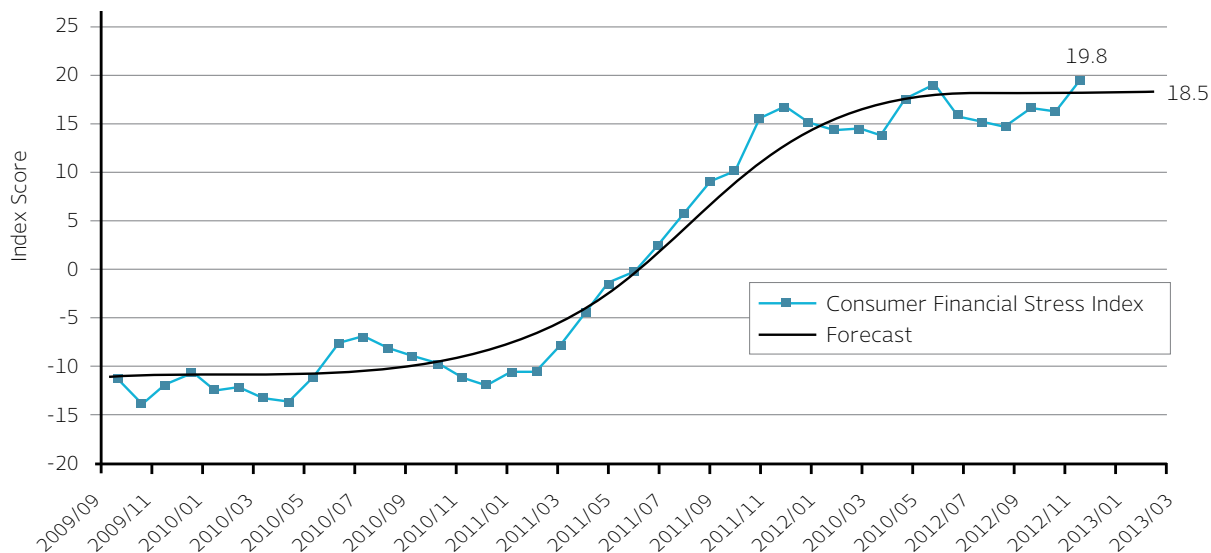
### Net Overseas Migration –Final, Preliminary and Forecasts

Source: Australian Bureau of Statistics and Department of Immigration and Citizenship (DIAC)



### D&B Consumer Financial Stress Index: current and forecast

Source: Dun & Bradstreet, January 2013





**Consumer Confidence** - The Consumer Financial Stress Index produced by Dun & Bradstreet (D&B) is an indicative measure of consumer financial stress in Australia. Consumer stress and capacity for financial credit are highly correlated to the broader performance of national economies; with consumer confidence and spending a key driver for small and medium businesses, including retail and property services. D&B suggests that reductions in the official cash rate since November 2011 have assisted in halting, but not reversing, the on-going elevated level of consumer stress in Australia. The index indicates that consumer spending restraint looks set to continue in 2013.

## Looking forward – The Federal Treasury MYEFO October 2012

For the purposes of the E-Scan a base short term indicator of the health of the domestic economy is the Mid-Year Economic and Fiscal Outlook (MYEFO) review of Federal Government finances.

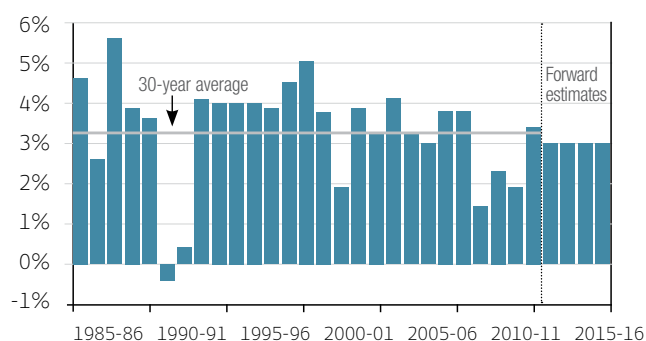
The Federal Government sought in the MYEFO to find \$16.4 billion in savings in a bid to maintain a budget surplus in 2012/13. With the MYEFO writing off billions in receipts since the May 2012 Budget, the domestic outlook continued to head into difficult conditions moving into the 2013-14 financial year. The lower than expected tax take was driven by a weaker global outlook and lower than expected commodity prices, along with the general easing of price pressures in the economy. Since the start of the Global Financial Crisis, tax receipts have been written down by a total of almost \$160 billion.<sup>18</sup>

The recent falls in global commodity prices have led to some scaling back of investment plans in the coal and iron ore sectors. The most notable being BHP Billiton's move in the second half of 2012 to take the axe to more than \$US30 billion in Australian expansion projects which included a halt on its Olympic Dam expansion.<sup>19</sup> Despite the late 2012 commodity price falls the spot price for iron ore improved in early 2013.

Resources investment is still expected to reach unprecedented levels, driving new business investment to record highs as a share of GDP over the forecast period.<sup>20</sup> Australia's resources investment decisions are taken over long time horizons and are underpinned by projections of the energy needs of large Asian economies over a period of decades. In value terms, over two-thirds of the large resources projects included in the economic forecasts have received final investment approval, with the majority already under construction.

The 2012-13 MYEFO shows the fundamentals of the Australian economy remain strong, however following ongoing write downs, the budget was announced by the Federal Treasurer post update in late 2012 to be unlikely to reach surplus this financial year as previously estimated.

**Australia's Terms of Trade** - The terms of trade are now expected to fall 8 per cent in 2012-13<sup>21</sup>, a larger fall than the decline of 5.75 per cent forecast at Budget reflecting recent sharp falls in the global prices of Australia's key non-rural commodity exports. Following growth of 90 per cent over the past decade, the terms of trade are now expected to decrease 8 per cent in 2012-13 and 2.75 per cent in 2013-14, remaining high by historical standards.



18 <http://www.investinaustralia.com/news/mid-year-economic-and-fiscal-outlook-2012-13>

19 <http://www.smh.com.au/business/mining-and-resources/bhp-mothballs-olympic-dam-expansion-20120822-24m4i.html#ixzz2EXSPtewH>

20 <http://www.budget.gov.au/2012-13/content/myefo/html/>

21 Source: ABS cat. no. 5206.0 and Treasury





**Australia's real GDP** - is forecast to grow 3 per cent in both 2012-13 and 2013-14.<sup>22</sup>

**Household consumption** - Household consumption is forecast to grow three per cent in both 2012-13 and 2013-14, unchanged from Budget. The outlook is set for moderate employment and wages growth, continued subdued growth in household wealth and the impact of global volatility on consumer confidence.

**New business investment** - is expected to grow 11 per cent in 2012-13 and 6.5 per cent in 2013-14, reflecting strong forecast growth in resources investment and modest growth in investment in other sectors of the economy.

**Unemployment Rate** - is forecast to increase slightly from 5.25 per cent in the September quarter 2012 to 5.5 per cent by the June quarter 2013, and remain around that level throughout 2013-14.

**Wages Growth** - Wages Growth is expected to slow, consistent with moderate employment growth. Aggregate wages have grown solidly over the past year, with the low unemployment rate supporting solid growth in private sector wages. This has been balanced by weakness in public sector wages growth, which has eased in line with ongoing fiscal consolidation at the state and federal levels of government.

**Inflation** - has been forecast to rise over 2012-13 due to the effect of introducing the carbon price, but remains within the Reserve Bank's target band. It is expected that solid productivity growth and subdued wages growth will continue to hold down domestic price pressures.

**Dwelling investment** - The MYEFO expects dwelling investment to be flat in 2012-13, before growing 4 per cent in 2013-14. The recovery is expected to gather momentum into 2013-14, driven by a pickup in homebuyer demand, improved affordability following declines in house prices over the past two years and the assumption that interest rates will remain below average across the forecast period. Weakness in the retail sector and the expectation of below-trend employment growth, and therefore subdued demand for new office space, is expected to be reflected in weak growth in new non-residential building activity, with growth of just 1 per cent forecast in 2012-13 and 1.5 per cent in 2013-14.

**Education and training** - State Specific Payments and Federal skills and workforce development declined by around two per cent from previous estimates:

Payments for specific purposes by function 2012-13 to 2015-16		\$m	Decline %
2012-13	Estimated payments to support state education services	13,520	-1.98
	Estimated payments to support skills & workforce development services	1,705	-2.00
2013-14	Estimated payments to support state education services	13,623	-1.95
	Estimated payments to support skills & workforce development services	7,769	-2.00
2014-15	Estimated payments to support state education services	14,305	-1.94
	Estimated payments to support skills & workforce development services	1,857	-2.08
2015-16	Estimated payments to support state education services	15,735	-
	Estimated payments to support skills & workforce development services	1,848	-

<sup>22</sup> Mid-Year Economic and Fiscal Outlook, Budget 2011-2012, Australian Government, Treasury



## Construction and Property Services Aperture

CPSISC has used the broad and detailed understanding of the nation's economic environment, contained in the previous section, coupled with the industry intelligence and perspectives gained from its consultation and research program to identify major trends and issues facing the construction and property services industries – and the impact on their skills formation and skill needs.

Continuing economic uncertainty has impacted upon Construction and Property Services industries. End of financial year statements from the Housing Industry Association (HIA) indicated that *dwelling commencements have been declining since the middle of 2010 and were running at an annualised level of 122,492, which is the lowest level for dwelling commencements since the September quarter of 1996.*<sup>23</sup>

As the construction industry grew since 1996, so did the scale of projects undertaken by the participants. Many tradespeople who qualified in the late 1970s and early 1980s who left the industry post the 1990 recession came back into the construction workforce. Across the Country the 'wheel of construction' turned with demand for tradespeople and property services growing. As the 'wheel of construction' turned, garden maintenance people were increasingly asked to quote on handypersons work; handypersons moved into building decks, minor works, renovations and 'owner builder' jobs. Renovation tradespeople moved into larger projects and new home construction; home builders went from a few homes a year to double figures and commercial builders moved onto larger jobs.

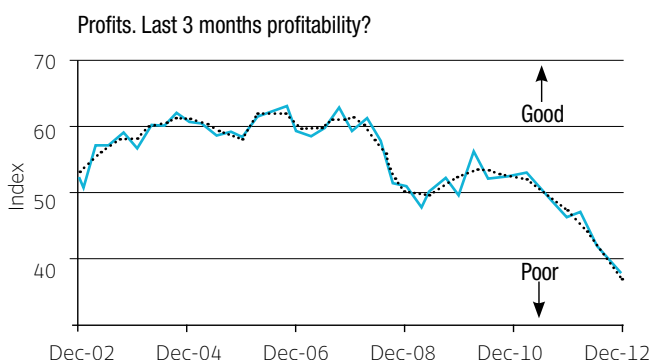
Post GFC, the 'wheel of construction' has reversed as the demand for trades has dropped and margins have decreased. Many in the industry have by and large either consolidated their position (through licensing, training and good output), or moved back to their prior core business due to competitive pressures.

"As the industry activity has reduced over the past 12-24 months the industry trend has reversed. Firms that previously only took on projects above a high threshold like \$300 million were accepting jobs as little as \$30 million to keep afloat."<sup>24</sup>

*Kim Hawtrey, Associate Director, BIS Shrapnel*

As indicated by Business Spectator in cases in Victoria, home builders moved out of their core business area into apartment activity over three stories, engaging in a more complex regulated playing field which has brought about its own set of problems. These home builders (in Victoria) found they could not build the apartments efficiently and that they had tendered far too low, so they started to fail".<sup>25</sup>

According to the MBA National Survey of Building and Construction, builders also expect profits to deteriorate over the next six months—disappointing in the wake of the interest rate cuts. The sales contracts measure also fell.<sup>26</sup>



Source: National Survey of Building and Construction, Master Builders Australia, Jan 2013

<sup>23</sup> Media Release, "New housing decline signals urgency for government action", HIA, 20 June 2012

<sup>24</sup> Australian Financial Review, "Building slump claims another victim", Ben Hurley, 15 November 2012

<sup>25</sup> Business Spectator, "Australia's dangerous Apartment Rot", Robert Cottliebsen, 15 November 2012

<sup>26</sup> Master Builders Australia, National Survey of Building and Construction, December Qtr 2012



The Australian Securities and Investment Commission (ASIC) provides an up to date list of Insolvency Notices illustrating failing construction business. ASICs annual report on corporate insolvencies released in September found that the construction industry had the single highest number of insolvencies nation-wide making up 22 per cent of the 10,000 insolvencies in 2011-12. In the commercial sector, Reed Constructions Australia, St Hilliers Construction, Kell & Rigby, Brisland, Westminster Homes have all collapsed over the past 12 months. St Hilliers principal Tim Casey, in his remarks to a subsequent creditors' meeting, described just how dire things were. Construction companies were competing for jobs with little or no margin just to keep their workforce ticking over.<sup>27</sup>

In relation to tougher conditions experienced in 2012 Master Builders Australia commented:

*"The number of insolvencies was a huge concern as there was little work coming up, returns on existing projects were slim and it was difficult to get finance and to get paid for work done"*

*Wilhelm Harnisch, MBA Chief Executive*

This view has been reinforced by an investigation in late 2012 into the NSW building industry by BIS Shrapnel. Associate director of BIS Shrapnel, Kim Hawtrey, indicated that low volumes in the industry is making for stiff competition with some builders pricing jobs below cost and squeezing margins of subcontractors. This was creating a 'vicious cycle' whereby insolvencies that are occurring are alarming banks whose response has been to tighten credit to other projects.<sup>28</sup> UBS released a survey in November of the chief financial officers of Australia's banks which indicated the practice that loan officers were applying tougher underwriting standards criteria for both home buyers and SME business borrowers.<sup>29</sup>

These updates and market failures clearly show that economic uncertainty and macro-economic factors presented a difficult environment in 2012 for construction with a negative flow on to property services sectors.

These construction and property services occupations are central to the health of the economy. Construction in particular is often referred to as the barometer of the economy and if this industry is faring poorly then there is a strong likelihood that the rest of the nation's economic well-being is questionable.

Despite this position there are a range of factors that point to an improvement in activity.



*"We are building no more dwellings per annum in Australia than we were about a decade ago. If anything, we think that there is net undersupply in the housing market. So in a world where—and we are talking a couple of years out—mining investment does not contribute to growth any more, we need other things to contribute to growth. One of the obvious things is the housing market, given that we think there is undersupply. That is a natural and desirable development, and we are seeing early signs of it."*<sup>30</sup>

*Dr David Gruen, Executive Director of Treasury's macro-economic group*

<sup>27</sup> <http://www.brisbanetimes.com.au/business/collapses-prompt-pertinent-questions-20120619-20m24.html>

<sup>28</sup> Direct Interview Comment, Kim Hawtrey, Associate Director, BIS Shrapnel, 15 November 2012

<sup>29</sup> Australian Financial Review, "Big Banks get tougher with loans, 19 November 2012

<sup>30</sup> Dr David Gruen, Senate Hansard, Economics Legislation Committee - 18/10/2012 - Estimates - TREASURY PORTFOLIO



"This weakness in the construction sector, particularly of new homes, has been one of the bigger surprises in the economic outcomes over recent times. Looking forward, a pick-up in construction activity is one of the factors that could provide an offset to the eventual moderation in the current very high level of investment in the resources sector."<sup>31</sup>

*Philip Lowe, Deputy Governor, Reserve Bank of Australia*

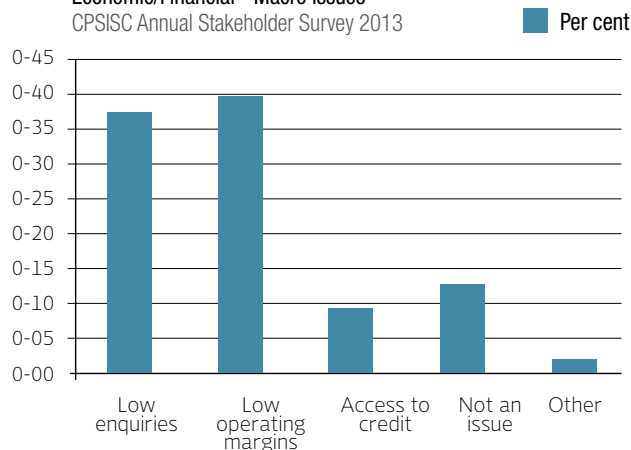


There are further positive indicators for construction that will flow through to property services sectors which will be explored in the Construction and Property Services Market Update later in this document.

As identified in the Annual CPSISC Stakeholder Survey 2013, which is further detailed in Appendix A, the issue of lower enquiries (36 per cent) and the lowering of operating margins (29 per cent) have emerged as the two key economic and financial issues faced across the sectors. There appears to be concern amongst CPSISC Stakeholders that credit lending for housing has plummeted to its lowest level for decades. High personal debt levels have limited the access to credit for the mum and dad investor or for home based property services. There were consistent calls made for banks to start freeing up money to encourage new building activity to create work for their sector.

#### Economic/Financial - Macro Issues

CPSISC Annual Stakeholder Survey 2013



A consistent message of the survey called for greater government support for policy which will support dwelling commencements and larger construction project activity which was needed to flow through the real estate, fire protection services, cleaning services, pest management and waste management. The survey reinforced recent calls from key industry stakeholders for additional stimulus levers to be brought into play such as reduced interest rates and the reduction of inefficient taxes to assist activity.

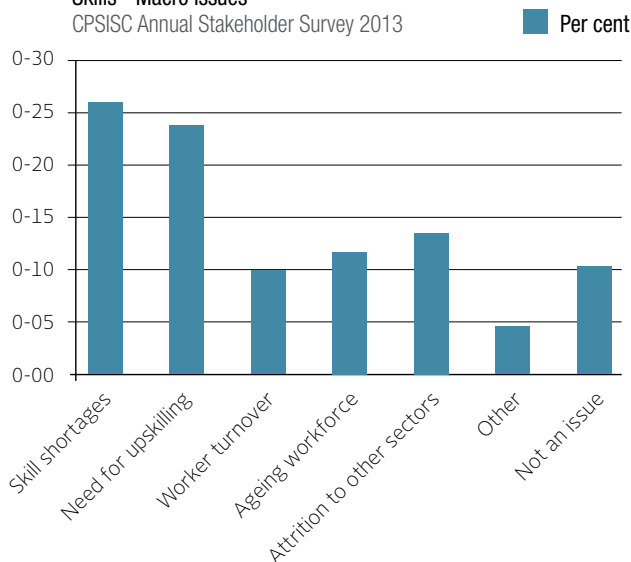
"The case for a Cup Day cut from the Reserve Bank could not have been clearer. Huge swathes of the economy are desperate for the relief"<sup>32</sup>

*Michael O'Connor, National Secretary CFMEU.*

Close to a quarter of respondents believed that the need for the upskilling of their sector's workforce was a key issue for their industries.

#### Skills - Macro Issues

CPSISC Annual Stakeholder Survey 2013



Respondents also saw attrition to other sectors (13%) as being a significant issue. Ageing of the workforce (12%) and Worker Turnover (10%) were notable as the other key skilling issues across the sectors.

31 Philip Lowe RBA Deputy Governor Speech - The Labour Market, Structural Change and Recent Economic Developments, 9 October 2012

32 <http://www.cfmeu.net.au/news/rba-snatches-sure-thing-win-from-australians>





Many responses outlined that CPSISC Stakeholders have observed or are concerned that government funding pools have been reduced putting pressure on the financial viability of some qualifications particularly in property services.



**Investing in skills** - CPSISC stakeholders strongly advise the Commonwealth and State and Territory Training Authorities that funding levels should be maintained at a level that will ensure adequate skill availability to respond to the cyclical upswing in the construction and property industries and also to upskill existing workers to prepare them for emerging work opportunities.

### Language Literacy and Numeracy (LLN) -

CPSISC's Stakeholder survey yielded a strong response to the question of issues with LLN, with the issue consistently identified of students emerging from high school with very basic, and frequently insufficient, LLN skills which is said to affect their confidence in their ability in the workplace. For example, computer and literacy levels among painting and decorating apprentices are causing significant issues with remote delivery. Reliance on low skilled, migrant and holiday visa workers to fill skills gaps have also resulted in many, having only the most very basic and low level English language and writing skills.

Deficient LLN skills are reported to pose problems ranging from creating WHS risks in cases where chemical labels cannot be understood to an inability to read basic instructions and plans.

