



ENGINEERS
AUSTRALIA

Australia's Migration Program: Review of the points test

Engineers Australia's submission to the
Department of Home Affairs

Australia's Migration Program: Review of the points test

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Executive Summary

To deliver on Australia's national priorities, we will need more engineers. The Government's major investments under its *Future Made in Australia* agenda, including in the energy transition to net zero, critical minerals, and quantum and AI technologies, are all reliant on engineers and engineering skills. This is in addition to skill shortages of engineers already identified in other critical sectors such as building and construction, infrastructure, transport, and manufacturing.

However, the statistics are telling. Over 60 per cent of Australia's engineering workforce were born overseas. While all migrant engineers are vital to the profession, without female migrant engineers, diversity in the profession would be non-existent. Only 4.1 per cent of qualified engineers in the engineering labour force in Australia are women who were born in Australia, whereas overseas-born women comprise 11.8 per cent of all qualified engineers in the labour force in Australia.

Despite Australia's dependence on migrant engineers, this cohort encounters significant challenges in gaining employment that matches their skills and experience level. This is leading to an ever-increasing gap between qualified engineers in Australia and those working in an engineering position.

Australia's migration program needs to do more to support migrant engineers, starting with the points test. Engineers Australia has long advocated for changes to the points test as it can currently be tailored to favour a variety of outcomes, not necessarily ones which support migrants finding employment in engineering. Engineers Australia's *Barriers to employment for migrant engineers* research identifies several barriers migrants face, with 'local' experience being a key issue. While Engineers Australia and others can (and do) support these engineers, Australia's migration program needs to target the right skills and experience from the outset, ensuring the engineers who arrive in Australia will be in demand.

To better utilise the migrant engineers coming to Australia, we need to target the skills and experience required to overcome Australia's biggest challenges and deliver on our national priorities. Currently, Australia's migration program prioritises age. While the economic benefits of this are evident, professions like engineering need to focus on those with the right experience. Targeting skills and experience to increase job prosperity will require a more detailed view of the skills we need that cannot be filled by local engineers.

Supporting more locally trained engineers is also necessary and can be done by ensuring international students who graduate locally – and therefore already have familiarity with Australian standards and practice – are supported to remain in the country. The Professional Year in Engineering program is an example of how international graduates are currently being supported, with experience-rich workplace internships charting a clear path to improved employment outcomes. Analysis of the Professional Year in Engineering program shows overall employment for engineering graduates who complete Professional Year is above 80 per cent.

Engineers Australia supports the Department of Home Affairs' review of Australia's points test. This submission provides insights into Australia's engineering workforce, demonstrating the importance of a migration program which supports those coming to Australia to find employment commensurate with their skills and experience. This will enable them to contribute to society and the economy while ensuring Australia is a destination of choice in the global fight for engineering expertise.

Summary of Recommendations

- The Department of Home Affairs should work with Engineers Australia to develop a model for the requirements of the Professional Year in Engineering program that ensures it is innovative, fit-for-purpose and retains the integrity required to support migration points.
- The points allocated for the Professional Year in Engineering program should be increased for those who gain employment in engineering after the program to recognise the additional learnings and experience they have gained, as equivalent to one year's experience.

- Australia's points test needs to prioritise the skills and experience needed in Australia to provide migrants the best chance of building successful careers in Australia, and employers gaining access to the talent that they need. The system needs to include a more detailed view of the skills required, with bonus points allocated to skills in priority industries (such as renewable energy).
- Governments should consider national funding for initiatives such as the Global Engineering Talent program which helps to overcome barriers to employment for migrant engineers.

Introduction

Engineers Australia has been engaging with the Australian Government on Australia's migration program, first outlining our concerns in a submission made to the *Joint Standing Committee on Migration inquiry* in 2021. Since then, Engineers Australia has engaged both the Department and the relevant Ministers on the critical need to increase engineering talent in Australia, the issues migrant engineers are facing, and how the migration program can better support them and the employers that rely on their skills.

In 2022 Engineers Australia released a report on *Strengthening the engineering workforce in Australia: Solutions to address the skills shortage in the short, medium and long term*. To help address the chronic challenges facing Australia's engineering capability, the report provided two recommendations for government, specifically targeting the migration program:

- Government should provide support to skilled migrant engineers who are already in Australia but who have been unable to secure an engineering job; and
- The [Commonwealth] Government should refine Australia's migration program objectives to be more targeted, to attract migrants with the specific experience and skills required, increasing their employability.

These recommendations are based on evidence, including from groundbreaking research commissioned by Engineers Australia into the *Barriers to employment for migrant engineers*. This research showed that over 60 per cent of Australia's engineering workforce were born overseas and most are skilled migrants.¹ However, this cohort of engineers are significantly more likely than their Australia-born counterparts to be under or unemployed.

