

Supporting Women to Achieve VET-Based Careers

Investing in our future workforce today.

Chris Lehmann & Georgia Holmes
15 December 2023



Master Electricians Australia (MEA) is the trade association representing electrical contractors recognised by industry, government and the community as the electrical industry's leading business partner, knowledge source and advocate. Our website is www.masterelectricians.com.au

MEA believes that Vocational Education Training in Secondary Schools (VETSS) with an equal weighting to Australian Tertiary Admission Ranking (ATAR), is the best solution to enhancing gender diversity in Science, Technology, Engineering and Math (STEM) trades. The benefits include better equipped personnel entering the workforce, enhanced aptitude and competency screening, heightened attraction and retention and greater gender diversity in the workplace through early exposure in a supportive environment. MEA sees this as the pivotal role in actioning societal, structural and systemic change. We believe this will lead to enhanced economic prosperity for women as we expect to see better aptitude screening resulting in better greater career longevity as well as employers becoming more accommodating towards gender diversity in their daily operations.

As representatives of licenced electrical contractors across Australia, our response is focused on improving VET for STEM trades.

Questions

Design of Initiatives

Q1. What experiences and lessons can we learn from current or former policies and programs, to inform initiatives to support women to achieve careers via VET pathways?

Throughout many submissions, MEA has strongly advocated for Government invest public funding towards integrating VET courses into the secondary school curriculum with an equal weighting to ATAR. We believe this is one of the key solutions to both gender diversity and skills shortage problems in STEM trades. The current schooling system moulds students to fit an academic structure, leaving behind those who are unwilling or unable to conform. VETSS exposure and targeted training provides all students equal opportunities for future success by cultivating a supportive and encouraging environment.

The benefits of VETSS include better equipped personnel entering the workforce, enhanced aptitude and competency screening, heightened attraction and retention and greater diversity in the workplace through early exposure in a supportive environment. MEA sees this as a pivotal tool in supporting societal, structural and systemic change with regards to non-traditional cohorts entering trades.

MEA's Advocacy team has seen the benefits of such schooling systems, having given multiple presentations to year 11-12 VET based schools. He has seen that many students, who would otherwise be disengaged with their education, have become career driven through exposure to VETSS. Enhanced aptitude and competency screening has better positioned these students to focus on valuable skills relevant to their desired career in addition to soft skills beneficial to STEM trades overall. MEA strongly believes this schooling curriculum needs to be extended and mainstreamed into traditional schooling alongside ATAR. There are not currently many of these VET schools which are still perceived as inferior to traditional ATAR based schooling.

Investing in aptitude and competency at the school level will put many Australians on the first rung of the ladder of success in a rewarding career. All other initiatives and campaigns will potentially be limited in effectiveness and become a less effective use of precious taxpayer money.



Q2. How can we ensure initiatives address key concerns regarding women's economic equality and support Australia's productivity?

We believe VETSS will embed long-term systemic change towards improving women's economic equality in STEM trades. While immediate remedial actions of gender pay discrepancies would happen in an ideal world, we are wary that solutions creating immediate results lack the necessary foundation for sustainable success. There are multiple factors inhibiting female economic success in STEM trades including parental responsibilities, stereotypes, sexual harassment and insufficient support.¹ These societally engrained issues cannot be resolved over-night, and any attempt to do so would be a bandage on a bullet wound at best. To give our women the best chance at economic equality and success in STEM trades, we need to address the problem through the youngest generation; to create a generational awareness and attitude change towards women in STEM. We can expect to see the industry eventually become more accommodating towards women in the trades, enhancing opportunities to obtain high-paying roles along with men.

As noted in Q1, VETSS allows for better aptitude and competency screening of students which is likely to enhance attraction and retention of STEM trades. Matching women to trades best suited to their skills at an early age will enhance the longevity of their career, resulting in economic prosperity.

Q3. What cohorts of women should VET initiatives specifically target?

