

# Overview of demand for managers, professionals and technicians: Victoria – November 2009

## Economic conditions

The labour market in Victoria for professional occupations has been relatively stable with some occupations adversely affected by the Global Recession while for many other occupations demand has been resilient. Underpinning this resilience were the prevailing domestic economic conditions prior to the Global Recession such as: the existing full or near-full employment across many professional occupations; the sound fiscal positions in the state and federal budget balances enabling rapid fiscal stimulus measures; monetary policy settings that allowed appreciable reductions in interest rates as a further stimulatory response.

The Victoria state budget update now reveals a better than expected economic performance and an improved outlook since the May 2009 budget projections. Real Gross State Product for 2009-10 is now expected to show growth of 1.5 per cent, significantly up on the May budget forecast of 0.25 per cent. The update also reveals that unemployment is now expected to reach a year average of 6.5 per cent in 2009-10 compared to a May forecast of 7 per cent; however because unemployment is a lagging indicator this is expected to increase to 6.75 per cent in each of the subsequent three years.

A rising population in Victoria has provided higher levels of demand for a range of consumer and investment goods and has helped to stabilise aggregate demand and employment; this is particularly evident with respect to housing construction. Relatively stable demand for the state's production of non-discretionary foodstuffs for domestic and export markets has meant that the rural sector and, through this, regional areas of the state, have remained relatively buoyant throughout the recession. The fiscal stimulus provided by the Victoria state public infrastructure projects has provided timely large-scale employment opportunities; many of these projects were in train prior to the current economic downturn and, given the typically long gestation period for such projects, these have provided employment opportunities at a time when private sector commercial and industrial construction expenditure is well below trend levels.

Population growth has been appreciable in recent times. At 31 March 2009, Victoria's population was 5 403 000, up by 111 900 people (2.1 per cent) over the year and by 390 300 people (7.9 per cent or 1.5 per cent per year on average) since 30 June 2003. Melbourne was home to 73.0 per cent of Victoria's population, or 3.9 million people. In the five years to 30 June 2008, the population in Melbourne increased by 315 000 people and regional Victoria by 75 300.

The effect of population growth on the labour force has also been appreciable with no apparent detrimental effects on employment that could be attributed to this growth. Between September 2008 and September 2009, the Victorian labour force increased by 51 600 people (1.8 per cent). During this period, both the number of employed and unemployed people increased - by 15 300 (0.6 per cent) and 36 300 (29.3 per cent) respectively. The number of people employed full-time decreased by 7900 (0.4 per cent), while part-time employment increased by 23 100 (2.9 per cent). The Victorian unemployment rate increased from 4.4 per cent to 5.6 per cent over the same period. The labour force participation rate increased from 65.8 per cent to 66.1 per cent in the Melbourne and decreased from 62.2 per cent to 61.3 per cent in the rest of Victoria.

The robust health of the Victorian and Australian economy has helped to maintain employment at levels at a relatively high level. National mineral exports have remained at near-record levels by volume and value and, although Victoria is only a small contributor with some gold and mineral sands exports, wealth transfers through federal to state grants and directly through shareholdings bring some of this wealth into the state. As well, some of the major mining and industrial corporations are headquartered in Melbourne. State final demand is one measure of economic health and is the estimate obtained by summing government final consumption expenditure, household final consumption expenditure, private gross fixed capital formation and the gross fixed capital formation of public corporations and general government. In

June quarter 2009, the trend estimate for Victorian final demand, in volume terms, was \$67 115 million, an increase of 0.6 per cent from March quarter 2009. This was above the trend growth for the most economically comparable state of New South Wales (zero per cent) and Australian domestic final demand (-0.2 per cent) over the same period.

Exports by value show the relative strengths of different sectors of the state economy throughout the Global Recession. The appreciation of the Australian dollar has made conditions more difficult for exporters and manufacturers of goods for domestic consumption. According to the ABS (State and Regional Indicators Victoria Sep 2009) the value of International merchandise trade exports from Victoria has remained relatively stable over the last three years but with a shift to industries in which the state is more competitive. The largest category is food and live animal exports which has an increased share of export value from 25 per cent in 2007-08 to 29 per cent in 2008-09. Machinery and transport equipment is the second largest category and reduced its share of total exports by 3 percentage points to 20 per cent. Manufactured goods also reduced its share of total exports to 13 per cent (by one percentage point) while Chemicals and related products has increased its share to 12 per cent (by two percentage points).