Engineers Australia supports the Government's focus on reforming Australia's migration program. The work done to date and the release of Australia's Migration Strategy are a step in the right direction. Engineers Australia further supports this inquiry into the points-based system.

About Engineers Australia

As Australia's national body for engineering, we are the voice and champion of our 120,000-plus members. We provide them with the resources, connections, and growth they need to do ethical, competent and high-value work in our communities. A mission-based, not-for-profit professional association, Engineers Australia is constituted by Royal Charter to advance the science and practice of engineering for the benefit of the community.

Engineers Australia maintains national professional standards, benchmarked against international norms. As Australia's signatory to the International Engineering Alliance (IEA), this includes accreditation of undergraduate university engineering programs.

¹ 60 per cent are updated figures from analysis of the 2021 Census data made available by the ABS

Contact

Engineers Australia is keen to engage the department on the issues raised in this submission, particularly the points around the *Professional Year Program*. To arrange a discussion please contact Michael Bell, Policy Lead, at mbell@engineersaustralia.org.au or on +61 8 6214 6321.

Conflict of interest

Under the Migration Regulations 1994, Engineers Australia is the designated assessing authority to perform the assessment of the potential migrant engineering professionals' skills, qualifications, and/or work experience to ensure they meet the occupational standards needed for employment in Australia.

Engineering Education Australia is a subsidiary of Engineers Australia. The section on Professional Year in this report is developed drawing on independent analysis of the Professional Year program offered by Engineering Education Australia. It is supported by facts and discussions with the program providers.

The submission is guided by our code of ethics and Engineers Australia's Royal Charter which requires us to put the benefit of society first.

About this submission

This submission demonstrates Australia's engineering workforce is highly reliant on the supply of migrant engineers. Research by Engineers Australia shows migrant engineers in Australia often face significant barriers to finding employment commensurate to their skill and experience level. Therefore, Australia's migration program needs to deliver on the policy outcome, which should be to ensure the nation has the engineering capability required to meet the needs of the country.

The submission provides a snapshot of the engineering profession in Australia, pulled from analysis of the 2021 Census Data made available from the Australian Bureau of Statistics. Data is also used from the Department of Education relevant to 2022 and Jobs and Skills Australia.

It then explores the importance of a migration program which focuses on employment outcomes for engineers. Part of this is the support mechanisms made available to international students and recent graduates. From here, the submission will provide details on the importance of the *Professional Year* program currently legislated in the Migration Act 1994.

Data sources

The data used in this submission is drawn from three previous reports released by Engineers Australia:

- [The engineering profession: a statistical overview, 15th edition](#) (2023)
- [Strengthening the engineering workforce in Australia](#) (2022)
- [Barriers to employment for migrant engineers](#) (2021)

This is further supplemented by the Australian Council of Engineering Deans (ACED) [Australian Engineering Higher Education Statistics](#) report. This report is being updated by Engineers Australia in collaboration with the ACED. The most up-to-date and relevant statistics are used in this submission.

1. Australia's engineering workforce

1.1. Australia's reliance on overseas born engineers

Australia's engineering capability is influenced by domestic engineering graduates, international students graduating from a local university and remaining in Australia, and international skilled migrants. Over the years, Australia has become highly reliant on migrant engineers, with overseas born engineers working in engineering in Australia making up more than half of our engineering capability.

While we are heavily reliant on these engineering skills, this cohort of engineers face their own challenges which has resulted in a growing divergence between the number of qualified engineers in Australia and those working in engineering occupations. The cyclical shortages are experienced in line with the boom-bust cycle typical of the modern Australian economy.

Analysis of recent vacancy data from Jobs and Skills Australia shows the number of vacancies in Australia is still high, although they have been decreasing over the last six months. Outlooks continue to show the demand for engineers to be high over the coming years. This is due to the continuation of infrastructure investment across Australia as well as the need for engineers to help achieve national priorities such as decarbonisation and meeting emissions reductions targets, Australia's energy transition and a future made in Australia.

This demand for engineers is at a time when domestic completions in engineering and related technologies bachelor's courses have plateaued in Australia after peaking in 2018. Increasing Australia's domestic supply of engineering capability is further hindered by Australia's declining performance in mathematics and science education.

Engineers Australia supports the work being undertaken by the Australia Government on the Universities Accord. More needs to be done to support students locally to undertake study in STEM subjects. However, there will continue to be a need for migrant engineers to shore up our engineering capability over the short to medium term.

The criticality of Australia's migrant engineering workforce cannot be overstated. Accounting for more than half of Australia's engineering capability, they are vital for delivering national priorities such as infrastructure, housing, and the energy transition. Further than that though, they are also pivotal for diversity in the engineering profession.