As part of the school curriculum, VETSS would be intentionally exposed to all women. Regardless of diversities amongst women (i.e. disabilities, skill capabilities, culture) all women will at the very least be exposed to opportunities available for them to upskill towards a successful STEM career and positioned to receive educational and cultural support towards achieving financial success.

Q4. What other areas could initiatives target?

MEA are strong advocates for electrification through utilisation of consumer energy resources (CER) and the importance of utilising private licenced electrical contractors for their installation and maintenance. As a representative body of small and medium electrical contracting businesses across Australia, we believe VET is an essential key solution towards resolving the skills shortage crisis (which electrification will only add pressure to). However, while we advocate for VETSS with the intention of generating more electricians in the future, we recognise the importance of ensuring apprentices align their skills to the correct occupation within STEM; otherwise risk significant retention issues which ultimately does not resolve skills shortage issues. We believe VETSS provides opportunities for enhanced aptitude and competency screening to ensure all students are best matched with the correct trade for them, thereby enhancing not only women attraction and retention rates in the electrical industry, but all industries.

Through VETSS, all students regardless of geographical location will be exposed to VET courses which is likely to lead to a larger number of students going out of their way to continue tertiary training in STEM trades, having already piqued their interest and initiated skills development in a career suited to them.

Q5. How should we evaluate the effectiveness of initiatives?

Continued annual commencement, retention and cancellation statistics provided by the National Centre for Vocational Education Research (NCVER) will assist in evidencing the effectiveness of the VETSS initiative in 10 years (and the years following). As noted in Q2, VETSS provides a long-term sustainable solution to the skills shortage crisis and gender

¹ VIC Women in Energy Consultation.

diversity, starting at our youngest generation. We are investing in our future STEM women workforce today.

Use of Tailored Support

Q6. What kinds of vocational and non-vocational assistance do women need to successfully undertake and achieve VET qualification?

Please refer to Qs 1-5.

Q7. Are there existing organisations that could assist women in VET with vocational and non-vocational barriers?

In addition to the secondary school curriculum, registered training organisations (RTOs such as TAFE) are resources to be taken advantage of in continued education and training of women in STEM trades. Ensuring VETSS courses are aligned with RTO frameworks to allow a continued and seamless education in VET will provide further encouragement for women to continue training towards STEM trades.

Beyond TAFE specifically, we note the significant impact mentoring holds in further developing careers, especially useful for female STEM apprentices. Mitchell & Dobbs reported that “support mechanisms Mentoring, buddy systems and other support mechanisms were almost universal across the ‘best practice’ firms”². This is supported by the results of a case study conducted by Cambridge of Policy Consultants, commissioned by the TUC, who found that “around two thirds of [the] case study employers considered that mentoring was a good way of supporting communication between the employer and the apprentice”³. Notably,

“A number of employers highlighted the role of mentoring support in improving internal communications and thus retention and completion rate of apprentices. These organisations felt that mentoring provision has been a crucial element in apprentice retention”⁴.

The same research found students were noticing the same benefits where “a number of mentees considered that the mentoring support had made them more motivated and in one case the mentee felt the support received had made the difference in their decision to remain with the company”⁵.

This is particularly comforting in light of Group Training Organisations (GTOs) statement identifying “the single most important factor ... for non-completion was the apprentice’s attitude to work, and almost threequarters of GTOs considered this an important factor for non-completion”⁶. These studies attest to the the invaluable role organisations, such as TAFE, have in enhancing female VET careers. By combining seamless integration of VETSS towards TAFE, we can expect to see supported, inspired and determined females entering the STEM workforce, with access to strong mentorship to further advance their careers.

Q8. What sorts of services and support do TAFE and training providers offer to assist students, particularly women, to participate in VET? What services have proven most effective? What other services and supports could be provided?

