Aligning future supply with demand for VET graduates: A fine grained model of the Victorian labour market, VET system and transitions from education to employment

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Australian labour markets are heating up on the rebound from the COVID-19 pandemic. The rate of unemployment is the lowest in decades. Vacancies are the highest on record. And employers across practically all sectors of the economy are reporting labour shortages. The Vocational Education and Training (VET) system has a central role in meeting this demand and alleviating skill shortages.

Meanwhile, the Final Report of the 2020 *Skill for Victoria’s Growing Economy Review* identified a lack of information as a major barrier to the effectiveness of the Victorian VET system:

*“Learners must know what skill gaps are emerging, and what courses will provide the qualifications to fill them. Businesses must know they can hire workers with the right skills, at the right time and in the right location. Providers must be able to plan their courses knowing what skills are needed in their region and across the state, what student flows they can expect, and what other providers are offering and charging. Government needs data from all these sources so that it can plan with confidence to meet the immediate and longer-term needs of the economy.” (Macklin, 2020, p65)*

There is a clear need to understand rapidly shifting labour market conditions at a fine grain level, and to understand how the supply of VET graduates aligns with those labour market conditions. However, this information is an inherently difficult thing to establish. Up to date employment data at appropriate geographical and occupational detail is not readily available, particularly for labour market mobility. Education and employment pathways are diverse and messy, as students often don’t end up working in the occupation for which their course intended. And the qualification requirements for job entrants are not static, depending on both demand and supply side dynamics.

The Victorian Skills Authority (VSA) is aiming to address these challenges through this research project by considering three questions. First, what is the likely current and future demand for skilled (VET) workers, by occupation, after accounting for employment growth, labour market exits and churn between occupations? Second, what is the expected supply of newly graduated VET students and how do course completion translate to employment outcomes? And finally, is there an expected supply gap for key occupations and what is the extent of the gap?

The VSA (and previously, the Victorian Department of Education and Training) has developed the *Victorian VET Demand-Supply Model* to examine these questions. The model combines a range of analytical approaches to assessing labour demand and supply. Future labour demand is estimated using employment level forecasts and modelled labour market flows between occupations and into/out of employment. Future supply of VET graduates is estimated using a time series forecast of administrative VET-system completions data. Course completions are translated to likely employment outcomes using a course to occupation concordance, developed using a range of data student survey data.

The model gives a comprehensive picture of the supply and demand of VET graduates for detailed occupation (ANSCO 4 digit) and regions across Victoria. It provides an indication of the number of commencements required for individual courses in order to meet future demand. And it helps identify occupations at risk of over or under supply of workers.

The model informs planning, management, and monitoring of VET training activity against workforce needs of the Victorian labour market. The findings guide the annual market-setting process of the VET training market. The findings are made available to VET providers to inform their course provision planning and will also inform the inaugural Victorian Skills Plan in mid-2022.

# Key Words

Labour, VET, Forecasting