

Occupational demand and supply projections

Strategic Review of the Australian Apprenticeship Incentive System

Introduction

Jobs and Skills Australia has prepared this response to a request from Dr Iain Ross AO for data on the number of skilled workers required to meet Australia's workforce demand in the priority sectors of Care, Construction, and Clean Energy to support the Strategic Review of the Australian Apprenticeship Incentive System. The request was for data that moved beyond employment projections to include both a measure of supply of, and demand for, workers.

While Jobs and Skills Australia has commissioned supply and demand modelling for a number of sectors, it is not in a position to provide this kind of information at an economy wide level. In particular, Jobs and Skills Australia is yet to undertake specific analysis of the construction sector.

This response pulls together Jobs and Skills Australia research on workforce supply and demand for the Care and Clean Energy sectors.

Clean Energy Sector

The Clean Energy Generation: workforce needs for a net zero economy

Jobs and Skills Australia published The Clean Energy Generation report in October 2023. The report includes a holistic analysis of the existing and future needs of the clean energy workforce, training and education pathways, and opportunities to transform existing sectors through decarbonisation.

JSA workforce mapping has been applied against the definition of clean energy to describe what constitutes the clean energy workforce and related sectors. These industry segments span energy supply, energy demand, enabling clean energy workforce, the workforce associated with the carbon lifecycle, emissions-intensive sectors and the workforce from transitioning sectors.

The attached published workforce mapping dataset maps the industry and occupations to the clean energy sub-segments developed for this study using census data and the Australian and New Zealand Standard Classification of Occupations (ANZSCO) 4-digit (Unit Group) and the Australian and New Zealand Standard Industrial Classification 4-digit

(Class). The second attachment includes the underlying data used in the Clean Energy Generation report.



workforce_mapping.xlsx



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Care Sector

Care Workforce Labour Market Study

The National Skills Commission published the Care Workforce Labour Market Study in September 2021. The embedded worksheet includes the underlying data from the supply and demand chart used in the Care Workforce Labour Market Study.

The full Care Workforce Labour Market Study can be accessed from

https://www.jobsandskills.gov.au/sites/default/files/2023-12/Care%20Workforce%20Labour%20Market%20Study_0.pdf



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Data on Occupational Mobility

JSA's published attached Data on Occupation Mobility (DOM) datasets captures the annual transitions of workers between occupations at ANZSCO- 6 digit and annual head counts of workers in occupations from 2011-2012 to 2020-2021. The data are derived from administrative data of individual's Income Tax returns from the Australian Tax Office Personal Income Tax data.

DOM comprises of two data sets:

- Occupation flows show how workers transition from one occupation to another.
- Occupation stock flows capture different components of labour supply for occupation
 - Total number of workers in the occupation in a financial year
 - Total number of workers in the occupation in a previous financial year
 - Total number of workers moving into and out of the occupation in a financial year
 - Total number of unaccounted workers in a financial year.

The worksheets can be filtered by occupations of interest in each of the sectors below, which in can help inform questions over workforce supply.



occupation_stock_flows.xlsx



occupation_flows.xlsx



DOM Fact sheet_DEWR_2024.p

Construction Sector

Jobs and Skills Australia has not undertaken detailed analysis of the Construction Sector.

Apprenticeship income

The attachments below provide more granular data on income for people who have taken apprenticeship and non-apprenticeship pathways.



JSA

Apprenticeships revincome_apprentices.



anzsco_unit_code_i