



ENGINEERS
AUSTRALIA

Engineering Vacancies Report

Trends

May 2020



ENGINEERS
AUSTRALIA

Engineering Vacancies Report

Author: Sybilla Grady

All rights reserved. Other than brief extracts, no part of this publication may be reproduced in any form without the written consent of the publisher. The report can be downloaded at www.engineersaustralia.org.au

Engineers Australia
11 National Circuit, Barton ACT 2600
Tel: 02 6270 6555
Email: publicaffairs@engineersaustralia.org.au

www.engineersaustralia.org.au

Table of Contents

Key Points4

Introduction.....5

Australia6

Engineering vacancies by occupation7

The major states8

Tasmania and the territories9

Key Points

- Job vacancies can provide a valuable gauge of the state of the labour market as vacancies are a key indicator of unmet demand for labour in the economy¹. When the demand for labour is strong, the levels of vacancies will also generally rise (and *vice versa*). Analysing movements in engineering vacancies can provide a broad indication of the direction of the engineering labour market.
- Internet vacancy trends experienced the largest monthly decline since the series began in January 2006.
- Australian engineering vacancies have been trending downwards over the past 12 months and this has accelerated monthly due to the bushfires and the COVID-19 pandemic.
- Over the last month, in trend terms, new job advertisements fell by an unprecedented 16.4%
- Engineering vacancies fell by 12.9% in the last month and 42.4% in the last year.
- On both an annual and monthly basis job advertisements decreased across all states and territories.
- On a monthly basis Victoria recorded the strongest downturn, followed by New South Wales and Western Australia.

¹ Edwards. K, and Gustafsson. L, 2013. Reserve Bank of Australia, Bulletin, September Quarter, *Indicators of Labour Demand*. www.rba.gov.au

Introduction

Whilst the economy was already softening in 2020, the effects of prolonged drought, bushfires and COVID-19 have severely impacted all sections of the labour force.

Internal analysis by Engineers Australia estimating job losses due to COVID-19 restrictions since 18 April to 2 May 2020 found an increase in jobs lost. Up to May 2020, the ABS estimates that 7.3% of jobs in the economy were lost.

This report provides a snapshot of the current state of engineering employment in Australia by analysing the direction of change in engineering vacancy numbers. The Australian Government Department of Jobs and Small Business has released its April 2020 Vacancies Report which covers trends in job vacancies to the end of April 2020, including revisions for previous months. The statistics presented are the Department's revised and preferred trend series. All the vacancy numbers and graphs presented in this report are in trend terms.

The monthly Internet Vacancy Index (IVI) is based on a count of online job advertisements newly lodged on SEEK, CareerOne and Australian JobSearch during the month. Duplicate advertisements are removed before the IVI job advertisements are coded by the Department of Education, Skills and Employment to occupations based on the Australian and New Zealand Standard Classification of Occupations (ANZSCO). The data are seasonally adjusted, trended and then indexed (January 2006 = 100).

The IVI does not reflect the total number of job advertisements in the labour market as it does not include jobs advertised through other online job boards, employer websites, or in newspapers. Nor does it take account of vacancies filled using informal methods such as word of mouth. The IVI also does not take account of multiple positions being advertised in a single job advertisement. In addition, departmental research shows that around one fifth of vacancies are not advertised, with employers instead using informal networks, or selecting from job seekers who have directly approached them about job opportunities.²

Job vacancies can provide a valuable gauge of the state of the labour market as vacancies are a key indicator of unmet demand for labour in the economy³. When the demand for labour is strong, the levels of vacancies will also generally rise. Analysing movements in engineering vacancies can provide a broad indication of the direction of the engineering labour market. This report presents vacancy trends in Australia as well as further analysis of engineering occupations trends. These are Australian and New Zealand Standard Classifications of Occupations (ANZSCO) four-digit unit group classifications.