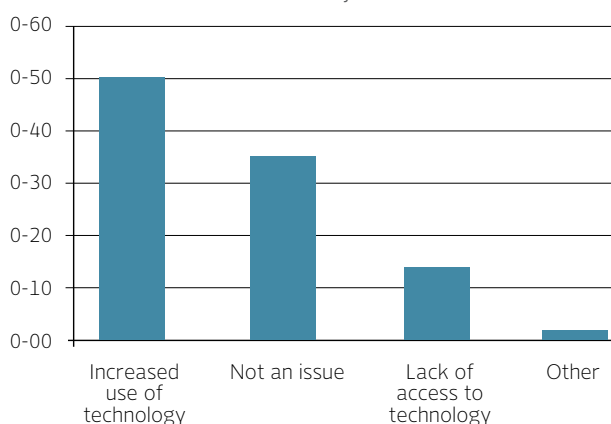
Many respondents questioned whether new school investment reforms such as those outlined in the Gonski report will tackle this problem, with interest also in how VET in Schools and Foundation Skills Training Package can assist.

Half of all respondents identified the increased use of technology as a current or emerging issue for their business. Technology is impacting on many areas of business in areas such as security, spatial surveying, building design, drafting and waste

### Technology - Macro Issues

CPSISC Annual Stakeholder Survey 2013

■ Per cent



management.

CPSISC stakeholders are having to think more and more about intelligent architectures that integrate expertise into computer systems and create operational efficiencies. CPSISC stakeholders understand the need to develop their expertise in order to design and use more intelligent and sophisticated information computer technology (ICT) to create operational efficiencies within their businesses. Stakeholders have to consider leveraging this expertise to assess risks and harness cloud services and big data. Using ICT to foster human capacity and creativity and drive operational efficiencies is considered to be vital and is evidenced by many stakeholders' interest in utilising the National Broadband Network.

Online property portals, such as [www.realestate.com.au](http://www.realestate.com.au) and [www.domain.com.au](http://www.domain.com.au), have entrenched their position as the agents' front window of the 21st century, listing hundreds of thousands of properties for sale or lease. Improved technology is increasing the popularity of virtual tours of properties through the internet. Agencies are said to be dedicating a greater percentage of their advertising and marketing budgets to online initiatives to augment the service offered through traditional media channels.

Some businesses are looking to technology to improve productivity, reduce costs and to reach new customers. There is a continued interest in new infrastructure such as the NBN however there are many that are yet to harness new infrastructure.



Technological advancements have been noted by those in the building design, surveying and spatial science fields with new technology reducing the requirement to have qualified surveyors with assistants able to operate some of the equipment. Advancements in the access to Google Earth and other applications have also changed some of the roles and requirements of those in this field of work. Building Information Modelling (BIM) is also altering and streamlining drafting and design practises within the construction industry.



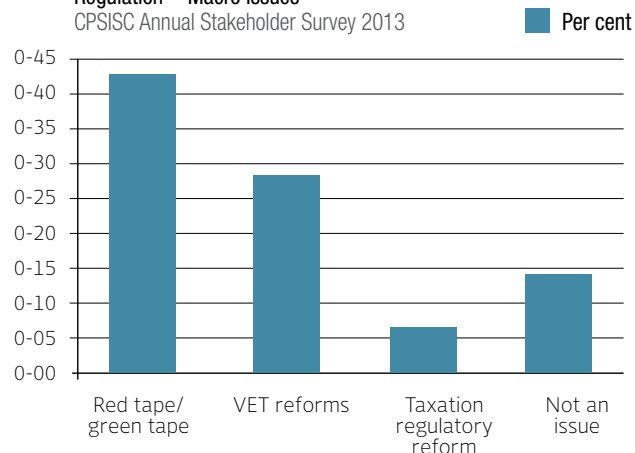
**e-Learning 2013...get online - CPSISC RTO Network Member responses** raised the increasing use of technology and an interest in capturing the quantum growth in tablet and smart technology to provide training to potential students. This enthusiasm to embark into new technology frontiers is also tempered with quality concerns about student ID verification and other factors that lead to authentic and reliable assessments. For example, stakeholders raised concerns about the value and reliability of the online 'white card' course which is a key tool to maintain workplace safety in the construction industry. CPSISC has sought to investigate the e-learning opportunities by developing an e-learning cooperative and a delegated committee of the CPSISC board.

A significant proportion of businesses (35%) however indicated that technology is not an issue for their business. When pushed for further comment the stakeholders felt confident that they are already harnessing technology within their business or they felt that technology does not play a role in their sector.

Nearly half of all respondents were concerned about regulation and particularly red tape/green tape. A focus of responses singled out land supply and delays bringing land to market being as a major issue.

#### Regulation - Macro Issues

CPSISC Annual Stakeholder Survey 2013



There were some responses indicating that the new WHS harmonisation legislation was seen to be complex. The move to harmonisation was reported by respondents as placing added regulatory burden on business.

Other key regulatory issues raised include changes to the Building Energy Rating Scheme.

**Red Tape/Green Tape** - Respondents identified Red Tape/Green Tape as an existing and emerging issue which reinforces concerns made recently by industry.

Many survey respondents called for the abolition of taxes such as stamp duty especially on new house construction.

**The carbon tax** - has come into operation with a \$23 per tonne cost, with some impact on material, energy and on-costs, however the impact in the second half of 2012 has been uncertain across some sectors particularly those in property services. There was a view that it is likely that some additional costs have flowed on to consumers which will further erode housing affordability.

**Licensing/National Licensing** - There is an acknowledgement by many that introduction of national licensing of trades can reduce red tape but there are still concerns over the future impacts and the effect on their businesses. Many respondents questioned how long the licensing process will take.



National licensing proposals for the real estate industry are said to alter the training environment, with a national Certificate IV qualification being proposed for licensing purposes. Many respondents felt consternation and frustration about using this qualification, advocating for higher standards through the Diploma level qualification.

CPSISC has been appointed to the new Interim Occupational Licensing Advisory Committees for Property Occupations and Plumbing and Gasfitting Occupations. Both are Ministerial appointments with CPSISC to assist as required with the National Licensing process.

Other building occupations are in a second tranche of occupations currently intended for national licensing from 2014. Both licence categories and eligibility requirements for builders and trade contractors currently vary widely between jurisdictions.

**VET Reforms** - Survey respondents were significantly concerned about the withdrawal of public funding for the TAFE sector producing higher fees for students and clients across a number of states. A common response indicated that it is difficult to maintain good training and cost effective operations in the current competitive and financial environment.

The reduction in funding was seen by many as doing nothing to improve or enhance the quality of VET education in states such as Victoria.

**Articulation** - For many industry sectors, the existence of a seamless tertiary education sector, in which the rules and the options for moving between VET and higher education are clear to all parties, was seen as being vital to increased productivity. CPSISC advocates an ongoing dialogue between policy makers and its board and stakeholders regarding the development of transparent, accessible and industry-led strategies to develop enhanced articulation between VET and universities.



# The Construction and Property Services Market

## Construction

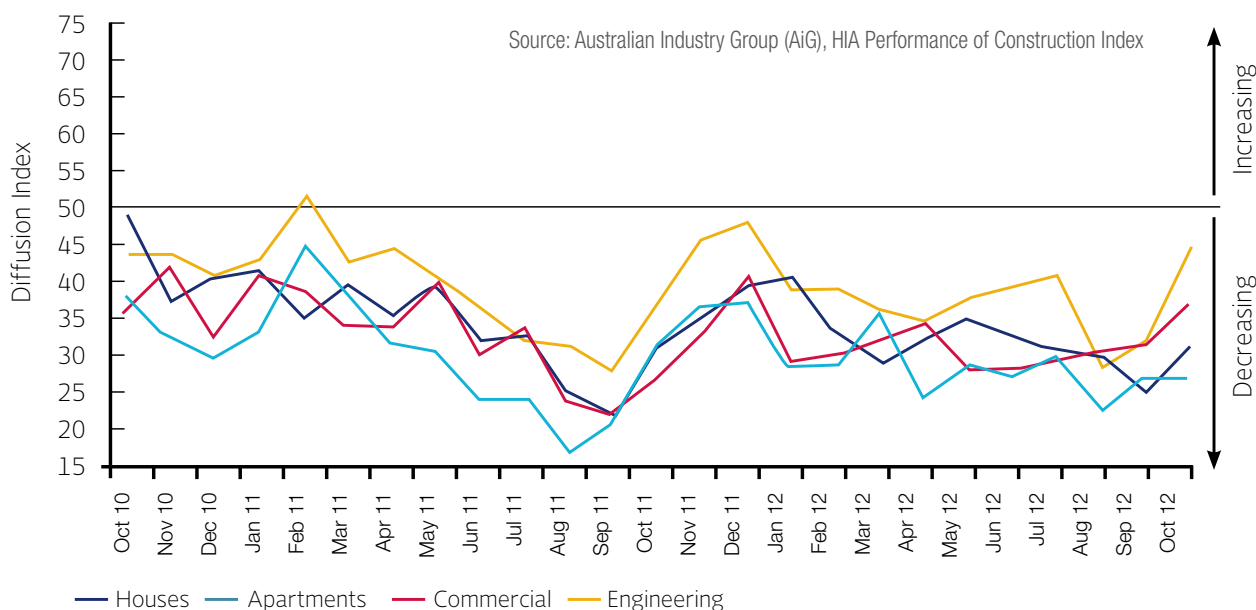
Construction is the second largest industry gross value added contributor to Gross Domestic Product (GDP) within the Australian economy at nearly 7.8 per cent in trend terms.<sup>33</sup>

The construction industry has a workforce of 995,300 which is the third largest workforce behind retail trade and health care<sup>34</sup> employing over 8.6 per cent of all Australian workers. The leading national enterprises include Leighton Holdings, Downer EDI Limited, Lend Lease Group, Fletcher Building Ltd.

The value of Construction and Building Work Done<sup>35</sup> equates in seasonally adjusted terms to:

- \$44.17 billion - Residential Building
- \$32.14 billion - Non Residential Building
- \$114.2 billion - Engineering Construction
- **\$190.5 billion - Total Construction**  
(Total excludes \$30 billion estimate in other renovations and minor work).

Number	Construction Industry
233,883	Building construction (includes: House Construction, Other residential building construction, Non-residential building construction)
70,597	Heavy and civil engineering construction
690,820	Construction services (includes: Land Development and Site Preparation Services, Building Structure Services, Building Installation Services, Building Completion Services, Other Construction Services)
<b>995,300</b>	<b>Total Construction Workforce</b>



33 Australian Bureau of Statistics, 5206.0 - Australian National Accounts: National Income, Expenditure and Product, November 2012

34 Australian Bureau of Statistics, 6291.0.55.003 - Labour Force, Australia, Detailed, Quarterly, November 2012

35 Australian Bureau of Statistics, 8755.0 - Construction Work Done, Chain Volume Measures, June 2012





## Current Industry Sentiment

The Construction Industry was reported in October to have remained in contraction for a 29th consecutive month in the Australian Industry Group (AiG), HIA Performance of Construction Index.<sup>36</sup> The Index indicated that the four major sectors of the industry had registered contractions in activity however there was a distinct moderation in the rate of contraction in both the house building and commercial construction sectors. Apartment construction remained the worst performing sector while the pace of decline in engineering construction activity eased slightly during the month.

Undermining influences of tight credit conditions, project delays and uncertainty about the economic outlook were all contributing to the contraction. However, encouraging reports were reported from house builders of an improvement in customer enquiries and buyer confidence, including an increase in first-home buyer activity.

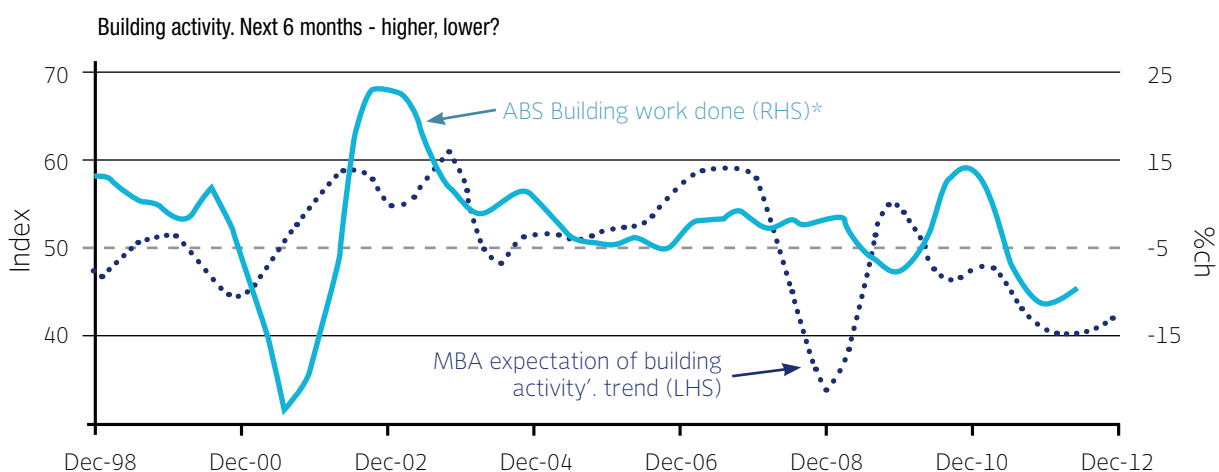
Master Builders Australia's forecasts and surveys of their members are said to have shown that conditions in the industry have been at very low levels for some time. The December quarter 2012 survey of more than 500 builders and contractors suggests businesses are expecting to reduce their workforce to try and stay solvent.<sup>37</sup>

There are positive signs from manufacturer suppliers that need to be considered:

"Looking beyond the current year, there are some encouraging signs of a recovery in housing construction, recovery is anticipated to be modest in its initial phases, while consumer and investor confidence returns. However a combination of falling interest rates and improved State Government stimulus programmes in New South Wales, Queensland and South Australia should enable a moderate recovery in residential activity in the next financial year."<sup>38</sup>

*Rob Sindel, Chief Executive Officer, CSR*

**Stimulating the industry -** Under the new first Home Owner's grant announced in late 2012 by Queensland Premier Campbell Newman, home buyers will receive \$15,000 in lieu of the former \$7,000 when buying a newly constructed home. Following the lead of other states, the introduction of new first home owner stimulus will assist the residential industry in Tasmania to assist new entrants to enter the new home market. Further sensible policy of this nature to stimulate activity in the industry will be vital over the next 12 months.



\*A%ch Building Work Done (constant price) ABS 8755\_0

Source: National Survey of Building and Construction, Master Builders Australia

<sup>36</sup> <http://economics.hia.com.au/media/pci%20report%20oct%202012.pdf>

<sup>37</sup> MBA Press Release, *MYEFO Confirms Poor Outlook for Builders*, 22 October 2012

<sup>38</sup> CSR Limited, CSR Half Year Report ending 30 September 2012



**Areas for Growth** - Australia has high pent-up underlying demand for accommodation, particularly among first home buyers. This has fuelled rental yields and property values lifting the underlying demand for new housing construction. The effect of escalating land values and material prices is expected to cause housing demand to swing towards the construction of multi-unit apartments and townhouses, particularly for first home buyers and empty-nesters who seek the lifestyles of inner-urban locations. Investment by first home buyers in single-unit housing will be concentrated in new housing subdivisions in the outer fringes of metropolitan areas, and where the state governments have provided incentives or moved to open up land for residential development.



#### **Prefabricated construction techniques**

- prefabricated technology continues to be a growth area, with building and civil engineering sectors using prefabricated concrete and steel sections in structures. Becoming more common in apartment blocks and housing developments, prefabricated sections can reduce variables such as the weather, standardise build quality and create some economies of scale potentially lowering consumer purchase costs. Consumers have adopted prefabricated techniques in the form of prefabricated 'flat pack' kitchens. As an example of the potential growth of prefabricated building techniques, the Broad Group is expecting to construct the world's tallest building, the 838 metre "Sky City" tower (pictured) in 90 days in Changsha, China.

A potential future growth segment of the building industry, building-integrated photovoltaics (BIPV) are being used as an alternative to replace conventional building materials in parts of the building envelope like the roof, tiling, skylights, or facades. An advantage of BIPV over non-integrated systems is that the initial cost can be offset by reducing the amount spent on building materials and labour that would normally be used to construct the part of the building that the BIPV modules replace.

Investment is currently constrained by the price of entry into the housing market, particularly for first home buyers, and by the high levels of household debt. In addition, the lending practices of mortgage initiators tightened in the aftermath of the global financial crisis. On the other hand, Australian households continue to have a capacity to take on debt, household savings are steadily climbing, and there has been a surge of population, which puts upward pressure on housing demand.



**Access to finance** - With a string of insolvencies that have been focused in NSW particularly, there are reports that banks are becoming concerned about completion risks, which is having the effect of tightening credit and placing excessive caution on the part of the banks to lend. With international lending conditions improving and local household and ASX listed company deposits swelling in local banks there is a policy response needed to ensure that worthy projects that should get the green light are not unduly turned down.

**Forecasts** - The data set developed by HIA Economics (overleaf) forecasts suggest a delay in the uptick in activity until 2014 for new dwelling starts.



### Calendar Year Starts

seasonally adjusted

Year	Dwellings '000	% change
2004	168.76	
2005	154.80	-8
2006	153.76	-1
2007	154.13	0
2008	148.60	-4
2009	138.61	-7
2010	170.02	-23
2011	150.79	-11
2012 (f)	137.24	-9
2013 (f)	142.93	4
2014 (f)	152.98	7

The value of renovations activity is set to remain constant from where they have sat in the past 4-5 years.

### Housing Renovations Forecast

Value of total investments into housing renovations, \$ million, CVM

Year	AUS	% change
2003/04	29,561	
2004/05	29,750	0.6
2005/06	29,290	-1.5
2006/07	29,926	2.2
2007/08	30,663	2.5
2008/09	29,720	-3.1
2009/10	30,715	3.3
2010/11	30,722	0.0
2011/12	29,927	-2.6
2012/13 (f)	28,764	-3.9
2013/14 (f)	29,852	3.8

Source: HIA Australian Outlook, Summer Edition 2012, HIA, Jan 2013

### Projected employment growth by sector

Construction Employment		2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Residential	% change	-2%	2%	4%	5%	3%	1%	2%	4%	4%
Non-res building	% change	-3%	1%	4%	6%	3%	2%	3%	2%	5%
Engineering	% change	3%	5%	3%	-1%	-1%	2%	2%	3%	3%
<b>Total</b>	% change	0%	3%	4%	3%	2%	1%	2%	3%	4%

Source: Master Builders Australia, January 2013

Similar improvements in new dwelling activity are forecast by BIS Shrapnel and IBISWorld amongst others through the period 2016-17.

### Projected employment growth by sector

The Department of Education, Employment and Workplace Relations (DEEWR) itself forecasts that the construction industry is projected to experience stronger growth with 131,200 additional workers to be employed in the industry by 2016-17.<sup>39</sup> This set of numbers correlates with growth forecasts of industry.

With a 12 per cent increase in construction workers forecast by 2016-17, the nation will require over 127,000 additional workers across construction occupations. Taking the attrition of the ageing workforce into account there will need to be

significant numbers of new entrants to the workforce in the coming years. Apprentices entering into contracts in June of this year will be vital to achieving or constraining this result. An additional 127,000 construction workers will be required to come into the workforce between 2017-2021.

With a 12 per cent increase in construction workers forecast by DEEWR by 2016-17, the nation will require over 127,000 additional workers across construction occupations. Taking the attrition of the ageing workforce into account there will need to be a very significant number of new entrants to the workforce to reach this number. Master Builders Australia estimates this at around 50,000 industry entrants per year. Apprentices entering into contracts this year will be vital to achieving or constraining this result. A further 127,000 construction workers then will be required to come into the workforce between 2017-2021.

39 DEEWR, *Aussie Jobs – Looking Back Looking Forward, 2007-2017*, February 2013



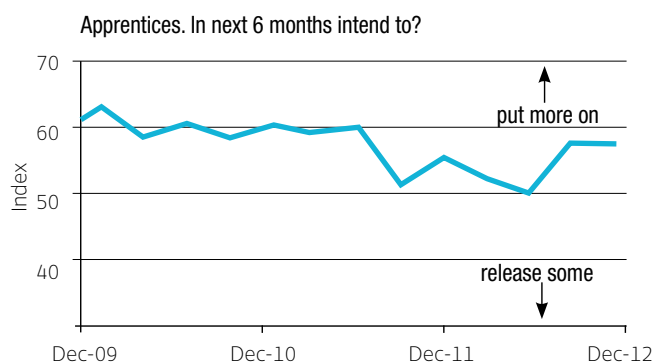
These forecasts confirm that the underlying demand for residential construction skills will still exist in the future, which was previously referred to by Dr David Gruen in the Property and Services Aperture.