TAFE is already the pre-eminent GTO in Australia and should continue pursuing that reputation. By designing VETSS integration to be aligned with TAFE, students will have a

² Mitchell, J & Dobbs, G (2008) as was found in Alice Bednarz, ‘Understanding the non-completion of apprentices’, (National Centre for Vocational Education Training) (2014), 29.<
([Understanding the non-completion of apprentices \(cica.org.au\)](http://cica.org.au))

³ Hirst, A, Short, C & Rinne, S, ‘The role of mentoring in supporting Apprenticeships’, (April 2014), 13 <[TUC Mentoring Role Supporting Apprenticeships \(4\).pdf \(unionlearn.org.uk\)](http://tuc.org.au/mentoring-role-supporting-apprenticeships-4.pdf)>

⁴ Ibid

⁵ (n3), 14.

⁶ (n3), 13.

seamless transition from secondary to tertiary education likely to lead to higher retention rates in STEM trades.

Q9. How can we encourage and support more employers and training providers to:

- Achieve more diverse workforces
- Create culturally safe and inclusive workplaces
- Remove barriers to women and carers who want to work and/or upskill
- Implement more flexible work arrangements
- Embed inclusivity into learning environments

MEA believe VETSS has the ability to create a generational systemic and cultural change in stereotypes regarding STEM trade gender diversity and improvements in representation in other non-traditional cohorts. As the diversity of students engaging in VETSS increases, the diversity in STEM apprentices increases, to which we can expect STEM trade employers begin replicating corporate flexibility to accommodate diverse lifestyle requirements (i.e. mothers). Creating a skilled pool of women labour in the STEM market is necessary to motivate STEM trade industry employers to alter their business operations. Given the skills shortage crisis, especially in light of significant electrification movements, employers are likely to embrace action required to enhance women skilled labour available.

Q10. What kind/s of assistance do employers need to actively support these types of initiatives?

Please refer to Qs 1-9.

11. How can we assist and encourage employers to support women to upskill through VET qualifications?

By providing a larger skilled pool of female labour in STEM trades, employers will become more incentivised to develop procedures assisting women to upskill. Where women become more predominant in the field, it makes sense for employers to invest in initiatives and programmes which support women upskilling. As mentioned throughout this submission, employers are suffering from the skills shortage crisis; anecdotal evidence suggests the lack of women being hired is not the result of gender discriminate hiring procedures, rather the result of an insufficient number of women entering trades. It would therefore naturally be in employers' best interests to provide opportunities to upskill women if and when they become more available to hire.

Conclusion

MEA's position is for Government to prioritise the investment of precious public funding in a streamlined and integrated VET secondary school curriculum, with an equal weight to ATAR, to help address diversity in STEM careers. This would ensure all women have been exposed to VET/ STEM pathways at a younger age regardless of background, in a structured and supportive environment. We can expect to see longevity of women's STEM careers improving in the future. All students, beyond academia, would have the opportunity to excel in a supportive educational environment best suited to individuals' skills. This creates opportunity for aptitude and competency screening thereby enhancing attraction and retention in the workplace, especially when partnered with the proven GTO employment model.

MEA believes that focusing on training a younger and more diverse generation at the later stages of secondary schooling is the most effective use of Government spending on STEM initiatives and addresses both diversity in STEM and skills shortages. Campaigns targeting post-secondary school to change entrenched behaviours and beliefs in Industry and society, whilst worthy, should be in support of the strategy, not the main thrust of it. To support this assertion, according to NCVET data the current average age of commencing STEM trade is 24 years old, meaning that for an increasing number of citizens, there is a 6–7-year gap between finishing secondary school, and starting a well-paid career in a STEM occupation in areas of vital need for the Australian economy.

With the anticipated generational shift in stereotype of women participating in STEM trades, it can be expected that more employers will naturally become more accommodating towards women. Not only will it become the natural response for STEM trades to reflect the flexible corporate model, but will also assist in relieving skills shortage pressures being faced by employers, which (especially in the electrical industry) electrification is only going to make harder. It will be in employers' best interests to accommodate women by providing operational flexibility and supporting a successful career path for economic success.