This report will include trends in the following engineering occupations:

- *Engineering managers* (unit group 1332). This includes engineering managers only.
- *Chemical and materials engineers* (unit group 2331). This includes chemical engineers and materials engineers.
- *Civil engineering professionals* (unit group 2332). This includes civil engineers, geotechnical engineers, quantity surveyors, structural engineers and transport engineers.
- *Electrical engineers* (unit group 2333). This includes electrical engineers only.
- *Electronics engineers* (unit group 2334). This includes electronics engineers only.
- *Industrial, mechanical and production engineers* (unit group 2335). This includes industrial engineers, mechanical engineers and production or plant engineers.
- *Mining engineers* (unit group 2336). This includes mining engineers and petroleum engineers.
- *Other engineering professionals* (unit group 2339). This includes aeronautical engineers, agricultural engineers, biomedical engineers, engineering technologists, environmental engineers, naval architects and engineering professionals not elsewhere classified.
- *ICT support and test engineers* (unit group 2632). This includes ICT quality assurance engineers, ICT support engineers and ICT systems test engineers. It must be noted that for this occupation it can be hard to gauge how many of these occupations are engineering specific, so some caution should be taken with numbers for this occupation.
- *Telecommunications engineers* (unit group 2633). This includes telecommunications engineers and telecommunications network engineers.

² <http://lmip.gov.au/default.aspx?LMIP/GainInsights/EmployersRecruitmentInsights>.

³ Edwards, K, and Gustafsson, L, 2013. Reserve Bank of Australia, Bulletin, September Quarter, *Indicators of Labour Demand*. www.rba.gov.au

Australia

Australian engineering vacancies have steadily declined since May 2019, however this decline has accelerated in 2020. On a monthly basis, engineering vacancies declined by 5.5% in January, 8.4% in February, 11.4% in March, and 12.9% in April 2020.

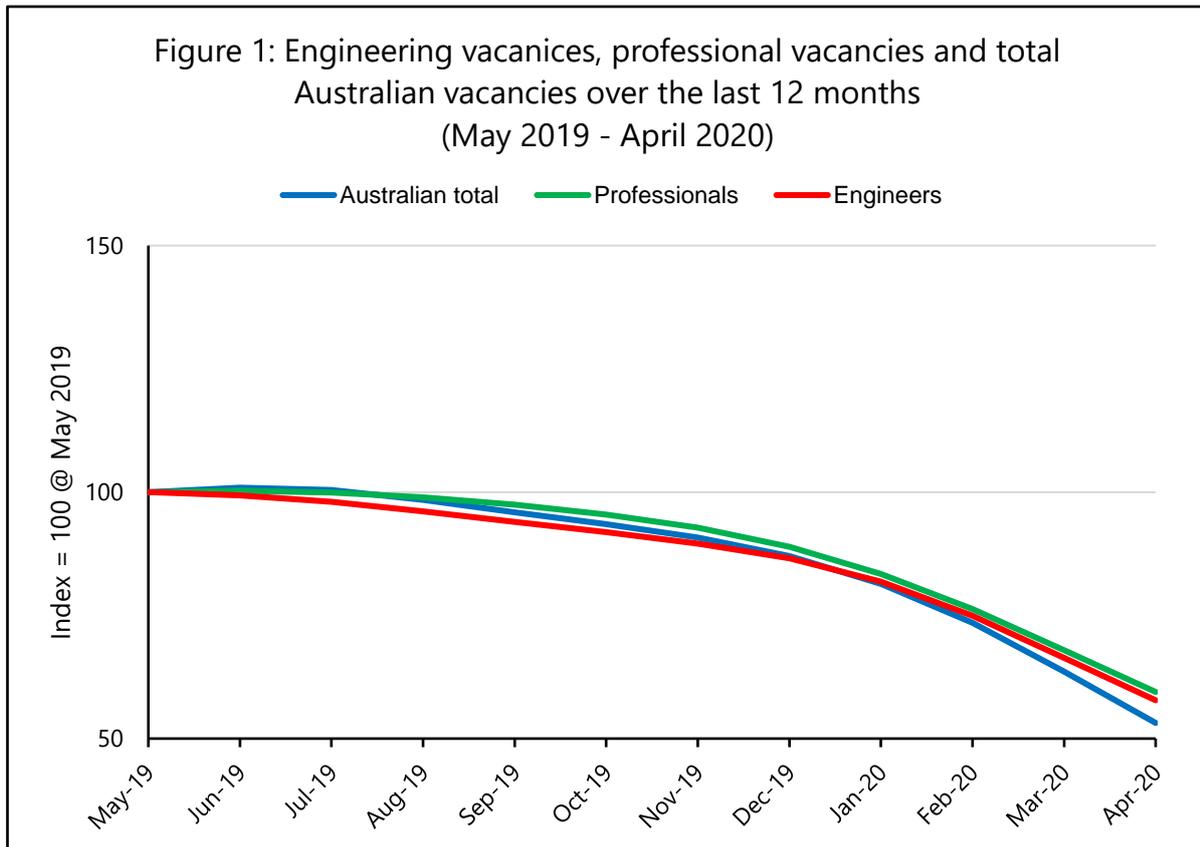
Over the last three months Australian vacancy growth trends have contracted by nearly 23%.