**Improved activity...time to invest** - With the current construction forecasts appearing to see improvement in activity in the mid-decade period there is a need to further understand the factors for the uptick. With 2013 being a Federal election year, this mid-decade position needs to be supported to enable the uptick. Industry also needs to have confidence to invest in skills into the future. CPSISC will further underpin this position of industry projections with its *Future Forecasts: Construction and Property Services Skills 2015-25* report in March 2013.

## ...apprentices vulnerable 2013-14?

Construction trade apprenticeships have been weak over the last two years, and this is expected to continue well into 2013-14. Official NCVER apprenticeship data for the year ending June 2012 showed 49,357 apprentices in-training, 16,893 commencements (down 29 per cent on the year to June 2011), 13,372 apprenticeship completions and 15,378 apprenticeship cancellations. Construction trade apprenticeship commencements have fallen to their lowest level since 2006, while the high cancellation rate is also of concern. A \$3,350 'Kickstart Bonus' was introduced by the Federal Government at the end of 2012 in an attempt to boost construction apprenticeship numbers.



Source: National Survey of Building and Construction, Master Builders Australia, Jan 2013

Demand for apprentices is highly elastic and starts are directly correlated to sector activity. Generally, the apprenticeship-training intake, which is the main avenue to boosting skilled labour in building, plumbing services and other subtrades fluctuates in a cyclical pattern of growth corresponding with that of the building cycles.

A clear and consistent response about declining apprentice starts was evident in the CPSISC Annual Stakeholder Survey 2013. The survey reinforced that the cyclical industry downturn impacts on the number of apprentices being employed and trained via the construction training package.

It is possible that a slight improvement will emerge just outside of the next 6 months. The MBA 'apprentice' index rose to 57.6 in the September quarter and remains there in December after a very low reading of 50.2 in mid-2012. Although counterintuitive (considering the generally dismal operating conditions), there was an increase in the proportion of respondents indicating they will 'put on more' apprentices.



**Apprentice elasticity** - There were CPSISC survey responses calling for increases in the pay rate of apprentices via government subsidies to make it more viable for young tradespeople. Changes to wage rates of apprentices were supported by some, but also opposed by others in industry if such a policy jeopardised commencement opportunities. The elasticity of demand for apprentices and the correlation of starts to economic cycles needs to be further considered while recognising the long lead times to train new tradespeople. CPSISC advises and advocates that VET funding agencies must first understand and then recognise apprenticeship challenges and trends to support the significant future pipeline of new apprentices that will be essential to underpin the coming cyclical growth in this nationally and economically important industry.





A 'break' in the pipeline caused by under investment could cause significant shortages in labour availability and contribute to cost increases. Strategies to retain apprentices in training during periods of unemployment or under-employment should also be investigated by government, industry and the CPSISC.

An interesting piece of research to consider in this workforce development policy issue came from NCVET in 2012. It researched the earnings of a range of 25 year olds and showed that trade graduates earn as well as or better than their university counterparts for males: so males can earn while they learn and have no HECS debt and then have the option to do a university course, eg economics or construction degree part-time, while they are earning a good income. The reality here is that construction apprenticeships are experiencing a dramatic decline that threatens the ability of the industry to meet the expected turnaround in demand for construction skills going into 2014 and to meet the real challenges forecast for the mid-decade period.

## Plumbing and Services



From unclogging drains to the installation of high-pressure industrial steam pipes, plumbing services are required in the day-to-day lives of all Australians. Plumbing contractors are also responsible for the connection of household, commercial and industrial appliances involving gases, liquids and waste products.

The industry is highly labour intensive, maintaining a sizeable permanent workforce to carry out much of the heavy physical labour. Industry employment according to the 2011 ABS Census recorded at 63,285 people as plumbers with another 3,707

engaged in activity away from their usual work. From a review of the licensing agencies there are close to 95,000 licensed and registered plumbers who are employed in plumbing services and other industries including other construction, electricity, gas, water, waste services and mining. The employment is engaged in about 24,000 enterprises in 2012-13.<sup>40</sup>

Plumbing services licence numbers also include many who are not available for work, many who are retired (but keep the licence active), or working in plumbing related jobs. Many plumbing practitioners have moved into retail, work for licensing bodies and teach the plumbing trades. There are also plumbers in the construction field actively building homes and renovations, as opposed to just providing plumbing services.<sup>41</sup>

The plumbing services industry is estimated to derive about two-thirds of its revenue from work in the residential building market. The industry is estimated to derive about 30 per cent of its revenue from the non-residential building market, which has declined at an annualised 2.4 per cent over the five years through 2012-13. The larger scale plumbing firms tend to be most severely affected by the decline in new non-residential building activity, although the multi-disciplined operators continue to derive revenue from maintenance and repair activity as part of long-term facilities management contracts.

New technology such as solar hot water, higher efficiency hot water units, water treatment systems for grey and black water, new high efficiency heating and cooling systems are all being demanded by consumers and require new skills and the ability to offer advice. Much of this training is post qualification but vital to service customer demand.

**Teaching old tradies new tricks - CPSISC would welcome the opportunity to work with industry and funding agencies to further build strategies to up-skill existing tradespeople in new technologies. Overcoming barriers to the attractiveness of post-trade training and developing cost effective solutions are of increasing importance in ensuring the availability of highly and appropriately skilled operators into the future.**



<sup>40</sup> E4231 - Plumbing Services in Australia, IBISWorld, December 2012

<sup>41</sup> Direct interview comment, Ken Gardner, Master Plumbers & Mechanical Services Association of Australia, 11 December 2012



**Forecasts** - Revenue is forecast to achieve annualised growth of 2.7 per cent over the five years through 2017-18. This is marginally above the projected expansion in Australia's GDP (an annualised 2.9 per cent) and underpinned by the cyclical upswing in the value of total building construction (an annualised 3.0 per cent). The pace of industry expansion is expected to be partly contained by the subdued trends in several specialist non-building construction markets (e.g. mining infrastructure and water supply). Annual industry revenue is forecast to climb to record levels, averaging \$9.57 billion over the five years through 2017-18, or 12.7 per cent above the average of \$8.5 billion over the previous five years.

Residential construction is projected to grow through 2016-17, underpinning some expansion in the performance of plumbing contractors. The industry is also expected to derive demand from expected growth in the value of commercial and industrial building activity associated with a lift in office, shop and factory construction (growing by an estimated annualised 4.9 per cent). The larger plumbing contractors are forecast to derive a solid revenue base from contract maintenance activities in the commercial and industrial markets. Smaller plumbing contractors will continue to derive solid demand for emergency repair and maintenance from households.

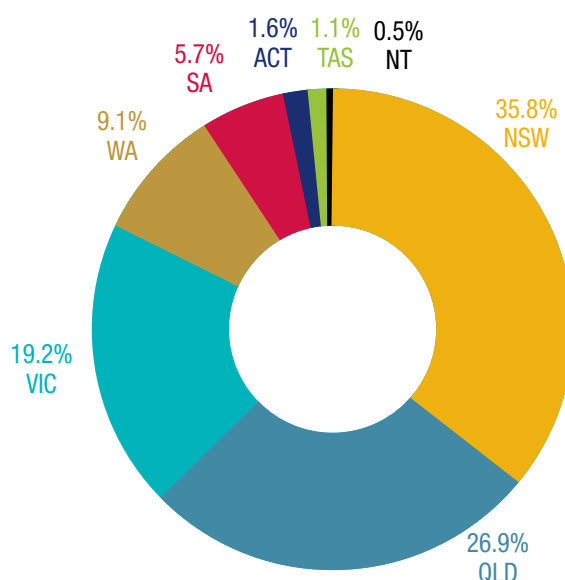
## Fire Protection Services



In 2012-13, the industry employed roughly 12,500 people in 3,150 establishments (including approximately 1,500 sole proprietors with no employees). The industry has a medium

concentration of ownership, comprising two large-scale enterprises and many small-scale contracting firms that service narrow regional or specialist product markets. About 95 per cent of establishments employ fewer than 20 people, and only a handful of firms employ more than 200 people. The fire protection services industry is forecast to generate revenue of \$3.15 billion in 2012-13, up 4.0 per cent from the previous year due to an improvement in new installation work on office and apartment developments.

Business locations (Source: IBISWorld)



The largest industry players are Tyco International Pty Limited and Chubb Security Holdings Australia Limited, which together account for 15 per cent of revenue. Both are multi-establishment enterprises with branch operations spread across diverse geographic markets. Tyco (trading as Wormald) and Chubb both install hardware and electronic fire and security systems, provide monitoring services, and supply hardware and equipment (including sensors, alarms, extinguishers, CCTV and access controls).

**Forecasts** - The industry is forecast to record growth over the next five years, principally reflecting demand in the non-residential building market and a peak in demand from the engineering infrastructure market during the coming year. Contractors are also expected to experience stronger demand for the sale and installation of security systems in the multi-



unit apartment market, notably in New South Wales and southern Queensland. In the five years through 2017-18, the Fire and Security System Services industry is forecast to record annualised revenue growth of 3.0 per cent to reach \$3.65 billion, matching projected growth in the value of total building construction and roughly in line with the pace of Australia's GDP growth (an annualised 2.9 per cent). The industry's performance will primarily be underpinned by growth in both the commercial building and apartment markets.

## Real Estate



The 2011 Census records the Rental, Hiring and Real Estate Services Industry employment sitting at a total of 117,880. This total includes managers, professionals, clerical, administrative and sales workers as expected. This industry category also includes some property services technicians and trades workers, machinery operators and labourers who are directly employed in Real Estate Services. By occupation the key data recorded by ABS Census were 64,699 Business Brokers, Property Managers, Principals, Real Estate Agents and Representatives. Around 73 per cent of real estate agency businesses employ fewer than 10 employees with

around 50 per cent of this portion employing fewer than 5 employees. Only 0.6 per cent of businesses employ 50 or more.<sup>42</sup>

**The residential market** - Conditions in the residential property market will influence industry growth significantly over the next five years. The residential property market is expected to experience growth and reallocation in investment activity in part due to lowering interest rates. Potential buyers having waited for the market to improve are expected to start to take advantage of lowering prices, particularly as people previously hesitant to invest start to feel the need to upgrade their living situation.

Urban growth boundaries, high density development planning approval processes, stamp duty costs and housing supply, all administered by state governments, will be major determinants for residential real estate in the next five years. Steady population growth is expected to stimulate market investment activity over the next five years. When combined with a decrease in the average household size, this will lead to a rise in the number of households in Australia. Data released by the ABS indicates that the average household size is expected to decline from 2.6 people in 2011, to 2.3 people by 2026. The continued growth in population, combined with reduced household sizes, will lead to increased demand for residential housing, which will drive sales and leasing volumes. IBISWorld expects that improvements to economic and financial conditions and steady population growth through 2017-18 will drive domestic property investment.

**The commercial market** - The strengthening of the commercial property market is expected to assist industry growth.

The tight commercial vacancy rate result (as evident overleaf) in Perth has occurred despite near record levels of new supply in 2012. Vacancy rates in other regions are higher albeit without the new supply activity. With the New ASIO Headquarters as well as the ISPT's 29,800 square metre office space in Canberra coming online in 2013 and an election likely to further dampen demand, it is likely that the vacancy rate at this end of the range is likely to stay in the double figures for the 2013-14 year.

42 L7720 - Real Estate Agents in Australia, IBISWorld, August 2012



#### Commercial Vacancy Rates

Construction Employment	Perth	Melbourne	Sydney	Brisbane	Hobart	Adelaide	Canberra
Vacancy Rates (six months to Jan 2013)	5.7%	6.9%	7.2%	9.1%	9.4%	9.5%	11.9%

Source: Property Council of Australia, Feb 2013

The industrial and office markets are expected to experience a steadier level of demand for property space up from 2011-12 due to improving economic, demographic and financial conditions that are anticipated to encourage property investment. Improvements to employment conditions and income levels through 2016-17 are expected to lead to growth in retail sales volumes. This increase should lead to growth in demand for property space and drive sales and leasing volumes as a result. There is an expectation that the industrial market will reach a more stable level of property investment, as a steadier demand for property space returns to the market. Growth in the demand for industrial products is likely to be driven by the China-based commodity boom and improvements in the domestic economy and business conditions. This growth will encourage expenditure on industrial products and strengthen manufacturing production, import volumes and inventory levels. As a result, demand for industrial property should increase through 2016-17, leading to growth in property sales and leases.

**Forecasts** - Industry revenue is forecast to increase by 2.1 per cent per annum over the next five years, to total \$9.84 billion in 2017-18. The industry is expected to slow in the short term as consumer sentiment creates an even more cautious environment. In 2013-14, revenue is expected to decline 0.5 per cent. Nonetheless, improvements across a range of economic, financial and demographic conditions will drive demand over the medium term and will bring the industry out of a minor slump quite easily. In the bigger picture, the ongoing transformation of the Chinese economy is a major driver of the Australian market, bringing export earnings, foreign investment and taxation revenue, which directly and indirectly bolster domestic real estate conditions.

## Security Services



Security and Investigative Services industry is forecast to generate revenue of \$3.44 billion. The industry is estimated to operate well over 6,000 enterprises<sup>43</sup>. Licensing data from across the country indicates that there are 110,000 security licences across the country. Both Census and research house data indicates that there are around 43,000 specific security officers and guards, however there is an extremely high number of individuals not reflected in the Census data who play a vital role to the industry that also work in other primary occupations. Many people provide casual services to the sector as a second job or for several specific events per year such as for major events, festivals and concerts that require additional personnel.

Moderate growth in the domestic economy in 2012-13 is expected to generate stable demand for the industry's services, particularly security and private investigations. The security industry report a shortage of appropriately skilled electronic security technicians and security officers, this is seen as a significant impediment to future industry growth and development.

<sup>43</sup> L7720 - Real Estate Agents in Australia, IBISWorld, August 2012





**Highly intelligent security** - High-tech surveillance and data delivery tools will continue to be at the frontline of security and investigative services over the next five years, with companies using a mix of technologies and manpower to reduce cost and enhance services. In an increasingly security-conscious society, more private and public places will be subject to electronic surveillance as households, businesses and governments seek greater security and protection. Alarm installation and surveillance services will grow, as they provide effective security at a lower cost than guards and patrol services. Cash transfer and armoured vehicle services are expected to decline due to weaker retail sales and decreased levels of cash usage. New technology, such as the use of the optical fibre network, is expected to enable industry operators to provide effective and cheap electronic security monitoring services for commercial, industrial and domestic premises, which could lead the industry into a strong growth phase. There could also be some current consumers whose dated security system will not be compatible to the NBN or to some emerging technology which will require attention or there will be risk of potential loss of customer.

Some of the larger companies in the industry are forming partnerships with other specialist maintenance, catering and cleaning companies to offer a total facilities management solution for companies, government departments and local councils as part of the trend for outsourcing services.

Growth in both household disposable income and business profit is expected to lead to a lowering trend in monitored alarm service churn rates, with connections of new clients increasing at a solid rate. Beyond this period, forecast solid economic growth combined with the increasing surveillance of railway stations, retail areas, streets and other public areas by CCTV and other systems are expected to promote above-average revenue growth potential. Supporting this growth will be an increasing demand for ATM and other cash-related services across non-traditional, non-bank locations.

There has been an outsourcing of some policing functions in the UK to the security industry. Some of these functions that can be carried out in a more cost effective manner have been successfully trialed and brought into operation which could be considered in Australia.

**Forecasts** - Industry revenue has been forecasted to increase at an annualised 2.3% over the five years through 2017-18 to \$3.85 billion, supported by the continuing upgrade of residential, business, government and major infrastructure and workplace security services and systems. In 2013-14, improved operating conditions are expected due to further strengthening in the cyclical economic upturn. Industry revenue is forecast to increase 3.1% in 2013-14, the highest rate during the outlook period.

## Pest Management

The Pest and Weed Control Services industry engages about 7,900 employees within 1,220 enterprises operating from over 1,520 locations, mostly small businesses, to generate revenue of \$1.17 billion. The three amalgamated pest control companies, Rentokill, ISS Flick have a combined stake of around 14 per cent of the pest management market.

Both the existing supply and new investment in building and construction, especially housing, is estimated to account for around half of industry revenue each year, as pests and weeds like to call these buildings home. Naturally, pests and weeds also like to grow in retail centres, hotels, food establishments, entertainment complexes, industrial estates, office developments and government institutional buildings, creating demand for the industry's services across a wide range of industry sectors. Hospitality and food manufacturing establishments usually require more frequent inspections and service. Strict food safety and handling regulations across all food-handling industries will help drive demand for pest control services. In particular, increasing regulations on cafes, restaurants and hotels will benefit the industry as they need to maintain high standards at all times.

This industry is sensitive to non-residential construction activity. When buildings are complete, they will often require at least annual pest control services, depending on the client industry. Increases in housing commencements and construction activity





contribute to greater demand for pest and weed control services. The recent restrictive economic environment particularly affected demand for pre-purchased pest inspections and reports, especially for housing, while many business clients reviewed the frequency and level of service required. During periods of weak economic growth, it is usual for clients to reduce or defer their expenditure on pest and weed control services as part of a general expenditure reduction process. There may also be a fall in industry demand due to increased bankruptcy rates of clients. Price-based competition tends to rise during slow economic times.

This industry faces tight controls on its operations from stringent environmental regulations. Consumers are also wary about applying pest control chemicals around the home and are seeking alternatives. However, stricter health regulations now require regular monitoring and control of pests across business and commercial properties, particularly in the food and hospitality industries, which boosts demand for pest control services. Pest management still sees gaps in skilled personnel, which is not providing strong confidence from consumers who may buy services from untrained operators.



**Innovators, early adopters and sustainability** -Use of technology is expected to increase as Generation 'Y' moves into and innovates industry practice. Technologies include:

- Portable computing devices
- Cloud based management control
- Motion detection equipment
- The use of thermal cameras
- Environmentally sustainable products and services
- Technical investigation devices

**Forecasts** - Over the next five years, industry revenue is forecast to increase at an annualised 1.8% to reach \$1.27 billion in 2016-17. This strong growth is expected to result from steady rises in both residential and non-residential construction activity as the pace of economic growth steadies in future years. Some rise in industry profit margins are also forecast as total industry revenue rises, although price-based competition will continue due to the industry's highly fragmented nature.

## Waste Management



An important driver of industry growth is the volume of generated waste that requires collection and disposal. According to the Organisation for Economic Co-operation and Development, Australians are the seventh-highest producers of municipal waste per person in the world. In 2012-13, the volume of municipal solid waste, commercial and industrial, and construction and demolition waste generated nationally is estimated to total 47.4 million tonnes. This equates to about 2.1 tonnes of waste produced by Australians every year.

Household and business waste collection is the largest and most reliable source of revenue for this industry. Revenue generated from waste disposal is estimated to be decreasing as a share of waste management revenue, while recycling revenue has been growing. A large contributor to recycling revenue growth has been the high prices received for recyclable commodities over the past few years.

Overall, the industry is estimated to generate revenue of \$11.8 billion in 2012-13, up 5.4% from the previous year, and with annualised increases of 8.9% over the past five years. Growth is due to pricing levels increasing significantly (particularly for recycling), greater outsourcing levels by local authorities and small volume increases. Industry employment is estimated to total 30,900 in 2012, while establishment numbers have also increased strongly, particularly for the number of small firms.

Landfill is out of favour and sustainable recycling is increasing. A hole in the ground is no longer considered appropriate for Australia's rubbish unless it is used to produce renewable energy. In recent years, several government strategies have been implemented aimed at reducing the volume of waste generated and increasing the amount of waste recycled and recovered.