1.2. Engineers in Australia by the numbers

- There are around 550,000 qualified engineers in Australia, a 4.9 per cent increase between 2016 and 2021. Of these around 433,000 are in the labour force.
- Of these, only about 45 per cent (243,000) are working in engineering occupations.
- Over 55 per cent of engineers working in engineering occupations in Australia were born overseas.

Table 1: Top five countries of origin for qualified engineers working in engineering

| Country | Number of engineers in Australia working in engineering occupations |
|----------------|--|
| India | 29,612 |
| China | 10,903 |
| United Kingdom | 10,492 |
| Philippines | 6,073 |
| Sri Lanka | 5,384 |

Table 2: Top 5 industries of overseas born engineers working in engineering²

| Industry | Number of overseas born engineers in Australia working in engineering |
|---|--|
| Professional, scientific and technical services | 40,637 |
| Manufacturing | 15,033 |
| Construction | 16,097 |
| Public administration and safety | 8,797 |
| Mining | 7,819 |

1.3. Barriers facing migrant engineers in Australia

Engineers Australia *Barriers to employment for migrant engineers* research showed the top barrier to employment for migrant engineers is a lack of work experience locally.

1. No local (Australian) work experience
2. International experience not valued in Australia
3. No local (Australian) networks
4. No local references
5. Only jobs for AU citizens / residents.

To support migrant engineers, Engineers Australia developed the *Global Engineering Talent (GET) Program*, which was modelled on Engineering Education Australia's *Professional Year in Engineering* program. GET has received funding from both the Northern Territory and Queensland Governments to help overcome the barriers experienced engineers are facing. This program has been highlighted as a

² Pulled from distribution of engineers by primary industry (the Division level of ANZSIC) and a range of other parameters

case study by the Australian Government in both the Diversity in STEM review and Infrastructure Australia's Market Capacity Report.

Australia's migration program needs to ensure the correct skills and experience are targeted to alleviate workforce challenges. While the barriers identified above may not change, targeting the right experience and skills, which are not readily available in Australia, will help to overcome them. This combined with support programs such as Professional Year and the GET program, will further achieve the migration program objectives, supporting economic growth and project delivery.

1.4. Diversity in the profession

Engineers Australia supports the work being undertaken by the Government on improving Diversity in STEM. In Australia, 76 per cent of qualified engineers who are women, were born overseas. Only 3.8 per cent of the entire qualified population of engineers in Australia are women who were born in Australia. Preliminary analysis of publicly available data showing completions in engineering and related technologies in 2022 shows only 17 per cent of domestic completions in an engineering bachelors were female. Overall, only 14 per cent of the engineering workforce are women (women engineers in engineering roles) and only 16 per cent of qualified engineers in the labour force are women.

The benefits of diversity are well established. Without overseas-born female engineers, the gender diversity in the profession would be considerably lower. Female overseas born engineers are important to improving gender diversity, as you cannot be what you cannot see, and they can provide mentorship and are role models for the next generation.

Overseas-born engineers bring different perspectives which can further help Australian projects. The worth of an engineer is not solely their ability to practically apply mathematics and science principles to solve complex problems, but also use their experiences and implicit knowledge accumulated during their working lives to innovate and collaborate.

1.4.1. Response to question

| | |
|---|---|
| How could the points test support gender equality in the Australian labour market? | <p>As identified above, without overseas born female engineers, diversity in Australia's engineering profession would be woeful.</p> <p>The points system could provide additional points to support gender diversity in priority occupations such as engineering.</p> <p>However, before doing this, the Australian Government should consider the recommendations from the Diversity in STEM final report on creating a safe and inclusive workplace to ensure that migrant workers who came to Australia in heavily male-dominated industries are not facing discrimination and/or harassment, causing harm to their health and wellbeing.</p> |
|---|---|

1.5. International students

Australia has a great reputation for our high-quality education for international students. Table 1 below shows a preliminary snapshot based on publicly available data of both domestic and international completions of a bachelor's qualification in engineering and related technologies in Australia.

Table 3: Completions at a bachelors level in engineering and related technologies 2020-22

| Students | 2020 | 2021 | 2022 |
|----------------------|--------------|--------------|--------------|
| Domestic | 7,428 | 7,626 | 7,960 |
| International | 5,030 | 4,879 | 4,757 |
| Total | 12,458 | 12,505 | 12,717 |

Engineering graduates in Australia experience strong employment outcomes with around 87 per cent of graduates in full time employment in 2021 and 2022. While employment outcomes are positive, graduates don't always move into engineering occupations. The supply of engineers in Australia is further impacted by a 'pull' of engineers out of the profession as their problem-solving skills are attractive to a range of sectors and employers. Over 40 per cent of all qualified engineers in Australia do not work in engineering. Simply increasing intakes of undergraduate engineers will not solve the problem of engineering skills shortages. Greater investment is needed to support graduating engineers to transition to an engineering role – this includes experience-rich internships and graduate programs.