The building and construction industry provides significant levels of direct employment and appears to be a major contributor to the resilience of the economy. As at the end of March 2009 Victoria had 25 per cent of the Australian population and 25 per cent of the workforce yet, as at August 2009, Victoria had 33 per cent of the dwelling units approved in the year to August; the number of dwelling units approved grew by 15 per cent in the year to August; the only other state that recorded growth was Western Australia at 5.5 per cent with other states having a reduction in approvals in the range of -1.8 per cent to -21.8 per cent. Also, in the year to June 2009, Victoria was responsible for 30 per cent of the value of building work done representing a 4 per cent increase over the year; all other states recorded a decline in the value of work done in the range -1.1 per cent to -17.8 per cent (ABS State and Regional Indicators, Victoria, Sep 2009).

Demand for professional skills in engineering and construction industries can be demonstrated with the total value of engineering and construction work commenced in 2008-09 was 6 per cent greater than 2007-08 and 34 per cent greater than that in 2006-07. Engineering construction work and expenditure typically has a relatively long gestation period is lumpy in nature; the fortuitous timing of having a such large investment expenditure in the last year has provided timely counter-cyclical stabilising effect on employment. The water storage and supply sector was responsible for almost all of this increase with a 75 per cent increase in the value of work commenced in over 2007-08 and a 200 per cent increase over that commenced in 2006-07.

Engineering construction activity measured by value of work done shows an increase of 20 per cent over that work done in 2007-08. Most of this was due to a 40 per cent increase in electricity generation and transmission work and a 60 per cent increase in water storage and supply work. (ABS Engineering construction activity June 2009). Value of work done by the private sector increased by 13 per cent from 2007-08 to 2008-09 largely due to the increase in work done by the private sector for the public sector which increased in value by 37 per cent from 2007-08 to 2008-09.

For Victoria, the total value (at current prices) of engineering construction activity (work) done during June quarter 2009 was \$2425.4 million, an increase of 29.4 per cent from March quarter 2009 and 26.1 per cent over June quarter 2008. More than one fifth (20.8 per cent) of the value of work done was for Roads, highways and subdivisions, while 17.5 per cent was for Telecommunications and 16.3 per cent was for Electricity generation, transmission and pipelines.

The primary sector provides a range of direct and indirect professional employment opportunities and sustains population growth outside of the capital city. Victoria is Australia's largest food and fibre exporting state; the agricultural sector produces goods valued at around \$9 billion a year, or 26 per cent of the national total. The dairy industry is the state's largest export earner and provides about 13 per cent of dairy products traded globally. An ABS report on Australia's principal agricultural commodities for 2008-09 shows a relatively buoyant sector despite persistently dry conditions over many years. In Victoria produced one fifth of Australia's grain barley and oats and also contributed approximately 10 per cent of

canola and wheat. Livestock production is a particularly important contributor with 63 per cent of the Australia's dairy herd and one fifth of sheep, lamb and pigs. Victoria has performed relatively well despite the value of exports declining by almost 10 per cent over the year to August compared to reductions in the range of 15 to 40 per cent for each other state.

### ***Engineering and Construction Professionals***

Demand for engineering and construction professionals is dependent on the level of engineering and construction activity. As detailed previously, this sector has a lot of large-scale infrastructure projects providing significant levels of demand.

### **233211 Civil Engineers, 233214 Structural Engineers and 233215 Transport Engineers**

Civil, Structural and Transport Engineers are in demand with the level of engineering construction activity being maintained at high levels. Public infrastructure expenditure has increased rapidly at a time when private investment levels have fallen sharply. Major infrastructure projects within the water and rail transport industry have increased demand in these areas and the outlook is positive.

### **233311 Electrical Engineers and 233411 Electronics Engineers**

There are about 1000 Electrical Engineers in Victoria with 30 per cent working in engineering services businesses, 27 per cent in manufacturing and 17 per cent for electrical infrastructure companies. Demand, is highly correlated to investment expenditure and with high levels of investment underway or planned, demand should be strong at least for those occupations in engineering services and services and those directly employed in the infrastructure providers. Electronic Engineers number about 600 with 43 per cent employed in manufacturing while 22 per cent work for engineering services businesses. The Electronic Engineer occupational survey revealed that highly specialised positions were in shortage with rail signalling systems engineers of particular concern given the infrastructure construction scheduled over the next few years. Particular skills shortages have been evident in rail signalling technology. Given the planned infrastructure upgrades to the state rail network the skills shortages may become acute.