Australasia's largest waste management company, Transpacific says "The world in which we operate is not the same as it was five, 10, 20 years ago...we are moving forward, and at a rapid pace. We are in a heavily regulated industry with Governments and Environmental Authorities that are increasingly pressuring us to change. Both State and Federal Governments are doing all they can to discourage the use of landfill by increasing waste levies. This has a significant impact on our business - in the 2012 financial year, we collected and paid over \$86 million in levies for waste deposited into our landfills, and paid at least the same amount again to others for waste we put into their landfills".<sup>44</sup> Other regulatory changes for the waste management sectors include the Queensland Government's removal of the \$35 per tonne waste levy and an increase of 10 per cent to \$95.20 a tonne in New South Wales.

**Forecasts** - Over the next five years, industry revenue is expected to grow at an annualised 5.2 per cent to total \$15.2 billion in 2017-18. Slower revenue growth compared with previous years is expected to result from the industry maturing, fewer outsourcing opportunities for existing firms, volumes increasing at a slower pace and pricing levels stabilising. Recyclable material collection and treatment is expected to continue to increase strongly.

## Cleaning Services

For 2012-13, the Cleaning Services industry is projected to generate revenue of \$4.21 billion, up 1.9 per cent for the year, and with annualised growth of 1.1 per cent over the five years through 2012-13. Including subcontractors, industry employment as per the ABS Census recorded 115,062 people in commercial cleaning (63% part time) and another 15,880 people in domestic cleaning (79% part time) with housekeepers sitting outside these numbers. As most commercial cleaning activities need to occur after business hours, the industry has a significant component of casual and part-time employees. However, there is an associated high staff turnover rate due to the unsociable hours and low pay. Barriers to entry are minimal, with no regulation, licensing or training needed and minimal capital costs at the lower end. The low barriers to entry drive significant price-based competition in the industry, with some concerns from industry stakeholders as to how conditions and training can be maintained at such marginal levels. This further downgrades the

attractiveness of the industry to quality entrants and depletes the pool of skilled middle managers and supervisors.

Notwithstanding these challenges, the Cleaning Services industry's future is expected to be bright. Trends in non-dwelling construction activity and the outsourcing of cleaning services continue to drive demand for cleaning services. Governments and businesses outsource cleaning as they continue to concentrate on their core activities and services, and seek out further cost efficiencies in operations. A rise in demand for domestic cleaning services is also resulting from high and dual-income households, and the progressive ageing of the population. Many in-home aged-care programs now offer cleaning services, particularly for disabled people.

Several major cleaning companies are now offering additional services or are forming strategic alliances with other business services operators. This is because clients are increasingly seeking to bundle cleaning, catering, security, maintenance and other related services under a single, multi-service contract arrangement. Both ISS Facility Services and Spotless Services have modified their strategies and operations to further develop this trend. As a result, these companies generally benefit from an expansion in revenue and profit. The franchised cleaning operators segment is rising steadily and providing increased competition to existing major players.

**Forecasts** - Some acceleration in profit margins is anticipated in line with the boost in industry revenue. A pickup in demand for cleaning services for offices is expected from renewed service-industry employee growth; however, there will still be significant price-based competition across the industry. Over the five years through 2017-18, industry employment is forecast to increase at an annualised 0.8% to about 126,300 workers. This growth mainly relates to the expected greater use of casual and part-time staff to meet expanding client needs and to maintain employment flexibility for firms.

## Facilities Management

Facilities management professionals and organisations play a key role in the provision of effective operational management of the built environment. Facilities management operations cover strategic operational planning and integration of people, place, process and technology to daily physical maintenance, cleaning and the management

44 L7720 - Real Estate Agents in Australia, IBISWorld, August 2012



of environmental performance issues across commercial office buildings, government buildings, public entertainment venues, retail buildings and multi-residential and high rise residential complexes. The range of services provided by facilities management operations include a mix of air conditioning, electrical systems, fire safety, lifts, boilers, mechanical repairs and maintenance; the control of contracts for cleaning, security, pest control, catering and grounds maintenance plus property agent services managing leases, conducting property inspections, reviewing rent and re-leasing space. As previously indicated in the analysis of security services and also with cleaning services, there are enterprises that are offering beyond their previous core service area into a rounded facilities management services offer. As there are facilities management providers and workers that come in and out of other core service areas industry is estimated to employ in excess of 200,000 people.<sup>45</sup> The Facilities Manager is the principle professional role in facilities management in Australia and internationally.

**Forecasts** - Facilities management is estimated to contribute \$20 billion to Australia's GDP annually. Business is expected to continue to be hampered by slow economic growth in 2013-14.

## Surveying

Surveying techniques have long been used to determine the physical dimensions of earth and space, to delineate ownership of land, to erect buildings and structures, to create maps and to define political boundaries between countries.

Employment currently totals 13,000 people and industry revenue is expected to total \$3.75 billion in 2012-13, up 3.3% from the previous year due to the cyclical upswing in the housing and commercial building markets. Industry value added currently totals \$2.06 billion or 0.1% of Australia's GDP. Over the five years through 2012-13, industry revenue is projected to grow by an annualised 2.5%, roughly matching the moderate pace of GDP growth (2.4%) and contained by the downward trend in total building construction (0.5%). The demand for surveying services has been underpinned by unprecedented investment into the key infrastructure markets (particularly mining, pipeline, road, water supply and railway developments), and the stimulus of Federal Government Building the

Education Revolution (BER) spending on primary school refurbishments.

With a highly fragmented structure, the industry comprises many small-scale establishments contesting narrow geographic or specialist markets. The industry consists of 3,550 establishments, including about 2,250 employer establishments and 1,300 sole proprietor businesses. A minority of surveying businesses employ more than 20 people (6.3%), and the industry's four largest players account for less than 10% of annual industry revenue.

Today, the Surveying Services industry continues to perform most of these tasks with technology gains seeing the sector less reliant on technical expertise. New technologies, particularly global positioning systems (GPS), have become a valuable tool for surveying and map-making. Technologies such as GPS and total station systems have significantly increased the accuracy of surveys and improved the yield on data analysis. However, these technologies also diminish the traditional technical skills used in the industry, particularly for cadastral surveys and mapping. Over the past decade, the pace of industry expansion has been contained by competition from large broad-based building and professional service firms, such as consultant engineers and architects, who can offer services ranging from surveying and design, through to procurement and construction.

**Building Surveying** - The Building Surveying sector plays a central role within the construction industry and ensures the integrity and compliance of the nation's buildings. They provide, to varying levels, oversight of the work of other professionals in the construction industry. The Australian Institute of Building Surveyors defines the work of Building Surveyors as:

"Building Surveyors are responsible for making sure buildings are safe, energy efficient, accessible and meet all legal requirements. They evaluate and assess plans, conduct inspections and issue building permits for example, occupancy permits"<sup>46</sup>

Building Surveyors must have a great understanding of the complex web of planning and legislative requirements and building codes and standards

<sup>45</sup> What is Facilities Management? Facilities Management Association of Australia (FMA Australia) website, January 2012.

<sup>46</sup> From [www.aibs.com.au](http://www.aibs.com.au) at 30th January 2012

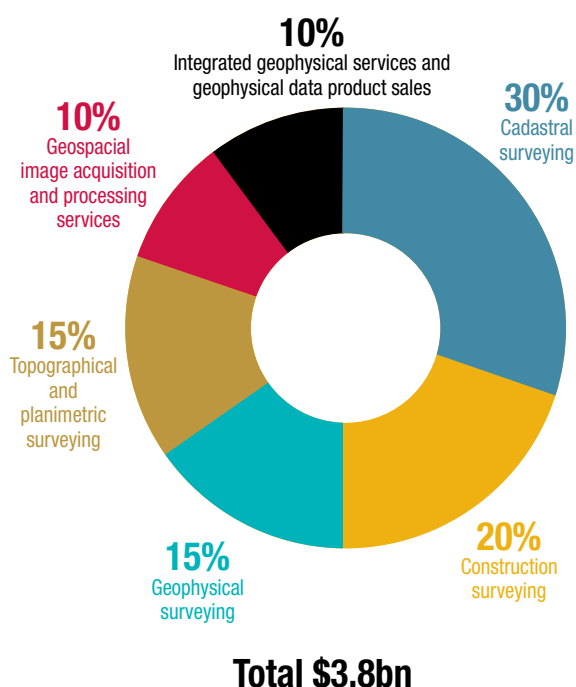


and possibly a greater understanding of these than any other construction professional. Increasingly, experienced Building Surveyors also offer consulting advice to property developers and builders about strategies to ensure compliance. Practitioners are also conscious that they must ensure there is no conflict of interest when they provide code-consulting advice and understand they must exclude themselves from undertaking certification responsibilities for those projects.

Building surveying is a licensed occupation with, currently, different requirements in each state and territory. The complexity and litigious risk of the occupation has led to significant workforce shortages being experienced – a problem which is compounded by an ageing workforce. Work recently conducted by CPSISC has identified concern, including from the nation's regulators, to the looming workforce shortages and the need to develop robust, effective, and time efficient, education and training pathways to ensure a continuity of skill supply into the future.

**Surveyors and Spatial scientists** - deal with policy, administration, collection, measurement, analysis, interpretation, portrayal and dissemination of spatially-related land and sea information, together with associated planning, design and management. They also acquire, integrate, manage, analyse, interpret, map or distribute information about a location in space and time. They develop, design and provide related equipment, software and value-added services; undertake applied research, knowledge management and technology development; and manage, educate and train others.<sup>47</sup> The emergence of smart technology that relies on accessing available mapping data creates a growing need for specialists in this field.

Products and services segmentation (Source: IBISWorld)



**From Google Earth to indoor mapping -** New innovations in the spatial sciences domain include Unmanned Aerial Vehicles (UAV) which integrate military technology into commercial photography and cartography (mapping) applications and apply it to Geographic Information Systems (GIS) to provide geospatial data. Growth in Spatial Sciences will be exponential in the coming years as mapping and smart technology continue to mesh locational data to commercial applications in retail, health, education, resources, military areas above and beyond construction. The growth in the commercial interest in gathering geospatial data is easier to understand when one thinks of how individual profile data created by way of social media is beginning to be linked up with locational Global Positioning System technology that exists on the smart phone technology can be used to provide information to a head office about customers preferences and their activities within a shop. The social media profile and the smart phone location technology has no context unless the geospatial data has been mapped in the first place.



47 Surveying and Spatial Sciences Institute, Annual Report 2011-12





## Policy

When one realises also that Machine to Machine (M2) communication devices will number 50 billion connected devices to the internet by 2020, the spacial mapping job at hand is likely to be huge. New spatial science skills are required now to leverage the new and constantly emerging technology in Global Positioning Systems, UAV, GIS, 3D imaging and indoor mapping that are in increasing demand for these commercial purposes.

**Forecasts** - The deteriorating demand conditions in several important infrastructure and institutional building markets are forecast to contain the pace of industry expansion despite the cyclical growth in demand from the commercial and housing markets. Industry revenue is expected to climb by an annualised 2.0% over the next five years, to reach \$4.15 billion in 2017-18. The industry's growth will lag behind the growth in GDP (2.9%) and correspond with the subdued cyclical growth in the value of total construction activity (1.0%). Surveying and Spatial Science is expected to be strong outside of any improvements in the building market.

## Building Design and Drafting

The building design sector is relatively new and has grown from a focus on drafting to the provision of a wide range of services for clients. The sector predominately comprises sole traders and micro businesses. Although there are, of course, larger companies operating in the field or building designers who work as part of larger architectural practices, a dominant theme is of small 'boutique' businesses comprised of skilled and experienced operators. A further notable fact is that building design practices typically offer a wide and extensive range of services and design buildings across a range of types including residential and commercial. In common with other sectors, the health and growth of building design is linked to the construction cycle although smaller practices can be somewhat shielded from the major downturns by servicing smaller clients including residential customers undertaking small scale renovations and extensions.



## BIM...construction's full life cycle

**tool** - Building design and architectural drafting are high skill occupations that use increasingly sophisticated technologies. The introduction of Building Information Modelling (BIM) which provides multi-layer 3D design and construction plans will see the role of building designers become even more central to the construction process as BIM allows all professionals (from designers to mechanical and structural engineers, building surveyors, building certifiers and builders) to access and use the one file containing the construction documentation from concept through to demolition.

## Access Consulting

Access consulting is a small, emerging but highly skilled and complex occupation that plays an important role within the construction industry. CPSISC has recently developed a Vocational Graduate Diploma to meet the skill development needs of the sector. Access consultants play a role in ensuring the requirements of a range of standards and legislation that ensure access to, and use of, the built environment by people with disabilities are met. Access consultants typically arrive in the profession from other related fields and often have previous experience and qualifications as architects, building surveyors and builders.

The passing of the Disability (Access to Premises – Buildings) Standards legislation identifies clearly a role for access consultants. The effective implementation of this legislation creates a specific skill need for people qualified to provide advice to industry professionals designing, constructing and certifying buildings and to tribunals responsible for addressing disputes arising from the implementation of the new legislative requirements.

Access consultants are professionals who provide to governments, the building industry, designers, owners and managers of buildings and facilities, consistent, up to date, and expert advice on the provision of access for people with disabilities<sup>48</sup>. The access consulting sector, as previously mentioned, is small and emerging and key stakeholders are working to ensure the uptake of suitable education and training to ensure the availability of a highly skilled workforce in a newly regulated and complex part of the construction and property services industries.

<sup>48</sup> Murray, Max "Services Offered By Access Consultants" unpublished November 2010





# Workforce Development

## KEY MESSAGES

Workforce Development activity has matured into a core activity of the ISC with project contract agreements with companies and organisations spanning through to 2016.

CPSISC has underpinned the delivery of Workforce Development with sophisticated national database software facilitating value through the channel from the ISC.

Australian Government Skills Connect programs including the National Workforce Development Fund delivery have emerged to build upon the solid work in EBPPP and the CSIF.

Amidst lower activity levels and a temporary reduced capacity of small business to train, Projects of National Significance such as Barangaroo have changed the way industry can train the numbers that it will need for the future.

Tight state based resourcing has seen careers development and counselling levels reduced on the ground with a new focus needed here.

## Workforce Development

CPSISC is committed to promoting positive workforce development activities for the Construction and Property Services Industries. CPSISC sees Workforce Development as a holistic concept that integrates the following three key areas:

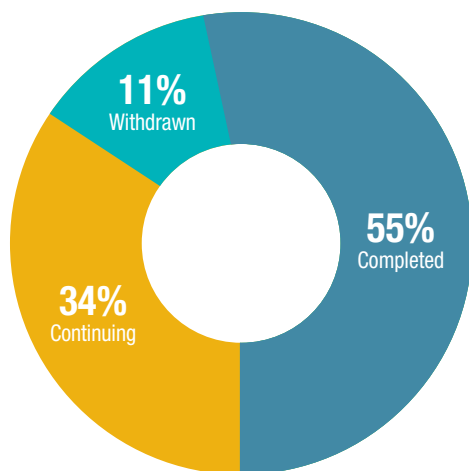
- Workforce Planning and Analysis
- Human Resource Management
- Workforce Capability Development

By addressing these three areas, industry can align workforces to current and future business demands, and by doing so strengthen possibilities for organisational success. CPSISC has been, and remains, a strong supporter of the range of government initiatives developed to support the strategically important goal of improving skill levels within the Australian industry and community. Ongoing commitment to the continuation of the programs is essential to ensure a robust response to the nation's skill requirements into the future.

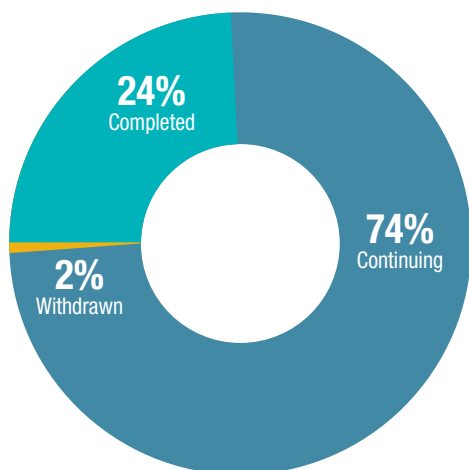
Over 2011-12, CPSISC has become a first call destination for Workforce Development nationally for both key employers and industry association. CPSISC has also sought and developed relationships with the nation's largest employers. As a result CPSISC has submitted and finalised thousands of training places which require a facilitation role from the Skills Council through to at least 2016.

### Key Long Term Projects:

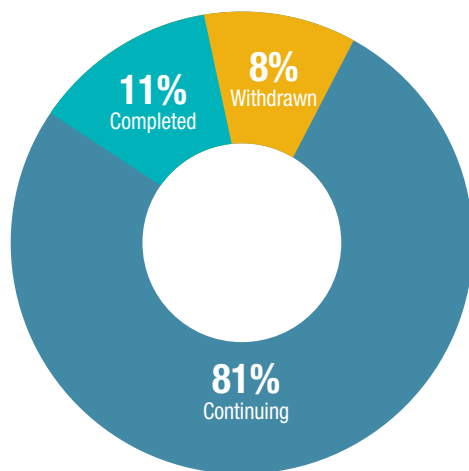
- Barangaroo South (Lend Lease), 9,600 places through to 2016;
- Royal Adelaide Hospital (Leightons), 2,800 places through to mid 2016;
- Perth Childrens Hospital (John Holland Group), 3,400 places through to late 2016;
- Pearls MiiHome (National Employer), 2,700 places through to 2015;
- Other State Based Project applications for close to 10,000 places through to late 2016.



**EBPPP**



**CSIF**



**NWDF**

**EBPPP** - As stated in past E-Scan reports the Enterprise Based Productivity Places Program (EBPPP) has continued to support industry. To date one thousand and sixty participants have successfully completed their training and received nationally recognised qualifications. The EBPPP has set an industry-driven training platform which has showcased innovative and flexible training approaches. Overall this project has indicated that it is extremely important for industry to keep continuing on the path of up skilling and training their existing workforce in order to achieve productivity gains. An increase in knowledge and skill development is a valuable commodity from which industry directly benefits. This approach has paved the way for further training initiatives with an Industry led focus such as the Critical Skills Investment Fund (CSIF) and the National Workforce Development Fund (NWDF).

**CSIF** - The Critical Skills Investment Fund was founded to support employers in critical areas to upskill their existing workers and also train new entrants/job seekers.

Under the Critical Skills Investment fund currently six projects are involved with Qualifications such as the Certificate IV in Surveying, Certificate IV in Spatial Information, Certificate IV in Occupational Health & Safety as well as the Certificate IV and Diploma of Building & Construction being supported.

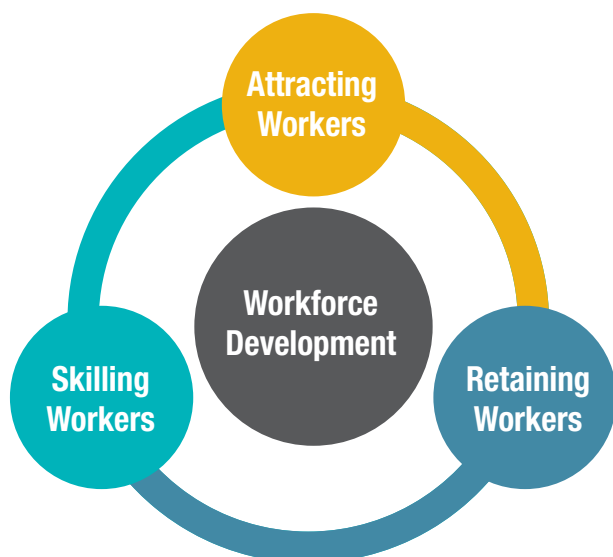
To date 355 participants have enrolled with the remainder to start within the next twelve months. Recently one of these projects has fully completed with eighty eight participants successfully completing building and construction qualifications.

**NWDF** - The National Workforce Development Fund is the largest industry led program that CPSISC is engaged with. Industry has again seen the benefit of skills development and has embraced the industry driven model. The fund has an additional focus which is workforce planning which underpins the efforts of each employer that participates within the project. Workforce planning forms the basis of identifying the necessary skills and personnel requirement to be supported in each enterprise.



In the first round industry put forward applications with over 6,000 training places supported, to date 350 participants have already successfully completed their studies and received a nationally recognised qualification. The second NWDF round has been developed into a rolling application basis which is a far more flexible arrangement for industry. There are close to 2,700 learners locked in for the NWDF second round which will be administered through to mid 2016. A time where their skills are expected to be vitally needed.