1.5.1. Benefits of retaining international students

International students who graduate locally are a well-trained and nationally beneficial cohort of engineers who should be supported to transition to a permanent migration visa. This cohort of engineers in Australia don't face as many barriers as migrant engineers, as they will already have some Australian experience (through work integrated learning), would have started building local networks through their university course, and are familiar with Australian standards and practice. There are unconscious biases which will still go against them, however programs such as *Professional Year in Engineering* can support them entering the Australian workforce.

2. Professional Year

2.1. Why it is beneficial

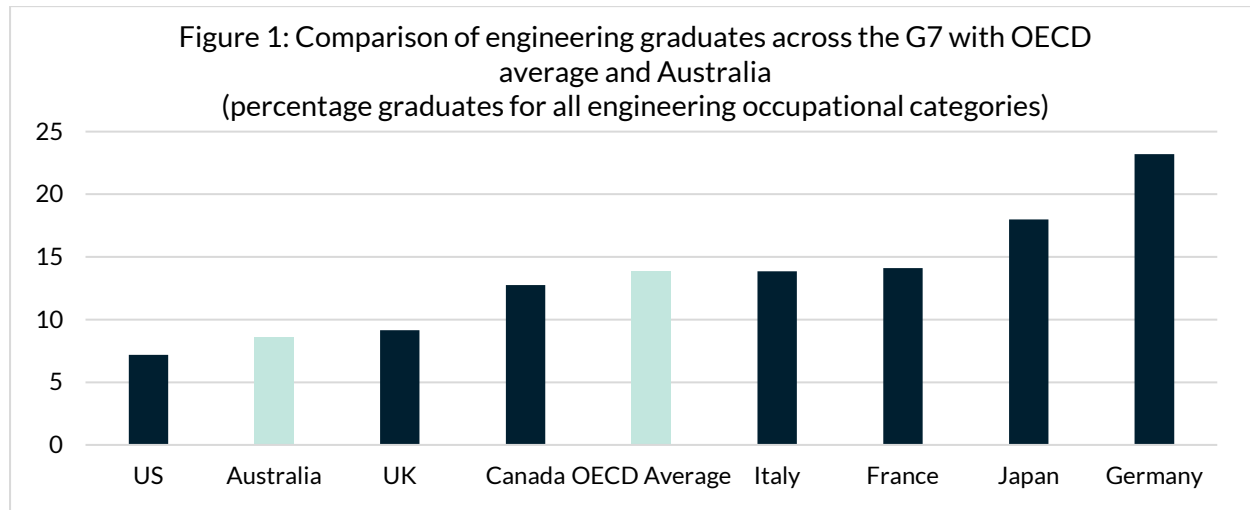
The Professional Year program was developed based on a report commissioned by Government in 2005. The report found international graduates of Australian higher education programs were lacking in the vocational knowledge base needed in their fields. They also lacked the work experience and English language proficiency employers expected. Professional Year was developed to help overcome these barriers and improve employment outcomes.

The Organisation for Economic Co-operation and Development (OECD) has investigated the attraction, admission and retention policies for international students of OECD countries.³ It finds since 2012 wide-ranging policies have been implemented to train international students once they have completed

³ OECD (2022), International Migration Outlook 2022, OECD Publishing, Paris, <https://doi.org/10.1787/30fe16d2-en>.

their degree.⁴ There are many benefits to the host country in doing this, including adding to the labour market and increased economic development and GDP. For Australia, where we have an ageing population and are already struggling with skills shortages, policy settings which support international graduates to increase their employment prospects should be favoured.

There is another critical need for this in Australia. Australia is competing internationally for future engineers. An engineering qualification is the key to an international career. International accords facilitate engineering graduates to be recognised throughout the world, in countries who are members of the International Engineering Alliance and signatories to the Accords.



Compared to OECD and G20 nations, Australia has a relatively low level of engineering graduates compared to all graduates. This is a concern during a time when all countries are facing similar challenges, which all will require engineering solutions. Figure 1 above demonstrates Australia lags all comparator countries except for the US for engineering graduates. For Australia to continue to be a destination of choice for international students, we need to ensure our reputation for graduate outcomes, employment and migration remains positive.

Engineers Australia advocates for the Australian Government to consider ways to support students and providers to assist in the development and implementation of programs such as Professional Year which builds the skills sought after by employers.

This is particularly critical as global demand for engineers increases and as other developed countries rely more on migrant engineers to shore up their own supply. In 2023 Denmark loosened their immigration rules to attract international talent. The country lowered minimum salary requirements, opened more jobs to foreigners and extended the time students could stay in the country looking for a job after completing their university degree. Australia should prioritise initiatives to retain engineering graduates who are already here onshore. This needs to include supporting mechanisms to help them secure engineering work and giving them a clear pathway to permanent migration.