### **233512 Mechanical Engineers**

With 62 per cent of Mechanical Engineers working in the manufacturing industry (and most of these in the automotive sector) this occupation has been adversely affected by the Global Recession and the recently strengthened Australian dollar. Manufacturing activity is forecast to be a smaller contributor to Gross State Product over the outlook period and relatively lower demand for Mechanical Engineers is likely, however specialised skills in niche industries or in industries with competitive advantages such as food production, will provide some demand.

### **233111 Chemical Engineers**

Similarly, half of Chemical Engineers work in manufacturing industries which is now at a competitive disadvantage due to the appreciation of the dollar. However, domestic infrastructure projects such as the water desalination plant will provide employment opportunities. Established industrial operations such as pulp and paper manufacturing, fertiliser production and petroleum products are in more vulnerable industries and the outlook depends on whether business is prepared to risk investment in a bid to improve efficiency and so remain competitive.

### **312 Building and Engineering Technicians**

Engineering Draftspersons and Technicians have a mixed outlook and demand is reflects the demand for the respective underlying engineering disciplines. Civil, Structural and Transport Engineering Draftspersons and Technicians remain in demand whilst those engaged in the mechanical and chemical engineering fields may have a less buoyant outlook.

Other construction industry professions have variable experiences. Some, like Architectural Draftspersons are more adversely affected with the demand from commercial projects significantly lower with the result that the drafting services for the domestic housing sector is now much more competitive. Quantity Surveyors are in an ageing workforce and the relatively few graduates may mean that the current market balance will tend to shortage. Housing construction and infrastructure projects will increase demand with no realistic prospect of appreciable increases in the supply of surveyors. Demand for Quantity Surveyors has been very difficult to assess because very little of the underlying demand is expressed as open advertisements and entry into this occupation can be from either experienced tradespeople or those with specific higher education qualifications. The shortages found for Construction Estimators are also expected to continue with much of the same labour market conditions as that for Quantity Surveyors.

## **24 Education professionals**

Demand for Education Professionals is most responsive to the size and growth of the school age population and to a lesser extent, policy decisions such as minimum education standards and funding decisions on student teacher ratios. Supply was generally able to meet demand but shortages were found in certain teaching specialties and rural or regional locations.

Early Childhood (Pre-Primary) Teachers have become in more demand as this level of education is now officially regarded as the beginning of formal education. There is a shortage of qualified staff and the new regulations may make the career more attractive but supply will take some time to meet expected demand.

The Primary Teacher labour market generally appears to be in balance with some unmet demand for teachers of languages other than English (LOTE) and mathematics and in regional and outer urban area. The Secondary School Teacher labour market is also experiencing some recruitment difficulty in areas such as mathematics, science and LOTE and in regional areas and certain outer urban growth corridors.

Special Needs Teachers were found to be in shortage with rising levels of demand as part of the response to meet educational benchmarks. Supply appears to be constrained by the perceived lack of incentive for teachers to undertake the additional studies needed to attain the necessary qualifications. The labour market for Student Counsellors was found to have supply generally able to meet demand.

## **25 Health professionals**

Demand for Health Professionals is in high correlation to the population growth rate and demand for most occupations rises with an ageing population. Government funding, either directly or indirectly, also has an influence on demand.

Occupational Therapists were found to be in shortage across all grades of qualification with supply currently unable to meet demand and the medium term projections indicating that this deficit will get worse. Demand is correlated to the population and population growth and rises with age. The labour market for Physiotherapists was found to be in balance with regional positions and some specialisations difficult to fill. Demand is also correlated to population and rises with age.

Demand for Midwives is highly correlated to the birth rate and is in shortage despite there being many more qualified Midwives than there are practising. Those Midwives with additional general nursing experience rather are in greater demand in regional areas to fill multi-skilled roles. Registered Nurses are in shortage especially in aged care sector with the ageing population contributing to the shortage.

Demand for Hospital and Retail Pharmacists and Dentists is highly correlated to population and population growth and with demand increasing with age. Demand for Pharmacists will continue even as the survey found the labour market to be in balance as a result of strategies designed to increase supply.

There was still some difficulty in recruiting to rural and regional areas. The labour market for Dentists was found to be in balance in metropolitan areas but with a pronounced maldistribution causing recruitment difficulties in rural and regional areas.

### **271311 Solicitors**

The labour market for Solicitors has changed significantly with the Global Recession curtailing overseas demand thereby increasing supply in the domestic market. This has meant that demand from overseas has decreased. There have been several reports of redundancies from some top tier firms and this may be indicative of generally lower demand for legal services.