**Barriers to Workforce Development** - In relation to barriers or delays in learners working towards the completion of their qualification (reported by individuals), a range of issues have been reported. The downturn in the industry and work commitments are the major barriers precluding individuals from completing their qualification. Regional offices of industry stakeholders who deal with people on the ground in real time conveyed that some learners failed to attend scheduled training sessions due to overarching work pressures. Whilst others indicated personal circumstances, personal health issues, work pressures as an obstacle. CPSISC will continue to work with stakeholders to address barriers to completion.



#### **Co-Contribution...Time to Train -**

**Workforce Development strategies are challenged due to employers' margins being low at the present time. So despite a willingness to support training they cannot spare the time for training. The current economic climate is also said to reduce the capacity of employers to pay 33 per cent of NWDF training costs with the policy being noted as an issue that should be addressed by funding and policy agencies. Medium and larger companies are also reporting the issue of co-contribution. The practical logistics of sole traders and small businesses engaging in the training of their workers are said to be challenged and it is these employers who most need further help and support if they are to play a role in developing skills for a future uptick.**



**WELL** - During April, May and June of 2012, CPSISC conducted a number of industry engagement workshops nationally. The focus of the workshops was to promote the Workplace English Language & Literacy (WELL) program within the context of the Australian Government Skills Connect Framework. The workshops highlighted how the WELL program could be used in conjunction with the Skills Connect suite of programs to support broader workforce development. Workshops were conducted in all capital cities and selected regional centres (Gladstone, QLD; Orange, NSW; Bendigo, VIC; Port Augusta, and SA). Each session provided participants with an overview of the Skills Connect programs with a particular focus on WELL. This was followed by a presentation from an industry representative who had used WELL funding to deliver positive outcomes for their organisation. Representatives of the Department of Innovation, Industry, Science, Research & Tertiary Education (DIISRTE) presented the government's commitment to workforce development through WELL and the Skills Connect suite of programs.

These workshops provided an excellent opportunity for industry and stakeholders to learn about the funding opportunities available and the industry presentations provided real life examples of what can be achieved through the use of the Skills Connect funding.



The CPSISC WELL Broker project provides a facilitation service to business and industry and the role of the CPSISC WELL Broker is to engage with business and industry to promote the opportunity for the development of language, literacy and numeracy skills across all sectors. DIIS RTE has extended CPSISCs project for another 12 months, albeit with a significant decrease in the funding. There is a sensible shift towards integrated WELL facilitation role within the Skills Connect suite of programs which will seek to further build upon the successes of the Workforce Development team. It is envisaged that this model will allow CPSISC to maintain the momentum established by our WELL broker team over the last 6 months. Integration of the WELL program into the Australian Government Skills Connect will provide many more opportunities to build LLN skills across industry.

Industry-led training measures such as the Australian Government Skills Connect (AGSC) Program are essential components of the workforce development approach. Appropriate use of these funds will make training available to construction businesses (particularly the 'micro-businesses' that dominate the industry) from Certificate III to Advanced Diploma level at a realistic cost.

Over time, this will build the skill level of the industry – which will in turn improve productivity – while at the same time building a culture of training to benefit the industry and its workers into the future. Master Builders Australia supports a significantly increased proportion of employees in the industry having the opportunity to progress to Certificate IV level study to deepen their skills and step into paraprofessional roles that have exhibited the most persistent skills shortages.



and enhance career opportunities in the building and construction industry. CAMS is a comprehensive, nationally co-ordinated

approach to supporting construction apprentices. It integrates an online engagement strategy with access to one-on-one mentoring and an innovative approach to supporting out-of-trade apprentices.

The key elements of CAMS are: Online resources, with information for current and prospective apprentices, news and Frequently Asked Questions (FAQs), and links to social networking; telephone, email and face-to-face advice for apprentices and employers; A Volunteer Apprentice Mentoring Scheme to match apprentices to carefully selected and trained industry volunteer mentors for more intensive one-on-one support.

Notable mentoring programs have been developed and operated by HIA and the CFMEU among others which also are funded by the Federal Government's mentoring program. Despite the high praise there is always the challenge of getting employers to take them on in the current economic setting.

**AGSC – Barangaroo South.** CPSISC has embraced the Australian Government's new Skills Connect program and has provided strong support to small to medium CPSISC stakeholders to access the program since its introduction in 2012. In particular CPSISC has developed a Skills Connect access model for major projects which was successfully rolled out on the \$6 billion Barangaroo Project. This Skills Connect Projects of National Significance model is now expected to feature as a new and innovative augmenting workforce development service offer of CPSISC.

#### **Projects of National Significance -**

CPSISC believes that there are significant opportunities for an expansion in such programs. Barangaroo is one of the largest construction projects in the history of Australian construction. This project is underpinned by a commitment from the major contractor Lend Lease to establish a pathway to lifelong Learning that will provide a foundation for the acquisition of skills across all segment of the trades involved in the construction of this project.



**Mentoring –** AGSC Mentoring is key to positive workforce development outcomes in many CPSISC Stakeholder businesses. It is providing a vital support network for apprentices which should aid retention, secure better training outcomes and foster stronger relationships on the worksite

The Construction Apprenticeship Mentoring Scheme (CAMS) is a major new initiative of Master Builders Australia to improve apprenticeship completions







CPSISC, with the support of the Commonwealth Government through the provision of funding under the programs of Australian Government Skills Connect, has the task to provide tens of thousands of learning outcomes by:

- Providing people with new Accredited Skills Qualifications
- Building Indigenous capacity and capability in the construction sector for aboriginal and Torres Strait Islanders
- Developing next generation construction industry leaders.

CPSISC as the facilitator of the project seeks to enhance the overall skills capacity and capability of the Barangaroo Workforce so as to underpin their future contribution to the construction industries. CPSISC will facilitate the delivery of training to a diverse cohort of construction workers across the Barangaroo South project which will number approximately 9,600 by 2016.

Using this Projects of National Significance model CPSISC is now the facilitator of a range of major projects most recently including the \$2 billion Royal Adelaide Hospital development (pictured) CPSISC facilitates skills capacity and capability of the workforce on this site through to 2016 so as to underpin their future contribution to the Construction Industries.

**CPSISC National Workforce Development Fund (NWDF) Database** - The CPSISC Workforce Development team has recently launched the NWDF Database. This is used to store all data on Registered Training Organisations (RTOs), qualifications, employers and students for NWDF programs. CPSISC have provided all RTOs with access to the database via the internet. RTOs are able to enter, edit and view data on their own students and employers. In future, quarterly reporting will be done via the database and RTOs will be sent a reminder email each quarter seeking confirmation that their data is up to date.

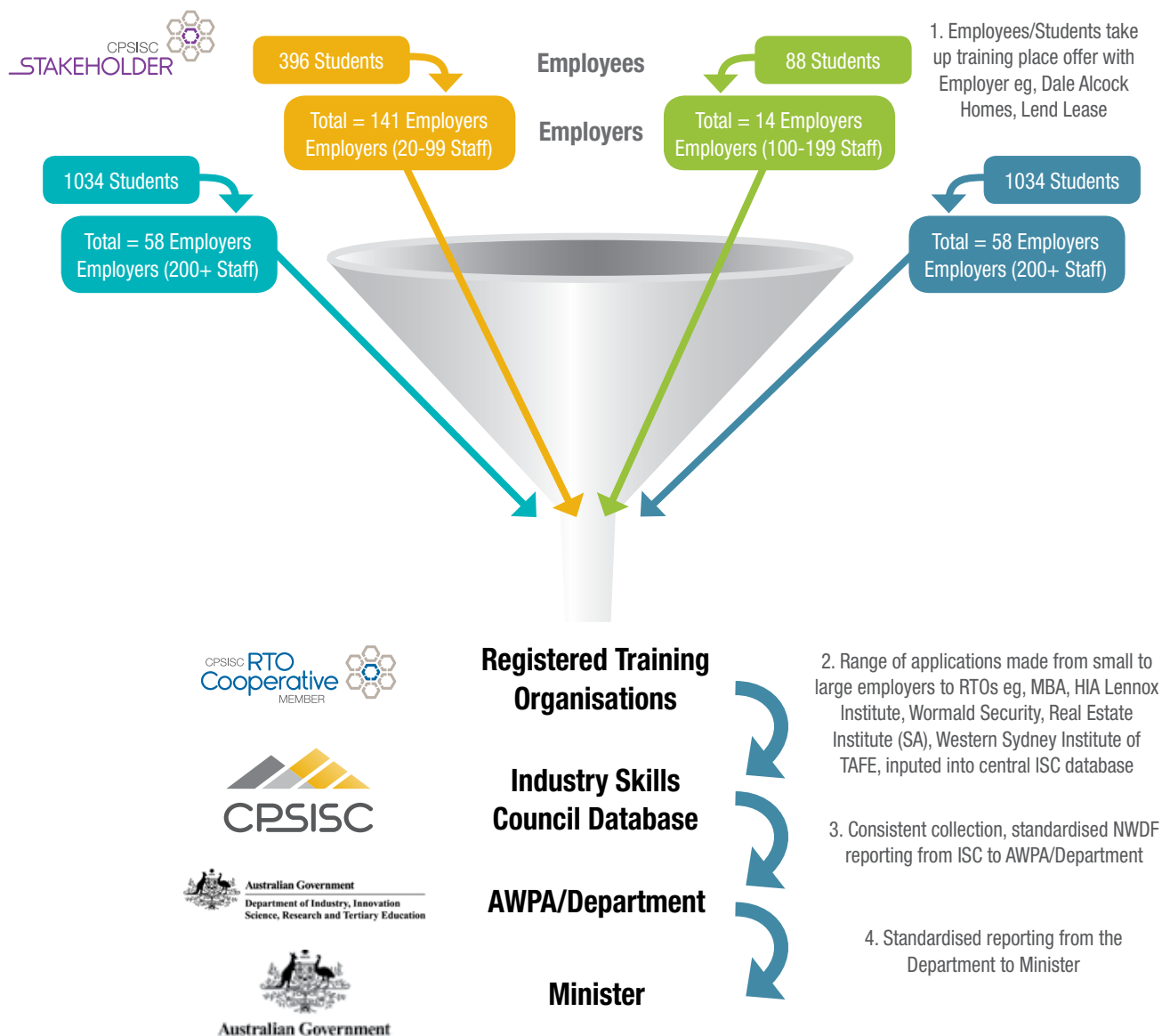


As illustrated overleaf, for NWDF Round one CPSISC has coordinated 3,280 student places from 1,581 employers, channelled through 30 RTOs, inputting consistently and directly into the CPSISC Database through to AWP/DIRTE available to the Government Minister. The sophistication of the database allows, post Ministerial announcement, a smooth tracking of the training place from the nation's small employers through to the largest, seamlessly, efficiently and in a most timely manner.





## ISC Database System National Workforce Development Fund



**NWDF Promotion Strategy** - CPSISC has also introduced a new NWDF Promotion Strategy project which is based on collecting good case studies for the Department in order to promote the benefits of the NWDF for industry. CPSISC has recently

submitted a project plan to the Department which has now been accepted. The collection of the case information will commence towards the end of the year and continue until June 2013.



## Workforce Development - Future Funding Priorities

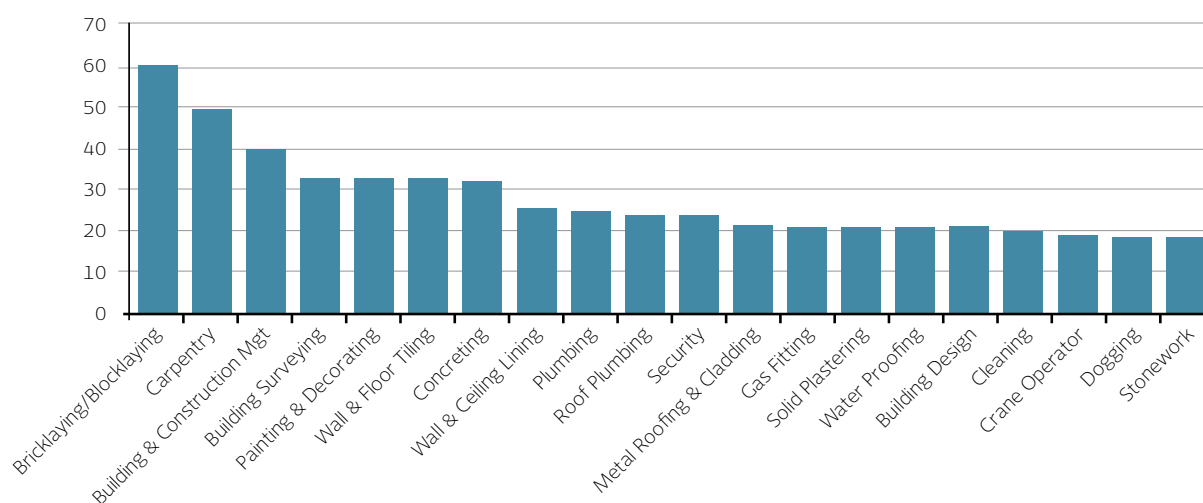
Respondents to the Annual CPSISC Stakeholder Survey 2013 indicated that they had experienced shortages in the following occupations:

This response relates back to the experience of respondents within a particular region in the lead up to completing the survey. When the results of the CPSISC survey are compared to the HIA Trade availability index some correlations can be drawn with some trade occupations such as carpentry, plumbing and bricklaying thus validating and reinforcing the findings.

### Top 20 Skill Shortage Occupations

CPSISC Annual Stakeholder Survey 2013

■ Response Count



The HIA Trades Availability Index shows a trend of shortage and surplus across key construction trades with a position of surplus indicated at the present point amongst all trades.

HIA TRADE AVAILABILITY INDEX BY TRADE															
	Jun-09	Sept-09	Dec-09	Mar-10	Jun-10	Sept-10	Dec-10	Mar-11	Jun-11	Sept-11	Dec-11	Mar-12	Jun-12	Sept-12	Quarterly Movement in Availability
Bricklaying	-0.06	-0.01	-0.08	-0.18	-0.33	-0.38	-0.20	0.00	-0.20	0.00	-0.21	-0.09	-0.13	0.38	▲
Carpentry	0.08	0.04	-0.03	-0.18	-0.10	-0.25	-0.14	-0.06	0.05	-0.06	0.16	0.05	0.20	0.09	▼
Ceramic Tiling	-0.21	-0.25	-0.33	-0.25	-0.23	-0.26	-0.14	-0.29	0.00	-0.23	-0.08	-0.25	0.00	0.25	▲
Electrical	-0.14	-0.15	-0.03	-0.18	-0.08	-0.13	0.00	0.00	-0.33	-0.13	-0.29	0.20	0.33	0.50	▲
General Building	0.03	-0.06	-0.05	-0.06	-0.18	-0.19	-0.11	-0.14	0.03	0.06	-0.01	0.07	0.21	0.13	▼
Joinery	0.38	0.19	0.18	0.05	-0.14	-0.07	0.10	0.14	0.43	0.29	0.12	0.19	0.10	0.40	▲
Landscaping	0.11	-0.14	-0.17	-0.25	-0.29	-0.29	-0.22	-0.11	-0.29	0.33	0.08	0.29	0.50	1.00	▲
Other Trades	0.04	-0.04	-0.06	-0.04	0.02	0.08	0.00	0.07	0.38	0.07	-0.08	-0.13	0.24	0.11	▼
Painting	0.18	0.00	-0.13	0.00	0.01	0.11	-0.40	0.13	-0.11	0.38	0.15	-0.09	0.17	0.17	►
Plastering	0.22	0.14	0.00	0.07	0.17	0.07	0.17	0.13	0.54	0.25	0.09	0.20	0.50	0.18	▼
Plumbing	0.01	-0.25	-0.14	-0.33	-0.13	-0.27	-0.07	0.08	0.19	0.18	-0.27	-0.13	0.33	0.00	▼
Roofing	0.01	-0.14	-0.36	-0.21	0.05	-0.13	0.00	-0.57	0.00	0.36	0.38	0.20	-0.10	0.22	▲
Site Preparation	0.13	0.08	0.14	-0.03	0.00	0.00	-0.25	-0.33	0.00	0.00	0.00	0.33	0.25	0.00	▼
All Trades	0.10	-0.07	-0.08	-0.11	-0.09	-0.16	-0.10	-0.07	0.10	0.06	0.04	0.04	0.20	0.15	▼



The DEEWR Skill Shortages list shows the following occupations with identified shortages nationally:

- Construction Project Manager
- Construction Estimator
- Surveyor
- Quantity Surveyor
- Stonemason
- Welder First class
- Metal Fabricator
- Roof Tiler
- Plumber
- Glazier

There are no property services occupations acknowledged by the DEEWR Skill Shortages list although industry intelligence indicates that some specialist and niche occupations such as Building Surveyors are experiencing labour shortfalls.

The major areas of continued and increased funding support should focus on:

Construction:	Property Services:
Construction Project Manager	Access Consulting
Construction Estimator	Cleaning Management
Building Surveyor	Cleaners
Plumber (General)	Pest management
Roof Plumber	Real-Estate Sales & Management
Air-conditioning and Mechanical Services Plumber	Security Management
Drainer	Security Personnel (particularly electronic technical security)
Gasfitter	Surveying, Geospatial and Spatial Sciences
Stonemason	Waste Management and Plant Operators
Bricklayer	
Roof Tiler	
Construction Rigger	

#### VET Funding/Non -Skills needs list

**occupations-** With funds for upskilling drying up especially for property services sectors in some regions there is going to be shortages or gaps that appear in the future. In some of these areas such as the cleaning sector the workforce is transient and the lack of training options supported by Government is now becoming apparent. The margins are low in these areas and funding cuts will see training programs stripped from the working environment. This outcome is likely to erode the professionalism, culture and retention gains of the past five years. LLN training options are potentially also at risk with these cuts in occupations where this training is most needed.



**Career Development** - The construction and property services industries need a pool of skilled labour in order to grow. CPSISC makes efforts directed at young people and school leavers through career advisers, to address the skills needs of our industries. Some of our industries are interested in older workers and/or people who are looking for a career change, and this target group has now been included in the business plan. However, people are generally unaware of the breadth of the construction and property services industries and the range of careers on offer. There are also perceptions that need to be challenged, including the participation of women within the industry.

CPSISC is continuing to work with industry at national and state levels on initiatives to increase people's understanding of our industries and their willingness to participate. To this end, CPSISC has been working with industry peak bodies at national and state levels to:

- attract young people through their career advisers;
- attract older/existing workers; and
- promote equity in employment by encouraging women of all ages.



CPSISC has conducted Australian Career Service (ACS) seminars workshops in July and early August 2012 across Australia using Hobsons Publications to promote careers to over 600 careers advisers. Involvement in the 'Reinvent Your Career' expos have been vital for visitors seeking career advice. New arrangements for 2013 to develop the concept of an industry "hub" are currently underway. Linking technology and career advisory, the hubs take a strong commitment from industry partners to better capture interested visitors.

CPSISC has been undertaking a survey of career practitioners, our major clients, via both the Career Development Association of Australia (CDAA) and the ACS seminars. The survey included public and private school advisers, and those in private practice. The landscape has changed in the past five years and the findings will be used to guide activities in 2013.

CPSISC is continuing to pursue its women in industry agenda with strong relationships developed across the country with National Association of Women in Construction and state government offices such as the NSW Office for Women's Policy (now known as WomenNSW). In the ACT, the Territory Government has announced a women-built housing project inspired by the Women Into Building project on the Sunshine Coast although this project has a different funding model.



# CPSISC Products and Services Response

## CPSISC Training Packages

There is substantial continuous improvement of CPSISC's Training Packages requirement going into 2013-14.

Work has been completed on competency-based specifications and released in February 2012 for the building design sector to replace various State and Territory accredited courses past their expiry date. The national nature of these specifications will assist with the transportability and recognition of skills across state borders and help build career pathways for candidates that truly reflect 'real world' work and specify practically required skills and knowledge.

The training and recognition pathway for access consultants to meet the requirements of the Disability Discrimination Act (Access to Premises – Buildings) Standards 2010 was also completed this year with the endorsement of a Vocational Graduate Diploma. This qualification will allow experienced access consultants recognition of their higher order skills and allow people with other relevant qualifications and experience, such as architects, building surveyors and builders to acquire specialist skills in access consulting. CPSISC also received some funding from the Australian Building Codes Board to develop a suite of resources to support existing access consultancy demonstrate competency against the new qualification.