2.2. Professional Year in Engineering program

Engineers Australia's education subsidiary Engineering Education Australia offers a [Professional Year](#) in Engineering program which bridges the gap between full time study and employment and prepares participants for an Australian engineering role. The Professional Year program is more than a course, it is a pathway to the engineering profession, helping to develop local networks and gaining critical work experience.

⁴ ibid

The program is structured professional development, combining formal learning and workplace experience. Its purpose is to support international professional engineers into the Australian engineering industry to meet the future skill needs of the industry by applying their technical skills and knowledge in the Australian workforce.

The program involves at least 500 hours of formal engagement by the participant (as a mixture of formal learning and workplace experience) and is studied over a 12-month period (with reasonable provision for vacation periods) consisting of 32 weeks of practical training followed by a 12-week full-time internship component.

Participants of the program:

- Increase their understanding of the Australian workplace and culture
- Earn valuable work experience at an Australian company
- Develop networks with peers and industry professionals

Upon graduation of the program participants are eligible for five migration points.

To be eligible for the program applicants must have an engineering degree at the level of Technologist or Professional Engineer which they have completed within the last four years of the date of application. The degree must qualify as an Engineering course (Broad and Narrow Fields) under the Commonwealth Register of Institutions and Courses for Overseas Students (CRICOS). The Academic transcripts participants must provide are bachelor's degree or higher from an Australian university.

Applicants are required to have either applied for or been issued an eligible Visa as well as have proof of English language proficiency. They must also have a successful Migration Skills Assessment.

2.3. Professional Year best practice

The Government's discussion paper references reports which take a negative view of the Professional Year. Engineers Australia disagrees that the Professional Year does not provide employment outcomes. Engineering Education Australia is committed to implementing best practice to ensure the design of the program is achieved and that participants are supported. Below are three case studies which demonstrate the positive outcomes of the *Professional Year in Engineering* program.

The discussion paper also refers to how the points can be skewed. The example applied is that an international student who finds a job and works for up to three years gets five points in the points test, the same as someone who pays to complete a twelve-month professional year program. It is worth noting that the current points test can be skewed to favour many different outcomes. Referring to table 4, someone with superior English can obtain 20 points, compared to proficient English which is only 10. Applicants can pay for additional English language training to receive more points; this does not necessarily improve their employment chances if they still lack experience but favours them with significantly more points.

2.3.1. Favourable employment outcomes

Engineering Education Australia internally assess every application to ensure each student meets our strict eligibility criteria. This is to ensure that the engineers are seen as current by industry standards and to enable them to be successfully placed in an internship.

Independent research commissioned by Engineering Education Australia in 2022 compared Professional Year in Engineering destination survey data with official estimates of graduate outcomes for international students (postgraduate engineering students and international postgraduate students of engineering). Professional Year in Engineering graduates achieved better employment outcomes than

all postgraduate students. Of those who responded to Engineering Education Australia's quarterly destination survey, over 80 per cent of Professional Year graduates found employment.⁵

Case study 1

Hired full time as an engineer in his discipline, following the PY Program

Provider: Navitas / ACAP

Location: Victoria

Qualification: Masters in Civil Engineering

Participant commenced his internship in August 2022 with the employer who then hired them as a full-time employee.

The participant stated in their work placement report that they were glad the Professional Year program could assist them with their communication and problem-solving skills as well as their confidence. The program helped them gain employment in a field related to their area of study.

Case study 2

Hired full time as an engineer in his discipline, following the PY Program

Provider: Monash College

Location: Victoria

Qualification: Bachelor of Engineering (Mechanical Engineering) (Honours)

Participant commenced his internship in February 2024 and was offered ongoing paid work at the host company (a medical organisation) following the program completion.

The employers feedback in the placement was positive stating the intern worked hard and was effective in delivering on their duties. They were a fast learner and a team player and finished all tasks on time.

The participant stated the Professional Year program was "perfect" and led to them gaining engineering employment.

2.3.2. Internships

The Professional Year in Engineering program provides participants a 12-week full-time, unpaid internship in an Australian engineering role. The placement of Professional Year participants in appropriate industry internships is critical to the success of the Professional Year in Engineering program and to the ability of the participants to gain professional employment in Australia.

To maintain a high standard in the engineering internships offered, Engineering Education Australia maintains an internship framework which provides details on how internships should be structured as well as the outcomes needed.

Where an international student participating in the program already has employment, or can secure their own paid placement, the program providers assess the internship opportunity against the criteria

⁵ Research compared PY Engineering destination survey data with official estimates of graduate outcomes for all postgraduate engineering students and international postgraduate students of engineering (noting that these are overlapping and not mutually exclusive categories). Sources for the data include: Social Research Centre, Graduate Outcomes Surveys and EEA, Destination Surveys.

to make sure the desired outcomes are achieved. If it does, they work with the employer to enable the paid opportunity to be undertaken instead of an unpaid internship.