The IVI fell by 16.4% in trend terms (or 18,400 job advertisements) in April 2020. This is the largest monthly decline since records began in January 2006, even surpassing the previous record decline of 8.2% (17,600 job advertisements) observed during the Global Financial Crisis.⁴

All states and territories have experienced decline over the past 12 months, but this downward trend has accelerated in 2020 and particularly in April as we begin to see the effects of pandemic restrictions. Job advertisements decreased across all occupations and engineering positions are no exception. Engineering roles are trending in line with professional roles overall and slightly higher than all other professions across the Australian labour market, as shown in figure 2.

Internet vacancies decreased across all Australian states and territories over the last year, with the strongest falls recorded in Victoria (down by 19.5%), followed by New South Wales (15.5%) and Western Australia (14.0%).⁵

Figure 1 shows the changes in Australian engineering labour force trends over the last 12 months to April 2020, comparing engineering with advertised Professional positions and all positions advertised nationally.



⁴ <http://lmip.gov.au/default.aspx?LMIP/GainInsights/EmployersRecruitmentInsights>.

⁵ *Ibid.*

Engineering vacancies by occupation

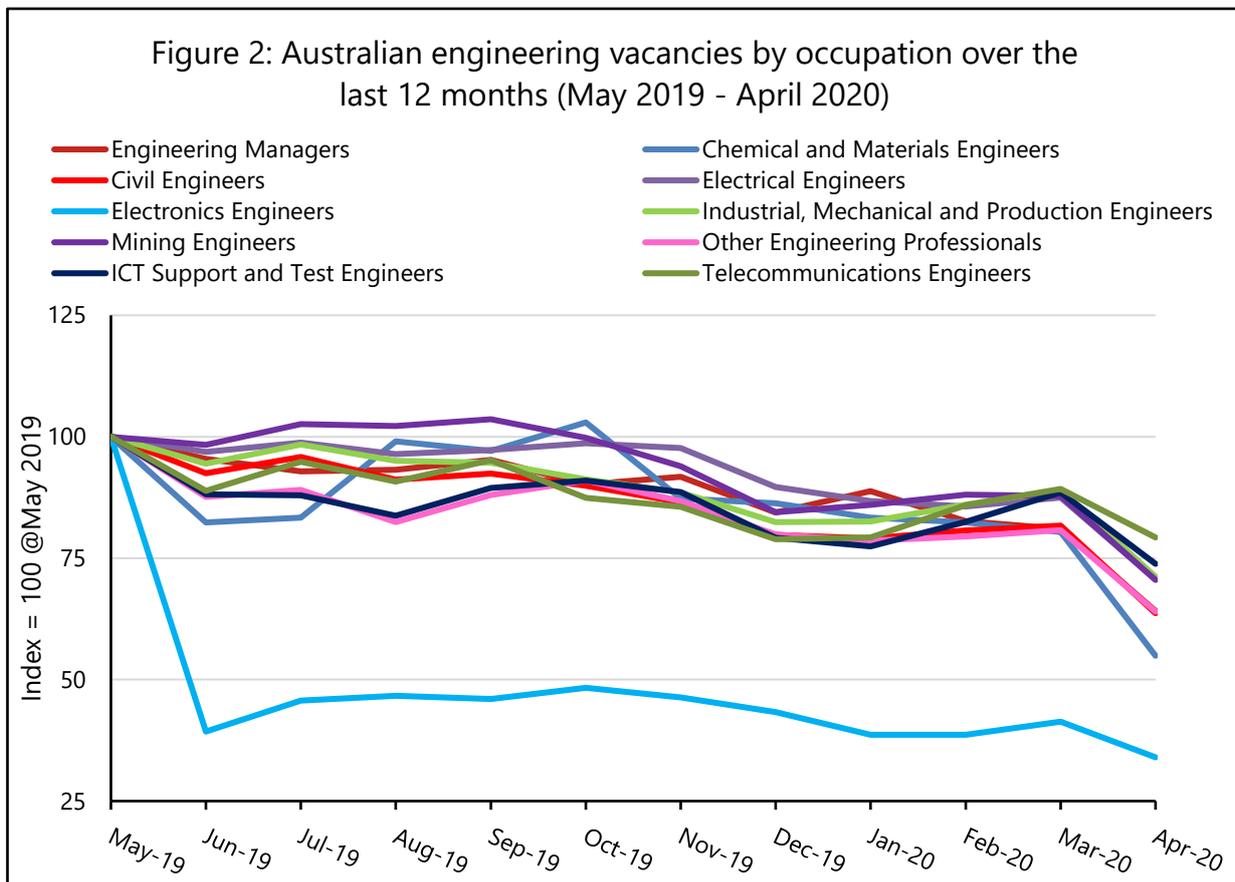
Over the last month, in trend terms, all internet vacancies have declined, including engineering occupations.

Internet advertisements by engineering occupation were greatest for civil engineers and were followed in decreasing order by industrial/mechanical/production engineers, mining engineers, ICT support and test engineers, electrical engineers, other engineers (not elsewhere classified), engineering managers, telecommunications engineers, electronics and finally chemical and materials engineers.

Electronics engineering vacancies experienced a sharp decline between May and June 2019, recovering slightly to remain reasonably steady before reducing again from October. The decline in advertised positions for electronics engineers has continued in 2020.

In the last month, most civil engineering jobs were advertised in NSW, Victoria and Queensland, with WA advertising the most mining engineering positions. NSW and Victoria recorded most vacancies for industrial/mechanical/production engineers and ICT support and test engineers. Victoria, followed by Queensland and WA, advertised most electrical engineering positions.

Figure 2 shows the changes in Australian engineering vacancies by occupation over the last 12 months to April 2020.