A review of all the qualification in the Surveying and Spatial Information Services sector has been completed. The units of competency and qualifications have been updated to reflect changing work roles, work practices and technology.

Two new qualifications were developed in response to the pursuit of increased energy-efficiency by Commonwealth and state and territory governments. The new Certificate IV in NatHERS Assessment was designed to meet anticipated regulatory and accreditation requirements of

state and territory jurisdictions and the Diploma qualification was developed to recognise the higher-level skills of experienced practitioner and those working in more complex environments.

The security operations qualifications were also re-endorsed this year in recognition of the redevelopment of the units of competency needed for the cash-in-transit sector of the industry.

Another major project in the property services area has also been completed with the endorsement of two new qualifications for swimming pool and spa technicians. These new qualifications provide the industry for the first time with coherent and targeted qualifications designed specifically for their industry needs in terms of training new industry entrants and a recognition of skills for existing experienced operators. Until the advent of these qualifications people had to access franchise training, vendor training or enrol in programs that were generalist and not specifically related to their work roles.

The Construction, Plumbing and Services Training Package has also been subject to changes and re-endorsement. CPSISC continues to support the national licensing of construction and plumbing work by ensuring the Training Package covers the range of licensing categories and competency requirements currently in place to better align with applicable regulatory regimes.

As part of the continuous improvement of the CPC08 Construction, Plumbing and Services Training Package new national qualifications have been developed for Post Tensioning and Construction Crane Operations in response to industry demand. A small number of new units were also added to existing qualifications in the Training Package in response to emerging technologies and changing work patterns and two units were deleted as more appropriate units were available. A large number of plumbing and services units were enhanced in regards to sustainability and in recognition of





asbestos awareness and the national Work Health and Safety the plumbing and services units were updated accordingly.

CPSISC has also undertaken several scoping projects including one to identify the demand for a national competency-based qualification framework for architectural drafting. Other scoping projects focussed on existing qualifications in the areas of building surveying, concreting, demolition and stonemasonry in order to ensure that these qualifications are meeting contemporary industry needs. Four major projects have been initiated recently in response to the findings of the scoping reports. Public consultation activities for the building surveying, concreting, demolition and drafting projects have already occurred. These projects will continue into 2013. The stonemasonry qualification will also be repackaged during 2013.

CPSISC also has coverage of two of the 'first wave' occupational categories being considered for national licensing in 2013. The qualifications supporting the 'property occupations' may need considerable work to align to new national licensing requirements but less change is expected for the qualifications supporting the 'plumbing and gas fitting occupations'. CPSISC is prepared to respond but will need to be informed by the decision Regulatory Impact Statement before it can progress further in these areas.

As part of its WELL-funded national literacy strategy project, CPSISC will be developing a series of resources aimed at supporting employers and trainers in addressing workplace communication issues. CPSISC has also been involved in developing resources tailored to the needs of the construction and property services industries to support the anticipated Foundation Skills Training Package.

Along with other ISCs CPSISC has undertaken to embed 'energy efficiency' into our Training Packages and to help build the capacity of the RTO workforce to address energy efficiency as part of their training practice.

#### **CPSISC Training Packages in operation –**

Rationalisation of Training Packages to cover the entire Construction and Property Services workforce; the CPC08 Construction, Plumbing and

Services Training Package and CPP07 Property Services Training Package has been operating for some time now. The harmonisation of competency and qualification specifications across the various industry sectors and occupations ensures that duplication of common skills is minimised. It also fully recognises the specialist skills and job roles in demand.

CPSISC online resource User Guides are available for both Packages and are designed to provide highly accessible information, advice and tools to assist all users of the Training Packages. Guides are divided into 'generic' and 'sector' specific information, depending on what a user needs to know, or how they wish to use a Package with a generic guide giving a broad overview of the Training Package itself, and general information about the VET system to ensure maximum effective operation.

CPSISC Stakeholder Survey feedback indicates that the Training Packages are responding well however there were risks noted that the RTOs will be hamstrung preventing them from using them to their optimum potential due to their own economic constraints.

*"Recognition of the role of TPs [Training Packages] and where they fit and what they do and do not needs to be better understood in some quarters"* was a statement made in the CPSISC Stakeholder Survey and there is some merit in the statement.

The value of national Training Packages is increasingly recognised by industry and occupational regulators. CPSISC is working closely with industry and regulators to ensure that the qualifications meet and respond to contemporary demands.

As per the CPSISC Annual Stakeholder Survey 2013, Training Packages are responding well however there were risks noted that the RTOs will be hamstrung due to their own economic constraints preventing them from using them to their optimum potential. There are general concerns that greater investment in skills will not happen until economic conditions improve.



**Streamlined Training Packages** - The National Quality Council (NQC) endorsed a new design and structure for Training Packages in December 2010. The 'streamlined design' of Training Packages separates performance standards from guidance and supporting information which is being undertaken to present Training Package information in what has been considered to be a more simple and logical manner. In November 2011 the NSSC approved the New Training Packages Standards and Policies.

CPSISC had indicated in previous reporting cycles that it had commenced preliminary work in anticipation of the new Standards and Policies but had not done extensive work, particularly on the units of competency and qualifications until the policy environment was stable due the impact of these policies on other areas including licensing and regulatory frameworks that rely on CPSISC qualifications. As two major industry sectors within CPSISC coverage are subject to proposals for National Occupational Licensing this further complicates the progression to implementing streamlining with both CPSISCs Training Packages.

CPSISC has been working towards implementing the streamlining 'Companion Volumes' component and is advancing this work. CPSISC has also commenced a project to determine the industry requirements that should be incorporated and reflected in the Assessment Strategies component of the revised unit of competency under the streamlined model. A proposal will be submitted to the CPSISC Board meeting in February 2013 outlining a proposed strategy for implementing streamlining.

#### **Foundation Skills Training Package Resources**

- The development of a new Foundation Skills (FSK) Training Package is currently being undertaken by Innovation and Business Skills Australia (IBSA). This Training Package provides pathways into vocational qualifications and support the foundation skills development needs of a range of learners. To ensure that the FSK Training Package fulfils its intended purpose, CPSISC is contracted to DIISRTE to assist in the implementation of the new Training

Package in the construction and property services industries.

CPSISC has conducted public consultations to gather input from stakeholders across Australia and to introduce the recently developed Foundation Skills Training Package resource materials which include: Participant Guides; Delivery and Assessment Guides; and Case Studies.

Construction resources will cover:	Property Services resources will cover:
Measurement and calculations; Planning and organising; Reading and interpreting plans; Communicating in the workplace; Costing work; and Digital literacy.	Customer service Communication skills; Digital literacy Planning and organising Sustainability; and Work Safety

IBSA has developed the products related to the Foundation Skills Training Package (FSK) and they are now compliant with the new Standards for Training Package Development

The Case for Endorsement, qualifications, and units of competency materials have been forwarded to the National Skills Standards Council (NSSC) for consideration at their meeting on in late February.

## **Training Packages into the Future**

The continuous improvement process is effectively supporting reviews of CPSISC Training Packages with strong stakeholder feedback. CPSISC has developed, enhanced and disseminated Training Packages and User Guides, as well as supported and promoted skills recognition, assessment and careers advice tools. The ISC has supported the implementation of Training Packages and engagement in activities that strengthen and promote the national training system in the year such as development of the Foundation Skills Training Package.



CPSISC has continued to work closely with the Construction and Property Services (CAPS) Network, which is comprised of representatives from CPSISC and State and Territory building and construction and property services industry training advisory bodies (ITABs). CPSISC also coordinates a strong *RTO Network Membership*. Both the CAPS and RTO Networks continue to be instrumental in the collection and analysis of local intelligence to strengthen the quality of our Training Packages, and policy development and advocacy systems. There were State Budget cuts made late in the financial period that affected the operations of some ITAB and RTO funding structures which will be monitored moving beyond the period. To underpin the networks and projects, CPSISC consolidated and restructured its primary network to around 8,500 stakeholders comprising employers, employees, State Training Authorities, licensing and regulatory bodies, RTO's, the Department and AWPAs.

**International Strategic Engagement** – Countries in Asia and India in particular have a close interest in the Australian Qualifications Framework hierarchy with pan-Asian/European employers looking for acceptable international best practice. Australia's VET Qualifications and Training Packages in particular compete internationally with UK and Germany as being the best in the world. CPSISC sees opportunity to assist these countries to allow our Training Packages to 'set the rail gauge to our specifications' giving Australian RTOs the best opportunity to come in thereafter to set up training and provide services in the countries.

**Platform Technology** - Use of video-conferencing for training which defrays costs of delivery to remote areas without losing the personal touch and live communication was provided by several RTOs as being the future for training with economies of scale and provides greater flexibility for those who are time-poor.

Flexible training has some merits however as seen in the WHS White Card delivery there are some major issues for validation, learning and assessment of the unit online. ASQA is carrying out a strategic review of inappropriate marketing and inadequate training offered by some RTOs, with CPSISC playing a partnering role to scope the review and determine the extent of the problem. In addition to this action, CPSISC has also worked with State Regulators on providing consistency of white card delivery. To this end, CPSISC have developed WHS resources and provided access to updated delivery and assessment guides to foster consistent application of the unit across the States.

CPSISC is breaking new ground working with an e-Learning Cooperative and e-Learning subcommittee to harness the opportunities and assess the risks for online learning. CPSISC is also working with the other ten Industry Skills Councils to build the role and brand of Industry Skills Councils and to help provide industry leadership in the national VET system.

Master Builders Association has made a \$14 million investment on a construction equivalent of a flight simulator for young builders. The simulator uses a 15 metre screen to provide a 3-D virtual world of residential and commercial building sites at different stages. One of only three of its kind in the world the simulator accommodates 12 trainees at the one time to provide scenarios based challenges that would be likely on a real site.

# Appendix A - CPSISC Stakeholder Survey 2013



## About the Survey

Every year the Construction and Property Services Industry Skills Council (CPSISC) conducts national survey to its Industry stakeholders to help inform the development of the Annual Environmental Scan. 349 responses were received from individuals and businesses involved in all sectors of the construction and property services.

Stakeholder Respondent Category	Response Percent	Response Count
Employer	23.4%	78
Contractor	11.40%	38
Private RTO	25.40%	85
Public RTO	23.40%	78
Group Training Organisation	5.70%	19
Industry Association	16.80%	56
Employee	4.80%	16
State ITAB/IAB	0.60%	2
State Training Authority	0.90%	3
Australian Apprenticeship Centre	0.60%	2
Other	6.60%	22

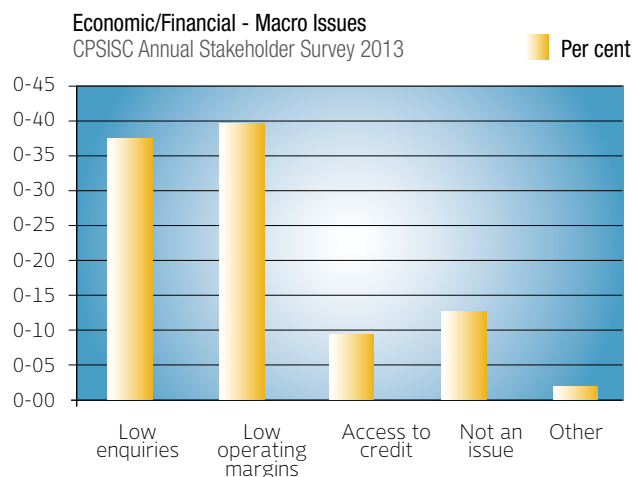
This survey allows stakeholders of the industry skills council to express their views on significant issues that maybe affecting their sectors. The survey also addresses on-going constraints on activity in the construction and property services, but also the barriers the industry is facing in regards to workforce development.

The Annual Survey has yielded a set of data which further informs the macro outlook. There are thousands of qualitative responses of varying lengths which indicates the importance of the issues to CPSISC Stakeholders.

Survey respondents identified the following key issues (existing or emerging) that are proving barriers on skills and workforce development within their sector.

## ECONOMIC & FINANCIAL BARRIERS

Across the range of responses the issue of lower enquiries and the lowering of operating margins has emerged as key issues faced across the sectors. The qualitative section of the survey has yielded responses in the property services sector ranging from *"we are still very much in a growth stage,"* contrasting with *"sales volumes are at their lowest levels in over a decade"*. A common theme told of a *major decline at the start of 2012 with little activity to give any confidence that 2013 will be any better.*



Despite the indication that international lending markets are opening up for the banking sector there appears to be concern amongst CPSISC Stakeholders with the view that credit lending for housing has plummeted to its lowest level for decades. High sustainable growth in real estate

investment between 1996-2010 has created high personal debt levels, which has limited the access to credit for the mum and dad investor or for home based property services.

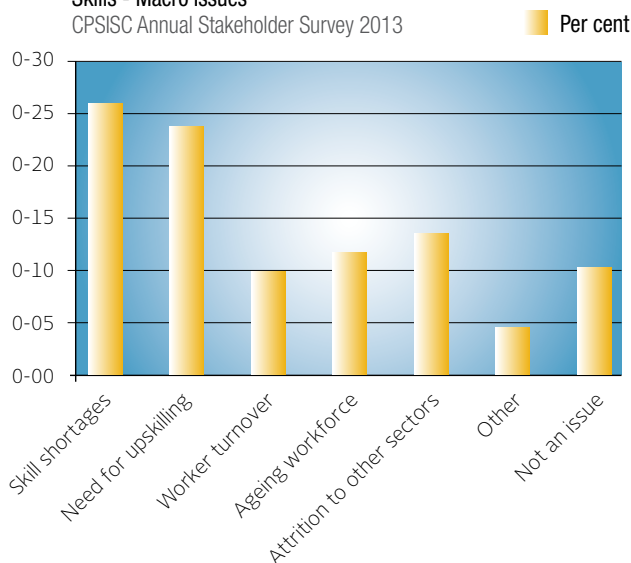
Responses from the fire services sector indicated a flat market with calls made for banks to start freeing up money to encourage new building activity to create work for their sector.

The common thread was expressed from both the construction and property services sector respondents. The consistent message saw a need for greater government support for policy which will support dwelling commencements and larger construction project activity which was needed to flow through the real estate, fire services, cleaning services, pest management and waste management.

## SKILLS

### Skills - Macro Issues

CPSISC Annual Stakeholder Survey 2013



Despite the numbers of respondents that were concerned about lower enquiries there was still a range of shortages reported across Construction and Property Services occupations which will be further outlined in the sector analysis and the occupational data elsewhere in this document.

### ...future need for skills

Close to a quarter of respondents believed that the need for the upskilling of the workforce was a key issue for the industry. This key factor provides ongoing challenges for RTOs who must increasingly find creative and accessible methods of skilling and assessing existing workers, in the workplace, in addition to candidates who are enrolled for full-time campus based study.

Quality outcomes across industry from training assessment processes to ensure that people in the industry are actually competent in the workplace.

Respondents also saw attrition to other sectors (13%) as being a significant issue. A consistent response is exemplified where industry was said to skill up a person in spatial surveying only to lose them through to other sectors of the economy such as mining which is offering significant employment packages. Ageing of the workforce (12%) and Worker Turnover (10%) were notable as the other key skilling issues across the sectors.

By 2016-17, the nation will require over 127,000 additional workers across construction occupations. Master Builders Australia estimate that around 50,000 industry entrants will be required per year. A further 127,000 construction workers then will be required to come into the workforce between 2017-2021. Despite skills shortage issues being reported to the survey and skills demand forecasts emerging, CPSISC Stakeholders, by and large, still lack enough confidence to invest in training to meet such an improvement into the future.

### ...skills funding pressures

Although there were many responses made in relation to VET Reform changes in the regulation overview of the survey, many responses outlined that CPSISC Stakeholders have observed or are concerned that Government funding pools have been reduced putting pressure on the financial viability of some qualifications. This point was highlighted numerous times for some non-skills needs list occupations that sit within property services.



### ...key role of training packages

Training Packages are responding well, however, there were risks noted that the RTOs will be hamstrung due to their own economic constraints preventing them from using them to their optimum potential. A particular worker at an RTO reported that they have witnessed work and training programs decline significantly over the past 12 months. There are general concerns that greater investment in skills will not happen until economic conditions improve.

Career paths in the construction and property services should also be given renewed emphasis by school career advisors.



### ...Language Literacy and Numeracy levels

CPSISCs Stakeholder survey yielded a strong response to the question of issues with Language Literacy and Numeracy (LLN) with the issue consistently identified with students emerging from high school with very basic LLN skills which is said to affect their confidence in their ability in the workplace. Understanding, for example, the importance of face to face communication and measuring accurately to achieve quality outcomes has to receive continuous work and attention. The need to have these skills before entering a trade

was identified on numerous occasions with repeated calls for literacy and numeracy standards to be achieved during high school. LLN, especially in the area of Indigenous employment and training, needs to be addressed to access the indigenous labour force.

Many respondents questioned whether new school investment reforms such as those outlined in the Gonski report will tackle this problem with interest also in how VET in Schools and Foundation Skills Training Package can assist with this perennial issue.

### ...apprentices

Apprentices generally need upskilling specifically in numeracy, but often in literacy as well. LLN issues can be evident in most apprentices and they require additional support. Students leaving school and taking on an apprenticeship display poor numeracy and literacy skills and most are unable to solve basic numeracy problems, which is essential from some areas in the construction sector. There is a need for vigorous means of embedding LLN into the mainstream training to improve the LLN among the apprentices.

The West Australian Government announced in late January 2013 that their students will be the first in the nation to have to meet minimum numeracy and literacy requirements before they can graduate from high school. An online numeracy and literacy assessment separate to the federal Government's NAPLAN tests will be introduced for year 10 students in 2014, with those students who did not pass given extra support, to again re-sit the exam for their WA Certificate of Education. Survey respondents have called for greater LLN skills from school leavers and it is likely that the WA leavers' policy will be further considered nationally. WA already have extensive LLN testing for all year 9 students, a program could build LLN skills based on the results of the year 9 tests so that when students leave at the end of year 10 to transition into VET they have enhanced LLN.

Qualifications and Statements of Attainment required to achieve licensing or registration in the real estate industry do not specify minimum LLN

requirements and this was indicated as an area of need due to the complex legal documentation that is required in realty transactions.

### ... LLN, technology and online training

Responses from the survey indicated that it is difficult to train students with low LLN skills especially if they reside in remote areas. Low LLN, computer and social skills, restrict the delivery of training to a more face to face training environment which increases costs of delivery and reduces access for regional students in obtaining qualifications. Online delivery has also proved a hurdle as evidence suggests that workers are easily gaining online qualifications such as the White Card – many with no ability to read or write.

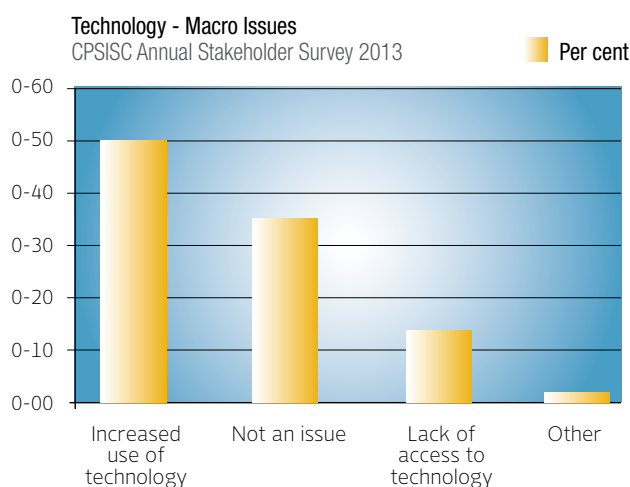
Computer and literacy levels among painting and decorating apprentices are causing significant issues with remote delivery.

### ...migrant workers

Requirements for training of cleaning operators to provide written responses was seen as being problematic by some respondents. Calls came for all future staff to have a reasonable level of literacy and numeracy with at least a base Certificate II in cleaning operations desirable. Where there is a low LLN capability, there were said to be WHS risks in cases where chemical labels cannot be understood where mistakes can occur that can lead to injury and threaten employment.

Respondents in the private security industry indicated that there has been a reliance on low skilled and migrant workers to make up the large numbers of operators to meet market demands over recent years, however, many only have very basic and low level English language and written skills. Whilst the private security industry would suggest this is not an ideal solution, lower wages, a shortage of labour, access to government training and return to work scheme funds are said to have provided an environment for attracting unskilled and migrant workers to the security industry. Security staff need communication skills to be well developed in negotiating solutions to potential confrontational situations, particularly in the crowd control activities - when the talking stops, the fighting starts.