Engineering Education Australia sets a high standard for providers. This provides confidence internship opportunities provide a rich experience leading to better employment outcomes. Part of this rigor requires all participants to submit a report showing how the student applied the learnings from the program to their work experience. This enables Engineering Education Australia to maintain quality, and ensures the activities undertaken as part of the program provides the students with the right experience. When this has not been achieved, Engineering Education Australia works with the provider to ensure the participant is given the right opportunities.

Case study 3

Participant hired full time in regional Australia as an engineer, following the PY Program. Found their own paid employment that was used as the internship.

Provider: Monash College

Location: Victoria

Qualification: Bachelor of Engineering (Mechanical Engineering) (Honours)

Commenced the internship in January 2024. Participant was able to use his own, paid employment as a Water Treatment Operator for the internship. Monash contacted Engineering Education Australia prior to the internship to see if the role met the program requirements and this was approved by the Engineers Australia Assessment team.

Employer feedback was positive explaining the participant was able to develop their technical skills during the placement. The intern undertook different engineering duties such as conducting root cause analysis on equipment failure, calculation & setting chemical dosing rates, and conducting water testing. The work helped them to develop their non-technical and technical skills.

2.4. Supporting Australia's engineering skills pipeline

The Professional Year program is just one in a suite of programs and support offered by Engineering Education Australia. The programs are all designed to support a targeted cohort of engineering graduates overcome the challenges they face in the profession. Supporting all aspects of Australia's engineering skills pipeline is critical to ensure we have the skills and experience we need.

2.4.1. Engineers Australia's Graduate Program

The Graduate Program offered by Engineering Education Australia provides the opportunity for businesses to upskill their graduates into high performing engineers. It provides graduates with the skills they need to thrive in the modern workplace, including self-management, communication, project management, and problem-solving.

The program is open to individuals (with support of their employer) as well as larger groups within organisations.

2.4.2. Global Engineering Talent Program

The Global Engineering Talent program has been modelled on both the Graduate Program and Professional Year. It was developed based on research looking into the barriers migrant engineers face in Australia and is designed to overcome them.

The program supports engineers born and educated overseas to gain employment aligned to their qualifications and experience. It includes a six-week preparatory course through Engineering Education Australia with engineering standards-specific training and a 12-week paid internship at an engineering firm.

Engineers Australia has received state and territory government support to deliver this program. The Northern Territory Government has contributed \$198,000 to the program to help an initial 20 overseas-born engineers find a pathway to engineering employment in Australia. In Queensland, the Government has co-funded up to 20 places in our Global Engineering Talent Program for future clean energy related roles.

2.4.3. Importance of supporting the pipeline

The Professional Year program is a support mechanism, the same as the Graduate Program supports businesses developing their graduates and the Global Engineering Talent program supports more experienced migrants. We know migrants, whether they are international students or experienced, will face conscious and unconscious biases. Engineers Australia considers that a migration system which focuses on employment outcomes and addressing the nation's skills needs should look at ways to strengthen these programs.

2.5. Professional Year model for the future

2.5.1. Strong oversight and governance

Engineering Education Australia is the governing body for the *Professional Year in Engineering* program. They develop the program in partnership with a small number of exclusive education providers to deliver this program across Australia. These providers are contracted by Engineering Education Australia to deliver the program and manage the in-person internship. Engineering Education Australia sets strict guidelines for Professional Year partner providers.

Delivery of the program must provide participants with the communication skills, practical experiences and knowledge of the Australian workplace and culture necessary to pursue employment in the fields of expertise within the Australian workplace. Engineering Education Australia sets guidelines on:

- Program content
 - Ensuring it enables international engineers into the Australian engineering industry with the knowledge to apply their skills and knowledge in the Australia workforce.
- Requirements for the program
 - Ability for graduates to meet eight core competency outcomes which graduates should be able to demonstrate.
- Internship frameworks
 - Internship structure, duration, interactions and outcomes which includes a one-to-one supervisor model.
 - Outcomes which participants need to demonstrate at the end of the internship. Engineers Australia requires participants to report back to ensure they have gained the desired experience.
- Program Provider and host company selection criteria and procedure
 - Minimum criteria for the selection of an Internship Provider, including a demonstrated record from the internship provider of arranging and monitoring quality internship programs.
 - Minimum criteria for Host Company.
- Placements

- Internship profile and selection criteria for participants.
- Process for the placement of interns at a Host Company, including agreement on hours, times, duties and nature of internship with the provider.
- Assessment by feedback and monitoring by interns.
- Complaints and appeals.

Engineering Education Australia also has a detailed Partner Selection Process to accredit Professional Year partners, based on their capability to deliver the program.

