

SUBMISSION

Submission to the Department of Employment and Workplace Relations

Submission to the Jobs and Skills Australia consultation

10 February 2023

The Australian Academy of Technological Sciences and Engineering (ATSE) is a Learned Academy of independent, non-political experts helping Australians understand and use technology to solve complex problems. Bringing together Australia’s leading thinkers in applied science, technology and engineering, ATSE provides impartial, practical and evidence-based advice on how to achieve sustainable solutions and advance prosperity.

ATSE welcomes the opportunity to provide a submission to the consultation on Jobs and Skills Australia’s functions and ways of working. ATSE participated in the August 2022 consultation on the legislation establishing Jobs and Skills Australia. ATSE’s [submission](#) highlighted how the enabling legislation could support robust data collection and expert input to understand skills supply and demand. This submission builds on these themes by suggesting how Jobs and Skills Australia can be best positioned to provide the analysis needed to tackle Australia’s skills needs.

ATSE makes the following recommendations:

Recommendation 1: That Jobs and Skills Australia develops and administers a National Skills Taxonomy in consultation with the skills and training sector to guide its data collection and activities.

Recommendation 2: That ‘equity and diversity’ is embedded as a guiding principle of Jobs and Skills Australia.

Recommendation 3: That Jobs and Skills Australia engages stakeholders including the learned academies in their planning and activities.

Building an evidence base

It is critical that Jobs and Skills Australia is set up with clearly outlined functions and principles to facilitate the creation of comprehensive, credible, and publicly available workforce and skills analysis. The analysis on skills needs conducted by Jobs and Skills Australia can and should inform policy decisions in areas including education and migration to ensure Australia is developing and importing the right skills at the right time. A robust evidence base will enable these key policy decisions to be made in a way that supports the needs of the Australian economy now and into the future.

A limitation to understanding Australia’s skills needs and supply is the lack of a common language. ATSE’s broadly consulted 2022 report [Our STEM Skilled Future](#) identified this lack of common language as a barrier to addressing the persistent skills shortages in STEM (science, technology, engineering, and mathematics) fields that pose an increasing threat to Australia’s economic security, particularly ahead of a clean energy transformation.. To facilitate a stronger evidence base, Jobs and Skills Australia should coordinate and administer a National Skills Taxonomy: this will be a vital tool in building a common, cross-sector skills registry, and to forecast demand. The National Skills Taxonomy should be developed across all skill areas, with the taxonomy for areas of pressing shortages such as digital skills being developed as a priority. This framework should build upon the work of the former National Skills Commission on the Australian Skills Classification, launched in 2021. The current version of around 1,100 occupational skills profiles could be expanded out to become a comprehensive taxonomy across all skill areas. The framework would provide the basis of robust data collection and insights into the workforce and projected skills needs.

The development of a single skills taxonomy is supported throughout the skills and training sector with numerous organisations currently in development of a taxonomy. While this indicates strong demand, the development of a multitude of taxonomies, or taxonomies that only apply to a single field like digital skills, can cause more confusion. Given its role as a national body, Jobs and Skills Australia should synthesise current and existing taxonomies to develop a single, easy to use central reference. ATSE recommends that the creation of a National Skills Taxonomy should be embedded into Jobs and Skills Australia’s near-term workplan, to underpin its future activities in collecting information and conducting workforce studies.

Recommendation 1: That Jobs and Skills Australia develops and administers a National Skills Taxonomy in consultation with the skills and training sector to guide its data collection and activities.

Understanding workforce diversity

As identified by the Government's Jobs and Skills Summit, despite skills shortages in many sectors, there remain barriers to appropriate education and full employment; particularly for underrepresented groups such as Aboriginal and Torres Strait Islander people, and migrants. Despite the many data sources on workforce participation of underrepresented groups, some areas remain insufficiently studied. Jobs and Skills Australia should conduct comprehensive data collection on workforce diversity across a range of dimensions, creating one data source to understand workforce composition and assist end-users to identify where interventions should be targeted. For example, women comprise only 27% of the STEM workforce, with only one-third of those women who hold STEM qualifications actually working in the STEM sector (Department of Industry, Science and Resources, 2022). Further analysis would enable Jobs and Skills Australia to examine women's participation in different STEM disciplines, track progress over time, and draw together the impact of policy changes in training and migration. Jobs and Skills Australia can also perform the important function of gathering data on Aboriginal and Torres Strait Islander workforce participation in STEM, a statistic which is currently not collected.

Jobs and Skills Australia represents an opportunity to not only conduct research and analysis on workforce equity and diversity, but also use data to identify areas for intervention and monitor impacts over time. Diversity should be considered as a core dimension and relevant data collected on all studies conducted by Jobs and Skills Australia. It is therefore recommended that 'equity and diversity' be one of the principles guiding Jobs and Skills Australia's priorities and workplan development.

Recommendation 2: That 'equity and diversity' is embedded as a guiding principle of Jobs and Skills Australia.

Engaging experts for advice

ATSE welcomes the proposal to increase Jobs and Skills Australia's outreach to seek feedback and inform stakeholders. In addition to the bodies that Jobs and Skills Australia is obliged to consult with under its enabling legislation, there is benefit in drawing upon a variety of representative bodies. This would facilitate insights and support actions on workforce issues, including in engineering where there has been a lack of coordination to address skills shortages. Jobs and Skills Australia could benefit from ongoing and structural engagement with the learned academies to source expert insights for planning and major studies. Learned academies including ATSE also routinely engage Fellows to understand the most pressing issues facing their sectors, including workforce challenges; these insights could enrich the planning and activities undertaken by Jobs and Skills Australia.

Recommendation 3: That Jobs and Skills Australia engages stakeholders including the learned academies in their planning and activities.

References

Australian Academy of Technological Sciences and Engineering (ATSE), 2022. Our STEM skilled future — An education roadmap for an innovative workforce. Accessed from <https://www.atse.org.au/research-and-policy/publications/publication/our-stem-skilled-future-an-education-roadmap-for-an-innovative-workforce/>

Department of Industry, Science and Resources, 2022. STEM Equity Monitor. Accessed from <https://www.industry.gov.au/publications/stem-equity-monitor>