## TECHNOLOGY



Half of all respondents identified the increased use of technology as a current or emerging issue for their business. Technology is impacting on many areas of business in areas such as security, spatial surveying and in waste management.

CPSISC stakeholders understand the need to develop their expertise in order to design and use more intelligent and sophisticated information computer technology (ICT) to create operational efficiencies within their businesses. Stakeholders have to consider leveraging this expertise to assess risks and harness cloud services and big data. Using ICT to foster human capacity and creativity and drive operational efficiencies is considered to be vital and is evidenced by many stakeholders' interest in utilising the NBN.

An occupation seeing innovative change is surveying and spatial sciences with new technology such as Unmanned Aerial Vehicles military technology into commercial photography and cartography (mapping) applications and apply it to Geographic Information Systems (GIS) to provide geospatial data are being employed. Emerging technology in Global Positioning Systems, GIS, 3D imaging and indoor mapping are said to be coming into increasing demand for commercial purposes. Growth in Spatial Sciences is expected to be exponential in the coming years as mapping and smart technology continue to mesh locational data to commercial applications in retail, health, education, resources, military and other areas above and beyond construction.

Online property portals, such as [www.realestate.com.au](http://www.realestate.com.au) and [www.domain.com.au](http://www.domain.com.au), have entrenched their position as the agents' front window of the 21st century, listing hundreds of thousands of properties for sale or lease. Improved technology is increasing the popularity of virtual tours of properties through the internet. New applications will be developed to take advantage of the rapid uptake of smartphones by customers. Agencies are dedicating a greater percentage of their advertising and marketing budgets to online initiatives to augment the service offer through traditional media channels.

This new environment is requiring agents to reassess their business models in order to guarantee their need in selling and managing property. Real estate web sites are evolving, with real estate information aggregator Onthefhouse.com.au, launched recently, making information for vendors and buyers much easier to access however to date there are mixed reactions to the service. There have been some new business models that have arisen in response, such as Refund Real Estate, which aims to share sale commissions with vendors, buyers and the agent to help guarantee that buyers are satisfied with the real estate agency's service. Agent-assisted companies like BuyMyPlace and PropertyNow have also appeared, serving a more advisory role to property vendors in sales or leasing as opposed to taking on the services completely, at a fraction of the cost. Other more traditional methods of attracting vendors have included cutting commission rates.

Some businesses are looking to technology to improve productivity, reduce costs and to reach new customers. There is a continued interest in new infrastructure such as the NBN however there are many that are yet to harness new infrastructure.

Technological advancements have been noted by those in the surveying and spatial science fields with new technology reducing the requirement to have qualified surveyors with assistants able to operate some of the equipment. Advancements in the access to Google Earth and other applications have also changed some of the roles and requirements of those in this field of work.

There are new emerging technologies used such as Building Information Modelling (BIM) which is a process involving the generation and management

of digital representations of physical and functional characteristics of a facility for the focussed adoption of BIM and related digital technologies and processes, for the built environment sector. The resulting building information models become shared knowledge resources to support decision-making about a facility from earliest conceptual stages, through design and construction, through its operational life and eventual demolition.

### **The rise of Machine 2 Machine (M2M)**

**communications** - Technological innovation is increasingly visible through smart devices with players such as Apple investing heavily in technological solutions that are utilised by industry. It was speculated in November 2012<sup>49</sup> that Apple will introduce a fingerprint scanner on its next iphone after acquiring authentication capability company AuthenTec for US\$356 million. This could tie finger print technology with near field communication devices that allow people to use their iphone as a virtual wallet affecting cash transfer operations. Biometrics concepts such as these have been held back in the past due to the lack of standardisation between technologies and integration in the field; however the emergence of Apple into such a space would be likely to innovate processes for the sectors and could also lead to innovations by RTOs in the verification and authentication of assessments by online candidates into the future. As a trendmaker, if Apple sees a commercial opportunity then competitors will follow. In the broader context there will be implications for the workplace through biometrics where employees are required to provide biometrics (fingerprints) to access work systems and process designed applications that suit the work place or simply to satisfy security access requirements on a job or worksite. As estimated by IBM<sup>50</sup>, every day 2.5 quintillion bytes of data are created, with such an expansion in data use that 90 per cent of the data in the world today has been created in the last two years alone. This data comes from everywhere: sensors



<sup>49</sup> Direct Interview Comment, Dr Ted Dunstone, Technical Panel chair - Biometrics Institute, 21 November 2012.

<sup>50</sup> <http://www-01.ibm.com/software/data/bigdata/>

used to gather climate information, posts to social media sites, digital pictures and videos, purchase transaction records, and cell phone GPS signals to name a few. The increase in Machine 2 Machine corresponding activity to the internet is on the rise with 50 billion communicating machine devices expect to be operating semi-autonomously online by 2020. This creates emerging issues around information storage and big data transfer for future business, which also flags innovations in the way our businesses operate in the coming years.

Some CPSISC RTO Network Member responses pointed to the increasing use of technology or an interest to capture the quantum growth in tablet and smart technology to provide training to potential students. This enthusiasm to embark into new technology frontiers is also tempered with quality concerns about student ID verification and other factors that lead to authentic and reliable assessments. For example, stakeholders raised concerns about the value and reliability of the online 'white card' course which is a key tool to maintain workplace safety in the construction industry. CPSISC has sought to investigate the e-learning opportunities by developing an e-learning cooperative and a delegated committee of the CPSISC board.

A significant proportion of businesses (35%) indicated that technology is not an issue for their business. When pushed for further comment the stakeholders felt confident that they are already harnessing technology within their business or they felt that technology does not play a role in their sector.

## REGULATION

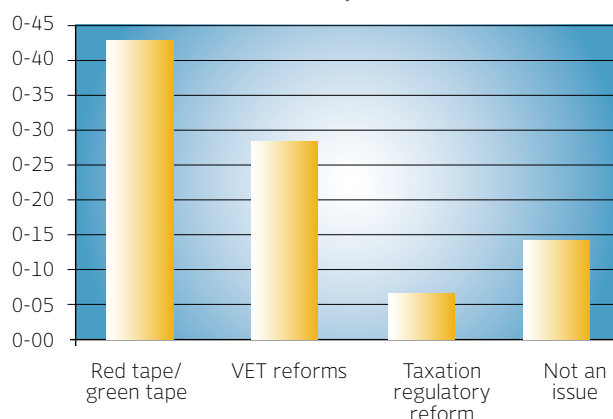
Nearly half of all respondents were concerned about red tape/green tape. A focus of responses singled out land supply and delays bringing land to market being as a major issue.

There were some responses indicating that the new WHS Harmonisation, which at its heart comprised 1366 pages of documentation, was seen to be complex. The move to harmonisation was reported

### Regulation - Macro Issues

CPSISC Annual Stakeholder Survey 2013

Per cent



by respondents as placing added regulatory burden on business.

Other key regulatory issues raised include changes to the Building Energy Rating Scheme.

Respondents identified Red Tape/Green Tape with many survey respondents calling for the abolition of stamp duty especially on new house construction as an existing and emerging issue which reinforces concerns broadly made recently by industry about Red Tape/GreenTape;

"Lack of coordination between state and local governments over land supply is creating confusion and costly delays. Residential development is competing with an ever growing list of natural and man-made constraints ie agricultural land, native vegetation, threatened species, flood-prone land, sea level rise...."<sup>51</sup>

*Kristin Brookfield, HIA Senior Executive Director - building development and environment*

"Difficulties faced by those wanting to enter the market haven't been resolved and issues such as inefficient state taxes, excessive red tape and land-release delays urgently need to be addressed"

*Pamela Bennett, President, REIA*

51 Housing Industry Association, "A gaggle of green tape", Housing Magazine, p.30, July 2012.

The reduction of 125 basis points on the from 4.25 per cent to a 3.00 per cent cash rate has been seen to be positive over the past year, however the effect on the market for new and existing homes has been less than responsive. The banking sector has set a higher bar for lending creating difficulties to access credit which is dampening development and investment.

**The carbon tax** - has come into operation with a \$23 per tonne cost, with some impact on material, energy and on-costs, however the impact in the second half of 2012 has been uncertain across some sectors particularly those in property services. There was a view that it is likely that some additional costs have flowed on to consumers which will further erode housing affordability.

Outside of the survey, Industry reports found that the building and construction industry will be one of the industries most affected by a carbon price as many building materials embody significant carbon and this will contribute to more expensive construction costs for the average home. In a survey conducted by Ai Group, firms across the construction industry reported average energy price rises attributable to the carbon tax over the past six months of 14.8 per cent. Manufacturers of construction materials, meanwhile, report that the carbon tax has added more than one-fifth to their energy costs.<sup>52</sup> The Centre for International Economics in a report commissioned by the construction industry estimated that the average new house could increase in price by around \$5,000 under the new carbon price.

Transpacific (Waste Services) reported in November that the carbon tax had caused a 6 per cent drop in earnings before income tax due to a slowdown in waste streams from the manufacturing, retail and construction markets, in turn affecting the volume of waste being processed. Transpacific indicated that the carbon tax had increased the cost of landfill disposal by an average of 12 per cent.<sup>53</sup>

**Licensing/National Licensing** - The national harmonisation of licensing continues to be of interest with many respondents in construction and property services industry sectors. There is an acknowledgement by many that introduction of national licensing of trades can reduce red tape but there are still concerns about how the changes

will affect their businesses. Many respondents questioned how long the licensing process will take.

National licensing proposals for the real estate industry are said to alter the training environment, with a national Certificate IV qualification being proposed for licensing purposes. Many respondents felt consternation and frustration about using this qualification, advocating for higher standards through the Diploma level qualification. The qualitative responses indicated that managing a real estate business involves significant financial and operational complexity and a personal duty of care for the biggest purchase that many people make in their lives.

The Security Industry Amendment Regulation 2012 came into effect in New South Wales on 1 November 2012. The amendments are said to have significant operational implications for Master Licence holders, including changes to sub-contracting provisions, licence classes, sign-on registers and increased licence fees. From the CPSISC's stakeholder survey, many responses called for greater synergy and harmonisation between the States with regulation in the security industry.

There were frustrations expressed that industry must try to meet inconsistent State and Territory legislation to achieve compliance. For example property and cadastral surveying is controlled by individual states by a Surveyors Act or similar, whereby surveyors are required to be licensed or registered. Recent legislative changes means more work has to be done by surveyors to meet requirements, for example compliance with the Building Energy Efficiency Disclosure Act (Cwth) and the Waste Levy Act (QLD).

New High Risk Licences training requiring extra time, lengthy assessments were said to equate to more costs for students, with many at risk of not being able to pay for training to get a licences. The training and assessment process is said to be difficult for RTOs to implement the training at a time frame and cost to suit its clients.

**VET Reforms** - Although there were some comments on the new National VET regulator the Australian Skills Quality Authority, (ASQA) most comments on VET reforms were noting issues with the State cuts to funding of VET as a concern.

52 Ai Group Survey: Business Pricing Responses to Australia's carbon tax, the first six months, January 2013

53 The Australian, *Transpacific Dives after Warning*, Andrew Fraser, 1 November 2012, p.24



There were comments about ASQA's operation providing some confidence to RTO's and industry with *"many questionable Training Providers having now lost accreditation, which means that legitimate and quality assured training providers will now be more successful."* The move to ASQA was on the whole considered as promising to see a more stringent approach by a regulator of RTOs and timely considering the introduction of national licensing.

Survey respondents were significantly concerned about the withdrawal of funding for the TAFE sector producing higher fees for students and clients across a number of states. A common response indicated that it is difficult to maintain good training and cost effective operations in the current competitive and financial environment.

The reduction in funding was seen by many as doing nothing to improve or enhance the quality of VET education in states such as Victoria. Funding of some property services qualifications in particular are at risk in Victoria. Delivery of Certificate III in Fire Protection is likely to be only carried out by

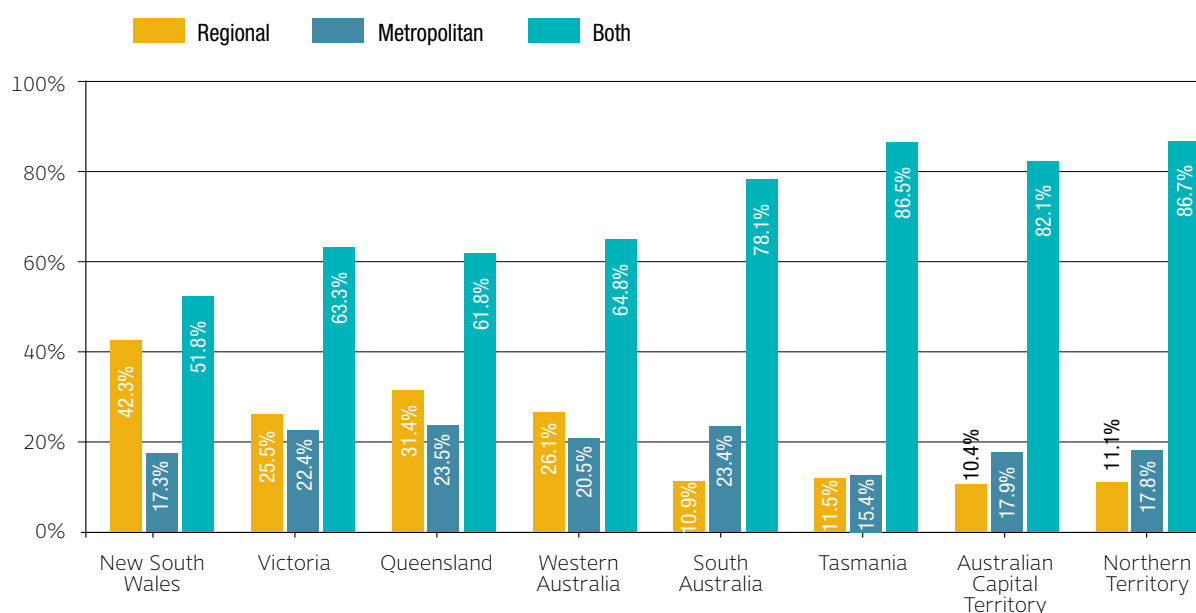
a handful of providers. The demise of the public system through funding models that favour private providers was said to undermine the quality of training outcomes because the focus is on profit margins instead of educational best practice. Alternatively there were also some respondents of the view that the funding changes promoted greater competition in VET delivery.

South Australia's Skills for All program was regarded as having comprehensive training programs working alongside the conveyancing industry which was said to be providing high quality outcomes for the industry. This training has changed many lives through the skills developed by this program. Capping this upskilling opportunity has been reported to be short sighted with adverse outcomes for industry.

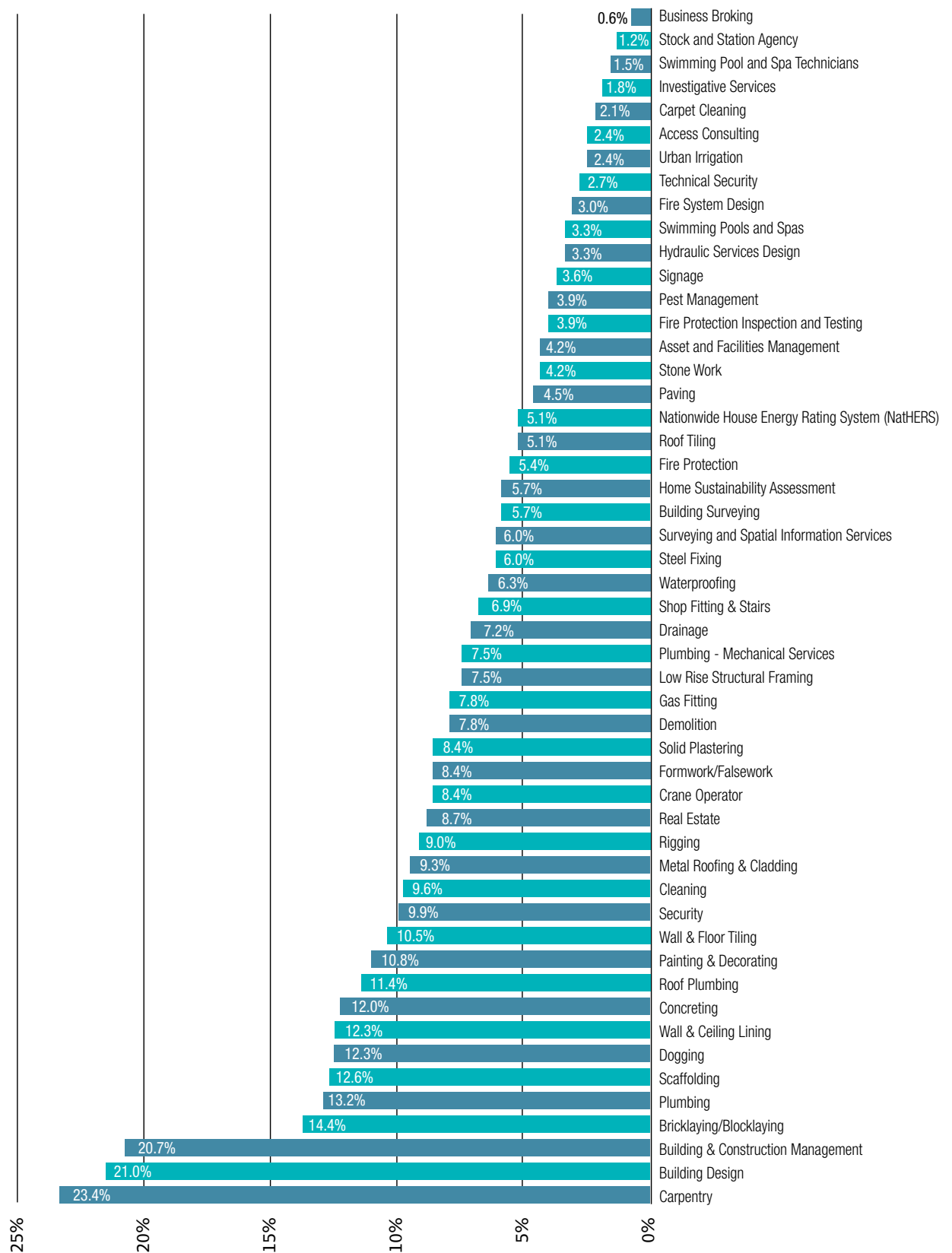
For many industry sectors, the existence of a seamless tertiary education sector, in which the rules and the options for moving between VET and higher education are clear to all parties, was seen as being vital to increased productivity.

## Snapshots of Stakeholder Survey Respondents

Please identify the area that your stakeholder representation covers (Please indicate either regional or metropolitan. Indicate both if roughly equal)



Which of the following boxes identifies your industry activity?