2.5.2. Fit-for-purpose review

The Professional Year program was established by the Australian Government more than a decade ago. Engineers Australia believes the program can be strengthened by the Department of Home Affairs working together with Engineers Australia to review and update the parameters for the Professional Year in Engineering program. The review could consider a co-designed pathway that:

- Is better targeted towards current and future engineering skills in demand, in consultation with relevant bodies such as the Jobs and Skills Councils
- Updates the delivery parameters to ensure it is fit-for-purpose, innovative, aligns with contemporary adult learning, and embraces digital and technology. This could include consideration of a shorter or more flexible program duration, and the appropriateness of unpaid internships
- The customer experience, including the attractiveness of the Professional Year as a migration pathway for both international engineering graduates and their employers
- Oversight and governance arrangements, and
- Performance indicators, data sharing arrangements, and future program evaluation.

By working together to redesign the program, the Professional Year in Engineering program can assist in fast-tracking graduates into the workforce following the completion of their degree. This would see them working in an engineering role sooner and could help lessen the cost of the program.

Engineers Australia recommends the Department of Home Affairs engage in dialogue with the governing bodies to update the Professional Year program, reviewing the objective, structure, duration and pricing to ensure it is contemporary and is delivering positive outcomes for participants, employers, and strengthening the engineering workforce.

2.5.3. Innovations within the program

Professional Year in Engineering has already seen the benefits of greater innovation. In response to the COVID-19 pandemic, which saw in-company internships unavailable, Engineering Education Australia developed and operated a Virtual Internship Program between August 2020 and April 2022. In total, 219 participants completed the Virtual Internship Program.

The eight-week program linked tasks and content to the Engineers Australia engineering competences, plus professional skills required to be an effective contributor in the workplace.

Interns were grouped into cohorts of 8-14 graduates and remained together in a team-based scenario over the program period working on a project. They reported into a “Chief Engineer”, with additional facilitation from a “Head of Projects” or “Head of Technical Operations”. This simulation proved to be a very successful model that was flexible in its delivery nature, had built-in quality control where each participant received the same experience and met the requirements of Engineering Education Australia’s stringent Education Quality Framework.

With a focus on communication, presentation skills and feedback, the virtual internship model provided graduates the opportunity to build their skills and confidence in a safe and nurturing environment to transition them into the workforce.

This virtual internship model owned by Engineering Education Australia can be incorporated into a revised Professional Year model. It provides flexibility for participants in a well-constructed learning environment.

2.6. Recommendations

- The Department of Home Affairs should work with Engineers Australia to develop a model for the requirements of the Professional Year in Engineering program that ensures it is innovative, fit-for-purpose and retains the integrity required to support migration points.
- The points allocated for Professional Year programs should be increased for those who gain employment after the program to recognise the additional learnings and experience they have gained.

3. The points system

Engineers Australia has long advocated for changes to the points-based system for ranking applicants. The existing system does not currently support enhancing Australia’s engineering capability. The main concern is that the current test favours applicants with less experience. Engineers Australia agrees with many of the challenges identified in the discussion paper produced by Government, however, for migrant engineers to have the best employment outcomes, a balance needs to be struck between age and experience.

Table 4 below illustrates how this can skew results away from experience.

Table 4: Example points allocation skewing away from experience

| Applicant | Age | English proficiency | Experience | Education | Total points |
|-------------|--------------|---------------------|---------------------------|---|--------------|
| Applicant 1 | 25 years old | Superior | 3 years outside Australia | Bachelor qualification, from another educational institution, that is of a recognised standard. | |
| | 30 points | 20 points | 5 points | 15 points | 70 points |
| Applicant 2 | 30 years old | Proficient | 7 years outside Australia | Bachelor qualification, from another educational institution, that is | |

| Applicant | Age | English proficiency | Experience | Education | Total points |
|-------------|--------------|---------------------|-----------------------------|---|--------------|
| | 30 points | 10 points | 10 points | 15 points | 65 points |
| Applicant 3 | 35 years old | Proficient | 8 years + outside Australia | Bachelor qualification, from another educational institution, that is of a recognised standard. | |
| | 25 points | 10 points | 15 points | 15 points | 65 points |

The table above shows that applicant three, with the most experience, would not meet the minimum points requirement to be invited to apply for a subclass 189 visa. While the age-based points are partially offset by the skilled employment points favouring someone with over eight years of experience, even more so if that experience is gained in Australia, someone younger, with limited experience is favoured by this test.

Under the current system, experience is devalued compared to age and English test results. As shown, a 25-year-old can obtain 30 points, with limited to no experience and an applicant with superior English awards 20 points, whereas over eight years' experience gained overseas will only get you a maximum of 15 points.

This is a complicated issue for the engineering profession. Once an engineer has graduated, it takes approximately five to seven years' experience before they are considered competent for independent practice.⁶ It is generally engineers with over seven years' experience who are the most in demand. Experience is also a key requirement of the mandatory registration for professional engineer schemes which have been introduced in many states, including Queensland, Victoria, New South Wales, Western Australia and the Australian Capital Territory. These jurisdictions require a minimum of five years' experience to be registered. It is this level of experience where our migration program can best support increasing Australia's engineering capacity, to support alleviating chronic skills shortages.