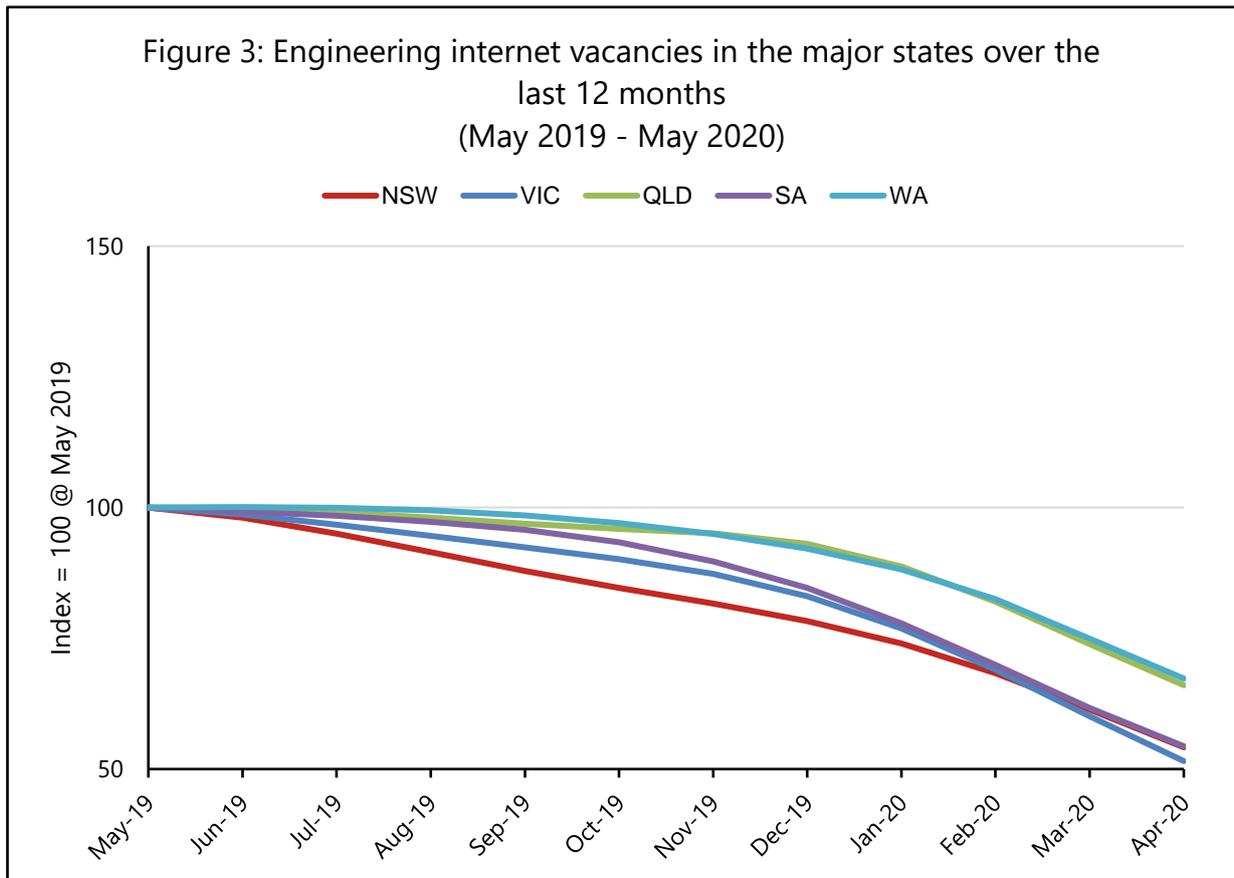
The major states

Whilst the economy was already softening during 2019, since the beginning of 2020 New South Wales, Victoria and South Australia have trended downward at a similar rate in terms of engineering internet vacancy trends.

Western Australia and Queensland have also experienced a decline in the number of advertised engineering roles but have fared slightly better than the others.

In the last 3 months average growth in advertised positions in NSW contracted by 20.7%, 14.3% in Victoria, 19.5% in Queensland, 22.3% in South Australia and 18.4% in Western Australia.

Figure 3 displays trends in Australian engineering internet vacancies in the major states over the last 12 months to April 2020.