# Appendix B - Continuous Improvement of CPSISC Training Packages in 2012 and 2013

BRIEF SUMMARY OF CHANGE	INDUSTRY IMPERATIVES/ RATIONALE FOR CHANG	DATE SUBMITTED TO NQC/NSSC SECRETARIA	DATE ENDORSED BY NQC/NSSC or ISC UPGRAD	DATE MADE PUBLIC THROUGH training.gov.au
<b>CPC08 CONSTRUCTION, PLUMBING AND SERVICES TRAINING PACKAGE</b>				
<p><b>Version 8 comprised:</b></p> <p>NSSC endorsement</p> <ul style="list-style-type: none"> <li>• addition of two new construction qualifications</li> <li>• deletion of four construction qualifications</li> <li>• replacement of core units in 16 CPC08 construction and plumbing and services qualifications</li> <li>• review of currency of native and imported units in CPC08 qualifications</li> <li>• addition of four new units</li> <li>• replacement of three construction units</li> <li>• revision of existing plumbing and services units of competency (CPCP) to reflect industry requirements and sustainability policy changes since their first release (see unit mapping table for list of units and their changes)</li> <li>• replacement of 132 plumbing and services units</li> <li>• deletion of two native CPC08 units.</li> </ul> <p><b>ISC Upgrade for the:</b></p> <ul style="list-style-type: none"> <li>• replace reference to the Building Code of Australia and Plumbing Code of Australia with the National Construction Code in new and revised units</li> <li>• replace reference to 'OHS' with 'WHS' in plumbing and services units (except PSFS units) and qualifications</li> <li>• include reference to photovoltaic (solar) panels in a number of construction and plumbing and services units</li> <li>• reformat skill items in required skills section of plumbing and services units (except PSFS units) to present standardised approach to skill grouping</li> <li>• provide advice to users regarding licensing, legislative, regulatory and certification requirements in all plumbing and services units</li> </ul>	<p>Industry need for additional competency recognition and training</p> <p>Industry not using the qualifications</p> <p>Maintaining relevance to industry needs</p>	17.10.2012	5.12.2012	7.2.2013

BRIEF SUMMARY OF CHANGE	INDUSTRY IMPERATIVES/ RATIONALE FOR CHANG	DATE SUBMITTED TO NQC/NSSC SECRETARIA	DATE ENDORSED BY NQC/NSSC or ISC UPGRAD	DATE MADE PUBLIC THROUGH training.gov.au
<ul style="list-style-type: none"> <li>enhance user awareness of the need to consider unit prerequisite requirements</li> <li>make minor content changes to 23 construction units without altering equivalence, resulting in a version upgrade</li> <li>make minor editorial changes to 15 plumbing and services units without altering equivalence, resulting in a version upgrade</li> <li>make minor editorial changes to the unit mapping tables of Versions 6 and 7 unit mapping entries</li> <li>revise skill sets 'Manage complex building projects' and 'Undertake trade contracting'</li> </ul>				
<b>CPP07 PROPERTY SERVICES TRAINING PACKAGE</b>				
<b>Version 13 comprised:</b> NSSC endorsement <ul style="list-style-type: none"> <li>addition of two new swimming pool and spa (SPS) qualifications</li> <li>revision of one security qualification</li> </ul> addition of thirty new units of competency ISC Upgrade <ul style="list-style-type: none"> <li>update superseded imported elective unit in one security qualification</li> </ul>	Response to industry need for additional competency recognition and training	18.10.2012	5.12.2012	27.1.2013
<b>Version 12 comprised:</b> NSSC endorsement: <ul style="list-style-type: none"> <li>addition of one new SSIS qualification</li> <li>deletion of one SSIS unit of competency</li> <li>addition of 12 new SSIS units of competency</li> <li>revision of seven non-equivalent SSIS qualifications</li> <li>revision of 80 existing SSIS units of competency to reflect industry requirements and sustainability policy changes</li> </ul> <b>ISC Upgrade for the:</b> <ul style="list-style-type: none"> <li>update superseded imported units in existing SSIS qualifications</li> <li>change skill set title to reflect inclusion of 'surveying' in sector name: Induction to Surveying and Spatial Information Services</li> <li>delete two SSIS skill sets:</li> <li>update SSIS skill sets to reflect the revision of imported units and native CPP07 units and their subsequent code changes</li> </ul>	Updating	7.9.2012	24.10.2012	27.11.2012





# History of Changes to Training Packages

CPC08 has had the following endorsements over the past four years:

**CPC08 Version 1 Endorsed September 2008.** New Training Package.

**CPC08 Version 2 Endorsed February 2009.** Addition of one new diploma qualification and one vocational graduate certificate with 18 new units for fire in plumbing. No impact on any other qualification in construction or plumbing.

**CPC08 Version 3 Endorsed May 2009.** Addition of one new diploma qualification in plumbing and addition of new stream to an existing qualification for hydraulics. No impact on any other qualification in construction or plumbing.

**CPC08 Version 4 Endorsed December 2009.** Two construction units recoded to reflect change of unit outcomes. Two qualifications containing these units as core units repackaged and recoded for licensing purposes. A third qualification containing these units as electives updated but no code change required. No impact on any other qualification in construction or plumbing.

**CPC08 Version 5 Endorsed February 2010.** Added one new unit to one construction qualification. No impact on any other qualification in construction or plumbing.

**CPC08 Version 6 Endorsed April 2011.** Extensive changes to both construction and plumbing qualifications. First extensive updating of whole Training Package since CPC08 endorsed in 2008.

**CPC08 Version 6.1 Approved June 2011.** Corrected five incorrect plumbing unit codes from Version 6. No qualification code changes in plumbing. No impact on construction qualifications.

**CPC08 Version 7 Endorsed 26 October 2011.** Added four new asbestos units, deleted two old asbestos units. Added these units to elective pools across five qualifications. No qualifications changed code. No other impact on construction or plumbing.

**CPC08 Version 8 Endorsed Dec 2012.** The addition of two new qualifications and the deletion of four qualifications, replacement of core units in 16 qualifications, review of currency of native and imported units in CPC08 qualifications, revision of existing plumbing and services units of competency (CPCP) to reflect industry requirements and sustainability policy changes since their first release, deletion of two native CPC08 units of competency. A number of ISC upgrades were also implemented.

Many version changes contain only small changes to specific qualifications, such as version 2 or 5. The Training Package has only experienced two major widespread changes (in 2011 and 2012) since its endorsement in 2008.

CPP07 has had the following endorsements over the past five years:

**CPP07 Version 1 Endorsed August 2007.** New Training Package. All the redeveloped property qualifications (real estate, stock and station, property operators and developers, and business brokering) in PRD01 endorsed in the new CPP07 Property Services Training Package.

**CPP07 Version 2 Endorsed May 2008.** The reviewed and redeveloped security qualifications from the PRS03 Asset Security Training Package added to CPP07 Property Services Training Package. No impact on the other property qualifications.

**CPP07 Version 3 Endorsed July 2008.** The reviewed and redeveloped access consulting qualifications from the PRD01 Training Package added to CPP07 Property Services Training Package. No impact on the other qualifications in CPP07.

**CPP07 Version 4 Endorsed August 2008.**

Clarification of the packaging rules of CPP40307. Minor changes in units CPPDSM5004 and CPPDSM6001 unit titles. Changes to common imported units in CPP60208 qualification due to changes in parent Training Package of imported units. Simultaneous ISC upgrade to reflect superseded imported units cited, including revisions, deletions and replacements in six CPP07 qualifications with all impacted qualifications deemed equivalent.

**CPP07 Version 5 Endorsed March 2009.** Updating superseded imported units in CPP07 qualifications.

**CPP07 Version 5.1 Approved April 2010.**

Updating superseded imported units in two CPP07 qualifications for regulatory purposes.

**CPP07 Version 6 Endorsed October 2010.** Addition of one new qualification in Home Sustainability Assessment including new native and common units. ISC upgrade of two Spatial Information Services units due to upgrade of a common units (both units deemed equivalent). ISC upgrade of two security units for regulatory purposes (both units deemed equivalent).

**CPP07 Version 7 Endorsed March 2011.** Changing the packaging rules in three qualifications to comply with NQC flexibility requirements regarding core and elective balance, amending the packaging rules in eight qualifications to comply with NQC flexibility requirements regarding inclusion of accredited courses, changing the packaging rules in two qualifications to meet security licensing harmonisation, endorsement for six new common units of competency for sustainability and adding these units to electives pool in CPP40611 Certificate IV in Property Services (Operations), embedding sustainability content into 13 other units of competency. ISC upgrades for adding a unit to CPP50511 Diploma of Property Services (Asset and Facility Management), replacing superseded imported units and removing security sector skill sets no longer consistent with the harmonisation of qualifications for licensable occupations.

**CPP07 Version 8 Endorsed October 2011.** Addition of the reviewed and redeveloped PRM04 Asset Maintenance Training Package qualifications and the addition of one new qualification. ISC upgrade for three common units of competency and the update of version identifier of imported units in seven qualifications and the addition of nine new skill sets.

**CPP07 Version 9 Endorsed December 2011.**

Addition of 23 new building design units of competency, two new CPP07 common units and three new building design qualifications and four new cash-in-transit units of competency (redeveloped units originating from the Transport and Logistics Industry Skill Council).

**CPP07 Version 10 Endorsed April 2012.** Addition of one new access consulting qualification and eight new access consulting units. ISC upgrade for the updating of superseded equivalent and non-equivalent imported units in the core and elective lists of the access consulting qualifications. No other qualifications impacted by this version.

**CPP07 Version 11 Endorsed September 2012.**

Addition of two new home sustainability assessment (HSA) qualifications and sixteen new HSA units of competency. No other qualifications impacted by this version.

**CPP07 Version 12 Endorsed October 2012.** Addition of one new SSIS qualification, deletion of one SSIS unit of competency, addition of 12 new SSIS units of competency, revision of seven non-equivalent SSIS qualifications and the revision of 80 existing SSIS units of competency to reflect industry requirements and sustainability policy changes since their first release. ISC upgrades included updating superseded imported units in existing SSIS qualifications, changing skill set title to reflect inclusion of 'surveying' in sector name, deleting two SSIS skill sets and updating SSIS skill sets to reflect the revision of imported units and native CPP07 units and their subsequent code changes

**CPP07 Version 13 Endorsed December 2012.**

Addition of two new swimming pool and spa qualifications thirty new units of competency and the revision of one security qualification. ISC upgrades to update superseded imported elective unit in CPP30411 Certificate III in Security Operations.

# Appendix C - Skills in Demand

## Estimates approach

A variety of approaches have been used to estimate demand for skills in construction and property services occupations. CPSISC has:

- Assessed skill shortages through the CPSISC Annual Stakeholder Survey;
- Reviewed Industry occupational forecasts;
- used IBISworld forecasts;
- used DEEWR modelling of potential jobs growth in key occupations through to 2016-17.

ANZSCO	Occupation	Skills Shortage Advice
133111	Construction Project Manager	Rated as the third highest shortage experienced by respondents to the CPSISC Annual Stakeholder Survey.  Continued demand will continue to be present in the civil construction sector. Employment growth is expected to rise at 2.4 % per annum to mid-decade.
232212	Surveyor	Rated as the fourth highest shortage experienced by respondents to the CPSISC Annual Stakeholder Survey. Demand remains consistent for qualified surveying professionals as civil and commercial construction sectors and mining continue to demand skills. Employment growth is expected to rise at 2.0 % per annum to mid-decade
232213, 232214	Cartographer, Other Spatial Scientist	There is a growing spatial mapping role to service commercial applications by this occupation for other sectors such as retail, health and education that is emerging with smart technology.
233999	Building and Engineering Associate Professional	Skilled construction management roles still in demand nationally although some associate occupations experiencing only moderate demand. Employment growth is expected to rise at 1.0 % per annum to mid-decade.
312114	Construction Estimator	Demand expected to pick up as demand across construction improves. Along with construction management, continued demand will continue to be present in the civil construction sector.
331111	Bricklayer	Rated as the highest shortage experienced by respondents to the CPSISC Annual Stakeholder Survey. Bricklaying has been reported in industry indexes as being in shortage for the best part of the last three years with a slight surplus now evident going into 2013.  Like many construction trades the apprentice commencements have dropped substantially, which will see less supply available to meet demand as forecasted in the mid-decade. Demand expected to increase as residential starts improve into 2014. Employment growth is expected to rise at 2.0 % per annum to mid-decade.
331112	Stonemason	Low training numbers for this occupation nationally to meet any future demand.

ANZSCO	Occupation	Skills Shortage Advice
331212	Carpenter	<p>Rated as the second highest shortage experienced by respondents to the CPSISC Annual Stakeholder Survey.</p> <p>Industry indexes have reported a modest oversupply over 2012 with shortages evident over the past three years. A mild surplus is likely in 2013 until construction activity picks up. Employment growth is expected to rise at 2.1 % per annum to mid-decade.</p>
331213	Joiner	<p>Industry indexes have reported a modest oversupply over 2012 and in past years with a similar surplus likely in 2013 until building activity picks up. Employment growth is expected to rise at moderate levels due to strong competitive pressure for pre-fabricated "flat pack" joinery product</p>
332211	Painter and Decorator	<p>Rated as the fifth highest occupational shortage experienced by respondents to the CPSISC Annual Stakeholder Survey. There have been some green shoots in demand with employers in regions such as Victoria looking for apprentices.</p> <p>This trade has been reported as being in undersupply through industry survey at least once per year over the past three years. Employment growth is expected to rise at 2.5 % per annum to mid-decade.</p>
333111	Glaziers	<p>Remains as a demand priority occupation with consistent demand for skills. Employment growth is expected to rise at 1.5 % per annum.</p>
333211, 333212	Plasterer – Fibrous, Plasterer (Wall & Ceiling Lining)	<p>Rated as the eighth highest shortage experienced by respondents to the CPSISC Annual Stakeholder Survey.</p> <p>Industry availability has indicated that the trade has been in modest oversupply over at least the past 12 months and is likely to remain in surplus over 2013 until activity picks up. Demand for Plasterers will be required to remediate and repair in QLD and NSW flood areas.</p> <p>Employment growth is expected to rise at 2.0 % per annum on average to mid-decade. It is expected that there will be higher growth in the 2014-15 period.</p>
333311	Roof Slater and Tiler	<p>Employment growth is expected to rise at 2.0 % per annum.</p>
333411	Wall and Floor Tiler	<p>Rated as the sixth highest shortage experienced by respondents to the CPSISC Annual Stakeholder Survey.</p> <p>Industry has reported this trade to be in undersupply over the past three years and will be likely to go into undersupply as conditions improve. Employment growth is expected to rise at 1.8 % per annum to mid-decade.</p>
334111	General Plumber	<p>Rated as the ninth highest shortage experienced by respondents to the CPSISC Annual Stakeholder Survey.</p> <p>Consistently industry indexes place plumbing trades in undersupply over the past three years. Plumbing services will be likely to be one of the first occupations to evidence an uptick and experience regional shortage as construction activity improves closer to the mid-decade. High skill areas such as gas servicing and type B Gas see ongoing shortages. Plumbing can be seen as an early indicator of increased activity as industry picks up.</p> <p>Employment growth across plumbing occupations is expected to rise at 2.9 % per annum to mid-decade.</p>

ANZSCO	Occupation	Skills Shortage Advice
334112	Mechanical Services and Air-conditioning Plumber	Marginal skills shortage will continue to be felt in 2012 with expectations of continuing growth over next three to four years. Employment growth across plumbing occupations is expected to rise at 2.9 % per annum to mid-decade.
334113	Drainer	Demand expected to continue to be felt in 2013 with expectations of demand for experienced and qualified personnel.
334114	Gasfitter	Demand also expected to continue to be felt in 2013 with expectations of demand for experienced and qualified personnel.
334115	Roof Plumber	Rated as the tenth highest shortage experienced by respondents to the CPSISC Annual Stakeholder Survey.  Shortages were consistently reported by industry during previous periods of heightened activity but have only been reported in shortage periodically over the past two years. Shortages are expected in the event of activity recovery.
399611	Signwriter	Continues to experience demand as an industry sector with new technology requiring multi-skilled tradespeople replacing manual signwriter functions in many cases.  Employment growth is expected to rise at 0.8 % per annum to mid-decade.
399918	Fire Protection Technician (includes installers of security equipment)	The industry is forecast to record solid growth over the next five years, principally reflecting a resurgence of demand in the non-residential building market and a record peak in demand from the engineering infrastructure market during the coming year. Contractors are also expected to experience stronger demand for the sale and installation of security systems in the multi-unit apartment market, notably in New South Wales and southern Queensland. Employment growth is expected to rise at 1.7 % per annum to mid-decade.
442299	Guards and Security Officers	Turning economic growth in late 2013-14 is expected to result in continued demand growth for security and investigation services. This will relate to crowd control and venue security in particular, with lower growth expected for ATM servicing, retail sales and gaming machine revenue. Demand impacted by high labour turnover across the industry. The security industry report a shortage of appropriately skilled electronic security technicians and security officers, this is seen as a significant impediment to future industry growth and development. Employment growth is expected to rise at 1.2 % per annum to mid-decade.
611111, 611112	Auctioneers, Stock and Station Agent	Demand data shows that jobs growth is slow with a decline in employment numbers. The trend is likely to continue with employment growth expected to decline at 1.2 % per annum.
612112, 612114, 612115	Property Manager, Real Estate Agent, Real Estate Salesperson	Many of the factors that created real estate sales volumes around mid-decade have shifted. Banks are borrowing at higher cost, first home deposits have ceased in some regions, mortgage to income ratios have increased and economic conditions have dampened demand.  Despite the unfavourable position of some of these factors of demand, a low interest rate environment, a continued state of housing undersupply and an increasing population, are providing an investment window that will see buyers and investors create demand for these occupations.  Job Outlook data shows job prospects are average but growth in demand is anticipated by 2014/15. Employment growth is expected to rise at 1.0 % per annum to mid-decade.



ANZSCO	Occupation	Skills Shortage Advice
712111	Crane, Hoist or Lift Operator	Sustained slow growth in commercial dampening demand for the occupation however mining industry demand remains consistent especially in WA. Employment growth is expected to rise at 1.3 % per annum.
712921	Water and Waste Plant Operators	Job prospects for operators are currently negligible but expected to grow by 2014/15. Demand for experienced management positions remains. Employment growth for other plant operators is expected to rise at 1.9 % per annum to mid-decade.
811211	Commercial Cleaner	Job prospects continue to remain slow growth in demand expected over the next three years. There is also an associated high staff turnover rate due to the potential for shift hours and potentially low pay. Employment growth is expected to rise at 1.0 % per annum to mid-decade.
811311	Domestic Cleaner	Made up of small contractors with many part time casual staff there remains demand for the occupation while the economy remains buoyant. Upskilling, training and professional standards of staff are vital however State funding cuts and tighter margins are reducing industry's capacity to train. Employment growth is expected to rise at 1.5 % per annum.
811611, 811612	Carpet Cleaner, Window Cleaner	Job prospects are average with companies and households facing tight economic choices on budgets and disposable income. Employment growth is expected to decline at 3.0 % per annum to mid-decade.
821211	Concreter	Rated as the seventh highest shortage experienced by respondents to the CPSISC Annual Stakeholder Survey. Concreters maintain activity despite a slowdown in residential building. Prefabrication and concreting techniques impacting on concreting techniques on commercial jobs. Employment growth is expected to rise at 2.2 % per annum to mid-decade.
821511	Paving and Surfacing Labourer	Job prospects remain average with a potential pick up in the event of residential construction emerging. Employment growth is expected to rise at 1.2 % per annum to mid-decade.
821711, 821712, 821713	Construction Rigger, Scaffolder, Steel Fixer	Demand remains good for skilled tradespeople with work in resource sector providing options to pick up excess supply. Employment growth is expected to rise at 2.3 % per annum to mid-decade.
841913	Pest Controller	Limited take-up of the occupation by new entrants provides demand for new entrants. Always a lack of new entrants creates some gaps in middle management. Contingent on property services activity. Employment growth is expected to rise at 1.5 % per annum to mid-decade.
899918	Sign Erector Signwriter	Industry advice is for consistent demand, with changes in technology transitioning some of the traditional signwriting skills required of the trade in the past. Employment growth is expected to rise at 1.5 % per annum to mid-decade.

# Appendix D -

## CPSISC Mission, Vision, Objectives & Strategies

### CPSISC's mission is to:

- to articulate and advocate the training, skill and workforce development needs of the construction and property services industries; and
- to facilitate the delivery of services by the national VET system that meet the needs of the construction and property services industries through the development of strong partnerships and the provision of high quality advice, research and products.

### CPSISC's vision is:

Construction and property services industries will have access to world class skills and workforce development that will support our industries' enterprises to achieve business success and make them a 'first choice' for work by Australians.

### CPSISC's objectives are to:

- improve career pathways through implementation and take-up of the latest Training Packages;
- effectively implement Australian Workforce & Productivity Agency initiatives;
- skill the workforce to adapt to increases in technology;
- facilitate more flexible and improved assessment processes; and
- to assist in the harmonisation of licensing.

### CPSISC's strategies are to:

- work with the Australian Workforce & Productivity Agency, providers and enterprises to support in the uptake of apprenticeships, traineeships and training opportunities for existing workers;
- to influence government policies and priorities and industry reforms;
- develop, enhance and disseminate Training Packages and Users Guides, as well as skills recognition, assessment and careers advice tools;
- Produce marketing materials promoting best-practice;
- provide timely and informed services to all our stakeholders;
- continue to build strong networks and partnerships stakeholders; and
- continue to focus on effective governance and management of the Council.



**CPSISC**

Construction & Property Services  
Industry Skills Council



**Australian Government**  
**Department of Industry, Innovation**  
**Science, Research and Tertiary Education**



**CPSISC**

Construction & Property Services  
Industry Skills Council



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