This is a basic example, with the current system also able to skew results based on many different combinations, however not always towards favourable employment outcomes. For example, the Skilled Work Regional (Provisional) visa (subclass 491) will earn an extra 15 points if being sponsored by a family member and the Minister has accepted that sponsorship. The points system may need to be more nuanced for regional Australia with objectives that addresses the unique challenges between regions.

⁶ Engineers Australia, Australian Engineering Competency Standards Stage 2 - Experienced Professional Engineer, https://www.engineersaustralia.org.au/sites/default/files/2022-07/professional-engineer-stage-2-2012_0.pdf

3.1.1. Response to questions

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| <p>How can we design the points test to best target migrant success in finding a skilled job?</p> | <p>Engineers Australia understands the Australian Government is trying to balance age and experience requirements to foster greater economic opportunities.</p> <p>For professions such as engineering, the points test needs to recognise and encourage experience, ensuring the right skills are being sought.</p> |
| <p>What criteria should be included? What criteria should be removed?</p> | <p>Mandatory criteria should include:</p> <ul style="list-style-type: none"> • Age • English language skills • Work experience (Australian or overseas) • Skills • Education • Location • Sponsorship • Professional Year |
| <p>Should the weightings of different criteria change?</p> | <p>Engineers Australia supports changing the points allocation for age to be more aligned to the Canadian example.</p> <p>For engineers, more points should be provided for those aged between 25 and 33 years of age. Generally, this would mean these engineers would have 3-10 years' experience.</p> <p>International students should continue to receive more points for an Australian qualification, as this cohort are often younger in age, but have local knowledge and experience (through work integrated learning outcomes).</p> |
| <p>How should points within criteria be structured?</p> | <p>With evidence showing local experience helps migrant engineers to gain employment, points should continue to be allocated for less than 3 years Australian experience.</p> |
| <p>How should the points test account for migrants' experience? How should it reflect quality of experience?</p> | <p>Experience and skills gained by migrant engineers should be more valued in priority areas.</p> |

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| | <p>An example of this is the transition to renewable energy. Where an applicant has skills and expertise in this area, they should be afforded bonus points for specific skills in technical areas.</p> <p>The points system needs to acknowledge that some occupations will need skills from different buckets. The transition to net zero will require engineers from a range of disciplines (mechanical, electrical, chemical, renewable energy etc.)</p> <p>The Government should consider how ANZSCO and priority skills lists can better target specific areas of experience to enable these applicants to receive bonus points, further enhancing our engineering capability.</p> |
| <p>How should domestic versus international experience be treated?</p> | <p>As identified in our research, one of the barriers migrant engineers face is having a lack of Australian experience.</p> <p>As such, there should continue to be a weighting to favour those with Australian experience.</p> |
| <p>Are occupation lists an appropriate way to target skills?</p> | <p>The skills occupations list for certain occupations can be too broad. In some cases, the skills targeted should focus on tangible experience or transferable skills which will support Australia's capability in priority areas.</p> <p>An example of this is 'Railway Signals Engineer.' This has been an occupation in high demand, however, is only classified generally under ANZSCO 233311 Electrical Engineer.</p> <p>The Department could also consider publishing lists of skills or competencies in demand, enabling applicants to self-select skills within their occupation and demonstrate how they can meet those in demand skills.</p> |
| <p>If so, what should be considered in compiling them?</p> | <p>A high-level review of the occupation list should be undertaken to be able to evaluate the effectiveness of them.</p> <p>The current skills list may require more detail focusing on skills and experience for priority industries.</p> <p>Part of a review into occupation lists could include exploring how real-time industry intelligence could be gathered, rather than</p> |

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| | relying on static occupational classifications. This could include a way for employers to forecast the skills and competencies they need and feed this information back to the Department. |
| How can we best identify and target Australia's long-term skills needs? | <p>Current occupations lists are quite broad and don't always prioritise the exact skills and experience Australia is looking for.</p> <p>Skills in priority areas, such as those needed for the transition to net-zero should be valued higher and allocated bonus points.</p> |

3.2. Recommendations

- Australia's points test needs to prioritise the skills and experience needed in Australia to provide migrants the best chance to be employed. The system needs to include a more detailed view of the skills required, with bonus points allocated to skills in priority industries (such as renewable energy).
- Governments should consider national funding for initiatives such as the Global Engineering Talent program which helps to overcome barriers to employment for migrant engineers.
- Australia's points test should continue to provide at least five points to international graduates who have completed a Professional Year program if it is offering a rich experience and is designed to improve employment outcomes within the relevant industry.