



ANZSCO 3122-11,12 Civil Engineering Draftspersons and Technicians

Victoria

February 2017

Current labour market rating

No Shortage

Previous labour market rating (January 2016)

Metropolitan Shortage

Comments

Survey results indicated that there is no shortage of qualified, skilled and experienced civil engineering draftspersons and technicians in Victoria with almost all employers able to fill advertised vacancies.

Survey results

- The Department of Employment 2017 Survey of Employers who have Recently Advertised (SERA) for Civil Engineering Draftspersons and Technicians in Victoria found that 82 per cent of vacancies were filled from averages of 18.8 applicants and 2.6 suitable applicants per vacancy.
 - While representing an increase on the survey results of 2015 and 2016 (where 63 and 64 per cent of vacancies were filled respectively), the 2017 survey results are consistent with a five year trend of vacancy fill rates between 75 per cent and 90 per cent.
- Metropolitan areas attracted averages of 20.3 applicants and 2.4 suitable applicants per vacancy, resulting in a 75 per cent fill rate. Regional areas attracted averages of 15.0 applicants and 3.3 suitable applicants, resulting in a 100 per cent fill rate.
 - By contrast, the 2016 survey found that the metropolitan vacancy fill rate was 56 per cent with an average of 36.1 applicants and 0.9 suitable applicants. At 100 per cent, the fill rate in regional areas remained unchanged over 12 months. The suitable applicant average, however, was slightly lower in 2016 at 2.5 per vacancy.
- Surveyed vacancies were widespread across the civil and structural engineering sectors and encompassed a variety of specialisations from land and urban development projects (including subdivision, roads and highways, rail, bridges, tunnels, pavements, sewerage and water) to large residential, commercial and industrial developments.
- A limited number of positions remained unfilled in metropolitan Victoria, however, these tended to be for specialised technician roles (for example, concrete scanning technician). The most common reasons these vacancies remained unfilled were that applicants lacked the relevant specialised skills and did not have sufficient experience in Victoria.
- Sixty six per cent of the applicant pool held relevant qualifications, however, 76 per cent of these applicants were found to be unsuitable by employers. Qualified applicants were considered unsuitable by some employers because they either lacked specific experience or local knowledge. Applicants were also considered to be unsuitable if they were overqualified. Employers who viewed overqualified applicants as unsuitable were concerned that they were only viewing the position as a stepping stone into a professional civil engineering role.

Employer requirements

- Almost half of all vacancies required a diploma level qualification in drafting or civil engineering as a minimum. Where formal qualifications were not required, employers typically sought applicants with at least three years of local drafting experience related to the advertised role.
- Under the Victorian *Building Act 1993*, draftspersons undertaking work in the building industry are required to be registered as building practitioners with the Building Practitioners Board. Through this process, draftspersons must demonstrate practical experience in undertaking all of the activities associated with draftspersons (under supervision), including compliance with building legislation and Australian standards.
- Given that the regulatory framework of this profession is unique to Victoria, experience on local projects and a strong knowledge of the design and regulation standards associated with the relevant Victorian authorities was highly regarded.
- Employers sought three to five years of experience for intermediate roles and five or more years for senior level roles. It was commonly noted, however, that an applicant's ability to demonstrate their skills acquired through similar roles within relevant industries was more important to employers than the length of time spent in similar roles.
- Employers generally looked for applicants who possessed a sound technical knowledge of civil design/drafting principles and practices. The ability to interpret civil drawing productions, as well as prepare detailed and accurate drawings from conceptual proposals or sketches that met client requirements and State regulations, was essential to most positions.
- Experience using the employer's relevant software package was considered essential by most employers who frequently sought expertise in AutoCAD and to a lesser extent 12D, REVIT, MicroStation, Civil 3D and TerraMap.
- Many surveyed employers required excellent communication and interpersonal skills as most roles had a considerable client focus, requiring liaison with project managers, service authorities and other stakeholders.

Demand and supply trends

- Demand for civil engineering draftspersons and technicians is largely driven by activity within the engineering construction sector.
- Australian Bureau of Statistics (ABS) data indicates that Victoria has experienced strong growth in building work and engineering construction.¹
 - The value of building activity in Victoria rose by 3.4 per cent in 2016, with a 20.5 per cent increase over five years to December 2016
 - While engineering construction levels in 2016 remained below the ten year peak seen in December 2011, engineering construction rose by 7.6 per cent in 2016 and has seen an overall 17.7 per cent increase since September 2014
 - The total value of construction work in Victoria has trended upwards since 2008.
- Large-scale transport infrastructure projects for Victoria include the Metro Tunnel and level crossing removals.

¹ ABS cat. no. 8755.0, *Construction Work Done*, Table 8. Value of Construction Work Done, chain volume measures, Victoria, trend

- Some employers indicated that the available talent pool for civil engineering draftspersons and technicians may have decreased due to high demand from these projects.
- The Department of Employment Internet Vacancy Index (IVI) for February 2017 indicates that the number of online vacancies for civil engineering draftspersons and technicians in Victoria is slowly increasing. Notwithstanding the increase, vacancy numbers for February 2017 remain well below the five year peak seen in February 2012.²

² Department of Employment, Internet Vacancy Index, February 2017, 12 month moving average