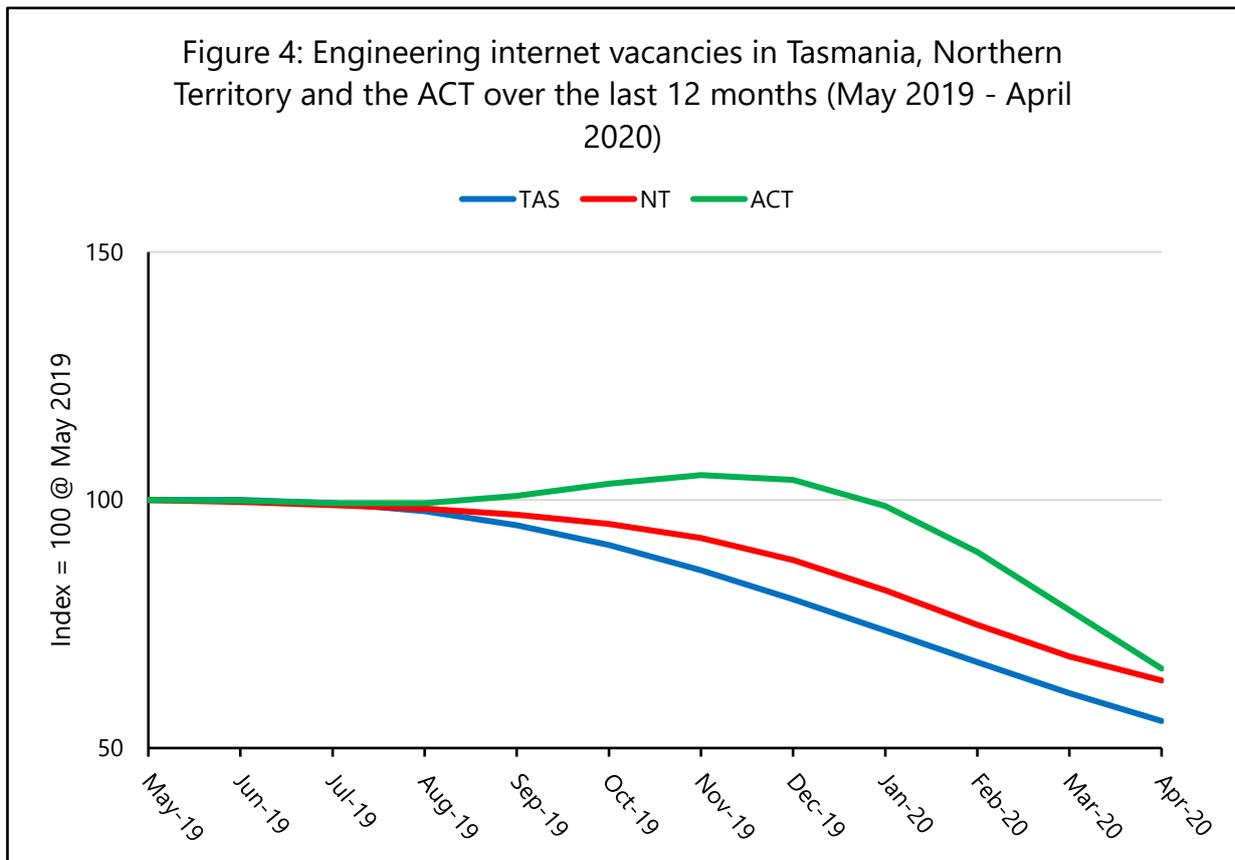
Tasmania and the territories

After a steady second quarter of 2019 Tasmania and the Northern Territory began a downward trajectory in terms of engineering internet vacancy trends. The Northern Territory has trended slightly higher than Tasmania but lower than the ACT.

The ACT experienced a boost in advertised engineering vacancies from August to the end of 2019, but a sharp downturn is evident from 2020, which has resulted in contraction comparable to Northern Territory but slightly less sharp than for Tasmania.

In the last 3 months average growth in advertised positions in Tasmania contracted by 17.6%, 15.0% in the Northern Territory and 26.3% in the ACT

Figure 4 displays trends in Australian engineering internet vacancies in the Tasmania, Northern Territory and Australian Capital Territory over the last 12 months to April 2020.





ENGINEERS
AUSTRALIA